

**PORT OF TACOMA
TACOMA, WASHINGTON
MIDDLE BLAIR AND PIERCE COUNTY TERMINAL
MAINTENANCE DREDGE**

**PROJECT NO. 101692.01 AND 201114.03
CONTRACT NO. 900000001**

**Thais Howard, PE
Director, Engineering**


**Norman Gilbert, PE
Project Manager**

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The undersigned Engineer of Record hereby certifies that the Technical Specifications for the following portions of this project were written by me, or under my direct supervision, and that I am duly registered under the laws of the State of Washington, and hereby affix my Professional Seal and signature.

Those Sections prepared under my direct supervision and being certified by my seal and signature below are as follows:

<u>SEAL & SIGNATURE</u>	<u>SECTION(S)</u>
	35 01 50 – Dredged Material Management and Processing 35 02 00 – Sand Cover Placement 35 20 23 - Dredging

END OF SECTION

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END OF SECTION

PART 1 - GENERAL

1.01 SUMMARY

A. Contract Drawings: The following drawings are a part of the Contract Documents:

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MIDDLE BLAIR AND PIERCE COUNTY TERMINAL MAINTENANCE DREDGE

PROJECT NO. 101692.01 AND 201114.03 | CONTRACT NO. 900000001

- Scope of Work:** The Work required for this Project includes: maintenance dredging to address high spots impacting vessel transit at the Middle Blair location and berthing at Pierce County Terminal (PCT). Dredge material from the Middle Blair project site is required to be transloaded, dewatered and disposed of at the designated upland locations. In addition, sand capping is required on a portion of the Middle Blair project site. Dredge material from the PCT project site is to be disposed at the Commencement Bay open-water dredge material disposal site.
- Bid Estimate:** Estimated cost range is \$3,500,000 to \$4,100,000, plus Washington State Sales Tax (WSST).
- In accordance with RCW 39.04.320, fifteen (15) percent apprenticeship participation is required for certain projects estimated to cost one million (\$1,000,000) dollars or more. Bidders may contact the Department of Labor and Industries, Specialty Compliance Services Division, Apprenticeship Section, P.O. Box 44530, Olympia, WA 98504-4530, by phone (360) 902-5320, or e-mail at Apprentice@lni.wa.gov, to obtain information on available apprenticeship programs.
- Sealed Bid Date/ Time/Location:** Bids will be received at the Front Reception Desk, Port Administration Office, One Sitcum Plaza, Tacoma, Washington 98421 until **2:00 P.M. on January 7, 2025**, at which time they will be publicly opened and read aloud and the apparent low bid will be determined.
- Pre-Bid Conference and Site Tour:** A pre-Bid conference and site visit has been set for December 27, 2024 at 10:00 A.M. The site visit will convene at the Port's Administrative building, located at One Sitcum Plaza. The following Personal Protective Equipment is required for the site visit: sturdy shoes and reflective vest.
- Attendees will be required to sign a Release and Acceptance of Responsibility and Acknowledgement of Risks Form prior to entering the site and shall provide their own Personal Protection Equipment (PPE) as required above.
- Bid Security:** Each Bid must be accompanied by a Bid security in an amount equal to five (5) percent of the Base Bid in a form allowed by the Instructions to Bidders.

Contact Information: Any questions to the Port may be submitted to the Procurement Department through the Procurement and Question Submission Portal (Portal link is accessible via this specific procurements website. See left side of page.). A direct link is also available here: [Procurement and Question Portal Link](#). No oral responses will be binding by the Port.

Instructions for utilizing the portal can be found here: [Procurement and Question Submission Portal Instructions](#).

Questions will not be accepted after seven (7) days prior to the Bid Date.

Bidding Documents: Plans, Specifications, Addenda, and Plan Holders List for this Project are available on-line through The Port of Tacoma's Website portoftacoma.com. Click on "Contracts," "Procurement," and then the Procurement Number 900000001. Bidders must subscribe to the Holder's List on the right hand side of the screen in order to receive automatic email notification of future addenda and to be placed on the Holder's List.

Holder's Lists will be updated regularly and posted to the specific procurements page. Additional Instructions available in Section 00 21 00 - Instructions to Bidders.

Public Works Training Requirements: Effective July 1, 2019, all businesses are required to have training before bidding on public works projects and prevailing wage under RCW 39.04.359 and RCW 39.12, or is on the list of exempt businesses maintained by the Department of Labor and Industries. The bidder must designate a person or persons to be trained on these requirements. The training will be provided by the Department of Labor and Industries or by a training provider whose curriculum is approved by the Department of Labor and Industries.

Please refer to Labor and Industries' web site (https://www.lni.wa.gov/TradesLicensing/PrevWage/Contractors/Training.asp?utm_medium=email&utm_source=govdelivery) for more information and training dates, requirements, and exemptions. Failure to attend this training could result in a determination of "not responsible" and the bidder not being awarded a public works contract.

Additional Information: In accordance with new legislation HB 1050 all port districts are required to add the requirement that **apprentices must perform** 15% or more of the total labor hours in public works contracts estimated at \$1 million or more. If the 15% apprenticeship labor hours is met the contractor will receive an incentive fee of \$1,000. If less than 15% apprenticeship labor hours is used a \$500 decrease in the total amount of the contract will be taken for not meeting the required apprenticeship labor hours. L&I will monitor apprenticeship labor hours.

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PART 1 - SUMMARY

1.01 DEFINITIONS

All definitions set forth in the Agreement, the General Conditions of the Contract for Construction, and in other Contract Documents are applicable to the Bidding Documents.

- A. "Addenda" are written or graphic instruments issued prior to the execution of the Contract which modify or interpret the Bidding Documents by additions, deletions, clarifications, or corrections. The contents of an Addendum are issued in no particular order and therefore should be carefully and completely reviewed.
- B. An "Apprentice" is a worker for whom an apprenticeship agreement has been registered and approved by the Washington State Apprenticeship and Training Council (RCW 49.04 and WAC 296-05).
- C. "Award" means the formal decision by the Port of Tacoma ("Port") notifying a Responsible Bidder with the lowest responsive Bid of the Port's acceptance of their Bid and intent to enter into a Contract with the Bidder.
- D. The "Award Requirements" include the statutory requirements as a condition precedent to Award.
- E. The "Base Bid" is the sum stated in the Bid for which the Bidder offers to perform the Work described in the Bidding Documents as the base to which Work may be added or from which Work may be deleted for sums stated in Alternate Bids.
- F. A "Bid" is a complete and properly signed proposal to do the Work, submitted in accordance with the Bidding Documents, for the sums therein stipulated and supported by any data called for by the Bidding Documents.
- G. The "Bid Date" is the day and hour specified in the Bidding Documents, as may be changed through an Addendum, by which Bidders are required to submit Bids to the Port.
- H. The "Bid Form" is the form(s) included with the Bidding Documents, with Specification Section 00 41 00, through which a Bidder submits a Bid.
- I. A "Bidder" is a person or entity who submits a Bid.
- J. The "Bidding Documents" include the Advertisement or Invitation to Bid, Instructions to Bidders, the Bid Form, any other sample bidding and contract forms, including those provided by reference, the Bid security, and the proposed Contract Documents, including any Addenda issued prior to the Bid Date.
- K. The "Contract Documents" proposed for the Work consist of the Agreement, the General Conditions of the Contract (as well as any Supplemental, Special, or other conditions included in the Project Manual), the Drawings, the Specifications, and all Addenda issued prior to, and all modifications issued after, execution of the Contract.
- L. The "Schedule of Unit Prices" is a separate schedule on the Bid Form for Unit Pricing as an all-inclusive price per unit of measurement for materials, equipment, or services as described in the Bidding Documents or in the proposed Contract Documents for the optional use of the Port. Quantities are not predictions of amounts anticipated. The Port may, but is not obligated to, accept a Schedule of Unit Price if it accepts the Base Bid. The Schedule of Unit Prices are not factored into the evaluation of determining the low bid amount and are not included as part of the bid award amount.

- M. A "Sub-Bidder" is a person or entity of any tier who submits a bid or proposal to or through the Bidder for materials, equipment or labor for a portion of the Work.

1.02 BIDDER'S REPRESENTATIONS

By making its Bid, each Bidder represents that:

- A. BIDDING DOCUMENTS. The Bidder has read and understands the Bidding Documents, and its Bid is made in accordance with them.
- B. PRE-BID MEETING. The Bidder has attended pre-Bid meeting(s) required by the Bidding Documents. Attendance at a mandatory meeting or training session means that, in the sole opinion of the Port, a Project representative of a Bidder has attended all or substantially all of such meeting or session.
- C. BASIS. Its Bid is based upon the materials, systems, services, and equipment required by the Bidding Documents, and is made without exception.
- D. EXAMINATION. The Bidder has carefully examined and understands the Bidding Documents, the Contract Documents including, but not limited to, any liquidated damages, insurance provisions, and the Project site, including any existing buildings, it has familiarized itself with the local conditions under which the Work is to be performed, has correlated its observations with the requirements of the proposed Contract Documents, and it has satisfied itself as to the nature, location, character, quality, and quantity of the Work, the labor, materials, equipment, goods, supplies, work, services, and other items to be furnished, and all other requirements of the Contract Documents. The Bidder has also satisfied itself as to the conditions and other matters that may be encountered at the Project site or that may affect performance of the Work or the cost or difficulty thereof, including, but not limited to, those conditions and matters affecting transportation, access, disposal, handling and storage of materials, equipment and other items; availability and quality of labor, water, electric power, and utilities; availability and condition of roads; climatic conditions and seasons; physical conditions at the Project site and the surrounding locality; topography and ground surface conditions; and equipment and facilities needed preliminary to, and at all times during, the performance of the Work. The failure of the Bidder to fully acquaint itself with any applicable condition or matter shall not in any way relieve the Bidder from the responsibility for performing the Work in accordance with, and for the Contract Sum and within the Contract Time provided for in, the Contract Documents.
- E. PROJECT MANUAL. The Bidder has checked its copies of the Project Manual (if any) with the table of contents bound therein to ensure the Project Manual is complete.
- F. SEPARATE WORK. The Bidder has examined and coordinated all Drawings, Contract Documents, and Specifications with any other contracts to be awarded separately from, but in connection with, the Work being Bid upon, so that the Bidder is fully informed as to conditions affecting the Work under the Contract being Bid upon.
- G. LICENSE REQUIREMENTS. The Bidders and Sub-Bidders are registered and hold all licenses required by the laws of Washington, including a certificate of registration in compliance with RCW 18.27, for the performance of the Work specified in the Contract Documents.
- H. CERTIFICATION. The Bidder verifies under penalty of perjury that the Bidder has not have been determined by a final and binding citation and notice of assessment issued by the Department of Labor and Industries or through a civil judgment entered by a court of limited or general jurisdiction to have willfully violated, as defined in RCW 49.48.082, any provision of Chapters 49.46, 49.48, or 49.52 RCW within the three (3) year period immediately preceding the Bid Date.

- I. NO EXCEPTIONS. Bids must be based upon the materials, systems, and equipment described and required by the Bidding Documents, without exception.

1.03 BIDDING DOCUMENTS

A. COPIES

1. Bidders may obtain complete sets of the Bidding Documents from The Port of Tacoma's Website www.portoftacoma.com. Click on "Contracts" then "Procurement."
2. Complete Sets. Bidders shall use complete sets of Bidding Documents in preparing Bids and are solely responsible for obtaining updated information. The Port does not assume any responsibility for errors or misinterpretations resulting from the use of incomplete and/or superseded sets of Bidding Documents.
3. Conditions. The Port makes copies of the Bidding Documents available only for the purpose of obtaining Bids on the Work and does not confer a license or grant permission for any other use.
4. Legible Documents. To the extent any Drawings, Specifications, or other Bidding Documents are not legible, it is the Bidder's responsibility to obtain legible documents.

B. INTERPRETATION OR CORRECTION OF BIDDING DOCUMENTS

1. Format. The Contract Documents are divided into parts, divisions, and sections for convenient organization and reference. Generally, there has been no attempt to divide the Specification sections into Work performed by the various building trades, any Work by separate contractors, or any Work required for separate facilities in, or phases of the Project.
2. Duty to Notify. Bidders shall promptly notify the Port in writing of any ambiguity, inconsistency, or error that they may discover upon examination of the Bidding Documents or of the site and local conditions.
3. Products and Installation. All Bidders shall thoroughly familiarize themselves with specified products and installation procedures and submit to the Port any objections (in writing) no later than seven (7) days prior to the Bid Date. The submittal of the Bid constitutes acceptance of products and procedures specified as sufficient, adequate, and satisfactory for completion of the Contract.
4. Written Request. Bidders requiring clarification or interpretation of the Bidding Documents shall make a written request to the Procurement Department through the Procurement and Question Submission Portal at least seven (7) days prior to the Bid Date (Portal link is accessible via this specific procurements website. See left side of page.). A direct link is also available here: [Procurement and Question Portal Link](#). No oral responses will be binding by the Port.

Instructions for utilizing the portal can be found here: [Procurement and Question Submission Portal Instructions](#).

5. Request to Modify Responsibility Criteria. No later than seven (7) days prior to the Bid Date, a potential Bidder may request in writing that the Port modify the Responsibility Criteria. The Port will evaluate the information submitted by the potential Bidder and respond before the Bid Date. If the evaluation results in a change of the Criteria, the Port will issue an Addendum identifying the new Criteria.

6. Addenda. The Bidder shall not rely on oral information provided at any pre-Bid meetings or during site visits. Verbal statements made by representatives of the Port are for informational purposes only. Any interpretation, correction, or change of the Bidding Documents will be made solely by written Addendum. Interpretations, corrections, or changes of the Bidding Documents made in any manner other than by written Addendum, including but not limited to, oral statements will not be binding, and Bidders shall not rely upon such statements, interpretations, corrections, or changes. The Port is not responsible for explanations or interpretations of the Bidding Documents other than in a written Addendum.
7. Site Visits. Any site visits are provided as a courtesy to potential Bidders to assist them in becoming familiar with the Project site conditions. However, only the Bidding Documents, including any issued Addenda, may be relied upon by Bidders.
8. Singular References. Reference in the singular to an article, device, or piece of equipment shall include as many of such articles, devices, or pieces as are indicated in the Contract Documents or as are required to complete the installation.
9. Utilities and Runs. The Bidder should assume that the exact locations of any underground or hidden utilities, underground fuel tanks, and plumbing and electrical runs may be somewhat different from any location indicated in the surveys or Contract Documents.

C. SUBSTITUTIONS

1. For substitutions during bidding, refer to Section 00 26 00 – Substitution Procedures.

D. ADDENDA

1. Distribution. All Addenda will be written and will be made available on the Port's website or any other source specified by the Port for the Project.
2. Copies. Copies of Addenda will be made available for inspection wherever Bidding Documents are on file for that purpose.
3. Verification and Acknowledgment of Receipt. Prior to submitting a Bid, each Bidder shall ascertain that it has received all Addenda issued. Each Bidder shall acknowledge its receipt and consideration of all Addenda in its Bid.

1.04 BIDDING PROCEDURE

A. FORM AND STYLE OF BIDS

1. Form. Bids (including required attachments) shall be submitted on forms identical to the Bid Form included with the Bidding Documents. No oral, email, or telephonic responses or modifications will be considered.
2. Entries on the Bid Form. All blanks on the Bid Form shall be filled in by typewriter, printer, or manually in ink.
3. Figures. All sums shall be expressed in figures, not words. Portions of the Bid Form may require the addition or multiplication of component bids to a total or the identification of component amounts within a total. In case of discrepancy between unit prices listed and their sum(s), the unit prices listed shall govern (rather than the sum).
4. Initial Changes. Any interlineation, alteration, or erasure shall be initialed by an authorized representative of the Bidder.

5. Bid Breakdown. The Bid Form may contain, for the Port's accounting purposes only, a breakdown of some or all of the components included in the Base Bid.
 - a. For lump-sum Bids, the total Contract Sum shall be submitted.
 - b. For unit-price Bids, a price shall be submitted for each item of the Work, an extension thereof, and, if requested, the total Contract Sum.
6. Schedule of Unit Prices. All Unit Prices under this schedule shall be bid. The Port reserves the right, but is not obligated, to reject any Bid on which all requested Schedule of Unit Prices are not Bid.
7. No Conditions. The Bidder shall make no conditions or stipulations on the Bid Form, nor qualify its Bid in any manner.
8. Identity of Bidder. The Bidder shall include in the specified location on the Bid Form, the legal name of the Bidder and, if requested, a description of the Bidder as a sole proprietor, a partnership, a joint venture, a corporation, or another described form of legal entity. The Bid shall be signed by the person or persons legally authorized to bind the Bidder to a contract. The Port verifies signature authority on the Labor and Industries website <https://fortress.wa.gov/lni/bbip/Search.aspx> under the contractor registration business owner information. If the business owner information is not current, the Bidder shall show proof of authority to sign at the request of the Port. A Bid submitted by an agent shall have a current power of attorney attached certifying the agent's authority to bind the Bidder
9. Bid Amounts Do Not Include Sales Tax. The Work to be performed constitutes a "retail sale" as this term is defined in RCW 82.04.050. Thus, the Base Bid amount shall include in the sum stated all taxes imposed by law, EXCEPT WASHINGTON STATE AND LOCAL SALES TAX due on the Base Bid. The engaged Contractor will pay retail sales tax on all consumables used during the performance of the Work and on all items that are not incorporated into the final Work; this tax shall be included in the Base Bid price and in any other prices set forth on the Bid Form. The Port will pay state and local retail sales tax due on each progress payment and final payment to the engaged Contractor for transmittal by the Contractor to the Washington State Department of Revenue or to the applicable local government.

B. POTENTIAL LISTING OF SUB-BIDDERS (SUBCONTRACTORS)

1. Procedure. On projects equal to or greater than \$1,000,000, the Bid Form includes a requirement that certain Sub-Bidders be listed, in which case the Bidder must complete the required list. In these circumstances, and regardless of the anticipated cost of the Project, the Bidder must name the Sub-Bidder or Sub-Bidders with whom the Bidder, if awarded the Contract, will subcontract directly (i.e., not lower-tier Sub-Bidders) for performance of the Work of:
 - a. HVAC (heating, ventilation, and air conditioning) Work;
 - b. Plumbing Work as described in RCW 18.106;
 - c. Electrical Work as described in RCW 19.28; and
 - d. Any other categories of Work listed on the Sub-Bidder listing form and/or Bid Form.
2. Self-Performance. If the Bidder intends to self-perform any of these categories of Work, it must name itself for each such category of Work.

3. Multiple Entries. The Bidder shall not list more than one (1) entity for a particular category of Work identified, unless a Sub-Bidder will vary based on an Alternate Bid, in which case the Bidder shall identify the Sub-Bidder to be used for the Alternate and the affected portion of the Work.
4. Failure to Submit. In accordance with RCW 39.30.060, failure of a Bidder to submit, as part of the Bid, the names of such proposed HVAC, plumbing, and electrical Sub-Bidders, or to name itself to perform such Work, or the naming of two (2) or more Sub-Bidders to perform the same Work, shall render the Bidder's Bid non-responsive and; therefore, void.
5. Requirement to Subcontract. The Bidder, if Awarded the Contract, will subcontract with the listed Sub-Bidders for performance of the portion of the Work designated on the Bid Form, subject to the provisions of the Contract for Construction and RCW 39.30.060. The Bidder shall not substitute a listed Sub-Bidder in furtherance of bid shopping or bid peddling.
6. Sub-Bidder Qualification. Listed Sub-Bidders may be required to provide evidence of their qualifications, including a statement of experience and references, prior to Award, or at any time during the Contract Time. Such information shall be provided within twenty-four (24) hours of request. This evidence shall demonstrate that the Sub-Bidder meets or exceeds all requirements for experience, qualifications, manufacturer's certifications, or any other requirements specified in any of the technical sections of the Contract Documents for which the Sub-Bidder proposes to perform Work.
7. Replacement. If a listed Sub-Bidder fails to provide adequate evidence of qualifications, is unable to comply with any bonding requirements of the Bidding Documents or with other requirements of the Contract or Bidding Documents, is not properly licensed, or fails to meet the Responsibility Criteria of the Bidding Documents, the Port may require the Bidder to replace the Sub-Bidder with another subcontractor reasonably acceptable to the Port at no change in the Contract Sum or Contract Time.
8. Sub-Bidder Standards. Sub-Bidders shall meet contractual and technical qualification standards, and provide specialized certification, licensing, and/or payment and performance bonding, if required.
9. MWBE, Veteran-owned, and small business participation encouraged. The Port's policy is to encourage the Contractor to solicit and document participation, and to provide and promote the maximum lawful, practicable opportunity for increased participation, by MWBE firms certified by the Office of Minority and Women's Business Enterprises (OMWBE), Veteran-owned businesses (defined in RCW 43.60.010, and Small, Mini and Micro business enterprises (defined in RCW 39.26.010).

C. BID SECURITY

1. Purpose and Procedure. Each Bid shall be accompanied by Bid security payable to the Port in the form required by the Bidding Documents and equal to five (5) percent of the Base Bid only (i.e., not including any Alternates or Unit Prices). The Bid security constitutes a pledge by the Bidder to the Port that the Bidder will enter into the Contract with the Port in the form provided, in a timely manner, and on the terms stated in its Bid, and will furnish in a timely manner, the payment and performance bonds, certificates of insurance, and all other documents required in the Contract Documents. Should the Bidder fail or refuse to enter into the Contract or fail to furnish such documents, the amount of the Bid security shall be forfeited to the Port as liquidated damages, not as a penalty. By submitting a Bid, each Bidder represents and agrees that the Bid security, if forfeited, is a reasonable prediction on the Bid Date of future damages to the Port. Failure of the Bidder to provide Bid Security as required shall render the bid non-responsive.
2. Form. The Bid security shall be in the form of a certified or bank cashier's check payable to the Port or a Bid bond executed by a bonding company reasonably acceptable to the Port, licensed in the State of Washington, registered with the Washington State Insurance Commissioner, possess an A.M. Best rating of "A-," Fiscal Size Category (FSC) six (6) or better, and be authorized by the U.S. Department of the Treasury. The Bid security shall be signed by the person or persons legally authorized to bind the Bidder. Bid bonds shall be submitted using the form included with the Bidding Documents.
3. Retaining Bid Security. The Port will have the right to retain the Bid security of Bidders to whom an Award is being considered until the earliest of either: (a) mutual execution of the Contract, and the Port's receipt of payment and performance bonds, (b) the specified time has elapsed so that Bids may be withdrawn, or (c) when all Bids have been rejected.
4. Return of Bid Security. Within sixty (60) days after the Bid Date, the Port will release or return Bid securities to Bidders whose Bids are not to be further considered in awarding the Contract. Bid securities of the three apparent low Bidders will be held until the Contract has been finally executed, after which all un-forfeited Bid securities will be returned. Bid security may be returned in the form provided or by separate payment.

D. SUBMISSION OF BIDS

1. Procedure. The Bid, the Bid security, and other documents required to be submitted with the Bid, shall be enclosed in a sealed envelope identified with the Project name and number and the Bidder's name and address. If the Bid is sent by mail, the sealed envelope shall be enclosed in a separate mailing envelope with the notation "SEALED BID ENCLOSED" on the face of the mailing envelope.
 - a. If a Bid is mailed, it shall be addressed to the Port of Tacoma, Contracts Department, 1 Sitcum Plaza, Tacoma, WA 98421.
 - b. If a Bid is delivered, it shall be delivered to the Front Reception Desk, Port of Tacoma, 1 Sitcum Plaza, Tacoma, WA 98421.
 - c. The time stamp clock at the Front Reception Desk at 1 Sitcum Plaza is the Port's official clock.
2. Deposit. Bids shall be deposited at the designated location prior to the Bid Date indicated in the Advertisement or Invitation to Bid, or any extension thereof made by Addendum. Bids received after the Bid Date and time specified shall be returned without consideration at the discretion of the Port, or rejected at the time of receipt.

3. Delivery. The Bidder assumes full responsibility for timely delivery at the location designated for receipt of Bids.
4. Form. Oral, facsimile, telephonic, electronic, or email Bids are invalid and will not be considered.

E. MODIFICATION OR WITHDRAWAL OF BID

1. After the Bid Date. A Bid may not be modified, withdrawn, or canceled by the Bidder during a ninety (90) day period following the Bid Date, and each Bidder so agrees by virtue of submitting its Bid.
2. Before the Bid Date. Prior to the Bid Date, any Bid submitted may be modified or withdrawn only by notice to the party receiving Bids at the place designated for receipt of Bids. The notice shall be in writing, with the signature of the Bidder, and shall be worded so as not to reveal the amount of the original Bid. Email notice will not be accepted. It shall be the Bidder's sole responsibility to verify that the notice has been received by the Port in time to be withdrawn before the Bid opening.
3. Resubmittal. Withdrawn Bids may be resubmitted up to the time designated for the receipt of Bids, provided that they are then fully in conformance with these Instructions to Bidders.
4. Bid Security with Resubmission. Bid security shall be in an amount sufficient for the Bid as modified or resubmitted.

F. COMMUNICATIONS

Communications from a Bidder related to these Instructions to Bidders must be in writing to the Procurement Department through the Procurement and Question Submission Portal (Portal link is accessible via this specific procurements website. See left side of page.). A direct link is also available here: [Procurement and Question Portal Link](#). Communications, including but not limited to, notices and requests by Sub-Bidders shall be made through the Bidder and not directly by a Sub-Bidder to the Port. No oral responses will be binding by the Port.

Instructions for utilizing the portal can be found here: [Procurement and Question Submission Portal Instructions](#).

1.05 CONSIDERATION OF BIDS

- A. OPENING OF BIDS. Unless stated otherwise in the Advertisement or Invitation to Bid or an Addendum, the properly identified Bids received on time will be opened publicly and will be read aloud. An abstract of the Base Bids and any Alternate Bids will promptly (and generally within twenty-four (24) hours) be made available to Bidders and other interested parties.
- B. REJECTION OF BIDS. The Port shall have the right, but not the obligation, to reject any or all Bids for any reason, or for no reason, to reject a Bid not accompanied by the required Bid security, or to reject a Bid which is in any way incomplete or irregular.
- C. BIDDING MISTAKES. The Port will not be obligated to consider notice of claimed Bid mistakes received more than twenty-four (24) hours after the Bid Date. In accordance with Washington law, a low Bidder that claims error and fails to enter into the Contract is prohibited from Bidding on the Project if a subsequent call for Bids is made for the Project.
- D. ACCEPTANCE OF BID (AWARD)

1. Intent to Accept. The Port intends, but is not bound, to Award a Contract to the Responsible Bidder with the lowest responsive Bid, provided the Bid has been submitted in accordance with the requirements of the Bidding Documents and does not exceed the funds available. The Port has the right to waive any informality or irregularity in any Bid(s) received and to accept the Bid which, in its judgment, is in its own best interests.
2. Requirements for Award. Before the Award, the lowest responsive Bidder must be deemed Responsible by the Port and must satisfy all Award Requirements.

E. BID PROTEST PROCEDURES

1. Procedure. A Bidder protesting, for any reason, the Bidding Documents, a Bidding procedure, the Port's objection to a Bidder or a person or entity proposed by the Bidder, including but not limited to, a finding of non-Responsibility, the Award of the Contract or any other aspect arising from, or relating in any way to, the Bidding, shall cause a written protest to be filed with the Port within two (2) business days of the event giving rise to the protest. (Intermediate Saturdays, Sundays, and legal holidays are not counted as business days.) The written protest shall include the name of the protesting Bidder, the bid solicitation number and title under which the protest is submitted, a detailed description of the specific factual and legal grounds for the protest, copies of all supporting documents, evidence that the apparent low bidder has been given notice of the protest, and the specific relief requested. The written protest shall be sent by email to procurement@portoftacoma.com.
2. Consideration. Upon receipt of the written protest, the Port will consider the protest. The Port may, within three (3) business days of the Port's receipt of the protest, provide any other affected Bidder(s) the opportunity to respond in writing to the protest. If the protest is not resolved by mutual agreement of the protesting Bidder and the Port, the Contracts Director of the Port, or his or her designee, will review the issues and promptly furnish a final and binding written decision to the protesting Bidder, and any other affected Bidder(s), within six (6) business days of the Port's receipt of the protest. (If more than one (1) protest is filed, the Port's decision will be provided within six (6) business days of the Port's receipt of the last protest.) If no reply is received from the Port during the six (6) business-day period, the protest will be deemed rejected.
3. Waiver. Failure to comply with these protest procedures will render a protest waived.
4. Condition Precedent. Timely and proper compliance with, and exhaustion of, these protest procedures shall be a condition precedent to any otherwise permissible judicial consideration of a protest.

1.06 POST BID INFORMATION

A. THE LOWEST RESPONSIVE BIDDER SHALL:

1. Responsibility Detail Form. Within 24 hours of the Low Responsive Bidder Selection Notification, the apparent low Bidder shall submit to the Port the Responsibility Detail Form and other required documents (Section 00 45 13) executed by an authorized company officer. As requested from the Port, the low responsive Bidder shall provide written confirmation that the person signing the Bid on behalf of the Bidder was duly authorized at the time of bid, a detailed breakdown of the Bid in a form acceptable to the Port, and other information required by the Port.
2. The apparent low Bidder shall submit to the Port upon request:

- a. Additional information regarding the use of the Bidder's own forces and the use of subcontractors and suppliers;
 - b. The names of the persons or entities (including a designation of the Work to be performed with the Bidder's own forces, and the names of those who are to furnish materials or equipment fabricated to a special design) proposed for each of the principal portions of the Work (i.e., either a listed Sub-Bidder or a Sub-Bidder performing Work valued at least ten (10) percent of the Base Bid), consistent with the listing required with the Bid; and
 - c. The proprietary names and the suppliers of the principal items or systems of materials and equipment proposed for the Work.
3. Failure to provide any of the above information in a timely manner will constitute an event of breach permitting forfeiture of the Bid security.
 4. Bidder Responsibility. The Bidder will be required to establish, to the satisfaction of the Port, the reliability and responsibility of itself and the persons or entities proposed to furnish and perform the Work described in the Bidding Documents. If requested, the Bidder shall meet with the Port to discuss the Bid, including any pricing, the Bid components, and any assumptions made by the Bidder.
 5. Sub-Bidder Responsibility. The Responsibility of the Bidder may be judged in part by the Responsibility of Sub-Bidders. Bidders must verify the Responsibility Criteria for each first-tier Sub-Bidder. A Sub-Bidder of any tier that hires other Sub-Bidders must verify Responsibility Criteria for each of its lower-tier Sub-Bidders. The verification shall include a representation that each Sub-Bidder, at the time of subcontract execution, is Responsible and possesses required licenses.
 6. Objection. Prior to an Award of the Contract, the Port will notify the Bidder in writing if the Port, after due investigation, has reasonable objection to the Bidder or a person or entity proposed by the Bidder. Upon receiving such objection, the Bidder may, at Bidder's option: (a) withdraw their Bid, (b) submit an acceptable substitute person or entity with no change in the Contract Time and no adjustment in the Base Bid or any Alternate Bid, even if there is a cost to the Bidder occasioned by such substitution, or (c) file a protest in accordance with the Bidding Documents.
 7. Change. Persons and entities proposed by the Bidder to whom the Port has made no reasonable objection must be used on the Work for which they were proposed and shall not be changed, except with the written consent of the Port.
 8. Right to Terminate. The Bidder's representations concerning its qualifications will be construed as a covenant under the Contract. If a Bidder makes a material misrepresentation on a Qualification Statement, the Port has the right to terminate the Contract for cause and may then pursue any remedies that exist under the Contract or that are otherwise available.
- B. INFORMATION FROM OTHER BIDDERS: All other Bidders designated by the Port as under consideration for Award of a Contract shall also provide a properly executed Qualification Statement, if so requested by the Port.

1.07 PERFORMANCE BOND, LABOR AND MATERIAL PAYMENT BOND, AND INSURANCE

- A. **BOND REQUIREMENTS.** Within ten (10) days after the Port's Notice of Award of the Contract, the successful Bidder shall obtain and furnish statutory bonds pursuant to RCW 39.08 covering the faithful performance of the Contract and the payment of all obligations arising thereunder in the form and amount prescribed in the Contract Documents. Bonds shall be written for one hundred (100) percent of the contract award amount, plus Washington State Sales Tax and Change Orders. The cost of such bonds shall be included in the Base Bid.
1. On contracts of one hundred fifty thousand dollars (\$150,000) or less, at the option of the Contractor or the General Contractor/Construction Manager as defined in RCW 39.10.210, the Port may, in lieu of the bond, retain ten (10) percent of the contract amount for a period of thirty days after date of final acceptance, or until receipt of all necessary releases from the department of revenue, the employment security department, and the department of labor and industries and settlement of any liens filed under RCW 60.28, whichever is later. The recovery of unpaid wages and benefits must be the first priority for any actions filed against retainage held by a state agency or authorized local government.
 2. On contracts of one hundred fifty thousand dollars (\$150,000) or less, the Port may accept a full payment and performance bond from an individual surety or sureties.
- B. **TIME OF DELIVERY AND FORM OF BONDS.** The successful Bidder shall deliver an original copy of the required bonds to the Port, 1 Sitcum Plaza, Tacoma, WA 98421, within the time specified in the Contract Documents.
- C. **INSURANCE.** The successful Bidder shall deliver a certificate of insurance from the Bidder's insurance company that meets or exceeds all requirements of the Contract Documents.
- D. **GOVERNMENTAL REQUIREMENTS.** Notwithstanding anything in the Bidding or Contract Documents to the contrary, the Bidder shall provide all bonding, insurance, and permit documentation as required by governmental authorities having jurisdiction for any portions of the Project.

1.08 FORM OF AGREEMENT

- A. **FORM TO BE USED.** The Contract for the Work will be written on the form(s) contained in the Bidding Documents, including any General, Supplemental, or Special Conditions, and the other Contract Documents included with the project manual.
- B. **CONFLICTS.** In case of conflict between the provisions of these Instructions and any other Bidding Document, these Instructions shall govern. In case of conflict between the provisions of the Bidding Documents and the Contract Documents, the Contract Documents shall govern.
- C. **CONTRACT DELIVERY.** Within ten (10) days after Notice of Award, the Bidder shall submit a signed Contract to the Port in the form tendered to the Bidder and without modification.

PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION - NOT USED

END OF SECTION

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PART 1 - GENERAL

1.01 SUMMARY

- A. This Section includes administrative and procedural requirements for substitutions.

1.02 DEFINITIONS/CLARIFICATIONS

- A. Substitutions. Changes in products, materials, equipment, and methods of construction from those required by the Contract Documents and proposed by Contractor.
- B. The Contract Documents include performance specifications for products and equipment which meet Project requirements. In those cases where a representative item or manufacturer is named in the specification, it is provided for the sole purpose of identifying a product meeting the required functional performance, and where the words "or equal" are used, a substitution request as further described, is not required.
- C. Where non-competitive or sole source products or manufacturers are explicitly specified with the words "or approved equal," "Engineer approved equal," or "as approved by the Engineer" are used, they shall be taken to mean "or approved equal." In these cases a substitution request as further described in this Section, is required.

1.03 SUBMITTALS

- A. Substitution Request Form. Use copy of form located at the end of this Section.
- B. Pre-Bid Substitution Requests. Submit one (1) PDF of the Substitution Request Form along with all supporting documentation for consideration of each request. Identify product, fabrication, or installation method to be replaced. Include Drawing numbers and titles. Substitution requests prior to the Bid Date may originate directly from a prime Bidder, or from a prospective Sub-Bidder.
 - 1. Documentation. Show compliance with requirements for substitutions with the following, as applicable:
 - a. Statement indicating why specified product, fabrication, or installation cannot be provided.
 - b. Coordination information, including a list of changes or modifications needed to other parts of the Work that will be necessary to accommodate proposed substitution.
 - c. Product Data, including drawings and descriptions of products, fabrication, and installation procedures.
 - d. Samples, where applicable or requested.
 - e. Certificates and qualification data, where applicable or requested.
 - f. Research reports evidencing compliance with building code in effect for the Project.
 - 2. Engineer's Action. Engineer will review substitution requests if received through the Procurement and Question Submission Portal at least seven (7) days prior to the Bid Date (Portal link is accessible via this specific procurements website. See left side of page.) A direct link is also available here: [Procurement and Question Portal Link](#). No oral responses will be binding by the Port.
 - a. Forms of Acceptance. Substitution requests will be formally accepted via written addendum prior to the Bid Date. Bidders shall not rely upon approvals made in any other manner.

- b. Use product originally specified if Engineer does not issue a decision on use of a proposed substitution within time allocated.
- c. The Port's decision of approval or disapproval of a proposed substitution shall be final.

Instructions for utilizing the portal can be found here: [Procurement and Question Submission Portal Instructions](#).

- C. Post-Award Substitution Requests must be submitted by the Contractor and not a Subcontractor nor Supplier.
 - 1. Documentation. Show compliance with requirements for substitutions with the following, as applicable:
 - a. Statement indicating why specified product or fabrication or installation cannot be provided, if applicable.
 - b. Coordination information, including a list of changes or modifications needed to other parts of the Work that will be necessary to accommodate proposed substitution.
 - c. Detailed comparison of significant qualities of proposed substitution with those of the Work specified. Include annotated copy of applicable specification Section. Significant qualities may include, but are not limited to, attributes such as performance, weight, size, durability, visual effect, sustainable design characteristics, warranties, and specific features and requirements indicated. Indicate deviations, if any, from the Work specified.
 - d. Product Data, including drawings and descriptions of products and fabrication and installation procedures.
 - e. Samples, where applicable or requested.
 - f. Certificates and qualification data, where applicable or requested.
 - g. List of similar installations for completed projects with project names and addresses. Also provide names and addresses of the applicable architect, engineer, and owner.
 - h. Material test reports from a qualified testing agency indicating and interpreting test results for compliance with requirements indicated.
 - i. Research reports evidencing compliance with building code in effect for the Project.
 - j. Comparison of the approved Baseline Project Schedule using proposed substitution with products specified for the Work, including effect on the overall Contract Time. If specified product or method of construction cannot be provided within the Contract Time, include letter from manufacturer, on manufacturer's letterhead, stating date of receipt of purchase order, lack of availability, or delays in delivery.
 - k. Cost information, including a proposal of change, if any, in the Contract Sum.
 - l. Contractor's certification that proposed substitution complies with requirements in the Contract Documents except as indicated in substitution request, is compatible with related materials, and is appropriate for applications indicated.
 - m. Contractor's waiver of rights to additional payment or time that may subsequently become necessary because of failure of proposed substitution to produce indicated results.

2. Engineer's Action. If necessary, Engineer will request additional information or documentation for evaluation within seven (7) calendar days of receipt of a request for substitution. Engineer will notify Contractor through Port of acceptance or rejection of proposed substitution within fifteen (15) calendar days of receipt of request, or seven (7) calendar days of receipt of additional information or documentation, whichever is later.
 - a. Forms of Acceptance. Change Order or Minor Change in Work.
 - b. Use product originally specified if Engineer does not issue a decision on use of a proposed substitution within time allocated.
3. Substitutions for Cause. Submit requests for substitution immediately upon discovery of need for change, but not later than fourteen (14) days prior to date required for preparation and review of related submittals.
 - a. Conditions. Engineer will consider Contractor's request for substitution when the following conditions are satisfied:
 - 1) Requested substitution is consistent with the Contract Documents and will produce indicated results.
 - 2) Requested substitution will not adversely affect the Baseline Project Schedule.
 - 3) Requested substitution has received necessary approvals of authorities having jurisdiction.
 - 4) Requested substitution is compatible with other portions of the Work.
 - 5) Requested substitution has been coordinated with other portions of the Work.
 - 6) Requested substitution provides specified warranty.
 - 7) If requested substitution involves more than one (1) contractor, requested substitution has been coordinated with other portions of the Work, is uniform and consistent, is compatible with other products, and is acceptable to all contractors involved.
4. Substitutions for Convenience. Engineer will consider Contractor's requests for substitution if received within fourteen (14) days after the Notice of Award.
 - a. Conditions. Engineer will consider Contractor's request for substitution when the following conditions are satisfied:
 - 1) Requested substitution offers Port a substantial advantage in cost, time, energy conservation, or other considerations, after deducting additional responsibilities Port must assume. Port's additional responsibilities may include compensation to Engineer for redesign and evaluation services, increased cost of other construction by Port, and similar considerations.
 - 2) Requested substitution does not require extensive revisions to the Contract Documents.
 - 3) Requested substitution is consistent with the Contract Documents and will produce indicated results.
 - 4) Requested substitution will not adversely affect the Baseline Project Schedule.
 - 5) Requested substitution has received necessary approvals of authorities having jurisdiction.

- 6) Requested substitution is compatible with other portions of the Work.
- 7) Requested substitution has been coordinated with other portions of the Work.
- 8) Requested substitution provides specified warranty.
- 9) If requested substitution involves more than one (1) contractor, requested substitution has been coordinated with other portions of the Work, is uniform and consistent, is compatible with other products, and is acceptable to all contractors involved.

D. Substitutions will not be considered when:

1. Indicated or implied on shop drawings or product data submittals without formal request submitted in accordance with this Section.
2. Acceptance will require substantial revision of Contract Documents or other items of the Work.
3. Submittal for substitution request does not include point-by-point comparison of proposed substitution with specified product.

1.04 QUALITY ASSURANCE

- A. Compatibility of Substitutions: Investigate and document compatibility of proposed substitution with related products and materials.

PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION - NOT USED

PROJECT TITLE: Middle Blair and Pierce County Terminal Maintenance Dredge
PROJECT NO.: 101692.01 AND 201114.03

SUBMITTED BY: _____ CONTRACT NO.: 900000001
PRIME/SUB/SUPPLIER: _____ DATE: _____

Specification Title: _____ Section No.: _____
Description: _____ Paragraph: _____
_____ Page No.: _____

Proposed Substitution: _____
Trade Name: _____ Model No.: _____
Manufacturer: _____
Address: _____ Phone No.: _____
Installer: _____
Address: _____ Phone No.: _____
Differences between proposed substitution and specified product: _____

Point-by-Point comparative data attached - REQUIRED

Reason for not providing specified item: _____

Similar Installation:
Project: _____ A/E: _____
Address: _____
Owner: _____ Date Installed: _____
Proposed substitution affects other parts of Work: No Yes; explain _____

Supporting Data Attached:
 Drawings Product Data Samples Tests Reports Other: _____

Applicable to Substitution Requests During Construction:
Proposed to Port for accepting substitution: \$ _____
Proposed substitution changes Contract Time: No Yes [Add] [Deduct] _____ # days.

The Undersigned certifies:

- Proposed substitution has been fully investigated and determined to be equal or superior in all respects to specified product.
- Same warranty will be furnished for proposed substitution as for specified product.
- Same maintenance service and source of replacement parts, as applicable, is available.
- Proposed substitution will have no adverse effect on other trades and will not affect or delay Baseline Project Schedule.
- Cost data as stated above is complete. Claims for additional costs related to accepted substitution which may subsequently become apparent are to be waived.
- Proposed substitution does not affect dimensions and functional clearances.
- Payment will be made for changes to building design, including A/E design, detailing, and construction costs caused by the substitution.
- Coordination, installation, and changes in the Work as necessary for accepted substitution will be complete in all respects.

Submitted By: _____
Signed By: _____ Firm: _____
Address: _____

Telephone: _____ Email: _____
Attachments: _____

A/E's REVIEW AND RECOMMENDATION

- Approved Substitution
- Approved Substitution as Noted
- Reject Substitution - Use specified materials.
- Substitution Request received too late - Use specified materials.

Signed by: _____ Date: _____

ENGINEER'S REVIEW AND ACTION

- Substitution Approved - Make submittals in accordance with this Specification Section. If during construction, prepare Change Order.
- Substitution Approved as Noted - Make submittals in accordance with this Specification Section. If during construction, prepare Change Order.
- Substitution Rejected - Use specified materials.
- Substitution Request received too late - Use specified materials.

Signed by: _____ Date: _____

END OF SECTION

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PART 1 - GENERAL

1.01 EXISTING CONDITIONS

- A. Certain information relating to existing surface and subsurface conditions and structures is available to Bidders online at www.portoftacoma.com, but will not be part of the Contract Documents, as follows:
1. Sediment Characterization Report: Entitled Middle Blair Navigation Safety Improvement Project, dated November 2024.
 2. Sediment Characterization Report: Entitled Sediment Characterization Blair Waterway Berth Maintenance Dredging Husky, Washington United, and Pierce County Terminals, dated March 31, 2021.
 3. Bioaccumulation Study Report: Entitled Blair Dredging Supplemental Sediment Characterization - Bioaccumulation Testing Pierce County Terminal, dated April 9, 2024
 4. Condition Assessment Report: Entitled 2023 Condition Assessment Final Report - West Hylebos Log Dock. dated December 22, 2023.

1.02 AVAILABILITY

- A. Reference Documents are available online through the Port of Tacoma's Website www.portoftacoma.com. Click on "Contracts," "Procurement," and then the Procurement Number.

PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION - NOT USED

END OF SECTION

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PART 1 - GENERAL

1.01 SUMMARY

- A. This Section provides the notification required for disclosure of asbestos, lead-containing or other hazardous materials.

1.02 HAZARDOUS MATERIALS NOTICE

- A. The Port is reasonably certain that asbestos and lead will not be disturbed by the project. If the Contractor encounters material suspected of containing lead or asbestos which will interfere with the execution of the work, the Contractor shall stop work and notify the Engineer.
- B. Regulated materials are present in some of the dredge sediment. The sediment characterization reports for Middle Blair and PCT are available per Section 00 31 00 - Available Project Information.

PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION - NOT USED

END OF SECTION

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BIDDER'S NAME: _____

PROJECT TITLE: MIDDLE BLAIR AND PIERCE COUNTY TERMINAL MAINTENANCE DREDGE

The undersigned Bidder declares that it has read the Contract Documents (including documents provided by reference), understands the conditions under which the Work will be performed, has examined the Project site, and has determined for itself all situations affecting the Work herein Bid upon. Bidder proposes and agrees, if this Bid is accepted, to provide at Bidder's own expense, all labor, machinery, tools, materials, etc., including all Work incidental to, or described or implied as incidental to such items, according to the Contract Documents, and that the Bidder will complete the Work within the time stated, and that Bidder will accept in full the lump sum or unit price(s) set forth below:

ITEM NO.	DESCRIPTION OF ITEM	QTY	UOM	UNIT PRICE	EXTENDED PRICE (QTY. x UNIT PRICE)
1	Mobilization and Demobilization	1	LS		
2	Project Administration - Middle Blair	1	LS		
3	Field Engineering - Middle Blair	1	LS		
4	Dredging and Transload - Middle Blair	7,750	CY		
5	Transport for Disposal - Middle Blair	8,300	CY		
6	Sand Capping - Middle Blair	1,405	TON		
7	Dredge Debris Allowance - Middle Blair	1	LS	\$5,000	\$5,000
8	Project Administration - PCT	1	LS		
9	Field Engineering - PCT	1	LS		
10	Dredging - PCT	21,000	CY		
11	Dredge Debris Allowance - PCT	1	LS	\$5,000	\$5,000
12	Dredging Standby	6	DAYS		

TOTAL BID AMOUNT	
10.3% WASHINGTON STATE SALES TAX (WSST) ON BASE BID SUBTOTAL	
BID TOTAL (WITH WSST)	

Note: Show prices in figures only.

Evaluation of Bids. In accordance with the provisions of the Contract Documents, Bids will be evaluated to determine the lowest Base Bid Subtotal offered by a responsible Bidder submitting a responsive Bid.

Schedule of Unit Prices. The unit prices are proposed to apply only in the event of additions to, or deletions from, the work required and ordered. All prices shall include complete installation without Washington State Sales Tax. The bidder shall propose a price for each item; failure to propose a price for each item may render the bid non-responsive. The Port reserves the right to accept or reject the unit prices proposed.

Principal Subcontractors/Suppliers. For Bids greater than one million (\$1,000,000) dollars, the Bidder shall list below the name of each subcontractor or supplier to whom the Bidder proposes to subcontract the portions of the work listed below, or name itself for the work, in accordance with RCW 39.30.060.

Work to be preformed	License Number	Name of Firm
HVAC (Heating, Ventilation, and Air Conditioning) Work		
Plumbing Work		
Electrical Work		
Structural Steel Installation		
Rebar Installation		

Non-Collusion Representation. The Bidder declares under penalty of perjury that the Bid submitted is genuine and not a sham or collusive bid, or made in the interest or on behalf of any person or firm not therein named; and further represents that the Bidder has not directly or indirectly induced or solicited any other bidder to submit a sham bid, or encouraged any other person or corporation to refrain from bidding; and that the Bidder has not in any manner sought by collusion to secure to the Bidder an advantage over any other bidder or bidders.

RCW 39.04.350 Certification. The Bidder represents and certifies, under penalty of perjury, that within the three- (3-) year period immediately preceding the Bid Date, the Bidder has not been determined by a final and binding citation and notice of assessment issued by the Department of Labor and Industries, nor through a civil judgment entered by a court of limited or general jurisdiction, to have willfully violated, as defined in RCW 49.48.082, any provision of Chapters 49.46, 49.48, nor 49.52 RCW.

Addenda. Bidder acknowledges receipt and acceptance of all Addenda through No. ____ (Identify Last Addenda By Number)

Bid Security. A certified check, cashier's check, or other obligation of a bank, or a bid bond in substantially the form set forth in Section 00 43 13, Bid Security Form for at least five (5) percent of the Base Bid Subtotal, shall be submitted with this Bid.

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KNOW ALL MEN BY THESE PRESENTS:

That we, _____, as Principal, and _____, as Surety, are held and firmly bound unto the PORT OF TACOMA as Obligee, in the penal sum of _____ Dollars, for the payment of which the Principal and Surety bind themselves, their heirs, executors, administrators, successors and assigned, jointly and severally, by these present.

The condition of this obligation is such that if the Obligee shall make any award to the Principal for _____, according to the terms of the proposal or bid made by the Principal therefor, and the Principal shall duly make and enter into a contract with the Obligee in accordance with the terms of said proposal or bid and award and shall give bond for the faithful performance thereof, with Surety or Sureties approved by the Obligee; or, if the principal shall, in case of failure to do so, pay and forfeit to the Obligee the penal amount of the deposit specified in the call for bids, then this obligation shall be null and void; otherwise it shall be and remain in full force and effect and the Surety shall forthwith pay and forfeit to the Obligee, as penalty and liquidated damages, the amount of this bond.

SIGNED, SEALED AND DATED THIS _____ DAY OF _____, 20__

BY _____
PRINCIPAL

BY _____
SURETY

AGENT AND ADDRESS

Note: Bidder may submit Surety's bid bond form, provided it is similar in substance, made out in the name of the Port of Tacoma, and that the agent's name and address appear as specified. Bonds containing riders limiting responsibility for toxic waste or limiting the term of responsibility will be rejected.

END OF SECTION

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THIS IS NOT TO BE SUBMITTED WITH A BID.

THE LOW RESPONSIVE BIDDER SHALL BE REQUIRED TO COMPLETE THIS RESPONSIBILITY DETAIL FORM AS SPECIFIED IN SECTION 00 21 00 - INSTRUCTIONS TO BIDDERS. **THIS COMPLETED RESPONSIBILITY DETAIL FORM SHALL BE SUBMITTED ELECTRONICALLY (PDF) VIA EMAIL TO THE CONTACT(S) IDENTIFIED IN THE LOW RESPONSIVE BIDDER SELECTION NOTIFICATION.**

BIDDER'S COMPANY NAME: _____

For the below Mandatory Bidder Responsibility Criteria, please mark the appropriate choice.

1.01 MANDATORY BIDDER RESPONSIBILITY CRITERIA

A. The Bidder shall meet the following mandatory responsibility criteria as described in RCW 39.04.350(1). The Bidder shall be rejected as not responsible if any answer to questions 1 through 5 is "No" or any answer to questions 6 through 8 is "Yes."

1. Does the Bidder have a Certificate of Registration in compliance with RCW 18.27?

Yes No

2. Does the Bidder have a current Washington State Unified Business Identifier number?

Yes No

3. Does the Bidder have Industrial Insurance Coverage for the Bidder's employees working in Washington State as required in RCW 51?

Yes No

4. Does the Bidder have an Employment Security Department number as required in RCW 50?

**Attach letter dated within six (6) months of Bid Date.*

**Request a letter electronically by clicking on the following link <https://fortress.wa.gov/esd/twt/pwcinternet/> or by emailing a request to publicworks@esd.wa.gov.*

Yes No

5. Does the Bidder have a Washington State Excise Tax Registration number as required in RCW 82?

Yes No

6. Has the Bidder been disqualified from bidding on any public works project under RCW 39.06.010 or 39.12.065(3)?

Yes No

7. Has the Bidder violated RCW 39.04.370 more than one (1) time as determined by the Washington State Department of Labor and Industries?

Yes No

- 8. Has the Bidder ever been found to be out of compliance with Apprenticeship Utilization requirements of RCW 39.04.320?
 Yes No

- 9. Has the Bidder ever been found to have willfully violated, as defined in RCW 49.48.082, any provision of Chapters 49.46, 49.48, or 49.52 RCW within the three- (3-) year period immediately preceding the date of this bid solicitation?
 Yes No

- 10. Has the Bidder completed the training required by RCW 39.04.350, or is the Bidder on the list of exempt businesses maintained by the Department of Labor and Industries?
 Yes No

If any answer to questions 1 through 5 is "No" or any answer to questions 6 through 8 is "Yes" - **STOP HERE** and contact the Contract Administrator. The Bidder is not responsible for this Work. Otherwise proceed to 1.02. **Provide attached to this completed form documentation to confirm responsibility criteria.**

For remaining criteria below, check or fill-out the appropriate item. Based upon the answer provided by the Bidder, the Port may request additional information or seek further explanation. As needed, provide backup documentation for any explanations listed below.

1.02 CONTRACT AND REGULATORY HISTORY

- A. The Port will evaluate whether the Bidder's contract and regulatory history demonstrates an acceptable record of past project performance and consistent responsibility. The Bidder shall answer the following questions. The Bidder may be rejected as not responsible if any answer to questions 1 through 5 below is "Yes."
 - 1. Has the Bidder had a contract terminated for cause or default in the last five (5) years?
 Yes, **If YES, explain below.** No

 - 2. Has the Bidder required a Surety to take over all, or a portion of, a project to cure or respond to an asserted default or material breach of contract on the part of the Bidder on any public works project in the last five (5) years?
 Yes, **If YES, explain below.** No

 - 3. Have the Bidder and major Sub-Bidders been in bankruptcy, reorganization, and/or receivership on any public works project in the last five (5) years?
 Yes, **If YES, explain below.** No

4. Have the Bidder and major Sub-Bidders been disqualified by any state or local agency from being awarded and/or participating on any public works project in the last five (5) years?

- Yes, **If YES, explain below.** No

5. Are the Bidder and major Sub-Bidders currently a party to a formal dispute resolution process with the Port (i.e., a pending mediation, arbitration, or litigation)?

- Yes, **If YES, explain below.** No

1.03 ACCIDENT/INJURY EXPERIENCE

- A. The Port will evaluate the Bidder’s accident/injury Experience Modification Factor (“EMF”) from the Washington State Department of Labor and Industries to assess whether the Bidder has an acceptable safety record preventing personal injuries on projects.
- B. List the Bidder’s accident/injury EMF for the last five (5) years. An experience factor is calculated annually by the Washington State Department of Labor and Industries.

Year	Effective Year	Experience Factor
1		
2		
3		
4		
5		

If the Bidder has received an EMF of greater than 1.0 for any year, explain the cause(s) of the designation and what remedial steps were taken to correct the EMF. The Bidder may be rejected as not responsible if the Bidder’s EMF is greater than 1.0 and sufficient remedial steps have not been implemented.

1.04 WORK PERFORMED BY BIDDER

- A. The Bidder shall state the amount of the Work, as an equivalent to the Base Bid, excluding taxes, insurance, and bonding, the Bidder will execute with its own forces.

_____ %

1.05 ADDITIONAL CONTRACTOR INFORMATION

- A. As part of completing this Responsibility Detail Form, **submit the following information with the completed Responsibility Detail Form:**
 - 1. Bidder’s recent job resume, including a list of similar projects performed and contact information for the similar project owner(s), a brief description of work, start and end dates, and contract amount.
 - 2. Resumes of Bidder’s proposed project manager and job superintendent.

- B. The Bidder's failure to provide the required project information may result in a determination of the Bidder being declared non-responsible by the Port.
- C. The Bidder shall submit this completed, **SIGNED** Responsibility Detail Form electronically (PDF), with all requested backup documentation, via email to the contact(s) noted on the Low Responsive Bidder Selection Notification.
- D. The Bidder and its subcontractors to verify that its subcontractors at each tier meet the responsibility criteria as required by RCW 39.06.020 and 39.04.350.
 - 1. Bidder shall verify major subcontractors meet the responsibility criteria required. Fill out one Port of Tacoma Public Works Project Bidder Evaluation Checklist for Subcontractors for each major subcontractor and submit to the Port with this form. Backup documentation is not required to be submitted.

PROJECT: Middle Blair and Pierce County Terminal Maintenance Dredge

PROJECT NO.: 101692.01 AND 201114.03

CONTRACT NO.: 900000001

Responsibility Certification Form

The Low responsive Bidder shall complete the Responsibility Detail Form, attach all documentation, and submit to the Port within twenty-four (24) hours following receipt of the Low Responsive Bidder Selection Notification. All forms shall be submitted electronically (PDF) via email to the contact(s) listed on the Selection Notice. Note, the same project may be used to demonstrate experience across multiple categories if applicable.

By completing and signing this Responsibility Detail Form, the Bidder is certifying that the information contained within the Form, the backup documentation, and any additional information requested by the Port is true and complete. The Bidder's failure to disclose the required information or the submittal of false or misleading information may result in the rejection of the Bidder's Bid, revocation of award, or contract termination.

The information provided herein is true and complete.

Signature of Authorized Representative

Date

Print Name and Title

**PORT OF TACOMA PUBLIC WORKS PROJECT BIDDER EVALUATION CHECKLIST FOR
 SUBCONTRACTORS**

PROJECT TITLE: Middle Blair and Pierce County Terminal Maintenance

Dredge

BIDDER: _____

CONTRACT AND PROJECT NUMBER: 900000001/ 101692.01 AND 201114.03

This checklist shall be completed by the Bidder and its subcontractors to verify that its subcontractors at each tier meet the responsibility criteria as required by RCW 39.06.020 and RCW 39.04.350.

This checklist should be submitted to the Port of Tacoma Contracts Administrator within twenty-four (24) hours of request.

Document verification information or backup data is not to be submitted to the Port, this information should remain on file with the Contractor and be presented to the Port if requested at a later date.

Item No.	Item	Initials/Comments
1.	At the time of Bid submittal, have a certificate of registration in compliance with RCW 18.27: Check the L&I site https://fortress.wa.gov/lni/bbip/ . Verify that a subcontractor has an electrical contractor license, if required by RCW 19.28, or an elevator contractor license, if required by RCW 70.87.	
2.	While reviewing registration information above, also check contractor's Employer Liability Certificate to verify workers' comp (industrial insurance) premium status – current account. Complete a "Submit Contractor Tracking Request" to be notified if the contractor fails to pay workers' comp premiums or renew their contractor registration or if their electrical contractor license is suspended or revoked within one year.	
3.	State excise tax registration number (Department of Revenue). (contractor's Washington State Unified Business Identifier and tax registration number) http://dor.wa.gov/content/doingbusiness/registermybusiness/brd/ .	
4.	Not disqualified from bidding on any public works contract under RCW 39.06.010 or RCW 39.12.065(3) . Check the Department of Labor and Industries http://www.lni.wa.gov/TradesLicensing/PrevWage/AwardingAgencies/DebarredContractors/ .	
5.	Verify subcontractors are registered with the Washington State Employment Security Department (ESD) and have an account number. Request a letter to be sent from the subcontractor electronically by clicking on the following link https://fortress.wa.gov/esd/twt/pwcinternet/ or by emailing a request to	

Item No.	Item	Initials/Comments
	<p>publicworks@esd.wa.gov. Include ESD#, UBI#, and business name in the email. Certificate of Coverage letter issued/dated within the last six (6) months.</p> <p>Document if subcontractor confirms in writing, under penalty of perjury, that it has no employees and this requirement does not apply.</p>	

END OF SECTION

THIS AGREEMENT is made and entered into by and between the PORT OF TACOMA, a State of Washington municipal corporation, hereinafter designated as the "Port," and:

The "Contractor" is: _____ (Legal Name)

_____ (Address)

_____ (Address 2)

_____ (Phone No.)

The "Project" is: **Middle Blair and Pierce County Terminal Maintenance Dredge** _____

(Title)

101692.01 AND 201114.03 | 900000001 _____ (Project/Contract No.)

1 Sitcum Plaza _____ (Project Address)

Tacoma, WA 98421 _____ (Project Address 2)

The "Engineer" is: **Thais Howard, PE** _____ (Engineer)

Director of Engineering _____ (Title)

thoward@portoftacoma.com _____ (Email)

(253) 888-4718 _____ (Phone No.)

The "Contractor's Representative" is: _____ (Representative)

_____ (Title)

_____ (Email)

_____ (Phone No.)

BACKGROUND AND REPRESENTATIONS:

The Port publicly solicited bids on the Contract Documents. The Contractor submitted a Bid to the Port on the _____ day of _____, 20__ to perform the Work.

The Contractor represents that it has the personnel, experience, qualifications, capabilities, and means to accomplish the Work in strict accordance with the Contract Documents, within the Contract Time and for the Contract Price, and that it and its Subcontractors satisfy the responsibility criteria set forth in the Contract Documents, including any supplemental responsibility criteria.

The Contractor further represents that it has carefully examined, and is fully familiar with, all provisions of the Contract Documents, including any Addenda, that it has fully satisfied itself as to the nature, location, difficulty, character, quality, and quantity of the Work required by the Contract Documents and the conditions and other matters that may be encountered at or near the Project site(s), or that may affect performance of the Work or the cost or difficulty thereof, including all applicable safety and site responsibilities, and that it understands and can satisfy all scheduling and coordination requirements and interim milestones.

AGREEMENT:

The Port and the Contractor agree as follows:

1.0 CONTRACTOR TO FULLY PERFORM THE WORK

The Contractor shall fully execute and complete the entire Work for the Project described in the Contract Documents, except to the extent specifically indicated in the Agreement, the General Conditions of the Contract (as well as any Supplemental, Special, or other conditions included in the Project Manual), the Drawings, the Specifications, and all Addenda issued prior to, and all modifications issued after, execution of the Contract.

2.0 DATE OF COMMENCEMENT

The date of commencement of the Work, which is the date from which the Contract Time is measured, shall be fixed as the date of execution of the Contract.

3.0 CONTRACT TIME AND LIQUIDATED DAMAGES

The Contractor shall achieve all interim milestones as set forth in the Contract Documents and Substantial Completion of the entire Work not later than February 14, 2024 for dredging and open water disposal operations and not later than 120 calendar days from execution of the Contract for transloa, subject to adjustments of this Contract Time as provided in the Contract Documents. The Contractor shall achieve Final Completion of the entire Work within 30 calendar days of the date on which Substantial Completion is achieved.

Provisions for liquidated damages as a reasonable estimate of future loss, as of the date of this Agreement, are included in the Contract Documents. The parties agree that the stated liquidated damages are reasonable and not penalties individually nor cumulatively.

The liquidated damages for failure to achieve Substantial Completion by the required date shall be \$250 per calendar day. After the required Final Completion date, the liquidated damages for failure to achieve Final Completion shall be \$100 per calendar day.

Liquidated damages assessed by the Port will be deducted from monies due to the Contractor, or from monies that will become due to the Contractor. The liquidated damages, as specified and calculated herein, shall be levied, cumulatively if applicable, for each and every calendar day that Substantial Completion and/or Final Completion of the Work is delayed beyond the required completion dates, or the completion dates modified by the Port for extensions of the Contract Time.

4.0 CONTRACT PRICE

In accordance with the Contractor's Bid dated _____, the Port shall pay the Contractor in current funds for the Contractor's performance of the Contract, the Contract Price of _____ Dollars (\$_____), subject to additions and deductions as provided in the Contract Documents. State and local sales tax is not included in the Contract Price, but will be due and paid by the Port with each progress payment.

6.0 INSURANCE AND BONDS

The Contractor shall purchase and maintain insurance and provide bonds as set forth in the Contract Documents.

This Agreement is entered into as of the day and year first written above:

CONTRACTOR

PORT OF TACOMA

By: _____

By: _____

Title: _____

Title: _____

Date: _____

Execution _____

Date:

END OF SECTION

This page intentionally left blank

PERFORMANCE BOND # _____

CONTRACTOR (NAME AND ADDRESS)

SURETY (NAME AND PRINCIPLE PLACE OF BUSINESS)

OWNER (NAME AND ADDRESS)

AGENT OR BROKER (FOR INFORMATION ONLY)

PORT OF TACOMA
P.O. BOX 1837
TACOMA, WA 98401-1837

KNOW ALL MEN BY THESE PRESENTS:

That _____ as Principal, hereinafter called Contractor, and _____ as Surety, hereinafter called Surety, are held and firmly bound unto the Port of Tacoma as Obligee, hereinafter called the Port, in the amount of _____ Dollars (\$ _____) for the payment whereof Contractor and Surety bind themselves, their executors, administrators, legal representatives, successors, and assigns, jointly and severally, firmly by these presents.

WHEREAS:

Contractor shall execute an agreement with the Port for Middle Blair and Pierce County Terminal Maintenance Dredge, Project No. 101692.01 AND 201114.03/Contract No. 900000001, a copy of which Contract is by reference made a part hereof (the term "Contract" as used herein to include the aforesaid agreement together with all the Contract Documents, addenda, modifications, all alterations, additions thereto, deletions therefrom, and any other document or provision incorporated into the Contract) and is hereinafter referred to as the Contract.

This bond is executed and issued pursuant to the provisions of RCW 39.08.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION is such that if Contractor shall promptly and faithfully perform said Contract, then this obligation shall be null and void; otherwise, it shall remain in full force and effect.

FURTHER:

- A. Surety hereby waives notice of any alterations, change orders, modifications, or extensions of time made by the Port.
- B. Surety recognizes that the Contract includes provisions for additions, deletions, and modifications to the Work and/or Contract Time and the amounts payable to the Contractor. Subject to the limitations contained in (A) above, Surety agrees that no such addition, deletion, or modification, or any combination thereof, shall avoid or impair Surety's obligation hereunder.
- C. Whenever Contractor has been declared by the Port to be in default, and the Port has given Surety notice of the Port's determination of such default, Surety shall promptly (in no event more than fifteen (15) days following receipt of such notice) advise the Port of its intended action to:
 - 1. Remedy the default within fifteen (15) days following its advice to the Port as set forth above, or

- 2. Assume within fifteen (15) days, following its advice to the Port as set forth above, completion of the Contract in accordance with the Contract Documents and become entitled to payment of the balance of the Contract Sum, or
 - 3. Pay the Port upon completion of the Contract, in cash, the cost of completion together with all other reasonable costs and expenses incurred by the Port as a result of the Contractor's default, including but not limited to, those reasonable costs and expenses incurred by the Port in its efforts to mitigate its losses, which may include, but are not limited to, attorney's fees and efforts to complete the Work prior to the Surety exercising the options available to it as set forth herein.
- D. If the Port shall commence suit and obtain judgment against the Surety for recovery hereunder, then the Surety, in addition to such judgment, shall pay all costs and attorney's fees incurred by the Port in enforcement of its rights hereunder. Venue for any action arising out of, or in connection with, this bond shall be in Pierce County, Washington.
- E. No right or action shall accrue on this bond to, or for the use of, any person or corporation other than the Port of Tacoma.

Signed and Sealed the _____ day of _____, 20____.

IMPORTANT: Surety companies executing bonds must have an A.M. Best Rating of "A-, FSC (6)" or higher, have an underwriting limitation of not less than the Contract Sum, and be authorized to transact business in the State of Washington.

SURETY

CONTRACTOR

Signature

Signature

Printed Name and Title

Printed Name and Title

Power of Attorney attached.

END OF SECTION

LABOR AND MATERIAL PAYMENT BOND # _____

CONTRACTOR (NAME AND ADDRESS)

SURETY (NAME AND PRINCIPLE PLACE OF BUSINESS)

OWNER (NAME AND ADDRESS)

AGENT OR BROKER (FOR INFORMATION ONLY)

PORT OF TACOMA
P.O. BOX 1837
TACOMA, WA 98401-1837

KNOW ALL MEN BY THESE PRESENTS:

That _____ as Principal, hereinafter called Contractor, and _____ as Surety, hereinafter called Surety, are held and firmly bound unto the Port of Tacoma as Obligee, hereinafter called the Port, and all others entitled to recovery hereunder, in the amount of _____ Dollars (\$ _____) for the payment whereof Contractor and Surety bind themselves, their executors, administrators, legal representatives, successors, and assigns, jointly and severally, firmly by these presents.

WHEREAS:

Contractor shall execute an agreement with the Port for Middle Blair and Pierce County Terminal Maintenance Dredge, Project No. 101692.01 AND 201114.03/Contract No. 900000001, a copy of which Contract is by reference made a part hereof (the term "Contract" as used herein to include the aforesaid agreement together with all the Contract Documents, addenda, modifications, alterations, additions thereto, deletions therefrom, and any other document or provision incorporated into the Contract) and is hereinafter referred to as the Contract.

This bond is executed pursuant to the provisions of RCW 39.08.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION is such that if Contractor shall promptly make payment to all claimants, as hereinafter defined, for all labor and material used or reasonably required for use in the performance of the Contract and shall indemnify and save the Port harmless from all cost and damage by reason of Contractor's default, then this obligation shall be null and void; otherwise, it shall remain in full force and effect, subject to the following conditions.

- A. Surety hereby waives notice of any alterations, change orders, modifications, or extensions of time made by the Port.
- B. Surety recognizes that the Contract includes provisions for additions, deletions, and modifications to the Work and/or Contract Time and the amounts payable to the Contractor. Subject to the limitations contained in (A) above, Surety agrees that no such addition, deletion, or modification, or any combination thereof, shall avoid or impair Surety's obligation hereunder.

- C. Surety hereby agrees that every person protected under the provisions of RCW 39.08.010 who has not been paid as provided under the Contract, and pursuant to RCW 39.08.010, less any amounts withheld pursuant to statute, and less retainage withheld pursuant to RCW 60.28, after the expiration of a period of thirty (30) days after the date on which the completion of the Contract in accordance with RCW 39.08, may sue on this bond, prosecute the suit to final judgment as may be due claimant, and have execution thereon including recovery of reasonable costs and attorney's fees as provided by RCW 39.08. The Port shall not be liable for the payment of any costs or expenses of any such suit.
- D. No suit or action shall be commenced hereunder by any claimant unless claimant shall have given the written notices to the Port, and where required, the Contractor, in accordance with RCW 39.08.030.
- E. The amount of this bond shall be reduced by, and to the extent of, any payment or payments made in good faith hereunder, inclusive of the payment by Surety of claims which may be properly filed in accordance with RCW 39.08 whether or not suit is commenced under and against this bond.
- F. If any Claimant shall commence suit and obtain judgment against the Surety for recovery hereunder, then the Surety, in addition to such judgment and attorney fees as provided by RCW 39.08.030, shall also pay such costs and attorney fees as may be incurred by the Port as a result of such suit. Venue for any action arising out of, or in connection with, this bond shall be in Pierce County, Washington.

Signed and Sealed the _____ day of _____, 20____.

IMPORTANT: Surety companies executing bonds must have an A.M. Best Rating of "A-, FSC (6)" or higher, have an underwriting limitation of not less than the Contract Sum, and be authorized to transact business in the State of Washington.

SURETY

CONTRACTOR

Signature

Signature

Printed Name and Title

Printed Name and Title

Power of Attorney attached.

END OF SECTION

BOND NO.: _____

PROJECT TITLE: Middle Blair and Pierce County Terminal
Maintenance Dredge

PROJECT NO.: 101692.01 AND 201114.03

CONTRACT NO.: 900000001

KNOW ALL MEN BY THESE PRESENTS: That we, _____
_____ a corporation existing under and by virtue of the laws of the State of
Washington and authorized to do business in the State of Washington, as Principal, and
_____, a corporation organized and existing under the
laws of the State of _____ and authorized to transact the business of
surety in the State of Washington, as Surety, are jointly and severally held and bound unto the PORT OF
TACOMA, hereinafter called Port, as Obligee, and are similarly held and bound unto the beneficiaries of
the trust fund created by RCW 60.28 as their heirs, executors, administrators, successors, and assigns in
the penal sum of _____ (\$ _____)
plus five (5) percent of any increases in the Contract Price that have occurred or may occur, due to
change orders, increases in the quantities, or the addition of any new item of work.

WHEREAS, on the _____ day of _____, the said Principal herein executed Contract
No. 900000001 with the Port for Middle Blair and Pierce County Terminal Maintenance Dredge, Project
No. 101692.01 AND 201114.03.

WHEREAS, said Contract and RCW 60.28 require the Port to withhold from the Principal the sum of five
(5) percent from monies earned by the Principal on estimates during the progress of the work, hereinafter
referred to as earned retained funds.

WHEREAS, the Principal has requested that the Port accept a bond in lieu of earned retained funds as
allowed under RCW 60.28.

NOW THEREFORE, this obligation is such that the Surety, its successors, and assigns are held and
bound unto the Port and unto all beneficiaries of the trust fund created by RCW 60.28.011(1) in the
aforesaid sum. This bond, including any proceeds therefrom, is subject to all claims and liens and in the
same manner and priority as set forth for retained percentages in RCW 60.28. The condition of this
obligation is also that if the Principal shall satisfy all payment obligations to persons who may lawfully
claim under the trust fund created pursuant to RCW 60.28, to the Port, and indemnify and hold the Port
harmless from any and all loss, costs, and damages that the Port may sustain by release of said
retainage to Principal, then this obligation shall be null and void, provided the Surety is notified by the
Port that the requirements of RCW 60.28.021 have been satisfied and the obligation is duly released by
the Port.

IT IS HEREBY DECLARED AND AGREED that the Surety shall be liable under this obligation as Principal. The Surety will not be discharged or released from liability for any act, omission, or defenses of any kind or nature that would not also discharge the Principal.

IT IS HEREBY FURTHER DECLARED AND AGREED that this obligation shall be binding upon and inure to the benefit of the Principal, the Surety, the Port, the beneficiaries of the trust fund created by RCW 60.28 and their respective heirs, executors, administrators, successors, and assigns.

IN WITNESS WHEREOF, said Principal and said Surety have caused these presents to be duly signed and sealed this _____ day of _____, 20____.

By: _____
2.01Principal

Address: _____

City/ST/Zip: _____

Phone: _____

Surety Name: _____

By: _____
9.01Attorney-In-Fact

Address: _____

City/ST/Zip: _____

Phone: _____

IMPORTANT: Surety companies executing bonds must have an A.M. Best Rating of "A-, FSC (6)" or higher, and be authorized to transact business in the State of Washington.

END OF SECTION

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ARTICLE 1 - THE CONTRACT DOCUMENTS

1.01 GENERAL

A. Contract Documents form the Contract. The Contract Documents are enumerated in the Agreement between the Port and Contractor ("Agreement"). Together, the Contract Documents form the Contract. The Contract represents the entire integrated agreement between the parties and supersedes all prior negotiations, representations, or agreements, either written or oral. The Contract may be amended or modified only in writing and only as set forth in the Contract Documents.

B. Headings only for convenience. The titles or headings of the sections, divisions, parts, articles, paragraphs, and subparagraphs of the Contract Documents are intended only for convenience.

1.02 DEFINITIONS

A. "Contract Documents" proposed for the Work consist of the Agreement, the General Conditions of the Contract (as well as any Supplemental, Special, or other conditions included in the Project Manual), the Drawings, the Specifications, and all Addenda issued prior to, and all modifications issued after, execution of the Contract.

B. "Contractor" means the person or entity contracting to perform the Work under these Contract Documents. The term Contractor includes the Contractor's authorized representative for purposes of identifying obligations and responsibilities under the Contract Documents, including the ability to receive notice and direction from the Port.

C. "Day" means a calendar day unless otherwise specifically designated.

D. "Drawings" are the graphic and pictorial portions of the Contract Documents showing the design, location, and dimensions of the Work, including plans, elevations, sections, details, and diagrams.

E. "Engineer" is the Port employee generally tasked with administering the Project on the Port's behalf and the person with overall responsibility for managing, for the Port, the Project scope, budget, and schedule. To the extent empowered, the Engineer may delegate to others at the Port (such as a Project Manager or Inspector) the responsibility for performing delegated responsibilities of the Engineer's under this Contract.

F. "Port" means the Port of Tacoma. The Port will designate in writing a representative (usually the Engineer) who shall have the authority to act on the Port's behalf related to the Project. The "Port" does not include staff, maintenance, or safety workers, or other Port employees or consultants that may contact the Contractor or be present at the Project site.

G. "Project" is identified in the Agreement and is the total construction to be performed by or through the Port, of which the Work performed under the Contract Documents may be only a part.

H. "Specifications" are those portions of the Contract Documents that specify the written requirements for materials, equipment, systems, standards, and workmanship for the Work and for the performance of related services.

I. "Subcontractor" means a person or entity that contracts directly with the Contractor to perform any Work under the Contract Documents. "Subcontractor of any tier" includes Subcontractors as well as any other person or entity, including suppliers, that contracts with a Subcontractor or a lower-tier Subcontractor (also referred to as "Sub-subcontractors") to perform any of the Work.

J."Work" means the construction and services required by the Contract Documents, whether completed or partially completed, and includes all labor, tools, equipment, materials, services, and incidentals necessary to complete all obligations under the Contract Documents. The Work may constitute only a part of the Project, and may interface and need to be coordinated with the work of others.

1.03 INTENT OF THE CONTRACT DOCUMENTS

A.Intent of Contract Documents. The intent of the Contract Documents is to describe the complete Work and to include all items and information necessary for the proper execution and completion of the Work by the Contractor.

B.Contract Documents are complementary. The Contract Documents are complementary, and what is required by one shall be as binding as if required by all; performance by the Contractor is required to the extent consistent with the Contract Documents and reasonably inferable from them as being necessary to produce the indicated results.

C.No third party contract rights. The Contract Documents shall not create a contractual relationship of any kind (1) between the Port and a Subcontractor of any tier (although the Port does not waive any third-party beneficiary rights it may otherwise have as to Subcontractors of any tier), (2) between the Contractor and the Engineer or other Port employees or consultants, or (3) between any persons or entities other than the Port and Contractor.

1.04 CORRELATION OF THE CONTRACT DOCUMENTS

A.Precedence. In the event of a conflict or discrepancy between or among the Contract Documents, the conflict or discrepancy will be resolved by the following order of precedence: with an addendum or Change Order having precedence over an earlier document, and computed dimensions having precedence over scaled dimensions, and large scale drawings take precedence over small scale drawings:

1.The signed Agreement

a.Supplemental Conditions

b.Division 00 General Conditions

c.Division 01 General Requirements of Specifications

d.All other Specifications, including all remaining divisions, material and system schedules and attachments, and Drawings

e.All other sections in Division 00 not specifically identified herein by Section

B.Inconsistency between or among Contract Documents. If there is any inconsistency between the Drawings, schedules, or Specifications, or any attachments, the Contractor will make an inquiry to the Engineer to determine how to proceed, and, unless otherwise directed, the Contractor will provide the better quality or greater quantity of any work or materials, as reasonably interpreted by the Port, at no change in the Contract Sum or Contract Time. Thus, if Work is shown on Drawings, but not contained in Specifications or schedules, or contained in Specifications or schedules, but not shown on the Drawings, the Work as shown or contained will be provided at no change in the Contract Sum or Contract Time, according to Specifications or Drawings to be issued by the Port.

C.Inconsistency with law. In the event of a conflict between the Contract Documents and applicable laws, codes, ordinances, regulations, or orders of governmental authorities having jurisdiction over the Work, or in the event of any conflict between such laws, the most stringent requirements govern.

D.OrganizatiOn of Contract Documents. The organization of the Specifications and Drawings shall not control the Contractor in dividing the Work among Subcontractors or in establishing the extent of the Work to be performed. The Port assumes no responsibility for the division and proper coordination of Work between particular Subcontractors.

E.Bid quantities are estimates only. Any "bid quantities" set forth in the Contract Documents are estimates only. The Port does not warrant that the actual amount of Work will correspond to any estimates. The basis of payment will be the actual quantities performed in accordance with the Contract Documents.

1.05 OWNERSHIP OF THE CONTRACT DOCUMENTS

A.Port owns all Contract Documents. All Drawings, Specifications, and other Contract Documents furnished to the Contractor are Port property, and the Port retains all intellectual property rights, including copyrights. The Contract Documents are to be used only with respect to the Project.

ARTICLE 2 - PORT OF TACOMA

2.01 AUTHORITY OF THE ENGINEER

A.Engineer will be Port's representative. The Engineer or the Engineer's designee will be the Port's representative during the Project and will administer the Project on the Port's behalf.

B.Engineer may enforce all obligations. The Engineer has the authority to enforce all requirements imposed on the Contractor by the Contract Documents.

C.Only Engineer is agent of Port. Other than the Engineer, no other Port employee or consultant is an agent of the Port, and none are authorized to agree on behalf of the Port to changes in the Contract Sum or Contract Time, nor to waive provisions of the Contract Documents, nor to direct the Contractor to take actions that change the Contract Sum or Contract Time, nor to accept notice of protests or claims on behalf of the Port.

2.02 ADMINISTRATION OF THE CONTRACT

A.Port will administer Contract. The Port will provide administration of the Contract through the Engineer or the Engineer's designee. All communications with the Port or its consultants related to the Contract will be through the designated representative.

B.Port not responsible for means and methods. The Port is not responsible for, and will have no control or charge of, the means, methods, techniques, sequences, or procedures of construction, or for safety precautions or programs incidental thereto, because these are the sole responsibility of the Contractor. If the Port makes any suggestion of means, methods, techniques, sequences, or procedures, the Contractor will exercise its independent judgment in deciding whether to adopt the suggestion, except as otherwise provided in the Contract Documents.

C.Port not responsible for acts or omissions of Contractor or Subcontractors. The Port is not responsible for, and will have no control or charge of, the acts or omissions of the Contractor, Subcontractors of any tier, suppliers, or any of their agents or employees, or any other persons performing a portion of the Work.

D.Port not responsible for the Work. The Port is not responsible for the Contractor's failure to carry out the Work in accordance with the Contract Documents. The presence of the Engineer or others at the Project site at any time does not relieve the Contractor from its responsibility for non-conforming Work.

E.Port will have access to the Work. The Port and its representatives will at all times have access to the Work in progress, and the Contractor will provide proper facilities for such access and for inspection.

2.03 INFORMATION PROVIDED BY THE PORT

A.Port to furnish information with reasonable promptness. The Port shall furnish information and services required of the Port by the Contract Documents with reasonable promptness.

B.Subsurface investigation. The Port may have undertaken a limited investigation of the soil and other subsurface conditions at the Project site for design purposes only. The results of these investigations will be available for the convenience of the Contractor, but they are not Contract Documents. There is no warranty or guarantee, express or implied, that the conditions indicated are representative of those existing at the site or that unforeseen developments may not occur. The Contractor is solely responsible for interpreting the information.

2.04 CONTRACTOR REVIEW OF PROJECT INFORMATION

A.Contractors to familiarize itself with site and conditions of Work. Prior to executing the Contract, the Contractor shall visit the site, become generally familiar with local conditions under which the Work is to be performed, and correlate personal observations with the requirements of the Contract Documents and all information provided with the Bid Documents. By signing the Contract, the Contractor confirms that the Contract Sum is reasonable compensation for the Work; that the Contract Time is adequate; that it has carefully examined the Contract Documents and the Project site; and that it has satisfied itself as to the nature, location, and character of the Work, the labor, materials, equipment, and other items required and all other requirements of the Contract Documents. The Contractor's failure fully to acquaint itself with any such condition does not relieve the Contractor from the responsibility for performing the Work in accordance with the Contract Documents, within the Contract Time, and for the Contract Sum.

B.Contractors to review Contract Documents. Because the Contract Documents are complementary, the Contractor will, before starting each portion of the Work, carefully study and compare the various Drawings, Specifications, and other Contract Documents, as well as all information furnished by the Port.

C.Contractors to confirm field conditions. Before starting each portion of the Work, the Contractor shall take field measurements of and verify any existing conditions, including all Work in place, and all general reference points; shall observe any conditions at the site affecting the Contractor; and shall carefully compare field measurements, conditions and other information known to the Contractor with the Contract Documents.

2.05 PORT'S RIGHT TO REJECT, STOP, AND/OR CARRY-OUT THE WORK

A.Port may reject Work. The Port has the authority, but not the obligation, to reject work, materials, and equipment that is defective or that otherwise does not conform to the Contract Documents, and to decide questions concerning the Contract Documents. However, the failure to so reject, or the presence of the Port at the site, shall not be construed as assurance that the Work is acceptable or being completed in compliance with the Contract Documents.

B.Port may stop Work. If the Contractor fails to correct Work that does not comply with the requirements of the Contract Documents, or repeatedly or materially fails to properly carry out the Work, the Port may issue an order to stop all or a portion of the Work until the cause for the order has been eliminated. The Port's right to stop the Work shall not impose a duty on the Port to exercise this right for the benefit of the Contractor or any third party.

C.Port may carry-out Work. If the Contractor fails to perform the Work properly, fails to perform any provision of this Contract, or fails to maintain the Baseline Project Schedule, or if the Port reasonably concludes that the Work will not be completed in the specified manner or within the Contract Time, then the Port may, after three (3) days' written notice to the Contractor and without prejudice to any other remedy the Port may have, perform itself or have performed any or all of the Work and may deduct the cost thereof from any payment then or later due the Contractor.

2.06 SEPARATE CONTRACTORS

A.Port may engage separate contractors or perform work with its own forces. The Port may contract with other contractors ("Separate Contractor") in connection with the Project or perform work with its own forces. The Contractor shall coordinate and cooperate with any Port forces or Separate Contractors, as applicable. The Contractor shall provide reasonable opportunity for the introduction and storage of materials and the execution of work by others.

B.Contractor to inspect work of others. If any part of the Contractor's Work depends on the work of the Port or any Separate Contractor, the Contractor shall inspect and promptly report to the Port, in writing, any defects that impact the Contractor. Failure of the Contractor to so inspect and report defects in writing shall constitute an acceptance by Contractor of the work of the Port or Separate Contractor.

C.Contractor to resolve claims of others. Should the Contractor, or any of its Subcontractors of any tier, cause damage of any kind, including but not limited to delay, to any Separate Contractor, the Contractor shall promptly, and using its best efforts, settle or otherwise resolve the dispute with the Separate Contractor. The Contractor shall also promptly remedy damage caused to completed or partially completed construction.

2.07 OFFICERS AND EMPLOYEES OF THE PORT

A.No personal liability. Officers, employees, and representatives of the Port, including the Commissioners, acting within the scope of their employment, shall not be personally liable to Contractor for any acts or omissions arising out of the Project.

ARTICLE 3 - CONTRACTOR'S RESPONSIBILITIES

3.01 DUTY TO PERFORM THE ENTIRE WORK

A.Contractor must perform entire Work in accordance with Contract Documents. The Contractor shall perform the entire Work required by the Contract in accordance with the Contract Documents. Unless otherwise specifically provided, the Contractor shall provide and pay for all labor, tools, equipment, materials, electricity, power, water, other utilities, transportation, and other facilities necessary for the execution and completion of the Work.

B.Contractor shall be independent contractor. The Contractor shall be, and operate as, an independent contractor in the performance of the Work. The Contractor is not authorized to enter into any agreements or undertakings for, or on behalf of, the Port and is not an agent or employee of the Port.

3.02 OBSERVED ERRORS, INCONSISTENCIES, OMISSIONS, OR VARIANCES IN THE CONTRACT DOCUMENTS

A. Contractor to notify Port of any discrepancy. The Contractor's obligations to review and carefully study the Contract Documents and field conditions are for the purpose of facilitating coordination and construction. If the Contractor at any time observes that the Contract Documents, including Drawings and Specifications, vary from the conditions of the Project site, are in error, or omit any necessary detail, the Contractor shall promptly notify the Engineer in writing through a Request for Information. Any Work done after such observation, until authorized by the Engineer, shall be at Contractor's risk. The Contractor shall also promptly report to the Engineer any observed error, inconsistency, omission, or variance with applicable laws through a Request for Information. If the Contractor fails either to carefully study and compare the Contract Documents, or to promptly report any observed error, inconsistency, omission, or variance, the Contractor shall assume full responsibility and shall bear all costs, liabilities, and damages attributable to the error, inconsistency, omission, or variance.

B. Requests for Information. The Contractor shall submit Requests for Information concerning the Contract Documents by following the procedure and using such form as the Port may require. The Contractor shall minimize Requests for Information by thoroughly studying the Contract Documents and reviewing all Subcontractor requests. The Contractor shall allow adequate time in its planning and scheduling for a response from the Port to a Request for Information.

C. Port may provide information to supplement Drawings and Specifications. Minor items of work or detail that are omitted from the Drawings and Specifications, but inferable from the information presented and normally provided by accepted good practice, shall be provided and/or performed by the Contractor as part of the Contract Sum and within the Contract Time. Similarly, the Engineer may furnish to the Contractor additional Drawings and clarifications, consistent with the Contract Documents, as necessary to detail and illustrate the Work. The Contractor shall conform its Work to such additional Drawings and clarifications at no increase in the Contract Sum or Contract Time.

3.03 SUPERVISION AND RESPONSIBILITY FOR SUBCONTRACTORS

A. Contractor responsible for Work and workers. The Contractor shall have complete control of the means, methods, techniques, sequences, or procedures related to the Work, and for all safety precautions or programs. The Contractor shall have complete control over, and responsibility for, all personnel performing the Work. The Contractor is also responsible for the acts and omissions of the Contractor's principals, employees, and other persons or entities performing portions of the Work for, or on behalf of, the Contractor or any of its Subcontractors of any tier.

B. Contractor to supervise the Work. The Contractor shall continuously supervise and direct the Work using competent and skilled personnel and the Contractor's best skill and attention.

C. Contractor to enforce discipline and good order. The Contractor shall enforce strict discipline and good order among all workers on the Project, and shall not employ any unfit person or anyone not skilled in the work to which they are assigned. Incompetent, careless, or negligent workers shall immediately be removed from the Work. The Port may, but is not obligated to, require the Contractor to remove from the Work, at no change in the Contract Sum or Contract Time, anyone whom the Port considers objectionable.

3.04 MATERIALS AND EQUIPMENT

A. Material and equipment to be new. All materials and equipment to be incorporated into the Work shall be new, unless specifically provided otherwise in the Contract Documents. The Contractor shall, if required in writing by the Port, furnish satisfactory evidence regarding the kind and quality of any materials, identify the source, and warrant compliance with the Contract Documents. The Contractor shall ensure that all materials and equipment are protected, kept dry, and stored under cover in a manner to protect such materials and equipment.

B. Material and equipment shall conform to manufacturer instructions. All materials and equipment shall conform, and shall be applied, installed, used, maintained, and conditioned in accordance with the instructions of the applicable manufacturer, fabricator, or processor, unless otherwise specifically provided by the Engineer.

3.05 CONTRACTOR WARRANTIES

A. Work will be of good quality and performed in workmanlike manner. In addition to any specific warranties set forth in the Contract Documents, the Contractor warrants that the Work, including all materials and equipment furnished under the Contract, will be of good quality and new, will be performed in a skillful and workmanlike manner, and will conform to the requirements of the Contract Documents. Any Work not conforming to this warranty, including unapproved or unauthorized substitutions, shall be considered defective.

B. Work will be free from defects. The Contractor warrants that the Work will be free from defects for a period of one (1) year from the date of Substantial Completion of the Project.

C. Contractor to collect and deliver warranties to Port. The Contractor shall collect and deliver to the Port any written warranties required by the Contract Documents. These warranties shall be obtained and enforced by the Contractor for the benefit of the Port without the necessity of separate assignment. These warranties shall extend to the Port all rights, claims, benefits, and interests that the Contractor may have under express or implied warranties or guarantees against a Subcontractor of any tier, supplier, or manufacturer for defective or non-conforming Work. Warranty provisions that purport to limit or alter the Port's rights under the Contract Documents, or the laws of the State of Washington, are null and void.

D. General requirements. The Contractor is not relieved of its general warranty obligations by the specification of a particular product or procedure in the Contract Documents. Warranties in the Contract Documents shall survive completion, acceptance, and final payment.

3.06 REQUIRED WAGES

A. Contractor will pay required wages. The Contractor shall pay (and shall ensure that all Subcontractors of any tier pay) all prevailing wages and other wages (such as Davis-Bacon Act wages) applicable to the Project. See Specification Section 00 73 46.

B. The Contractor shall defend (at Contractor's sole cost, with legal counsel approved by Port), indemnify, and hold the Port harmless from all liabilities, obligations, claims, demands, damages, disbursements, lawsuits, losses, fines, penalties, costs, and expenses, whether direct or indirect, and including, but not limited to, attorneys' fees and consultants' fees and other costs and expenses of litigation, from any violation or alleged violation by the Contractor or any Subcontractor of any tier of RCW 39.12 ("Prevailing Wages on Public Works") or Chapter 51 RCW ("Industrial Insurance").

3.07 STATE AND LOCAL TAXES

A. Contractor will pay taxes on consumables. The Contractor will pay the retail sales tax on all consumables used during performance of the Work and on all items that are not incorporated into the final Work; this tax shall be included in the Contract Sum.

B.Port will pay taxes on the Contract Sum. The Port will pay state and local retail sales tax on the Contract Sum with each progress payment, and on final payment, for transmittal by the Contractor to the Washington State Department of Revenue or to the applicable local taxing authority. Rule 170: WAC 458-20-170.

C.Direct all tax questions to the Department of Revenue. The Contractor should direct all questions concerning taxes on any portion of the Work to the State of Washington Department of Revenue or to the local taxing authority.

D.State Sales Tax - Rule 171: WAC 458-20-171. For work performed related to building, repairing, or improving streets, roads, etc., which are owned by a municipal corporation, or political subdivision of the state, or by the United States, and which are used, primarily, for foot or vehicular traffic, the Contractor shall include Washington State Retail Sales Taxes in the various schedule prices, or other contract amounts, including those that the Contractor pays on the purchase of materials, equipment, or supplies used or consumed in doing the Work.

1.The bid form will indicate which bid items are subject to Rule 171. Any such identification by the Port is not binding upon the Department of Revenue.

3.08 PERMITS, LICENSES, FEES, AND ROYALTIES

A.Contractor to provide and pay for permits unless otherwise specified. Unless otherwise specified, the Contractor shall procure and pay for all permits, licenses, and governmental inspection fees necessary or incidental to the performance of the Work. All costs related to these permits, licenses, and inspections shall be included in the Contract Sum. Any action taken by the Port to assist the Contractor in obtaining permits or licenses shall not relieve the Contractor of its sole responsibility to obtain and pay for permits, licenses, and inspections as part of the Contract Sum.

B.Contractor's obligations when permit must be in Port's name. When applicable law or agency requires a permit to be issued to a public agency, the Port will support the Contractor's request for the permit and accept the permit in the Port's name, if:

- 1.The Contractor takes all necessary steps required for the permit to be issued;
- 2.The permit applies to Work performed in connection with the Project; and
- 3.The Contractor agrees in writing to abide by all requirements of the permit and to defend and hold harmless the Port from any liability in connection with the permit.

C.Contractor to pay royalties. The Contractor shall pay all royalties and license fees required for the Work unless otherwise specified in the Contract Documents.

3.09 SAFETY

A.Contractor solely responsible for safety. The Contractor shall be solely responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the Work and the performance of the Contract.

B.Port not responsible for safety. The Port may identify safety concerns to the Contractor; however, no action or inaction of the Port or any third party relating to safety will: (1) relieve the Contractor of its sole and complete responsibility for safety and sole liability for any consequences, (2) impose any obligation on the Port or a third party to inspect or review the Contractor's safety program or precautions, (3) impose any continuing obligation on the Port or a third party to ensure the Contractor performs the Work safely, or (4) affect the Contractor's responsibility for the protection of property, workers, and the general public.

C. Contractor to maintain a safe Work site. The Project site may be occupied during performance of the Work. The safety of these site occupants is of paramount importance to the Port. The Contractor shall maintain the Work site and perform the Work in a safe manner and in accordance with the Washington Industrial Safety and Health Act (WISHA) and all other applicable safety laws, rules, and regulations. This requirement shall apply continuously and not be limited to working hours.

D. Contractor to protect Work site and adjacent property until Final Completion. The Contractor shall continuously protect the Work and adjacent property from damage. At all times until Final Completion, the Contractor shall be responsible for, and protect from damage, weather, deterioration, theft, and vandalism, the Work and all materials, equipment, tools, and other items incorporated or to be incorporated in the Work, and shall repair any damage, injury, or loss.

3.10 CORRECTION OF WORK

A. Contractor to correct defective Work. The Contractor shall, at no cost to the Port, promptly correct Work that is defective or that otherwise fails to conform to the requirements of the Contract Documents. Such Work shall be corrected, whether before or after Substantial Completion, and even if it was previously inspected or observed by the Port.

B. One-year correction period. The Contractor shall correct all defects in the Work appearing within one (1) year of Substantial Completion or within any longer period prescribed by law or by the Contract Documents. The Contractor shall initiate remedial action within fourteen (14) days of receipt of notice from the Port and shall complete remedial work within a reasonable time. Work corrected by the Contractor shall be subject to the provisions of this Section 3.10 for an additional one-year period following the Port's acceptance of the corrected Work.

C. Contractor responsible for defects and failures to correct. The Contractor shall be responsible for any expenses incurred by the Port resulting from defects in the Work. If the Contractor refuses or neglects to correct the defects, or does not timely accomplish corrections, the Port may correct the Work and charge the Contractor the cost of the corrections. If damage or loss of service may result from a delay in correction, the corrections may be made by the Port and reimbursed by the Contractor.

D. Port may accept defective work. The Port may, at its sole option, elect to retain defective or nonconforming Work. In such a case, the Port shall reduce the Contract Sum by a reasonable amount to account for the defect or non-conformance.

E. No period of limitation established. Nothing contained in this Section 3.10 establishes a period of limitation with respect to any obligations under the Contract Documents or law. The establishment of the one (1) year correction period relates only to the specific obligation of the Contractor to correct defective or non-conforming Work.

3.11 UNCOVERING OF WORK

A. Contractor to uncover work covered prior to inspection. If any portion of the Work is covered prior to inspection and approval, the Contractor shall, at its expense, uncover or remove the Work for inspection by the Port or others, and replace the Work to the standard required by the Contract Documents.

B. Contractor to uncover work at Port's request. After initial inspection and observation, the Port may order a reexamination of Work, and the Work must be uncovered by the Contractor. If the uncovered Work complies with the Contract Documents, the Port shall pay the cost of reexamination and replacement. If the Work is found not to comply with the Contract Documents, the Contractor shall pay the cost of replacement, unless the Contractor demonstrates that it did not cause the defect in the Work.

3.12 RELOCATION OF UTILITIES

A. Contractor should assume underground utilities are in approximate locations. The Contractor should assume that the locations of any underground or hidden utilities, underground tanks, and plumbing or electrical runs indicated in surveys or the Contract Documents are shown in approximate locations. The accuracy of this information is not guaranteed by the Port and shall be verified by the Contractor. The Contractor shall comply with RCW 19.122.030 and utilize a utility locator service to locate utilities on Port property. The Contractor shall bear the risk of loss if any of its Work directly or indirectly damages or interrupts any utility service or causes or contributes to damages of any nature.

B. Utility relocation or removal. Where relocation or removal of utilities is necessary or required, it shall be performed at the Contractor's sole expense, unless the Contract Documents specify otherwise. If a utility owner is identified as being responsible for relocating or removing utilities, the work will be accomplished at the utility owner's convenience, either during, or in advance of, construction. Unless otherwise specified, it shall be the Contractor's sole responsibility to coordinate, schedule, and pay for work performed by a utility owner.

C. Contractor to notify Port of unknown utilities. If the Contractor discovers the presence of any unknown utilities, it shall immediately notify the Engineer in writing.

3.13 LABOR

A. Contractor responsible for labor peace. The Contractor is responsible for labor peace relating to the Work and shall cooperate in maintaining Project-wide labor harmony. The Contractor shall use its best efforts as an experienced contractor to adopt and implement policies and practices designed to avoid work stoppages, slowdowns, disputes, or strikes.

B. Contractor to minimize impact of labor disputes. The Contractor will take all necessary steps to prevent labor disputes from disrupting or otherwise interfering with access to Port property. If a labor dispute disrupts the progress of the Work or interferes with access, the Contractor shall promptly and expeditiously take all necessary action to eliminate or minimize the disruption or interference.

3.14 INDEMNIFICATION

A. Duty to defend, indemnify, and hold harmless. To the fullest extent permitted by law and subject to this Section 3.14, the Contractor shall defend (at the Contractor's sole cost, with legal counsel approved by Port), indemnify, and hold harmless the Port and the Northwest Seaport Alliance, including their respective Commissions, officers, managers, and employees, the Engineer, any consultants, and the agents and employees, successors and assigns of any of them (the "Indemnified Parties") from and against claims, damages, lawsuits, losses (including loss of use), disbursements, liabilities, obligations, fines, penalties, costs, and expenses, whether direct and indirect or consequential, including but not limited to, consultants' fees, and attorneys' fees incurred on such claims and in proving the right to indemnification ("Claims"), arising out of, or resulting from, the acts or omissions of the Contractor, a Subcontractor of any tier, their agents, and anyone directly or indirectly employed by any of them or anyone for whose acts they may be liable (individually and collectively, the "Indemnitor").

B. Duty to defend, indemnify, and hold harmless for sole negligence. The Contractor will fully defend, indemnify, and hold harmless the Indemnified Parties for the sole negligence or willful misconduct of the Indemnitor.

C. Duty to defend, indemnify, and hold harmless for concurrent negligence. Where Claims arise from the concurrent negligence of (1) the Port; and (2) the Indemnitor, the Contractor's obligations to indemnify and defend the Indemnified Parties under this Section 3.14 shall be effective only to the extent of the Indemnitor's negligence.

D. Duty to indemnify not limited by workers' compensation or similar employee benefit acts. In claims against any of the Indemnified Parties by an employee of the Contractor, a Subcontractor of any tier, anyone directly or indirectly employed by them, or anyone for whose acts they may be liable, the indemnification obligation under this Section 3.14 shall not be limited by a limitation on amount or type of damages, compensation, or benefits payable under workers' compensation acts, disability benefit acts, or other employee benefit acts. After mutual negotiation of the parties, the Contractor waives immunity as to the Indemnified Parties under Title 51 RCW, "Industrial Insurance."

E. Intellectual property indemnification. The Contractor will be liable for and shall defend (at the Contractor's sole cost, with legal counsel approved by Port), indemnify, and hold the Indemnified Parties harmless for Claims for infringement by the Contractor of copyrights or patent rights arising out of, or relating to, the Project.

F. Labor peace indemnification. If the Contractor fails to satisfy its labor peace obligations under the Contract, the Contractor will be liable for and shall defend (at the Contractor's sole cost, with legal counsel approved by Port), indemnify, and hold harmless the Indemnified Parties for Claims brought against the Port by third parties (including but not limited to lessees, tenants, contractors, customers, licensees, and invitees of the Port) for injunctive relief or monetary loss.

G. Cyber risk indemnification. Contractor shall defend, indemnify, and hold harmless the Indemnified Parties from and against any liability, expense, fines, penalties, cost, demand, or other obligation, resulting from or out of any cyber-related risk that includes theft, loss or misuse of data, release of private information as result of a network breach, penetration, compromise, or loss of IT systems control.

H. Joinder. The Contractor agrees to being added by the Port as a party to any arbitration or litigation with third parties in which the Port alleges indemnification or seeks contribution from the Indemnitor. The Contractor shall cause each of its Subcontractors of any tier to similarly stipulate in their subcontracts; in the event any does not, the Contractor shall be liable in place of such Subcontractor(s) of any tier.

I. Other. To the extent that any portion of this Section 3.14 is stricken by a court or arbitrator for any reason, all remaining provisions shall retain their vitality and effect. The obligations of the Contractor under this Section 3.14 shall not be construed to negate, abridge, or otherwise reduce any other right or obligations of indemnity which would otherwise exist. To the extent the wording of this Section 3.14 would reduce or eliminate an available insurance coverage, it shall be considered modified to the extent necessary so that the insurance coverage is not affected. This Section 3.14 shall survive completion, acceptance, final payment, and termination of the Contract.

3.15 WAIVER OF CONSEQUENTIAL DAMAGES

A. Mutual waiver of consequential damages. The Contractor and Port waive claims against each other for consequential damages arising out of, or relating to, this Contract. This mutual waiver includes, but is not limited to: (1) damages incurred by the Port for rental expenses, financing, business and reputation, and for loss of management or employee productivity or of the services of such persons, and (2) damages incurred by the Contractor for principal and home office overhead and expenses including, but not limited to, the compensation of personnel stationed there, for losses of financing, business, and reputation, for losses on other projects, for loss of profit, and for interest or financing costs. This mutual waiver includes, but is not limited to, all consequential damages due to either party's termination.

B. Limitation. Nothing contained in this Section 3.15; however, shall be deemed to preclude an award of liquidated damages, when applicable, in accordance with the requirements of the Contract Documents, to preclude damages specified in the Agreement, or to affect the Contractor's obligation to indemnify the Port for direct, indirect, or consequential damages alleged by a third party.

ARTICLE 4 - SUBCONTRACTORS AND SUPPLIERS

4.01 RESPONSIBILITY FOR ACTIONS OF SUBCONTRACTORS AND SUPPLIERS.

A. Contractor responsible for Subcontractors. The Contractor is fully responsible to the Port for the acts and omissions of its Subcontractors of any tier and all persons either directly or indirectly employed by the Contractor or its Subcontractors.

4.02 AWARD OF CONTRACTS TO SUBCONTRACTORS AND SUPPLIERS

A. Contractor to provide proposed Subcontractor information. The Contractor, within ten (10) days after the Port's notice of award of the Contract, shall provide the Engineer with the names of the persons or entities proposed to perform each of the principal portions of the Work (i.e., either a Subcontractor listed in a bid or proposal or a Subcontractor performing Work valued at least ten percent (10%) of the Contract Sum) and the proprietary names, and the suppliers of, the principal items or systems of materials and equipment proposed for the Work. No progress payment will become due until after this information has been furnished.

B. Port to respond promptly with objections. The Port may respond promptly to the Contractor in writing stating: (1) whether the Port has reasonable objection to any proposed person or entity, or (2) whether the Port requires additional time for review. If the Port makes a reasonable objection, the Contractor shall replace the Subcontractor with no increase to the Contract Sum or Contract Time. Such a replacement shall not relieve the Contractor of its responsibility for the performance of the Work and compliance with all of the requirements of the Contract within the Contract Sum and Contract Time.

C. Reasonable objection defined. "Reasonable objection" as used in this Section 4.02 includes, but is not limited to: (1) a proposed Subcontractor of any tier different from the entity listed with the bid, (2) lack of "responsibility" of the proposed Subcontractor, as defined by Washington law and the Bidding Documents, or lack of qualification or responsibility of the proposed Subcontractor based on the Contract or Bidding Documents, or (3) failure of the Subcontractor to perform satisfactorily in the Port's opinion (such as causing a material delay or submitting a claim that the Port considers inappropriate) on one or more projects for the Port within five (5) years of the bid date.

D. No substitution allowed without permission. The Contractor shall not substitute a Subcontractor, person, or organization without the Engineer's written consent.

4.03 SUBCONTRACTOR AND SUPPLIER RELATIONS

A. Contractor to schedule, supervise, and coordinate Subcontractors. The Contractor shall schedule, supervise, and coordinate the operations of all Subcontractors of any tier, including suppliers. The Contractor shall ensure that appropriate Subcontractors coordinate the Work of lower-tier Subcontractors.

B. Subcontractors to be bound to Contract Documents. By appropriate agreement, the Contractor shall require each Subcontractor and supplier to be bound to the terms of the Contract Documents and to assume toward the Contractor, to the extent of their Work, all of the obligations that the Contractor assumes toward the Port under the Contract Documents. Each subcontract shall preserve and protect the rights of the Port and shall allow to the Subcontractor, unless specifically provided in the subcontract, the benefit of all rights, remedies, and redress against the Contractor that the Contractor, by the Contract Documents, has against the Port. Where appropriate, the Contractor shall require each Subcontractor to enter into similar agreements with lower-tier Subcontractors.

C. Contractor to correct deficiencies in Subcontractor performance. When a portion of the Work subcontracted by the Contractor is not being prosecuted in accordance with the Contract Documents, or if such subcontracted Work is otherwise being performed in an unsatisfactory manner in the Port's opinion, the Contractor shall, on its own initiative or upon the written request of the Port, take immediate steps to correct the deficiency or remove the non-performing party from the Project. The Contractor shall replace inadequately performing Subcontractors upon request of the Port at no change in the Contract Sum or Contract Time.

D. Contractor to provide subcontracts. Upon request, the Contractor will provide the Port copies of written agreements between the Contractor and any Subcontractor.

ARTICLE 5 - WORKFORCE AND NON-DISCRIMINATION REQUIREMENTS

5.01 COMPLIANCE WITH NON-DISCRIMINATION LAWS

A. Contractor to comply with non-discrimination laws. The Contractor shall fully comply with all applicable laws, regulations, and ordinances pertaining to non-discrimination.

B. Nondiscrimination Provision

1. Nondiscrimination Requirement. During the term of this Contract, Contractor, including any subcontractor, shall not discriminate on the bases enumerated at RCW 49.60.530(3). In addition, Contractor, including any subcontractor, shall give written notice of this nondiscrimination requirement to any labor organizations with which Contractor, or subcontractor, has a collective bargaining or other agreement.

2. Obligation to Cooperate. Contractor, including any subcontractor, shall cooperate and comply with any Washington state agency investigation regarding any allegation that Contractor, including any subcontractor, has engaged in discrimination prohibited by this Contract pursuant to RCW 49.60.530(3).

3. Default. Notwithstanding any provision to the contrary, POT may suspend Contractor, including any subcontractor, upon notice of a failure to participate and cooperate with any state agency investigation into alleged discrimination prohibited by this Contract, pursuant to RCW 49.60.530(3). Any such suspension will remain in place until POT receives notification that Contractor, including any subcontractor, is cooperating with the investigating state agency. In the event Contractor, or subcontractor, is determined to have engaged in discrimination identified at RCW 49.60.530(3), POT may terminate this Contract in whole or in part, and Contractor, subcontractor, or both, may be referred for debarment as provided in RCW 39.26.200. Contractor or subcontractor may be given a reasonable time in which to cure this noncompliance, including implementing conditions consistent with any court-ordered injunctive relief or settlement agreement.

4. Remedies for Breach. Notwithstanding any provision to the contrary, in the event of Contract termination or suspension for engaging in discrimination, Contractor, subcontractor, or both, shall be liable for contract damages as authorized by law including, but not limited to, any cost difference between the original contract and the replacement or cover contract and all administrative costs directly related to the replacement contract, which damages are distinct from any penalties imposed under Chapter 49.60, RCW. POT shall have the right to deduct from any monies due to Contractor or subcontractor, or that thereafter become due, an amount for damages Contractor or subcontractor will owe POT for default under this provision.

5.02 MWBE, VETERAN-OWNED, AND SMALL BUSINESS ENTERPRISE PARTICIPATION.

A. In accordance with the legislative findings and policies set forth in RCW 39.19, the Port encourages participation in all of its contracts by MWBE firms certified by the Office of Minority and Women's Business Enterprises (OMWBE). Participation may be either on a direct basis in response to this invitation or as a subcontractor to a Bidder. However, unless required by federal statutes, regulations, grants, or contract terms referenced in the Contract Documents, no preference will be included in the evaluation of Bids, no minimum level of MWBE participation shall be required as a condition for receiving an award, and Bids will not be rejected or considered non-responsive on that basis. Any affirmative action requirements set forth in federal regulations or statutes included or referenced in the Contract Documents will apply.

The Port encourages participation in all of its contracts by Veteran-owned businesses (defined in RCW 43.60.010) and located at <http://www.dva.wa.gov/program/certified-veteran--and-servicemember-owned-businesses> and Small, Mini, and Micro businesses (defined in RCW 39.26.010)

5.03 APPRENTICESHIP PARTICIPATION

A. In accordance with RCW 39.04.320, fifteen (15) percent Apprenticeship Participation is required for all projects estimated to cost one million (\$1,000,000) dollars or more.

B. Apprentice participation, under this contract, may be counted towards the required percentage (%) only if the apprentices are from an apprenticeship program registered and approved by the Washington State Apprenticeship and Training Council (RCW 49.04 and WAC 296-05).

C. Bidders may contact the Department of Labor and Industries, Specialty Compliance Services Division, Apprenticeship Section, P.O. Box 44530, Olympia, WA 98504-4530 by phone at (360) 902-5320, or e-mail at Apprentice@lni.wa.gov, to obtain information on available apprenticeship programs.

D.For each project that has apprentice requirements, the contractor shall submit a "Statement of Apprentice and Journeyman Participation" on forms provided by the Port of Tacoma, with every request for project payment. The Contractor shall submit consolidated and cumulative data collected by the Contractor and collected from all subcontractors by the Contractor. The data to be collected and submitted includes the following:

- 1.Contractor name and address
- 2.Contract number
- 3.Project name
- 4.Contract value
- 5.Reporting period "Beginning Date" through "End Date"
- 6.Name and registration number of each apprentice by contractor
- 7.Total number of apprentices and labor hours worked by them, categorized by trade or craft.
- 8.Total number of journeymen and labor hours worked by them, categorized by trade or craft
- 9.Cumulative combined total of apprentice and journeymen labor hours
- 10.Total percentage of apprentice hours worked

E.No changes to the required percentage (%) of apprentice participation shall be allowed without written approval of the Port. In any request for the change, the Contractor shall clearly demonstrate a good faith effort to comply with the requirements for apprentice participation.

F.Labor hours used in the 15% labor hour calculation will include all employees working on the project who are subject to prevailing wage laws. The definition of Labor Hours is further clarified to include working supervisor and foreman hours if they are covered under prevailing wage laws based on the time spent performing laborious activities. Simply adding supervisor or foreman to the employee's title does not exempt their hours from the calculation.

G.During the life of the project, Apprentice Utilization is actively monitored through LNIs Prevailing Wage Intents and Affidavits (PWIA) system using the certified payroll calculated percentage. In addition, the affidavit calculated percentage shown in PWIA must be at least 15.0% to be compliant. All affidavits must be filed before determining if the Apprentice Utilization Requirement was met. Failure to achieve at least 15.0% apprentice Utilization as shown in PWIA for certified payrolls and affidavits will cause a penalty of \$500.00

ARTICLE 6 - CONTRACT TIME AND COMPLETION

6.01 CONTRACT TIME

A.Contract Time is measured from Contract execution. Unless otherwise provided in the Agreement, the Contract Time is the period of time, including authorized adjustments, specified in the Contract Documents from the date the Contract is executed to the date Substantial Completion of the Work is achieved.

B. Commencement of the Work. The Contractor shall begin Work in accordance with the notice of award and the notice to proceed and shall complete all Work within the Contract Time. When the Contractor's signed Agreement, required insurance certificate with endorsements, bonds, and other submittals required by the notice of award have been accepted by the Port, the Port will execute the Contract and, following receipt of other required pre-work submittals, will issue a notice to proceed to allow the Contractor to mobilize and commence physical Work at the Project site, as further described in these contract documents. No Work at the Project site may commence until the Port issues a notice to proceed.

C. Contractor shall achieve specified completion dates. The Contractor shall achieve Substantial Completion within the Contract Time and shall achieve Final Completion within the time period thereafter stated in the Contract Documents.

D. Time is of the essence. Time limits stated in the Contract Documents, including any interim milestones, are of the essence of the Contract. By executing the Agreement, the Contractor confirms that the Contract Time is a reasonable period for performing the Work.

6.02 PROGRESS AND COMPLETION

A. Contractor to maintain schedule. The Contractor's sequence and method of operations, application of effort, and work force shall at all times be created and implemented to ensure the orderly, expeditious, and timely completion of the Work and performance of the Contract. The Contractor shall furnish sufficient forces and shall work such hours, including extra shifts, overtime operations, and weekend and holiday work as may be necessary to ensure completion of the Work within the Contract Time and the approved Baseline Project Schedule.

B. Contractor to take necessary steps to meet schedule. If the Contractor fails substantially to perform in a timely manner in accordance with the Contract Documents and, through the fault of the Contractor or Subcontractor(s) of any tier, fails to meet the Baseline Project Schedule, the Contractor shall take such steps as may be necessary to immediately improve its progress by increasing the number of workers, shifts, overtime operations, or days of work, or by other means and methods, all without additional cost to the Port. If the Contractor believes that any action or inaction of the Port constitutes acceleration, the Contractor shall immediately notify the Port in writing and shall not accelerate the Work until the Port either directs the acceleration in writing or denies the constructive acceleration.

C. Liquidated damages not exclusive. Any provisions in the Contract Documents for liquidated damages shall not preclude other damages due to breaches of Contract of the Contractor.

6.03 SUBSTANTIAL COMPLETION

A. Substantial Completion defined. Substantial Completion is the stage in the progress of the Work, or portion or phase thereof, when the Work or designated portion is sufficiently complete in accordance with the Contract Documents so that the Port can fully occupy or utilize the Work, or the designated portion thereof, for its intended use, all requirements in the Contract Documents for Substantial Completion have been achieved, and all required documentation has been properly submitted to the Port in accordance with the Contract Documents. All Work, other than incidental corrective or punch list Work and final cleaning, must be completed. The fact that the Port may occupy the Work or a designated portion thereof does not indicate that Substantial Completion has occurred or that the Work is acceptable in whole or in part.

B. Work not Substantially Complete unless Final Completion attainable. The Work is not Substantially Complete unless the Port reasonably judges that the Work can achieve Final Completion within the period of time specified in the Contract Documents.

C. Notice of Substantial Completion. When the Work or designated portion has achieved Substantial Completion, the Port will provide a notice to establish the date of Substantial Completion. The notice shall establish responsibilities of the Port and Contractor for security, maintenance, heat, utilities, damage to the Work, and insurance, and shall fix the time within which the Contractor shall finish all remaining Work. If the notice of Substantial Completion does not so state, all responsibility for the foregoing items shall remain with the Contractor until Final Completion.

6.04 COMPLETION OF PUNCH LIST

A. Contractor shall complete punch list items prior to Final Completion. The Contractor shall cause punch list items to be completed prior to Final Completion. If, after Substantial Completion, the Contractor does not expeditiously proceed to correct punch list items or if the Port considers that the punch list items, are unlikely to be completed prior to the date established for Final Completion (or such other period of time as is specified in the Contract Documents), the Port may, upon seven (7) days' written notice to the Contractor, take over and perform some or all of the punch list items. The Port may also take over and complete any portion of the Work at any time following Substantial Completion and deduct the actual cost of performing the Work (including direct and indirect costs) from the Contract Sum. The Port's rights under this Section 6.04 are not obligations and shall not relieve the Contractor of its responsibilities under any other provisions of the Contract Documents.

6.05 FINAL COMPLETION

A. Final Completion. Upon receipt of written notice from the Contractor that all punch list items and other Contract requirements are completed, the Contractor will notify the Port, and the Port will perform a final inspection. If the Port determines that some or all of the punch list items have not been addressed, the Contractor shall be responsible to the Port for all costs, including re-inspection fees, for any subsequent reviews to determine completion of the punch list. When the Port determines that all punch list items have been satisfactorily addressed, that the Work is acceptable under the Contract Documents, and that the Work has fully been performed, the Port will promptly notify the Contractor of Final Completion.

B. Contractor responsible for costs if Final Completion is not timely achieved. In addition to any liquidated damages, the Contractor is liable for, and the Port may deduct from any amounts due the Contractor, all costs incurred by the Port for services performed after the contractual date of Final Completion, whether or not those services would have been performed prior to that date had Final Completion been timely achieved.

C. Final Completion submittals. The Port is not obligated to accept the Project as complete until the Contractor has submitted all required submittals to the Port.

D. Contractor responsible for the Work until Final Completion. The Contractor shall assume the sole risk of loss and responsibility for all Work under the Contract, and all materials to be incorporated in the Work, whether in storage or at the Project site, until Final Completion. Damage from any cause to either permanent or temporary Work, utilities, materials, equipment, existing structures, the site, or other property owned by the Port or others, shall be repaired by the Contractor to the reasonable satisfaction of the Port at no change in the Contract Sum.

6.06 FINAL ACCEPTANCE

A. Final Acceptance. Final Acceptance is the formal action of the Port accepting the Project as complete. Public notification of Final Acceptance will be posted on the Port's external website (<http://www.portoftacoma.com/final-acceptance>).

B. Final Acceptance not an acceptance of defective Work. Final Acceptance shall not constitute acceptance by the Port of unauthorized or defective Work, and the Port shall not be prevented from requiring the Contractor to remove, replace, repair, or dispose of unauthorized or defective Work or recovering damages due to the same.

C. Completion of Work under RCW 60.28. Pursuant to RCW 60.28, "Lien for Labor, Materials, Taxes on Public Works," completion of the Contract Work shall occur upon Final Acceptance.

6.07 PORT'S RIGHT TO USE THE PREMISES

A. Port has right to use and occupy Work. The Port reserves the right to occupy or use any part of the Work before or after Substantial Completion of some or all of the Work without relieving the Contractor of any of its obligations under the Contract. Such occupancy or use shall not constitute acceptance by the Port of any of the Work, and shall not cause any insurance to be canceled or lapse.

B. No compensation due if Port elects to use and occupy Work. No additional compensation shall be due to the Contractor as a result of the Port's use or occupancy of the Work or a designated portion.

ARTICLE 7 - PAYMENT

7.01 ALL PAYMENTS SUBJECT TO APPLICABLE LAWS AND SCHEDULE OF VALUES

A. Payment of the Contract Sum. The Contract Sum is stated in the Agreement and, including authorized adjustments, is the total amount payable by the Port to the Contractor for performance of the Work under the Contract Documents. Payments made to the Contractor are subject to all laws applicable to the Port and the Contractor. Payment of the Contract Sum constitutes full compensation to the Contractor for performance of the Work, including all risk, loss, damages, or expense of whatever character arising out of the nature or prosecution of the Work. The Port is not obligated to pay for extra work or materials furnished without prior written approval of the Port.

B. Schedule of Values. All payments will be based upon an approved Schedule of Values. Prior to submitting its first Application for Payment, the Contractor shall submit a Schedule of Values to the Port allocating the entire Contract Sum to the various portions of the Work. The Schedule of Values shall be prepared in such form, and supported by such data to substantiate its accuracy, as the Port may require. This schedule, unless objected to by the Port, shall be used as a basis for reviewing the Contractor's applications for payment.

7.02 APPLICATIONS FOR PAYMENT

A. Applications for Payment. Progress payments will be made monthly for Work duly certified, approved by the Engineer, and performed (based on the Schedule of Values and actual quantities of Work performed) during the calendar month preceding the Application for Payment. These amounts are paid in trust to the Contractor for distribution to Subcontractors to the extent, and in accordance with, the approved Application for Payment.

7.03 PROGRESS PAYMENTS

A. Progress payments. Following receipt of a complete Application for Payment, the Engineer will either authorize payment or indicate in writing to the Contractor the specific reasons why the payment request is being denied, in whole or in part, and the remedial action the Contractor must take to receive the withheld amount. After a complete Application for Payment has been received and approved by the Port, payment will be made within thirty (30) days. Any payments made by, or through, or following receipt of, payment from third parties will be made in accordance with the third party's policies and procedures.

B.Port may withhold payment. The Port may withhold payment in whole or in part as provided in the Contract Documents or to the extent reasonably necessary to protect the Port from loss or potential loss for which the Contractor is responsible, including loss resulting from the Contractor's acts and omissions.

7.04 PAYMENT BY CONTRACTOR TO SUBCONTRACTORS

A.Payment to Subcontractors. With each Application for Payment, the Contractor shall provide a list of Subcontractors to be paid by the Contractor. No payment request shall include amounts the Contractor does not intend to pay to a Subcontractor because of a dispute or other reason. If, however, after submitting an Application for Payment, but before paying a Subcontractor, the Contractor discovers that part or all of a payment otherwise due to the Subcontractor is subject to withholding from the Subcontractor under the subcontract (such as for unsatisfactory performance or non-payment of lower-tier Subcontractors), the Contractor may withhold the amount as allowed under the subcontract, but it shall give the Subcontractor and the Port written notice of the remedial actions that must be taken and pay the Subcontractor within eight (8) working days after the Subcontractor satisfactorily completes the remedial action identified in the notice.

B.Payment certification to be provided upon request. The Contractor shall provide, with each Application for Payment, a certification signed by Contractor attesting that all payments by the Contractor to Subcontractors from the last Application for Payment were made within ten (10) days of the Contractor's receipt of payment. The certification will also attest that the Contractor will make payment to Subcontractors for the current Application for Payment within ten (10) days of receipt of payment from the Port.

7.05 FINAL PAYMENT

A.Final payment. Final applications for payment are due within seven (7) days following Final Completion. Final payment of the unpaid balance of the Contract Sum, except retainage, will be made following Final Completion and within thirty (30) days of the Contractor's submission of an approved final Application for Payment.

B.Releases required for final payment. The final payment shall not become due until the Contractor delivers to the Port a complete release of all liens arising out of the Contract, as well as an affidavit stating that, to the best of Contractor's knowledge, its release includes all labor and materials for which a lien could be filed. If a Subcontractor of any tier refuses to furnish a release or waiver required by the Port, the Port may (a) retain in the fund, account, or escrow funds in such amount as to defray the cost of foreclosing the liens of such claims and to pay attorneys' fees, the total of which shall be no less than 150% of the claimed amount, or (b) accept a bond from the Contractor, satisfactory to the Port, to indemnify the Port against the lien. If any such lien remains unsatisfied after all payments from the retainage are made, the Contractor shall refund to the Port all moneys that the Port may be compelled to pay in discharging such lien, including all costs and reasonable attorneys' fees.

C.Contract to hold Port harmless from liens. The Contractor shall defend (at the Contractor's sole cost, with legal counsel approved by Port), indemnify, and hold harmless the Port from any liens, claims, demands, lawsuits, losses, damages, disbursements, liabilities, obligations, fines, penalties, costs, and expenses, whether direct or indirect, including but not limited to, attorneys' fees and consultants' fees and other costs and expenses, except to the extent a lien has been filed because of the failure of the Port to make a contractually required payment.

7.06 RETAINAGE

A. Retainage to be withheld. In accordance with RCW 60.28, a sum equal to five percent (5%) of each approved Application for Payment shall be retained. Prior to submitting its first Application for Payment, the Contractor shall exercise one of the options listed below:

1. Retained percentages will be retained by the Port in a fund; or
2. Deposited by the Port in an interest-bearing account or escrow account in a bank, mutual savings bank, or savings and loan association designated by the Contractor, not subject to withdrawal until after the final acceptance of said improvement or work as completed, or until agreed to by both parties; provided that interest on such account shall be paid to the Contractor. Contractor to complete and submit Port provided Retainage Escrow Agreement (Section 00 61 23.13); or
3. If the Contractor provides a bond in place of retainage, it shall be in an amount equal to 5% of the Contract Sum plus Change Orders. The retainage bond shall be based on the form furnished in Section 00 61 23 or otherwise acceptable to the Port and duly completed and signed by a licensed surety or sureties registered with the Washington State Insurance Commissioner and on the currently authorized insurance list published by the Washington State Insurance Commissioner. The surety or sureties must be rated at least "A-, FSC(6)" or higher by A.M. Best Rating Guide and be authorized by the Federal Department of the Treasury. Attorneys-in-fact who sign the retainage bond must file with each bond a certified and effective Power of Attorney statement.

B. Contractor may withhold retainage from Subcontractors. The Contractor or a Subcontractor may withhold not more than five percent (5%) retainage from the monies earned by any Subcontractor or lower-tier Subcontractor, provided that the Contractor pays interest to the Subcontractor at the same interest rate it receives from its reserved funds. If requested by the Port, the Contractor shall specify the amount of retainage and interest due a Subcontractor.

C. Release of retainage. Retainage will be withheld and applied by the Port in a manner required by RCW 60.28 and released in accordance with the Contract Documents and statutory requirements. Release of the retainage will be processed in the ordinary course of business within sixty (60) days following Final Acceptance of the Work by the Port provided that no notice of lien has been given as provided in RCW 60.28, that no claims have been brought to the attention of the Port, that the Port has no claims under this Contract, and that release of retention has been duly authorized by the State. The following items must also be obtained prior to release of retainage: pursuant to RCW 60.28, a certificate from the Department of Revenue; pursuant to RCW 50.24, a certificate from the Department of Employment Security; and appropriate information from the Department of Labor and Industries including approved affidavits of wages paid for the Contractor and each subcontractor.

7.07 DISPUTED AMOUNTS

A. Disputed amounts. If the Contractor believes it is entitled to payment for Work performed during the prior calendar month in addition to the agreed-upon amount, the Contractor may submit to the Port, along with the approved Application for Payment, a separate written payment request specifying the exact additional amount claimed to be due, the category in the Schedule of Values to which the payment would apply, the specific Work for which additional payment is sought, and an explanation of why the Contractor believes additional payment is due.

7.08 EFFECT OF PAYMENT

A.Payment does not relieve Contractor of obligations. Payment to the Contractor of progress payments or final payment does not relieve the Contractor from its responsibility for the Work or its responsibility to repair, replace, or otherwise make good defective Work, materials, or equipment. Likewise, the making of a payment does not constitute a waiver of the Port's right to reject defective or non-conforming Work, materials, or equipment (even though they are covered by the payment), nor is it a waiver of any other rights of the Port.

B.Acceptance of final payment waives claims. Acceptance of final payment by the Contractor, a Subcontractor of any tier, or a supplier shall constitute a waiver of claims except those previously made in writing and identified as unsettled in Contractor's final Application for Payment.

C.Execution of Change Order waives claims. The execution of a Change Order shall constitute a waiver of claims by the Contractor arising out of the Work to be performed or deleted pursuant to the Change Order, except as specifically described in the Change Order.

7.09 LIENS

A.Contractor to discharge liens. The Contractor shall promptly pay (and secure the discharge of any liens asserted by) all persons properly furnishing labor, equipment, materials, or other items in connection with the performance of the Work including, but not limited to, any Subcontractors of any tier.

ARTICLE 8 - CHANGES IN THE WORK

8.01 CHANGES IN THE WORK

A.Changes in the Work authorized. Without invalidating the Contract and without notice to the Contractor's surety, the Port may authorize changes in the Work after execution of the Contract, including changes in the Contract Sum or Contract Time. Changes shall occur solely by Change Order, Unilateral Change Directive, or Minor Change in Work. All changes in the Work are effective immediately, and the Contractor shall proceed promptly to perform the change, unless otherwise provided in the Change Order or Directive.

B.Changes in the Work Defined.

1.A Change Order is a written instrument signed by the Port and Contractor stating their agreement to a change in the Work and the adjustment, if any, in the Contract Sum and/or Contract Time.

2.A Unilateral Change Directive is a written instrument issued by the Port to transmit new or revised Drawings, issue additions or modifications to the Contract, furnish other direction and documents adjustment, if any, to the Contract Sum and/or Contract Time. A Unilateral Change Directive is signed only by the Port, without requiring the consent or signature of the Contractor.

3.A Minor Change in the Work is a written order from the Port directing a change that does not involve an adjustment to the Contract Sum or the Contract Time.

C.Request for Proposal: At any time, the Port may issue a Proposal Request directing the Contractor to propose a change to the Contract Sum and/or Contract Time, if any, based on a proposed change in the Work. The Contractor shall submit a responsive Change Order proposal as soon as possible, and no later than fourteen (14) days after receipt, in which the Contractor specifies in good faith the extent to which the Contract Sum and/or Contract Time would change. All cost components shall be limited to the manner described in Section 8.02(B). If the Contractor fails to timely respond to a Proposal Request, the Port may issue the change as a Unilateral Change Directive.

1.Fixed price method is default for Contractor Change Order proposal. When the Port has requested that the Contractor submit a Change Order proposal, the Port may specify the basis on which the Contract Sum will be adjusted by the Contractor. The Engineer's preference, unless otherwise indicated, is for changes in the Work to be priced using Lump Sums or Unit Prices or on a time and material (Force Account) basis if unit pricing or lump sums cannot be negotiated or determined. In all instances, however, proposed changes shall include a not-to-exceed price for the change and shall be itemized for evaluation purposes in accordance with Section 8.02(B), as requested by the Engineer.

2.The Port may accept or reject the Contractor's Change Order proposal, request further documentation, or negotiate acceptable terms with the Contractor. If The Port and Contractor reach agreement on the terms of any change in the Work, including any adjustment in the Contract Sum or Contract Time, such agreement shall be incorporated in a Change Order.

3.The Change Order shall constitute full payment and final settlement of all claims for time and for direct, indirect, and consequential costs, including costs of delays, inconvenience, disruption of schedule, or loss of efficiency or productivity, related to any Work either covered or affected by the Change Order, or related to the events giving rise to the request for equitable adjustment. The Port may reject a proposal, in which case the Port may either not effectuate the change or issue a Unilateral Change Directive. The Port will not make payment to the Contractor for any work until that work has been incorporated into an executed Change Order.

D.Unforeseen Conditions: If the Contractor encounters conditions at the site that are: (1) subsurface or otherwise concealed physical conditions that differ materially from those indicated in the Contract Documents or any soils reports made available by the Port to the Contractor, or (2) unknown physical conditions of an unusual nature that differ materially from those ordinarily found to exist and generally recognized as inherent in construction activities of the character provided for in the Contract Documents, the Contractor shall immediately provide oral notice to the Engineer before conditions are disturbed, followed within 24 hours by an initial written notice. The Contractor shall submit a detailed proposal no later than seven (7) days following discovery of differing site conditions. The Engineer will promptly investigate these conditions and, if the Engineer determines that they differ materially and cause an increase or decrease in the Contractor's cost or time required for performance of any part of the Work, will establish a change in the Contract Sum or Contract Time, or both, consistent with the requirements of the Contract Documents. If the Contractor disputes the Engineer's determination, the Contractor may proceed as provided in the dispute resolution procedure (Article 11). No increase to the Contract Sum or the Contract Time shall be allowed if the Contractor does not comply with the contractual requirements or if the Contractor knew, or reasonably should have known, of the concealed conditions prior to executing the Contract.

E. Proceed Immediately: Pending agreement on the terms of the Change Order or upon determination of a differing site condition as defined in 8.01(D), the Engineer may direct Contractor to proceed immediately with the change in the Work. Contractor shall not proceed with any change in the Work until it has obtained the Engineer's written approval and documentation of the following:

- 1.The scope of work
- 2.An agreed upon maximum not-to-exceed amount
- 3.The method of final cost determination
- 4.Estimated time to complete the changed work

5. As a change in the Work is performed, unless the parties have signed a written Change Order to establish the cost of the change, the Contractor shall maintain an itemized accounting of all costs related to the change based on the categories in Section 8.02(B) and provide such data to the Port upon request. This includes, without limitation, invoices, including freight and express bills, and other support for all material, equipment, Subcontractor, and other charges related to the change and, for material furnished from the Contractor's own inventory, a sworn affidavit certifying the actual cost of such material. Failure to provide data to the Port within seven (7) days of a request constitutes a waiver of any claim. The Port may furnish any material or equipment to the Contractor that it deems advisable, and the Contractor shall have no claim for any costs or fee on such material or equipment.

F. Procedure for Unilateral Change Directive. Whether or not the Port has rejected a Contractor's proposal, the Port may issue a Unilateral Change Directive and the Contractor shall promptly proceed with the specified Work. If the Contractor disagrees with a Unilateral Change Directive, the Contractor shall advise the Port in writing through a Change Order proposal within seven (7) days of receipt. The Contractor's Change Order proposal shall reasonably specify the reasons for any disagreement and the adjustment it proposes. Without this timely Change Order proposal, the Contractor shall conclusively be deemed to have accepted the Port's proposal.

G. Payment pending final determination of Force Account work. Pending final determination of the total cost of Force Account Work, and provided that the Work to be performed under Force Account is complete and any reservations of rights have been signed by the Port, the Contractor may request payment for amounts not in dispute in the next Application for Payment accompanied by documentation indicating the parties' agreement. Work done on a Force Account basis must be approved in writing on a daily basis by the Engineer or the Engineer's designee and invoices shall be submitted with an Application for Payment within sixty (60) days of performance of the Work.

8.02 CHANGES IN THE CONTRACT SUM

A. Port to Decide How Changes are Measured. The Port may elect, in its sole discretion, how changes in the Work will be measured for payment. Change in the Work may be priced on a lump sum basis, through Unit Prices, as Force Account, or by another method documented in the executed Change Order, Unilateral Change Directive, or Minor Change in the Work.

B. Determination of Cost of Change. The total cost of any change in the Work, including a claim under Article 11, shall not exceed the prevailing cost for the Work in the locality of the Project. In all circumstances, the change in the Work shall be limited to the reasonable, actual cost of the following components:

1. Direct labor costs: These are the actual labor costs determined by the number of additional craft hours at their normal hourly rate necessary to perform a change in the Work. The hourly cost of labor will be based upon the following:

a. Basic wages and fringe benefits: The hourly wage (without markup or labor burden) and fringe benefits paid by the Contractor as established by the Washington Department of Labor and Industries or contributed to labor trust funds as itemized fringe benefits, whichever is applicable, not to exceed that specified in the applicable "Intent to Pay Prevailing Wage," for the laborers, apprentices, journeymen, and foremen performing or directly supervising the change in the Work on site. These wages do not include the cost of Contractor's project manager or superintendent or above, and the premium portion of overtime wages is not included unless pre-approved in writing by the Port. Costs paid or incurred by the Contractor for vacations, per diem, subsistence, housing, travel, bonuses, stock options, or discretionary payments to employees are not separately reimbursable. The Contractor shall provide to the Port copies of payroll records, including certified payroll statements for itself and Subcontractors of any tier, upon the Port's request.

b. Workers' insurance: Direct contributions to the State of Washington as industrial insurance; medical aid; and supplemental pension by class and rates established by the Washington Department of Labor and Industries.

c. Federal insurance: Direct contributions required by the Federal Insurance Compensation Act (FICA); Federal Unemployment Tax Act (FUTA); and State Unemployment Compensation Act (SUCA).

2. Direct material costs: This is an itemization, including material invoices, of the quantity and actual cost of additional materials necessary to perform the change in the Work. The cost will be the net cost after all discounts or rebates, freight costs, express charges, or special delivery costs, when applicable. No lump sum costs will be allowed unless approved in advance by the Port.

3. Construction equipment usage costs: This is an itemization of the actual length of time that construction equipment necessary and appropriate for the Work is used solely on the changed Work times the applicable rental cost as established by the lower of the local prevailing rates published in www.equipmentwatch.com, as modified by the AGC/WSDOT agreement, or the actual rate paid to an unrelated third party. If more than one rate is applicable, the lowest available rate will be utilized. Rates and quantities of equipment rented that exceed the local fair market rental costs shall be subject to the Port's prior written approval. Total rental charges for equipment or tools shall not exceed 75% of the fair market purchase value of the equipment or the tool. Actual, reasonable mobilization costs are permitted if the equipment is brought to the site solely for the change in the Work. Mobilization and standby costs shall not be charged for equipment already present on the site.

The rates in effect at the time of the performance of the changed Work are the maximum rates allowable for equipment of modern design, and in good working condition, and include full compensation for furnishing all fuel, oil, lubrication, repairs, maintenance, and insurance. No gas surcharges are payable. Equipment not of modern design and/or not in good working condition will have lower rates. Hourly, weekly, and/or monthly rates, as appropriate, will be applied to yield the lowest total cost.

4. Subcontractor costs: These are payments the Contractor makes to Subcontractors for changed Work performed by Subcontractors. The Subcontractors' cost of changed Work shall be determined in the same manner as prescribed in this Section 8.02 and, among other things, shall not include consultant costs, attorneys' fees, or claim preparation expenses.

5. Service provider costs: These are payments the Contractor makes to service providers for changed Work performed by service providers. The service providers' cost of changed Work shall be determined in the same manner as prescribed in this Section 8.02.

6. Markup: This is the maximum total amount for overhead, profit, and other costs, including office, home office and site overhead (including purchasing, project manager, superintendent, project engineer, estimator, and their vehicles and clerical assistants), taxes (except for sales tax on the Contract Sum), warranty, safety costs, printing and copying, layout and control, quality control/assurance, small or hand tools (a tool that costs \$500 or less and is normally furnished by the performing contractor), preparation of as-built drawings, impact on unchanged Work, Change Order and/or claim preparation, and delay and impact costs of any kind (cumulative, ripple, or otherwise), added to the total cost to the Port of any Change Order work. No markup shall be due, however, for direct settlements of Subcontractor claims by the Port after Substantial Completion. The markup shall be limited in all cases to the following schedule:

- a. Direct labor costs -- 20% markup on the direct cost of labor for the party (Contractor or Subcontractor) providing labor related to the change in the Work;
- b. Direct material costs -- 20% markup on the direct cost of material for the party (Contractor or Subcontractor) providing material related to the change in the Work;
- c. Construction equipment usage costs -- 10% markup on the direct cost of equipment for the party (Contractor or Subcontractor) providing equipment related to the change in the Work;
- d. Contractor markup on Subcontractor costs -- 10% markup for the Contractor on the direct cost (excluding markup) of a change in the Work performed by Subcontractors (and for Subcontractors, for a change in the Work performed by lower-tier Subcontractors); and
- e. Service provider costs -- 5% markup for the Contractor on the direct cost (excluding markup) of a change in the Work performed by service providers.

The total summed markup of the Contractor and all Subcontractors of any tier shall not exceed 30% of the direct costs of the change in the Work. If the markup would otherwise exceed 30%, the Contractor shall proportionately reduce the markup for the Contractor and all Subcontractors of any tier.

7. Cost of change in insurance or bond premium. This is defined as:

- a. Contractor's liability insurance: The actual cost (expressed as a percentage submitted with the certificate of insurance provided under the Contract Documents and subject to audit) of the Contractor's liability insurance arising directly from the changed Work; and
- b. Public works bond: The actual cost (expressed as a percentage submitted under the Contract Documents and subject to audit) of the Contractor's performance and payment bond arising directly from the changed Work.

Upon request, the Contractor shall provide the Port with supporting documentation from its insurer or surety of any associated cost incurred. The cost of the insurance or bond premium together shall not exceed 2.0% of the cost of the changed Work.

8. Unit Prices. If Unit Prices are specified in the Contract Documents or established by agreement of the parties for certain Work, the Port may apply them to the changed Work. Unit Prices shall include pre-agreed rates for material quantities and shall include reimbursement for all direct and indirect costs of the Work, including overhead, profit, bond, and insurance costs arising out of, or related to, the Unit Priced item. Quantities must be supported by field measurement statements signed by the Port, and the Port shall have access as necessary for quantity measurement. The Port shall not be responsible for not-to-exceed limit(s) without its prior written approval.

8.03 CHANGES IN THE CONTRACT TIME

A. Extension of the Contract Time. If the Contractor is delayed at any time in the commencement or progress of the Work by events for which the Port is responsible, by unanticipated abnormal weather (subject to Section 8.03(E) below), or by other causes not the fault or responsibility of the Contractor that the Port determines may justify a delay in the Contract Time, then the Contract Time shall be extended by Change Order for such reasonable time as the Port may determine. In no event, however, shall the Contractor be entitled to any extension of time absent proof of: (1) delay to an activity on the critical path of the Project, or (2) delay transforming an activity to the critical path, so as to actually delay the anticipated date of Substantial Completion.

B. Allocation of responsibility for delay not caused by Port or Contractor. If a delay was not caused by the Port, the Contractor, or anyone acting on behalf of any of them, the Contractor is entitled only to an increase in the Contract Time but not an increase in the Contract Sum.

C. Allocation of responsibility for delay caused by Port. If a delay was caused by the Port or someone acting on behalf of the Port and affected the critical path, the Contractor shall be entitled to a change in the Contract Time and Contract Sum in accordance with Section 8.02. The Contractor shall not recover damages, an equitable adjustment, or an increase in the Contract Sum or Contract Time from the Port; however, where the Contractor could reasonably have avoided the delay. The Port is not obligated directly or indirectly for damages for any delay suffered by a Subcontractor of any tier that does not increase the Contract Time.

D. Allocation of responsibility for delay caused by Contractor. If a delay was caused by the Contractor, a Subcontractor of any tier, or anyone acting on behalf of any of them, the Contractor is not entitled to an increase in the Contract Time or in the Contract Sum.

E. Adverse weather. If adverse weather is identified as the basis for a claim for additional time, the claim shall be documented by data substantiating that weather conditions were abnormal for the period of time, could not reasonably have been anticipated and had an adverse effect on the critical path of construction, and that the Work was on schedule (or not behind schedule through the fault of the Contractor) at the time the adverse weather conditions occurred. Neither the Contract Time nor the Contract Sum will be adjusted for normal inclement weather. For a claim based on adverse weather, the Contractor shall be eligible only for a change in the Contract Time (but not a change in the Contract Sum) if the Contractor can substantiate that there was significantly greater than normal inclement weather considering the full term of the Contract Time.

F. Damages for delay. In the event the Contractor (including any Subcontractors of any tier) is held to be entitled to damages from the Port for delay beyond the amount permitted in Section 8.02(B), the total combined damages to the Contractor and any Subcontractors of any tier for each day of delay shall be limited to the reasonable, actual costs of the delay for which the Port is wholly responsible. The limitation on damages set forth in this Section does not apply to any damages arising exclusively from delay to which the Contractor is entitled to recover under Section 8.03(F).

G.Limitation on damages. The Contractor shall not be entitled to damages arising out of loss of efficiency; morale, fatigue, attitude, or labor rhythm; constructive acceleration; home office overhead; expectant under run; trade stacking; reassignment of workers; rescheduling of Work, concurrent operations; dilution of supervision; learning curve; beneficial or joint occupancy; logistics; ripple; season change; extended or increased overhead or general conditions; profit upon damages for delay; impact damages including cumulative impacts; or similar damages. Any effect that such alleged costs may have upon the Contractor or its Subcontractors of any tier is fully compensated through the markup on Change Orders paid through Section 8.02(B).

8.04 RESERVATION OF RIGHTS

A.Reservations of rights void unless signed by Port. Reservations of rights will be deemed waived and are void unless any reserved rights are described in detail and are signed by the Contractor and the Port.

B.Procedure for unsigned reservations of rights. If the Contractor adds a reservation of rights not signed by the Port to any Change Order, Unilateral Change Directive, Change Order proposal, Application for Payment, or any other document, all amounts and all Work therein shall be considered disputed and not payable until costs are re-negotiated or the reservation is withdrawn or changed in a manner satisfactory to, and signed by, the Port. If the Port makes payment based on a document that contains a reservation of rights not signed by the Port, and if the Contractor cashes such payment, then the reservation of rights shall be deemed waived, withdrawn, and of no effect.

8.05 UNIT PRICES

A.Adjustment to Unit Prices. If Unit Prices are stated in the Contract Documents or subsequently agreed upon, and if quantities originally contemplated are materially changed (less than eighty percent (80%) or more than one hundred and twenty percent (120%) of the quantity estimated) so that application of a Unit Price would be substantially unfair, the applicable Unit Price but not the Contract Time, shall be adjusted if the Port prospectively approves a Change Order revising the Unit Price.

B.Procedure to change Unit Prices. The Contractor or Port may request a Change Order revising a Unit Price by submitting information to support the change. A proposed change to a Unit Price will be evaluated by the Port based on the change in cost resulting solely from the change in quantity, any change in production rate or method as compared to the original plan, and the share, if any, of fixed expenses properly chargeable to the item. If the Port and Contractor agree on the change, a Change Order will be executed. If the parties cannot agree, the Contractor shall comply with the dispute resolution procedures (Article 11).

ARTICLE 9 - SUSPENSION AND TERMINATION OF CONTRACT

9.01 PORT'S RIGHT TO SUSPEND WORK

A.Port may suspend the Work. The Port may at any time suspend the Work, or any part thereof, by giving notice to the Contractor. The Work shall be resumed by the Contractor as soon as possible, but no later than fourteen (14) days after the date fixed in a notice to resume the Work. The Port shall reimburse the Contractor for appropriate and reasonable expenses consistent with Section 8.02 incurred by the Contractor as a result of the suspension, except where a suspension is the result of the Contractor repeatedly or materially failing to carry out or correct the Work in accordance with the Contract Documents, and the Contractor shall take all necessary steps to minimize expenses.

B. Contractor obligations. During any suspension of Work, the Contractor shall take every precaution to prevent damage to, or deterioration of, the Work. The Contractor shall be responsible for all damage or deterioration to the Work during the period of suspension and shall, at its sole expense, correct or restore the Work to a condition acceptable to the Port prior to resuming Work.

9.02 TERMINATION OF CONTRACT FOR CAUSE BY THE PORT

A. Port may terminate for cause. If the Contractor is adjudged bankrupt or makes a general assignment for the benefit of the Contractor's creditors, if a receiver is appointed due to the Contractor's insolvency, or if the Contractor, in the opinion of the Port, persistently or materially refuses or fails to supply enough properly skilled workmen or materials for proper completion of the Contract, fails to make prompt payment to Subcontractors or suppliers for material or labor, disregards laws, ordinances, or the instructions of the Port, fails to prosecute the Work continuously with promptness and diligence, or otherwise materially violates any provision of the Contract, then the Port, without prejudice to any other right or remedy, may terminate the Contractor after giving the Contractor seven (7) days' written notice (during which period the Contractor shall have the right to cure).

B. Procedure following termination for cause. Following a termination for cause, the Port may take possession of the Project site and all materials and equipment, and utilize such materials and equipment to finish the Work. The Port may also exclude the Contractor from the Project site(s). If the Port elects to complete all or a portion of the Work, it may do so as it sees fit. The Port shall not be required to accept the lowest bid for completion of the Work and may choose to complete all or a portion of the Work using its own work force. If the Port elects to complete all or a portion of the Work, the Contractor shall not be entitled to any further payment until the Work is finished. If the expense of finishing the Work, including compensation for additional managerial and administrative services of the Port, exceeds the unpaid balance of the Contract Sum, the excess shall be paid by the Contractor.

C. Port's remedies following termination for cause. The Port may exercise any rights, claims, or demands that the Contractor may have against third persons in connection with the Contract, and for this purpose the Contractor assigns and transfers to the Port all such rights, claims, and demands.

D. Inadequate termination for cause converted to termination for convenience. If, after the Contractor has been terminated for cause, it is determined that inadequate "cause" for such termination exists, then the termination shall be considered a termination for convenience pursuant to Section 9.03.

9.03 TERMINATION OF CONTRACT FOR CONVENIENCE BY THE PORT

A. Port may terminate for convenience. The Port may, at any time (without prejudice to any right or remedy of the Port), terminate all, or any portion of, the Contract for the Port's convenience and without cause. The Contractor shall be entitled to receive payment consistent with the Contract Documents only for Work properly executed through the date of termination, and costs necessarily incurred by reason of the termination (such as the cost of settling and paying claims arising out of the termination under subcontracts or orders), along with a fee of one percent (1%) of the Contract Sum not yet earned on the whole or part of the Work. The total amount to be paid to the Contractor shall not exceed the Contract Sum as reduced by the amount of payments otherwise made. The Port shall have title to all Work performed through the date of termination.

9.04 TERMINATION OF CONTRACT BY THE CONTRACTOR

A. Contractor may terminate for cause. The Contractor may terminate the Contract if the Work is stopped for a period of sixty (60) consecutive days through no act or fault of the Contractor or a Subcontractor of any tier, for either of the following reasons:

1. Issuance of an order of a court or other public authority having jurisdiction that requires all Work to be stopped; or
2. An act of government, such as a declaration of national emergency, that requires all Work to be stopped.

B. Procedure for Contractor termination. If one of the reasons described in Section 9.04A exists, the Contractor may, upon seven (7) days' written notice to the Port (during which period the Port has the opportunity to cure), terminate the Contract and recover from the Port payment for Work executed through the date of termination in accordance with the Contract Documents and for proven loss with respect to materials, equipment, tools, and construction equipment and machinery, including reasonable overhead and profit on Work executed and direct costs incurred by reason of such termination. The total recovery of the Contractor shall not exceed the unpaid balance of the Contract Sum.

C. Contractor may stop the Work for failure of Port to pay undisputed amounts. The Contractor may stop Work under the Contract if the Port does not pay undisputed amounts due and owing to the Contractor within fifteen (15) days of the date established in the Contract Documents. If the Port fails to pay undisputed amounts, the Contractor may, upon fifteen (15) additional days' written notice to the Port, during which the Port can cure, stop the Work until payment of the amount owing has been received. The Contract Time shall be extended appropriately, and the Contract Sum shall be increased by the amount of the Contractor's reasonable costs of shut-down, delay, and start-up.

9.05 SUBCONTRACT ASSIGNMENT UPON TERMINATION

A. Subcontracts assigned upon termination. Each subcontract is hereby assigned by the Contractor to the Port provided that:

1. The Port requests that the subcontract be assigned.
2. The assignment is effective only after termination by the Port and only for those subcontracts that the Port accepts in writing.
3. The assignment is subject to the prior rights of the surety, if any, under any bond issued in accordance with the Contract Documents.

When the Port accepts the assignment of a subcontract, the Port assumes the Contractor's rights and obligations under the subcontract, but only for events and payment obligations that arise after the date of the assignment.

ARTICLE 10 - BONDS

10.01 CONTRACTOR PERFORMANCE AND PAYMENT BONDS

A. Contractor to furnish performance and payment bonds. Within ten (10) days following its receipt of a notice of award, and as part of the Contract Sum, the Contractor shall secure and furnish duly executed performance and payment bonds using the forms furnished by the Port. The bonds shall be executed by a surety (or sureties) reasonably acceptable to the Port, admitted and licensed in the State of Washington, registered with the Washington State Insurance Commissioner, and possessing an A.M. Best rating of "A-, FSC (6)" or better and be authorized by the U.S. Department of the Treasury. Pursuant to RCW 39.08, the bonds shall be in an amount equal to the Contract Sum, and shall be conditioned only upon the faithful performance of the Contract by the Contractor within the Contract Time and upon the payment by the Contractor of all taxes, fees, and penalties to the State of Washington and all laborers, Subcontractors, and suppliers, and others who supply provisions, equipment, or supplies for the performance of the Work covered by this Contract. The bonds shall be signed by the person or persons legally authorized to bind the Contractor.

B. On contracts of one hundred fifty thousand dollars or less, at the option of the contractor as defined in RCW 39.10.210, the Port may, in lieu of the bond, retain ten percent of the contract amount for a period of thirty days after date of final acceptance, or until receipt of all necessary releases from the department of revenue, the Employment Security Department, and the Department of Labor and Industries and settlement of any liens filed under chapter 60.28 RCW, whichever is later. The recovery of unpaid wages and benefits must be the first priority for any actions filed against retainage held by a state agency or authorized local government.

For contracts of one hundred fifty thousand dollars or less, the Port may accept a full payment and performance bond from an individual surety or sureties.

C. Port may notify surety. If the Port makes or receives a claim against the Contractor, the Port may, but is not obligated to, notify the Contractor's surety of the nature and amount of the claim. If the claim relates to a possibility of a Contractor's default, the Port may, but is not obligated to, notify the surety and request the surety's assistance in resolving the controversy.

ARTICLE 11 - DISPUTE RESOLUTION

11.01 NOTICE OF PROTEST AND CLAIM

A. Dispute resolution procedure mandatory. All claims, direct or indirect, arising out of, or relating to, the Contract Documents or the breach thereof, shall be decided exclusively by the following alternative dispute resolution procedure, unless the parties mutually agree otherwise. If the Port and Contractor agree to a partnering process to assist in the resolution of disputes, the partnering process shall occur prior to, and not be in place of, the mandatory dispute resolution procedures set forth below.

B. Notice of protest defined. Except for claims requiring notice before proceeding with the affected Work as otherwise described in the Contract Documents, the Contractor shall provide immediate oral notice of protest to the Engineer prior to performing any disputed Work and shall submit a written notice of protest to the Port within seven (7) days of the occurrence of the event giving rise to the protest that includes a clear description of the event(s). The protest shall identify any point of disagreement, those portions of the Contract Documents believed to be applicable, and an estimate of quantities and costs involved. When a protest relates to cost, the Contractor shall keep full and complete records and shall permit the Port to have access to those records at any time as requested by the Port.

C.Claim defined. A claim is a demand by one of the parties seeking adjustment or interpretation of the Contract terms, payment of money, extension of time, or other relief with respect to the terms of the Contract Documents. The term "claim" also includes all disputes and matters in question between the Port and Contractor arising out of, or relating to, the Contract Documents. Claims must be initiated in writing and include a detailed factual statement and clear description of the claim providing all necessary dates, locations, and items of Work, the date or dates on which the events occurred that give rise to the claim, the names of employees or representatives knowledgeable about the claim, the specific provisions of the Contract Documents that support the claim, any documents or oral communications that support the claim, any proposed change in the Contract Sum (showing all components and calculations) and/or Contract Time (showing cause and analysis of the resultant delay in the critical path), and all other data supporting the claim. Claims shall also be submitted with a statement certifying, under penalty of perjury, that the claim as submitted is made in good faith, that the supporting cost and pricing data are true and accurate to the best of Contractor's knowledge and belief, that the claim is fully supported, and that the amount requested accurately reflects the adjustment in the Contract Sum or Contract Time for which Contractor believes the Port is liable. A claim shall be deemed to include all changes, direct and indirect, in cost and in time to which the Contractor and Subcontractors of any tier are entitled and may not contain reservations of rights without the Port's written approval; any unapproved reservations of rights shall be without effect.

D.Claim procedure. The Contractor shall submit a written claim within thirty (30) days of providing written notice of protest. The Contractor may delay submitting supporting data by an additional thirty (30) days if it notifies the Port in its claim that substantial data must be assembled. Any claim of a Subcontractor of any tier may be brought only through, and after review by and concurrence of, the Contractor.

E.Failure to comply with notice of protest and claim requirements waives claims. Any notice of protest by the Contractor and any claim of the Contractor, whether under the Contract or otherwise, must be made pursuant to, and in strict accordance with, the applicable provisions of the Contract. Failure to properly and timely submit a notice of protest or to timely submit a claim shall waive the claim. No act, omission, or knowledge, actual or constructive, of the Port shall waive the requirement for timely written notice of protest and a timely written claim, unless the Port and the Contractor sign an explicit, unequivocal written waiver approved by the Port. The Contractor expressly acknowledges and agrees that the Contractor's failure to timely submit required notices of protest and/or timely submit claims has a substantial impact upon, and prejudices, the Port. For the purpose of calculating time periods, an "event giving rise to a claim," among other things, is not a Request for Information, but rather is a response that the Contractor believes would change the Contract Sum and/or Contract Time.

F.False claims. The Contractor shall not make any fraudulent misrepresentations, concealments, errors, omissions, or inducements to the Port in the formation or performance of the Contract. If the Contractor or a Subcontractor of any tier submits a false or frivolous claim to the Port, which for purposes of this Section 11.01(F) is defined as a claim based in whole or in part on a materially incorrect fact, statement, representation, assertion, or record, the Port shall be entitled to collect from the Contractor by offset or otherwise (without prejudice to any right or remedy of the Port) any and all costs and expenses, including investigation and consultant costs, incurred by the Port in investigating, responding to, and defending against the false or frivolous claim.

G.Compliance with lien and retainage statutes required. If a claim relates to, or is the subject of, a lien or retainage claim, the party asserting the claim may proceed in accordance with applicable law to comply with the notice and filing deadlines prior to resolution of the claim by mediation or by litigation.

H. Performance required pending claim resolution. Pending final resolution of a claim, the Contractor shall continue to perform the Contract and maintain the Baseline Project Schedule, and the Port shall continue to make payments of undisputed amounts due in accordance with the Contract Documents.

11.02 MEDIATION

A. Claims must be subject to mediation. At any time following the Port's receipt of a written claim, the Port may require that an officer of the Contractor and the Port's designee (all with authority to settle) meet, confer, and attempt to resolve a claim. If the claim is not resolved during this meeting, the claim shall be subject to mandatory mediation as a condition precedent to the initiation of litigation. This requirement can be waived only by an explicit, written waiver signed by the Port and the Contractor.

B. Mediation procedure. A request for mediation shall be filed in writing with the other party to the Contract, and the parties shall promptly attempt to agree upon a mediator. If the parties have not reached agreement within thirty (30) days of the request, either party may file the request with the American Arbitration Association, or such other alternative dispute resolution service to which the parties mutually agree, with a copy to the other party, and the mediation shall be administered by the American Arbitration Association (or other agreed service). The parties to the mediation shall share the mediator's fee and any filing fees equally. The mediation shall be held in Pierce County, Washington, unless another location is mutually agreed upon. Agreements reached in mediation shall be enforceable as settlement agreements in any court having jurisdiction thereof. Unless the Port and the Contractor mutually agree in writing otherwise, all claims shall be considered at a mediation session that shall occur prior to Final Completion.

11.03 LITIGATION

A. Claims not resolved by mediation are subject to litigation. Claims not resolved through mediation shall be resolved by litigation, unless the parties mutually agree otherwise. The venue for any litigation shall be Pierce County, Washington. The Contractor may bring no litigation on claims, unless such claims have been properly raised and considered in the procedures of this Article 11. The Contractor must demonstrate in any litigation that it complied with all requirements of this Article.

B. Litigation must be commenced promptly. All unresolved claims of the Contractor shall be waived and released, unless the Contractor has complied with the requirements of the Contract Documents, and litigation is served and filed within 180 days of the date of Substantial Completion approved in writing by the Port or termination of the Contract. The pendency of mediation (the time period between receipt by the non-requesting party of a written mediation request and the date of mediation) shall toll these deadlines until the earlier of the mediator providing written notice to the parties of impasse, or thirty (30) days after the date of the mediation session.

C. Port not responsible for attorneys' fees. Neither the Contractor nor a Subcontractor of any tier, whether claiming under a bond or lien statute or otherwise, shall be entitled to attorneys' fees directly or indirectly from the Port (but may recover attorneys' fees from the bond or statutory retainage fund itself to the extent allowable under law).

D. Port may join Contractor in dispute. The Port may join the Contractor as a party to any litigation or arbitration involving the alleged fault, responsibility, or breach of contract of the Contractor or Subcontractor of any tier.

ARTICLE 12 - MISCELLANEOUS

12.01 GENERAL

A.Rights and remedies are cumulative. The rights and remedies of the Port set forth in the Contract Documents are cumulative, and in addition to and not in limitation of, any rights and remedies otherwise available to the Port. The pursuit of any remedy by the Port shall not be construed to bar the Port from the pursuit of any other remedy in the event of similar, different, or subsequent breaches of this Contract. All such rights of the Port shall survive completion of the Project or termination of the Contractor.

B.Reserved rights do not give rise to duty. The rights reserved or possessed by the Port to take any action shall not give rise to a duty for the Port to exercise any such right.

12.02 WAIVER

A.Waiver must be in writing and authorized by Port. Waiver of any provisions of the Contract Documents must be in writing and authorized by the Port. No other waiver is valid on behalf of the Port.

B.Inaction or delay not a waiver. No action, delay in acting, or failure to act by the Port shall constitute a waiver of any right or remedy of the Port, or constitute an approval or acquiescence of any breach or defect in the Work, nor shall any delay or failure of the Port to act waive or otherwise prejudice the right of the Port to enforce a right or remedy at any subsequent time.

C.Claim negotiation not a waiver. The fact that the Port and the Contractor may consider, discuss, or negotiate a claim that has or may have been defective or untimely under the Contract, shall not constitute a waiver of the provisions of the Contract Documents, unless the Port and the Contractor sign an explicit, unequivocal waiver.

12.03 GOVERNING LAW

A.Washington law governs. This Contract and the rights and duties of the parties hereunder shall be governed by the internal laws of the State of Washington, without regard to its conflict of law principles.

12.04 COMPLIANCE WITH LAW

A.Contractors to comply with applicable laws. The Contractor shall at all times comply with all applicable Federal, State and local laws, ordinances, and regulations. This compliance shall include, but is not limited to, the payment of all applicable taxes, royalties, license fees, penalties, and duties.

B.Contractors to provide required notices. The Contractor shall give notices required by all applicable Federal, State and local laws, ordinances, and regulations bearing on the Work.

C.Contractors to confine operations at site to permitted areas. The Contractor shall confine operations at the Project site to areas permitted by applicable laws, ordinances, permits, rules and regulations, and lawful orders of public authorities and the Contract Documents.

12.05 ASSIGNMENT

A. Assignment. The Port and Contractor respectively bind themselves, their partners, successors, assigns, and legal representatives to the other party and to the partners, successors, assigns, and legal representatives of such other party. The Contractor may not assign, transfer, or novate all or any portion of the Contract, including but not limited to, any claim or right to the Contract Sum, without the Port's prior written consent. If the Contractor attempts to make an assignment, transfer, or novation without the Port's consent, the assignment shall be of no effect, and Contractor shall nevertheless remain legally responsible for all obligations under the Contract. The Contractor also shall not assign or transfer, to any third party, any claims it may have against the Port arising under the Contract or otherwise related to the Project.

12.06 TIME LIMIT ON CAUSES OF ACTION

A. Time limit on causes of action. The Port and Contractor shall commence all causes of action, whether in contract, tort, breach of warranty, or otherwise, against the other arising out of, or related to, the Contract in accordance with the requirements of the dispute resolution procedure set forth in Article 11 of these General Conditions, within the time period specified by applicable law, and within the time limits identified in the Contract Documents. The Contractor waives all claims and causes of action not commenced in accordance with this Section 12.06.

12.07 SERVICE OF NOTICE

A. Notice. Written notice under the Contract Documents by either the Contractor or Port may be served on the other party by personal service, electronic or facsimile transmission, or delivery service to the last address provided in writing to the other party. For the purpose of measuring time, notice shall be deemed to be received by the other party on the next business day following the sender's electronic or facsimile transmittal or delivery by delivery service.

12.08 RECORDS

A. Contractor and Subcontractors to maintain records and cooperate with Port audit. The Contractor and Subcontractors of any tier shall maintain books, ledgers, records, documents, estimates, bids, correspondence, logs, schedules, emails, and other tangible and electronic data and evidence relating or pertaining to costs and/or performance of the Contract ("records") to such extent, and in such detail, as will properly reflect and fully support compliance with the Contract Documents and with all costs, charges, and other amounts of whatever nature. The Contractor shall preserve these records for a period of six (6) years following the date of Final Acceptance under the Contract. Within seven (7) days of the Port's request, both during the Project and for six (6) years following Final Acceptance, the Contractor and Subcontractors of any tier shall make available, at their office during normal business hours, all records for inspection, audit, and reproduction (including electronic reproduction) by the Port or its representatives; failure to fully comply with this requirement shall constitute a material breach of contract and a waiver of all claims by the Contractor and Subcontractors of any tier.

B. Rights under RCW 42.56. The Contractor agrees, on behalf of itself and Subcontractors of any tier, that any rights under Chapter 42.56 RCW will commence at Final Acceptance, and that the invocation of such rights at any time by the Contractor or a Subcontractor of any tier, or their respective representatives, shall initiate an equivalent right to disclosures from the Contractor and Subcontractors of any tier for the benefit of the Port.

12.09 STATUTES

A. Contractor to comply with Washington statutes. The Contractor shall abide by the provisions of all applicable statutes, regulations, and other laws. Although a number of statutes are referenced in the Contract Documents, these references are not meant to be, and are not, a complete list.

1. Pursuant to RCW 39.06, "Registration, Licensing of Contractors," the Contractor shall be registered and licensed as required by the laws of the State of Washington, including but not limited to RCW 18.27, "Registration of Contractors," and shall satisfy all State of Washington bonding and insurance requirements. The Contractor shall also have a current state Unified Business Identifier number; have industrial insurance coverage for the Contractor's employees working in Washington as required by Title 51 RCW; have an Employment Security Department number as required by Title 50 RCW; have a state excise tax registration number as required in Title 82 RCW; and not be disqualified from bidding on any public works contract under RCW 39.06.010 (unregistered or unlicensed contractors) or RCW 39.12.065(3) (prevailing wage violations).
2. The Contractor shall comply with all applicable provisions of RCW 49.28, "Hours of Labor."
3. The Contractor shall comply with pertinent statutory provisions relating to public works of RCW 49.60, "Discrimination."
4. The Contractor shall comply with pertinent statutory provisions relating to public works of RCW 70.92, "Provisions in Buildings for Aged and Handicapped Persons," and the Americans with Disabilities Act.
5. Pursuant to RCW 50.24, "Contributions by Employers," in general, and RCW 50.24.130 in particular, the Contractor shall pay contributions for wages for personal services performed under this Contract or arrange for an acceptable bond.
6. The Contractor shall comply with pertinent provisions of RCW 49.17, "Washington Industrial Safety and Health Act," and Chapter 296-155 WAC, "Safety Standards for Construction Work."
7. Pursuant to RCW 49.70, "Worker and Community Right to Know Act," and WAC 296-62-054 et seq., the Contractor shall provide to the Port, and have copies available at the Project site, a workplace survey or material safety data sheets for all "hazardous" chemicals under the control or use of Contractor or any Subcontractor of any tier.
8. All products and materials incorporated into the Project as part of the Work shall be certified as "asbestos-free" and "lead-free" by United States standards, and shall also be free of all hazardous materials or substances. At the completion of the Project, the Contractor shall submit certifications of asbestos-free and of lead-free materials certifying that all materials and products incorporated into the Work meet the requirements of this Section, and shall also certify that materials and products incorporated into the Work are free of hazardous materials and substances.

END OF SECTION

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PART 1 - GENERAL

1.01 SUMMARY

- A. This Section includes requirements for the Contractor's insurance.

1.02 SUBMITTAL REQUIREMENTS

- A. Evidence of the required insurance within ten (10) days of the issued Notice of Award to the Contractor.
- B. Updated evidence of insurance as required until final completion.

1.03 COMMERCIAL GENERAL LIABILITY (CGL) INSURANCE

- A. The Contractor shall secure and maintain until Final Completion, at its sole cost and expense, the following insurance in carriers reasonably acceptable to the Port, licensed in the State of Washington, registered with the Washington State Insurance Commissioner, and possessing an A.M. Best rating of "A-, FSC six (6)" or better.
- B. The Port of Tacoma (Port) will be included as additional insureds for both ongoing and completed operations by endorsement to the policy using ISO Form CG 20 10 11 85 or forms CG 20 10 04 13 and CG 20 37 04 13 (or equivalent coverage endorsements). The inclusion of the Port as additional insureds shall not create premium liability for the Port.

Also, by endorsement to the policy, there shall be:

- 1. An express waiver of subrogation in favor of the Port;
 - 2. A cross liabilities clause; and
 - 3. An endorsement stating that the Contractor's policy is primary and not contributory with any insurance carried by the Port.
- C. If the Contractor, Supplier, or Subcontractors will perform any work requiring the use of a licensed professional, per RCW 18, the Contractor shall provide evidence to the Port of professional liability insurance in amounts not less than \$1,000,000.
 - D. This insurance shall cover all of the Contractor's operations, of whatever nature, connected in any way with the Contract, including any operations performed by the Contractor's Subcontractors of any tier. **It is the obligation of the Contractor to ensure that all Subcontractors (at whatever level) carry a similar program that provides the identified types of coverage, limits of liability, inclusion of the Port as additional insured(s), waiver of subrogation and cross liabilities clause.** The Port reserves the right to reject any insurance policy as to company, form, or substance. Contractor's failure to provide, or the Port's acceptance of, the Contractor's certificate of insurance does not waive the Contractor's obligation to comply with the insurance requirements of the Contract as specifically described below:
 - 1. Marine General Liability Insurance on an Occurrence Form Basis including, but not limited to:
 - a. Bodily Injury Liability;
 - b. Property Damage Liability;
 - c. Contractual Liability;
 - d. Products - Completed Operations Liability;

- e. Personal Injury Liability;
- f. Marine coverages as appropriate for the scope of work.

Alternatively, a Commercial General Liability (CGL) policy is acceptable if all of the above coverages are incorporated in the policy and there are no marine exclusions that will remove coverage for either vessels or work done by or above or around the water.

2. Marine Protection and Indemnity/Vessel Pollution Liability: Contractor shall obtain, at Contractor's expense and keep in effect during the term of the Contract, Marine Protection and Indemnity insurance which shall include Collision Liability and Jones Act coverages, including coverage for all masters, crew, and passengers. The limit of liability shall not be less than \$5,000,000. If Collision Liability is part of the Hull and Machinery coverage for the vessel, evidence of Hull and Machinery coverage in amounts not less than the actual cash value of the vessel shall also be provided.
 - a. Vessel Pollution Liability: Contractor shall obtain, at Contractor's expense and keep in effect during the term of the Contract, Vessel Pollution Liability on all vessels used under this Contract. Vessel Pollution Liability limits shall be the same as the Protection and Indemnity (P&I) limits called for in Section 2.
3. Comprehensive Automobile Liability including, but not limited to:
 - a. Bodily Injury Liability;
 - b. Property Damage Liability;
 - c. Personal Injury Liability;
 - d. Owned and Non-Owned Automobile Liability; and
 - e. Hired and Borrowed Automobile Liability.
4. Contractor's Pollution Liability (CPL) covering claims for bodily injury, property damage and cleanup costs, and environmental damages from pollution conditions arising from the performance of covered operations.
 - a. If the Work involves remediation or abatement of regulated waste to include, but not limited to asbestos containing materials, lead containing products, mercury, PCB, underground storage tanks, or other hazardous materials or substances, the CPL policy shall not exclude such coverage, or a specific policy covering such exposure shall be required from the Contractor and all Subcontractors performing such Work.
 - b. If the Work involves transporting regulated materials or substances or waste, a separate policy or endorsement to the CPL policy specifically providing coverage for liability and cleanup arising from an upset or collision during transportation of hazardous materials or substances shall be required from the Contractor and all Subcontractors performing such Work.
 - c. It is preferred that CPL insurance shall be on a true occurrence form without a sunset clause. However, if CPL insurance is provided on a Claims Made basis, the policy shall have a retroactive date prior to the start of this project, and this insurance shall be kept in force for at least three years after the final completion of this project. Alternatively, the contractor, at its option, may provide evidence of extended reporting period of not less than three (3) years in its place. The Contractor shall be responsible for providing the Port with certificates of insurance each year evidencing this coverage.

d. The Port shall be named as an additional insured(s) on the CPL policy.

5. Technology Professional Liability Errors and Omissions Insurance appropriate to the Consultant's profession and work hereunder, with limits not less than \$2,000,000 per occurrence. Coverage shall be sufficiently broad to respond to the duties and obligations as is undertaken by the Vendor in this agreement and shall include, but not be limited to, claims involving infringement of intellectual property, copyright, trademark, invasion of privacy violations, information theft, release of private information, extortion and network security. The policy shall provide coverage for breach response costs as well as regulatory fines and penalties as well as credit monitoring expenses with limits sufficient to respond to these obligations.

The policy shall include, or be endorsed to include, **property damage liability coverage** for damage to, alteration of, loss of, or destruction of electronic data and/or information "property" of the Agency in the care, custody, or control of the Vendor.

- E. Except where indicated above, the limits of all insurance required to be provided by the Contractor shall be not less than \$2,000,000 for each occurrence. If the coverage is aggregated, the coverage shall be no less than two times the per occurrence or per claim limit. However, coverage in the amounts of these minimum limits shall not be construed as to relieve the Contractor from liability in excess of such limits. Any additional insured endorsement shall NOT be limited to the amounts specified by this Contract, unless expressly waived in writing by the Port.
- F. Contractor shall certify that its operations are covered by the Washington State Worker's Compensation Fund. The Contractor shall provide its Account Number or, if self-insured, its Certificate of Qualification Number. The Contractor shall also provide evidence of Stop-Gap Employers' Liability Insurance.

United States Longshoremen's and Harbor Worker's Act (USL&H) and Jones Act may be required for this project. The Contractor shall be solely responsible for determining the applicability of USL&H and Jones Act coverage. The failure of the Contractor to procure either USL&H or Jones Act coverage shall at no time create liability on the part of the Port. The Contractor shall bear all responsibility and shall indemnify and hold harmless the Port for any and all liability, cost, and/or damages.

- G. The Contractor shall furnish, within ten (10) days following issuance of the Notice of Award, a certificate of insurance satisfactory to the Port evidencing that insurance in the types and minimum amounts required by the Contract Documents has been secured. The Certificate of Insurance shall be signed by an authorized representative of the insurer together with a copy of the endorsement, which shows that the Port are named as additional insured(s).
- H. Contractor shall provide at least forty-five (45) days prior written notice to the Port of any termination or material change, or ten (10) day's-notice in the case of non-payment of premium(s).
- I. If the Contractor is required to make corrections to the Work after Final Completion, the Contractor shall obtain at its own expense, prior to the commencement of any corrective work, insurance coverage as required by the Contract Documents, which coverage shall be maintained until the corrections to the Work have been completed and accepted by the Port.

1.04 BUILDER'S RISK INSURANCE

- A. Until Final Completion of the Work, the construction Work is at the risk of the Contractor and no partial payment shall constitute acceptance of the Work or relieve the Contractor of responsibility of completing the Work under the Contract.
- B. To the extent the Work provided under this Contract does not include the construction, rehabilitation or repair of any dam, road or bridge, and whenever the estimated cost of the Work is less than \$5,000,000, the Port and Contractor acknowledge that the Port will purchase, or has purchased, from a company or companies lawfully authorized and admitted to do business in Washington, property insurance written on a Builder's Risk "all-risk" (including Earthquake and Flood with applicable sub-limits) or equivalent policy form to cover the course of construction in the amount of the full insurable value thereof. This property insurance shall be maintained, unless otherwise provided in the Contract Documents or otherwise agreed in writing by all persons and entities who are beneficiaries of such insurance, until final payment has been made or until no person or entity other than the Port has an insurable interest in the property, whichever is later. Without further endorsement, the coverage afforded by this insurance includes the interests of the Port, the Contractor, and Subcontractors of any tier on the Project. Coverage for materials intended to be installed in the facility will be covered by the Builder's Risk policy. Losses up to the deductible amount, and payment of any deductible amount, shall be the responsibility of the Contractor. All tools and equipment not intended as part of the construction or installation (including but not limited to Contractor's equipment and tools) will NOT be covered by the policy.

In all instances, the Contractor shall obtain property insurance for all Contractor-owned equipment and tools and, in the event of loss, payment of any deductible amount shall be the responsibility of the Contractor.

PART 2 - PRODUCTS - NOT USED

PART 3 - PRODUCTS - NOT USED

END OF SECTION

PART 1 - GENERAL

1.01 PREVAILING AND OTHER REQUIRED WAGES

- A. The Contractor shall pay (and shall ensure that all Subcontractors of any tier pay) all prevailing wages and other wages (such as Davis-Bacon Act wages) applicable to the Project.
- B. Pursuant to RCW 39.12, "Prevailing Wages on Public Works," no worker, laborer, or mechanic employed in the performance of any part of the Work shall be paid less than the "prevailing rate of wage" in effect as of the date that bids are due.
 - 1. Based on the Bid Date, the applicable effective date for prevailing wages for this Project is January 7, 2025.
- C. The State of Washington prevailing wage rates applicable for this public works Project, which is located in Pierce County, may be found at the following website address of the Department of Labor and Industries:

<https://fortress.wa.gov/lni/wagelookup/prvWagelookup.aspx>
- D. The schedule of the prevailing wage rates is made a part of the Contract Documents by reference as though fully set forth herein, and a printed copy of the applicable prevailing wage rates are also available for viewing at the Port Administration Building, located at 1 Sitcum Plaza, Tacoma, WA 98421 (253-383-5841). Upon request to the Procurement Department at procurement@portoftacoma.com, the Port will email or mail a hard copy of the applicable Journey Level prevailing wages for this Project.
- E. Questions relating to prevailing wage data should be addressed to the Industrial Statistician.
 - Mailing Address: Washington State Department of Labor and Industries
Prevailing Wage Office
P.O. Box 44540
Olympia, WA 98504
 - Telephone: (360) 902-5335
 - Facsimile: (360) 902-5300
 - 1. If there is any discrepancy between the provided schedule of prevailing wage rates and the published rates applicable under WAC 296-127-011, the applicable published rates shall apply with no increase in the Contract Sum. It is the Contractor's responsibility to ensure that the correct prevailing wage rates are paid.
- F. Statement to Pay Prevailing Wages
 - 1. Prior to any payment being made by the Port under this Contract, the Contractor, and each Subcontractor of any tier, shall file a Statement of Intent to Pay Prevailing Wages with the Department of Labor and Industries for approval.
 - 2. The statement shall include the hourly wage rate to be paid to each classification of workers entitled to prevailing wages, which shall not be less than the prevailing rate of wage, and the estimated number of workers in each classification employed on the Project by the Contractor or a Subcontractor of any tier, as well as the Contractor's contractor registration number and other information required by the Department of Labor and Industries.

3. The statement, and any supplemental statements, shall be filed in accordance with the requirements of the Department of Labor and Industries. No progress payment shall be made until the Port receives such certified statement.
- G. The Contractor shall post, in a location readily visible to workers, at the Project site: (i) a copy of the Statement of Intent to Pay Prevailing Wages approved by the Industrial Statistician of the Department of Labor and Industries and (ii) the address and telephone number of the Industrial Statistician of the Department of Labor and Industries to whom a complaint or inquiry concerning prevailing wages may be directed.
- H. If a State of Washington prevailing wage rate conflicts with another applicable wage rate (such as Davis-Bacon Act wage rate) for the same labor classification, the higher of the two shall govern.
- I. Pursuant to RCW 39.12.060, if any dispute arises concerning the appropriate prevailing wage rate for work of a similar nature, and the dispute cannot be adjusted by the parties in interest, including labor and management representatives, the matter shall be referred for arbitration to the Director of the Department of Labor and Industries, and his or her decision shall be final and conclusive and binding on all parties involved in the dispute.
- J. Immediately following the end of all Work completed under this Contract, the Contractor and each Subcontractor of any tier, shall file an approved Affidavit of Wages Paid with the Department of Labor and Industries.
- K. The Contractor shall defend (at the Contractor's sole cost, with legal counsel approved by Port), indemnify, and hold the Port harmless from all liabilities, obligations, claims, demands, damages, disbursements, lawsuits, losses, fines, penalties, costs, and expenses, whether direct, indirect, including, but not limited to, attorneys' fees and consultants' fees and other costs and expenses, from any violation or alleged violation by the Contractor or any Subcontractor of any tier of RCW 39.12 ("Prevailing Wages on Public Works") or RCW Title 51 ("Industrial Insurance"), including, but not limited to, RCW 51.12.050.

PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION - NOT USED

END OF SECTION

PART 1 - GENERAL

1.01 REQUIREMENTS APPLICABLE PORT-WIDE

- A. The Contractor shall submit, prior to the start of Work, a list of emergency contact numbers for itself and its Subcontractors, Suppliers, and manufacturer representatives. Each person on the Project site shall have a valid identification card that is tamper proof with laminated photo identification, such as one (1) of the following:
 - 1. State-issued Driver's license (also required if driving a vehicle)
 - 2. Card issued by a governmental agency
 - 3. Passport
 - 4. Pacific Maritime Association card
 - 5. Labor organization identification card
- B. Identification cards shall be visible while on the Project site or easily displayed when requested.

1.02 TRANSPORTATION WORKER IDENTIFICATION CARD (TWIC) SUMMARY

- A. TWIC is required for all personnel needing unescorted access to secure and restricted areas of Port facilities subject to 33 CFR 105, including truckers, surveyors, construction personnel, and delivery personnel. Secure areas are those areas with security measures for access control in accordance with a Coast Guard approved security plan. Restricted areas are those areas within a secure area that require increased limited access and a higher degree of security protection. New terminals under construction prior to terminal operations may not be designated secure areas. Construction on existing maritime transportation facilities and punchlist or other type of work requirements on facilities that have been certified under 33 CFR will require a TWIC.
- B. Contractors should allow for application and enrollment for the security threat assessment and issuance of TWIC when submitting a bid.

1.03 ESCORTING

- A. To access restricted Port facilities, all un-credentialed individuals must be accompanied by a person who has been issued a TWIC and trained as an escort at that specific facility. Each restricted facility has their own guidelines for escorting. Having escort training at one facility does not qualify you to escort at other facilities. Prior to conducting escort services for non-TWIC personnel, the escorts are required to contact the Facility Security Officer at the gate for verification they are on the escort list and to document who is being escorted. For required documentation, upon completion of escorting, the escort is to inform the Security officer that the escort is complete. It is the Contractor's responsibility to schedule escort training with the Facility Security Officer.
- B. For more information, refer to the Port Security website at:
<http://www.portoftacoma.com/shipping/security>
- C. For Project specific information, refer to Section 01 14 00 - Work Restrictions.

1.04 ELIGIBILITY FOR TWIC

- A. Refer to the Transportation Worker Identification Credential website at: <https://www.tsa.gov/for-industry/twic> for information on eligibility and applying for TWIC.

1.05 TWIC USE AND DISPLAY

- A. Each worker granted unescorted access to secure areas of a facility or vessel must present their cards to authorized personnel, who will compare the holder to his or her photo, inspect security features on the TWIC, and evaluate the card for signs of tampering. The Coast Guard will verify TWIC's when conducting vessel and facility inspections and during spot checks using hand-held scanners, ensuring credentials are valid.

PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION - NOT USED

END OF SECTION

PART 1 - GENERAL

1.01 SCOPE

- A. The accompanying Drawings and Specifications show and describe the location and type of Work to be performed under this project. Work is more specifically defined on the drawings listed in Section 00 01 15.
 - 1. The Work under this contract is to provide, furnish and install all labor, materials and equipment required to complete the work, installed, tested, and ready for use, and as described in these documents.
 - 2. The Middle Blair and Pierce County Terminal Maintenance Dredge consists of: maintenance dredging to address high spots impacting vessel transit at the Middle Blair location and berthing at Pierce County Terminal (PCT). Dredge material from the Middle Blair project site is required to be transloaded, dewatered and disposed of at the designated upland locations. In addition, sand capping is required on a portion of the Middle Blair project site. Dredge material from the PCT project site is to be disposed at the Commencement Bay open-water dredge material disposal site.

1.02 LOCATION

- A. The work is located at:
 - 1. Pierce County Terminal
Adjacent to 4015 N. Frontage Rd, Tacoma, WA 98421
 - 2. Middle Blair Site
Adjacent to 2102 Alexander Ave. E., Tacoma, WA 98421
 - 3. Log Yard
3401 Taylor Way, Tacoma, WA 98421

PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION - NOT USED

END OF SECTION

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PART 1 - GENERAL

1.01 SUMMARY

- A. This Section specifies work sequence and constraints.
- B. The purpose of the milestones, sequence and limitations of construction are to ensure that the Contractor understands the requirements and limitations on its work by the specific characteristics of the Contract, schedules and conducts work in a manner consistent with achieving these purposes, and complies with the construction schedule, the specific sequence, constraints, milestones and limitations of work specified.
- C. Sequence of construction. Plan the sequence of construction to accommodate all the requirements of the specifications. The Contract Price shall include all specified requirements as described in this Section.

1.02 CONTRACTOR ACCESS AND USE OF PREMISES

- A. Activity Regulations
 - 1. Ensure Contractor personnel deployed to the project become familiar with and follow all regulations or restrictions established by the Engineer.
 - 2. The Contractor shall have access to the construction site by Contractor's boat. Contractor may use Port of Tacoma's access float located at the Port's Administration Building at, 1 Sitcum Plaza, Tacoma, WA 98421 and park employee vehicles in the adjacent parking lot or use the pier located at the transload facility at, 3401 Taylor Way, Tacoma, WA 98421.
- B. Waterway Restrictions
 - 1. The work is in a congested waterway and is surrounded by active terminals. The Contractor shall make themselves aware of the shipping schedules in the waterway and shall adjust their work accordingly; in particular the Contractor shall review the placement of equipment, anchors, anchor lines, bouys, etc. to avoid interruption or interference with marine vessel traffic in the waterway. The operations of commercial business shall have precedence. The Contractor shall coordinate with Port Operations at (253) 383-9420 on a daily basis to confirm Contractor's work and scheduled ship traffic.
- C. Working Facility
 - 1. The Facilities will remain in operation for the duration of construction. The Contractor shall conduct all items of the Work in such a manner as to prevent interference with the normal operations of the Facility.
 - 2. Pierce County Terminal is an active shipping terminal and the Blair Waterway is an active waterway. Terminal operations and shipping vessel transit shall not be impacted by dredging activities.
- D. Work Site Regulations
 - 1. Keep within the limits of work and assigned avenues of ingress and egress. Do not enter any areas outside the designated work location unless previously approved by the Engineer. The Contractor must comply with the following conditions:
 - a. Restore all common areas to a clean and useable condition that permits the resumption of Tenant operations after the Contractor ceases daily work.

- b. Be responsible for control and security of Contractor-owned equipment and materials at the work site. Report to Port Security (phone (253) 383-9472) any missing/lost/stolen property.
 - c. Ensure all materials, tools and equipment will be removed from the site or secured within the designated laydown area at the end of each shift.
2. There are no work hour restrictions associated with these locations, although the Contractor shall comply with local ordinances with regard to noise and work hour restrictions. In the event that the Contractor is planning to work outside of the typical work hours (Monday-Friday 0700-1700) the Contractor is to notify the Engineer at least 3 working days in advance to arrange for the necessary inspection and testing as may be required.

1.03 DREDGING SEQUENCE AND RESTRICTIONS

- A. Contractor to complete dredging activities in a single berth before moving to a new location.
- B. Pierce County Terminal (PCT)
 1. PCT-2 (Berth B) shall be dredged before PCT-1 (Berth A)
- C. Middle Blair
 1. DMMU 3 shall be dredged before DMMU 1 & 2
 2. Dredge material from DMMU 3 shall be dredged, transloaded, dewatered and stored seperated from all other dredge material. The processing area will also be cleaned after dredge material from DMMU 3 has been processed.
 3. Dredging must be completed before placement of sand cap.

PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION - NOT USED

END OF SECTION

PART 1 - GENERAL

1.01 SUMMARY

- A. Procedures for preparation and submittal of applications for progress payments.

1.02 PAYMENT PROCEDURES

- A. Monthly pay estimates shall clearly identify the work performed for the given time period based on the approved Schedule of Values.
 - 1. At the Pre-construction meeting, the Engineer and the Contractor shall agree upon a date each month when payment applications shall be submitted.
- B. For each pay estimate the Contractor shall submit the following:
 - 1. Completed Contractor invoice and updated Schedule of Values tracking sheet as required by Division 01 or as established by the Engineer.
 - 2. Baseline Project Schedule and narrative updated as required by Section 01 32 16 of the Project Manual.
 - 3. Completed "Amounts Paid to Subcontracts and Suppliers" showing total contract amount, amount paid this estimate, total paid to date, and balance owing.
 - 4. Completed "Conditional Release and Waiver of Liens and Claims."
 - 5. An estimated cashflow statement projecting the Contractor's monthly billings on the project shall be submitted with each payment application.
- C. Prior to submitting a payment application, the Contractor and Engineer shall meet each month to review the work accomplished to determine the actual quantities including labor, materials and equipment charges to be billed.
 - 1. Prior to the payment application meeting, the Contractor shall submit to the Engineer all measurement documentation as referenced in these contract documents; to include all measurement by weight, volume or field.
 - 2. For all change work being done on a force account basis, the Contractor shall submit prior to meeting with Engineer all Force Account back-up documentation as required to process the payment application where Force Account work is being billed. The Engineer and the Contractor shall review the documentation at the payment application meeting to verify quantities and review the work accomplished.
 - 3. The Contractor shall bring a copy of all documentation to the pay application meeting with the Engineer.
 - 4. The Contractor shall submit the updated baseline project schedule for review prior to submitting the payment application to ensure the payment processing is not held up due to necessary schedule revisions.
- D. Following the Engineers' review, the Contractor shall submit the agreed upon pay estimate electronically, with complete supporting documentation, using Microsoft Dynamic 365, or as directed by the Engineer..

1.03 PAYMENT PRICING

- A. Pricing for the various lump sum or unit prices in the Bid Form, as further specified herein, shall include all compensation to be received by the Contractor for furnishing all tools, equipment, supplies, and manufactured articles, and for all labor, operations, and incidentals appurtenant to the items of work being described, as necessary to complete the various items of the work in accordance with the requirements of the Contract Documents.
- B. Pricing also includes all costs of compliance with the regulations of public agencies having jurisdiction, including safety and health requirements of the Occupational Safety and Health Administration of the U.S. Department of Labor (OSHA).
- C. No separate payment will be made for any item that is not specifically set forth in the Bid Form, and all costs therefore shall be included in the prices named in the Bid Form for the various appurtenant items of work.
- D. All other work not specifically mentioned in the measurement and payment sections identified below shall be considered incidental to the work performed and merged into the various unit and lump sum prices bid. Payment for work under one item will not be paid for under any other item.
- E. The Port of Tacoma reserves the right to make changes should unforeseen conditions necessitate such changes. Where work is on a unit price basis, the actual quantities occasioned by such changes shall govern the compensation.

1.04 LUMP SUM MEASUREMENT

- A. Lump sum measurement will be for the entire item, unit of Work, structure, or combination thereof, as specified and as indicated in the Contractor's submitted bid.
 - 1. If the Contractor requests progress payments for lump sum items, such progress payments will be made in accordance with an approved Schedule of Values. The quantity for payment for completed work shall be an estimated percentage of the lump sum amount, agreed to between the Engineer and Contractor, payable in monthly progress payments in increments proportional to the work performed in amounts as agreed between the Engineer and the Contractor.

1.05 MEASUREMENT OF QUANTITIES FOR UNIT PRICES

- A. Measurement Standards:
 - 1. All Work to be paid for at a contract price per unit measurement, as indicated in the Contractor's submitted bid, will be measured by the Engineer in accordance with United States Standard Measures.
- B. Measurement by Weight:
 - 1. Unless shipped by rail, material to be measured and paid for by weight shall be weighed on sealed scales regularly inspected by the Washington State Department of Agriculture's Weights and Measures Section or its designated representative. Measurement shall be furnished by and at the expense of the Contractor. All weighing, measuring, and metering devices shall be suitable for the purpose intended and shall conform to the tolerances and specifications as outlined in Washington State Department of Transportation Standard Specifications, Division 1, General Requirements, Article 1-09.2, Weighing Equipment.

2. Provide or utilize platform scales of sufficient size and capacity to permit the entire vehicle or combination of vehicles to rest on the scale platform while being weighed. Combination vehicles may be weighed as separate units provided they are disconnected while being weighed. Scales shall be inspected and certified as often as the Engineer may deem necessary to ascertain accuracy. Costs incurred as a result of regulating, adjusting, testing, inspecting, and certifying scales shall be borne by the Contractor.
3. A licensed weighmaster shall weigh all Contractor-furnished materials. The Engineer may be present to witness the weighing and to check and compile the daily record of such scale weights. However, in any case, the Engineer will require that the Contractor furnish weight slips and daily summary weigh sheets. In such cases, furnish a duplicate weight slip or a load slip for each vehicle weighed, and deliver the slip to the Engineer at the point of delivery of the material.
4. If the material is shipped by rail, the certified car weights will be accepted, provided only actual weight of material will be paid for and not minimum car weights used for assessing freight tariff. Car weights will not be acceptable for material to be passed through mixing plants. Material to be measured by weight shall be weighed separately for each bid item under which it is to be paid.
5. Trucks used to haul material being paid for by weight shall be weighed empty daily and at such additional times as the Engineer may require. Each truck shall bear a plainly legible identification mark. The Engineer may require the weight of the material be verified by weighing empty and loaded trucks on such other scales as the Engineer may designate.

C. Measurement by Volume:

1. Measurement by volume will be by the cubic dimension indicated in the Contractor's submitted bid. Method of volume measurement will be by the unit volume in place or removed as shown on the Contract Drawings or as specified.

D. Field Measurement for Payment:

1. The Contractor shall take all measurements by providing equipment, workers, and survey crews as required to measure quantities in accordance with the provisions for measurement specified herein. No allowance will be made for specified tolerances.
2. The Engineer will verify all quantities of Work performed by the Contractor on a unit-price basis, for progress payment purposes.

1.06 REJECTED, EXCESS, OR WASTED MATERIALS

- A. Quantities of material wasted or disposed of in a manner not called for under the Contract; rejected loads of material, including material rejected after it has been placed by reasons of the failure of the Contractor to conform to the provisions of the Contract; material not unloaded from the transporting vehicle; material placed outside the lines indicated on the Contract Drawings or established by the Engineer; or material remaining on hand after completion of the Work, will not be paid for, and such quantities shall not be included in the final total quantities. No additional compensation will be permitted for loading, hauling, and disposing of rejected material.

1.07 MEASUREMENT AND PAYMENT

- A. Item #1: Mobilization and Demobilization

1. Payment for Mobilization and Demobilization shall be for preparatory work and operations performed by the Contractor including, but not limited to, those necessary for the movement of its personnel, equipment, supplies and incidentals to and from the project site; temporary facilities and controls; for the establishment and removal of its offices, buildings and other facilities necessary for work on the project; for other work and operations which it must perform or costs it must incur before beginning production work on the various items on the project site, and for removal of personnel, equipment, supplies, offices, building facilities, sheds, fencing, and other incidentals from the site.
 2. Mobilization and Demobilization shall be paid at the lump sum price listed in the Contractor's submitted bid. Incremental payment shall be made for each location as follows:
 - a. 40% after completion of 5% of the total contract amount of other bid items have been earned.
 - b. 40% after completion of 20% of the total contract amount of other bid items have been earned.
 - c. 20% after completion of all work on the project has been completed, including cleanup and acceptance of the project by the Port.
- B. Item #2: Project Administration - Middle Blair
1. Item Description: The Work of this item includes all administrative costs associated with administering and supervising the project including, but not limited to supervision of personnel, coordination of all work activities, coordination of subcontractors and/or suppliers, preparation and transmittal of submittals, permit acquisitions, for premiums on bonds and insurance for the project, and project overhead.
 2. Measurement: This item will be measured based on a percentage complete for the overall lump sum amount.
 3. Payment: This item will be paid for at the Contract lump sum price as specified in the Contractor's submitted bid, in accordance with the approved Schedule of Values.
- C. Item #3: Field Engineering - Middle Blair
1. Item Description: The Work of this item includes all work necessary for Field Engineering, verifying survey reference points, completion of pre and post-dredge surveys, progress installation and removal of tide boards, as described in these Specifications.
 2. Measurement: This item will be measured based on a percentage complete for the overall lump sum amount.
 3. Payment: This item will be paid for at the Contract lump sum price as specified in the Contractor's submitted bid, in accordance with the approved Schedule of Values.
- D. Item #4: Dredging and Transload - Middle Blair
1. Item Description: The Work of this item includes: implementation of required best management practices associated with dredging and transload operations; dredging of material as noted on the drawings; loading onto transport barges; transport to the specified transload property; transload dredge material to the upland; set up and operate dewatering facility; and compliance, coordination and reporting requirements associated with upland transloading.

2. Measurement: This item will be measured by the cubic yard based on a neat-line dredge cut volume calculation comparing the pre-dredge survey to the post-dredge survey performed after removal of the dredge material.
 3. Payment: This item will be paid for based on calculated quantities for the period being billed.
- E. Item #5: Transport for Disposal - Middle Blair
1. Item Description: The Work of this item includes the loading and transportation of dewatered dredge sediment to LRI Subtitle D Landfill. The Work of this item does not include LRI Subtitle D Landfill disposal fees which will be direct paid by the Port.
 2. Measurement: This item will be measured per ton based on the measured weight of materials disposed at LRI Subtitle D Landfill.
 3. Payment: This item will be paid for at the unit price indicated on the bid form and actual quantities for the period being billed.
- F. Item #6: Sand Capping - Middle Blair
1. Item Description: The Work of this item includes; furnish and placement of sand capping layer as required in the Specifications and Plans; post-capping survey and production of a bucket coverage map.
 2. Measurement: This item will be measured by the ton.
 3. Payment: This item will be paid for based on actual quantities for the period being billed.
- G. Item #7: Dredge Debris Allowance - Middle Blair
1. Item Description: This allowance will be for compensation of costs associated with removal and disposal of regulated and non-regulated materials/waste encountered during dredging. Regulated materials/waste consists of creosote timber and piles, batteries, PCB's, and the like. Non-regulated materials consist of concrete, pipes, riprap, logs, wire, cable, steel bands, anchors, lumber, trash, etc. This bid item will be paid preferably as negotiated unit price(s) or lump sum(s). If unit prices or lump sums cannot be established, work will be paid on a time and materials basis per Section 00 72 00 General Conditions Article 8.0. Work under this bid item shall be accomplished upon written direction from the Engineer as a Minor Change in Work. This entire bid item may not be used.
 2. Measurement: This item will be measured based upon the method agreed upon for each Minor Change in Work issued.
 3. Payment: This item will be paid for at the price agreed upon for each Minor Change in Work issued by the Engineer in accordance with procedures noted in Section 01 26 00 - Change Management Procedures.
- H. Item #8: Project Administration - PCT
1. Item Description: The Work of this item includes all administrative costs associated with administering and supervising the project including, but not limited to supervision of personnel, coordination of all work activities, coordination of subcontractors and/or suppliers, preparation and transmittal of submittals, permit acquisitions, for premiums on bonds and insurance for the project, and project overhead.
 2. Measurement: This item will be measured based on a percentage complete for the overall lump sum amount.

3. Payment: This item will be paid for at the Contract lump sum price as specified in the Contractor's submitted bid, in accordance with the approved Schedule of Values.
- I. Item #9: Field Engineering - PCT
 1. Item Description: The Work of this item includes all work necessary for Field Engineering, verifying survey reference points, completion of pre and post-dredge surveys, installation and removal of tide boards, as described in these Specifications.
 2. Measurement: This item will be measured based on a percentage complete for the overall lump sum amount.
 3. Payment: This item will be paid for at the Contract lump sum price as specified in the Contractor's submitted bid, in accordance with the approved Schedule of Values.
 - J. Item #10: Dredging - PCT
 1. Item Description: The Work of this item includes: implementation of required best management practices associated with dredging operations; dredging of material as noted on the drawings; loading into dump barges; transport and disposal of material in open water; and compliance, coordination and reporting requirements associated with open water disposal.
 2. Measurement: This item will be measured by the cubic yard based on a neat-line dredge cut volume calculation comparing the pre-dredge survey to the post-dredge survey performed after removal of the dredge material.
 3. Payment: This item will be paid for based on calculated quantities for the period being billed.
 - K. Item #11: Dredge Debris Allowance - PCT
 1. Item Description: This allowance will be for compensation of costs associated with removal and disposal of regulated and non-regulated materials/waste encountered during dredging. Regulated materials/waste consists of creosote timber and piles, batteries, PCB's, and the like. Non-regulated materials consist of concrete, pipes, riprap, logs, wire, cable, steel bands, anchors, lumber, trash, etc. This bid item will be paid preferably as negotiated unit price(s) or lump sum(s). If unit prices or lump sums cannot be established, work will be paid on a time and materials basis per Section 00 72 00 General Conditions Article 8.0. Work under this bid item shall be accomplished upon written direction from the Engineer as a Minor Change in Work. This entire bid item may not be used.
 2. Measurement: This item will be measured based upon the method agreed upon for each Minor Change in Work issued.
 3. Payment: This item will be paid for at the price agreed upon for each Minor Change in Work issued by the Engineer in accordance with procedures noted in Section 01 26 00 - Change Management Procedures.
 - L. Item #12: Dredging Standby
 1. Item Description: This item will be for compensation of costs associated with idle time created by Port or Tenant operations that prevent the Contractor from working as planned. This does not include inherent delays as identified in Section 35 20 23 - Dredging.
 2. Measurement: This item will be measured on a daily rate for all labor and equipment.
-

3. Payment: This item will be paid for at the Contract daily price as specified in the Contractor's submitted bid, in accordance with the approved Schedule of Values.

PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION - NOT USED

END OF SECTION

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PART 1 - GENERAL

1.01 SUMMARY

- A. Section includes administrative and procedural requirements for handling and processing Contract modifications.

1.02 SUBMITTALS

- A. The Contractor shall submit for approval the following documentation to the Port for force account change orders:
 - 1. List of Labor Rates
 - a. For the Contractor and each subcontractor, a list of labor rates for each trade applicable to the scope of work to be performed. These submitted rates shall be broken down to include the base wage, fringes, FICA, SUTA, FUTA, industrial insurance, and medical aid premiums as stated in the General Conditions. The rates shall not contain any travel time, safety, loss efficiency factors, overhead, or profit. Rates shall be submitted for straight time, overtime, and double time in a form acceptable to the Engineer. Contractor shall provide proof of all labor rate costs as required by the Engineer, including the submission of a copy of the most current Workers Compensation Rate Notice from Labor & Industries and a copy of the Unemployment Insurance Tax Rate notice from the Employment Security Department.
 - 1) If labor rates change during the course of the project or additional labor rates become required to complete the work, the Contractor shall submit new rates for approval.
 - 2. List of Equipment.
 - a. Submit for the Contractor and each subcontractor, a list of equipment and rates applicable to the scope of work to be performed. The equipment rates shall conform to the rates shown on Equipment Watch. A separate page from equipment watch detailing the hourly rate shall be submitted as backup documentation for each piece of equipment.
 - 1) If the list of equipment and/or equipment rates changes during the course of the project or additional equipment becomes required to complete the work, the Contractor shall submit a new list and rates for approval.

1.03 METHOD TO CALCULATE ADJUSTMENTS TO CONTRACT PRICE

- A. One of the following methods shall be used:
 - 1. Unit Price Method;
 - 2. Firm Fixed Price Method (Lump Sum); or,
 - 3. Time and Materials Method (Force Account).
- B. The Port preferred methods are firm fixed price or unit prices.

1.04 MINOR CHANGES IN THE WORK

- A. Engineer will issue a written directive authorizing minor changes in the Work, not involving adjustment to the Contract Sum or the Contract Time.

1.05 PROPOSAL REQUESTS

- A. Port-Initiated Proposal Requests: The Engineer will issue a detailed description of proposed changes in the Work that may require adjustment to the Contract Sum or Contract Time. If necessary, the description will include supplemental or revised Drawings and Specifications.
1. Work Change Proposal Requests issued by Engineer are not instructions either to stop work in progress or to execute the proposed change.
 2. Contractor shall submit a written proposal within the time specified in the General Conditions. The proposal shall represent the Contractor's offer to perform the requested work, and the pricing set forth within the proposal shall represent full, complete, and final compensation for the proposed change and any impacts to any other Contract Work, including any adjustments in the Contract Time.
 - a. Include a breakdown of the changed work in sufficient detail that permits the Engineer to substantiate the costs.
 - 1) Generally, the cost breakdown should be divided into the time and materials categories listed in the General Conditions under Article 8.02.B for either Lump Sum Proposals or Force Account Proposals.
 - 2) For Unit Price Proposals, include the quantity and description of all work involved in the unit pricing being proposed, along with a not to exceed total cost.
 - b. Include an updated Contractor's construction schedule that indicates the effect of the change, including, but not limited to, changes in activity duration, start and finish times, and activity relationship. Use available total float before requesting an extension of the Contract Time.
- B. Contractor-Initiated Proposals: If latent or differing site conditions require modifications to the Contract, the Contractor may initiate a claim by submitting a request for a change to the Engineer.
1. Notify the Engineer immediately upon finding differing conditions prior to disturbing the site.
 2. Provide follow-up written notification and differing site conditions proposal within the time frames set forth in the General Conditions.
 3. Provide the differing site condition change proposal in the same or similar manner as described above under 1.05.A.
 4. Comply with requirements in Section 00 26 00 Substitution Procedures if the proposed change requires substitution of one product or system for product or system specified.
 5. Proposal Request Form: Use form acceptable to Engineer.

1.06 PROCEEDING WITH CHANGED WORK

- A. The Engineer may issue a directive instructing the Contractor to proceed with a change in the Work, for subsequent inclusion in a Change Order per the General Conditions, Article 8.01.E.
1. The directive will contain a description of change in the Work and a not-to-exceed amount. It will designate the method to be followed to determine the change in the Contract Sum or the Contract Time.

1.07 CHANGE ORDER PROCEDURES

- A. Issuance of Change Order
-

1. On approval of the Contractor's proposal, and following successful negotiations, the Engineer will issue a Change Order for signature by the Contractor and execution by the Engineer.
 - a. The Contractor shall sign and return the Change Order to the Engineer within **four (4) days** following receipt of the Change Order from the Engineer. If the Contractor fails to return the signed Change Order within the allotted time, the Engineer may issue a Unilateral Change Directive.

PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION - NOT USED

END OF SECTION

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PART 1 - GENERAL

1.01 SUMMARY

- A. This section includes specifications for preparation, format, and submittal of Schedule of Values.
- B. The Schedule of Values will establish unit prices for individual items of work.
- C. The Schedule of Values will be the basis for payment of contract work.

1.02 PREPARATION

- A. To facilitate monthly pay requests, develop the Schedule of Values based on the Contractor's submitted Bid Items. The Schedule of Values shall be used to provide an allocation of the Work for measurement and payment to a level of detail to ensure accurate payment for the Work accomplished. The Schedule of Values is based on unit priced bid items and a breakdown of each lump-sum bid item. The total dollars for the Schedule of Values shall total the bid amount.
- B. Obtain the agreement of the Contract Administrator and Engineer on the Schedule of Values. No payment will be made prior to an agreed upon Schedule of Values.
- C. Include an updated version of the Schedule of Values as changes occur. Update the Schedule of Values to include:
 - 1. Dollars earned and percent complete for the current progress payment period,
 - 2. Dollars earned and percent complete to-date, excluding the current progress payment period,
 - 3. Total dollars earned and percent complete to-date,
 - 4. Total dollars remaining, and
 - 5. Changes resulting from Change Orders.
- D. The total value of the line items in the Schedule of Values plus any approved Change Orders shall be equal to the current approved contract price.
- E. The value of stored material shall be identified in the Schedule of Values with both a material-purchase activity and a separate corresponding installation activity in the Construction Schedule(s).
- F. Include as exhibits, drawings or sketches as necessary, to better define the limits of pay items that are in close proximity and that have no clear boundary in the Contract Drawings.

1.03 SUBMITTAL

- A. Submit preliminary Schedule of Values within 10 days of the effective date of the Notice to Proceed.
- B. Submit corrected Schedule of Values within 10 days upon receipt of reviewed Schedule of Values.
- C. At the Contract administrator or Engineer's request, submit documentation substantiating the cost allocations for line items within the Schedule of Values.

PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION

3.01 SCHEDULE OF VALUES

- A. Submit the Schedule of Values in a form acceptable to the Contract Administrator and Engineer.
- B. Provide updated Schedule of Values as required by the Contract Administrator or Engineer, and as indicated in the Contract Documents.

END OF SECTION

PART 1 - GENERAL

1.01 SCOPE

- A. The purpose of this section is to provide the framework for communication between the Port and the Contractor by defining the types and timing of administrative tasks, including meetings and other items related to communications.

1.02 NOTICE TO PROCEED

- A. Contract execution will be made per the requirements of the Contract Documents. Once the contract has been executed and all pre-work submittals have been received, the Engineer will issue a Notice to Proceed (NTP).
 - 1. In certain instances, the Engineer may issue to the Contractor a Limited NTP for specified elements of the work described in these Contract Documents.
- B. The Contractor shall submit all pre-work submittals within 10 days of contract execution.
 - 1. No contract time extension shall be granted for any delays in issuance of the NTP by the Engineer due to the Contractor's failure to provide acceptable submittals required by the Contract Documents.

1.03 COORDINATION

- A. The Contractor shall coordinate all its activities through the Engineer.
- B. The Contractor shall coordinate construction operations as required to execute the Work efficiently, to obtain the best results where installation of one part of the Work depends on other portions.

1.04 PROJECT MEETINGS

- A. Pre-Construction Meeting
 - 1. After execution of the contract, but prior to commencement of any work at the site, a mandatory one time meeting will be scheduled by the Engineer to discuss and develop a mutual understanding relative to the administration of the safety program, preparation of the Schedule of Values, change orders, RFI's, submittals, scheduling prosecution of the work. Major subcontractors who will engage in the work shall attend.
 - 2. Suggested Agenda: The agenda will include items of significance to the project.
 - 3. Location of the Pre-Construction Meeting will be held at the Port of Tacoma Administration Building located at One Sitcum Plaza.
- B. Weekly Progress Meetings – Progress meetings include the Contractor, Engineer, consultants and others affected by decisions made.
 - 1. The Engineer will arrange meetings, prepare standard agenda with copies for participants, preside at meetings, record minutes and distribute copies within ten working days to the Contractor, meeting participants, and others affected by decisions made.
 - a. The Engineer will approve submitted meeting minutes in writing within 10 working days.
 - 2. Attendance is required for the Contractor's job superintendent, major subcontractors and suppliers, Engineer, and representatives of the Port as appropriate to the agenda topics for each meeting.

3. Standard Agenda
 - a. Review minutes of previous meeting
 - b. Review of work progress
 - c. Field observations, problems, and decisions
 - d. Identification of problems that impede planned progress
 - e. Maintenance of Progress Schedule (3 weeks ahead; 1 week back)
 - f. Corrective measures to regain projected schedules
 - g. Planned progress during succeeding work period
 - h. Coordination of projected progress
 - i. Maintenance of quality and work standards
 - j. Effect of proposed changes on progress schedule and coordination
 - k. Demonstration that the project record drawings are up-to-date
 - l. Other business relating to the work

PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION - NOT USED

END OF SECTION

PART 1 - GENERAL

1.01 SUMMARY

- A. The Port and Contractor shall use the Port Contract Management applications for electronic information exchange throughout the duration of the Contract, as later described. The use of these systems is to facilitate and coordinate the electronic exchange of Requests for Information, Submittals, Change Order Proposals, Pay Applications, and project specific correspondence.

1.02 USER ACCESS LIMITATIONS

- A. Contractor's access to Contract Management Software is granted and controlled by the Engineer.
 - 1. The users assigned by the Contractor to use web-based applications shall be competent and experienced with the practices commonly employed in the industry for electronically submitting requests for information, submittals, product data, shop drawings and related items as required by the contract and the methods commonly used for project correspondence transmission and filing.
 - 2. Any users assigned by the Contractor whom the Engineer determines is incapable of performing the prescribed tasks in an accurate, competent and efficient manner will be removed upon request from the Engineer. The qualifications and identity of a replacement user shall be submitted within 24 hours for consideration by the Engineer. Once accepted by the Engineer, the user account will be modified accordingly.

1.03 CONTRACTOR TECHNOLOGY REQUIREMENTS

- A. The Contractor is responsible for providing and maintaining web enabled devices capable of running Trimble Unity Connect, Microsoft Dynamics 365, and/or any other Port provided contract management application effectively.

1.04 CONTRACTOR SOFTWARE REQUIREMENTS

- A. The Contractor is responsible for providing and maintaining the following:
 - 1. An office suite that is Microsoft Office 2021 compatible for generation and manipulation of correspondence.
 - 2. A program capable of editing, annotating and manipulating Adobe pdf files for inserting the Contractor's review stamp, clouding and adding notation to the files as necessary for review by the Engineer.

1.05 CONTRACTOR RESPONSIBILITY

- A. Provide all the equipment, internet connections, software, personnel and expertise required to support the use of Port required applications as described in the Contract documents.

1.06 PORT RESPONSIBILITY

- A. Provide the Contractor with the following:
 - 1. All forms necessary for application to obtain permissions to access Port web-based construction management applications as described above.
 - 2. Information, basic user guides and requirements on methods for using Port required contract management software.

3. Instruction for the Contractor's staff utilizing Port required contract management software.

PART 2 - PRODUCTS - NOT USED PART 3 - EXECUTION

2.01 UTILIZATION OF PORT PROVIDED CONTRACT MANAGEMANT SOFTWARE

- A. The Contractor shall provide required information in a timely manner that also supports the project schedule and meets the requirements of the Contract.
- B. The Contractor shall provide and maintain competent and qualified personnel to perform the various tasks required to support the work within Port provided contract management software.
- C. The Port will not be liable for any delays associated from the usage of port provided contract management software including, but not limited to: slow response time, Port maintenance and off-line periods, connectivity problems or loss of information. Under no circumstances shall the usage of software be grounds for a time extension or cost adjustment to the contract.

END OF SECTION

PART 1 GENERAL

1.01 SUMMARY

- A. This section includes the requirements to provide a preliminary schedule and construction progress schedule, bar chart type.

1.02 SUBMITTALS

- A. Within 10 days following execution of the contract, submit a baseline project schedule defining planned operations.
- B. If the baseline project schedule requires revision after review, submit revised baseline project schedule within 10 days.
- C. Within 20 days after review of baseline project schedule, submit draft of proposed complete baseline project schedule for review.
- D. Submit updated progress schedule monthly to the Engineer with each pay application as required in Section 01 20 00 Price and Payment Procedures.

1.03 QUALITY ASSURANCE

- A. Scheduler: Contractor's personnel or Consultant specializing in Critical Path Method (CPM) scheduling with one year's minimum experience in scheduling construction work of a complexity comparable to this Project, and having use of computer facilities capable of delivering a detailed graphic printout within 48 hours of request.

1.04 SCHEDULE FORMAT

- A. The baseline project schedule shall be produced using the CPM format.
- B. Listings: In chronological order according to the start date for each activity. Identify each activity with the applicable specification section number.
- C. Sheet Size: Multiples of 11 x 17 (280 x 432 mm).

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.01 BASELINE SCHEDULE

- A. Prepare baseline project schedule in the form of a horizontal bar chart.
- B. The baseline project schedule shall include all the activities listed in the Schedule of Values and be directly related to items listed in the Bid Form. The Contractor is encouraged to add sufficient activities to facilitate a clear understanding of the means and methods planned for the various work items.
- C. Show complete sequence of construction by activity, with dates for beginning and completion of each element of construction and critical path. At a minimum it shall include and show the following:
 - 1. A time scale showing the elementary work items needed to complete the work;
 - 2. Estimated time durations for each activity, defined as any single identifiable work step within the project;
 - 3. A graphical network diagram showing the logical sequence of activities, their precedence relationships, and estimated float or leeway available for each;

4. The different categories of work as distinguished by crew requirements, equipment requirements, and construction materials; and
 5. The different areas of responsibility, such as distinctly separate or subcontracted work, and identifiable subdivisions of work.
- D. It shall be maintained and updated as necessary to accurately reflect past progress and the most probable future progress.
 - E. Activities shown shall include submittals, milestones, and sufficient task breakdown for major components of work.
 - F. Identify work of separate stages and other logically grouped activities.
 - G. Provide sub-schedules to define critical portions of the entire schedule.
 - H. Provide separate schedule of submittal dates for shop drawings, product data, samples, owner-furnished products, products identified, and dates reviewed submittals will be required from the Engineer. Indicate decision dates for selection of finishes.

3.02 PROGRESS SCHEDULE

- A. From the regularly-maintained baseline project schedule, progress schedules showing a three-week look-ahead, one-week look-back, shall be submitted and distributed at the weekly progress meetings. The progress schedule shall represent a practical plan to complete the work shown within the contract work window presented. At a minimum, the presentation, typically a Gantt-style chart, shall convey the task durations, a logical work sequence, task interdependencies, and identify important or critical constraints.
- B. Submittal and distribution of progress schedules will be understood to be the Contractor's representation that the scheduled work meets the requirements of the contract documents and that the work will be executed in the manner and sequence presented, and over the durations indicated.
- C. The scheduling, coordination, and execution of construction in accordance with the contract documents are the responsibility of the Contractor. The Contractor shall involve, coordinate, and resolve scheduling with all subcontractors, material suppliers, or others affected in development of the progress schedules.
- D. The progress schedule shall be used for coordination purposes for inspection and testing purposes as well as validation of work progress against the baseline schedule.

3.03 UPDATING SCHEDULE

- A. Maintain schedules to record actual start and finish dates of completed activities.
- B. Indicate progress of each activity to date of revision, with projected completion date of each activity.
- C. Identify activities modified since previous submittal, major changes in Work, and other identifiable changes.
- D. Indicate changes required to maintain Date of Substantial Completion.
- E. Submit reports required to support recommended changes.
- F. Contractor shall submit an updated progress schedule with each pay application and include a written narrative describing the overall progress of the work. The narrative shall include the following key aspects:

1. Progress in the last period.
2. Critical Path progress and schedule concerns.
3. Changes to schedule logic or sequencing of the work.

END OF SECTION

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PART 1 - GENERAL

1.01 SUMMARY

- A. This section includes the requirements to provide a submittal log and project submittals.

1.02 SUBMITTAL LOG

- A. Contractor shall, within 14 days of contract execution prepare and submit for Engineer approval a detailed log of all the submittals required under this Contract, along with any other submittals identified by the Port or Contractor. The log shall include, but not be limited to, schedules, required construction Work plans, equipment and material cut sheets, shop drawings, project record documents, test results, survey records, record drawings, results of QC testing, and all other items for which a submittal is required. The submittal log shall be organized by CSI Specification Division, and Section number and include the following information:
 - 1. Item Description
 - 2. Category
 - 3. Specification Section information of the applicable section
 - 4. After the submittal log is reviewed and approved by the Engineer, it shall become the basis for the submittal of all items by Contractor.

1.03 COMPLIANCE

- A. Failure to comply with these requirements shall be deemed as the Contractor's agreement to furnish the exact materials specified or materials selected by the Engineer based on these specifications.

1.04 SHOP DRAWINGS AND MANUFACTURERS' LITERATURE

- A. The Port will not accept shop drawings that prohibit the Port from making copies for its own use.
- B. Shop drawings shall be prepared accurately and to a scale sufficiently large to indicate all pertinent features of the products and the method of fabrication, connection, erection, or assembly with respect to the Work.
- C. All drawings submitted to the Engineer for approval shall be drawn to scale as ANSI D.
- D. Required electronic formats for these drawings are as follows:
 - 1. AutoCad DWG
 - 2. PDF - Formatted to print to half-scale using 11x17 paper
- E. Catalog cuts or brochures shall show the type, size, ratings, style, color, manufacturer, and catalog number of each item and be complete enough to provide for positive and rapid identification in the field. General catalogs or partial lists will not be accepted. Manufacturers' original electronic files are required for submitting.

1.05 SUBMITTAL REVIEW

- A. After review of each of Contractor's submittals, the submittal will be returned to Contractor with a form indicating one or more of the following:
 - 1. No Exceptions Taken - Means, accepted subject to its compatibility with future submittals and additional partial submittals for portions of the work not covered in this submittal. But it does not constitute approval or deletion of specified or required items not shown in the partial submittal.

2. Make Corrections Noted - Same as Item 1, except that minor corrections as noted shall be made by Contractor.
 3. Reviewed - Submittal has been reviewed by the Port, does not constitute approval, and the Contractor is responsible for requirements in submittal.
 4. Review as Noted - Submittal has to be reviewed by the Port with comments as noted.
 5. Revise and Resubmit - Means, rejected because of major inconsistencies or errors. Resolve or correct before next submittal.
 6. Rejected - Means, submitted material does not conform to the Contract Documents in a major respect (e.g., wrong material, size, capacity, model, etc.).
- B. Submittals marked "No Exceptions Taken," "Make Corrections Noted," or "Reviewed as Noted" authorizes Contractor to proceed with construction covered by those data sheets or shop drawings with corrections, if any, incorporated.
- C. When submittals or prints of shop drawings have been marked "Revise and Resubmit" or "Rejected," Contractor shall make the necessary corrections and submit required copies. Every revision shall be shown by number, date, and subject in a revision block, and each revised shop drawing shall have its latest revision numbers and items clearly indicated by clouding around the revised areas on the shop drawing.
- D. Submittals authorized by the Engineer do not in any case supersede the Contract Documents. The approval by the Engineer shall not relieve the Contractor from responsibility to conform to the Drawings or Specifications, or correct details when in error, or ensure the proper fit of parts when installed. A favorable review by the Port of shop drawings, method of work, or information regarding material and equipment Contractor proposes to furnish shall not relieve Contractor of its responsibility for errors therein and shall not be regarded as assumption of risk or liability by the Port or its officers, employees, or representatives. Contractor shall have no claim under the Contract on account of failure or partial failure, or inefficiency or insufficiency of any plan or method of work, or material and equipment so accepted. Favorable review means that the Port has no objection to Contractor using, upon its own full responsibility, the plan or method of work proposed, or furnishing the material and equipment proposed.
- E. It is considered reasonable that the Contractor's submittals shall be complete and acceptable by at least the second submission of each submittal. The Port reserves the right to deduct monies from payments due Contractor to cover additional costs for review beyond the second submission.

PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION

3.01 PREPARATION OF SUBMITTALS

- A. The Contractor shall submit all shop drawings, catalog cuts, brochures and physical samples using Trinity Unity Connect (a web based construction management software). All post-document-generated notations such as notes, arrows, stamps, clouding, or other items, are required to be shown directly on the submittal document. **Each submittal shall be accompanied by a transmittal developed within the Trinity Unity Connect software.**
- B. A separate submittal shall be prepared for each product or procedure and shall be further identified by referencing the Specification Section and paragraph number and each submittal shall be numbered consecutively.

- C. Product submittals that cannot be accomplished electronically shall be submitted electronically without attachments, marked as being hand delivered, and accompanied by a printed version of a transmittal.
- D. Shop and detail drawings shall be submitted in related packages. All equipment or material details which are interdependent, or are related in any way, must be submitted indicating the complete installation. Submittals shall not be altered once marked "No Exceptions Taken" Revisions shall be clearly marked and dated. Major revisions must be submitted for approval.
- E. The Contractor shall thoroughly review all shop and detail drawings, prior to submittal, to assure coordination with other parts of the work.
- F. Components or materials which require shop drawings and which arrive at the job site prior to approval of shop drawings shall be considered as not being made for this project and shall be subject to rejection and removal from the premises.
- G. All submittal packages including, but not limited to, product data sheets, mix designs, shop drawings and other required information for submittal must be submitted, reviewed and approved before the relevant scheduled task may commence. It is the responsibility of the Contractor to provide the submittal information which may drive a task on the construction schedule to submit items well enough in advance as to provide adequate time for review and comment from the Engineer without adversely impacting the construction schedule.
- H. When completing the Trinity Unity Connect submittal form, a Date Due field is required to be completed. This field is intended to inform the Port of the urgency of the submittal. Failure of the Port to return the submittal by the date provided by the Contractor will not be considered grounds for a contract time extension.

3.02 PRE-WORK SUBMITTALS

- A. Prior to issuance of Notice to Proceed, the following submittals must be submitted and returned to the Contractor as No Exceptions Taken, Make Corrections Noted, Reviewed, or Reviewed as Noted.
 - 1. Per 00 72 00 and 01 32 16, Baseline Project Schedule
 - 2. Per 00 73 63, Emergency Contact Numbers
 - 3. Per 01 35 29, Health and Safety Plan (HASP)
 - 4. Per 01 35 29, Spill Prevention and Countermeasures Plan (SPCC)
 - 5. Per 01 35 47, List of equipment and written certification
 - 6. Per 35 20 23, Dredging and Disposal Work Plan

3.03 MAINTENANCE OF SUBMITTAL LOG

- A. Prepare and submit for Port review a detailed submittal log conforming to the requirements of paragraph 1.02 of this section. When approved by the Engineer, use the submittal log to track the transmittal of submittals to the Engineer, the receipt of submittal comments from the Engineer, and all subsequent action with respect to each submittal. Provide an updated copy of the submittal log to the Engineer during each weekly progress meeting, unless otherwise approved by the Engineer.

END OF SECTION

PART 1 - GENERAL

1.01 SUMMARY

- A. The work includes the requirements for health and safety provisions necessary for all work at the site for this project. The work also includes compliance with all laws, regulations and ordinances with respect to safety, noise, dust, fire and police action, civil disobedience, security or traffic.
- B. Some of the work tasks may place workers in the potential position of coming into contact with regulated building materials, waste, or environmental media. Detailed information regarding the known nature and extent of refuse and regulated materials in the project area is included in Section 00 31 26 Existing Hazardous Material Information.
- C. The Contractor shall monitor site conditions for indications of identified and other potentially hazardous, dangerous, and/or regulated materials (suspicious material). Indicators of suspicious material include, but are not limited to, refuse, oily sheen or coloring on soil or water, or oily or chemical odors. If suspicious materials are encountered, the Contractor shall stop all work in that area and notify the Engineer immediately.

1.02 SUBMITTALS

- A. Prior to Notice to Proceed, the Contractor shall provide a site specific Health and Safety Plan (HASP), which meets all the requirements of local, state and federal laws, rules and regulations. The HASP shall address all requirements for general health and safety and shall include, but not be limited to:
 - 1. Description of work to be performed and anticipated chemical and/or physical hazards associated with the work;
 - 2. Map of the site(s) illustrating the location of the anticipated hazards and areas of control for those hazards (including containments, exclusion/work zones, and contaminant reduction/decontamination zones);
 - 3. Hazardous material inventory and safety data sheets (SDSs) for all chemicals which will be brought on site;
 - 4. Signage appropriate to warn site personnel and visitors of anticipated site hazards;
 - 5. Documentation that the necessary workers have completed the required Hazardous Waste Operations and Emergency Response (HAZWOPER) training;
 - 6. Engineering controls/equipment to be used to protect against anticipated hazards;
 - 7. Personal protective equipment and clothing including head, foot, skin, eye, and respiratory protection;
 - 8. Procedures which will be used for:
 - a. Suspicious materials and/or unidentified materials,
 - b. Odorous conditions and toxic gases;
 - 9. Site housekeeping procedures and personal hygiene practices;
 - 10. Personnel and equipment decontamination plan;
 - 11. Administrative controls;
 - 12. Emergency plan including locations of and route to nearest hospital;

13. Recordkeeping including:
 - a. Documentation of appropriate employee training (e.g., Hazardous Waste Operations and Emergency Response [HAZWOPER] 40-hour training for staff involved with excavation and handling of soil),
 14. Name and qualification of person preparing the HASP and person designated to implement and enforce the HASP;
 15. Excavation, stockpiling, and truck loading procedures;
 16. Lighting and sanitation; and
 17. Signatory page for site personnel to acknowledge receipt, understanding, and agreement to comply with the HASP.
- B. Prior to the start of any Work, the Contractor shall provide a site specific Spill Prevention, Control and Countermeasures (SPCC) Plan, which meets all the requirements of local, state and federal laws, rules and regulations.
- C. Contractor may submit the HASP and SPCC Plan as one comprehensive document or may submit the plans as separate documents.

1.03 POTENTIAL CHEMICAL HAZARDS

- A. Site Contaminants
1. The Contractor must provide site workers with Hazard Communication standard information for potential site contaminants (in accordance with WAC 296-843). The Contractor shall ensure that all site workers are aware of and understand this information. Additional information shall also be provided by the Contractor, as necessary, to meet the Hazard Communication Standard and HASP requirements as noted in WAC 296-901-14010 and 296-843. Workers shall be instructed on basic methods or techniques to assist in detecting suspicious material.
- B. Potential Exposures Routes
1. Inhalation: Airborne dusts, fibers, particulates, or vapors may be released during site activities. Inhalation of airborne inorganic arsenic may occur.
 2. Skin and Eye Contact: Dusts generated during site work activities may settle on the skin or clothing of site workers. Also, workers may contact potentially regulated sediments, or water, in the normal course of their work. Precautions to prevent skin or eye contact with hazardous materials will be included in the HASP. Arsenic exposure may cause skin irritation.
 3. Ingestion: Inadvertent transfer of site contaminants from hands or other objects to the mouth could occur if site workers eat, drink, smoke, chew tobacco, or engage in similar activities in work areas. This could result in ingestion of site contaminants. Precautions to prevent accidental or inadvertent ingestion of hazardous materials will be included in the HASP.
- C. Chemical hazards may also result from Contractor operations resulting in inadvertent release of fuel, oil, or other chemicals in a manner that would expose workers.

1.04 POTENTIAL PHYSICAL AND OTHER HAZARDS

- A. The Work of the Contractor is described elsewhere in these specifications. Precautions to prevent all anticipated physical and other hazards, including heavy equipment and vessels, shall be addressed in the HASP.
- B. Specific aspects of construction resulting in physical hazards anticipated for this project include, but are not limited to the following:
 - 1. Work over or adjacent to water, presenting hazards of falling into water, hypothermia from exposure to the elements, and drowning;
 - 2. Operation of marine equipment, including winches, dredges, and related equipment, entrapment, ensnarement, and being struck by moving parts hazards;
 - 3. Major hazards associated with earthwork impacts from moving construction vehicles and trucks, noise, thermal stress, contact with unguarded machines, excavation hazards (i.e., cave-in, utility, etc.), strains from heavy lifting, and reduced visibility and communications difficulties in work area; and
 - 4. Operation of equipment, including excavators, loaders, and related equipment, presenting hazards of entrapment, ensnarement, and being struck by moving parts.
- C. Other anticipated physical hazards:
 - 1. Heat stress, such as that potentially caused by impermeable clothing (may reduce the cooling ability of the body due to evaporation reduction);
 - 2. Cold stress, such as that potentially caused during times when temperatures are low, winds are high, especially when precipitation occurs during these conditions;
 - 3. Biological hazards, such as mold, insect stings, or bites, poisonous plants (i.e., poison oak, sumac, etc.); and
 - 4. Trips and falls.

PART 2 - PRODUCTS

2.01 SAFETY SIGNAGE

- A. The Contractor shall provide signage at strategic locations within the project site to alert jobsite workers and visitors of the remediation work, associated hazards, and required precautions.

2.02 PRODUCTS SPECIFIED FOR HEALTH AND SAFETY

- A. Provide the equipment and supplies necessary to support the work as described in the site-specific HASP. Equipment and supplies may include, but are not limited to:
 - 1. All chemicals to be used on site;
 - 2. A hazardous materials inventory and SDSs for the chemicals brought on site;
 - 3. Warning signs and labels;
 - 4. Fire extinguishers;
 - 5. Personal protective equipment (hard hats, foot gear, skin, eye, and respiratory protection);
 - 6. First aid equipment;
 - 7. Spill response and spill prevention equipment; and

8. Field documentation logs/supplies.

PART 3 - EXECUTION

3.01 WORK AREA PREPARATION

- A. Contractor shall comply with health and safety rules, regulations, ordinances promulgated by the local, state, and federal government, the various construction permits, and other sections of the Contract Documents. Such compliance shall include, but not be specifically limited to: any and all protective devices, equipment and clothing; guards; restraints; locks; latches; switches; and other safety provisions that may be required or necessitated by state and federal safety regulations. The Contractor shall determine the specific requirements for safety provisions and shall have inspections and reports by the appropriate safety authorities to be conducted to ensure compliance with the intent of the regulations.
- B. Contractor shall inform employees, subcontractors and their employees of the potential danger in working with any potentially regulated materials, equipment, soils and groundwater at the project site.
 1. The Contractor shall not proceed with jobsite activities that might result in exposure of employees to hazardous materials until the HASP is reviewed by the Engineer.
- C. All Contractor employees expected to work at the jobsite or individuals entering the jobsite shall read the Contractor HASP before they enter the jobsite, and will sign a statement provided by the Contractor that they have read and understand the HASP. A copy of the Contractor's HASP shall be readily available at the site at all times the work is being performed.
- D. The Contractor's HASP shall be amended as needed by the CIH or CSP to include special work practices warranted by jobsite conditions actually encountered. Special practices could include provisions for decontamination of personnel and equipment, and the use of special equipment not covered in the initial plan.
- E. Contractor shall perform whatever work is necessary for safety and be solely and completely responsible for conditions of the job site, including safety of all persons (including employees of the Engineer, Engineer's Representative, and Contractor) and property during the Contract period. This requirement applies continuously and is not limited to normal working hours.
- F. The Engineer's review of the Contractor's performance does not include an opinion regarding the adequacy of, or approval of, the Contractor's safety supervisor, the site-specific HASP, safety program or safety measures taken in, on, or near the job site.
- G. Accidents causing death, injury, or damage must be reported immediately to the Engineer and the Port Security Department in person or by telephone or messenger. In addition, promptly report in writing to the Engineer all accidents whatsoever arising out of, or in connection with, the performance of the work whether on, or adjacent to, the site, giving full details and statements of witnesses.
- H. If a claim is made by anyone against the Contractor or any subcontractor on account of any accident, the Contractor shall promptly report the facts in writing within 24 hours after occurrence, to the Engineer, giving full details of the claim.

3.02 SITE SAFETY AND HEALTH OFFICER

- A. Contractor shall provide a person designated as the Site Safety and Health Officer, who is thoroughly trained in rescue procedures, has a minimum current 40-hour HAZWOPER certification (minimum), and trained to use all necessary safety equipment, air monitoring equipment, and gas detectors. The person must be available and/or present at all times while work is being performed, and conduct testing, as necessary.
- B. The Site Safety and Health Officer shall be empowered with the delegated authority to order any person or worker on the project site to follow the safety rules. Failure to observe these rules is sufficient cause for removal of the person or worker(s) from this project.
- C. The Site Safety and Health Officer is responsible for determining the extent to which any safety equipment must be utilized, depending on conditions encountered at the site.

3.03 SPILL PREVENTION AND CONTROL

- A. The Contractor shall be responsible for prevention, containment and cleanup of spilling petroleum and other chemicals/hazardous materials used in the Contractor's operations. All such prevention, containment and cleanup costs shall be borne by the Contractor.
- B. The Contractor is advised that discharge of oil, fuel, other petroleum, or any chemicals/hazardous materials from equipment or facilities into state waters or onto adjacent land is not permitted under state water quality regulations.
- C. In the event of a discharge of oil, fuel or chemicals/hazardous materials into waters, or onto land with a potential for entry into waters, containment and cleanup efforts shall begin immediately and be completed as soon as possible, taking precedence over normal work. Cleanup shall include proper disposal of all spilled material and used cleanup materials.
- D. The Contractor shall, at a minimum, take the following measures regarding spill prevention, containment and cleanup:
 - 1. Fuel hoses, lubrication equipment, hydraulically operated equipment, oil drums and other equipment and facilities shall be inspected regularly for drips, leaks or signs of damage, and shall be maintained and stored properly to prevent spills. Proper security shall be maintained to discourage vandalism.
 - 2. All land-based chemical, oil and products' storage tanks shall be diked, contained and/or located so as to prevent spills from escaping into the water. Dikes and containment area surfaces shall be lined with impervious material to prevent chemicals or oil from seeping through the ground and dikes.
 - 3. All visible floating sheen shall be immediately contained with booms, dikes or other appropriate means and removed from the water prior to discharge into state waters. All visible spills on land shall be immediately contained using dikes, straw bales or other appropriate means and removed using sand, sawdust or other absorbent material, which shall be properly disposed of by the Contractor. Waste materials shall be temporarily stored in drums or other leak-proof containers after cleanup and during transport to disposal. Waste materials shall be disposed offsite in accordance with applicable local, state and federal regulations.
 - 4. In the event of any oil or product discharges into public waters, or onto land with a potential for entry into public waters, the Contractor shall immediately notify the Port Security at their listed 24-hour response number:

a. Port Security: 253-383-9472

E. The Contractor shall maintain the following materials (as a minimum) at each of the project sites:

1. Oil-absorbent booms: 100 feet;
2. Oil-absorbent pads or bulk material, adequate for coverage of 200 square feet of surface area;
3. Oil-skimming system; and
4. Oil dry-all, gloves, and plastic bags.

END OF SECTION

PART 1 - GENERAL

1.01 SUMMARY

- A. This Section discloses procedures to follow if unknown regulated materials are encountered.

1.02 NOTIFICATION AND SUSPENSION

- A. In the event the Contractor detects the presence of potentially regulated materials not previously identified in this specification, the Contractor shall stop work and immediately notify the Port. Following such notification by the Contractor, the Port shall in turn notify the various governmental and regulatory agencies concerned with the presence of regulated materials, if warranted. Depending upon the type of materials identified, the Port may suspend work in the vicinity of the discovery under the provisions of General Conditions.
 - 1. Following completion of any further testing necessary to determine the nature of the materials involved, the Port will determine how the material shall be managed. Although the actual procedures used in resuming the work shall depend upon the nature and extent of the regulated material, the following alternate methods of operation are foreseen as possible:
 - a. Contractor to resume work as before the suspension.
 - b. Contractor to move its operations to another portion of the work until measures to eliminate any hazardous conditions can be developed and approved by the appropriate regulatory agencies.
 - c. The Port to direct the Contractor to dispose or treat the material in an approved manner.
 - d. The Port to terminate or modify the Contract accordingly, for unforeseen conditions.

PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION - NOT USED

END OF SECTION

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PART 1 - GENERAL

1.01 SUMMARY

- A. The Work includes the requirements to provide air and noise control measures until Final Completion of the Work.

1.02 SUBMITTALS

- A. Prior to Notice to Proceed, the Contractor shall submit a list of equipment to be used on the project and written certification that all equipment on the list and any additional equipment, including Contractor's, subcontractors or supplier's equipment, shall meet the requirements of 3.01 below.

PART 2 - PRODUCTS - NOT USED

PART 3 – EXECUTION

3.01 AIR POLLUTION CONTROL

- A. The Contractor shall meet or exceed EPA Tier 2 off-road diesel engine emission standards for off-road equipment \geq 25hp and meet or exceed EPA 1994 on-road diesel engine emission standards for on-road equipment except as follows:
 - 1. Equipment being used in an emergency or public safety capacity
- B. The Contractor shall not discharge smoke, dust, and other hazardous materials into the atmosphere that violate local, state or federal regulations.
- C. No vehicles can idle for more than 5 consecutive minutes, except as follows:
 - 1. Idling is required to bring or maintain the equipment to operating temperature;
 - 2. Engine idling is necessary to accomplish work for which the equipment was designed (i.e. operating a crane); or
 - 3. Idling vehicles being used in an emergency or public safety capacity.
- D. The Contractor shall minimize nuisance dust by cleaning, sweeping, vacuum sweeping, sprinkling with water, or other means. Equipment for this operation shall be on the job site or available at all times.

3.02 NOISE CONTROL

- A. The Contractor shall comply with all local controls and noise level rules, regulations and ordinances which apply to work performed pursuant to the Contract.
- B. All internal combustion engines used on the job shall be equipped with a muffler of a type recommended by the manufacturer.

END OF SECTION

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PART 1 – GENERAL

1.01 SUMMARY

- A. The Work shall consist of the procedures to be followed in the event that cultural and/or historical resources are inadvertently discovered during the projects activities.
- B. The project is located in an area previously inventoried for cultural and historical resources; however it is possible that additional, previously unidentified archaeological resources and/or skeletal remains could be inadvertently discovered during project activities. In the event that prehistoric, historic-era archaeological materials or skeletal remains are discovered, the appropriate protection measures and protocols described in this section must be followed.

1.02 REFERENCES

- A. The rules, requirements, and regulations that apply to this Work include, but are not necessarily limited to the following:
 - 1. Port of Tacoma "Archaeological Monitoring and Inadvertent Discovery Plan," located in Appendix C.

1.03 CONTACT INFORMATION

- A. Port of Tacoma
PO Box 1837, Tacoma, WA 98401
Primary Contact: Mark Rettmann, Environmental Project Manager
253. 383-5841
- B. Puyallup Tribe
Attention: Tribal Chairman
3009 Portland Ave, Tacoma, WA 98404
Primary Contact: Brandon Reynon, Tribal Archaeologist/Cultural Regulatory Specialist
253.573-7986
- C. US Army Corps of Engineers, Seattle District
Project Manager – LeeAnn Simmons, 206.764-6901

PART 2 – PRODUCTS – NOT USED.

PART 3 – EXECUTION

3.01 PROTOCOLS FOR DISCOVERY OF ARCHAEOLOGICAL RESOURCES

- A. In the event that archaeological resources are encountered within the project, the following actions will be taken:
 - 1. All ground disturbing and construction activity at the specific location will stop and the area will be protected via temporary fencing or other appropriate measures.
 - 2. The Contractor's work supervisor will be notified immediately.
 - 3. Contact the Port's Engineer and Environmental Project Manager immediately.
 - 4. A work stoppage zone, as determined by the Port, will be established.

5. The Port's Environmental Project Manager will contact the appropriate agencies where the discovery is located as well as the Washington State Department of Archaeology and Historic Preservation (DAHP) the Puyallup Tribe (TRIBE) and the U.S. Army Corps of Engineers (Corp).
6. The Work Stoppage Zone will remain protected until further decisions can be made regarding the area.
7. The Contractor will be allowed to continue ground disturbing and other construction activities outside of the established work stoppage zone.

3.02 PROTOCOLS FOR DISCOVERY OF HUMAN REMAINS

- A. In the event of that human remains are encountered within the project, the following actions, consistent with RCWs 68.50.645, 27.44.055 and 68.60.055 will be taken:
 1. All ground disturbing and construction activity at the specific location will stop and the area will be protected via temporary fencing or other appropriate measures. The remains will not be touched, moved or further disturbed.
 2. The Contractor's work supervisor will be notified immediately.
 3. Contact the Port's Engineer and Environmental Project Manager immediately.
 4. The Environmental Project Manager will notify the county medical examiner / coroner and local law enforcement.
 5. A Work Stoppage Zone will be determined and remain protected until further decisions can be made regarding the area.
 6. The Contractor will be allowed to continue ground disturbing and other construction activities outside of the established work stoppage zone.

3.03 PROTOCOLS FOR CONFIDENTIALITY

- A. In the event of that human remains or cultural resources are discovered within the project area, the Port and the Contractor shall keep and maintain all information regarding any discovery confidential.
 1. At no time shall the Contractor contact the media, any third party or otherwise share information regarding the discovery with any member of the public.
 2. If the Contractor is contacted by the media or the public regarding any discovery, they shall refrain from comment, and contact the Port's Environmental Project Manager immediately.

END OF SECTION

PART 1 - GENERAL

1.01 PERMITS, CODES, AND REGULATIONS

- A. The following permits/approvals have been applied for (or are on file) and incorporated into the Contract:
1. Middle Blair Specific Permits, located in Appendix E
 - a. State Environmental Policy Act (SEPA) Compliance Determination of Nonsignificance
 - b. Shoreline Management Act / Critical Areas Compliance Exemption LU24-0102
 - c. Hydraulic Project Approval 2024-6-383+01
 - d. DMMP Suitability Determination Memorandum
 - e. United States Army Corp of Engineers NWS-2024-563-WRD
 - f. Department of Ecology Water Quality Certification 23248
 - g. Department of Ecology Coastal Zone Management
 2. Pierce County Terminal (PCT) Specific Permits, located in Appendix F
 - a. State Environmental Policy Act (SEPA) Compliance Determination of Nonsignificance
 - b. Shoreline Management Act / Critical Areas Compliance Exemption LU24-0143
 - c. Hydraulic Project Approval 2023-6-111+01
 - d. DMMP Suitability Determination Memorandum
 - e. United States Army Corp of Engineers NWS-2022-681-WRD
 - f. Department of Ecology Water Quality Certification 23234
 - g. Department of Natural Resources Site Use Authorization TBD
 - h. Department of Ecology Coastal Zone Management 141761
 3. Transload Facility Specific Permits, located in Appendix G
 - a. Department of Ecology Construction Stormwater General Permit
 - b. Pierce County Waste Disposal Agreement Sample
 4. Water Quality Monitoring and Protection Plan, located in Appendix D
- B. Conform with the requirements of listed permits and additional or other applicable permits, codes, and regulations as may govern the Work.
- C. Obtain and pay fees for licenses, permits, inspections, and approvals required by laws ordinances, and rules of appropriate governing or approving agencies necessary for proper completion of Work (other than those listed under item 1.01.A above and Special Inspections called for by the International Building Code).
- D. Conform with current applicable codes, regulations and standards, which is the minimum standard of quality for material and workmanship. Provide labor, materials, and equipment necessary for compliance with code requirements or interpretations, although not specifically detailed in Drawings or specifications. Be familiar with applicable codes and standards prior to bidding.

- E. Process through Engineer, request to extend, modify, revise, or renew any of the permits (listed in 1.01.A above). Furnish requests in writing and include a narrative description and adequate Drawings to clearly describe and depict proposed action. Do not contact regulatory agency with requests for permit extensions, modifications, revisions, or renewals without the prior written consent of the Engineer.

1.02 VARIATIONS WITH CODES, REGULATIONS AND STANDARDS

- A. Nothing in the Drawings and specifications permits Work not conforming to codes, permits, or regulations. Promptly submit written notice to the Engineer of observed variations or discrepancies between the Contract Documents and governing codes and regulations.
- B. Appropriate modifications to the Contract Documents will be made by Change Order to incorporate changes to Work resulting from code and/or regulatory requirements. Contractor assumes responsibility for Work contrary to such requirements if Work proceeds without notice.
- C. Contractor is not relieved from complying with requirements of Contract Documents which may exceed, but not conflict with requirements of governing codes.

1.03 COORDINATION WITH REGULATORY AGENCIES

- A. Coordinate Work with appropriate governing or regulating authorities and agencies.
- B. Provide advance notification to proper officials of Project schedule and schedule revisions throughout Project duration, in order to allow proper scheduling of inspection visits at proper stages of Work completion.
- C. Regulation coordination is in addition to inspections conducted by Engineer. Notify Engineer at least 48 hours in advance of scheduled inspections involving outside regulating officials, to allow Engineer to be present for inspections.

1.04 COORDINATION WITH WASHINGTON DEPARTMENT OF FISH AND WILDLIFE

- A. Notify WDFW and Area Habitat Biologist (AHB) at least 3 days prior to start of construction.
- B. Engineer shall be copied on all communications with Agencies.

PART 2 - PRODUCTS - NOT USED

PART 3 – EXECUTION - NOT USED

END OF SECTION

PART 1 - GENERAL

1.01 SUMMARY

- A. This section includes requirements relating to referenced standards.

1.02 QUALITY ASSURANCE

- A. For products or workmanship specified by reference to a document or documents not included in the Project Manual, also referred to as reference standards, comply with requirements of the standard, except when more rigid requirements are specified or are required by applicable codes.
- B. Conform to reference standard of date of issue specified in this section, except where a specific date is established by applicable code.
- C. Should specified reference standards conflict with Contract Documents, request clarification from the Engineer before proceeding.
- D. Neither the contractual relationships, duties, or responsibilities of the parties in Contract nor those of the Engineer shall be altered by the Contract Documents by mention or inference otherwise in any reference document.

PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION - NOT USED

END OF SECTION

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PART 1 - GENERAL

1.01 QUALITY CONTROL FOR COMPLIANCE:

- A. The Contractor shall perform such detailed examination, inspection, quality control and assurance of the Work as to ensure that the Work is progressing and is being completed in strict accordance with the Contract Documents. The Contractor shall plan and lay out all Work in advance of operations so as to coordinate all Work without delay or revision. The Contractor shall be responsible for inspection of portions of the Work already performed to determine that such portions are in proper condition to receive subsequent Work. Under no conditions shall a portion of Work proceed prior to preparatory work having been satisfactorily completed. The Contractor shall ensure that the responsible Subcontractor has carefully examined all preparatory work and has notified the Contractor (who shall promptly notify the Port in writing) of any defects or imperfections in preparatory work that will, in any way, affect completion of the Work.

1.02 QUALITY ASSURANCE - CONTROL OF INSTALLATION

- A. Monitor quality control over suppliers, manufacturers, products, services, site conditions, and workmanship, to produce Work of specified quality.
- B. Comply with manufacturers' instructions, including each step in sequence.
- C. Should manufacturers' instructions conflict with Contract Documents, request clarification from Engineer before proceeding.
- D. Comply with specified standards as minimum quality for the Work except where more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.
- E. Perform Work by persons qualified to produce required and specified quality.
- F. Verify that field measurements are as indicated on shop Drawings or as instructed by the manufacturer.
- G. Secure Products in place with positive anchorage devices designed and sized to withstand stresses, vibration, physical distortion, or disfigurement.

1.03 TOLERANCES

- A. Monitor fabrication and installation tolerance control of Products to produce acceptable Work. Do not permit tolerances to accumulate.
- B. Comply with manufacturers' tolerances. Should manufacturers' tolerances conflict with Contract Documents, request clarification from Engineer before proceeding.
- C. Adjust Products to appropriate dimensions; position before securing Products in place.

PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION - NOT USED

END OF SECTION

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PART 1 - GENERAL

1.01 SUMMARY

- A. This section includes requirements relating to the following:
 - 1. Temporary utilities,
 - 2. Temporary telecommunications services,
 - 3. Temporary sanitary facilities,
 - 4. Temporary Controls: Barriers, enclosures, and fencing, and

1.02 TEMPORARY UTILITIES

- A. Provide and pay for all electrical power, lighting, water, heating and cooling, and ventilation required for construction purposes.
- B. Existing facilities shall not be used.
- C. Use trigger-operated nozzles for water hoses, to avoid waste of water.

1.03 TELECOMMUNICATIONS SERVICES

- A. Provide, maintain, and pay for telecommunications services to field personnel at time of project mobilization. It is the Contractor's responsibility to be able to receive phone calls and emails at the job site.

1.04 TEMPORARY SANITARY FACILITIES

- A. Provide and maintain required facilities and enclosures. Provide at time of project mobilization.
- B. Maintain daily in clean and sanitary condition.
- C. At end of construction, return facilities to same or better condition as originally found.

1.05 BARRIERS

- A. Provide barriers to prevent unauthorized entry to construction areas, to prevent access to areas that could be hazardous to workers or the public, to allow for Port's use of site, and to protect existing facilities and adjacent properties from damage from construction operations and demolition.
- B. Protect non-owned vehicular traffic, stored materials, site, and structures from damage.

1.06 FENCING

- A. Construction: Contractor's option.
- B. Provide 6 ft. (1.8 m) high fence around construction site; equip with vehicular gates with locks.

1.07 REMOVAL OF UTILITIES, FACILITIES, AND CONTROLS

- A. Remove temporary utilities, equipment, facilities, materials, prior to final inspection.
- B. Clean and repair damage caused by installation or use of temporary work.

PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION - NOT USED

END OF SECTION

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PART 1 - GENERAL

1.01 SUMMARY

- A. This section includes requirements relating to the following:
 - 1. Parking
 - 2. Construction parking controls
 - 3. Haul routes
 - 4. Maintenance
 - 5. Mud from site vehicles

PART 2 - PRODUCTS

2.01 SIGNS, SIGNALS, AND DEVICES

- A. Post Mounted and Wall Mounted Traffic Control and Informational Signs, as needed.
- B. Traffic Cones and Drums: As approved by local jurisdictions.

PART 3 - EXECUTION

3.01 ACCESS TO SITE

- A. Contractor shall conduct all business through the gate assigned by the Engineer.
 - 1. The Contractor may be required to relocate entry and related work areas as required by Port Operations.
 - 2. The Contractor shall have access to the construction site by Contractor's boat. Contractor may use Port of Tacoma's access float located at the Port's Administration Building at, 1 Sitcum Plaza, Tacoma, WA 98421 and park employee vehicles in the adjacent parking lot or use the pier located at the transload facility at, 3401 Taylor Way, Tacoma, WA 98421.
- B. Provide unimpeded access for emergency vehicles. Maintain 20 foot (6 m) width driveways with turning space between and around combustible materials.
- C. Provide and maintain access to fire hydrants free of obstructions.

3.02 PARKING

- A. All Contractor's employee cars and other private vehicles will be parked outside the Port terminals. Parking is available at the Port of Tacoma Administration Building at 1 Sitcum Plaza, Tacoma, WA 98421 or at the transload facility located at, 3401 Taylor Way, Tacoma, WA 98421.

3.03 CONSTRUCTION PARKING CONTROL

- A. Control vehicular parking to prevent interference with public traffic and parking, access by emergency vehicles, and Port operations.
- B. Prevent parking on or adjacent to access roads or in non-designated areas.

3.04 HAUL ROUTES

- A. Confine construction traffic to designated haul routes.

3.05 MAINTENANCE

- A. Maintain traffic and parking areas in a sound condition free of excavated material, construction equipment, Products, mud, snow, and ice.

3.06 PUBLIC STREET AND ONSITE ROADWAY CLEANING

- A. The Contractor shall be responsible for preventing dirt and dust escaping from trucks and other vehicles operating on or departing the project site by sweeping, covering dusty loads, washing truck tires, and all other reasonable methods.
- B. When trucks and other equipment are operating on paved public streets and site roadways/paved surfaces, the Contractor will be required to clean said streets, roadways, and other paved surfaces as deemed necessary, and at other times if required by the Engineer.
- C. In the event that the above requirements are violated and no action is taken by the Contractor after notification of infraction by the Engineer, the Port reserves the right to have the streets, roadways, and other paved surfaces in question cleaned by others and have the expense of the operation charged to the Contractor.

END OF SECTION

PART 1 – GENERAL

1.01 SUMMARY

- A. The Work shall consist of planning, installing, inspecting, maintaining and removing Temporary Erosion and Sediment Control (TESC) Best Management Practices (BMPs) to prevent pollution of air and water; and to control, respond to, and dispose of eroded sediment and turbid water during the term of the Contract.
- B. Construction Stormwater Pollution Prevention Plan (SWPPP) has been prepared by the Port as part of the National Pollution Discharge Elimination System (NPDES) stormwater permit requirements for the project site. The SWPPP is included in the Project Manual Appendix. The Contractor shall use a project-specific SWPPP to meet or exceed the control measures required by the Washington Department of Ecology (Ecology). The SWPPP describes the proposed construction activities and all Temporary and Permanent Erosion and Sediment Control (ESC) measures, pollution prevention measures, inspection/monitoring activities, and recordkeeping that will be implemented during the proposed construction project. The Contractor shall have an individual who is a Certified Erosion and Sediment Control Lead (CESCL) on site or on-call at all times.
 - 1. The SWPPP consists of planning, installing, inspecting, maintaining, and removing TESC BMPs per Volume II of the Stormwater Management Manual for Western Washington (current version). The BMPs are designed to prevent pollution of air and water, to control peak volumetric flow rates and velocity of stormwater, and to control, respond to, and dispose of eroded sediment and turbid water during the term of the Contract.
 - 2. The Contractor will be responsible for updating the SWPPP to reflect changes to BMPs, as needed, to comply with the Construction Stormwater General Permit at no additional cost to the Port.
- C. These TESC requirements shall apply to all areas associated with the Work, including but not limited to the following:
 - 1. Work areas;
 - 2. Equipment and material storage areas;
 - 3. Staging areas;
 - 4. Stockpiles; and
 - 5. Discharge points within or adjacent to the work areas that are impacted by stormwater runoff from the site.
- D. Acceptance of TESC plans does not constitute an approval of permanent Work or drainage design (e.g., size and location of roads, pipes, restrictors, channels, retention facilities, utilities, etc.).
- E. Contractor shall read and conform to all requirements set forth in Washington Department of Ecology's (Ecology) NPDES General Permit for Discharges Associated with Construction Activities (CSGP).

1.02 REFERENCES

- A. The rules, requirements, and regulations that apply to this Work include, but are not necessarily limited to the following:

1. Washington Department of Ecology, "Stormwater Management Manual for Western Washington," current version.
2. Washington Department of Ecology NPDES General Permit for Discharges Associated with Construction Activities (CSGP), current version.
3. Washington State Department of Transportation, current version, Standard Specification M41-10, Division 8-01 Erosion Control and Water Pollution Control.
4. City of Tacoma, "Surface Water Management Manual," Tacoma Public Works, Environmental Services, current version.

1.03 SUBMITTALS

- A. Prior to the start of any construction activities, a Construction Stormwater Pollution Prevention Plan (SWPPP), as required by the CSGP or acceptance of Port provided SWPPP.
 1. Contractor must adopt and comply with either a Port project SWPPP, or provide an alternative project SWPPP.
 2. Contractor shall be responsible for updating the project SWPPP during construction to reflect the required changes to BMPs and personnel, as needed, to comply with the CSGP at no additional cost to the Port.
- B. Safety Data Sheet (SDS) for any dust palliative product.
- C. A copy of all Contractor site inspection logs and monthly Discharge Monitoring Reports (DMRs).
- D. The name and contact number of the Certified Erosion and Sediment Control Lead (CESCL).

1.04 AUTHORITY OF ENGINEER

- A. The Engineer has the authority to limit the surface area of erodible earth material exposed by clearing and grubbing, excavation, borrow and fill operations, as determined by analysis of project conditions; and to direct the Contractor to provide immediate permanent or temporary pollution control measures to minimize impacts to adjacent streams or other watercourses, lakes, ponds, and other areas of water impoundment.
- B. In the event that areas adjacent to the work area are suffering degradation due to erosion, sediment deposit, water flows, or other causes, the Engineer may stop construction activities until the Contractor rectifies the situation.

PART 2 – PRODUCTS

2.01 DUST CONTROL

- A. Dust palliative for dust control proposed by the Contractor and approved by the Engineer.

PART 3 – EXECUTION

3.01 GENERAL

- A. The Port is subject to a NPDES General Permit for Discharges Associated with Construction Activities (CSGP). The Port shall be the responsible Operator/Permittee for the duration of the project.
- B. In the event of conflict between these requirements and pollution control laws, rules, or regulations of other federal, state, or local agencies, the more restrictive laws, rules, or regulations shall apply as determined by the Engineer.

- C. No project discharge of water shall be allowed that exceeds the regulated pollutant levels in Ecology's NPDES permit associated with the Project and any CSGP-associated Administrative Orders (if applicable).
- D. Contractor shall be solely responsible for all BMP modifications and upgrades to comply with the CSGP and the requirements of this Section, at no additional cost to the Port.
- E. Contractor shall be solely responsible for any damages and fines incurred because of Contractor, subcontractor, or supplier actions in implementing the requirements of this Section.
- F. The Contractor shall be solely responsible for schedule impacts incurred because of Contractor, subcontractor, or supplier actions in implementing the requirements of this Section.

3.02 TEMPORARY EROSION AND SEDIMENT CONTROL DEVELOPMENT

- A. The Contractor is responsible for developing the TESC BMPs and incorporating them into the SWPPP. The Contractor shall address the following issues as part of developing and implementing the BMPs.
 - 1. The TESC notes and details shown in the Drawings and the information in this Section of these Specifications are minimum requirements for the anticipated site conditions during the construction period. During the construction period the Contractor shall, at no additional cost to the Port, upgrade the TESC measures as needed for unexpected storm events and modify these measures for changing site conditions (such as relocation of ditches and silt fences, etc.) and update the SWPPP to document the modifications made.
 - 2. The Contractor shall inspect the TESC measures daily and maintain these measures to ensure continued proper functioning during the construction period. The Contractor will keep written records on site of inspections on a weekly basis during the wet season (October 1 through April 30) and on a monthly basis during the dry season (May 1 through September 30). The Contractor shall provide the Port with copies of the TESC inspections, as stated in Section 1.03 above.
 - 3. Any areas needing TESC measures not requiring immediate attention shall be addressed by the Contractor at the Port's discretion.
 - 4. The TESC measures in an inactive site shall be inspected and maintained by the Contractor at a frequency described in the Project Construction Stormwater NPDES General Permit.
 - 5. The Contractor shall be responsible for implementing the SWPPP and shall modify the SWPPP as required to reflect on-site activities and personnel.
- B. Contractor shall develop project-specific TESC BMPs and incorporate them into the SWPPP.
 - 1. The SWPPP shall comply with the requirements in Ecology's Volume II of the Stormwater Management Manual for Western Washington (current version) or equivalent.
 - 2. TESC notes and details shown in the Drawings and the information in this Section form a basis of the minimum requirements for a TESC Plan. Contractor shall develop a TESC Plan specific to the construction schedule and proposed means and methods prior to commencing construction activities for the duration of the Project.
- C. Contractor shall inspect the existing system and report to the Engineer the levels of existing material prior to installation of TESC BMPs.

3.03 TEMPORARY EROSION AND SEDIMENT CONTROL IMPLEMENTATION

- A. Contractor is responsible for implementing and updating the SWPPP including TESC BMPs.
 - 1. Contractor shall inspect the TESC measures daily and maintain these measures to ensure continued proper functioning for the duration of the Project.
 - 2. Contractor will be responsible for documenting TESC site inspections on a weekly basis in areas of active construction and on a monthly basis in areas that have undergone stabilization. Contractor shall keep records of the inspections on site.
 - 3. During the construction period the Contractor shall, at no additional cost to the Port, upgrade and/or maintain TESC measures as needed, based on Contractor means and methods, work sequencing, and changing site conditions (e.g., changes to impervious surface coverage, proximity of work to storm conveyance systems, storm events, etc.). Contractor shall modify these measures for changing site conditions and update the SWPPP to document all modifications made.
- B. Contractor shall clean all stormwater components affected by construction debris prior to Work completion, per TESC BMPs for catch basin maintenance. The cleaning process shall not flush sediment-laden water into a downstream system.
- C. Contractor shall ensure that water, or a dust palliative and a dispensing subcontractor, if needed, is available for project use. It is the responsibility of the Contractor to develop and adhere to appropriate safety measures pertaining to the palliative use. This also includes ensuring the dispensing subcontractor develops and adheres to the appropriate safety measures, if a dispensing subcontractor is used. Water used for dust suppression shall not be applied at such a rate or in a location that it will generate runoff from the site.
- D. Areas of exposed soils, including embankments, which will not be disturbed for two days during the wet season (October 1 through April 30) or seven days during the dry season (May 1 through September 30), shall immediately be stabilized by the Contractor with an Ecology-approved TESC measure (e.g., seeding, mulching, plastic covering, etc.).
- E. TESC measures in an inactive area shall be inspected and maintained by the Contractor until the area is permanently stabilized.
- F. In the event that additional temporary erosion and pollution control measures are required due to the Contractor's negligence, carelessness, or failure to install permanent controls as a part of the Work as scheduled or as ordered by the Engineer, such work shall be performed by the Contractor at its own expense.
- G. Contractor shall remove all TESC facilities, install permanent site surfacing improvements and permanent BMPs with minimal disturbance, and shall clean stormwater facilities prior to Work completion.

END OF SECTION

PART 1 - GENERAL

1.01 SUMMARY

- A. This section includes requirements relating to the following:
 - 1. Examination, preparation, and general installation procedures

PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Verify that existing site conditions and substrate surfaces are acceptable for subsequent work. Start of work means acceptance of existing conditions.
- B. Examine and verify specific conditions described in individual specification sections.

3.02 PROTECTION OF INSTALLED WORK

- A. Protect installed work from damage by construction operations.
- B. Provide special protection where specified in individual specification sections.
- C. Provide temporary and removable protection for installed products. Control activity in immediate work area to prevent damage.

END OF SECTION

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PART 1 - GENERAL

1.01 SUMMARY

- A. This section includes field engineering and land surveying services by Contractor.

1.02 DESCRIPTION OF WORK

- A. This section describes the general requirements for bathymetric site surveying including; pre-dredge, post-dredge and post-capping surveys; and establishing and maintaining the design lines and grades shown on the Contract Documents. In addition, the work includes requirements for record keeping, keeping as-built records, and submittals.

1.03 REFERENCE STANDARDS

- A. US Army Corps of Engineers (ACOE) EM-1110-2-1003 - Hydrographic Surveying

1.04 SUBMITTALS

- A. General submittals required for this Contract include:

1. Name, address, telephone number, and statement of qualifications of Hydrographic Surveyor before starting survey work. This surveyor shall be responsible for stamping and signing all work as noted below.
2. On request, field notes and documentation verifying accuracy of survey work, to include cross sections of progress surveys by the Contractor.
3. Project survey data shall be stored as electronic files on a compact disc (CD) formatted as a) DWG; b) PDF and printed to bond paper. At a minimum, data for each survey point shall include a sequential reference number, the elevation, and appropriate northing and easting coordinates.
4. Field notes, Drawings, quantity computations, and point data for each survey shall be submitted to the Engineer.

- B. Pre- and Post-Dredge and Capping Surveys

1. Dredging surveys include all pre- and post-dredge surveys noted in Section 35 20 23 - Dredging
2. At a minimum dredge survey submittals shall consist of the following:
 - a. A hardcopy drawing showing spot elevations for the area surveyed. The scale for the plan drawing shall be 1 inch = 50 feet.
 - b. A hardcopy plan drawing showing elevation contours (in color) for the area surveyed. The scale of the plan drawing shall be 1 inch = 50 feet.
 - c. Digital survey data in AutoCAD.dwg format along with an ASCII file including point number, Northing, Easting, and Depth with comma delimiters. Depth shall be relative to MLLW = 0.00 and shall be recorded as negative if recorded below MLLW.

- C. Post-Construction Surveying

1. The Contractor shall perform a post-construction bathymetric survey of the entire project site showing all constructed features. This survey shall include the final bathymetric finished elevation and grade line for the post dredge berthing areas.
2. The finished site plan drawing shall be at a scale of 1 inch equals 50 feet and a contour interval of 1 foot.

1.05 QUALITY ASSURANCE

- A. It is the responsibility of the Contractor to schedule Contractor's survey and to verify that it has met the Contract requirements prior to proceeding to the next sequence of work. The Port shall review and approve each survey or survey increment. The Contractor shall allow up to three (3) business days for Port review. Surveys of the project shall be surveyed using the same vertical datum and horizontal coordinate system as shown on the Contract Drawings.
- B. Hydrographic surveying shall be performed by a NSPS-THSOA Certified Hydrographer with a minimum of 5 years of documented experience with hydrographic survey data collection and processing. The hydrographic surveyor shall be familiar with US Army Corps of Engineers Hydrographic Survey Standards as documented in ACOE EM-1110-2-1003 – Hydrographic Surveying, shall be experienced in dredging and marine work, and shall be familiar with the use (and quality control of) all applicable electronic survey instruments proposed for use on this project. The hydrographic surveyor shall also be knowledgeable of the requirements for hydrographic survey data processing and the specific deliverables to the Port related to the analysis of the survey results, including, but not limited to: color contour plots, cross section development, detailed dredge volume reports, and surface (TIN) creation. The hydrographic surveyor statement of qualifications shall be submitted to the Port for approval in the Dredging and Disposal Work Plan (DDWP) described in Section 35 20 23 – Dredging.
- C. The Port reserves the right to retain an independent surveyor to periodically check the Contractor's survey. Surveying performed by the Port will be at no cost to the Contractor.

PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION

3.01 PROCEDURES

- A. Contractor survey procedures (positioning modes, equipment calibration, and data reduction, adjustment, processing, and plotting) shall conform to industry standards.
- B. Failure to perform and process such surveys in accordance with recognized standards will result in a rejection and nonpayment for work performed.
- C. All systems, methods, and procedures shall be subject to the Engineer's approval.

3.02 DREDGING SURVEYS

- A. For Progress and Pre- and Post-Dredge and Capping Surveys, refer to Section 35 20 23 - Dredging for execution requirements.

END OF SECTION

PART 1 - GENERAL

1.01 SUMMARY

- A. This section includes information for progress and final cleaning and restoration of damaged work prior to final inspection.

PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION

3.01 PROGRESS CLEAN-UP

- A. The Contractor shall clean the project site and work areas daily, including common areas. Enforce requirements strictly. Dispose of materials lawfully.
 - 1. Comply with all requirements for removal of combustible waste materials and debris.
 - 2. Do not hold waste materials more than seven days during normal weather or three days if the temperature is expected to rise above 80 deg F. Waste materials does not include dredge sediment or dredge debris.
 - 3. Containerize unsanitary waste materials separately from other waste. Mark containers appropriately and dispose of legally, according to regulations.
 - a. Use containers intended for holding waste materials for the type of material to be stored.
- B. Site: Maintain Project site free from waste materials and debris.
- C. Work Areas: Clean areas where work is in progress to the level of cleanliness necessary for proper execution of the work.
- D. Equipment: Prior to demobilization, clean vehicles and equipment that have been in contact with dredge materials. All vehicles and equipment shall have soil/sediment removed, be washed to remove visible residuals, and verified clean through visual observation prior to demobilization.
- E. Waste Disposal: Do not bury or burn waste materials on-site. Do not wash waste materials down sewers or into waterways. Comply with waste disposal requirements in Section 01 74 16 Soil Characteristics and Waste Management.

3.02 FINAL CLEANING

- A. General: Perform final cleaning. Conduct cleaning and waste-removal operations to comply with local laws and ordinances and Federal and local environmental and antipollution regulations.
- B. Cleaning: Employ experienced workers or professional cleaners for final cleaning.
 - 1. Complete the following cleaning operations before requesting inspection for certification of Substantial Completion for entire Project or for a designated portion of Project:
 - a. Clean Project site of rubbish, waste material, litter, and other foreign substances.
 - b. Remove tools, construction equipment, machinery, and surplus material from Project site.
 - c. Leave Project clean and ready for occupancy.

END OF SECTION

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PART 1 - GENERAL

1.01 SUMMARY

- A. This section includes construction waste management requirements.

1.02 DESCRIPTION OF WORK

- A. The work includes dredging and removal within the project areas as shown on the drawings. The work also includes waste generated by construction activities, materials, packaging, scraps, and garbage.
- B. Sediment dredged from within the PCT project area, as shown on the drawings, have been tested and determined to be suitable for open-water disposal.
- C. Sediment dredged from within the Middle Blair project area, as shown on the drawings, have been tested and determined to contain dioxin/furan concentrations that are not suitable for open-water disposal and are required to be disposed of upland. Dredge sediment from the Middle Blair shall be dewatered, loaded, hauled and disposed of at the LRI Subtitle D Landfill per a Special Waste Disposal Agreement. A sample Special Waste Disposal Agreement is located in Appendix G. Sediment from the Middle Blair project will be required to be held on site at the transload property for a minimum of 14 days to allow for testing of the sediment and for the project Special Waste Disposal Agreement to be executed.

1.03 DEFINITIONS

- A. Co-mingled or Off-site Separation: Collecting all material types into a single bin or mixed collection system and separating the waste materials into recyclable material types at an off-site facility.
- B. Construction, Demolition and Land-Clearing (CDL) Waste: Includes all nonhazardous solid wastes resulting from construction, remodeling, alterations, repair, demolition, and land clearing. Includes material that is recycled, reused, salvaged or disposed as garbage.
- C. Hazardous/Dangerous Waste: As defined by Chapter 70.105.010 Revised Code of Washington and 40 Code of Federal Register 261 and by Washington Administrative Code 173-303.
- D. Proper Disposal: As defined by the jurisdiction receiving the waste.
- E. Recyclable Materials: Products and materials that can be recovered and remanufactured into new products.
- F. Recycling: The process of sorting, cleaning, treating and reconstituting materials for the purpose of using the material in the manufacture of a new product. Can be conducted on-site (as in the grinding of concrete).
- G. Recycling Facility: An operation that is permitted to accept materials for the purpose of processing the materials into an altered form for the manufacture of a new product.
- H. Salvage for Reuse: Existing usable product or material that can be saved and reused in some manner on the project site or other projects off-site.
- I. Salvage for Resale: Existing usable product or material that can be saved and removed intact (as is) from the project site to another site for resale to others without remanufacturing.
- J. Source-Separated Materials: Materials that are sorted at the site into separate containers for the purpose of reuse or recycling.

- K. Sources Separation: Sorting the recovered materials into specific material types with no, or a minimum amount of, contamination on site.
- L. Time-Based Separation: Collecting waste during each phase of construction or deconstruction that results in primarily one major type of recovered material. The material is removed before it becomes mixed with the material from the next phase of construction.
- M. Garbage: Product or material typically considered to be trash or debris that is unable to be salvaged for resale, salvaged and reused, returned, or recycled.
- N. Soil (waste) Profile: A characterization of the chemical and physical properties of a waste material including the types of contaminants and their concentrations as measured by approved laboratory analytical methods. A profile is required by the receiving permitted disposal or recycling facility.
- O. Special Handling: Refers to hauling and disposal of soils that, because they are contaminated, cannot be reused in place as backfill or as general fill at another location. Such soils must be hauled to and managed at a permitted disposal or recycling facility.

1.04 SUBMITTALS

- A. Waste Management Plan
- B. Waste Management Final Report
- C. Soils Management Plan
- D. Soils Hauling Receipts

1.05 PERFORMANCE GOALS

- A. General: Divert CDL waste to the maximum extent practicable from the landfill by one or a combination of the following activities:
 - 1. Salvage
 - 2. Reuse
 - 3. Source separated CDL recycling
 - 4. Co-mingled CDL recycling
- B. CDL waste materials that can be salvaged, resold, reused or recycled, include, but are not limited to the following:
 - 1. Clean dimensional wood, pallet wood, plywood, OSB, and particleboard
 - 2. Asphalt
 - 3. Concrete and concrete masonry units
 - 4. Ferrous and non-ferrous metals
 - 5. Field office waste paper, aluminum cans, glass, plastic, and cardboard
- C. Hazardous/Dangerous Wastes, contaminated soils and other hazardous materials such as paints, solvents, adhesives, batteries, and fluorescent light bulbs and ballasts shall be disposed of at applicable permitted facilities.

1.06 WASTE MANAGEMENT PLAN (NON-DREDGE WASTE)

- A. Submit a Waste Management Plan within 10 days after the notice to proceed and not less than 5 days before any demolition activities in accordance with these specifications. Provide a Waste Management Plan in a format as approved by the Engineer.
- B. The Waste Management Plan shall include the following:
 - 1. Name of designated Waste Management Coordinator.
 - 2. A list of waste materials, including estimated types and quantities, of the waste that will be generated. Indicate salvaged for resale, salvaged for reuse, recycled, or disposed for each item.
 - 3. Identify waste handling methods to be used, including one or more of the following:
 - a. Method 1 - Contractor or subcontractor(s) hauls recyclable materials to an approved recycling facility.
 - b. Method 2 - Contracting with diversion/recycling hauler to haul recyclable material to an approved recycling or material recovery facility.
 - c. Method 3 - Recyclable material reuse on-site.
 - d. Method 4 - Recyclable material salvage for resale.
 - e. Method 5 - Contractor or subcontractor hauls waste to an approved disposal facility.
 - 4. Identification of each recycling, disposal, or material recovery facility to be utilized, including name, address and types of materials being recycled at each facility.
 - 5. Description of the method to be employed in collecting, and handling, waste materials.
 - 6. Description of methods to communicate Waste Management Plan to personnel and subcontractors.
 - 7. Actions that will be taken to reduce solid waste generation.
- C. Revise and resubmit Waste Management plan as required by the Engineer. Approval of the Contractor's Plan does not relieve the Contractor of responsibility for compliance with all applicable laws and regulations. Distribute copies of the Waste Management Plan to each subcontractor.

1.07 WASTE MANAGEMENT FINAL REPORT

- A. Provide a Waste Management Final Report, in a format approved by the Engineer. The Waste Management Final Report shall list the following for the project:
 - 1. A record of each waste material type and quantity recycled, reused, salvaged, or disposed from the Project. Include total quantity of waste material removed from the site and hauled to a landfill.
 - 2. Percentage of total waste material generated that was recycled, reused, or salvaged.
- B. Quantities shall be reported by weight (tons) unless otherwise approved by the Engineer.
- C. Submit copies of manifests, weight tickets, recycling/disposal receipts or invoices, which validate the calculations or a signed certification of completeness and accuracy of the final quantities reported.

1.08 SOILS MANAGEMENT PLAN (MAY BE INCLUDED IN THE DREDGING AND DISPOSAL WORKPLAN)

- A. A minimum of 10 days prior to excavation of any subsurface materials, submit a Soils Management Plan to the Engineer. The Soils Management Plan must be approved by the Engineer prior to any excavation of subsurface materials. Include the following in the Soils Management Plan:
 - 1. General description of how equipment operators, safety personnel and other applicable Contractor shall coordinate with the Engineer to facilitate handling of contaminated soil in accordance with this specification.
 - 2. Description of all haul routes to be used on the project.
- B. Notify the Engineer prior to hauling contaminated soil to the soil disposal facility. The notification shall include:
 - 1. An estimate of the number of truck-trips, the haul destination, and the period in which these trips will be made (e.g., 20 truck-trips to the Waste Management Facility over the two-week period beginning on March 1, 2012).

1.09 QUALITY ASSURANCE

- A. Regulatory Requirements: The Contractor shall maintain compliance with all applicable Federal, State, or Local laws that apply to Construction Waste Management and material salvage, reuse, recycling and disposal.
- B. Disposal Sites, Recyclers and Waste Materials Processors: All facilities utilized for management of any materials covered under this specification must maintain all necessary permits as required by federal, state and local jurisdictions.

1.10 HEALTH AND SAFETY

- A. The Contractor is required to implement all health and safety provisions as required by Specification 01 35 29 - Health, Safety and Emergency Response Procedures.

PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION

3.01 WASTE DISPOSAL

- A. Source-Separated CDL Recycling: Provide individual containers for separate types of CDL waste to be recycled, clearly labeled with a list of acceptable and unacceptable materials.
- B. Co-Mingled CDL Recycling: Provide containers for co-mingled CDL waste to be recycled, clearly labeled with a list of acceptable and unacceptable materials.
- C. Landfill: Provide containers for CDL waste that is to be disposed of in a landfill clearly labeled as such.
- D. Removal of CDL Waste from Project Site: Transport CDL waste off Port's property and provide legal disposal.

3.02 SOIL DISPOSAL

- A. Disposition of Material
 - 1. Submit all hauling receipts (or copies of receipts) from the receiving facility for all contaminated soil at least weekly.

END OF SECTION

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PART 1 - GENERAL

1.01 SUMMARY

- A. Section includes administrative and procedural requirements for contract closeout, including, but not limited to, the following:
 - 1. Substantial Completion procedures
 - 2. Final completion procedures
 - 3. As-Built Drawings/Surveys

1.02 PROJECT SUBMITTALS

- A. Record Drawings
 - 1. Miscellaneous Record Submittals: See other Specification Sections for miscellaneous recordkeeping requirements and submittals in connection with various construction activities.

1.03 SUBSTANTIAL COMPLETION PROCEDURES

- A. Contractor's List of Incomplete Items: Prepare and submit a list of items to be completed and corrected.
- B. Submittals Prior to Substantial Completion: Complete the following a minimum of 10 days prior to requesting inspection for determining date of Substantial Completion. List items below that are incomplete at time of request:
 - 1. Submit closeout submittals specified in individual Sections, including final certifications, and similar documents.
- C. Procedures Prior to Substantial Completion: Complete the following a minimum of 10 days prior to requesting inspection for determining date of Substantial Completion. List items below that are incomplete at time of request:
 - 1. Terminate and remove temporary facilities from Project site
 - 2. Complete final cleaning requirements
- D. Submit a written request for inspection to determine Substantial Completion a minimum of 10 days prior to the date the work will be completed and ready for final inspection and tests. On receipt of request, Engineer will either proceed with inspection or notify Contractor of unfulfilled requirements. Engineer will prepare the Notice of Substantial Completion after inspection or will notify Contractor of items, either on the Contractor's list or additional items identified by the Engineer, that must be completed or corrected before notice will be issued.
 - 1. Reinspection: Request reinspection when the Work identified in previous inspections as incomplete is completed or corrected.
 - 2. Results of completed inspection will form the basis of requirements for final completion.

1.04 PUNCH LIST (LIST OF INCOMPLETE ITEMS)

- A. Organization of List: Include name and identification of each space and area affected by construction operations for incomplete items and items needing correction including, if necessary, areas disturbed by Contractor that are outside the limits of Construction.
 - 1. Organize list of spaces in sequential order.

2. Organize items applying to each space by major elements.

1.05 FINAL COMPLETION PROCEDURES

- A. Submittals Prior to Final Completion: Before requesting final inspection for determining final completion, complete and submit the following:
 1. Submittal of all remaining items, including as-built documents, final surveys, and similar final record information and all other submittals defined in the Contract Documents.
 2. List of Incomplete Items: Submit copy of Engineer's Substantial Completion inspection list of items to be completed or corrected (Punch List). Copy of the list shall state that each item has been completed or otherwise resolved for acceptance.
- B. Inspection: Submit a written request for final inspection to determine acceptance a minimum of 10 days prior to date the work will be complete and ready for final inspection and tests. On receipt of request, the Engineer will either proceed with inspection or notify contractor of unfulfilled requirements.
 1. Reinspection: Request reinspection when the Work identified in previous inspections as incomplete is completed or corrected.
- C. Execution of all Change Orders.

1.06 FINAL ACCEPTANCE PROCEDURES

- A. Submittals Prior to Final Acceptance:
 1. Receipt and approval of application for final payment; due within seven (7) days of receipt of Final Completion by the Engineer;
 2. Contractor's signed waiver and release of claims on the Engineer provided form;
 3. Contractor's submittal of list of all suppliers and subcontractors and the total amounts paid to each on the Engineer provided form; and
 4. Contractor's submittal of a list of all subcontractors and suppliers requiring Affidavits of Wages paid on the Contract and certify that each of companies will submit an approved Affidavit of Wages paid to the Port within 30 days.
- B. The Engineer will issue the Final Acceptance Memo upon receipt of the required submittals.

PART 2 - PRODUCTS

2.01 AS-BUILT DRAWINGS

- A. Project As-Built Drawings: Maintain one set of marked-up paper copies of the Contract Drawings and Shop Drawings, incorporating new and revised drawings as modifications are issued.
- B. Project As-Built Drawings shall be compiled by the Contractor and submitted to the Engineer for translation to the Record Drawings on a monthly basis.
 1. The Project As-Built Drawings will be submitted on paper full-sized (ANSI D) copy.
 2. Drawings shall be kept current and shall be done at the time the material and equipment is installed. Annotations to the record documents shall be made with an erasable colored pencil conforming to the following color code:
 - a. Additions – Red

- b. Deletions – Green
 - c. Comments – Blue
 - d. Dimensions – Graphite
- 3. Project As-Built Drawings must be complete and accepted by the Engineer before Final Completion is issued.
 - 4. As-Built Drawings shall be in accordance with horizontal and vertical control as shown on the drawings.

PART 3 – EXECUTION

3.01 MAINTENANCE OF AS-BUILT DRAWINGS

- A. The Contractor shall maintain at the Project site, in good order for ready reference by the Engineer, one complete copy of the Contract Documents, including Addenda, Change Orders, other documents issued by the Port, a current Progress Schedule, and approved Submittals. The Contractor shall also generate and keep on site all documents and reports required by applicable permits.
- B. The Contractor's As-Built Drawings shall be updated to record all changes made during construction. The location of all existing or new underground piping, valves and utilities, and obstructions located during the Work shall be appropriately marked until the Contractor incorporates the actual field dimensions and coordinates into the as-built drawings. The as-built drawings shall be updated at least weekly and before elements of the Work are covered or hidden from view. After the completion of the Work, the as-built drawings shall be provided to the Port.

END OF SECTION

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PART 1 - GENERAL

1.01 DESCRIPTION OF WORK

- A. This Section describes the general requirements for the management and processing of dredged material and water that is unsuitable for open water disposal.
- B. The Contractor shall provide all supervision, labor, tools, materials, equipment, services and appurtenances necessary for, or incidental to, the management of dredged materials, water, and related Work. This includes but is not limited to the construction of a temporary sediment offloading and dredged material containment area, processing and unloading sediment debris and water from dredge material barges, transporting and placing dredged material into an approved sediment processing area; segregating and handling materials, and containing and collecting water generated for treatment in accordance with Section 01 57 13 TESC and Project SWPPP, 01 74 16 Soil Characteristics and Waste Management and Construction Stormwater General Permit.
- C. All equipment, materials, and processes shall be selected and sized by the Contractor to meet or exceed the minimum requirements specified in the applicable permits.
- D. Contractor shall, at a minimum, dewater subject materials within a sediment processing area in accordance with all applicable laws and regulations for the transportation over public roadways (e.g. pass paint filter test) and to meet the requirements of Owner approved disposal facility.
- E. Construction waters include, but not limited to, water generated from dredging operations; water generated from sediment dewatering and processing activities including water that accumulated due to rain and storm events, and water from washing or rinsing activities.

1.02 PRE-CONSTRUCTION SUBMITTALS

- A. Contractor shall submit detailed written description of the dredge material management and processing. Contractor shall submit a Transload Transport and Disposal (TTD) Work Plan for review and approval by the Agencies at least 30 days prior to dredging. The TTD Work Plan shall include all Best Management Practices (BMPs) and requirements described in the permits. See Appendix A. Plans shall be a part of the Dredging and Disposal Work Plan as specified in Section 35 20 23 – Dredging.

1.03 CONSTRUCTION SUBMITTALS

- A. Submit as part of the Daily Report the following information:
 - 1. Daily sediment processing activities, including daily and cumulative quantities of sediment and debris received and sent off site for placement/disposal.
 - 2. Documentation of percentage of any stabilization or drying agent utilized, including deliveries of any drying/stabilization agents if used.
 - 3. Documentation of daily inspection of the sediment processing area and any corrective actions.

PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION

3.01 GENERAL

- A. Contractor shall conduct all dredged material transloading, processing, dewatering operations in accordance with the water quality requirements as described in Section 01 41 00 – Regulatory Requirements.

- B. Contractor shall install turbidity controls as required to meet water quality requirements as specified in Section 01 41 00 – Regulatory Requirements.
- C. Contractor shall implement measures to prevent dredged material from being misplaced on land or in the waterway during material delivery, storage, and loading and unloading.
- D. Wharf decking, spill aprons, and all other surfaces that come into contact with dredged sediment and associated water must be solid impermeable materials.

3.02 SEDIMENT PROCESSING AREA AND STOCKPILE AREAS

- A. Contractor shall use the area(s) shown on the Drawings for sediment processing, material laydown and stockpiling. Contractor may propose additional areas and/or alternate layouts as part of the Dredging and Disposal Work Plan.
- B. The sediment processing area shall be watertight and capable of containing all liquids generated within the area including water generated from storm events.
- C. Contractor shall seal all cracking, spalling, and jointing in existing pavement within the sediment processing area. Sediment processing working surface shall be free of damage or other features that could result in water infiltration into the underlying ground surface or spillage outside of the sediment processing area.
- D. Contractor shall provide subareas and features with the sediment processing area including, but not limited to the following items:
 - 1. **Mixing Area:** The mixing area shall be for the physical mixing and processing of dredged sediment and debris to meet the requirements for over road transport and disposal facility acceptance criteria if needed.
 - 2. **Stockpile Area:** The stockpile area shall be for stockpiles of processed sediments and debris for both curing/passive dewatering and ready-to-transport materials. The area shall be comprised of physical bins or areas capable of holding adequate volume to remain productive and avoid schedule delays.
 - 3. **Dewater Treatment Area:** The dewater treatment area shall be dedicated to dewater treatment operations and be of sufficient size to house the dewater treatment system and associated equipment in accordance with Section 01 57 13 TESC and Project SWPPP and Construction Stormwater General Permit.
 - 4. **Sumps:** Sumps shall be located within the processing area to collect liquids including, but not limited to, sediment dewatering liquids, stormwater run on, and liquids generated during sediment removal activities. The number, size, and location of sumps with appropriately sized pumps and piping shall be installed to allow for the effective collection and transfer of liquids. Liquids shall be transferred to the temporary treatment system to avoid dewater effluent breaching or flooding the processing area and to provide effective utilization of the sediment processing area to avoid schedule delays.
- E. The Contractor shall inspect and maintain all features of the sediment processing area, including but not limited to, the working surface, sumps, pumps, and hoses at least once per shift. Damage to the working surface or other features that could result in water infiltration into the underlying ground surface or waterway or spillage outside of the sediment processing
 - 1. area shall warrant a stop work. Work shall not resume until the working surface containment feature is repaired and/or replaced to the satisfaction of the Port.

- F. The sediment processing area shall not be used for storage or stockpiling of clean materials or equipment unless the surface area is decontaminated, and the area protected from possible recontamination to the satisfaction of the Port.

3.03 DREDGED MATERIAL UNLOADING

- A. Contractor shall provide all equipment, materials, and labor to construct and maintain the unloading area(s) utilizing the areas shown on the Drawings for the duration of the Work.
- B. Contractor shall install and maintain spill apron(s) during unloading dredged material from barges. Spill apron shall collect and contain material dripped from the bucket during dredged material barge unloading. The apron shall be sized and positioned to collect spillage and stormwater and direct spillage either back into the barge or onto the land side sediment processing area. No spillage shall be allowed to enter the Hylebos Waterway during unloading or other site operations.
- C. Contractor shall continuously monitor for any spillage or misplaced material during unloading operations. Spills outside of the spill apron(s) or spills outside of the sediment processing area shall be cleaned up immediately and reported to the Engineer immediately.
- D. Contractor shall minimize the amount of entrained water within the dredged sediment being unloaded and transferred from barges.
- E. Contractor shall unload dredged sediment and debris from barges at a rate sufficient to minimize spillage and maintain the production requirements and the project schedule.
- F. Barges shall be unloaded in a manner that does not cause damage to the barge or create an unsafe situation/spillage of the dredged material or debris.
- G. The exterior deck of barges transporting sediment and debris shall be clean and free of sediment and debris before departing the unloading area. Sediment and debris may be washed into the barge, but under no circumstances shall either be allowed to be washed over the side into the waterway.
- H. Contractor shall use a clamshell/bucket, environmental bucket, or excavator bucket approved by the Port that prevents or minimizes leakage during transfer between barge and the sediment processing area. Other means of transfer/unloading of dredged material and debris must be pre-approved by the Port.
- I. The unloading areas and spill apron(s) and components shall be inspected daily at a minimum or as directed by the Port. Any necessary repairs or replacement shall be implemented immediately to the satisfaction of the Port. The Port may elect to Stop Work activities at the Site in the event the spill apron(s) and components do not meet the satisfaction of the Port.

3.04 DREDGED MATERIAL MANAGEMENT

- A. Contractor shall furnish all supervision, labor, materials, and equipment necessary for, or incidental to, the following:
 - 1. Dewatering of dredged material in preparation for off-site transport and disposal.
 - 2. Stockpiling material securely covered with impermeable material in accordance with the Drawings and to the satisfaction of the Port at the end of each workday, when materials are not actively being placed or removed, during precipitation events, and/or within 30 minutes of notification from the Port. Such covering activities shall be conducted as requested and be considered incidental to the Work.

3. Loading of material for off-site transport for disposal per section 01 74 16 Soil Characteristics and Waste Management.
4. The washing or rinsing and sizing of miscellaneous debris, if in contact with dredged material, removed prior to or during active dredging and the subsequent segregation by material type and/or size, stockpiling, and off-site transport of debris for disposal at Owner-approved disposal facility in accordance with 01 74 16 Soil Characteristics and Waste Management.

3.05 RESTORATION OF SEDIMENT PROCESSING AREA

- A. Contractor shall be responsible for the removal and disposal of all temporary construction features at the end of the Work and restoring the areas to the pre-construction conditions or better as determined by the Port, unless otherwise approved in writing by the Port.
- B. Contractor shall be responsible for returning asphalt or concrete areas to the preconstruction conditions or better as determined by the Port.

END OF SECTION

PART 1 - GENERAL

1.01 REFERENCES

Refer to the appendices for the references except for reference to the American Society of Testing and Materials (ASTM) and Washington State Department of Transportation (WSDOT).

1. ASTM D6913 - Standard Test Methods for Particle-Size Distribution

1.02 DESCRIPTION OF WORK

- A. This Section describes the general requirements for the placement of clean sand cover over select dredge material management units (DMMUs) in the Blair Waterway following dredging. Work consists of sourcing, procuring, testing, transporting sand backfill material to the work area along with the placement of the post-dredge sand cover within designated portions of the work area as shown on the Drawings.
- B. The Contractor shall provide all supervision, labor, tools, materials, equipment, services and appurtenances necessary for, or incidental to, the placement of post-dredge backfill in the areas of the Blair Waterway shown on the Drawings to the required elevations and grades as described on the Drawings and these specifications in compliance with the Dredge Material Management Program Antidegradation policy.
- C. Imported materials shall be free of chemical contamination, sampled, and tested by Contractor, and approved by the Owner prior to delivery to the Site. Changes in source(s) and/or cover materials during the Work is prohibited without prior approval by the Owner.

1.03 DEFINITIONS

- A. Post-Dredge Sand Cover: Results of the sediment characterization indicate the post-dredge sediment surface in select areas of the Blair Waterway may have elevated concentrations of chemicals of concern exceeding the Sediment Quality Standards. The Post-Dredge Sand Cover is the clean sand layer that will be placed over top of the post-dredge sediment surface where required to improve surface conditions to comply with the State of Washington's antidegradation policy.

1.04 PRE-CONSTRUCTION SUBMITTALS

- A. Contractor shall submit detailed written description of the post-dredge sand cover placement methods as part of the Dredging and Disposal Work Plan as specified in Section 35 20 23 – Dredging.
- B. Contractor shall submit the following information for the cover borrow source at least 14 days prior to delivery of materials to the Site.
 1. Present the source(s) (quarry) of sand material, including name, address, and contact information for each source.
 2. Analytical results of chemical and physical testing as described herein for material obtained from each source. All testing shall be performed by an independent laboratory, approved by the Owner.
 3. Anticipated schedule for delivery of all backfill materials to be delivered to the Site.

1.05 CONSTRUCTION SUBMITTALS

- A. Submit daily and cumulative weights for cover materials delivered to the Site. Imported quantities shall be based on material weight slips, unless otherwise approved by Owner.

- B. Submit daily and cumulative sand placement coverage map.
- C. Daily Report: Keep a daily record of equipment used; description of activity as identified by dredge area and coordinates; quantity of sand placement that day and to date; the location of placed sand material in the project coordinate system; area of sand material placed (reported in square feet); thickness of sand material placed; any downtime and delays to the operation; cause of any downtime and delays; health and safety performance; results from water quality monitoring, daily progress survey, and a summary of other details of the work. The report shall include the results of all inspections, surveys and monitoring activities and shall be signed by the Contractor's dredging superintendent or quality control manager. This daily record shall be submitted to the Engineer with a transmittal letter the morning following completion of work on the date of the Daily Report.

PART 2 - PRODUCTS

2.01 GENERAL

- A. Provide all required sand material for the work. Sand material shall be of the quality, size, shape, and gradation as specified.
- B. Inspection of Materials at the Work Site: visually inspect truck or barge loads of imported sand material upon delivery. Inspect material for the presence of foreign, recycled, or reprocessed material. The Engineer may, at any and all times, perform an independent inspection. Sand material may be rejected if identified as substandard or if test results show it to be substandard. In the event of rejections, it shall be the responsibility of the Contractor to remove all rejected material from the Work Site.
- C. Collect certified tickets from the borrow source for each load of material brought to the Work Site. Submit tickets to the Engineer as part of the Contractor's Weekly Construction Report.

2.02 SAND COVER MATERIAL

- A. Sand Cover Material shall be fine aggregate consisting of natural sand or manufactured sand, or combinations thereof, accepted by the Port, having hard, strong, durable particles free from adherent coating. Fine aggregate shall be washed thoroughly to meet the specifications. The aggregate shall be sourced from an approved supplier listed in the most current WSDOT Aggregate Source Approval Report. Reclaimed aggregate shall not be used.
- B. The aggregate shall be graded to conform to the following requirements expressed as percentages by weight:

Sieve Size	Percent Passing	
	Min	Max
3/8"	99	100
No. 4	95	100
No. 16	45	80
No. 50	10	30
No. 100	2	10
No. 200	0	2.5

- C. Within the gradation limits, uniformity of gradation shall be limited to a range of plus or minus
 - 1. 0.20 of the reference fineness modulus. The reference fineness modulus shall be determined from a representative sample from the proposed source as submitted by the Contractor.

2.03 MATERIAL TESTING REQUIREMENTS

- A. Contractor shall coordinate testing and Engineer review so as to not delay the project schedule.
- B. Chemical characteristics of imported sand cover material shall not exceed the published marine screening levels for the chemicals of concern presented in Table 8.3 of the Dredge Material Management Program User Manual. Materials brought on Site by Contractor that do not meet these criteria will not be accepted and shall be legally disposed of off Site by the Contractor at no cost to the Port. Any on-site material or Work adversely impacted by the presence of contaminated borrow materials shall be removed, replated, or repaired by Contractor at no cost to the Port.
- C. Contractor shall employ and pay for services of an independent, Port-approved laboratory to perform the testing listed in Table A.

TABLE A

Material	Required Testing	Test Method	Frequency
Sand Cover	Grain Size	ASTM D6913	1 per borrow source 1 per 500 cubic yards

- D. Contractor shall submit all laboratory testing reports to the Port within 24 hours of receipt.

PART 3 - EXECUTION

3.01 GENERAL

- A. Contractor shall conduct all backfilling operations in accordance with the water quality requirements as described in Section 01 41 00 – Regulatory Requirements.
- B. Contractor shall install turbidity controls as required to meet water quality requirements as specified in Section 01 41 00 – Regulatory Requirements.
- C. Contractor shall begin sand cover placement within 48 hours upon receiving approval from the Port, unless otherwise directed by the Port.
- D. Contractor shall load sand material barges and trucks evenly to avoid tipping or potential unsafe conditions. Loaded equipment shall not exceed more than the designed capacity of the equipment to prevent overflow of materials.
- E. Underwater stockpiling and underwater dragging or rehandling of sand cover material is prohibited.
- F. All sand cover material shall be placed from the bottom of the slope to the top of slope.

3.02 EQUIPMENT

- A. Contractor shall operate marine equipment in a controlled manner at all times.
- B. Equipment shall be selected based on the conditions present at the site. Grounding of marine equipment or vessels is not permitted. Contractor shall select the appropriate equipment such that an adequate draft is maintained at all times.
- C. Contractor shall maintain floating platforms, materials scows, and associated equipment to meet the requirements of the Work and all applicable in-water regulations, including the prompt repair of equipment failures.

- D. Contractor shall establish an accurate method of horizontal and vertical control before sand cover placement commences and, at a minimum, placement equipment shall be equipped with Real-Time Kinematic-Global Positioning System (RTK-GPS).
- E. Contractor shall clean and decontaminate any and all equipment that has become exposed to contaminated materials or potentially contaminated materials prior to using this equipment for handling of clean sand cover material.

3.03 SURVEYS

A. Sand Placement Surveys

1. Post-dredge surveys shall provide the basis and elevations used in planning the placement of the sand cover material. If the post-dredge survey was conducted seven days or more prior to the start of sand cover placement, the Contractor shall re-survey the area if directed by the Port.
2. The post-dredge survey for each completed dredge material management unit (DMMU) must be approved by the Port before sand cover placement can commence.
3. Contractor shall conduct a post-sand placement bathymetric survey of the sand cover areas when the Contractor considers work complete in accordance with the Drawings and these Specifications. Contractor shall submit surveys to the Port for review and approval.
4. Each post-sand placement survey shall cover the entirety of the completed sand cover area and shall extend a minimum of 50 feet (1524 cm) beyond the required cover placement limits.
5. Contractor shall schedule all surveys accordingly to allow time for the Port to review. No work shall be performed in an area until the required surveys for that area have been reviewed by the Port and authorization to proceed has been granted.
6. The same survey method shall be used for both the post-dredge surveys and the post-sand placement surveys for any given area unless otherwise approved by the Port.
7. Contractor shall perform Quality Control checks during sand cover placement to verify the required sand cover thickness is being achieved. Quality Control checks may consist of, but are not limited to, catch pans, cores, or progress surveys. Results of Quality Control checks may require the Contractor to modify placement techniques, should the results indicate inadequate coverage or placement outside of the allowed tolerances.
8. During placement, the Contractor shall record position (X and Y) for location of material placed to a data file. Daily Bucket placement files shall be submitted to the Port on a weekly basis.
9. The post-sand placement surveys shall be used as the basis of acceptance of Work by the Port. Surveys shall be reviewed and approved by the Port before Work will be considered complete. Within each DMMU, the Contractor shall meet the elevations and grades over 90% of the respective DMMU at a minimum. If high/low spots remain contractor may be required to fill/remove those areas at no additional cost to Port. Confirmation of additional removal or placement shall be via resurvey.

10. If the comparison of the post-dredge and post-sand cover survey indicates that the required backfill material extent or thickness has not been achieved within the acceptable tolerances as described in the Drawings and as determined by the Port, the Contractor shall place and/or remove sand cover material in the identified areas if deemed necessary as determined by the Port. Following additional placement and/or material removal, the identified areas shall be resurveyed and re-check by the Port. The resurveying shall be conducted at no additional cost to the Port.

3.04 SAND PLACEMENT

- A. Sand placement shall be performed in DMMUs 1, 2, and 3 as indicated on the Drawings.
- B. Sand Volume Calculation Method Procedures: The volume of sand material to be placed over a given area shall be calculated using the dimensions of the area to be covered and the required sand thickness shown in the Drawings. Sand thickness shall be controlled by evenly distributing the calculated volume of sand material over the associated area. The final sand surface elevation shall not exceed the given tolerances presented on the Drawings.
- C. The Sand material shall be placed in a manner to minimize disturbance and mixing of the native sediment. The sand material shall have the minimum thickness as shown on the Drawings.
- D. Sand material placement activities shall be completed with mechanical equipment. Equipment to be used for sand placement shall place the materials in a manner that does not disturb the subgrade. Placing sand material by use of a bottom dump barge is not allowed.
- E. Contractor shall monitor the sand material placement work throughout the course of placement for depth, slopes, location, and tolerances. The Contractor shall be responsible for damages due to over placement or placing sand material outside the specified limits for sand material placement.
- F. Any sand material that is placed outside of the specified areas as shown on the Drawings will not be paid for and the Contractor may be required to remove such misplaced material and deposit it where directed at no additional cost to the Port.
- G. Best Management Practices: During sand placement activities, the following BMPs shall be implemented to minimize water quality impacts:
 1. Set volume, tonnage, lead line measurements, bucket placement maps, topography, bathymetry information or similar will be used to confirm adequate coverage during and after material placement.
 2. Sand material shall meet these specifications regarding fines content to minimize the potential for elevated turbidity in receiving waters during placement.
 3. Sand materials shall be placed uniformly.

END OF SECTION

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PART 1 - GENERAL

1.01 REFERENCES

Refer to the appendices for the references except for reference to the American Society of Testing and Materials (ASTM).

1. Water Quality Monitoring and Protection Plan (WQMPP)
2. Water Quality Certification
3. Sediment Analytical Results

1.02 DESCRIPTION OF WORK

- A. This Section describes the general requirements for maintenance dredging, transportation of dredge sediments and dredge debris to either an open-water disposal site or an off-site transload facility
1. Dredging work includes completing the required maintenance dredging of sediments from within the dredge material management units (DMMU) at the Middle Blair site and the berthing area at the Pierce County Terminal (PCT) as shown on the drawings.
 2. All dredge sediments at the Middle Blair site are considered contaminated for the purpose of the work and are not suitable for open-water disposal.
 3. Dredge sediments at PCT are considered suitable for open-water disposal.
 4. Work under this Section includes furnishing all labor, materials, tools, equipment, and incidentals required for mechanical dredging, in-water transportation, and haul barge transloading of dredged sediment and debris as described in these Specifications and in the Drawings. Perform the dredging work using mechanical dredging methods to the required elevations and grades shown in the Drawings. Transport dredged material from the Middle Blair site by haul barge to a Port-approved off-site transload facility. Transport and dispose of dredged material from the PCT to the open-water dredged material disposal site.
 5. Suitable material shall be taken to the Dredge Material Management Program (DMMP) Commencement Bay Open-water Dredged Material disposal site. All material destined for a DMMP disposal site shall be transported by bottom-dump barge to the DMMP disposal site as shown on the Drawings. A debris grid with a maximum opening size of 12 inches (304.8 mm) by 12 inches must be used to remove debris from the suitable material that will be placed at the in- water disposal site.
 6. Material in transfer must be fully contained by four walls. The use of sandbags or other modifications to barges or scows to fully contain material is not permitted.
 7. Dredging: The required dredge elevations are shown on the Drawings. Final dredge elevations shall be no higher than those shown on the Drawings. The maximum allowable overdredge is 2 feet (60.96 cm). The payable overdredge depth (depth below Design Dredge shown on Drawings) is 1 foot (30.48 cm).

1.02 DEFINITIONS

- A. Debris: Any solid waste materials other than dredged material excavated as part of the dredging operations, such as logs, wire, cable, steel bands, anchors, lumber, trash, timber piles, riprap, concrete, etc. Any dredged materials that do not pass through a grid opening 12- inch by 12- inch square are considered debris and shall not be disposed of at the DMMP disposal site. Debris shall be disposed at a Port-approved upland landfill facility and in accordance with applicable local, state, and/or federal regulations.
- B. Required Dredging: Removal of material, including associated side slopes, to the minimum elevation within the dredge area as shown on the Drawings.
1. Payable Overdredge Depth: Dredging up to 1 foot (30.48 cm) below the depth of Required Dredging will be paid. Payment will not be made for removal of material deeper than 1 foot below the depth of Required Dredging.
 2. Excessive Dredging: Dredging of material outside of the dredge limits and/or deeper than the maximum allowable overdredge depth is considered Excessive Dredging. Excessive Dredging shall be repaired by the Contractor at no cost to the Port. No payment shall be made for removal, management, transportation, or disposal of Excessive Dredging and Contractor will be responsible for any required corrective action as a result of Excessive Dredging, including, but not limited to, replacing materials or slope stabilization and fines or penalties that may be levied by regulatory agencies due to excessive dredging.
 3. Slough Area: The area outside the footprint of the dredge area that may slough into the footprint of the dredge area following dredging. The Contractor shall assume this slough area to be a slope as shown on the Drawings. Material sloughed into the dredge prism area from the side slopes shall be removed by the Contractor up to the time of completion and prior to conducting the post-dredge survey to achieve the minimum elevations of the Required Dredging.
 4. Suitable Material: Material deemed "suitable" is dredged material that has been characterized and has received a suitability determination from the DMMP, which authorizes its disposal at a DMMP open-water disposal site.
 5. Unsuitable Material: Material deemed "unsuitable" is dredged material that may not be disposed of at any DMMP open-water site. Unsuitable material as it applies to this project must be disposed of at a Port-approved upland landfill facility in accordance with applicable local, state, and/or federal regulations.

1.03 PRE-CONSTRUCTION SUBMITTALS

- A. Dredging and Disposal Work Plan (DDWP):

Submit a detailed written Dredging and Disposal Work Plan (DDWP) to address activities associated with dredging, transport, transloading, sediment processing, and disposal of sediments, and placement of clean sand material. The plan must be submitted to the Engineer at least two weeks prior to proposed commencement of dredging at the project site. Dredging shall not begin until: (1) the Work Plan has been reviewed and approved by the Port and applicable regulatory agencies; (2) agency-required notifications have been completed in accordance with the permits; and (3) the Contractor schedules and attends a pre-dredge conference with the Port, U.S. Army Corps of Engineers (USACE), and other permitting agencies as required by the permits and receives agency approval to begin dredging as a result of that conference. The Work Plan must be submitted to the USACE at least two weeks prior to the pre-dredge conference. At a minimum, the DDWP shall contain the following:

1. Work Sequence and Equipment
 - a. Equipment identification, including the number, types (and names if applicable), and capacity of equipment to be used including: dredges, tugboats, workboats, water treatment barge (if used), haul barges, other marine vessels, and land based equipment used for transport and transloading.
 - b. Work sequence: prepare a construction schedule that identifies the timing and sequencing of the major activities and milestones of dredge work. Include, but not be limited to, dredge phasing, timing and sequencing for mobilization, start of dredging, completion of dredging, start of sand cover placement, completion of sand cover placement, dewatering duration, in-water transportation duration, start of transload operations, anticipated material delivery and processing rates, duration of transloading, and completion of demobilization activities.
 - c. Hours of operation.
 - d. Methods for coordination with Port tenants throughout completion of the work.
2. Methods, procedures, and controls to protect existing Port, utilities, and other facilities against damage.
3. Positioning and Surveys
 - a. Layout of the work and positioning of dredge equipment.
 - b. A survey plan and equipment description. Once approved, the same method shall be used for all subsequent surveys.
4. Means and methods for completion of Required Dredging, barge dewatering, in-water transportation, transloading, dredge material management and processing, and disposal activities:
 - a. Methods, procedures, and equipment to be used for all Required Dredging activities.
 - b. Procedures and equipment for collecting and disposing of submerged and floating debris encountered during dredging and other over-water activities.
 - 1) In-water transport route to the transload facility for unsuitable material.
 - c. In-water transport route to Commencement Bay Open-Water Dredged Material Disposal Site for material suitable for open water disposal.
 - d. Methods, procedures, and equipment to be used for anchoring floating equipment.
 - e. Methods to be used to ensure that complete dredging coverage of contaminated surfaces is achieved and that the amount of time a dredge bucket removing contaminated material swings over clean area is minimized.
 - f. Methods, procedures, and equipment to be used to provide lights, lighted buoys, or other required markings to warn other vessels of presence of floating equipment and anchoring lines.
 - g. Notification and procedures to be used for moving dredging equipment to accommodate inbound and outbound commercial vessel traffic using the surrounding waterway. The operations of commercial business shall have precedence over related bid items of work in accordance with Section 01 14 00 – Work Restrictions.

- h. Methods, procedures, and equipment to be used for all barge dewatering activities of dredge sediment and dredge debris as necessary.
 - 1) The type and make of the turbidity curtain system, including the turbidity curtain layout, dimensions and how the system will operate. Include the turbidity curtain anchoring plan and how the turbidity curtain will be attached to the pier structures. Include methods and procedures for inspection, maintenance, and repair of turbidity curtain system during construction.
 - i. Methods, procedures, and equipment to be used for in-water transportation of dredge sediment and dredge debris to the transload facility, including procedures for preventing release of sediment and water during transportation. Include drawings that show the proposed concept for providing watertight containment of all dredged material in route from the Work Site to the transload facility. Also include documentation of successful leak testing or water tightness of the dredged material containment system used on the disposal barge prior to start of transloading.
 - j. Transload facility location and copies of existing permits and approvals for operation of the facility to transload dredged materials.
 - 1) Site plan layout of transload facility identifying sediment processing and stockpile areas, including mixing area, stockpile area, Temporary Water Treatment Area, equipment/boot washing/rinsing area, sumps, truck routes, and all other components required for material management and processing.
 - 2) Methods, procedures, and equipment to be used for dewatering of dredged material in preparation for off-site transport and disposal and stockpiling materials, including procedures for meeting federal, state, and local regulations.
 - 3) Methods to be used for record keeping related to transport and disposal of dredged material.
 - k. Methods, procedures, and controls to be used to ensure that trucks used to haul dredge sediment and dredge debris to the upland disposal facility and upland landfill facility are sealed and watertight.
 - l. Information gathered through coordination with the upland disposal facility and upland landfill facility regarding constraints on material receiving capacity, hours of operation, and delivery logistics used for project planning.
 - m. Methods, procedures, and equipment to be used for loading trucks, and upland transport of dredge sediment to the upland disposal facility and dredge debris to the upland landfill facility, including procedures for meeting federal, state, and local regulations.
 - n. Methods of transportation to be used, transport times, and methods employed to ensure safe transportation of the materials from the transload facility to the upland disposal facility and upland landfill facility.
 - 1) Upland disposal facility proposed for disposal of dredge sediment.
 - 2) Upland landfill facility proposed for disposal of dredge debris.
 - o. Copies of current scale certification documentation from the disposal facility.
5. Means and Methods for Sand Layer Placement:
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- a. Present the source (quarry) of sand material, including name, location, ownership, material supplied, and contact information.
 - b. Provide a list of the laboratory/laboratories that will be conducting the testing of sand material, including name, location, ownership, laboratory certifications, list of tests to be performed, list of analysis methods and standards, and contact information.
 - c. Describe the methods, procedures, and equipment to be used for sand placement.
 - d. Describe the methods, procedures, and equipment to be used for transport of sand material to the Work Site.
 - e. Describe methods and means for determination of thickness of sand material.
6. Best Management Practices, Environmental Monitoring, and Spill Containment:
- a. The work shall meet the requirements and procedures specified in the WQMPP. Provide written acknowledgement of understanding of all requirements and procedures contained in these documents with respect to water quality monitoring, best management practices (BMPs), and notification procedures associated with dredge operations.
 - b. BMPs proposed by the Contractor during dredging, barge dewatering, in-water transportation of dredge sediment and dredge debris, transloading, and sand placements. Provide in addition to the BMPs listed in these Specifications.
 - c. Environmental monitoring, including procedures for emergency spill containment and removal operations.
 - d. Proposed methods and procedures for monitoring water quality in strict compliance with the WQMPP.
 - e. The means, methods, and procedures that will be used to prevent water quality requirement exceedances, and what contingency actions will be taken to restore compliance with water quality requirements should water quality exceedances occur during completion of dredging, barge dewatering, and in-water transportation activities.
 - f. The personnel and equipment that will be used to monitor water quality during the course of the work.
 - g. A Stormwater Pollution Prevention Plan (SWPPP) for operation of the transload facility meeting National Pollutant Discharge Elimination System (NPDES) requirements.
7. Contractor Quality Control: Organization chart with key personnel and supervisory chain. At a minimum, identify the following key personnel: superintendent, quality assurance representative, health and safety representative, dredge operator(s), water quality monitoring lead (or the firm hired to conduct monitoring), hydrographic survey lead (or the firm hired to perform daily progress surveys), and other key personnel deemed necessary for the successful implementation and completion of the work.
8. Water Quality Protection, Monitoring, and Notifications Procedures

- a. The Contractor shall be subject to the requirements and procedures specified in the WQMPP, Water Quality Certification, and the DMMP Suitability Determination. Provide written acknowledgement of understanding of all requirements and procedures contained in these documents with respect to water quality monitoring, BMPs, debris management, and notification procedures associated with dredge operations. Written acknowledgement shall be provided in the form of a signed letter from the Contractor to the Port of Tacoma as well as Attachment A to the Water Quality Certification signed by all Contractor personnel with the ability to control work.
- b. Proposed methods and procedures for monitoring water quality in strict compliance with WQMPP.
- c. The personnel and equipment that will be used to monitor water quality during the project.
- d. Contingency measures to be implemented if water quality violations occur.

1.02 CONSTRUCTION SUBMITTALS

- A. Submit copies of waste profiles, waste manifests, bills of lading, landfill trip tickets, weight tickets and receiver tickets for all dredge sediment transported to the upland disposal facility.
 1. Submit copies of all surveys in CAD format and as specified in 01 71 23 Field Engineering and Survey.
 2. Daily Report: keep a daily record of equipment used; description of activity as identified by dredge area and coordinates; quantity of sediments dredged that day and to date (reported in cubic yards); the estimated quantity of dredge sediments and dredge debris transported to the transload facility (based on in-situ cubic yards); any downtime and delays to the operation; cause of any downtime and delays; health and safety performance; results from water quality monitoring, daily progress survey, and a summary of other details of the work. The report shall include the results of all inspections, surveys and monitoring activities and shall be signed by the Contractor's dredging superintendent or quality control manager. This daily record shall be submitted to the Engineer with a transmittal letter the morning following completion of work on the date of the Daily Report.
 3. Weekly Report: summarize the week's work in a weekly report submitted to the Engineer the following Monday morning. Identify work completed to date, anticipated work to be completed in the present week, results from water quality monitoring, and include the latest Progress Survey.
 4. Closure Report: prepare a closure report that summarizes all the weekly reports and identifies Contractors estimates of dredge volume, dredge sediment volume disposed at the upland disposal facility, dredge volume disposed at the DMMP site, dredge debris volume disposed at the upland landfill facility, sand cap placement, water quality monitoring, and bucket map for dredging and cap placement.
 5. DNR Disposal Site Use Report
 6. DNR Monthly Disposal Statement
- B. Water Quality Monitoring Test Results

1.03 JOB CONDITIONS

- A. Subsurface investigation reports and descriptions of the sediment to be dredged are available as reference documents as noted in 00 31 00 Available Project Information.

1. The Contractor shall anticipate inherent delays while conducting dredging, transloading operations, sand placement in the waterway, and disposal operations in Commencement Bay. Inherent delays are primarily due to commercial shipping traffic within the shipping channel. Commercial shipping traffic shall have precedence over the Contractor's activities and may require them to stop, move, adjust, and/or slow down to accommodate vessel movement. The Contractor shall make allowance in its construction schedule for delays or interruptions due to vessel movement within the shipping channel in the waterway. The bid prices shall include allowances for such inherent delays.
 2. The Contractor shall satisfy itself regarding the nature of materials present at the site prior to bidding. The type of materials encountered at the site may vary from the conditions described in the appendices and reference drawings. Variations in the type of materials encountered may occur that differ materially from those indicated in these Specifications, and if encountered, will not be considered as basis for claims due to differing Work Site conditions.
 3. Any damage to the existing PCT wharf structure or other over-water structures at the Port and/or other existing facilities caused by the Contractor's operations or neglect, shall immediately be repaired to the pre-project condition at no cost to the Port.
 4. Condition Survey of Existing Structures: The Contractor and Engineer shall review and verify the condition of adjacent structures and appurtenances adjacent to the work areas prior to beginning work to ascertain existing conditions. Any damage documented as a result of the Contractor's activities will be repaired at no additional cost to the Port.
- B. The Port's tenants shall have access along the Work Site and to the portion(s) of the marine facilities not being worked on for the duration of the construction contract. Conduct operations in a manner that will minimize interference with those activities.
- C. The Blair Waterway, Hylebos Waterway, and Commencement Bay are active navigation corridors used for transport of deep draft commerce activities. These activities shall take priority over the Contractor's operations. The Port's tenants and other entities using the waterway must have access along the project site for the duration of the construction contract. The Contractor shall conduct its operations in a manner that will minimize interference with those activities. In the event the Contractor's construction equipment (dredge, dump scows, tug, barges, workboats, anchors, lines, etc.) obstructs a navigable waterway so as to hinder movement of commercial vessels, the equipment shall immediately be moved to facilitate the shipping activity. Any damage to the Contractor's equipment in navigation lanes due to the Contractor's failure to move when required shall be at the Contractor's sole risk and expense.
1. Security Concerns: For security and vessel navigation concerns, the Contractor shall give notice and receive required approval from the Port prior to berthing at any location along the Blair Waterway. The Contractor shall notify the U.S. Coast Guard (USCG) as required to comply with USCG and Port regulations for operating within the Blair Waterway, Hylebos Waterway, and Commencement Bay.

1.04 MISPLACED MATERIAL

1. Promptly recover and remove any material, barge, machinery, equipment, or appliance that is lost, dumped, thrown overboard, sunk, or misplaced during the execution of the work. Immediately notify the Engineer verbally, followed by written confirmation, of the description and location of such obstructions and mark and buoy such obstructions until they are removed. Should the Contractor refuse, neglect, or delay compliance with this requirement, such obstructions may be removed by the Port or its agents, and the cost of such operations may be deducted from any money due to the Contractor or may be recovered from the Contractor's bond. The liability of the Contractor for the removal of a vessel wrecked or sunk without his fault or negligence shall be limited to that provided in Sections 15, 19, and 20 of the River and Harbor Act of 3 March 1899 (33 U.S.C. 410 et seq.).
- B. The Contractor shall be responsible for any fees, fines, penalties or other costs resulting from misplaced materials. The Contractor shall also be responsible for removing accumulated spilled dredged materials in the waterway even if the material is located beyond the project dredging limits. Contractor shall notify the Port and coordinate with the Port and Agencies before spilled material can be removed.

1.05 DREDGING AND DISPOSAL REGULATORY COMPLIANCE

- A. Permits and Compliance. The Contractor shall be responsible to adhere and conform to all applicable provisions, conditions, and requirements of the permits:
 1. Permits that include conditions for dredging are provided in the appendices of these specifications.
 2. The Port will notify various regulatory agencies prior to commencing dredging, as required by the project permits. These notifications typically include the USACE, Washington State Department of Natural Resources (DNR), Washington State Department of Ecology, and Washington Department of Fish and Wildlife. Notification requirements are shown in the permits appended to these specifications.
 3. The Port will obtain DNR Disposal Site Use Authorization to Utilize Open Water Disposal Site prior to the start of construction:
 - a. Upon execution of this contract, the Port will endorse the DNR "Open Water Disposal Site Use Authorization" permit as "Grantee."
 - b. Operational requirements prohibit discharge operations at the DMMP sites from dusk to dawn on weekdays, weekends, and holidays. Any proposed nighttime disposal operations must be coordinated with and approved by the USACE's Enforcement Section, Regulatory Branch, Port, and the Puyallup Tribe of Indians.

The Contractor is responsible for requesting approval for nighttime disposal operations from the USACE. Nighttime disposal shall not commence until written approval from the USACE is obtained.
 - c. Within 10 days of the commencement date, as noted in the "Notice to Proceed," the Contractor shall complete the DNR "Plan of Operation for Use of Open Water Disposal Site" certification form and submit to:

Washington State Department of Natural Resources Aquatic Resources Division

- 1) DMMP Coordinator

P.O. Box 47027
Olympia, WA 98504

- d. The Contractor shall comply with all DNR disposal regulations and reporting requirements, including, but not limited to, the following:
 - 1) The Contractor shall become familiar with and adhere to DNR disposal site discharge procedures and reporting requirements.
 - 2) The Contractor shall verify and record the barge location prior to each discharge, including the horizontal distance from the center of the disposal site. A positioning device must be located on the dump barge if the barge is towed to the dump site so the barge position can be determined at the time of dumping.
 - 3) The Contractor shall complete "Disposal Site Use Reports and monthly summaries" as required by DNR.
 - 4) The DNR reporting week begins on Monday and ends the following Sunday. Site Use Report forms must be filled out in their entirety and submitted to the Engineer by noon on Monday of the week following the week being reported.
 - 5) Monthly Reporting Summary forms must be completely filled out and submitted to the Engineer with a transmittal letter, no later than the nineteenth day of the month following the month being reported.
 - 6) Failure to provide forms in accordance with the above schedule may result in suspension or termination of the Site Use Authorization. The Contractor will be held responsible and liable for any damages, penalties, and/or delay costs incurred by the Port as a result of suspension or termination of the Site Use Authorization.
 - 7) The Contractor shall provide the Engineer with the originals of all disposal site use reports and forms to be submitted to DNR.
 - e. The Port will pay directly to DNR all fees associated with the disposal of dredged material. The Contractor shall pay for any penalty or damage fees imposed by DNR for material dumped off site or other unauthorized disposal operations.
- B. Any conflicts between these contract specifications and issued permits will be brought to the attention of the Engineer. Nothing whatsoever shall be deemed to authorize violation of project permits.

PART 2 - PRODUCTS – NOT USED

PART 3 - EXECUTION

3.01 GENERAL

- A. Mechanically dredge sediment to the required elevations and grades as indicated on the Drawings during the in-water work period described in the project permits. Final dredge elevations shall be no higher than those shown on the Drawings. The maximum payable overdredge depth is indicated on the Drawings.
- B. The limits of dredging are shown in the Drawings.

- C. The Contractor shall use all available means to prevent material from reentering the water once it has been dredged and shall be responsible for dredging any deposition of material outside of the dredge area that occurs from spillage during dredging as determined based on pre- and post-construction surveys.
 - 1. The finished slopes shall be configured as shown in the Drawings or as directed by the Engineer.
 - 2. Perform a pre-construction dredge survey prior to the start of any dredging operations.
- D. Transport all dredged materials from the Middle Blair maintenance dredge to the transload facility for upland disposal.
- E. Transport all dredged materials from PCT maintenance dredge to the Commencement Bay Open-Water Dredged Material Disposal Site for open water disposal.

3.02 SURVEYS

A. Sediment Dredge Positioning System

Dredge equipment shall be equipped with sensors and related instrumentation to measure and display the real-time depth and horizontal position of the dredge bucket using differential global positioning system (DGPS) with dredge bucket logging capabilities (WINOPS software or equivalent). Use reliable and accurate DGPS equipment and an automated tide gauge, calibrated to the horizontal and vertical datums identified in Section 01 71 23 – Field Engineering and/or on the Drawings, to accurately determine the horizontal and vertical position of the dredge bucket. Depths shall be corrected for tidal conditions at the time of the survey. Dredge depth vertical control shall be accurate to at least $\pm [6]$ inches ([152.4] mm). Accuracy of dredge position for horizontal control shall be within $\pm [3]$ feet ([91.44] cm).

- a. Dredge equipment shall be equipped with sensors and related instrumentation to measure and display the real-time depth and horizontal position of the dredge bucket using differential global positioning system (DGPS) with dredge bucket logging capabilities (WINOPS software or equivalent). Use reliable and accurate DGPS equipment and an automated tide gauge, calibrated to the horizontal and vertical datums identified in Section 01 71 23 – Field Engineering and/or on the Drawings, to accurately determine the horizontal and vertical position of the dredge bucket. Depths shall be corrected for tidal conditions at the time of the survey. Dredge depth vertical control shall be accurate to at least ± 6 inches (152.4 mm). Accuracy of dredge position for horizontal control shall be within ± 3 feet (91.44 cm).

B. Pre-Dredge and Post-Dredge Surveys

- 1. Pre- and post-dredge surveys shall be referenced to existing horizontal and vertical survey control monuments and survey control baselines used during project design. See Section 01 71 23 – Field Engineering for trackline and sounding spacing requirements. Pre-dredge survey and final post-dredge survey (performed after completion of all required dredging) shall extend to a minimum of 50 feet (1524 cm) waterward of the permitted dredge boundary and 50 feet beyond all other dredge limits.
- 2. Pre-Dredge Survey: The pre-dredge survey shall be performed within two weeks of beginning the dredging operations. This pre-dredge survey will be the basis for payment quantities. The survey shall be provided to the Port seven business days prior to the start of dredging. The survey must be approved prior to the start of dredging activities.

3. Final Post-Dredge Survey: Upon completion of dredging to final grades, a post-dredge survey shall be performed. The survey shall be provided to the Contractor for their review. The Port will review the final post-dredge survey to determine whether all dredging has been satisfactorily completed and for payment purposes. If all of the required dredging has not been satisfactorily completed, as determined by the Engineer, the Contractor shall correct the deficiencies indicated in the survey and the area(s) will be rechecked by the Engineer. The cost for Contractor resurvey will not be paid by the Port and will be performed at the Contractor's own cost. Each additional post-dredge survey must be reviewed and approved by the Port prior to final acceptance of the work.
4. The Pre- and Post-Dredge surveys will be used as the basis for determining final pay volumes and acceptance of the work. Calculate final pay volumes digital terrain modeling methods to generate pre- and post-construction surfaces, computing pay volumes to the nearest cubic yard. Provide a copy of the surveys and the quantity calculations to the Engineer for review and approval. These as-built surveys shall be conducted under the direct supervision of a licensed professional surveyor in the state of Washington or Congress on Surveying and Mapping (ACSM) certified hydrographer experienced in the use of multibeam survey equipment. The purpose of these surveys is to document the as-built bathymetry of areas dredged.
5. Post Sand Placement Survey: The post-sand placement surveys shall be used as the basis of acceptance of Work by the Port. Surveys shall be reviewed and approved by the Port before Work will be consisted complete. See Specification 35 02 00 – Sand Cover Placement for additional sand placement survey requirements.

C. Dredge Progress Surveys

1. For progress dredge surveys, the Contractor shall compute quantities to the nearest cubic yard based on the progress sounding lines surveyed, the pre-dredge survey, and the dredging section indicated on the Contract Drawings. Barge displacement data may also be used along with the survey data to calculate progress pay quantities. Tabular summaries shall be submitted to show required elevation, allowable overdepth, and total dredging quantities both incremental and cumulative per 25-foot stations.
2. Survey results may be used to adjust dredging procedures to assure that the configuration of the dredging conforms to the Plan requirements. The Engineer may direct the Contractor to adjust its dredging procedure to assure compliance with the Drawings, at no additional cost to the Port.

3.03 CONDUCT OF WORK

A. Layout of Work

1. Layout work according to Section 01 71 23 – Field Engineering.

B. Dredging

1. Perform dredging using mechanical methods only. An environmental bucket must be used for material from the Middle Blair maintenance dredge and/or dredge material unsuitable for open water disposal. A clamshell bucket may be used for material suitable for open water disposal.

2. Excavate the Dredge Prism to the required dredging lines, grades, slopes, and elevations shown on the Drawings. Each pass of the dredge bucket shall be complete, and there is to be no stockpiling of sediment in the water or on land. Do not level the completed dredging surface by dragging a beam or sweeping the dredge bucket.
3. Conduct dredging starting from the top of slopes, working down the slope, in order to minimize the potential for uncontrolled slope movement. Take care when dredging the toe of slopes to avoid overcutting the toe of slopes below the Overdredge Allowance.
4. If dredging is conducted at dusk or night, the Contractor shall ensure sufficient light is provided for visual monitoring of the dredge prism for turbidity, as well as visual inspection for debris and large rocks within the disposal barge.
5. If daily Progress Survey results indicate that excessive dredging is occurring, or dredging is outside of the dredge prism, modify dredging operations and/or positioning control immediately to avoid additional excessive dredging. Excessive dredging, if performed, will be paid for by the Contractor at no additional expense to the Port.
6. Pay attention to the conditions of issued regulations and authorizations requiring minimizing turbidity and loss of resuspended sediments during dredging and transport operations and adherence to water quality requirements.
7. Control the dispersion of suspended solids away from the point of dredging and due to vessel propwash during dredging activities in order to prevent or reduce to the extent practicable the potential for sediment recontamination.
8. Upon completion of the work, but not until acceptance by the Engineer, remove the dredging equipment, including ranges, buoys, piles, and other markers or obstructions placed in the water or on shore.
9. All floating equipment shall be marked with U.S. Coast Guard-approved lights or lighted buoys, whenever operations and/or floating equipment laydown will occur during non-daylight hours.
10. All dredged material from the Middle Blair maintenance dredge shall be loaded directly to a barge for water transport to the transload facility. No dredge sediment or dredge debris shall be loaded for overland travel from the Work Site.

C. Barge Dewatering

1. Minimize the amount of water in the sediment during dredging and maximize drainage of water from recovered sediment. Barge dewatering methods shall be modified if water quality monitoring indicates applicable criteria are being exceeded.
2. Unfiltered effluent release from the dredge material barge and/or dewatering barge is prohibited.
3. Contractor may passively dewater dredged sediment to remove suspended solids from the effluent. The method for passive barge dewatering shall be implemented in a manner that is compliant with the water quality requirements as described in the WQMPP and is within the DMMUs. Contractor shall review and understand these water quality requirements.
4. The sediment shall be placed to promote drainage of water. No overtopping of the sideboards will be allowed.

5. Ensure that all scuppers, sideboards, or other passageways for effluent to discharge back to Work Site waters have the proper filtration material in place prior to discharge of effluent. Cover the scuppers and any discharge points with filter fabric (or similar material acceptable to the Engineer) to filter and retain sediment while allowing water to drain back into the receiving waters, and to meet water quality criteria requirements. Free water shall not be directly discharged back into the Work Site waters without passing through filter media to prevent release of suspended sediment. The method for filtering return effluent must be described in the DDWP and accepted by the Port prior to conducting any dredging work.
6. Barge discharge is not allowed outside of the Work Site during in-water transportation and transloading of dredge material and dredge debris from the Work Site to the transload facility or the Commencement Bay Open-Water Dredged Material Disposal Site.
7. Water management on haul barges may be accomplished with the addition of a drying agent. Select the type of agent and appropriate dosage to facilitate dewatering. Use of agents is at the sole discretion of the Contractor, and the Contractor is responsible for ensuring that use of agents is acceptable by the upland disposal facility, and meets requirements of federal, state, local regulations, and permit conditions. Use of agents will be considered incidental to the work.
8. If water quality criteria exceedances are observed during completion of passive dewatering activities, modify the passive barge dewatering process in order to comply with water quality criteria or cease passive barge dewatering activities at no additional cost to the Port.

3.04 TRANSPORTATION AND DISPOSAL OF DREDGED MATERIALS

A. In-Water Transportation

- a. All dredged material shall be transported from the Work Site via barge. On-site stockpiling and overland transport of dredged sediment from the Work Site is prohibited.
2. Transport unsuitable dredge sediment to the transload facility and suitable sediment to the open-water disposal site in accordance with the means and methods described in the DDWP. Deviations from the DDWP shall be approved by the Engineer prior to haul barges leaving the Work Site.
3. Inspect each barge load of dredge sediment and dredge debris prior to transport from the Work Site and to the transload facility or open-water disposal site.
 - a. The Contractor shall obtain barge displacement measurements prior to in-water transportation and establish an estimated tonnage of material associated with that barge load. Estimated tonnages for each barge load of material removed from the Work Site shall be recorded in the Contractor Daily and Weekly Construction Reports.
 - b. The Contractor shall also document seaworthiness of each barge used for transport of dredge material and dredge debris from the Work Site to the transload facility or open-water disposal site. Documentation of the seaworthiness of each transport barge shall be submitted to the Engineer prior to that barge leaving the Work Site.
 - c. Transportation of dredge material and Dredge Debris from the Work Site to the transload facility or open-water disposal site shall comply with federal, state, local regulations, and permit conditions.

4. Transport unsuitable dredge sediment and co-mingled dredge debris recovered from the DMMUs by barge to the transload facility. Transport dredge debris from suitable dredge sediment by barge to the transload facility.
 5. For material unsuitable for open water disposal, the aquatic discharge of sediment or drainage water outside of the Work Site boundary is prohibited. Outfit disposal barges to provide watertight containment of dredged material during transport and transloading. Immediately notify the Engineer if dredge sediments or drainage water are observed entering the receiving water outside of the Work Site.
- B. Commencement Bay Open-Water Dredged Material Disposal Site (DMMP Disposal Site)
1. The Port will obtain a Disposal Site Use Authorization from DNR for disposal of dredged materials at the DMMP site. Suitable material shall be loaded onto bottom-dump haul barges and transported to the DMMP site. For DNR reporting requirements, the barge dump will be considered to start at initiation of bottom-dump or split hull opening. The end of the dump will be that time when all materials have exited the barge. No materials shall be dumped unless approved positioning equipment is operational. Overflow will not be permitted from haul barges at any time. The haul barges must have tightly sealing doors and compartments to minimize leakage of material during transit. Any barge that exhibits more than minor leakage shall be removed from the equipment used on this project until satisfactory repairs are made. All DNR disposal fees will be paid directly by the Port. The Contractor shall prepare a daily dredging report and daily site use report for each barge disposal. These reports shall be submitted to the Engineer with the Daily Construction Report.
- C. Vessel Traffic Service (VTS)
1. The Contractor must contact the USCG VTS by radio before disposal at the DMMP site for positioning and verification of location within the surface target zone. Disposal may not commence until verification is received from the USCG. The Contractor must also report the vessel position, tug, barge, skipper's name, DNR permit number, and the time dumping begins and ends.
 2. In addition to tug-mounted DGPS receiver, if the barge is to be towed, the Contractor shall provide a DGPS receiver on the barge to record its location at start and end of dump.
 3. Signal lights shall be displayed and operations shall be conducted in accordance with the regulations of local port and harbor authorities and by the applicable regulations of Code of Federal Regulations, Title 33 - Navigation and Navigable Waters, as required by the Department of the Army and the USCG.
- D. Disposal Site Mapping
1. Within 24 hours of each dump, the Contractor shall provide a printout for each dump showing the disposal site limits and barge location within the disposal site at the time of the dump. Coordinates for the barge at the beginning and end of each dump shall also be recorded on the printout.

3.05 WATER QUALITY MONITORING AND BEST MANAGEMENT PRACTICES

- A. A WQMPP has been prepared by the Port and included in the appendices. In accordance with this plan, perform water quality monitoring for quality assurance purposes during all in-water activities. Comply with all water quality requirements as defined in the project Water Quality Certificate, Permits, and applicable local, state, and federal standards. Conduct water quality monitoring as needed to provide quality control of the work. As a minimum, have in place the following.
1. BMPs to prevent water quality exceedances.
 2. Contingency measures to implement should water quality exceedances occur.
- B. Delays caused by complying with water quality requirements shall not be cause for additional compensation to the Contractor.
- C. Best Management Practices
1. Implement BMPs to minimize impacts to the aquatic environment, minimize sediment loss, and minimize turbidity generation during dredging and other in-water operations. Turbidity and other water quality parameters will be monitored to ensure construction activities are in compliance with Washington State Surface Water Quality Standards (173-201A WAC), the WQMPP, and in accordance with the Permits. At a minimum, the following BMPs shall be implemented, but are not limited to:
 - a. Ensure that no fuel, garbage, or debris enters the waterway from the dredge, receiving barge, other vessels associated with the work.
 - b. Perform dredging using mechanical methods only. Use an environmental bucket or closed top bucket whenever feasible.
 - c. Eliminate multiple bites while the dredge bucket is on the seafloor.
 - d. Do not stockpile dredged material on the seafloor.
 - e. Do not perform seafloor leveling.
 - f. Place dredge materials into the disposal scows without splashing material out of the barge.
 - g. Ensure that the dredge bucket is completely emptied of sediments over the disposal scow before re-submerging the dredge bucket in the waterway.
 - h. Depending on the results of the water quality monitoring program, enhanced BMPs may also be implemented to further control turbidity. Enhanced BMPs may include, but are not limited to:
 - 1) Slowing the velocity (i.e., increasing the cycle time) of the ascending loaded clamshell bucket through the water column
 - 2) Pausing the dredge bucket near the bottom while descending and near the water line while ascending
 - 3) Placing filter material over the barge scuppers to clear dredge return water
 - i. Manage barges such that the dredged sediment load does not exceed the capacity of the barge. The load shall be placed in the barge to maintain an even keel and avoid listing.

- j. Dredge vessel personnel shall be trained in hazardous material handling and spill response and will be equipped with appropriate response tools, including absorbent oil booms. If a spill occurs, spill cleanup and containment efforts will begin immediately and will take precedence over normal work.
 - k. Inspect fuel hoses, oil or fuel transfer valves, and fittings on a regular basis for drips or leaks in order to prevent spills into the surface water.
 - l. Install and maintain an impervious turbidity curtain during dredging operations if needed to control turbidity. Design, procurement, installation, operation, inspection, maintenance, and repair the turbidity curtains. The turbidity curtains can be supported by either a floating boom or can fully extend above the waterline and be attached to a marine structure if allowed by the Port. If a floating boom is used, moor the turbidity curtain to the marine structures and support by floats at the top that keep the top of the turbidity curtain above the water surface. The turbidity curtain bottom shall be weighted at the bottom, be tapered to the bathymetry, and rest directly on the mudline. The turbidity curtain shall be inspected and maintained regularly to the satisfaction of the Engineer during construction.
2. During barge dewatering activities, the following BMPs shall be implemented to minimize water quality impacts:
- a. Return water draining from the receiving barge shall be treated by filtering water through geotextile fabric.
 - b. Change geotextile fabric regularly to ensure efficient filtration of the return water.
 - c. Barges shall not be overfilled to the point where recovered material overflows directly back to open water.
 - d. During sediment dewatering, the receiving barge shall remain within the work area.
 - e. Return water from the barge shall not be allowed to discharge to surface water outside the work area.
 - f. Constantly observe and monitor the filtration system to confirm that the system is operating as expected and that turbid water in excess of the specified water quality limit is not being discharged to the waterway. Additional BMPs shall be used in the event of overflow or to ensure proper functioning of the filtration system and to prevent excessively turbid water from leaving the barge.

3.06 SALVAGED MATERIALS

- A. Anchors, chains, straps, and other articles or debris brought to the surface during the course of the dredging operations shall remain the property of the Contractor and shall be disposed of at an upland disposal facility licensed/permitted to receive such material. Salvage and removal of such material will be managed and paid using the Dredge Debris Allowance Bid Item. Hazardous material/waste, consisting of creosote-treated piles, batteries, PCBs, etc. shall be disposed of in accordance with applicable federal, state, and local regulations. With the exception of the existing structures to be demolished, the Port does not expect hazardous material, other than Subtitle D contaminated dredge sediments, to be within the dredging area. When such material/waste is encountered, immediately notify the Engineer to determine the course of action to be taken. The Contractor will be compensated for costs associated with handling and disposal of debris encountered during dredging.

END OF SECTION

APPENDIX A
PORT OF TACOMA
CONSTRUCTION SWPPP
SHORT FORM

CONSTRUCTION SWPPP SHORT FORM

The threshold for using the Port of Tacoma’s (Port) short form is a project that proposes to clear or disturb less than one acre of land. Projects falling within this threshold may use this short form instead of preparing a professionally designed Construction Stormwater Pollution Prevention Plan (SWPPP). If project disturbance quantities exceed this threshold, you must prepare of formal Construction SWPPP as part of your submittal package. If your project is within the threshold and includes—or may affect—a critical area, please contact the Port to determine if the SWPPP short form may be used.

CONSTRUCTION STORMWATER POLLUTION PREVENTION PLAN SHORT FORM

Project Name:

Address:

Contact/Owner:

Phone:

Erosion Control Supervisor:

Phone:

Cell:

Pager:

Emergency (After hours) Contact:

Phone:

Permit No.:

Parcel No.:

Required Submittals

A Construction SWPPP consists of both a project narrative and a site plan. The project narrative describes existing conditions on the site, the proposed conditions, and how construction site runoff will be managed until final site stabilization is achieved. Any additional relevant information should be included in the project narrative. All Best Management Practices (BMPs) that will be utilized onsite must be included as part of the project narrative and provided (electronically or hard copy) as part of the submittal package. If additional BMPs beyond those included in the Washington Department of Ecology's (Ecology) Western Washington Stormwater Management Manual (Ecology SWMM) or the City of Tacoma's (City) Stormwater Management Manual (City SWMM) are proposed to be used, a narrative and appropriate details describing the BMP (its function, installation method, and maintenance activities) will be required.

The site plan is a drawing which shows the location of the proposed BMPs to control erosion and sedimentation during and after construction activities.

PROJECT NARRATIVE

The Construction SWPPP Short Form narrative must be completed at part of the submittal package. Any information described, as part of the narrative, should also be shown on the site plan.

Note: From October 1 through April 30, clearing, grading, and other soil disturbing activities shall only be permitted by special authorization from the Port.

A. Project Description (Check all that apply)

- | | | |
|--|--|---|
| <input type="checkbox"/> New Structure | <input type="checkbox"/> Building Addition | <input type="checkbox"/> Grading/Excavation |
| <input type="checkbox"/> Paving | <input type="checkbox"/> Utilities | <input type="checkbox"/> Other: |

1. Total project area (square feet)
2. Total proposed impervious area (square feet)
3. Total existing impervious area (square feet)
4. Total proposed area to be disturbed (square feet)
5. Total volume of cut/fill (cubic yards)

Additional Project Information:

B. Existing Site Conditions (Check all that apply)

1. Describe the existing vegetation on the site. (Check all that apply)

<input type="checkbox"/> Forest	<input type="checkbox"/> Pasture/field grass	<input type="checkbox"/> Pavement	<input type="checkbox"/> Landscaping	<input type="checkbox"/> Brush
<input type="checkbox"/> Trees	<input type="checkbox"/> Other:			
2. Describe how surface water (stormwater) drainage flows across/from the site. (Check all that apply)

<input type="checkbox"/> Sheet Flow	<input type="checkbox"/> Gutter	<input type="checkbox"/> Catch Basin	<input type="checkbox"/> Ditch/Swale	<input type="checkbox"/> Storm Sewer
<input type="checkbox"/> Stream	<input type="checkbox"/> Other:			
3. Describe any unusual site condition(s) or other features of note.

<input type="checkbox"/> Steep Grades	<input type="checkbox"/> Large depression	<input type="checkbox"/> Underground tanks	<input type="checkbox"/> Springs
<input type="checkbox"/> Easements	<input type="checkbox"/> Existing structures	<input type="checkbox"/> Existing utilities	<input type="checkbox"/> Other:

C. Adjacent Areas (Check all that apply)

1. Check any/all adjacent areas that may be affected by site disturbance and fully describe below in item 2:

- Streams* Lakes* Wetlands* Steep slopes*
 Residential Areas Roads Ditches, pipes, culverts Other:

** If the site is on or adjacent to a critical area (e.g., waterbody), the Port may require additional information, engineering, and other permits to be submitted with this short form.*

2. Describe how and where surface water enters the site from properties located upstream:

3. Describe the downstream drainage path from the site to the receiving body of water (minimum distance of 0.25 mile [1320 feet]). (E.g., water flows from the site into a curb-line, then to a catch basin at the intersection of X and Y streets. A 10-inch pipe system conveys water another 1000 feet to a wetland.) Include information on the condition of the drainage structures.

D. Soils (Check all that apply)

The intent of this section is to identify when additional soils information may be required for applicants using this short form. There are other site-specific issues that may necessitate a soils investigation or more extensive erosion control practices. The Port will determine these situations on a case-by-case basis as part of their review.

1. Does the project propose infiltration? Infiltration systems require prior Port approval.

- Yes No

2. Does the project propose construction on or near steep slopes (15% or greater)?

- Yes No

If infiltration is proposed for the site or steep slopes (15% or greater) have been identified, the Port will require soils information as part of project design. The applicant must contact a soil professional or civil engineer that specializes in soil analysis and perform an in-depth soils investigation. If the Yes box is checked for either question, the Port may not permit the use of this short form.

E. Construction Sequencing/Phasing

1. Construction sequence: the standard construction sequence is as follows:
 - Mark clearing/grading limits.
 - Install initial erosion control Best Management Practices (BMPs) (e.g., construction entrance, silt fence, catch basin inserts, etc.).
 - Clear, grade, and fill project site as outlined in the site plan while implementing and maintaining proper temporary erosion and sediment control BMPs simultaneously.
 - Install permanent erosion protection as described in the specifications (e.g., impervious surfaces, landscaping, etc.).
 - Remove temporary erosion control methods as permitted. Do not remove temporary erosion control until permanent erosion protection is fully established.

List any changes from the standard construction sequence outlined above:

2. Construction phasing: if construction is going to occur in separate phases, please describe:

F. Construction Schedule

1. Provide a proposed construction schedule (dates construction starts and ends, and dates for any construction phasing.)

Start Date:

End Date:

Interim Phasing Dates:

Wet Season Construction Activities: Wet season occurs from October 1 to April 30. Please describe construction activities that will occur during this time period.

Note: Additional erosion control methods may be required during periods of increased surface water runoff.

2. Site plan (see Figure 1, page 6)

A site plan, to scale, must be included with this checklist that shows the following items:

- a. Address, Parcel Number, Permit Number, and Street Names
- b. North Arrow
- c. Indicate boundaries of existing vegetation (e.g., tree lines, grassy areas, pasture areas, fields, etc.)
- d. Identify any onsite or adjacent critical areas and associated buffers (e.g., wetlands, steep slopes, streams, etc.).
- e. Identify any FEMA base flood boundaries and Shoreline Management boundaries.
- f. Show existing and proposed contours.
- g. Delineate areas that are to be cleared and/or graded.
- h. Show all cut and fill slopes, indicating top and bottom of slope catch lines.
- i. Show locations where upstream run-on enters the site and locations where runoff leaves the site.
- j. Indicate existing surface water flow direction(s).
- k. Label final grade contour and indicate proposed surface water flow direction and surface water conveyance systems (e.g., pipes, catch basins, ditches, etc.).
- l. Show grades, dimensions, and direction of flow in all (existing and proposed) ditches, swales, culverts, and pipes.
- m. Indicate locations and outlets of any dewatering systems (usually to sediment trap).
- n. Identify and locate all erosion control methods to be used during and after construction.

ONSITE FIELD VERIFICATION OF ACTUAL CONDITIONS IS REQUIRED.

Figure 1. (to be worked out with Engineering Dept.)

GUIDELINES FOR EROSION CONTROL ELEMENTS

This SWPPP must contain the 12 required elements, as required by Ecology. Check off each element as it is addressed in the SWPPP short form and/or on your site plan.

- 1. Mark Clearing Limits
- 2. Establish Construction Access
- 3. Control Flow Rates
- 4. Install Sediment Controls
- 5. Stabilize Soils
- 6. Protect Slopes
- 7. Protect Drain Inlets
- 8. Stabilize Channels and Outlets
- 9. Control Pollutants
- 10. Control Dewatering
- 11. Maintain BMPs
- 12. Manage the Project

The following is a brief description of each of the 12 required elements of a SWPPP. If an element does not apply to the proposed project site, please describe why the element does not apply. Applicable BMPs are listed with each element and in Table 1. Please note that this list is not a comprehensive list of BMPs available for small construction projects, but erosion and sediment control techniques most pertinent to small construction sites are included here. More detailed information on construction BMPs can be found in Ecology's SWMM Volume II and the City's SWMM Volume II (Ecology 2005; City of Tacoma 2012). Please provide hard copies of the BMPs that will be used for the project and include as part of this Construction SWPPP. BMPs that may be used if needed can be noted as being contingent in the event additional erosion control is needed. Describe any additional BMPs that will be utilized onsite and add them to the SWPPP short form.

For phased construction projects, clearly indicate erosion control methods to be used for each phase of construction.

Element #1 – Mark Clearing Limits

All construction projects must clearly mark any clearing limits, sensitive areas and their buffers prior to beginning any land disturbing activities, including clearing and grading. Clearly mark the limits both in the field and on the site plans. Limits shall be marked in such a way that any trees or vegetation that is to remain will not be harmed.

Applicable BMPs include:

- BMP C101: Preserving Natural Vegetation
- BMP C102: Buffer Zones
- BMP C103: High Visibility Plastic or Metal Fence
- BMP C104: Stake and Wire Fence

The BMP(s) being proposed to meet this element are:

OR

This element is not required for this project because:

Element #2 – Establish Construction Access

All construction projects subject to vehicular traffic shall provide a means of preventing vehicle “tracking” soil from the site onto streets or neighboring properties. Limit vehicle traffic on- and off-site to one route if possible. All access points shall be stabilized with a rock pad construction entrance or other Port-approved BMP. The applicant should consider placing the entrance in the area for future driveway(s), as it may be possible to use the rock as a driveway base material. The entrance(s) must be inspected weekly, at a minimum, to ensure no excess sediment buildup or missing rock.

Applicable BMPs include:

- BMP C105: Stabilized Construction Entrance
- BMP C106: Wheel Wash
- BMP C107: Construction Road/Parking Area Stabilization

The BMP(s) being proposed to meet this element are:

OR

This element is not required for this project because:

Element #3 – Control Flow Rates

Protect properties and waterways downstream of the project site from erosion due to increases in volume, velocity, and peak flow of stormwater runoff from the project site.

Permanent infiltration facilities shall not be used for flow control during construction unless specifically approved by the Environmental Department. Sediment traps can provide flow control for small sites by allowing water to pool and allowing sediment to settle out of the water.

Applicable BMPs include:

- BMP C207: Check Dams
- BMP C240: Sediment Trap

The BMP(s) being proposed to meet this element are:

OR

This element is not required for this project because:

Element 4 – Install Sediment Controls

Surface water runoff from disturbed areas must pass through an appropriate sediment removal device prior to leaving a construction site or discharging into a waterbody. Sediment barriers are typically used to slow stormwater sheet flow and allow the sediment to settle out behind the barrier.

Sediment controls must be installed/constructed prior to site grading.

Applicable BMPs include:

- BMP C208: Triangular Silt Dike
- BMP C232: Gravel Filter Berm
- BMP C233: Silt Fence
- BMP C235: Straw Wattles

The BMP(s) being proposed to meet this element are:

OR

This element is not required for this project because:

Element #5 – Stabilize Soils

Stabilize exposed and unworked soils by applying BMPs that protect the soils from raindrop impact, flowing water, and wind.

From October 1 through April 30, no soils shall remain exposed or unworked for more than 2 days. From May 1 to September 30, no soils shall remain exposed or unworked for more than 7 days. This applies to all soils whether at final grade or not.

Applicable BMPs include:

- BMP C120: Temporary and Permanent Seeding
- BMP C121: Mulching
- BMP C122: Nets and Blankets
- BMP C123: Plastic Covering
- BMP C140: Dust Control

The BMP(s) being proposed to meet this element are:

OR

This element is not required for this project because:

Element #6 – Protect Slopes

Protect slopes by diverting water at the top of the slope. Reduce slope velocities by minimizing the continuous length of the slope.

Applicable BMPs include:

- BMP C200: Interceptor Dike and Swale
- BMP C204: Pipe Slope Drains
- BMP C207: Check Dams

The BMP(s) being proposed to meet this element are:

OR

This element is not required for this project because:

Element #7 – Protect Drain Inlets

All operable storm drain inlets must be protected during construction so that stormwater runoff does not enter the conveyance system without first being filtered or treated to remove sediment. Install catch basin protection on all catch basins within 500 feet downstream of the project.

Applicable BMPs include:

- BMP C220: Storm Drain Inlet Protection

The BMP(s) being proposed to meet this element are:

OR

This element is not required for this project because:

Element #8 – Stabilize Channels and Outlets

Stabilize all temporary onsite conveyance channels. Provide stabilization to prevent erosion of outlets, adjacent stream banks, slopes, and downstream reaches at the conveyance system outlets.

Applicable BMPs include:

- BMP C202: Channel Lining
- BMP C209: Outlet Protection

The BMP(s) being proposed to meet this element are:

OR

This element is not required for this project because:

Element #9 – Control Pollutants

Handle and dispose of all pollutants, including demolition debris and other solid wastes in a manner that does not cause stormwater contamination. Provide cover and containment for all chemicals, liquid products (including paint), petroleum products, and other materials. Handle all concrete and concrete waste appropriately.

Applicable BMPs include:

- BMP C150: Materials on Hand
- BMP C151: Concrete Handling
- BMP C152: Sawcutting and Surface Pollution Prevention
- BMP C153: Material Delivery, Storage and Containment

The BMP(s) being proposed to meet this element are:

OR

This element is not required for this project because:

Element #10 – Control Dewatering

Clean, non-turbid dewatering water, such as groundwater, can be discharged to the stormwater system provided the dewatering flow does not cause erosion or flooding of receiving waters.

Applicable BMPs include:

- BMP C150: Materials on Hand

The BMP(s) being proposed to meet this element are:

OR

This element is not required for this project because:

Element #11 – Maintain BMPs

Maintain and repair temporary erosion and sediment control BMPs as needed. Inspect all BMPs at least weekly and after every storm event.

Remove all temporary erosion and sediment control BMPs within 30 days after final site stabilization or if the BMP is no longer needed. Any sediment trapped during construction activities should be removed or stabilized onsite. No sediment shall be discharged into the stormwater drainage system or any natural conveyance system (e.g., streams).

Applicable BMPs include:

- BMP C160: Certified Erosion and Sediment Control Lead

The BMP(s) being proposed to meet this element are:

OR

This element is not required for this project because:

Element #12 – Manage the Project

Phase development projects to prevent soil erosion and the transport of sediment from the project site during construction. Coordinate all work prior initial construction with subcontractors and other utilities to ensure no areas are worked prematurely.\

A designated erosion and sediment control person is required for all construction projects. This person is responsible for ensuring that the project’s erosion and sediment control BMPs are appropriate for the site and are functioning properly. They are also responsible for updating the SWPPP as necessary as site conditions warrant. They must be available 24 hours a day to ensure compliance.

Applicable BMPs include:

- BMP C160: Certified Erosion and Sediment Control Lead
- BMP C162: Scheduling
- BMP C180: Small Project Construction Stormwater Pollution Prevention

The BMP(s) being proposed to meet this element are:

OR

This element is not required for this project because:

Table 1. Applicable BMPs for the 12 Elements of a SWPPP

Element #1 – Mark Clearing Limits		
BMP C101	Preserving Natural Vegetation	
BMP C102	Buffer Zones	
BMP C103	High Visibility Plastic and Wire Fence	
BMP C104	Stake and Wire Fence	
Element #2 – Establish Construction Entrance		
BMP C105	Stabilized Construction Entrance	
BMP C106	Wheel Wash	
BMP C107	Construction Road/Parking Area Stabilization	
Element #3 – Control Flow Rates		
BMP C207	Check Dams	
BMP C240	Sediment Trap	
Element #4 – Install Sediment Controls		
BMP C208	Triangular Silt Trap	
BMP C232	Gravel Filter Berm	
BMP C233	Silt Fence	
BMP C235	Straw Wattles	
Element #5 – Stabilize Soils		
BMP C120	Temporary and Permanent Seeding	
BMP C121	Mulching	
BMP C122	Nets and Blankets	
BMP C123	Plastic Covering	
BMP C140	Dust Control	
Element #6 – Protect Slopes		
BMP C200	Interceptor Dike and Swale	
BMP C204	Pipe Slope Drains	
BMP C207	Check Dams	
Element #7 – Protect Drain Inlets		
BMP C220	Storm Drain Inlet Protection	
Element #8 – Stabilize Channels and Outlets		
BMP C202	Channel Lining	
BMP C209	Outlet Protection	
Element #9 – Control Pollutants		
BMP C150	Materials on Hand	

Element #9 – Control Pollutants, cont.		
BMP C151	Concrete Handling	
BMP C152	Sawcutting and Surfacing Pollution Prevention	
BMP C153	Materials, Delivery, Storage and Containment	
Element #10 – Control Dewatering		
BMP C150	Materials on Hand	
Element #11 – Maintain BMPs		
BMP C160	Certified Erosion and Sediment Control Lead	
Element #12 – Manage the Project		
BMP C160	Certified Erosion and Sediment Control Lead	
BMP C162	Scheduling	
BMP C180	Small Project Construction Stormwater Pollution Prevention	

REFERENCES

City of Tacoma. 2012. Stormwater Management Manual 2012 Edition. Public Works/ Environmental Services, Maintenance Division, Tacoma, Washington.

Washington State Department of Ecology (Ecology). 2005. Stormwater Management Manual for Western Washington. Water Quality Program, Lacey, Washington.

APPENDIX B

PORT OF TACOMA PROVIDED

CONSTRUCTION SWPPP

Construction Stormwater General Permit

Stormwater Pollution Prevention Plan (SWPPP)

for

Parcel 015 Dredge Material Management Project

Prepared for:

The Washington State Department of Ecology
Southwest Region

Permittee / Owner	Developer	Operator / Contractor
Port of Tacoma	Port of Tacoma	TBD

3401 Taylor Way

Tacoma WA 98421

Certified Erosion and Sediment Control Lead (CESCL)

Name	Organization	Contact Phone Number
Ben Nield	NWSA/Port of Tacoma	253.888.4736

SWPPP Prepared By

Name	Organization	Contact Phone Number
Anita Fichthorn	NWSA/Port of Tacoma	253.830.5379

SWPPP Preparation Date

12/16/24

Project Construction Dates

Activity / Phase	Start Date	End Date
Dredge Material Management	2/1/2025	2/28/2025

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- C. Correspondence
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- E. Construction Stormwater General Permit (CSWGP)
- F. 303(d) List Waterbodies / TMDL Waterbodies Information
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List of Acronyms and Abbreviations

Acronym / Abbreviation	Explanation
303(d)	Section of the Clean Water Act pertaining to Impaired Waterbodies
BFO	Bellingham Field Office of the Department of Ecology
BMP(s)	Best Management Practice(s)
CESCL	Certified Erosion and Sediment Control Lead
CO₂	Carbon Dioxide
CRO	Central Regional Office of the Department of Ecology
CSWGP	Construction Stormwater General Permit
CWA	Clean Water Act
DMR	Discharge Monitoring Report
DO	Dissolved Oxygen
Ecology	Washington State Department of Ecology
EPA	United States Environmental Protection Agency
ERO	Eastern Regional Office of the Department of Ecology
ERTS	Environmental Report Tracking System
ESC	Erosion and Sediment Control
GULD	General Use Level Designation
NPDES	National Pollutant Discharge Elimination System
NTU	Nephelometric Turbidity Units
NWRO	Northwest Regional Office of the Department of Ecology
pH	Power of Hydrogen
RCW	Revised Code of Washington
SPCC	Spill Prevention, Control, and Countermeasure
su	Standard Units
SWMMEW	Stormwater Management Manual for Eastern Washington
SWMMWW	Stormwater Management Manual for Western Washington
SWPPP	Stormwater Pollution Prevention Plan
TESC	Temporary Erosion and Sediment Control
SWRO	Southwest Regional Office of the Department of Ecology
TMDL	Total Maximum Daily Load
VFO	Vancouver Field Office of the Department of Ecology
WAC	Washington Administrative Code
WSDOT	Washington Department of Transportation
WWHM	Western Washington Hydrology Model

1 Project Information

Project/Site Name: Parcel 105 Dredge Material Management Project
Street/Location: 3401 Taylor Way
City: Tacoma State: WA Zip code: 98421
Subdivision:
Receiving waterbody: Hylebos Waterway

1.1 Existing Conditions

Total acreage (including support activities such as off-site equipment staging yards, material storage areas, borrow areas).

Total acreage: 5
Disturbed acreage: 0
Existing structures: N/A
Landscape: Flat
topography:
Drainage patterns: Dewatering water will be collected, treated and discharged to surface water. Existing stormwater infrastructure will not be impacted.
Existing Vegetation: None
Critical Areas (wetlands, streams, high erosion risk, steep or difficult to stabilize slopes): N/A

List of known impairments for 303(d) listed or Total Maximum Daily Load (TMDL) for the receiving waterbody: N/A

Low levels of Dioxin has been reported in the dredge sediments. See attached Characterization Report for details.

1.2 Proposed Construction Activities

Description of site development (example: subdivision):

Site will be used to manage dredge sediments. A containment area will be constructed to isolate stockpiles from the paved surface and stormwater infrastructure will be segregated from the containment area. Dredge material will be offloaded onto the upland containment area and stockpiled for dewatering. Once the material is dry enough, it will be loaded into trucks for off site disposal. Dewatering water will be collected, treated, then discharged via an outfall on the north side of the site, discharging to Kaiser Ditch then the Hylebos Waterway.

Description of construction activities (example: site preparation, demolition, excavation):

Stockpiling 8000 cy of dredge sediments to dewater in order to transport to an off-site location.

Description of site drainage including flow from and onto adjacent properties. Stormwater will be segregated from dewatering water. Stormwater infrastructure in the containment area will be

plugged. Dewatering water will be collected via sump pumps, pumped into baker tanks and treated. Clean dewatering water will be discharge via gravity to an unused outfall located on the northeast end of Kaiser Ditch.

Description of final stabilization (example: extent of revegetation, paving, landscaping):
Site is fully paved. Stockpiles will be covered during and after dewatering. Material will be transported off site once dry enough for loading.

Contaminated Site Information:

The site is not contaminated. However, the dredge material has low levels of dioxin, below residential levels, and must be disposed of/reused in an upland location.

2 Construction Stormwater Best Management Practices (BMPs)

The SWPPP is a living document reflecting current conditions and changes throughout the life of the project. These changes may be informal (i.e., hand-written notes and deletions). Update the SWPPP when the CESCL has noted a deficiency in BMPs or deviation from original design.

2.1 The 13 Elements

2.1.1 Element 1: Preserve Vegetation / Mark Clearing Limits

No clearing or excavation of the site will occur. The site will be used to manage dredge sediments. The containment area will be well marked.

List and describe BMPs: Containment area consists of ecology block walls, divided into cells. The sump is designed to collect dewatering water from the dredge sediment.

Installation Schedules: Prior to transloading activities

Inspection and Maintenance plan: Weekly

Responsible Staff: Contractor and Port CESCL

2.1.2 Element 2: Establish Construction Access

Construction access for vehicles will be through the main gate, all surfaces are paved.

List and describe BMPs: C105 Stabilized Construction Entrance. Existing entrance is paved.

Installation Schedules: Existing

Inspection and Maintenance plan: Weekly

Responsible Staff: Contractor and Port CESCL

2.1.3 Element 3: Control Flow Rates

Dewatering water will be collected and pumped to baker tanks. Treatment occurs in the baker tanks, clean dewatering water discharges via gravity to an outfall.

See Element 10 Dewatering

Will you construct stormwater retention and/or detention facilities?

Yes No

List and describe BMPs:

- C209 Outlet protection – gravity discharge to existing outfall
- C240 Sediment trap – Baker tanks

Installation Schedules: Containment and dewatering set up prior to barge operations.

Inspection and Maintenance plan: Daily

Responsible Staff: Contractor/Port CESCL

2.1.4 Element 4: Install Sediment Controls

All dredge material will be management within the containment area. All dewatering water is collected and pumped to baker tanks for settlement and treatment prior to discharge.

List and describe BMPs:

- C240 Sediment trap – containment area
- C251 Construction Stormwater Filtration

Installation Schedules: Prior to barge offloading activities

Inspection and Maintenance plan: Daily

Responsible Staff: Contractor and Port CESCL

2.1.5 Element 5: Stabilize Soils

All stockpile will be covered with plastic.

West of the Cascade Mountains Crest

Season	Dates	Number of Days Soils Can be Left Exposed
During the Dry Season	May 1 – September 30	7 days
During the Wet Season	October 1 – April 30	2 days

Soils must be stabilized at the end of the shift before a holiday or weekend if needed based on the weather forecast.

Anticipated project dates: Start date: 2/1/25 End date: 2/28/25

Will you construct during the wet season?

Yes No

List and describe BMPs: C123 Plastic Covering

Installation Schedules: Prior to and during dewatering activities

Inspection and Maintenance plan: Daily

Responsible Staff: Contractor and Port CESCL

2.1.6 Element 6: Protect Slopes

Will steep slopes be present at the site during construction?

Yes No

List and describe BMPs: N/A

2.1.7 Element 7: Protect Drain Inlets

All existing site stormwater infrastructure is segregated from dewatering activities via a containments area. All existing catch basins within the containment area will be plugged and used as a sump to pump dewatering water to baker tanks.

List and describe BMPs: C220 Inlet protection

Installation Schedules: Prior to transloading activities

Inspection and Maintenance plan: Daily

Responsible Staff: Contractor and Port CESCL

2.1.8 Element 8: Stabilize Channels and Outlets

Clean dewatering water is discharged via gravity to an existing outfall

List and describe BMPs: C209 Outlet protection – existing outfall with riprap protected bank.

Installation Schedules: Existing

Inspection and Maintenance plan: Weekly and during discharge events

Responsible Staff: Contractor and Port CESCL

2.1.9 Element 9: Control Pollutants

The following pollutants are anticipated to be present on-site:

Table 2 – Pollutants

Pollutant (List pollutants and source, if applicable)
Fuel for contractor machinery

List and describe BMPs:

- C150 Materials on Hand
- C153 Material Delivery, Storage and containment

Installation Schedules: As needed

Inspection and Maintenance plan: Weekly, Daily and during fueling activities

Responsible Staff: Contractor and Port CESCL

Will maintenance, fueling, and/or repair of heavy equipment and vehicles occur on-site?

Yes No

Spill Prevention Plan is located in the contractor's laydown area. Materials on hand for spill response. Secondary containment required during refueling activities.

List and describe BMPs: C251 Construction stormwater filtration

Installation Schedules: As needed

Inspection and Maintenance plan: Weekly and daily during fueling activities

Responsible Staff: Contractor and Port CESCL

Will wheel wash or tire bath system BMPs be used during construction?

Yes No

Will pH-modifying sources be present on-site?

Yes No **If yes, check the source(s).**

2.1.10 Element 10: Control Dewatering

Containment area is clearly marked. Containment cells are lined. Existing catch basins within the containment areas have been plugged and will be used to pump dewatering water to baker tanks for settling and additional treatment. Clean dewatering water tested prior to discharge to an existing outfall via gravity from the treatment tanks.

List and describe BMPs: C251 Construction Stormwater Filtration

Installation Schedules: Prior to dewatering activities

Inspection and Maintenance plan: Weekly and during discharge events

Responsible Staff: Contractor and Port CESCL

2.1.11 Element 11: Maintain BMPs

This section is a list of permit requirements and does not have to be filled out.

All temporary and permanent Erosion and Sediment Control (ESC) BMPs shall be maintained and repaired as needed to ensure continued performance of their intended function.

Maintenance and repair shall be conducted in accordance with each particular BMP specification (see *Volume II of the SWMMWW* or *Chapter 7 of the SWMMEW*).

Visual monitoring of all BMPs installed at the site will be conducted at least once every calendar week and within 24 hours of any stormwater or non-stormwater discharge from the site. If the site becomes inactive and is temporarily stabilized, the inspection frequency may be reduced to once every calendar month.

All temporary ESC BMPs shall be removed within 30 days after final site stabilization is achieved or after the temporary BMPs are no longer needed.

Trapped sediment shall be stabilized on-site or removed. Disturbed soil resulting from removal of either BMPs or vegetation shall be permanently stabilized.

Additionally, protection must be provided for all BMPs installed for the permanent control of stormwater from sediment and compaction. BMPs that are to remain in place following completion of construction shall be examined and restored to full operating condition. If sediment enters these BMPs during construction, the sediment shall be removed and the facility shall be returned to conditions specified in the construction documents.

2.1.12 Element 12: Manage the Project

The project will be managed based on the following principles:

- Projects will be phased to the maximum extent practicable and seasonal work limitations will be taken into account.
- Inspection and monitoring:
 - Inspection, maintenance and repair of all BMPs will occur as needed to ensure performance of their intended function.
 - Site inspections and monitoring will be conducted in accordance with Special Condition S4 of the CSWGP. Sampling locations are indicated on the [Site Map](#). Sampling station(s) are located in accordance with applicable requirements of the CSWGP.
- Maintain an updated SWPPP.
 - The SWPPP will be updated, maintained, and implemented in accordance with Special Conditions S3, S4, and S9 of the CSWGP.

As site work progresses the SWPPP will be modified routinely to reflect changing site conditions. The SWPPP will be reviewed monthly to ensure the content is current.

Check all the management BMPs that apply at your site:

Table 5 – Management

<input checked="" type="checkbox"/>	Design the project to fit the existing topography, soils, and drainage patterns
<input checked="" type="checkbox"/>	Minimize the extent and duration of the area exposed
<input checked="" type="checkbox"/>	Keep runoff velocities low
<input checked="" type="checkbox"/>	Retain sediment on-site
<input checked="" type="checkbox"/>	Thoroughly monitor site and maintain all ESC measures

2.1.13 Transit and Transloading Best Management Practices

BMPs related to barge transit:

- Barges transiting from dredge location to transload location shall contain ALL material, water or sediment, during transit. Dewatering is not allowed in transit.
- Dredged material should not be above the sidewalls at anytime during transit.

BMPs related to transloading:

The contractor will prepare a Transload Transport and Disposal (TTD) Contractors Work Plan for review and approval by the Agencies at least 30 days prior to dredging. Preferably they will be coordinating with us while developing the plans to avoid complications at the last minute. The TTD Work Plan will include (but not be limited to) the following BMPs (as applicable):

BMPs related to unloading of sediments from barges at the TTD facility

- There will be no dewatering from the barge at the transloading site.
- Wharf decking and all surfaces that can come in contact with dredged sediment and associated water must be made of solid (no slats) impermeable materials. Be prepared to block and pump wharf area during transloading if rainwater accumulates.
- Sheeting or some type of impermeable lining must be placed under the travel area of the bucket to capture any spills. Spills outside of the area covered by the sheet will be cleaned up immediately.
- Dockside sediment control (e.g., sweeper truck, shoveling, sweeping, wash down) shall occur as often as necessary to avoid the tracking of sediment by vehicles and personnel and generally maintain a clean site and shall include the dock, transload area and the haul routes.
- Excavator must be sealed for no leakage (e.g., environmental bucket)
- Have spotter present at all times to check that there is no leakage in bucket before transferring material from barge.
- Transfer of dredged material should occur in a fashion that minimizes splash and splatter of the material.

- The transloading crane must have a spill apron deployed between the barge and shore during off-loading operations to prevent the release of spilled material into the water.
 - The apron must be made of impermeable material and not have seams that would allow leakage into the water.
 - The apron will collect material dripped from the clamshell, including rainfall and route it back into the barge or into dock-side containment structure.
 - The spill apron must be wide enough that material will not fall off the sides and may include wing walls to increase the level of protection.
 - Material shall not be allowed to accumulate on the spill apron.
 - Containment measures (e.g., straw bales/wattles, filter fabric) should be used to capture water running down the apron.
 - The apron must be able to track up and down with the barge during tidal fluctuations in order to prevent separation of the apron from the barge.
- Before moving the crane/excavator, the spill apron and bucket must be decontaminated with a pressure washer and the water captured and contained. Wash water will not be left on the barge.
- If Solidification/Stabilization agents are being used to reduce the spreading of material through splash and dripping, indicate what stabilizer, mixing locations, etc.
- The facility must have the ability to keep the barge tied up close to dock during tidal fluctuations.

BMPS related to transport of off-loaded material

- Railcars or trucks will sealed or lined in such a way as to prevent spills and contain splashes.
- If liners will be installed in the truck/railcars, this will be done at a station that provides adequate access and fall protection. Each liner will be visually inspected, prior to loading the truck/rail car, to ensure liner integrity.
- Loading of the truck/railcars will take place within an exclusion zone, which will be established to contain any spilled material that may occur while loading. The exterior of the trucks and tires will be washed prior to leaving the loading area. All loads will be inspected to ensure no dredge materials are on the outside of the truck/rail car, and that the boxes are sealed and not leaking. Any spilled dredge material and water generated from cleaning the exterior of the trucks will be captured and either shipped offsite with transloaded material, or disposed of properly offsite as described in the SWPPP.
- Loading practices (e.g., partially loading to provide freeboard; loading near centerline of car) will be employed to maximize liner effectiveness and to prevent spillage.
- A wheel wash must be installed if sediment is getting on the deck (dock) where trucks or other vehicles are passing through.

- Wheel wash water cannot be allowed to enter surface waters or storm drains. Wheel wash wastewater must be collected and hauled off for proper disposal or routed to sanitary sewer with proper local sewer district approval.

BMPs related to stockpiling material on-site

Direct transfer to trucks or railcars is preferred, but if stockpiles must be used, then the following BMPS must be addressed:

- Stockpile area must be bermed and provide a covered area for dredged material.
- The stockpile area will be on an impervious surface.
- A system for treating and testing water from the stockpile must be in place that complies with 401 Water Quality Certification or its equivalent.
- Stockpile areas will be inspected daily and after high precipitation events.

Spill-related BMPs

- If spill occurs – dock, barge and crane should be photographed and then immediately cleaned and decontaminated.
- The Agencies should be notified of the incident immediately. A memo will be prepared and submitted to the Agencies describing the incident and providing specifics on the material released, possible causes and actions taken. The location and amount of any sediment that enters the waterway will be documented. If possible, the spilled material will be retrieved from the waterway in the most expeditious manner possible

Worker Safety BMPs

- Site Specific Health and Safety Plan will be submitted to Agencies for review and approval.
- General site workers (such as equipment operators, spotters, general laborers and supervisory personnel) engaged in hazardous substance removal or other activities which expose or potentially expose workers to hazardous substances and health hazards shall receive a minimum of 40 hours of instruction off the site (e.g., HAZWOPER training), and a minimum of three days actual field experience under the direct supervision of a trained experienced supervisor
- Exclusion, contamination reduction, and support work zones will be established and all personnel participating in transloading will wear appropriate personal protective equipment (PPE) while unloading barges, loading containers, handling loaded containers and cleaning the work area.

3 Pollution Prevention Team

Table 7 – Team Information

Title	Name(s)	Phone Number
Certified Erosion and Sediment Control Lead (CESCL)	Ben Nield	253.888.4736
Resident Engineer	Norm Gilbert	253.383.9406
Emergency Ecology Contact	Environmental Reporting System	360.407.6300
Emergency Permittee/ Owner Contact	Port of Tacoma Security	253.383.9472
Non-Emergency Owner Contact	Norm Gilbert	253.383.9406
Monitoring Personnel	Ben Nield	253.888.4736
Ecology Regional Office	Southwest Region	360.870.8290

4 Monitoring and Sampling Requirements

Monitoring includes visual inspection, sampling for water quality parameters of concern, and documentation of the inspection and sampling findings in a site log book. A site log book will be maintained for all on-site construction activities and will include:

- A record of the implementation of the SWPPP and other permit requirements
- Site inspections
- Stormwater sampling data

The site log book must be maintained on-site within reasonable access to the site and be made available upon request to Ecology or the local jurisdiction.

Numeric effluent limits may be required for certain discharges to 303(d) listed waterbodies. See CSWGP Special Condition S8 and Section 5 of this template.

4.1 Site Inspection

Site inspections will be conducted at least once every calendar week and within 24 hours following any discharge from the site. For sites that are temporarily stabilized and inactive, the required frequency is reduced to once per calendar month.

The discharge point(s) are indicated on the Site Map (see Appendix A) and in accordance with the applicable requirements of the CSWGP.

4.2 Stormwater Quality Sampling

4.2.1 Turbidity Sampling

Requirements include calibrated turbidity meter or transparency tube to sample site discharges for compliance with the CSWGP. Sampling will be conducted at all discharge points at least once per calendar week.

Method for sampling turbidity:

Table 8 – Turbidity Sampling Method

<input checked="" type="checkbox"/>	Turbidity Meter/Turbidimeter (required for disturbances 5 acres or greater in size)
<input type="checkbox"/>	Transparency Tube (option for disturbances less than 1 acre and up to 5 acres in size)

The benchmark for turbidity value is 25 nephelometric turbidity units (NTU) and a transparency less than 33 centimeters.

If the discharge's turbidity is 26 to 249 NTU **or** the transparency is less than 33 cm but equal to or greater than 6 cm, the following steps will be conducted:

1. Review the SWPPP for compliance with Special Condition S9. Make appropriate revisions within 7 days of the date the discharge exceeded the benchmark.
2. Immediately begin the process to fully implement and maintain appropriate source control and/or treatment BMPs as soon as possible. Address the problems within 10 days of the date the discharge exceeded the benchmark. If installation of necessary treatment BMPs is not feasible within 10 days, Ecology may approve additional time when the Permittee requests an extension within the initial 10-day response period.
3. Document BMP implementation and maintenance in the site log book.

If the turbidity exceeds 250 NTU **or** the transparency is 6 cm or less at any time, the following steps will be conducted:

1. Telephone or submit an electronic report to the applicable Ecology Region's Environmental Report Tracking System (ERTS) within 24 hours.
 - **Southwest Region** (Clallam, Clark, Cowlitz, Grays Harbor, Jefferson, Lewis, Mason, Pacific, Pierce, Skamania, Thurston, Wahkiakum,): (360) 407-6300 or http://www.ecy.wa.gov/programs/spills/forms/nerets_online/SWRO_nerets_online.html
2. Immediately begin the process to fully implement and maintain appropriate source control and/or treatment BMPs as soon as possible. Address the problems within 10 days of the date the discharge exceeded the benchmark. If installation of necessary treatment BMPs is not feasible within 10 days, Ecology may approve additional time when the Permittee requests an extension within the initial 10-day response period
3. Document BMP implementation and maintenance in the site log book.
4. Continue to sample discharges daily until one of the following is true:
 - Turbidity is 25 NTU (or lower).
 - Transparency is 33 cm (or greater).
 - Compliance with the water quality limit for turbidity is achieved.
 - 1 - 5 NTU over background turbidity, if background is less than 50 NTU
 - 1% - 10% over background turbidity, if background is 50 NTU or greater
 - The discharge stops or is eliminated.

4.2.2 pH Sampling

N/A

4.2.3 Additional sampling. Ecology may require additional sampling for specifically for this operation. This section will be updated upon receipt of the permit.

5 Discharges to 303(d) or Total Maximum Daily Load (TMDL) Waterbodies

N/A

6 Reporting and Record Keeping

6.1 Record Keeping

6.1.1 Site Log Book

A site log book will be maintained for all on-site construction activities and will include:

- A record of the implementation of the SWPPP and other permit requirements
- Site inspections
- Sample logs

6.1.2 Records Retention

Records will be retained during the life of the project and for a minimum of three (3) years following the termination of permit coverage in accordance with Special Condition S5.C of the CSWGP.

Permit documentation to be retained on-site:

- CSWGP
- Permit Coverage Letter
- SWPPP
- Site Log Book

Permit documentation will be provided within 14 days of receipt of a written request from Ecology. A copy of the SWPPP or access to the SWPPP will be provided to the public when requested in writing in accordance with Special Condition S5.G.2.b of the CSWGP.

6.1.3 Updating the SWPPP

The SWPPP will be modified if:

- Found ineffective in eliminating or significantly minimizing pollutants in stormwater discharges from the site.

- There is a change in design, construction, operation, or maintenance at the construction site that has, or could have, a significant effect on the discharge of pollutants to waters of the State.

The SWPPP will be modified within seven (7) days if inspection(s) or investigation(s) determine additional or modified BMPs are necessary for compliance. An updated timeline for BMP implementation will be prepared.

6.2 Reporting

6.2.1 Discharge Monitoring Reports

Cumulative soil disturbance is one (1) acre or larger; therefore, Discharge Monitoring Reports (DMRs) will be submitted to Ecology monthly. If there was no discharge during a given monitoring period the DMR will be submitted as required, reporting “No Discharge”. The DMR due date is fifteen (15) days following the end of each calendar month.

DMRs will be reported online through Ecology’s WQWebDMR System.

6.2.2 Notification of Noncompliance

If any of the terms and conditions of the permit is not met, and the resulting noncompliance may cause a threat to human health or the environment, the following actions will be taken:

1. Ecology will be notified within 24-hours of the failure to comply by calling the applicable Regional office ERTS phone number (Regional office numbers listed below).
2. Immediate action will be taken to prevent the discharge/pollution or otherwise stop or correct the noncompliance. If applicable, sampling and analysis of any noncompliance will be repeated immediately and the results submitted to Ecology within five (5) days of becoming aware of the violation.
3. A detailed written report describing the noncompliance will be submitted to Ecology within five (5) days, unless requested earlier by Ecology.

Specific information to be included in the noncompliance report is found in Special Condition S5.F.3 of the CSWGP.

Anytime turbidity sampling indicates turbidity is 250 NTUs or greater, or water transparency is 6 cm or less, the Ecology Regional office will be notified by phone within 24 hours of analysis as required by Special Condition S5.A of the CSWGP.

- **Southwest Region** at (360) 407-6300 for Clallam, Clark, Cowlitz, Grays Harbor, Jefferson, Lewis, Mason, Pacific, Pierce, Skamania, Thurston, or Wahkiakum

Include the following information:

1. Your name and / Phone number
2. Permit number

3. City / County of project
4. Sample results
5. Date / Time of call
6. Date / Time of sample
7. Project name

In accordance with Special Condition S4.D.5.b of the CSWGP, the Ecology Regional office will be notified if chemical treatment other than CO₂ sparging is planned for adjustment of high pH water.

A. Site Map

B. BMP Detail

Insert BMPs specification sheets here.

Download BMPs from the Ecology Construction Stormwater website at:

<http://www.ecy.wa.gov/programs/wq/stormwater/construction/index.html>

Select Resources and Guidance to find the links to the Stormwater Manuals.

C. Correspondence

Ecology

EPA

Local Government

D. Site Inspection Form

Create your own or download Ecology's template:

<http://www.ecy.wa.gov/programs/wq/stormwater/construction/index.html>

Select Permit, Forms and Application to find the link to the Construction Stormwater Site Inspection Form.

E. Construction Stormwater General Permit (CSWGP)

Download the CSWGP:

<http://www.ecy.wa.gov/programs/wq/stormwater/construction/index.html>

F. 303(d) List Waterbodies / TMDL Waterbodies Information

G. Contaminated Site Information

Administrative Order

Sanitary Discharge Permit

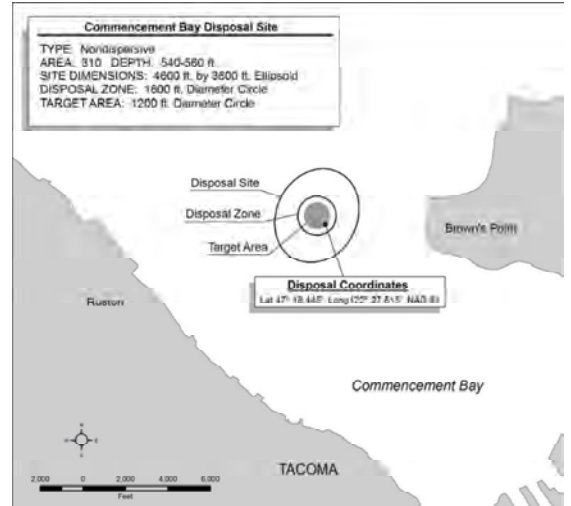
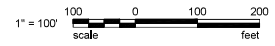
Soil Management Plan

Soil and Groundwater Reports

Maps and Figures Depicting Contamination



TEMPORARY TRANSLOAD AND SEDIMENT PROCESSING FACILITY CONCEPT



DISPOSAL SITE FIGURE:
HTTPS://WWW.NWS.USACE.ARMY.MIL/MISSIONS/CIVIL-WORKS/DREDGING/DISPOSAL-SITES/

OPEN-WATER DISPOSAL SITE

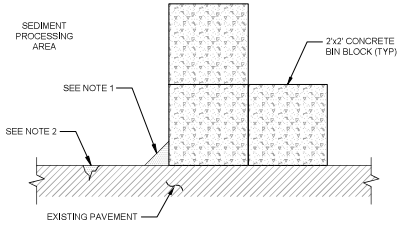
NOTES

1. TEMPORARY TRANSLOAD AND SEDIMENT PROCESSING FACILITY MUST BE DESIGNED BY THE CONTRACTOR. TEMPORARY CONSTRUCTION LAYOUT AND FEATURES SHOWN ARE CONCEPTUAL TO EXPRESS THE INTENT OF EXPECTED TRANSLOADING OPERATIONS.
2. CONTRACTOR SHALL VERIFY THE PRESENCE OF UTILITIES, UNDERGROUND AND OVERHEAD WITHIN THE LIMITS OF WORK. CONTRACTOR SHALL PROTECT UTILITIES DURING CONSTRUCTION.
3. ALL CATCH BASINS WITHIN THE SEDIMENT PROCESSING CONTAINMENT AREA MUST BE SEALED AND/OR COVERED TO PREVENT ANY WATER FROM ENTERING THE STORM DRAIN SYSTEM.
4. TESC AND WATER MANAGEMENT MUST BE IN ACCORDANCE WITH THE CONSTRUCTION STORMWATER GENERAL PERMIT AND THE 2021 CITY OF TACOMA SWMM, VOLUME 3, CHAPTER 1, INCLUDING BUT NOT LIMITED TO THE FOLLOWING:
 - A. BMP C106: WHEEL WASH
 - B. BMP C123: PLASTIC COVERING
 - C. BMP C151: CONCRETE HANDLING
 - D. BMP C153: MATERIAL DELIVERY, STORAGE, AND CONTAINMENT
 - E. BMP C160: CERTIFIED EROSION AND SEDIMENT CONTROL LEAD
 - F. BMP C220: INLET PROTECTION
 - G. BMP C251: CONSTRUCTION STORMWATER FILTRATION
 - H. BMP C252: TREATING AND DISPOSING OF HIGH PH WATER

DRAFT 90% DESIGN

1000 10th Ave. Suite 500 Tacoma, WA 98402 TEL: (253) 412-2300 FAX: (253) 412-2300 WWW.PORTOFTACOMA.WA.GOV	BY: _____ DATE: _____ APPR: _____ DATE: _____
	MARK: _____ REVISION: _____
	APPROVED: _____ DATE: 11/24/24
CE: _____ CHECKED BY: _____ DATE: 11/24/24	J.V. _____ DATE: 11/24/24
CHD/ITE: _____ DATE: _____	DIRECTOR ENGR. _____ DATE: _____
PRINTED BY: _____ PORT ADDRESS: 1975 W LINCOLN AVE. TACOMA, WA 98421-2300	USMS133814 NOV 21, 2024 TACOMA, WA 98421-2300
MIDDLE BLAIR AND PIERCE COUNTY TERMINAL MAINTENANCE DREDGING CONCEPTUAL TEMPORARY TRANSLOADING AND SEDIMENT PROCESSING FACILITY PLAN	TOWNSHIP: 21 RANGE: 03 SECTION: 34 DRAWING SCALE: AS SHOWN
CONT/CONS: 900000001 4 OF 12 M. ID: 10185-01020114.03 PHASE: 80% DESIGN SUBMITTAL PARCEL	DATE: 11/20/2024 DAT-TIME: 10:54:07 VERT: NGS TIDAL (MLLW+0.0)

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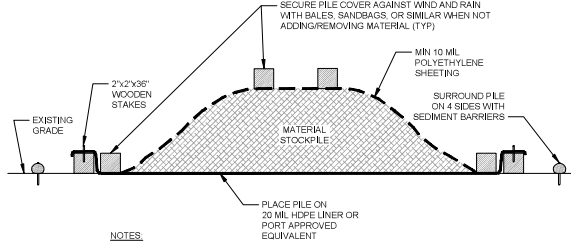


NOTES

1. SEAL GAPS BETWEEN EXISTING PAVEMENT AND ADJOINING BIN BLOCKS WITH PORT APPROVED MATERIAL.
2. SEAL ALL CRACKING, SPALLING, AND JOINTING IN EXISTING PAVEMENT WITHIN THE SEDIMENT PROCESSING AREA WITH PORT APPROVED MATERIAL. SEDIMENT PROCESSING WORKING SURFACE SHALL BE FREE OF DAMAGE OR OTHER FEATURES THAT COULD RESULT IN WATER INFILTRATION INTO THE UNDERLYING GROUND SURFACE OR SPILLAGE OUTSIDE OF THE SEDIMENT PROCESSING AREA.

CONCEPTUAL SEDIMENT PROCESSING AREA PERIMETER CONTAINMENT

1
G3.0 SCALE: NTS



NOTES

1. MATERIALS SHALL BE IN ACCORDANCE WITH SECTION 01 57 13- TESC AND PROJECT SWPPP.
2. WATER GENERATED FROM INSIDE STOCKPILE AREA(S) SHALL BE COLLECTED AND MANAGED.

CONCEPTUAL STOCKPILE CONTAINMENT SYSTEM (IF NECESSARY)

2
G3.0 SCALE: NTS

DRAFT

90% DESIGN

6706

G3.1

5 OF 12

MIDDLE BLAIR AND PIERCE COUNTY
TERMINAL MAINTENANCE DREDGING
SEDIMENT PROCESSING TYPICAL DETAILS

CONTRACT NO.: 900000001
M. ID.: 01685-0120114.03
TOWNSHIP: 21
DATE: 11/19/24
RANGE: 03
SECTION: 34
NAD 83: 47
VERT: 03
DRAWING SCALE: AS SHOWN

APPROVED: CE 11/24
CHECKED BY: J/V 11/24
DATE: 11/24
DIRECTOR ENG. DATE: 11/24
PROJ. ENGR. DATE: 11/24
USSM133814 NOV 21, 2024
PRINTED BY: USSM133814 NOV 21, 2024
PORT ADDRESS: 1675 W LINCOLN AVE.
TACOMA, WA 98421-2300



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MARK:	REVISION:	BY:	DATE:

BMP C105: Stabilized Construction Access

Purpose

Stabilized construction accesses are established to reduce the amount of sediment transported onto paved roads outside the project site by vehicles or equipment. This is done by constructing a stabilized pad of quarry spalls at entrances and exits for project sites.

Conditions of Use

Construction accesses shall be stabilized wherever traffic will be entering or leaving a construction site if paved roads or other paved areas are within 1,000 feet of the site.

For residential subdivision construction sites, provide a stabilized construction access for each residence, rather than only at the main subdivision entrance. Stabilized surfaces shall be of sufficient length/width to provide vehicle access/parking, based on lot size and configuration.

On large commercial, highway, and road projects, the designer should include enough extra materials in the contract to allow for additional stabilized accesses not shown in the initial Construction SWPPP. It is difficult to determine exactly where access to these projects will take place; additional materials will enable the contractor to install them where needed.

Design and Installation Specifications

- See [Figure II-4.1: Stabilized Construction Access](#) for details. Note: the 100' minimum length of the access shall be reduced to the maximum practicable size when the size or configuration of the site does not allow the full length (100').
- Construct stabilized construction accesses with a 12-inch thick pad of 4-inch to 8-inch quarry spalls, a 4-inch course of asphalt treated base (ATB), or use existing pavement. Do not use crushed concrete, cement, or calcium chloride for construction access stabilization because these products raise pH levels in stormwater and concrete discharge to waters of the State is prohibited.
- A separation geotextile shall be placed under the spalls to prevent fine sediment from pumping up into the rock pad. The geotextile shall meet the standards listed in [Table II-4.2: Stabilized Construction Access Geotextile Standards](#).

Table II-4.2: Stabilized Construction Access Geotextile Standards

Geotextile Property	Required Value
---------------------	----------------

Geotextile Property	Required Value
Grab Tensile Strength (ASTM D4751)	200 psi min.
Grab Tensile Elongation (ASTM D4632)	30% max.
Mullen Burst Strength (ASTM D3786-80a)	400 psi min.
AOS (ASTM D4751)	No. 20 to No. 45 (U.S. standard sieve size)

- Consider early installation of the first lift of asphalt in areas that will be paved; this can be used as a stabilized access. Also consider the installation of excess concrete as a stabilized access. During large concrete pours, excess concrete is often available for this purpose.
- Fencing (see [BMP C103: High-Visibility Fence](#)) shall be installed as necessary to restrict traffic to the construction access.
- Whenever possible, the access shall be constructed on a firm, compacted subgrade. This can substantially increase the effectiveness of the pad and reduce the need for maintenance.
- Construction accesses should avoid crossing existing sidewalks and back of walk drains if at all possible. If a construction access must cross a sidewalk or back of walk drain, the full length of the sidewalk and back of walk drain must be covered and protected from sediment leaving the site.

Alternative Material Specification

WSDOT has raised safety concerns about the quarry spall rock specified above. WSDOT observes that the 4-inch to 8-inch rock sizes can become trapped between dually truck tires, and then released off-site at highway speeds. WSDOT has chosen to use a modified specification for the rock while continuously verifying that the stabilized construction access remains effective. To remain effective, the BMP must prevent sediment from migrating off site. To date, there has been no performance testing to verify operation of this new specification. Local jurisdictions may use the alternative specification, but must perform increased off-site inspection if they use, or allow others to use, it.

Stabilized construction accesses may use material that meets the requirements of WSDOT's *Standard Specifications for Road, Bridge, and Municipal Construction* Section 9-03.9(1) ([WSDOT, 2016](#)) for ballast except for the following special requirements.

The grading and quality requirements are listed in [Table II-4.3: Stabilized Construction Access Alternative Material Requirements](#).

Table II-4.3: Stabilized Construction Access Alternative Material Requirements

Sieve Size	Percent Passing
2½"	99 to 100
2"	65 to 100

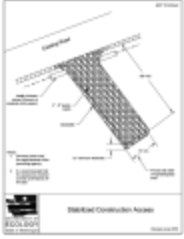
Sieve Size	Percent Passing
¾"	40 to 80
No. 4	5 max.
No. 100	0 to 2
% Fracture	75 min.
Notes: <ol style="list-style-type: none"> 1. All percentages are by weight. 2. The sand equivalent value and dust ratio requirements do not apply. 3. The fracture requirement shall be at least one fractured face and will apply the combined aggregate retained on the No. 4 sieve in accordance with FOP for AASHTO T 335. 	

Maintenance Standards

Quarry spalls shall be added if the pad is no longer in accordance with the specifications.

- If the access is not preventing sediment from being tracked onto pavement, then alternative measures to keep the streets free of sediment shall be used. This may include replacement/cleaning of the existing quarry spalls, street sweeping, an increase in the dimensions of the access, or the installation of [BMP C106: Wheel Wash](#).
- Any sediment that is tracked onto pavement shall be removed by shoveling or street sweeping. The sediment collected by sweeping shall be removed or stabilized on site. The pavement shall not be cleaned by washing down the street, except when sweeping is ineffective and there is a threat to public safety. If it is necessary to wash the streets, the construction of a small sump to contain the wash water shall be considered. The sediment would then be washed into the sump where it can be controlled.
- Perform street sweeping by hand or with a high efficiency sweeper. Do not use a non-high efficiency mechanical sweeper because this creates dust and throws soils into storm systems or conveyance ditches.
- Any quarry spalls that are loosened from the pad, which end up on the roadway shall be removed immediately.
- If vehicles are entering or exiting the site at points other than the construction access(es), [BMP C103: High-Visibility Fence](#) shall be installed to control traffic.
- Upon project completion and site stabilization, all construction accesses intended as permanent access for maintenance shall be permanently stabilized.

Figure II-4.1: Stabilized Construction Access



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Approved as Functionally Equivalent

Ecology has approved products as able to meet the requirements of this BMP. The products did not pass through the Technology Assessment Protocol – Ecology (TAPE) process. Local jurisdictions may choose not to accept these products, or may require additional testing prior to consideration for local use. Products that Ecology has approved as functionally equivalent are available for review on Ecology’s website at:

<https://ecology.wa.gov/Regulations-Permits/Guidance-technical-assistance/Stormwater-permittee-guidance-resources/Emerging-stormwater-treatment-technologies>

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BMP C123: Plastic Covering

Purpose

Plastic covering provides immediate, short-term erosion protection to slopes and disturbed areas.

Conditions of Use

Plastic covering may be used on disturbed areas that require cover measures for less than 30 days, except as stated below.

- Plastic is particularly useful for protecting cut and fill slopes and stockpiles. However, the relatively rapid breakdown of most polyethylene sheeting makes it unsuitable for applications greater than six months.
- Due to rapid runoff caused by plastic covering, do not use this method upslope of areas that might be adversely impacted by concentrated runoff. Such areas include steep and/or unstable slopes.
- Plastic sheeting may result in increased runoff volumes and velocities, requiring additional on-site measures to counteract the increases. Creating a trough with wattles or other material can convey clean water away from these areas.
- To prevent undercutting, trench and backfill rolled plastic covering products.
- Although the plastic material is inexpensive to purchase, the cost of installation, maintenance, removal, and disposal add to the total costs of this BMP.
- Whenever plastic is used to protect slopes, install water collection measures at the base of the slope. These measures include plastic-covered berms, channels, and pipes used to convey clean rainwater away from bare soil and disturbed areas. Do not mix clean runoff from a plastic covered slope with dirty runoff from a project.
- Other uses for plastic include:
 - Temporary ditch liner.
 - Pond liner in temporary sediment pond.
 - Liner for bermed temporary fuel storage area if plastic is not reactive to the type of fuel being stored.
 - Emergency slope protection during heavy rains.
 - Temporary drainpipe (“elephant trunk”) used to direct water.

Design and Installation Specifications

- Plastic slope cover must be installed as follows:
 1. Run plastic up and down the slope, not across the slope.
 2. Plastic may be installed perpendicular to a slope if the slope length is less than 10 feet.
 3. Provide a minimum of 8-inch overlap at the seams.
 4. On long or wide slopes, or slopes subject to wind, tape all seams.
 5. Place plastic into a small (12-inch wide by 6-inch deep) slot trench at the top of the slope and backfill with soil to keep water from flowing underneath.
 6. Place sand filled burlap or geotextile bags every 3 to 6 feet along seams and tie them together with twine to hold them in place.
 7. Inspect plastic for rips, tears, and open seams regularly and repair immediately. This prevents high velocity runoff from contacting bare soil, which causes extreme erosion.
 8. Sandbags may be lowered into place tied to ropes. However, all sandbags must be staked in place.
- Plastic sheeting shall have a minimum thickness of 6 mil.
- If erosion at the toe of a slope is likely, a gravel berm, riprap, or other suitable protection shall be installed at the toe of the slope in order to reduce the velocity of runoff.

Maintenance Standards

- Torn sheets must be replaced and open seams repaired.
- Completely remove and replace the plastic if it begins to deteriorate due to ultraviolet radiation.
- Completely remove plastic when no longer needed.
- Dispose of old tires used to weight down plastic sheeting appropriately.

Approved as Functionally Equivalent

Ecology has approved products as able to meet the requirements of this BMP. The products did not pass through the Technology Assessment Protocol – Ecology (TAPE) process. Local jurisdictions may choose not to accept these products, or may require additional testing prior to consideration for local use. Products that Ecology has approved as functionally equivalent are available for review on Ecology’s website at:

<https://ecology.wa.gov/Regulations-Permits/Guidance-technical-assistance/Stormwater-permittee-guidance-resources/Emerging-stormwater-treatment-technologies>

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BMP C150: Materials on Hand

Purpose

Keep quantities of erosion prevention and sediment control materials on the project site at all times to be used for regular maintenance and emergency situations such as unexpected heavy rains. Having these materials on-site reduces the time needed to replace existing or implement new BMPs when inspections indicate that existing BMPs are not meeting the Construction SWPPP requirements. In addition, contractors can save money by buying some materials in bulk and storing them at their office or yard.

Conditions of Use

- Construction projects of any size or type can benefit from having materials on hand. A small commercial development project could have a roll of plastic and some gravel available for immediate protection of bare soil and temporary berm construction. A large earthwork project, such as highway construction, might have several tons of straw, several rolls of plastic, flexible pipe, sandbags, geotextile fabric and steel “T” posts.
- Materials should be stockpiled and readily available before any site clearing, grubbing, or earthwork begins. A large contractor or project proponent could keep a stockpile of materials that are available for use on several projects.
- If storage space at the project site is at a premium, the contractor could maintain the materials at their office or yard. The office or yard must be less than an hour from the project site.

Design and Installation Specifications

Depending on project type, size, complexity, and length, materials and quantities will vary. A good minimum list of items that will cover numerous situations includes:

- Clear plastic, 6 mil
- Drainpipe, 6 or 8 inch diameter
- Sandbags, filled
- Straw bales for mulching
- Quarry spalls
- Washed gravel
- Geotextile fabric

- Catch basin inserts
- Steel "T" posts
- Silt fence material
- Straw wattles

Maintenance Standards

- All materials with the exception of the quarry spalls, steel "T" posts, and gravel should be kept covered and out of both sun and rain.
- Re-stock materials as needed.

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BMP C153: Material Delivery, Storage, and Containment

Purpose

Prevent, reduce, or eliminate the discharge of pollutants to the stormwater system or watercourses from material delivery and storage. Minimize the storage of hazardous materials on-site, store materials in a designated area, and install secondary containment.

Conditions of Use

Use at construction sites with delivery and storage of the following materials:

- Petroleum products such as fuel, oil and grease
- Soil stabilizers and binders (e.g., polyacrylamide)
- Fertilizers, pesticides, and herbicides
- Detergents
- Asphalt and concrete compounds
- Hazardous chemicals such as acids, lime, adhesives, paints, solvents, and curing compounds
- Any other material that may be detrimental if released to the environment

Design and Installation Specifications

- The temporary storage area should be located away from vehicular traffic, near the construction entrance(s), and away from waterways or storm drains.
- Safety Data Sheets (SDS) should be supplied for all materials stored. Chemicals should be kept in their original labeled containers.
- Hazardous material storage on-site should be minimized.
- Hazardous materials should be handled as infrequently as possible.
- During the wet weather season (October 1 – April 30), consider storing materials in a covered area.
- Materials should be stored in secondary containments, such as an earthen dike, horse trough, or even a children’s wading pool for non-reactive materials such as detergents, oil, grease, and paints. Small amounts of material may be secondarily contained in “bus boy” trays or concrete mixing trays.

- Do not store chemicals, drums, or bagged materials directly on the ground. Place these items on a pallet and, when possible, within secondary containment.
- If drums must be kept uncovered, store them at a slight angle to reduce ponding of rainwater on the lids to reduce corrosion. Domed plastic covers are inexpensive and snap to the top of drums, preventing water from collecting.
- Liquids, petroleum products, and substances listed in 40 CFR Parts 110, 117, or 302 shall be stored in approved containers and drums and shall not be overfilled. Containers and drums shall be stored in temporary secondary containment facilities.
- Temporary secondary containment facilities shall provide for a spill containment volume able to contain 10% of the total enclosed container volume of all containers, or 110% of the capacity of the largest container within its boundary, whichever is greater.
- Secondary containment facilities shall be impervious to the materials stored therein for a minimum contact time of 72 hours.
- Sufficient separation should be provided between stored containers to allow for spill cleanup and emergency response access.
- During the wet weather season (Oct 1 – April 30), each secondary containment facility shall be covered during non-working days.
- Secondary containment facilities shall be covered at all times, except when in active use.
- Keep material storage areas clean, organized, and equipped with an ample supply of appropriate spill clean-up material (spill kit).
- The spill kit should include, at a minimum:
 - 1 - Water resistant nylon bag
 - 3 - Oil absorbent socks 3"x 4'
 - 2 - Oil absorbent socks 3"x 10'
 - 12 - Oil absorbent pads 17"x19"
 - 1 - Pair splash resistant goggles
 - 3 - Pairs nitrile gloves
 - 10 - Disposable bags with ties
 - Instructions

Maintenance Standards

- Secondary containment facilities shall be maintained free of accumulated rainwater and spills. In the event of spills or leaks, accumulated rainwater and spills shall be collected and placed into drums. These liquids shall be handled as hazardous waste unless testing determines them to be non-hazardous.
- Re-stock spill kit materials as needed.

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BMP C209: Outlet Protection

Purpose

Outlet protection prevents scour at conveyance outlets and minimizes the potential for downstream erosion by reducing the velocity of concentrated stormwater flows.

Conditions of Use

Use outlet protection at the outlets of all ponds, pipes, ditches, or other conveyances that discharge to a natural or constructed drainage feature such as a stream, wetland, lake, or ditch.

Design and Installation Specifications

- The receiving channel at the outlet of a pipe shall be protected from erosion by lining a minimum of 6 feet downstream and extending up the channel sides a minimum of 1 foot above the maximum tailwater elevation, or 1 foot above the crown, whichever is higher. For pipes larger than 18 inches in diameter, the outlet protection lining of the channel shall be four times the diameter of the outlet pipe.
- Standard wingwalls, tapered outlets, and paved channels should also be considered when appropriate for permanent culvert outlet protection ([WSDOT, 2015](#)).
- [BMP C122: Nets and Blankets](#) or [BMP C202: Riprap Channel Lining](#) provide suitable options for lining materials.
- With low flows, [BMP C201: Grass-Lined Channels](#) can be an effective alternative for lining material.
- The following guidelines shall be used for outlet protection with riprap:
 - If the discharge velocity at the outlet is less than 5 fps, use 2-inch to 8-inch riprap. Minimum thickness is 1 foot.
 - For a 5 to 10 fps discharge velocity at the outlet, use 24-inch to 48-inch riprap. Minimum thickness is 2 feet.
 - For outlets at the base of steep slope pipes (pipe slope greater than 10 percent), use an engineered energy dissipator.
 - Filter fabric or erosion control blankets should always be used under riprap to prevent scour and channel erosion. See [BMP C122: Nets and Blankets](#).
- Bank stabilization, bioengineering, and habitat features may be required for disturbed areas. This work may require a Hydraulic Project Approval (HPA) from the Washington State Department of Fish and Wildlife. See

Maintenance Standards

- Inspect and repair as needed.
- Add rock as needed to maintain the intended function.
- Clean energy dissipator if sediment builds up.

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BMP C220: Inlet Protection

Purpose

Inlet protection prevents coarse sediment from entering drainage systems prior to permanent stabilization of the disturbed area.

Conditions of Use

Use inlet protection at inlets that are operational before permanent stabilization of the disturbed areas that contribute runoff to the inlet. Provide protection for all storm drain inlets downslope and within 500 feet of a disturbed or construction area, unless those inlets are preceded by a sediment trapping BMP.

Also consider inlet protection for lawn and yard drains on new home construction. These small and numerous drains coupled with lack of gutters can add significant amounts of sediment into the roof drain system. If possible, delay installing lawn and yard drains until just before landscaping, or cap these drains to prevent sediment from entering the system until completion of landscaping. Provide 18-inches of sod around each finished lawn and yard drain.

[Table II-4.11: Storm Drain Inlet Protection](#) lists several options for inlet protection. All of the methods for inlet protection tend to plug and require a high frequency of maintenance. Limit contributing drainage areas for an individual inlet to one acre or less. If possible, provide emergency overflows with additional end-of-pipe treatment where stormwater ponding would cause a hazard.

Table II-4.11: Storm Drain Inlet Protection

Type of Inlet Protection	Emergency Overflow	Applicable for Paved / Earthen Surfaces	Conditions of Use
Drop Inlet Protection			
Excavated drop inlet protection	Yes, temporary flooding may occur	Earthen	Applicable for heavy flows. Easy to maintain. Large area requirement: 30'x30'/acre
Block and gravel drop inlet protection	Yes	Paved or Earthen	Applicable for heavy concentrated flows. Will not pond.
Gravel and wire drop inlet protection	No	Paved or Earthen	Applicable for heavy concentrated flows. Will pond. Can withstand traffic.
Catch basin filters	Yes	Paved or Earthen	Frequent maintenance required.
Curb Inlet Protection			

Type of Inlet Protection	Emergency Overflow	Applicable for Paved / Earthen Surfaces	Conditions of Use
Curb inlet protection with wooden weir	Small capacity overflow	Paved	Used for sturdy, more compact installation.
Block and gravel curb inlet protection	Yes	Paved	Sturdy, but limited filtration.
Culvert Inlet Protection			
Culvert inlet sediment trap	N/A	N/A	18 month expected life.

Design and Installation Specifications

Excavated Drop Inlet Protection

Excavated drop inlet protection consists of an excavated impoundment around the storm drain inlet. Sediment settles out of the stormwater prior to entering the storm drain. Design and installation specifications for excavated drop inlet protection include:

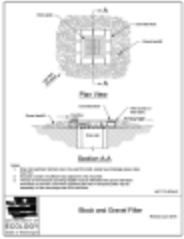
- Provide a depth of 1 to 2 feet as measured from the crest of the inlet structure.
- Side slopes of excavation should be no steeper than 2H:1V.
- Minimum volume of excavation is 35 cubic yards.
- Shape the excavation to fit the site, with the longest dimension oriented toward the longest inflow area.
- Install provisions for draining to prevent standing water.
- Clear the area of all debris.
- Grade the approach to the inlet uniformly.
- Drill weep holes into the side of the inlet.
- Protect weep holes with screen wire and washed aggregate.
- Seal weep holes when removing structure and stabilizing area.
- Build a temporary dike, if necessary, to the down slope side of the structure to prevent bypass flow.

Block and Gravel Filter

A block and gravel filter is a barrier formed around the inlet with standard concrete blocks and gravel. See [Figure II-4.17: Block and Gravel Filter](#). Design and installation specifications for block and gravel filters include:

- Provide a height of 1 to 2 feet above the inlet.
- Recess the first row of blocks 2-inches into the ground for stability.
- Support subsequent courses by placing a pressure treated wood (2x4) through the block opening.
- Do not use mortar.
- Lay some blocks in the bottom row on their side to allow for dewatering the pool.
- Place hardware cloth or comparable wire mesh with 0.5-inch openings over all block openings.
- Place gravel to just below the top of blocks on slopes of 2H:1V or flatter.
- An alternative design is a gravel berm surrounding the inlet, as follows:
 - Provide a slope of 3H:1V on the upstream side of the berm.
 - Provide a slope of 2H:1V on the downstream side of the berm.
 - Provide a 1-foot wide level rock area between the gravel berm and the inlet.
 - Use rocks 3 inches in diameter or larger on the upstream slope of the berm.
 - Use gravel 0.5 to 0.75 inch at a minimum thickness of 1-foot on the downstream slope of the berm.

Figure II-4.17: Block and Gravel Filter



[Download PDF](#)

Gravel and Wire Mesh Filter

Gravel and wire mesh filters are gravel barriers placed over the top of the inlet. This method does not provide an overflow. Design and installation specifications for gravel and wire mesh filters include:

- Use a hardware cloth or comparable wire mesh with 0.5 inch openings.
 - Place wire mesh over the drop inlet so that the wire extends a minimum of 1-foot beyond each side of the inlet structure.
 - Overlap the strips if more than one strip of mesh is necessary.
- Place coarse aggregate over the wire mesh.
 - Provide at least a 12-inch depth of aggregate over the entire inlet opening and extend at least 18-inches on all sides.

Catch Basin Filters

Catch basin filters are designed by manufacturers for construction sites. The limited sediment storage capacity increases the amount of inspection and maintenance required, which may be daily for heavy sediment loads. To reduce maintenance requirements, combine a catch basin filter with another type of inlet protection. This type of inlet protection provides flow bypass without overflow and therefore may be a better method for inlets located along active rights-of-way. Design and installation specifications for catch basin filters include:

- Provides 5 cubic feet of storage.
- Requires dewatering provisions.
- Provides a high-flow bypass that will not clog under normal use at a construction site.
- Insert the catch basin filter in the catch basin just below the grating.

Curb Inlet Protection with Wooden Weir

Curb inlet protection with wooden weir is an option that consists of a barrier formed around a curb inlet with a wooden frame and gravel. Design and installation specifications for curb inlet protection with wooden weirs include:

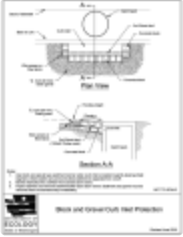
- Use wire mesh with 0.5 inch openings.
- Use extra strength filter cloth.
- Construct a frame.
- Attach the wire and filter fabric to the frame.
- Pile coarse washed aggregate against the wire and fabric.
- Place weight on the frame anchors.

Block and Gravel Curb Inlet Protection

Block and gravel curb inlet protection is a barrier formed around a curb inlet with concrete blocks and gravel. See [Figure II-4.18: Block and Gravel Curb Inlet Protection](#). Design and installation specifications for block and gravel curb inlet protection include:

- Use wire mesh with 0.5 inch openings.
- Place two concrete blocks on their sides abutting the curb at either side of the inlet opening. These are spacer blocks.
- Place a 2x4 stud through the outer holes of each spacer block to align the front blocks.
- Place blocks on their sides across the front of the inlet and abutting the spacer blocks.
- Place wire mesh over the outside vertical face.
- Pile coarse aggregate against the wire to the top of the barrier.

Figure II-4.18: Block and Gravel Curb Inlet Protection



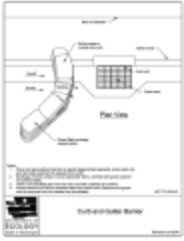
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Curb and Gutter Sediment Barrier

A curb and gutter sediment barrier is a sandbag or rock berm (riprap and aggregate) 3 feet high and 3 feet wide in a horseshoe shape. See [Figure II-4.19: Curb and Gutter Barrier](#). Design and installation specifications for curb and gutter sediment barriers include:

- Construct a horseshoe shaped berm, faced with coarse aggregate if using riprap, 3 feet high and 3 feet wide, at least 2 feet from the inlet.
- Construct a horseshoe shaped sedimentation trap on the upstream side of the berm. Size the trap to sediment trap standards for protecting a culvert inlet.

Figure II-4.19: Curb and Gutter Barrier



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Maintenance Standards

- Inspect all forms of inlet protection frequently, especially after storm events. Clean and replace clogged catch basin filters. For rock and gravel filters, pull away the rocks from the inlet and clean or replace. An alternative approach would be to use the clogged rock as fill and put fresh rock around the inlet.
- Do not wash sediment into storm drains while cleaning. Spread all excavated material evenly over the surrounding land area or stockpile and stabilize as appropriate.

Approved as Functionally Equivalent

Ecology has approved products as able to meet the requirements of this BMP. The products did not pass through the Technology Assessment Protocol – Ecology (TAPE) process. Local jurisdictions may choose not to accept these products, or may require additional testing prior to consideration for local use. Products that Ecology has approved as functionally equivalent are available for review on Ecology’s website at:

<https://ecology.wa.gov/Regulations-Permits/Guidance-technical-assistance/Stormwater-permittee-guidance-resources/Emerging-stormwater-treatment-technologies>

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BMP C240: Sediment Trap

Purpose

A sediment trap is a small temporary ponding area with a gravel outlet used to collect and store sediment from sites during construction. Sediment traps, along with other perimeter controls, shall be installed before any land disturbance takes place in the contributing drainage area.

Conditions of Use

- Sediment traps are intended for use on sites where the contributing drainage area is less than 3 acres, with no unusual drainage features, and a projected build-out time of 6 months or less. The sediment trap is a temporary measure (with a design life of approximately 6 months) and shall be maintained until the contributing drainage area is permanently protected against erosion by vegetation and/or structures.
- Sediment traps are only effective in removing sediment down to about the medium silt size fraction. Runoff with sediment of finer grades (fine silt and clay) will pass through untreated, emphasizing the need to control erosion to the maximum extent first.
- Projects that are constructing permanent Flow Control BMPs, or permanent Runoff Treatment BMPs that use ponding for treatment, may use the rough-graded or final-graded permanent BMP footprint for the temporary sediment trap. When permanent BMP footprints are used as temporary sediment traps, the surface area requirement of the sediment trap must be met. If the surface area requirement of the sediment trap is larger than the surface area of the permanent BMP, then the sediment trap shall be enlarged beyond the permanent BMP footprint to comply with the surface area requirement.
- A floating pond skimmer may be used for the sediment trap outlet if approved by the Local Permitting Authority.
- Sediment traps may not be feasible on utility projects due to the limited work space or the short-term nature of the work. Portable tanks may be used in place of sediment traps for utility projects.

Design and Installation Specifications

- See [Figure II-4.26: Cross Section of Sediment Trap](#) and [Figure II-4.27: Sediment Trap Outlet](#) for details.
- To determine the sediment trap geometry, first calculate the design surface area (SA) of the trap, measured at the invert of the weir. Use the following equation:

$$SA = FS * (Q_2/V_s)$$

where:

SA = Design surface area of the trap (square feet)

FS = A safety factor of 2 to account for non-ideal settling.

Q₂ = The peak volumetric flow rate (cubic feet per second), calculated using one of the following options:

- Option 1 - Single Event Hydrograph Method

The peak volumetric flow rate calculated using a 10-minute time step from a Type 1A, 2-year, 24-hour frequency storm for the developed condition. The 10-year peak volumetric flow rate shall be used if the project size, expected timing and duration of construction, or downstream conditions warrant a higher level of protection.

- Option 2 - The Rational Method

For construction sites that are less than 1 acre, the peak volumetric flow rate calculated using the Rational Method.

V_s = The settling velocity of the soil particle of interest. The 0.02 mm (medium silt) particle with an assumed density of 2.65 g/cm³ has been selected as the particle of interest and has a settling velocity (V_s) of 0.00096 ft/sec.

Therefore, the equation for computing sediment trap surface area becomes:

$$SA = 2 \times Q_2 / 0.00096$$

or

2080 square feet per cfs of inflow

- Sediment trap depth shall be 3.5 feet minimum from the bottom of the trap to the top of the overflow weir.
- To aid in determining sediment depth, all sediment traps shall have a staff gauge with a prominent mark 1 foot above the bottom of the trap.
- Design the discharge from the sediment trap by using the guidance for discharge from temporary sediment ponds in [BMP C241: Sediment Pond \(Temporary\)](#).

Maintenance Standards

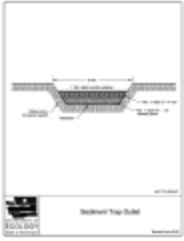
- Sediment shall be removed from the trap when it reaches 1 foot in depth.
- Any damage to the trap embankments or slopes shall be repaired.

Figure II-4.26: Cross Section of Sediment Trap



[Download PDF](#)

Figure II-4.27: Sediment Trap Outlet



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BMP C251: Construction Stormwater Filtration

Purpose

Filtration removes sediment from runoff originating from disturbed areas of the site.

Conditions of Use

Traditional Construction Stormwater BMPs used to control soil erosion and sediment loss from construction sites may not be adequate to ensure compliance with the water quality standard for turbidity in the receiving water. Filtration may be used in conjunction with gravity settling to remove sediment as small as fine silt (0.5 µm). The reduction in turbidity will be dependent on the particle size distribution of the sediment in the stormwater. In some circumstances, sedimentation and filtration may achieve compliance with the water quality standard for turbidity.

The use of construction stormwater filtration does not require approval from Ecology as long as treatment chemicals are not used. Filtration in conjunction with [BMP C250: Construction Stormwater Chemical Treatment](#) requires testing under the Chemical Technology Assessment Protocol – Ecology (CTAPE) before it can be initiated. Approval from Ecology must be obtained at each site where chemical use is proposed prior to use. See Ecology's Request for Chemical Treatment form at the following web address:

<https://fortress.wa.gov/ecy/publications/SummaryPages/ecy070258.html>

Design and Installation Specifications

Two types of filtration systems may be applied to construction stormwater treatment: rapid and slow.

Rapid filtration systems are the typical system used for water and wastewater treatment. They can achieve relatively high hydraulic flow rates, on the order of 2 to 20 gpm/sf, because they have automatic backwash systems to remove accumulated solids.

Slow filtration systems have very low hydraulic rates, on the order of 0.02 gpm/sf, because they do not have backwash systems. Slow filtration systems have generally been used as post construction BMPs to treat stormwater (see [V-7 Filtration BMPs](#)). Slow filtration is mechanically simple in comparison to rapid filtration, but requires a much larger filter area.

Filter Types and Efficiencies

Sand media filters are available with automatic backwashing features that can filter to 50 µm particle size. Screen or bag filters can filter down to 5 µm. Fiber wound filters can remove particles down to 0.5 µm. Filters should be sequenced from the largest to the smallest pore opening. Sediment removal efficiency will be related to particle size distribution in the stormwater.

Treatment Process and Description

Stormwater is collected at interception point(s) on the site and diverted to an untreated stormwater sediment pond or tank for removal of large sediment, and storage of the stormwater before it is treated by the filtration system. In a rapid filtration system, the untreated stormwater is pumped from the pond or tank through the filtration media. Slow filtration systems are designed using gravity to convey water from the pond or tank to and through the filtration media.

Sizing

Filtration treatment systems must be designed to control the velocity and peak volumetric flow rate that is discharged from the system and consequently the project site. See [II-2.3 Element 3: Control Flow Rates](#) for further details on this requirement.

The untreated stormwater storage pond or tank should be sized to hold 1.5 times the volume of runoff generated from the site during the 10-year, 24-hour storm event, minus the filtration treatment system flow rate for an 8-hour period. For a chitosan-enhanced sand filtration system, the filtration treatment system flow rate should be sized using a hydraulic loading rate between 6 and 8 gpm/ft². Other hydraulic loading rates may be more appropriate for other systems. Bypass should be provided around the filtration treatment system to accommodate extreme storm events. Runoff volume shall be calculated using the methods presented in [III-2.3 Single Event Hydrograph Method](#). Worst-case land cover conditions (i.e., producing the most runoff) should be used for analyses (in most cases, this would be the land cover conditions just prior to final landscaping).

If the filtration treatment system design does not allow you to discharge at the rates as required by [II-2.3 Element 3: Control Flow Rates](#), and if the site has a permanent Flow Control BMP that will serve the planned development, the discharge from the filtration treatment system may be directed to the permanent Flow Control BMP to comply with [II-2.3 Element 3: Control Flow Rates](#). In this case, all discharge (including water passing through the treatment system and stormwater bypassing the treatment system) will be directed into the permanent Flow Control BMP. If site constraints make locating the untreated stormwater storage pond difficult, the permanent Flow Control BMP may be divided to serve as the untreated stormwater storage pond and the post-treatment temporary flow control pond. A berm or barrier must be used in this case so the untreated water does not mix with the treated water. Both untreated stormwater storage requirements, and adequate post-treatment flow control must be achieved. The designer must document in the Construction SWPPP how the permanent Flow Control BMP is able to attenuate the discharge from the site to meet the requirements of [II-2.3 Element 3: Control Flow Rates](#). If the design of the permanent Flow Control BMP was modified for temporary construction flow control purposes, the construction of the permanent Flow Control BMP must be finalized, as designed for its permanent function, at project completion.

Maintenance Standards

- Rapid sand filters typically have automatic backwash systems that are triggered by a pre-set pressure drop across the filter. If the backwash water volume is not large or substantially more turbid than the untreated stormwater stored in the holding pond or tank, backwash return to the untreated stormwater pond or tank may be appropriate. However, other means of treatment and disposal may be necessary.

- Screen, bag, and fiber filters must be cleaned and/or replaced when they become clogged.
 - Sediment shall be removed from the storage and/or treatment ponds as necessary. Typically, sediment removal is required once or twice during a wet season and at the decommissioning of the ponds.
 - Disposal of filtration equipment must comply with applicable local, state, and federal regulations.
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Washington State Department of Ecology

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DRAFT

November 2024
Middle Blair Navigation Safety Improvement Project



Sediment Characterization Report

Prepared for the Port of Tacoma

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APPENDICES

Appendix A	Field Forms and Core Photographs
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ABBREVIATIONS

BT	bioaccumulation trigger
D/F	dioxins/furans
DMMP	Dredged Material Management Program
DMMU	Dredged Material Management Unit
FNC	Federal Navigation Channel
MLLW	mean lower low water
PCB	polychlorinated biphenyl
Port	Port of Tacoma
Project	Middle Blair Navigation Safety Improvement Project
QA/QC	quality assurance/quality control
SCR	Sediment Characterization Report
SL	screening level
SMS	Sediment Management Standards
SQAPP	Sampling and Quality Assurance Project Plan
TEQ	toxic equivalency
WUT	Washington United Terminals

1 Introduction

This Sediment Characterization Report (SCR) presents the results of this sediment investigation performed pursuant to the Middle Blair Navigation Safety Improvement Project *Sampling and Quality Assurance Project Plan* (SQAPP; Anchor QEA 2024) for the Middle Blair Navigation Safety Improvement Project (Project), located on the northeastern side of the Blair Waterway (Figures 1, 2a, and 2b) in Tacoma, Washington. The data from this testing program will be used to support dredge design and dredge material management and disposal.

The Port of Tacoma (Port) and Northwest Seaport Alliance are proposing maintenance dredging in the Blair Waterway in an approximately 2,000-foot-long area where shoaling has occurred adjacent to the existing federal navigation channel (FNC). The area is immediately across from Washington United Terminals (WUT) and in front of marine industrial property owned by the Puyallup Tribe of Indians. The dredge area includes the outer portion of the Middle Blair Knuckle, which is an area of shallower water that protrudes toward the FNC, and a bench of shoaled sediment that extends from the Knuckle to an area approximately even with Lincoln Avenue (referred to herein as the Bench).

This SCR details the results of the sediment characterization investigation conducted in August 2024 to obtain an antidegradation determination from the Dredged Material Management Program (DMMP) for the newly exposed surface following removal of material from the Project area. Dredge material was also characterized to support a determination for dredge material open-water disposal, but due to abbreviated project timelines, only chemistry testing was conducted. Based on chemistry testing results, the Port is planning to take sediment to a suitable upland disposal location, which may be a permitted landfill or an upland Port property for beneficial use placement.

The SCR is organized into the following sections:

- Section 1: Introduction (this section)
- Section 2: Project Objectives
- Section 3: Sediment Testing Results
- Section 4: Quality Assurance/Quality Control
- Section 5: Conclusions
- Section 6: References

2 Project Objectives

In preparation for the deepened channel and WUT berth, WUT purchased and installed larger cranes that extend farther out over the waterway to accommodate larger ships. Because of this, the dredging is being conducted ahead of and separate from deepening of the FNC. Sediment mounds and high spots produced by propeller wash and tidal shoaling have accumulated at critical locations in the Knuckle and Bench areas. The mounds pose navigation hazards to vessels transiting that reach of the waterway, requiring one terminal operator to “light-load” vessels or wait for WUT to boom up container cranes. This has resulted in one operator losing one of its two lines of service and is exacerbating nationwide supply chain issues. The critical impairment to operations is causing safety hazards, risk of vessel damage, and economic losses for the Port and its tenants; therefore, routine maintenance dredging is required to restore waterway and terminal operations to full capacity. The Blair Waterway is historically authorized to -51 feet mean lower low water (MLLW), and this area was previously dredged to a depth of -47 feet (MLLW) between 1993 and 1995 as part of the Blair/Sitcum Waterway Remediation Project (Floyd Snider 2008). The required post-Project elevation within the Project area is -47 feet MLLW in a 61-foot-wide area adjacent to the FNC boundary. The sampling and testing program was designed to characterize dredge material to -47 feet MLLW plus 2 feet overdredge (final elevation to -49 feet MLLW), along with additional Z-layers to -52 feet MLLW, as described in the SQAPP (Anchor QEA 2024).

The dredged material management units (DMMUs), sampling locations, target boring depths, and chemical testing methods were selected in accordance with the most recent DMMP guidance (DMMP 2021) and *Sediment Cleanup User's Manual II* (Ecology 2021).

3 Sediment Testing Results

This section summarizes the results of subsurface sediment collection, processing, and analyses. The investigation methodology is detailed in the SQAPP (Anchor QEA 2024). This section also provides a summary of field activities. No deviations from the SQAPP occurred during sample collection and analyses.

3.1 Sediment Core Sample Collection and Processing

Sample locations are presented in Figures 2a and 2b, and sample coordinates, mudlines, penetrations, recoveries, and depths are listed in Table 1. Sediment core logs, photographs, and field forms are included in Appendix A. Subsurface sediment cores were collected as required per the SQAPP (Anchor QEA 2024). Dredge areas were divided into three DMMUs, and one core was collected from each DMMU. Sediment cores met acceptance criteria, and all three cores achieved the required MLLW depth to meet Project objectives. Cores collected from locations MB-SC01 and MB-SC02 met acceptance criteria on the first attempt. Six attempts were made at location MB-SC03, and the sixth attempt resulted in an acceptable core that was collected and processed.

Material encountered was primarily silt from the surface to approximately 3 to 4 feet below mudline and poorly graded sand to the bottom of the cores. A clay layer from 4.3 to 5.5 feet below mudline was also encountered between the silt and sand layer in core MB-SC03 from DMMU3.

Cores were processed into dredge material ("A") intervals from the mudline to -47 feet MLLW plus 2 feet of overdredge to -49 feet MLLW; a 1-foot Z-layer sample (Z1) from -49 to -50 feet MLLW; and a 2-foot Z-layer sample (Z2) from -50 feet MLLW to -52 feet MLLW. All samples were submitted for all analyses, as outlined in the SQAPP.

3.2 Analytical Results

Analytical results are screened against DMMP criteria in Table 2, and Z-layer samples are screened against Sediment Management Standards (SMS) criteria in Table 3. The laboratory analytical report and data validation report are included in Appendix B and Appendix C, respectively.

All samples collected were submitted for all analytical parameters as specified in the SQAPP, and results were below DMMP screening levels (SLs), except for dioxin/furan (D/F) toxic equivalent values (TEQs). D/F TEQ values were above the SL (4 nanogram per kilogram ng/kg TEQ) but below the DMMP bioaccumulation trigger (BT; 10 ng/kg TEQ) in the dredge material samples collected from DMMUs 1 and 2 and in the Z1 sample collected from DMMU1. D/F TEQ values exceeded the DMMP BT in the dredge material sample collected from DMMU3 and in the Z1 interval from DMMU2. D/F TEQ values were below the DMMP SL in both Z2 samples from DMMUs 1 and 2 and in Z1 and Z2 samples from DMMU3.

All Z-sample results were below SMS criteria (Table 3).

4 Quality Assurance/Quality Control

Quality assurance/quality control (QA/QC) include both field and analytical quality control. Both QA/QC procedures were consistent with the guidelines described in the SQAPP (Anchor QEA 2024), and no deviations were noted.

4.1 Field Quality Assurance/Quality Control

Anchor QEA personnel labeled samples in a consistent manner to ensure that field samples were traceable. Chain-of-custody forms were appropriately populated to provide all information necessary for the laboratory to conduct required analyses properly. Samples were placed in coolers with ice and received at the laboratory within the recommended temperature range.

4.2 Laboratory Quality Assurance/Quality Control

Analytical data were validated at a Stage 2B (EPA 2009) level following procedures and requirements listed in the SQAPP. The laboratory followed the specified analytical methods, all requested sample analyses were completed, and QA/QC samples and procedures were analyzed at required frequencies. A summary of key findings includes the following:

- One total organic carbon result, five mercury results, and all nine diethyl phthalate results were qualified as non-detects due to detections in associated method or calibration blanks.
- Some metals, semivolatile organic compound, polychlorinated biphenyl (PCB), tributyltin, and D/F results were qualified as estimated due to calibration or laboratory QC results outside of method, laboratory, or Project-specified control limits.
- Some D/F congener results were qualified because they were reported as estimated maximum potential concentration results by the laboratory.

No data were rejected, and all results are usable as reported or as qualified.

5 Conclusions

Due to the elevated D/F TEQ values in the dredge material present in the A intervals, and following discussion with DMMP, the required dredging depth will be -48 feet MLLW plus 2 feet overdredge (to -50 feet MLLW) in DMMUs 1, 2, and 3. All dredged material will be placed in an appropriate upland location, either at a permitted disposal facility or as beneficial use on a suitable upland Port property. In addition, to meet antidegradation goals, a minimum 6-inch sand layer will be placed in DMMUs 1 and 2 after dredging to provide a clean cover above sediment from Z1 intervals with elevated D/F TEQ values. No sand layer will be placed in DMMU3 because both Z1 and Z2 results were below the DMMP SL and met antidegradation criteria.

6 References

- Anchor QEA, 2024. *Sampling and Quality Assurance Project Plan*. Middle Blair Navigation Safety Improvement Project. Prepared for Port of Tacoma. August 2024.
- DMMP (Dredged Material Management Program), 2021. *Dredged Material Evaluation and Disposal Procedures User Manual*. Dredged Material Management Program: U.S. Army Corps of Engineers, Seattle District; Environmental Protection Agency, Region 10; Washington State Department of Natural Resources; and Washington State Department of Ecology. Accessed October 23, 2024. July 2021. Available at: <https://usace.contentdm.oclc.org/utis/getfile/collection/p16021coll11/id/5397>.
- Ecology (Washington State Department of Ecology), 2021. *Sediment Cleanup User's Manual (SCUM): Guidance for Implementing the Cleanup Provisions of the Sediment Management Standards, Chapter 173–204 WAC*. Third Revision. Toxics Cleanup Program Publication No. 12-09-057. December 2021.
- EPA (U.S. Environmental Protection Agency), 2009. *Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use*. EPA Office of Solid Waste and Emergency Response. USEPA 540-R-08-005. January 2009.
- Floyd Snider, 2008. *Puyallup Tribal Terminal Shoreline Cutback Characterization*. Project No. SSA-RHOLD.6300. October 2008.

Tables

Table 1
Sample Coordinates, Mudlines, Penetrations, and Depths

DMMU	Location ID	Washington SP NAD 83 South Zone		Mudline Elevation (feet MLLW)	Core Penetration (feet below mudline)	Core Recovery Length (feet)	Core Recovery (%)	Sample Depths (feet below mudline)	Sample Elevations (feet MLLW)	Sample ID
		Easting (feet)	Northing (feet)							
01	MB-SC01	1171123	710033	-46.0	9.0	8.9	98.9%	0.0 to 3.0	-46.0 to -49.0	MB-SC01-A-2024-08-13
								3.0 to 4.0	-49.0 to -50.0	MB-SC01-Z1-2024-08-13
								4.0 to 6.0	-50.0 to -52.0	MB-SC01-Z2-2024-08-13
02	MB-SC02	1171499	709668	-46.6	8.0	6.6	82.5%	0.0 to 2.4	-46.6 to -49.0	MB-SC02-A-2024-08-13
								2.4 to 3.4	-49.0 to -50.0	MB-SC02-Z1-2024-08-13
								3.4 to 5.4	-50.0 to -52.0	MB-SC02-Z2-2024-08-13
03	MB-SC03	1171903	709298	-42.3	13.0	11.3	86.9%	0.0 to 6.7	-42.3 to -49.0	MB-SC03-A-2024-08-13
								6.7 to 7.7	-49.0 to -50.0	MB-SC03-Z1-2024-08-13
								7.7 to 9.7	-50.0 to -52.0	MB-SC03-Z2-2024-08-13

Notes:

DMMU: Dredge Material Management Unit

ID: identification

MLLW: mean lower low water

Washington SP NAD 83: Washington State Plan North American Datum 1983

Table 2
Sediment Core Sample Analytical Results Compared to DMMP Criteria

Chemical	Method	DMMP SL	DMMP BT	Location ID Sample ID Sample Date Depth Below Mudline Elevation Depth DMMP ML	MB-SC01		
					MB-SC01-A-2024-08-13 8/13/2024 0 to 3 ft -46.0 to -49.0 ft MLLW	MB-SC01-Z1-2024-08-13 8/13/2024 3 to 4 ft -49.0 to -50.0 ft MLLW	MB-SC01-Z2-2024-08-13 8/13/2024 4 to 6 ft -50.0 to -52.0 ft MLLW
Conventional Parameters (pct)							
Total organic carbon	SW9060AM	--	--	--	0.49	0.32	0.090 U
Total solids	D2216	--	--	--	68.68	75.96	82.41
Total solids	SM2540G	--	--	--	71.16	75.65	79.37
Total volatile solids	PSEP-TVS	--	--	--	2.55	1.81	1.53
Atterberg Limits							
Atterberg classification	ASTM D4318	--	--	--	Non-Plastic	--	--
Liquid limit (%)	ASTM D4318	--	--	--	--	--	--
Plastic limit (%)	ASTM D4318	--	--	--	--	--	--
Plasticity index (%)	ASTM D4318	--	--	--	--	--	--
Grain Size (pct)							
Clay, coarse	D422	--	--	--	4.3	--	--
Clay, fine	D422	--	--	--	6.3	--	--
Clay, medium	D422	--	--	--	2.2	--	--
Gravel, coarse	D422	--	--	--	0.10 U	--	--
Gravel, medium	D422	--	--	--	0.2	--	--
Gravel, very coarse	D422	--	--	--	0.10 U	--	--
Sand, coarse	D422	--	--	--	1.1	--	--
Sand, fine	D422	--	--	--	15.9	--	--
Sand, medium	D422	--	--	--	12	--	--
Sand, very coarse	D422	--	--	--	0.1	--	--
Sand, very fine	D422	--	--	--	14.3	--	--
Silt, coarse	D422	--	--	--	16.5	--	--
Silt, fine	D422	--	--	--	8.2	--	--
Silt, medium	D422	--	--	--	10.5	--	--
Silt, very fine	D422	--	--	--	8.2	--	--
Metals (mg/kg)							
Antimony	SW6020	150		200	0.28 UJ	0.26 UJ	0.25 UJ
Arsenic	SW6020	57	507.1	700	7.32	4.01	3.17
Cadmium	SW6020	5.1	--	14	0.11 J	0.06 J	0.07 J
Chromium	SW6020	260	--		17	14.7	12
Copper	SW6020	390	--	1300	29.1	18.9	13.7
Lead	SW6020	450	975	1200	5.96	4.04	1.48
Mercury	SW7471B	0.41	1.5	2.3	0.0421	0.0301 U	0.0266 U
Selenium	SW6020		3		0.54 J	0.61 J	0.57 J
Silver	SW6020	6.1	--	8.4	0.11 J	0.06 J	0.04 J
Zinc	SW6020	410	--	3800	39.7	29.6	21.7
Organometals (µg/kg)							

Table 2
Sediment Core Sample Analytical Results Compared to DMMP Criteria

Chemical	Method	DMMP SL	DMMP BT	Location ID Sample ID Sample Date Depth Below Mudline Elevation Depth DMMP ML	MB-SC01		
					MB-SC01-A-2024-08-13 8/13/2024 0 to 3 ft -46.0 to -49.0 ft MLLW	MB-SC01-Z1-2024-08-13 8/13/2024 3 to 4 ft -49.0 to -50.0 ft MLLW	MB-SC01-Z2-2024-08-13 8/13/2024 4 to 6 ft -50.0 to -52.0 ft MLLW
Tributyltin (ion)	SW8270ESIM	--	73	--	4.40 J	2.23 J	3.86 U
Semivolatile Organics (µg/kg)							
1,2,4-Trichlorobenzene	SW8270ESIM	31	--	64	5.0 UJ	5.0 UJ	5.0 UJ
1,2-Dichlorobenzene	SW8270ESIM	35	--	110	5.0 U	5.0 U	5.0 U
1,4-Dichlorobenzene	SW8270ESIM	110	--	120	5.0 U	5.0 U	5.0 U
2,4-Dimethylphenol	SW8270ESIM	29	--	210	20.0 UJ	20.0 UJ	19.9 UJ
2-Methylphenol (o-Cresol)	SW8270ESIM	63	--	77	5.0 U	5.0 U	5.0 U
4-Methylphenol (p-Cresol)	SW8270ESIM	670	--	3600	5.0 U	5.0 U	5.0 U
Benzoic acid	SW8270ESIM	650	--	760	51.4 J	99.9 UJ	99.7 UJ
Benzyl alcohol	SW8270ESIM	57	--	870	10.5 J	20.0 U	19.9 U
Bis(2-ethylhexyl)phthalate	SW8270E	1300	--	8300	49.9 U	50.0 U	49.8 U
Butylbenzyl phthalate	SW8270ESIM	63	--	970	5.7	5.0 U	5.0 U
Di-n-butyl phthalate	SW8270E	1400	--	5100	20.0 U	20.0 U	19.9 U
Di-n-octyl phthalate	SW8270E	6200	--	6200	20.0 U	20.0 U	19.9 U
Diethyl phthalate	SW8270ESIM	200	--	1200	20 U	20.8 U	20 U
Dimethyl phthalate	SW8270ESIM	71	--	1400	5.0 U	5.0 U	5.0 U
Hexachlorobenzene	SW8270ESIM	22	168	230	5.0 U	5.0 U	5.0 U
Hexachlorobutadiene (Hexachloro-1,3-butadiene)	SW8270ESIM	11	--	270	5.0 U	5.0 U	5.0 U
n-Nitrosodiphenylamine	SW8270ESIM	28	--	130	5.0 U	5.0 U	5.0 U
Pentachlorophenol	SW8270ESIM	400	504	690	49.9 UJ	50.0 UJ	49.8 UJ
Phenol	SW8270ESIM	420	--	1200	7.5	4.0 J	2.9 J
Polycyclic Aromatic Hydrocarbons (µg/kg)							
1-Methylnaphthalene	SW8270E	--	--	--	20.0 U	20.0 U	19.9 U
2-Methylnaphthalene	SW8270E	670	--	1900	10.0 J	20.0 U	19.9 U
Acenaphthene	SW8270E	500	--	2000	20.0 U	20.0 U	19.9 U
Acenaphthylene	SW8270E	560	--	1300	20.0 UJ	20.0 UJ	19.9 UJ
Anthracene	SW8270E	960	--	13000	20.0 U	20.0 U	19.9 U
Benzo(a)anthracene	SW8270E	1300	--	5100	19.3 J	20.0 U	19.9 U
Benzo(a)pyrene	SW8270E	1600	--	3600	25.9	20.0 U	19.9 U
Benzo(b,j,k)fluoranthenes	SW8270E	--	--	--	75.6	40.0 U	39.9 U
Benzo(g,h,i)perylene	SW8270E	670	--	3200	20.0 UJ	20.0 UJ	19.9 UJ
Carbazole	SW8270E	--	--	--	20.0 U	20.0 U	19.9 U
Chrysene	SW8270E	1400	--	21000	26.1	20.0 U	19.9 U
Dibenzo(a,h)anthracene	SW8270ESIM	230	--	1900	5.5 J	5.0 U	5.0 U
Dibenzofuran	SW8270E	540	--	1700	20.0 U	20.0 U	19.9 U
Fluoranthene	SW8270E	1700	4600	30000	32.8	20.0 U	19.9 U
Fluorene	SW8270E	540	--	3600	20.0 U	20.0 U	19.9 U
Indeno(1,2,3-c,d)pyrene	SW8270E	600	--	4400	20.0 UJ	20.0 UJ	19.9 UJ

Table 2
Sediment Core Sample Analytical Results Compared to DMMP Criteria

Chemical	Method	DMMP SL	DMMP BT	Location ID Sample ID Sample Date Depth Below Mudline Elevation Depth DMMP ML	MB-SC01		
					MB-SC01-A-2024-08-13 8/13/2024 0 to 3 ft -46.0 to -49.0 ft MLLW	MB-SC01-Z1-2024-08-13 8/13/2024 3 to 4 ft -49.0 to -50.0 ft MLLW	MB-SC01-Z2-2024-08-13 8/13/2024 4 to 6 ft -50.0 to -52.0 ft MLLW
Naphthalene	SW8270E	2100	--	2400	20.0 U	20.0 U	19.9 U
Phenanthrene	SW8270E	1500	--	21000	24.6	20.0 U	19.9 U
Pyrene	SW8270E	2600	11980	16000	48.8	13.5 J	19.9 U
Total Benzofluoranthenes (b,j,k) (U = 0 max limit)	Calculated	3200	--	9900	75.6	40.0 U	39.9 U
Total Benzofluoranthenes (b,j,k) (U = 1/2 max limit)	Calculated	--	--	--	75.6	40.0 U	39.9 U
Total HPAH (DMMP) (U = 0 max limit)	Calculated	12000	--	69000	230 J	13.5 J	39.9 UJ
Total HPAH (DMMP) (U = 1/2 max limit)	Calculated	--	--	--	250 J	96.0 J	39.9 UJ
Total LPAH (DMMP) (U = 0 max limit)	Calculated	5200	--	29000	24.6 J	20.0 UJ	19.9 UJ
Total LPAH (DMMP) (U = 1/2 max limit)	Calculated	--	--	--	74.6 J	20.0 UJ	19.9 UJ
Pesticides (µg/kg)							
2,4'-DDD (o,p'-DDD)	SW8081B	--	--	--	1.00 U	0.99 U	1.00 U
2,4'-DDE (o,p'-DDE)	SW8081B	--	--	--	1.00 U	0.99 U	1.00 U
2,4'-DDT (o,p'-DDT)	SW8081B	--	--	--	1.00 U	0.99 U	1.00 U
4,4'-DDD (p,p'-DDD)	SW8081B	16	--	--	1.00 U	0.99 U	1.00 U
4,4'-DDE (p,p'-DDE)	SW8081B	9	--	--	1.00 U	0.99 U	1.00 U
4,4'-DDT (p,p'-DDT)	SW8081B	12	--	--	1.00 U	0.99 U	1.00 U
Aldrin	SW8081B	9.5	--	--	0.50 U	0.50 U	0.50 U
Chlordane, alpha- (Chlordane, cis-)	SW8081B	--	--	--	0.50 U	0.50 U	0.50 U
Chlordane, beta- (Chlordane, trans-)	SW8081B	--	--	--	0.50 U	0.50 U	0.50 U
Dieldrin	SW8081B	1.9	--	1700	1.00 U	0.99 U	1.00 U
Endrin ketone	SW8081B	--	--	--	1.00 U	0.99 U	1.00 U
Heptachlor	SW8081B	1.5	--	270	0.50 U	0.50 U	0.50 U
Hexachlorocyclohexane (BHC), beta-	SW8081B	--	--	--	0.50 U	0.50 U	0.50 U
Nonachlor, cis-	SW8081B	--	--	--	1.00 U	0.99 U	1.00 U
Nonachlor, trans-	SW8081B	--	--	--	1.00 U	0.99 U	1.00 U
Oxychlordane	SW8081B	--	--	--	1.00 U	0.99 U	1.00 U
Dioxin Furans (ng/kg)							
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	E1613B	--	--	--	0.511 U	0.797 U	0.427 U
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	E1613B	--	--	--	1.92 J	1.08 J	0.772 U
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	E1613B	--	--	--	2.08	1.73 J	1.14 U
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	E1613B	--	--	--	7.21	13.1	1.08 U
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	E1613B	--	--	--	4.05	5.99 J	1.20 U
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	E1613B	--	--	--	175	307	2.66 J
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	E1613B	--	--	--	2110	3980	40.2
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	E1613B	--	--	--	2.65 J	1.99	0.527 U
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	E1613B	--	--	--	3.21	1.46 J	0.531 U
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	E1613B	--	--	--	1.57	1.37 J	0.560 U
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	E1613B	--	--	--	8.51	6.34	0.748 U

Table 2
Sediment Core Sample Analytical Results Compared to DMMP Criteria

Chemical	Method	DMMP SL	DMMP BT	Location ID Sample ID Sample Date Depth Below Mudline Elevation Depth DMMP ML	MB-SC01		
					MB-SC01-A-2024-08-13 8/13/2024 0 to 3 ft -46.0 to -49.0 ft MLLW	MB-SC01-Z1-2024-08-13 8/13/2024 3 to 4 ft -49.0 to -50.0 ft MLLW	MB-SC01-Z2-2024-08-13 8/13/2024 4 to 6 ft -50.0 to -52.0 ft MLLW
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	E1613B	--	--	--	2.31	2.08	0.710 U
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	E1613B	--	--	--	1.7	2.83	1.25 U
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	E1613B	--	--	--	1.59 J	2.93	0.750 U
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	E1613B	--	--	--	30.6	45.2	0.869 U
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	E1613B	--	--	--	3.08	3.84	1.77 U
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	E1613B	--	--	--	67.1	62	2.17 U
Total Dioxin/Furan TEQ 2005 (Mammal) (U = 0 max limit)	Calculated	4.0	10	--	8.24 J	10.0 J	0.0387 J
Total Dioxin/Furan TEQ 2005 (Mammal) (U = 1/2 max limit)	Calculated	4.0	10	--	8.49 J	10.4 J	1.11 J
PCB Aroclors (µg/kg)							
Aroclor 1016	SW8082A	--	--	--	4.0 U	4.0 U	4.0 U
Aroclor 1221	SW8082A	--	--	--	4.0 U	4.0 U	4.0 U
Aroclor 1232	SW8082A	--	--	--	4.0 U	4.0 U	4.0 U
Aroclor 1242	SW8082A	--	--	--	4.0 U	4.0 U	4.0 U
Aroclor 1248	SW8082A	--	--	--	6.1 J	9.9 J	4.0 U
Aroclor 1254	SW8082A	--	--	--	4.9 J	4.7 J	4.0 U
Aroclor 1260	SW8082A	--	--	--	4.0 UJ	4.0 UJ	4.0 UJ
Total DMMP PCB Aroclors (U = 0 max limit)	Calculated	130	--	3100	11 J	15 J	4.0 UJ
Total DMMP PCB Aroclors (U = 1/2 max limit)	Calculated	--	--	--	21 J	25 J	4.0 UJ
PCB Aroclors (mg/kg-OC)							
Aroclor 1016	SW8082A	--	--	--	0.82 U	1.3 U	4.4 U
Aroclor 1221	SW8082A	--	--	--	0.82 U	1.3 U	4.4 U
Aroclor 1232	SW8082A	--	--	--	0.82 U	1.3 U	4.4 U
Aroclor 1242	SW8082A	--	--	--	0.82 U	1.3 U	4.4 U
Aroclor 1248	SW8082A	--	--	--	1.2 J	3.1 J	4.4 U
Aroclor 1254	SW8082A	--	--	--	1.0 J	1.5 J	4.4 U
Aroclor 1260	SW8082A	--	--	--	0.82 UJ	1.3 UJ	4.4 UJ
Total DMMP PCB Aroclors (U = 0 max limit)	Calculated		38		2.2 J	4.6 J	4.4 UJ
Total DMMP PCB Aroclors (U = 1/2 max limit)	Calculated	--	--	--	4.3 J	7.7 J	4.4 UJ

Table 2
Sediment Core Sample Analytical Results Compared to DMMP Criteria

Chemical	MB-SC02			MB-SC03		
	MB-SC02-A-2024-08-13	MB-SC02-Z1-2024-08-13	MB-SC02-Z2-2024-08-13	MB-SC03-A-2024-08-13	MB-SC03-Z1-2024-08-13	MB-SC03-Z2-2024-08-13
	8/13/2024 0 to 2.4 ft -46.6 to -49.0 ft MLLW	8/13/2024 2.4 to 3.4 ft -49.0 to -50.0 ft MLLW	8/13/2024 3.4 to 5.4 ft -50.0 to -52.0 ft MLLW	8/13/2024 0 to 6.7 ft -42.3 to -49.0	8/13/2024 6.7 to 7.7 ft -49.0 to -50.0 ft MLLW	8/13/2024 7.7 to 9.7 ft -50.0 to -52.0 ft MLLW
Conventional Parameters (pct)						
Total organic carbon	0.57	0.5	0.36	0.8	0.16	0.48
Total solids	70.71	70.54	79.03	69.04	82.8	82.1
Total solids	71.7	71.98	82.46	66.72	81.43	81.62
Total volatile solids	2.56	2.59	1.45	2.95	1.72	2.23
Atterberg Limits						
Atterberg classification	Non-Plastic	--	--	ML	--	--
Liquid limit (%)	--	--	--	34	--	--
Plastic limit (%)	--	--	--	26	--	--
Plasticity index (%)	--	--	--	8	--	--
Grain Size (pct)						
Clay, coarse	4.1	--	--	4.8	--	--
Clay, fine	7.2	--	--	8.2	--	--
Clay, medium	2.1	--	--	2.6	--	--
Gravel, coarse	0.1	--	--	0.1	--	--
Gravel, medium	0.1	--	--	0.3	--	--
Gravel, very coarse	0.10 U	--	--	0.1	--	--
Sand, coarse	1.4	--	--	1	--	--
Sand, fine	10.9	--	--	6.6	--	--
Sand, medium	19.9	--	--	6.4	--	--
Sand, very coarse	0.2	--	--	0.1	--	--
Sand, very fine	13.2	--	--	11.7	--	--
Silt, coarse	13.8	--	--	12.7	--	--
Silt, fine	8.1	--	--	15.6	--	--
Silt, medium	9.9	--	--	20.7	--	--
Silt, very fine	9	--	--	8.9	--	--
Metals (mg/kg)						
Antimony	0.28 UJ	0.28 UJ	0.23 UJ	0.31 UJ	0.23 UJ	0.22 UJ
Arsenic	7.38	5.84	3.19	12.9	2.36	2.69
Cadmium	0.10 J	0.08 J	0.11 U	0.16	0.12 U	0.04 J
Chromium	16.5	14.2	9.51	19.7	12	10.5
Copper	29	23.7	10.4	43.4	13.3	13.5
Lead	6.13	5.31	1.25	17.4	1.52	3.89
Mercury	0.0544	0.0384	0.0222 U	0.0864	0.0293 U	0.0225 U
Selenium	0.56 J	0.61 J	0.30 J	0.76 J	0.47 J	0.36 J
Silver	0.10 J	0.09 J	0.03 J	0.20 J	0.03 J	0.04 J
Zinc	41.6	32.8	16.7	55.8	21.1	20.5
Organometals (µg/kg)						

Table 2
Sediment Core Sample Analytical Results Compared to DMMP Criteria

Chemical	MB-SC02			MB-SC03		
	MB-SC02-A-2024-08-13 8/13/2024 0 to 2.4 ft -46.6 to -49.0 ft MLLW	MB-SC02-Z1-2024-08-13 8/13/2024 2.4 to 3.4 ft -49.0 to -50.0 ft MLLW	MB-SC02-Z2-2024-08-13 8/13/2024 3.4 to 5.4 ft -50.0 to -52.0 ft MLLW	MB-SC03-A-2024-08-13 8/13/2024 0 to 6.7 ft -42.3 to -49.0	MB-SC03-Z1-2024-08-13 8/13/2024 6.7 to 7.7 ft -49.0 to -50.0 ft MLLW	MB-SC03-Z2-2024-08-13 8/13/2024 7.7 to 9.7 ft -50.0 to -52.0 ft MLLW
Tributyltin (ion)	3.85 U	7.13	3.85 U	2.80 J	3.85 U	3.85 U
Semivolatile Organics (µg/kg)						
1,2,4-Trichlorobenzene	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ
1,2-Dichlorobenzene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,4-Dichlorobenzene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2,4-Dimethylphenol	20.0 UJ	19.9 UJ	20.0 UJ	20.0 UJ	20.0 UJ	19.9 UJ
2-Methylphenol (o-Cresol)	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Methylphenol (p-Cresol)	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Benzoic acid	99.9 UJ	99.7 UJ	99.8 UJ	99.8 UJ	99.8 UJ	99.4 UJ
Benzyl alcohol	10.7 J	19.9 U	20.0 U	20.0 U	20.0 U	12.1 J
Bis(2-ethylhexyl)phthalate	49.9 U	49.9 U	49.9 U	49.9 U	49.9 U	155
Butylbenzyl phthalate	2.6 J	3.9 J	5.0 U	5.0 U	5.0 U	14.9
Di-n-butyl phthalate	20.0 U	19.9 U	20.0 U	20.0 U	20.0 U	19.9 U
Di-n-octyl phthalate	20.0 U	19.9 U	20.0 U	20.0 U	20.0 U	19.9 U
Diethyl phthalate	19.9 U	20 U	19.9 U	20 U	19.9 U	20 U
Dimethyl phthalate	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Hexachlorobenzene	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Hexachlorobutadiene (Hexachloro-1,3-butadiene)	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
n-Nitrosodiphenylamine	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Pentachlorophenol	49.9 UJ	49.9 UJ	49.9 UJ	49.9 UJ	49.9 UJ	49.7 UJ
Phenol	7.1	4.1 J	5.0 U	2.5 J	3.7 J	7.5
Polycyclic Aromatic Hydrocarbons (µg/kg)						
1-Methylnaphthalene	20.0 U	19.9 U	20.0 U	20.0 U	20.0 U	19.9 U
2-Methylnaphthalene	20.0 U	19.9 U	20.0 U	20.0 U	20.0 U	19.9 U
Acenaphthene	20.0 U	19.9 U	20.0 U	20.0 U	20.0 U	19.9 U
Acenaphthylene	20.0 UJ	19.9 UJ	20.0 UJ	20.0 UJ	20.0 UJ	19.9 UJ
Anthracene	20.0 U	19.9 U	20.0 U	20.0 U	20.0 U	21.8
Benzo(a)anthracene	22.7	11.1 J	20.0 U	20.0 U	20.0 U	40.5
Benzo(a)pyrene	30.3	15.8 J	20.0 U	20.0 U	20.0 U	89.4
Benzo(b,j,k)fluoranthenes	88.5	52.1	39.9 U	39.9 U	39.9 U	264
Benzo(g,h,i)perylene	20.0 UJ	19.9 UJ	20.0 UJ	20.0 UJ	20.0 UJ	20.2 J
Carbazole	20.0 U	19.9 U	20.0 U	20.0 U	20.0 U	19.9 U
Chrysene	39	17.2 J	20.0 U	20.0 U	20.0 U	67.3
Dibenzo(a,h)anthracene	5.4 J	3.1 J	5.0 U	5.0 U	5.0 U	12.6 J
Dibenzofuran	20.0 U	19.9 U	20.0 U	20.0 U	20.0 U	19.9 U
Fluoranthene	46.9	20.3	20.0 U	20.0 U	20.0 U	58.5
Fluorene	20.0 U	19.9 U	20.0 U	20.0 U	20.0 U	19.9 U
Indeno(1,2,3-c,d)pyrene	20.0 UJ	19.9 UJ	20.0 UJ	20.0 UJ	20.0 UJ	21.3 J

Table 2
Sediment Core Sample Analytical Results Compared to DMMP Criteria


Chemical	MB-SC02			MB-SC03		
	MB-SC02-A-2024-08-13	MB-SC02-Z1-2024-08-13	MB-SC02-Z2-2024-08-13	MB-SC03-A-2024-08-13	MB-SC03-Z1-2024-08-13	MB-SC03-Z2-2024-08-13
	8/13/2024 0 to 2.4 ft -46.6 to -49.0 ft MLLW	8/13/2024 2.4 to 3.4 ft -49.0 to -50.0 ft MLLW	8/13/2024 3.4 to 5.4 ft -50.0 to -52.0 ft MLLW	8/13/2024 0 to 6.7 ft -42.3 to -49.0	8/13/2024 6.7 to 7.7 ft -49.0 to -50.0 ft MLLW	8/13/2024 7.7 to 9.7 ft -50.0 to -52.0 ft MLLW
Naphthalene	20.0 U	19.9 U	20.0 U	20.0 U	20.0 U	19.9 U
Phenanthrene	24.8	15.3 J	20.0 U	20.0 U	20.0 U	39.4
Pyrene	67.4	26.2	20.0 U	20.0 U	20.0 U	272
Total Benzofluoranthenes (b,j,k) (U = 0 max limit)	88.5	52.1	39.9 U	39.9 U	39.9 U	264
Total Benzofluoranthenes (b,j,k) (U = 1/2 max limit)	88.5	52.1	39.9 U	39.9 U	39.9 U	264
Total HPAH (DMMP) (U = 0 max limit)	300 J	150 J	39.9 UJ	39.9 UJ	39.9 UJ	846 J
Total HPAH (DMMP) (U = 1/2 max limit)	320 J	170 J	39.9 UJ	39.9 UJ	39.9 UJ	846 J
Total LPAH (DMMP) (U = 0 max limit)	24.8 J	15.3 J	20.0 UJ	20.0 UJ	20.0 UJ	61.2 J
Total LPAH (DMMP) (U = 1/2 max limit)	74.8 J	65.1 J	20.0 UJ	20.0 UJ	20.0 UJ	101 J
Pesticides (µg/kg)						
2,4'-DDD (o,p'-DDD)	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U
2,4'-DDE (o,p'-DDE)	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U
2,4'-DDT (o,p'-DDT)	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U
4,4'-DDD (p,p'-DDD)	1.00 U	0.82 J	1.00 U	1.00 U	1.00 U	1.00 U
4,4'-DDE (p,p'-DDE)	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U
4,4'-DDT (p,p'-DDT)	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U
Aldrin	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Chlordane, alpha- (Chlordane, cis-)	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Chlordane, beta- (Chlordane, trans-)	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Dieldrin	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U
Endrin ketone	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U
Heptachlor	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Hexachlorocyclohexane (BHC), beta-	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Nonachlor, cis-	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U
Nonachlor, trans-	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U
Oxychlordane	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U
Dioxin Furans (ng/kg)						
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	0.558 U	0.630 U	0.732 U	1.43	0.669 U	0.973 U
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	0.953 J	1.64 J	0.890 U	12.2	1.01 U	1.04 U
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	1.15 U	2.26	0.898 U	13.5	1.40 U	1.31 U
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	5.37 J	10.6 J	0.931 U	89.1	1.49	2.18
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	2.29 J	7.26	0.995 U	40.3	1.51 U	1.36 U
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	145	268	11.7 J	1530	41.9	71.5
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	1560	3570	112	14900	506	921
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	2.23	2.79	0.754 U	6.94	1.02 U	1.24 U
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	2.38 J	5.7	0.511 U	8.04	0.752 U	0.862 U
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	1.19 J	2.54	0.526 U	7.92	0.752 U	0.907 U
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	7.8	11.6	0.633 U	27	1.9	2.07


Table 2
Sediment Core Sample Analytical Results Compared to DMMP Criteria

Chemical	MB-SC02			MB-SC03		
	MB-SC02-A-2024-08-13 8/13/2024 0 to 2.4 ft -46.6 to -49.0 ft MLLW	MB-SC02-Z1-2024-08-13 8/13/2024 2.4 to 3.4 ft -49.0 to -50.0 ft MLLW	MB-SC02-Z2-2024-08-13 8/13/2024 3.4 to 5.4 ft -50.0 to -52.0 ft MLLW	MB-SC03-A-2024-08-13 8/13/2024 0 to 6.7 ft -42.3 to -49.0	MB-SC03-Z1-2024-08-13 8/13/2024 6.7 to 7.7 ft -49.0 to -50.0 ft MLLW	MB-SC03-Z2-2024-08-13 8/13/2024 7.7 to 9.7 ft -50.0 to -52.0 ft MLLW
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	2.70 J	4.19	0.558 U	11.9	0.775 U	0.981 U
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	1.77	2.42	1.02 U	11.9	1.01 U	1.69 U
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	1.65	2.63	0.668 U	14.4	0.718 U	1.05 U
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	23.6	42.4	1.02 J	176	7	10.2
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	2.85 J	3.23 J	1.05 U	12.9	1.74 U	2.14 U
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	54.8	67.6	0.925 J	237	15	10.5 J
Total Dioxin/Furan TEQ 2005 (Mammal) (U = 0 max limit)	5.96 J	11.2 J	0.161 J	59.5	0.984	1.52 J
Total Dioxin/Furan TEQ 2005 (Mammal) (U = 1/2 max limit)	6.30 J	11.5 J	1.39 J	59.5	2.28	3.07 J
PCB Aroclors (µg/kg)						
Aroclor 1016	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U
Aroclor 1221	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U
Aroclor 1232	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U
Aroclor 1242	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U
Aroclor 1248	5.5 J	8.5 J	7.9	16.9 J	4.5	4.0 U
Aroclor 1254	6.4 J	9.2 J	9.5	13.0 J	4.3	4.0 U
Aroclor 1260	4.0 UJ	6.0 J	7.4 J	10.0 J	3.8 J	4.0 UJ
Total DMMP PCB Aroclors (U = 0 max limit)	12 J	24 J	25 J	39.9 J	13 J	4.0 UJ
Total DMMP PCB Aroclors (U = 1/2 max limit)	22 J	32 J	33 J	47.9 J	21 J	4.0 UJ
PCB Aroclors (mg/kg-OC)						
Aroclor 1016	0.70 U	0.80 U	1.1 U	0.50 U	2.5 U	0.83 U
Aroclor 1221	0.70 U	0.80 U	1.1 U	0.50 U	2.5 U	0.83 U
Aroclor 1232	0.70 U	0.80 U	1.1 U	0.50 U	2.5 U	0.83 U
Aroclor 1242	0.70 U	0.80 U	1.1 U	0.50 U	2.5 U	0.83 U
Aroclor 1248	0.96 J	1.7 J	2.2	2.11 J	2.8	0.83 U
Aroclor 1254	1.1 J	1.8 J	2.6	1.63 J	2.7	0.83 U
Aroclor 1260	0.70 UJ	1.2 J	2.1 J	1.25 J	2.4 J	0.83 UJ
Total DMMP PCB Aroclors (U = 0 max limit)	2.1 J	4.7 J	6.9 J	4.99 J	7.9 J	0.83 UJ
Total DMMP PCB Aroclors (U = 1/2 max limit)	3.8 J	6.3 J	9.1 J	5.99 J	13 J	0.83 UJ

Table 2
Sediment Core Sample Analytical Results Compared to DMMP Criteria

Notes:

 Detected concentration is greater than DMMP SL screening level

 Detected concentration is greater than DMMP BT screening level

Bold: Detected result

Calculated values have been rounded to laboratory-reported significant digits.

J: Estimated value

U: Compound analyzed for, but not detected above detection limit

UJ: Compound analyzed for, but not detected above estimated detection limit

--: not applicable/no data

µg/kg: microgram per kilogram

BT: bioaccumulation trigger

DMMP: Dredged Material Management Program

EDL: estimated detection limit

ft: foot

mg/kg: milligram per kilogram

ML: maximum level

MLLW: mean lower low water

ng/kg: nanogram per kilogram

PAH: polycyclic aromatic hydrocarbon

PCB: polychlorinated biphenyl

pct: percent

SL: screening level

TEQ: toxic equivalence

Table 3
Sediment Core Z-Sample Analytical Results Compared to SMS Criteria

Chemical	Method	D/F TEF	SMS_Marine_SCO	SMS_Marine_CSL	AET_Marine_SCO	Location ID Sample ID Sample Date Depth Below Mudline Elevation Depth AET_Marine_CSL	MB-SC01	
							MB-SC01-Z1-2024-08-13 8/13/2024 3 to 4 ft -49.0 to -50.0 ft MLLW	MB-SC01-Z2-2024-08-13 8/13/2024 4 to 6 ft -50.0 to -52.0 ft MLLW
Conventional Parameters (pct)								
Total organic carbon	SW9060AM	--	--	--	--	--	0.32	0.090 U
Total solids	D2216	--	--	--	--	--	75.96	82.41
Total solids	SM2540G	--	--	--	--	--	75.65	79.37
Total volatile solids	PSEP-TVS	--	--	--	--	--	1.81	1.53
Metals (mg/kg)								
Antimony	SW6020	--	--	--	--	--	0.26 UJ	0.25 UJ
Arsenic	SW6020	--	57	93	57	93	4.01	3.17
Cadmium	SW6020	--	5.1	6.7	5.1	6.7	0.06 J	0.07 J
Chromium	SW6020	--	260	270	260	270	14.7	12
Copper	SW6020	--	390	390	390	390	18.9	13.7
Lead	SW6020	--	450	530	450	530	4.04	1.48
Mercury	SW7471B	--	0.41	0.59	0.41	0.59	0.0301 U	0.0266 U
Selenium	SW6020	--	--	--	--	--	0.61 J	0.57 J
Silver	SW6020	--	6.1	6.1	6.1	6.1	0.06 J	0.04 J
Zinc	SW6020	--	410	960	410	960	29.6	21.7
Organometals (mg/kg-OC)								
Tributyltin (ion)	SW8270ESIM	--	--	--	--	--	--	--
Organometals (µg/kg)								
Tributyltin (ion)	SW8270ESIM	--	--	--	--	--	2.23 J	3.86 U
Semivolatile Organics (mg/kg-OC)								
1,2,4-Trichlorobenzene	SW8270ESIM	--	0.81	1.8	--	--	--	--
1,2-Dichlorobenzene	SW8270ESIM	--	2.3	2.3	--	--	--	--
1,4-Dichlorobenzene	SW8270ESIM	--	3.1	9	--	--	--	--
Bis(2-ethylhexyl)phthalate	SW8270E	--	47	78	--	--	--	--
Butylbenzyl phthalate	SW8270ESIM	--	4.9	64	--	--	--	--
Di-n-butyl phthalate	SW8270E	--	220	1700	--	--	--	--
Di-n-octyl phthalate	SW8270E	--	58	4500	--	--	--	--
Diethyl phthalate	SW8270ESIM	--	61	110	--	--	--	--
Dimethyl phthalate	SW8270ESIM	--	53	53	--	--	--	--
Hexachlorobenzene	SW8270ESIM	--	0.38	2.3	--	--	--	--
Hexachlorobutadiene (Hexachloro-1,3-butadiene)	SW8270ESIM	--	3.9	6.2	--	--	--	--
n-Nitrosodiphenylamine	SW8270ESIM	--	11	11	--	--	--	--
Pentachlorophenol	SW8270ESIM	--	--	--	--	--	--	--
Semivolatile Organics (µg/kg)								
1,2,4-Trichlorobenzene	SW8270ESIM	--	--	--	31	51	5.0 UJ	5.0 UJ
1,2-Dichlorobenzene	SW8270ESIM	--	--	--	35	50	5.0 U	5.0 U
1,4-Dichlorobenzene	SW8270ESIM	--	--	--	110	110	5.0 U	5.0 U

Table 3
Sediment Core Z-Sample Analytical Results Compared to SMS Criteria

Chemical	Method	D/F TEF	SMS_Marine_SCO	SMS_Marine_CSL	AET_Marine_SCO	Location ID Sample ID Sample Date Depth Below Mudline Elevation Depth AET_Marine_CSL	MB-SC01	
							MB-SC01-Z1-2024-08-13 8/13/2024 3 to 4 ft -49.0 to -50.0 ft MLLW	MB-SC01-Z2-2024-08-13 8/13/2024 4 to 6 ft -50.0 to -52.0 ft MLLW
2,4-Dimethylphenol	SW8270ESIM	--	29	29	29	29	20.0 UJ	19.9 UJ
2-Methylphenol (o-Cresol)	SW8270ESIM	--	63	63	63	63	5.0 U	5.0 U
4-Methylphenol (p-Cresol)	SW8270ESIM	--	670	670	670	670	5.0 U	5.0 U
Benzoic acid	SW8270ESIM	--	650	650	650	650	99.9 UJ	99.7 UJ
Benzyl alcohol	SW8270ESIM	--	57	73	57	73	20.0 U	19.9 U
Bis(2-ethylhexyl)phthalate	SW8270E	--	--	--	1300	1900	50.0 U	49.8 U
Butylbenzyl phthalate	SW8270ESIM	--	--	--	63	900	5.0 U	5.0 U
Di-n-butyl phthalate	SW8270E	--	--	--	1400	1400	20.0 U	19.9 U
Di-n-octyl phthalate	SW8270E	--	--	--	6200	6200	20.0 U	19.9 U
Diethyl phthalate	SW8270ESIM	--	--	--	200	1200	20.8 U	20 U
Dimethyl phthalate	SW8270ESIM	--	--	--	71	160	5.0 U	5.0 U
Hexachlorobenzene	SW8270ESIM	--	--	--	22	70	5.0 U	5.0 U
Hexachlorobutadiene (Hexachloro-1,3-butadiene)	SW8270ESIM	--	--	--	11	120	5.0 U	5.0 U
n-Nitrosodiphenylamine	SW8270ESIM	--	--	--	28	40	5.0 U	5.0 U
Pentachlorophenol	SW8270ESIM	--	360	690	360	690	50.0 UJ	49.8 UJ
Phenol	SW8270ESIM	--	420	1200	420	1200	4.0 J	2.9 J
Polycyclic Aromatic Hydrocarbons (mg/kg-OC)								
1-Methylnaphthalene	SW8270E	--	--	--	--	--	--	--
2-Methylnaphthalene	SW8270E	--	38	64	--	--	--	--
Acenaphthene	SW8270E	--	16	57	--	--	--	--
Acenaphthylene	SW8270E	--	66	66	--	--	--	--
Anthracene	SW8270E	--	220	1200	--	--	--	--
Benzo(a)anthracene	SW8270E	--	110	270	--	--	--	--
Benzo(a)pyrene	SW8270E	--	99	210	--	--	--	--
Benzo(b,j,k)fluoranthenes	SW8270E	--	230	450	--	--	--	--
Benzo(g,h,i)perylene	SW8270E	--	31	78	--	--	--	--
Carbazole	SW8270E	--	--	--	--	--	--	--
Chrysene	SW8270E	--	110	460	--	--	--	--
Dibenzo(a,h)anthracene	SW8270ESIM	--	12	33	--	--	--	--
Dibenzofuran	SW8270E	--	15	58	--	--	--	--
Fluoranthene	SW8270E	--	160	1200	--	--	--	--
Fluorene	SW8270E	--	23	79	--	--	--	--
Indeno(1,2,3-c,d)pyrene	SW8270E	--	34	88	--	--	--	--
Naphthalene	SW8270E	--	99	170	--	--	--	--
Phenanthrene	SW8270E	--	100	480	--	--	--	--
Pyrene	SW8270E	--	1000	1400	--	--	--	--
Total Benzofluoranthenes (b,j,k) (U = 0 max limit)	Calculated	--	230	450	--	--	--	--
Polycyclic Aromatic Hydrocarbons (µg/kg)								

Table 3
Sediment Core Z-Sample Analytical Results Compared to SMS Criteria

Chemical	Method	D/F TEF	SMS_Marine_SCO	SMS_Marine_CSL	AET_Marine_SCO	Location ID Sample ID Sample Date Depth Below Mudline Elevation Depth AET_Marine_CSL	MB-SC01	
							MB-SC01-Z1-2024-08-13 8/13/2024 3 to 4 ft -49.0 to -50.0 ft MLLW	MB-SC01-Z2-2024-08-13 8/13/2024 4 to 6 ft -50.0 to -52.0 ft MLLW
1-Methylnaphthalene	SW8270E	--	--	--	--	--	20.0 U	19.9 U
2-Methylnaphthalene	SW8270E	--	--	--	670	670	20.0 U	19.9 U
Acenaphthene	SW8270E	--	--	--	500	500	20.0 U	19.9 U
Acenaphthylene	SW8270E	--	--	--	1300	1300	20.0 UJ	19.9 UJ
Anthracene	SW8270E	--	--	--	960	960	20.0 U	19.9 U
Benzo(a)anthracene	SW8270E	--	--	--	1300	1600	20.0 U	19.9 U
Benzo(a)pyrene	SW8270E	--	--	--	1600	1600	20.0 U	19.9 U
Benzo(b,j,k)fluoranthenes	SW8270E	--	--	--	3200	3600	40.0 U	39.9 U
Benzo(g,h,i)perylene	SW8270E	--	--	--	670	720	20.0 UJ	19.9 UJ
Carbazole	SW8270E	--	--	--	--	--	20.0 U	19.9 U
Chrysene	SW8270E	--	--	--	1400	2800	20.0 U	19.9 U
Dibenzo(a,h)anthracene	SW8270ESIM	--	--	--	230	230	5.0 U	5.0 U
Dibenzofuran	SW8270E	--	--	--	540	540	20.0 U	19.9 U
Fluoranthene	SW8270E	--	--	--	1700	2500	20.0 U	19.9 U
Fluorene	SW8270E	--	--	--	540	540	20.0 U	19.9 U
Indeno(1,2,3-c,d)pyrene	SW8270E	--	--	--	600	690	20.0 UJ	19.9 UJ
Naphthalene	SW8270E	--	--	--	2100	2100	20.0 U	19.9 U
Phenanthrene	SW8270E	--	--	--	1500	1500	20.0 U	19.9 U
Pyrene	SW8270E	--	--	--	2600	3300	13.5 J	19.9 U
Total Benzofluoranthenes (b,j,k) (U = 0 max limit)	Calculated	--	--	--	3200	3600	40.0 U	39.9 U
Total HPAH (DMMP) (U = 0 max limit)	Calculated	--	--	--	--	--	13.5 J	39.9 UJ
Total LPAH (DMMP) (U = 0 max limit)	Calculated	--	--	--	--	--	20.0 UJ	19.9 UJ
Pesticides (mg/kg-OC)								
2,4'-DDD (o,p'-DDD)	SW8081B	--	--	--	--	--	--	--
2,4'-DDE (o,p'-DDE)	SW8081B	--	--	--	--	--	--	--
2,4'-DDT (o,p'-DDT)	SW8081B	--	--	--	--	--	--	--
4,4'-DDD (p,p'-DDD)	SW8081B	--	--	--	--	--	--	--
4,4'-DDE (p,p'-DDE)	SW8081B	--	--	--	--	--	--	--
4,4'-DDT (p,p'-DDT)	SW8081B	--	--	--	--	--	--	--
Aldrin	SW8081B	--	--	--	--	--	--	--
Chlordane, alpha- (Chlordane, cis-)	SW8081B	--	--	--	--	--	--	--
Chlordane, beta- (Chlordane, trans-)	SW8081B	--	--	--	--	--	--	--
Dieldrin	SW8081B	--	--	--	--	--	--	--
Endrin ketone	SW8081B	--	--	--	--	--	--	--
Heptachlor	SW8081B	--	--	--	--	--	--	--
Hexachlorocyclohexane (BHC), beta-	SW8081B	--	--	--	--	--	--	--
Nonachlor, cis-	SW8081B	--	--	--	--	--	--	--
Nonachlor, trans-	SW8081B	--	--	--	--	--	--	--

Table 3
Sediment Core Z-Sample Analytical Results Compared to SMS Criteria

Chemical	Method	D/F TEF	SMS_Marine_SCO	SMS_Marine_CSL	AET_Marine_SCO	Location ID Sample ID Sample Date Depth Below Mudline Elevation Depth AET_Marine_CSL	MB-SC01	
							MB-SC01-Z1-2024-08-13 8/13/2024 3 to 4 ft -49.0 to -50.0 ft MLLW	MB-SC01-Z2-2024-08-13 8/13/2024 4 to 6 ft -50.0 to -52.0 ft MLLW
Oxychlorane	SW8081B	--	--	--	--	--	--	--
Pesticides (µg/kg)								
2,4'-DDD (o,p'-DDD)	SW8081B	--	--	--	--	--	0.99 U	1.00 U
2,4'-DDE (o,p'-DDE)	SW8081B	--	--	--	--	--	0.99 U	1.00 U
2,4'-DDT (o,p'-DDT)	SW8081B	--	--	--	--	--	0.99 U	1.00 U
4,4'-DDD (p,p'-DDD)	SW8081B	--	--	--	--	--	0.99 U	1.00 U
4,4'-DDE (p,p'-DDE)	SW8081B	--	--	--	--	--	0.99 U	1.00 U
4,4'-DDT (p,p'-DDT)	SW8081B	--	--	--	--	--	0.99 U	1.00 U
Aldrin	SW8081B	--	--	--	--	--	0.50 U	0.50 U
Chlordane, alpha- (Chlordane, cis-)	SW8081B	--	--	--	--	--	0.50 U	0.50 U
Chlordane, beta- (Chlordane, trans-)	SW8081B	--	--	--	--	--	0.50 U	0.50 U
Dieldrin	SW8081B	--	--	--	--	--	0.99 U	1.00 U
Endrin ketone	SW8081B	--	--	--	--	--	0.99 U	1.00 U
Heptachlor	SW8081B	--	--	--	--	--	0.50 U	0.50 U
Hexachlorocyclohexane (BHC), beta-	SW8081B	--	--	--	--	--	0.50 U	0.50 U
Nonachlor, cis-	SW8081B	--	--	--	--	--	0.99 U	1.00 U
Nonachlor, trans-	SW8081B	--	--	--	--	--	0.99 U	1.00 U
Oxychlorane	SW8081B	--	--	--	--	--	0.99 U	1.00 U
Dioxin Furans (ng/kg)								
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	E1613B	0.0003	--	--	--	--	3980	40.2
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	E1613B	0.0003	--	--	--	--	62	2.17 U
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	E1613B	0.01	--	--	--	--	307	2.66 J
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	E1613B	0.01	--	--	--	--	45.2	0.869 U
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	E1613B	0.01	--	--	--	--	3.84	1.77 U
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	E1613B	0.1	--	--	--	--	1.73 J	1.14 U
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	E1613B	0.1	--	--	--	--	6.34	0.748 U
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	E1613B	0.1	--	--	--	--	13.1	1.08 U
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	E1613B	0.1	--	--	--	--	2.08	0.710 U
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	E1613B	0.1	--	--	--	--	5.99 J	1.20 U
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	E1613B	0.1	--	--	--	--	2.83	1.25 U
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	E1613B	1	--	--	--	--	1.08 J	0.772 U
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	E1613B	0.03	--	--	--	--	1.46 J	0.531 U
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	E1613B	0.1	--	--	--	--	2.93	0.750 U
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	E1613B	0.3	--	--	--	--	1.37 J	0.560 U
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	E1613B	1	--	--	--	--	0.797 U	0.427 U
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	E1613B	0.1	--	--	--	--	1.99	0.527 U
Total Heptachlorodibenzo-p-dioxin (HpCDD)	E1613B	--	--	--	--	--	589	0 U
Total Heptachlorodibenzofuran (HpCDF)	E1613B	--	--	--	--	--	169	1.55

Table 3
Sediment Core Z-Sample Analytical Results Compared to SMS Criteria

Chemical	Method	D/F TEF	SMS_Marine_SCO	SMS_Marine_CSL	AET_Marine_SCO	Location ID Sample ID Sample Date Depth Below Mudline Elevation Depth AET_Marine_CSL	MB-SC01	
							MB-SC01-Z1-2024-08-13 8/13/2024 3 to 4 ft -49.0 to -50.0 ft MLLW	MB-SC01-Z2-2024-08-13 8/13/2024 4 to 6 ft -50.0 to -52.0 ft MLLW
Total Hexachlorodibenzo-p-dioxin (HxCDD)	E1613B	--	--	--	--	--	87.9	0 U
Total Hexachlorodibenzofuran (HxCDF)	E1613B	--	--	--	--	--	103	0 U
Total Pentachlorodibenzo-p-dioxin (PeCDD)	E1613B	--	--	--	--	--	0 U	0 U
Total Pentachlorodibenzofuran (PeCDF)	E1613B	--	--	--	--	--	11.5	0 U
Total Tetrachlorodibenzo-p-dioxin (TCDD)	E1613B	--	--	--	--	--	4.42	0 U
Total Tetrachlorodibenzofuran (TCDF)	E1613B	--	--	--	--	--	2.88	0 U
Total Dioxin/Furan TEQ 2005 (Mammal) (U = 0 max limit)	Calculated	--	--	--	--	--	10.0 J	0.0387 J
Dioxin Furans (ng/kg-OC)								
Total Dioxin/Furan TEQ 2005 (Mammal) (U = 0 max limit)	Calculated	--	--	--	--	--	--	--
PCB Aroclors (mg/kg-OC)								
Aroclor 1016	SW8082A	--	--	--	--	--	--	--
Aroclor 1221	SW8082A	--	--	--	--	--	--	--
Aroclor 1232	SW8082A	--	--	--	--	--	--	--
Aroclor 1242	SW8082A	--	--	--	--	--	--	--
Aroclor 1248	SW8082A	--	--	--	--	--	--	--
Aroclor 1254	SW8082A	--	--	--	--	--	--	--
Aroclor 1260	SW8082A	--	--	--	--	--	--	--
Total DMMP PCB Aroclors (U = 0 max limit)	Calculated	--	--	--	--	--	--	--
PCB Aroclors (µg/kg)								
Aroclor 1016	SW8082A	--	--	--	--	--	4.0 U	4.0 U
Aroclor 1221	SW8082A	--	--	--	--	--	4.0 U	4.0 U
Aroclor 1232	SW8082A	--	--	--	--	--	4.0 U	4.0 U
Aroclor 1242	SW8082A	--	--	--	--	--	4.0 U	4.0 U
Aroclor 1248	SW8082A	--	--	--	--	--	9.9 J	4.0 U
Aroclor 1254	SW8082A	--	--	--	--	--	4.7 J	4.0 U
Aroclor 1260	SW8082A	--	--	--	--	--	4.0 UJ	4.0 UJ
Total DMMP PCB Aroclors (U = 0 max limit)	Calculated	--	--	--	--	--	15 J	4.0 UJ

Table 3
Sediment Core Z-Sample Analytical Results Compared to SMS Criteria

Chemical	MB-SC02		MB-SC03	
	MB-SC02-Z1-2024-08-13 8/13/2024 2.4to- 3.4 ft -49.0 to -50.0 ft MLLW	MB-SC02-Z2-2024-08-13 8/13/2024 3.4 to 5.4 ft -50.0 to -52.0 ft MLLW	MB-SC03-Z1-2024-08-13 8/13/2024 6.7 to 7.7 ft -49.0 to -50.0 ft MLLW	MB-SC03-Z2-2024-08-13 8/13/2024 7.7 to 9.7 ft -50.0 to -52.0 ft MLLW
Conventional Parameters (pct)				
Total organic carbon	0.5	0.36	0.16	0.48
Total solids	70.54	79.03	82.8	82.1
Total solids	71.98	82.46	81.43	81.62
Total volatile solids	2.59	1.45	1.72	2.23
Metals (mg/kg)				
Antimony	0.28 UJ	0.23 UJ	0.23 UJ	0.22 UJ
Arsenic	5.84	3.19	2.36	2.69
Cadmium	0.08 J	0.11 U	0.12 U	0.04 J
Chromium	14.2	9.51	12	10.5
Copper	23.7	10.4	13.3	13.5
Lead	5.31	1.25	1.52	3.89
Mercury	0.0384	0.0222 U	0.0293 U	0.0225 U
Selenium	0.61 J	0.30 J	0.47 J	0.36 J
Silver	0.09 J	0.03 J	0.03 J	0.04 J
Zinc	32.8	16.7	21.1	20.5
Organometals (mg/kg-OC)				
Tributyltin (ion)	1.43	--	--	--
Organometals (µg/kg)				
Tributyltin (ion)	7.13	3.85 U	3.85 U	3.85 U
Semivolatile Organics (mg/kg-OC)				
1,2,4-Trichlorobenzene	1.0 UJ	--	--	--
1,2-Dichlorobenzene	1.0 U	--	--	--
1,4-Dichlorobenzene	1.0 U	--	--	--
Bis(2-ethylhexyl)phthalate	9.98 U	--	--	--
Butylbenzyl phthalate	0.78 J	--	--	--
Di-n-butyl phthalate	3.98 U	--	--	--
Di-n-octyl phthalate	3.98 U	--	--	--
Diethyl phthalate	4 U	--	--	--
Dimethyl phthalate	1.0 U	--	--	--
Hexachlorobenzene	1.0 U	--	--	--
Hexachlorobutadiene (Hexachloro-1,3-butadiene)	1.0 U	--	--	--
n-Nitrosodiphenylamine	1.0 U	--	--	--
Pentachlorophenol	9.98 UJ	--	--	--
Semivolatile Organics (µg/kg)				
1,2,4-Trichlorobenzene	5.0 UJ	5.0 UJ	5.0 UJ	5.0 UJ
1,2-Dichlorobenzene	5.0 U	5.0 U	5.0 U	5.0 U
1,4-Dichlorobenzene	5.0 U	5.0 U	5.0 U	5.0 U

Table 3
Sediment Core Z-Sample Analytical Results Compared to SMS Criteria

Chemical	MB-SC02		MB-SC03	
	MB-SC02-Z1-2024-08-13 8/13/2024 2.4to- 3.4 ft -49.0 to -50.0 ft MLLW	MB-SC02-Z2-2024-08-13 8/13/2024 3.4 to 5.4 ft -50.0 to -52.0 ft MLLW	MB-SC03-Z1-2024-08-13 8/13/2024 6.7 to 7.7 ft -49.0 to -50.0 ft MLLW	MB-SC03-Z2-2024-08-13 8/13/2024 7.7 to 9.7 ft -50.0 to -52.0 ft MLLW
2,4-Dimethylphenol	19.9 UJ	20.0 UJ	20.0 UJ	19.9 UJ
2-Methylphenol (o-Cresol)	5.0 U	5.0 U	5.0 U	5.0 U
4-Methylphenol (p-Cresol)	5.0 U	5.0 U	5.0 U	5.0 U
Benzoic acid	99.7 UJ	99.8 UJ	99.8 UJ	99.4 UJ
Benzyl alcohol	19.9 U	20.0 U	20.0 U	12.1 J
Bis(2-ethylhexyl)phthalate	49.9 U	49.9 U	49.9 U	155
Butylbenzyl phthalate	3.9 J	5.0 U	5.0 U	14.9
Di-n-butyl phthalate	19.9 U	20.0 U	20.0 U	19.9 U
Di-n-octyl phthalate	19.9 U	20.0 U	20.0 U	19.9 U
Diethyl phthalate	20 U	19.9 U	19.9 U	20 U
Dimethyl phthalate	5.0 U	5.0 U	5.0 U	5.0 U
Hexachlorobenzene	5.0 U	5.0 U	5.0 U	5.0 U
Hexachlorobutadiene (Hexachloro-1,3-butadiene)	5.0 U	5.0 U	5.0 U	5.0 U
n-Nitrosodiphenylamine	5.0 U	5.0 U	5.0 U	5.0 U
Pentachlorophenol	49.9 UJ	49.9 UJ	49.9 UJ	49.7 UJ
Phenol	4.1 J	5.0 U	3.7 J	7.5
Polycyclic Aromatic Hydrocarbons (mg/kg-OC)				
1-Methylnaphthalene	3.98 U	--	--	--
2-Methylnaphthalene	3.98 U	--	--	--
Acenaphthene	3.98 U	--	--	--
Acenaphthylene	3.98 UJ	--	--	--
Anthracene	3.98 U	--	--	--
Benzo(a)anthracene	2.22 J	--	--	--
Benzo(a)pyrene	3.16 J	--	--	--
Benzo(b,j,k)fluoranthenes	10.4	--	--	--
Benzo(g,h,i)perylene	3.98 UJ	--	--	--
Carbazole	3.98 U	--	--	--
Chrysene	3.44 J	--	--	--
Dibenzo(a,h)anthracene	0.62 J	--	--	--
Dibenzofuran	3.98 U	--	--	--
Fluoranthene	4.06	--	--	--
Fluorene	3.98 U	--	--	--
Indeno(1,2,3-c,d)pyrene	3.98 UJ	--	--	--
Naphthalene	3.98 U	--	--	--
Phenanthrene	3.06 J	--	--	--
Pyrene	5.24	--	--	--
Total Benzofluoranthenes (b,j,k) (U = 0 max limit)	10.4	--	--	--
Polycyclic Aromatic Hydrocarbons (µg/kg)				

Table 3
Sediment Core Z-Sample Analytical Results Compared to SMS Criteria

Chemical	MB-SC02		MB-SC03	
	MB-SC02-Z1-2024-08-13 8/13/2024 2.4to- 3.4 ft -49.0 to -50.0 ft MLLW	MB-SC02-Z2-2024-08-13 8/13/2024 3.4 to 5.4 ft -50.0 to -52.0 ft MLLW	MB-SC03-Z1-2024-08-13 8/13/2024 6.7 to 7.7 ft -49.0 to -50.0 ft MLLW	MB-SC03-Z2-2024-08-13 8/13/2024 7.7 to 9.7 ft -50.0 to -52.0 ft MLLW
1-Methylnaphthalene	19.9 U	20.0 U	20.0 U	19.9 U
2-Methylnaphthalene	19.9 U	20.0 U	20.0 U	19.9 U
Acenaphthene	19.9 U	20.0 U	20.0 U	19.9 U
Acenaphthylene	19.9 UJ	20.0 UJ	20.0 UJ	19.9 UJ
Anthracene	19.9 U	20.0 U	20.0 U	21.8
Benzo(a)anthracene	11.1 J	20.0 U	20.0 U	40.5
Benzo(a)pyrene	15.8 J	20.0 U	20.0 U	89.4
Benzo(b,j,k)fluoranthenes	52.1	39.9 U	39.9 U	264
Benzo(g,h,i)perylene	19.9 UJ	20.0 UJ	20.0 UJ	20.2 J
Carbazole	19.9 U	20.0 U	20.0 U	19.9 U
Chrysene	17.2 J	20.0 U	20.0 U	67.3
Dibenzo(a,h)anthracene	3.1 J	5.0 U	5.0 U	12.6 J
Dibenzofuran	19.9 U	20.0 U	20.0 U	19.9 U
Fluoranthene	20.3	20.0 U	20.0 U	58.5
Fluorene	19.9 U	20.0 U	20.0 U	19.9 U
Indeno(1,2,3-c,d)pyrene	19.9 UJ	20.0 UJ	20.0 UJ	21.3 J
Naphthalene	19.9 U	20.0 U	20.0 U	19.9 U
Phenanthrene	15.3 J	20.0 U	20.0 U	39.4
Pyrene	26.2	20.0 U	20.0 U	272
Total Benzofluoranthenes (b,j,k) (U = 0 max limit)	52.1	39.9 U	39.9 U	264
Total HPAH (DMMP) (U = 0 max limit)	150 J	39.9 UJ	39.9 UJ	846 J
Total LPAH (DMMP) (U = 0 max limit)	15.3 J	20.0 UJ	20.0 UJ	61.2 J
Pesticides (mg/kg-OC)				
2,4'-DDD (o,p'-DDD)	0.200 U	--	--	--
2,4'-DDE (o,p'-DDE)	0.200 U	--	--	--
2,4'-DDT (o,p'-DDT)	0.200 U	--	--	--
4,4'-DDD (p,p'-DDD)	0.16 J	--	--	--
4,4'-DDE (p,p'-DDE)	0.200 U	--	--	--
4,4'-DDT (p,p'-DDT)	0.200 U	--	--	--
Aldrin	0.10 U	--	--	--
Chlordane, alpha- (Chlordane, cis-)	0.10 U	--	--	--
Chlordane, beta- (Chlordane, trans-)	0.10 U	--	--	--
Dieldrin	0.200 U	--	--	--
Endrin ketone	0.200 U	--	--	--
Heptachlor	0.10 U	--	--	--
Hexachlorocyclohexane (BHC), beta-	0.10 U	--	--	--
Nonachlor, cis-	0.200 U	--	--	--
Nonachlor, trans-	0.200 U	--	--	--

Table 3
Sediment Core Z-Sample Analytical Results Compared to SMS Criteria

Chemical	MB-SC02		MB-SC03	
	MB-SC02-Z1-2024-08-13 8/13/2024 2.4to- 3.4 ft -49.0 to -50.0 ft MLLW	MB-SC02-Z2-2024-08-13 8/13/2024 3.4 to 5.4 ft -50.0 to -52.0 ft MLLW	MB-SC03-Z1-2024-08-13 8/13/2024 6.7 to 7.7 ft -49.0 to -50.0 ft MLLW	MB-SC03-Z2-2024-08-13 8/13/2024 7.7 to 9.7 ft -50.0 to -52.0 ft MLLW
Oxychlorane	0.200 U	--	--	--
Pesticides (µg/kg)				
2,4'-DDD (o,p'-DDD)	1.00 U	1.00 U	1.00 U	1.00 U
2,4'-DDE (o,p'-DDE)	1.00 U	1.00 U	1.00 U	1.00 U
2,4'-DDT (o,p'-DDT)	1.00 U	1.00 U	1.00 U	1.00 U
4,4'-DDD (p,p'-DDD)	0.82 J	1.00 U	1.00 U	1.00 U
4,4'-DDE (p,p'-DDE)	1.00 U	1.00 U	1.00 U	1.00 U
4,4'-DDT (p,p'-DDT)	1.00 U	1.00 U	1.00 U	1.00 U
Aldrin	0.50 U	0.50 U	0.50 U	0.50 U
Chlordane, alpha- (Chlordane, cis-)	0.50 U	0.50 U	0.50 U	0.50 U
Chlordane, beta- (Chlordane, trans-)	0.50 U	0.50 U	0.50 U	0.50 U
Dieldrin	1.00 U	1.00 U	1.00 U	1.00 U
Endrin ketone	1.00 U	1.00 U	1.00 U	1.00 U
Heptachlor	0.50 U	0.50 U	0.50 U	0.50 U
Hexachlorocyclohexane (BHC), beta-	0.50 U	0.50 U	0.50 U	0.50 U
Nonachlor, cis-	1.00 U	1.00 U	1.00 U	1.00 U
Nonachlor, trans-	1.00 U	1.00 U	1.00 U	1.00 U
Oxychlorane	1.00 U	1.00 U	1.00 U	1.00 U
Dioxin Furans (ng/kg)				
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3570	112	506	921
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	67.6	0.925 J	15	10.5 J
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	268	11.7 J	41.9	71.5
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	42.4	1.02 J	7	10.2
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	3.23 J	1.05 U	1.74 U	2.14 U
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	2.26	0.898 U	1.40 U	1.31 U
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	11.6	0.633 U	1.9	2.07
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	10.6 J	0.931 U	1.49	2.18
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	4.19	0.558 U	0.775 U	0.981 U
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	7.26	0.995 U	1.51 U	1.36 U
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	2.42	1.02 U	1.01 U	1.69 U
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	1.64 J	0.890 U	1.01 U	1.04 U
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	5.7	0.511 U	0.752 U	0.862 U
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	2.63	0.668 U	0.718 U	1.05 U
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	2.54	0.526 U	0.752 U	0.907 U
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	0.630 U	0.732 U	0.669 U	0.973 U
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	2.79	0.754 U	1.02 U	1.24 U
Total Heptachlorodibenzo-p-dioxin (HpCDD)	564	12.4	88.6	148
Total Heptachlorodibenzofuran (HpCDF)	140	0 U	29.8	10.2


Table 3
Sediment Core Z-Sample Analytical Results Compared to SMS Criteria


Chemical	MB-SC02		MB-SC03	
	MB-SC02-Z1-2024-08-13 8/13/2024 2.4to- 3.4 ft -49.0 to -50.0 ft MLLW	MB-SC02-Z2-2024-08-13 8/13/2024 3.4 to 5.4 ft -50.0 to -52.0 ft MLLW	MB-SC03-Z1-2024-08-13 8/13/2024 6.7 to 7.7 ft -49.0 to -50.0 ft MLLW	MB-SC03-Z2-2024-08-13 8/13/2024 7.7 to 9.7 ft -50.0 to -52.0 ft MLLW
Total Hexachlorodibenzo-p-dioxin (HxCDD)	91.1	0 U	6.62	7.88
Total Hexachlorodibenzofuran (HxCDF)	94.6	1.46	13	27.1
Total Pentachlorodibenzo-p-dioxin (PeCDD)	1.35	0 U	0 U	0 U
Total Pentachlorodibenzofuran (PeCDF)	22.3	0 U	2.9	2.29
Total Tetrachlorodibenzo-p-dioxin (TCDD)	3.16	0 U	6.52	7.89
Total Tetrachlorodibenzofuran (TCDF)	2.79	0 U	0 U	0 U
Total Dioxin/Furan TEQ 2005 (Mammal) (U = 0 max limit)	11.2 J	0.161 J	0.984	1.52 J
Dioxin Furans (ng/kg-OC)				
Total Dioxin/Furan TEQ 2005 (Mammal) (U = 0 max limit)	2240 J	--	--	--
PCB Aroclors (mg/kg-OC)				
Aroclor 1016	0.80 U	--	--	--
Aroclor 1221	0.80 U	--	--	--
Aroclor 1232	0.80 U	--	--	--
Aroclor 1242	0.80 U	--	--	--
Aroclor 1248	1.7 J	--	--	--
Aroclor 1254	1.8 J	--	--	--
Aroclor 1260	1.2 J	--	--	--
Total DMMP PCB Aroclors (U = 0 max limit)	4.7 J	--	--	--
PCB Aroclors (µg/kg)				
Aroclor 1016	4.0 U	4.0 U	4.0 U	4.0 U
Aroclor 1221	4.0 U	4.0 U	4.0 U	4.0 U
Aroclor 1232	4.0 U	4.0 U	4.0 U	4.0 U
Aroclor 1242	4.0 U	4.0 U	4.0 U	4.0 U
Aroclor 1248	8.5 J	7.9	4.5	4.0 U
Aroclor 1254	9.2 J	9.5	4.3	4.0 U
Aroclor 1260	6.0 J	7.4 J	3.8 J	4.0 UJ
Total DMMP PCB Aroclors (U = 0 max limit)	24 J	25 J	13 J	4.0 UJ

Table 3
Sediment Core Z-Sample Analytical Results Compared to SMS Criteria


Notes:


TOC in range (0.5% - 3.5%)

 Detected concentration is greater than SMS_Marine_SCO_SCUMII_2019V10 screening level

 Detected concentration is greater than SMS_Marine_CSL_SCUMII_2019V10 screening level

TOC out of range

 Detected concentration is greater than AET_Marine_SCO_SCUMII_2019V10 screening level

 Detected concentration is greater than AET_Marine_CSL_SCUMII_2019V10 screening level

Bold: Detected result

Calculated values have been rounded to laboratory-reported significant digits.

Organic Carbon Normalized results are not reported if TOC concentration of the sample is outside of 0.5% to 3.5%.

J: Estimated value

U: Compound analyzed for, but not detected above detection limit

UJ: Compound analyzed for, but not detected above estimated detection limit

--: not applicable/no data

CSL: cleanup screening level

DMMP: Dredged Material Management Program

D/F: dioxins/furans

ft: foot

MLLW: mean lower low water

ng/kg: nanogram per kilogram

OC: organic carbon

PCB: polychlorinated biphenyl

pct: percent

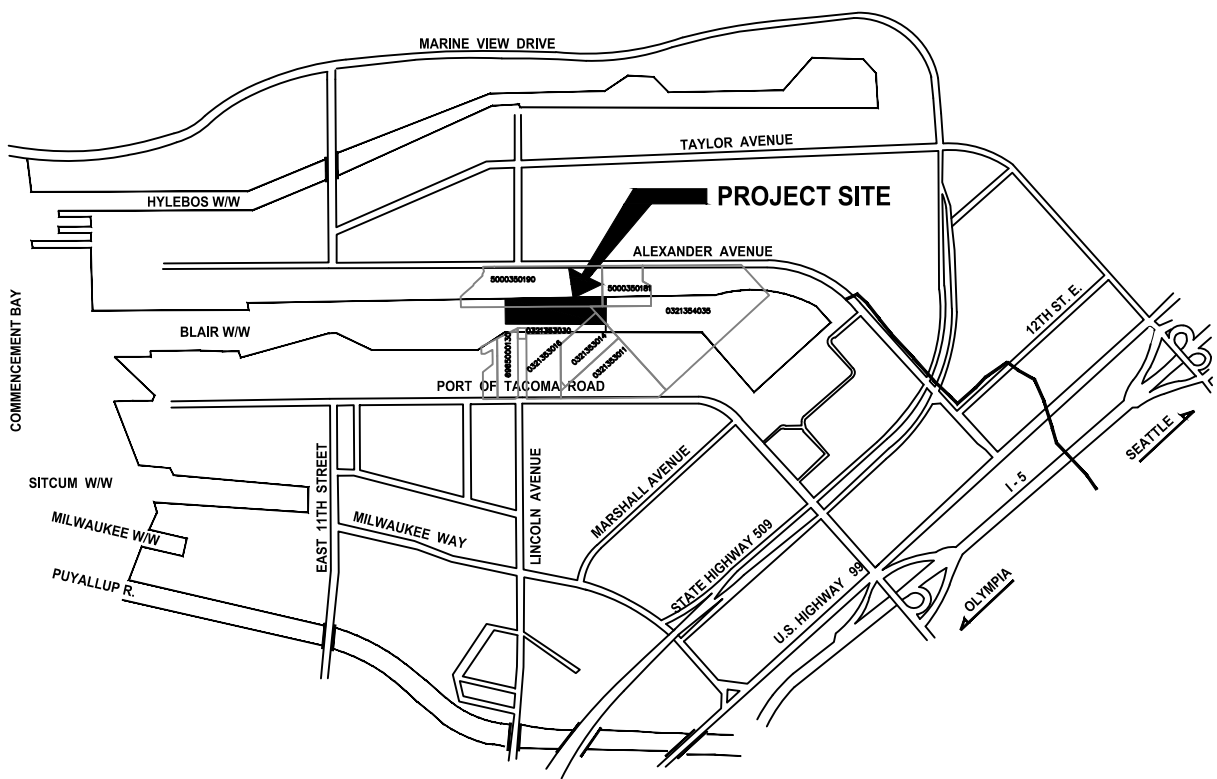
SCO: sediment cleanup objective

SMS: Sediment Management Standards

TEF: toxic equivalence factor

TOC: total organic carbon

Figures



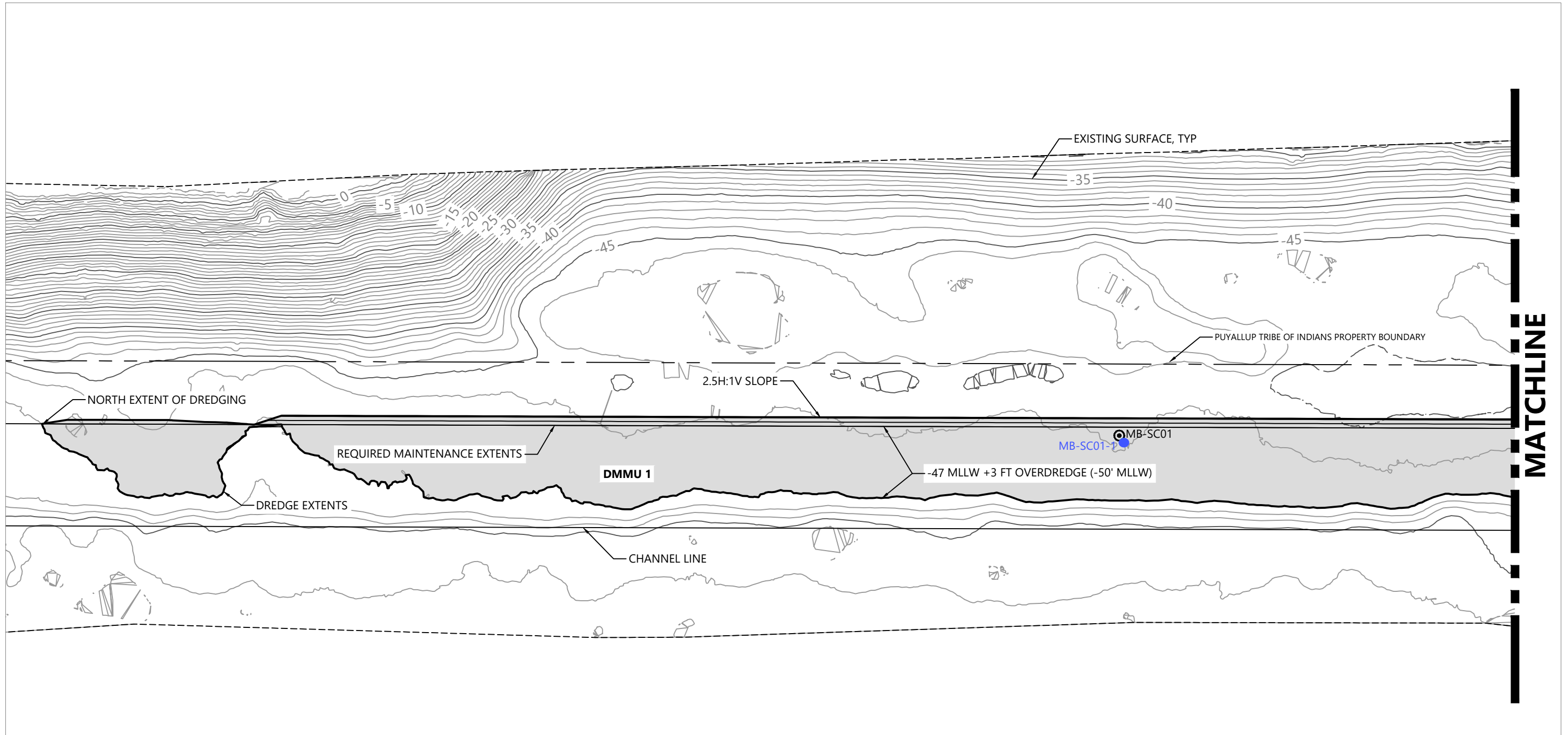
SOURCE: Base file provided by WSP USA, Inc.



Publish Date: 2024/07/12 9:00 AM | User: tgriga
 Filepath: K:\Projects\0092 - Port of Tacoma\Middle Blair Waterway Initial Safety Improvements SAP\0092-RP-001 (Vicinity Map).dwg Figure 1



Figure 1
Project Site and Vicinity
 Sediment Characterization Report
 Middle Blair Waterway Navigation Safety Improvement Project



SOURCE: WSP USA INC., June 2024.




HORIZONTAL DATUM: Washington State Plane South Zone, NAD83, U.S. Survey Feet

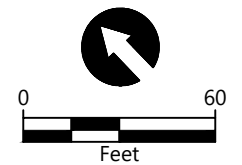
VERTICAL DATUM: MLLW

NOTES:

1. Design Dredge Depth = -47 Feet MLLW
2. Overdredge Allowance = 3 Feet Maximum (-47 to -50 Feet MLLW)
3. Z-layers depths include Z1 (1 foot) at -49 to -50 Feet MLLW and Z2 (2 feet) at -50 to -52 Feet MLLW.
4. If the lower Z-layer (Z2) from -50 to -52 Feet MLLW exceeds anti-degradation criteria, the Port will place 1 foot of sand cover.
5. DMMU: Dredge Material Management Unit
6. MLLW: Mean Lower Low Water

LEGEND:

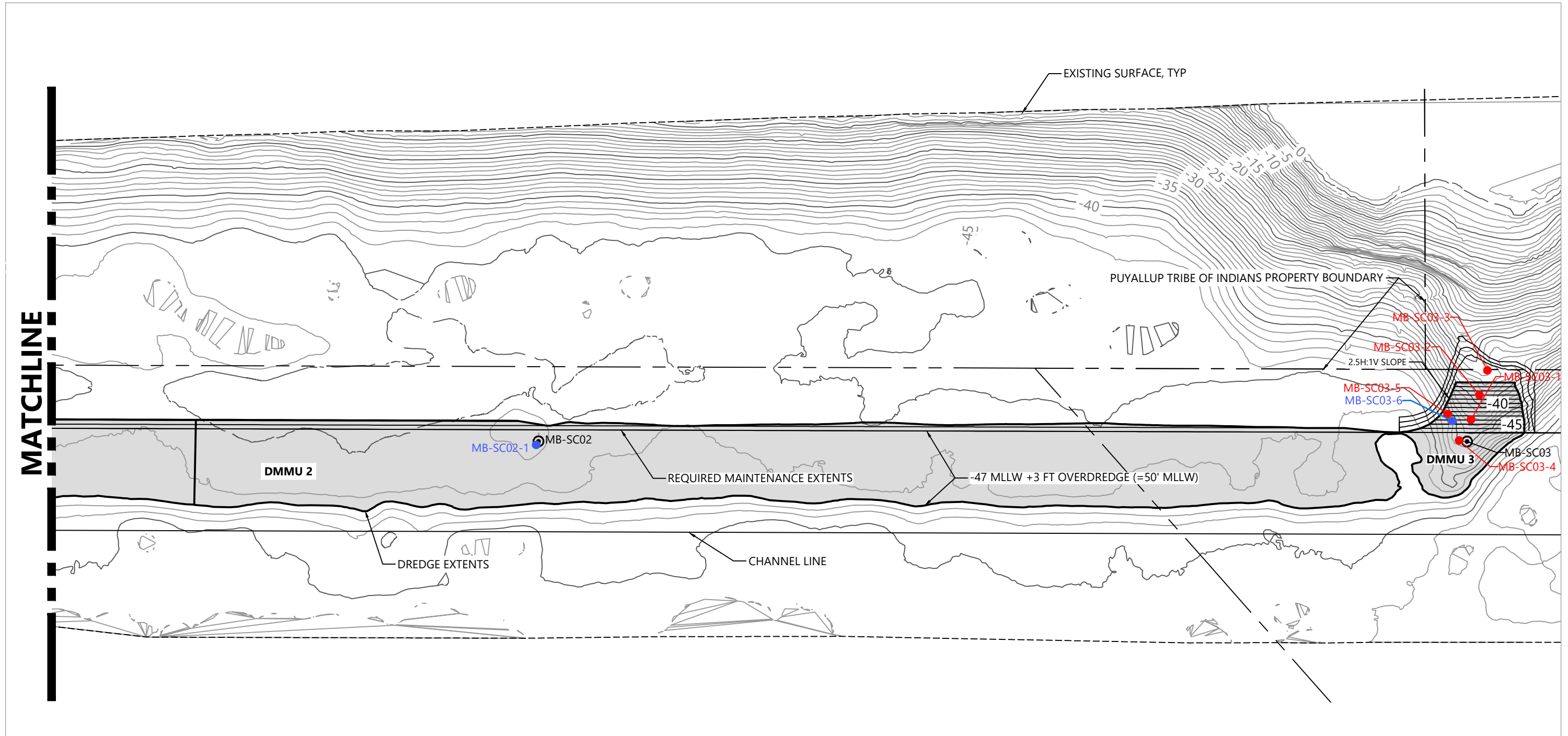
-  Proposed Sediment Core Locations
-  Actual Accepted Sediment Core Locations
-  Actual Rejected Sediment Core Locations



Publish Date: 2024/08/21 9:35 AM | User: tgriga
 Filepath: K:\Projects\0092 - Port of Tacoma\Middle Blair Waterway Initial Safety Improvements SAP\0092-RP-004 Sampling Actuals.dwg Figure 1a



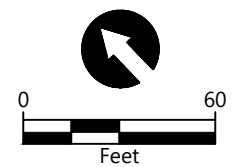
Figure 2a
Proposed and Actual Sampling Locations: Northern Bench



SOURCE: WSP USA INC., June 2024.
HORIZONTAL DATUM: Washington State Plane South Zone, NAD83, U.S. Survey Feet
VERTICAL DATUM: MLLW

- NOTES:**
1. Design Dredge Depth = -47 Feet MLLW
 2. Overdredge Allowance = 3 Feet Maximum (-47 to -50 Feet MLLW)
 3. Location MB-SC03 may be relocated landward in the field in order to obtain acceptable penetration and recovery.
 4. DMMU: Dredge Material Management Unit
 5. MLLW: Mean Lower Low Water

- LEGEND:**
- ⊙ Proposed Sediment Core Locations
 - Actual Accepted Sediment Core Locations
 - Actual Rejected Sediment Core Locations



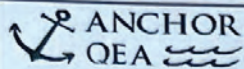
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Figure 2b
Proposed and Actual Sampling Locations: Southern Bench and Knuckle

Appendix A

Field Forms and Core Photographs



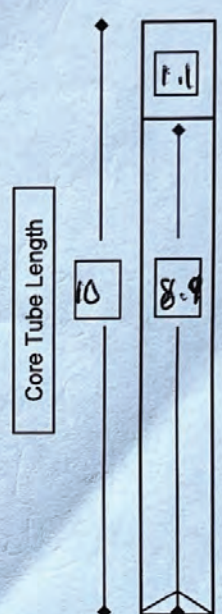
Sediment Core Collection Log

Job: Blairwaterway Deepening Program Station ID: MB-SC01
 Job No: 240092-03.04.05^{ARJ} Attempt No. 1
 Field Staff: AR, NB, CW, SN Date: 8/13/24
 Contractor: Gravity Logged By: Arno Riolo
 Vertical Datum: MLLW Horizontal Datum: NAD83 WA State Plane North, feet

Field Collection Coordinates:
 Lat/Northing: 710034.91 Long/Easting: 1171118.98

A. Water Depth DTM Depth Sounder: _____ DTM Lead Line: 52.0
B. Water Level Measurements Time: 9:54 Height: 5.97' MLLW Source: 1446484 NEAA Gauge #
C. Mudline Elevation -46.03' MLLW
 Recovery Measurements (prior to cuts)

Core Collection Recovery Details:
 Core Accepted: Yes / No
 Core Tube Length: 10' feet
 Drive Penetration: 9' feet
 Headspace Measurement: 1.1' feet
 Recovery Measurement: 8.9' feet
 Recovery Percentage: 98%
 Total Length of Core To Process: 8.9' Feet



Sections To Process:
 A: 0 - 8.9
 B: _____
 C: _____
 D: _____

Drive Notes:
 Easy Drive to 9'.

Core Field Observations and Description: Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

~~AR~~

Notes:
~~AR~~



Sediment Core Collection Log

Job: Blair water way Deepening
 Job No: 240092-03.04 05^{AR}
 Field Staff: AR, NB, CW, SN
 Contractor: Gravity
 Vertical Datum: MLLW

Station ID: MB-5C02
 Attempt No. 1
 Date: 8/13/24
 Logged By: Arno Rolo
 Horizontal Datum: NAD83 WA State Plane North, feet

Field Collection Coordinates:
 Lat/Northing: 709670.15

Long/Easting: 1171495.34

A. Water Depth
 DTM Depth Sounder:
 DTM Lead Line: 55.4' feet

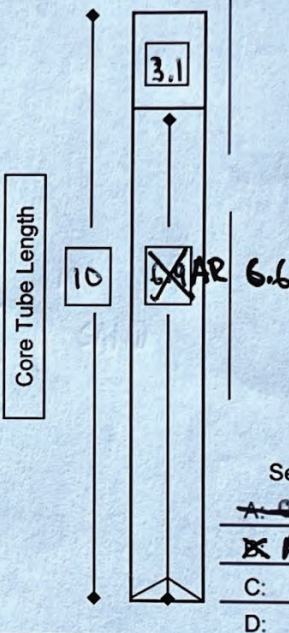
B. Water Level Measurements
 Time: 12:06
 Height: 8.77' Feet
 Source: MLLW

C. Mudline Elevation
 -46.63' feet

Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

Core Accepted: Yes / No
 Core Tube Length: 10' feet
 Drive Penetration: 8' feet
 Headspace Measurement: 3.1' feet
 Recovery Measurement: ~~6.6~~ ^{AR} adjust aft of spudline sleeve
 Recovery Percentage: 86%
 Total Length of Core To Process: 6.6' feet



Drive Notes:

Easy drive to 7.5', hard drive to 8'
 Refusal at 8'

Sections To Process:

~~A: 0-3.1~~
~~B: 3.1-6.6~~
~~C: 6.6-7.2~~
~~D: 7.2-7.8~~
 AR: 0-6.6
 C:
 D:

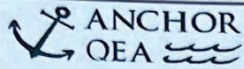
Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

AR

Notes:

AR



Sediment Core Collection Log

Job: Blair Waterway Deepening
 Job No: 240092-03.04-05 AR
 Field Staff: AR, NB, CW, SN
 Contractor: Gravity
 Vertical Datum: MLLW

Station ID: MB-503
 Attempt No. 1
 Date: 8/13/24
 Logged By: Arno Riolo
 Horizontal Datum: NAD83 WA State Plane North, feet

Field Collection Coordinates:
 Lat/Northing: ~~1171908.42~~ 709293.34 Long/Easting: ~~709293.34~~ 1171908.42

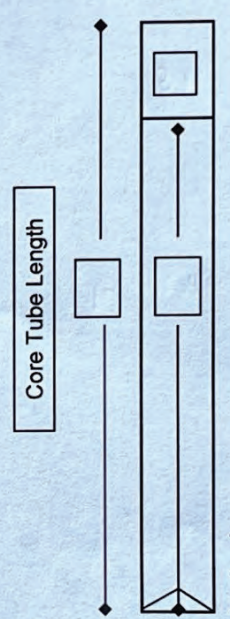
A. Water Depth
 DTM Depth Sounder: _____
 DTM Lead Line: 46.9' Feet

B. Water Level Measurements
 Time: AR not recorded
 Height: not recorded
 Source: MLLW

C. Mudline Elevation AR
not recorded

Recovery Measurements (prior to cuts)

Core Collection Recovery Details:
 Core Accepted: Yes / No
 Core Tube Length: _____
 Drive Penetration: _____
 Headspace Measurement: AR
 Recovery Measurement: _____
 Recovery Percentage: _____
 Total Length of Core To Process: _____



Sections To Process:

A: _____
 B: AR
 C: _____
 D: _____

Drive Notes:
Shallow refusal, core tube damaged

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

AR

Notes:

No material recovered, core rejected.



Sediment Core Collection Log

Job: Blair waterway Deepening
 Job No: 240092-03, 04, 05 AR
 Field Staff: AR, NB, CW, SN
 Contractor: Gravity
 Vertical Datum: MLLW

Station ID: MB-JC03
 Attempt No. 2
 Date: 8/13/24
 Logged By: Arul Rolo
 Horizontal Datum: NAD83 WA State Plane North, feet

Field Collection Coordinates:
 Lat/Northing: 709300.50

Long/Easting: W7922.28

A. Water Depth
 DTM Depth Sounder: _____
 DTM Lead Line: 44.1

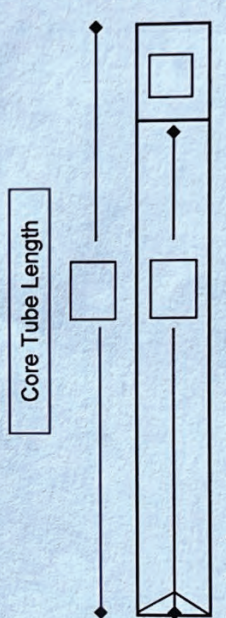
B. Water Level Measurements
 Time: 2:24^{AR} 1424
 Height: 9.31 Feet
 Source: MLLW

C. Mudline Elevation
-34.8

Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

Core Accepted: Yes / No
 Core Tube Length: _____
 Drive Penetration: _____
 Headspace Measurement: AR
 Recovery Measurement: _____
 Recovery Percentage: _____
 Total Length of Core To Process: _____



Sections To Process:

A: _____
 B: AR
 C: _____
 D: _____

Drive Notes: Shallow refusal, No recovery

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

AR

Notes:

Core rejected.



Sediment Core Collection Log

Job: Blair Waterway Deepening
 Job No: 240092-03.0485
 Field Staff: AR, NB, CW, SW
 Contractor: Gravity
 Vertical Datum: MLW

Station ID: MB-8C03
 Attempt No. 3
 Date: 8/3/24
 Logged By: Arno R. Jolo
 Horizontal Datum: NAD83 WA State Plane North, feet

Field Collection Coordinates:
 Lat/Northing: 709307.74

Long/Easting: 1171935.89

A. Water Depth
 DTM Depth Sounder: _____
 DTM Lead Line: 40.9

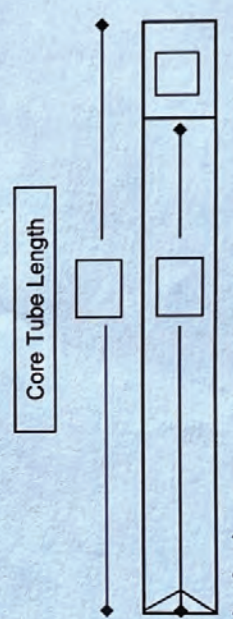
B. Water Level Measurements
 Time: 1436
 Height: 9.29
 Source: MLW

C. Mudline Elevation
-31.6

Recovery Measurements (prior to cuts)

Core Collection Recovery Details:
 Core Accepted: Yes / NO
 Core Tube Length: 20' Feet
 Drive Penetration: _____
 Headspace Measurement: _____
 Recovery Measurement: _____ AR
 Recovery Percentage: _____
 Total Length of Core To Process: _____

Drive Notes: shallow refusal, no recovery



Sections To Process:
 A: _____
 B: _____ AR
 C: _____
 D: _____

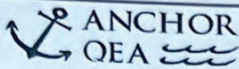
Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

AR

Notes:

Core Rejected



Sediment Core Collection Log

Job: Blair Waterway Deepening
 Job No: 240092-03, 04, 05 AR
 Field Staff: AR, NB, CW, SN
 Contractor: Gravity
 Vertical Datum: MLLW

Station ID: MB-SC03
 Attempt No. 4
 Date: 8/13/24
 Logged By: Arno Riolo
 Horizontal Datum: NAD83 WA State Plane North, feet

Field Collection Coordinates:
 Lat/Northing: 709289.26

Long/Easting: 1171894.60

A. Water Depth

DTM Depth Sounder:
 DTM Lead Line: 52.0 feet

B. Water Level Measurements

Time: 15:15
 Height: 9.23 feet
 Source: MLW

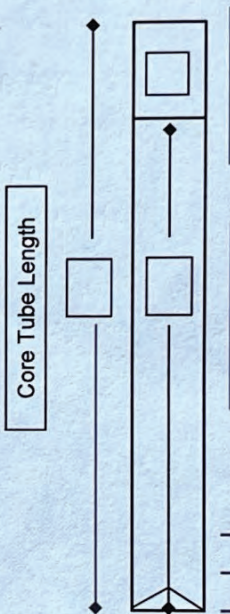
C. Mudline Elevation

-42.8

Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

Core Accepted: Yes / No
 Core Tube Length:
 Drive Penetration:
 Headspace Measurement:
 Recovery Measurement: AR
 Recovery Percentage:
 Total Length of Core To Process:



Sections To Process:

A:
 B: AR
 C:
 D:

Drive Notes:
Shallow refusal, No recovery

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

AR

Notes:

Core rejected



Sediment Core Collection Log

Job: Blair Waterway Deepening
 Job No: 240092-03.05 AR
 Field Staff: AR, NB, CW, SN
 Contractor: Gravity
 Vertical Datum: MLLW

Station ID: MB-SC03
 Attempt No. 5
 Date: 8/13/24
 Logged By: Arno Riolo
 Horizontal Datum: NAD83 WA State Plane North, feet

Field Collection Coordinates:

Lat/Northing: 709309.46

Long/Easting: 1171900.57

A. Water Depth

DTM Depth Sounder: _____

DTM Lead Line: 51.2

B. Water Level Measurements

Time: 1512

Height: 9.14

Source: MLLW

C. Mudline Elevation

-42.1

Recovery Measurements (prior to cuts)

Core Collection Recovery Details:

Core Accepted: Yes / No

Core Tube Length: _____

Drive Penetration: _____

Headspace Measurement: _____

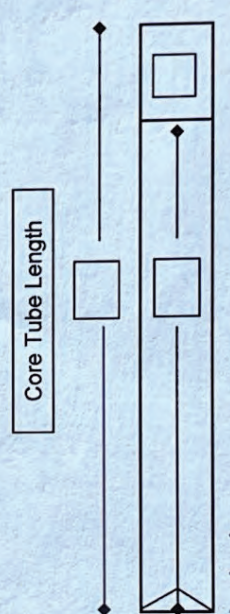
Recovery Measurement: _____

Recovery Percentage: _____

Total Length of Core To Process: _____

Drive Notes:

Moderate drive to 7' feet, Hard drive to 12' feet
Refusal at 12' feet,



Sections To Process:

A: _____
 B: AR
 C: _____
 D: _____

Core Field Observations and Description:

Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

AR

Notes:

all material slipped out of core as it was being recovered,
Core Rejected.



Sediment Core Collection Log

Job: Blair Waterway Deepening
 Job No: 240092-03.0405 AR
 Field Staff: AR, NB, CW, SN
 Contractor: Gravity
 Vertical Datum: MLLW

Station ID: MB-SC03
 Attempt No. 6
 Date: 8/13/24
 Logged By: Arne Riolo
 Horizontal Datum: NAD83 WA State Plane North, feet

Field Collection Coordinates:
 Lat/Northing: 709300.58

Long/Easting: 1171899.67

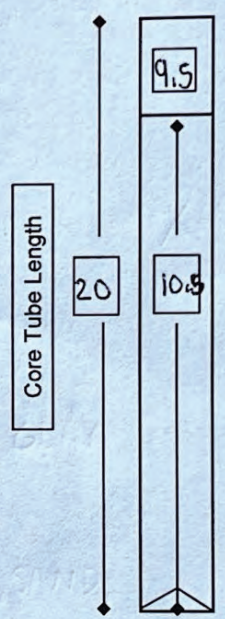
A. Water Depth
 DTM Depth Sounder:
 DTM Lead Line: 51.3

B. Water Level Measurements
 Time: 1542
 Height: 8.97
 Source: MLLC

C. Mudline Elevation
 -42.3

Recovery Measurements (prior to cuts)

Core Collection Recovery Details:
 Core Accepted: Yes / No
 Core Tube Length: 20 Feet
 Drive Penetration: 13 Feet
 Headspace Measurement: ~~10.2~~ AR 9.5 Feet
 Recovery Measurement: 10.5 Feet
 Recovery Percentage: 60%
 Total Length of Core To Process: 10.5



Sections To Process:
 A: 0 - 10.5
 B:
 C:
 D:

Drive Notes:
 Hard to 6' Feet, Really hard but pushed through. Refusal at 13' Feet

Core Field Observations and Description: Sediment type, moisture, color, minor modifier, MAJOR modifier, other constituents, odor, sheen, layering, anoxic layer, debris, plant matter, shells, biota

(This section is crossed out with a large diagonal line and contains the handwritten text 'AR')

Notes:

Daily Safety Briefing Form



Date: 8/13/24
 Project No: 240692-03.015
 Project Name: Blair waterway Deepening Program
Middle Blair

Submit a
 Playing It
 Safe Event

Person Conducting Meeting: Sasha Norman Health & Safety Officer: Tim Strayer Project Manager: Christine Simmons

TOPICS COVERED: *Highlighted topics are required*

- | | | |
|---|--|--|
| <input checked="" type="checkbox"/> Emergency Procedures and Evacuation Route | <input type="checkbox"/> Lines of Authority | <input type="checkbox"/> Lifting Techniques |
| <input checked="" type="checkbox"/> Directions to Hospital | <input checked="" type="checkbox"/> Communication | <input checked="" type="checkbox"/> Slips, Trips, and Falls |
| <input checked="" type="checkbox"/> HASP Review and Location | <input type="checkbox"/> Site Security | <input type="checkbox"/> Hazard Exposure Routes |
| <input checked="" type="checkbox"/> Safety Equipment Location | <input type="checkbox"/> Vessel Safety Protocols | <input checked="" type="checkbox"/> Heat and Cold Stress |
| <input type="checkbox"/> Proper Safety Equipment Use | <input checked="" type="checkbox"/> Work Zones | <input checked="" type="checkbox"/> Overhead and Underfoot Hazards |
| <input type="checkbox"/> Employee Right-to-Know/ SDS Location | <input type="checkbox"/> Vehicle Safety and Driving/ Road Conditions | <input type="checkbox"/> Chemical Hazards |
| <input checked="" type="checkbox"/> Fire Extinguisher Location | <input type="checkbox"/> Equipment Safety and Operation | <input type="checkbox"/> Flammable Hazards |
| <input checked="" type="checkbox"/> Eye Wash Station Location | <input checked="" type="checkbox"/> Proper Use of PPE | <input type="checkbox"/> Biological Hazards |
| <input type="checkbox"/> Buddy System | <input type="checkbox"/> Decontamination Procedures | <input type="checkbox"/> Eating/Drinking/Smoking |
| <input type="checkbox"/> Self and Coworker Monitoring | <input type="checkbox"/> Near Miss Reporting Procedures | <input type="checkbox"/> Reviewed Prior Lessons Learned |
| <input type="checkbox"/> Field Team Medical Conditions for Emergency Purposes (Confidential): _____ | | |

Other: _____

Weather Conditions: cloudy, 61°F

Daily Work Scope: Sediment coring

Site-specific Hazards: Slips/Trips/Falls
on boat
pinch ~~boat~~ points
5/13 Aug 24

Safety Comments: _____

Attendees	
Printed Name	Signature
<u>Sasha Norman</u>	<u>[Signature]</u>
<u>Christine Woodward</u>	<u>[Signature]</u>
<u>Arno Riolo</u>	<u>[Signature]</u>
<u>Kyle Sanders</u>	<u>[Signature]</u>
<u>Nik Bacher</u>	<u>[Signature]</u>
<u>René Tuxen</u>	<u>[Signature]</u>
End of Day Wellness Check	

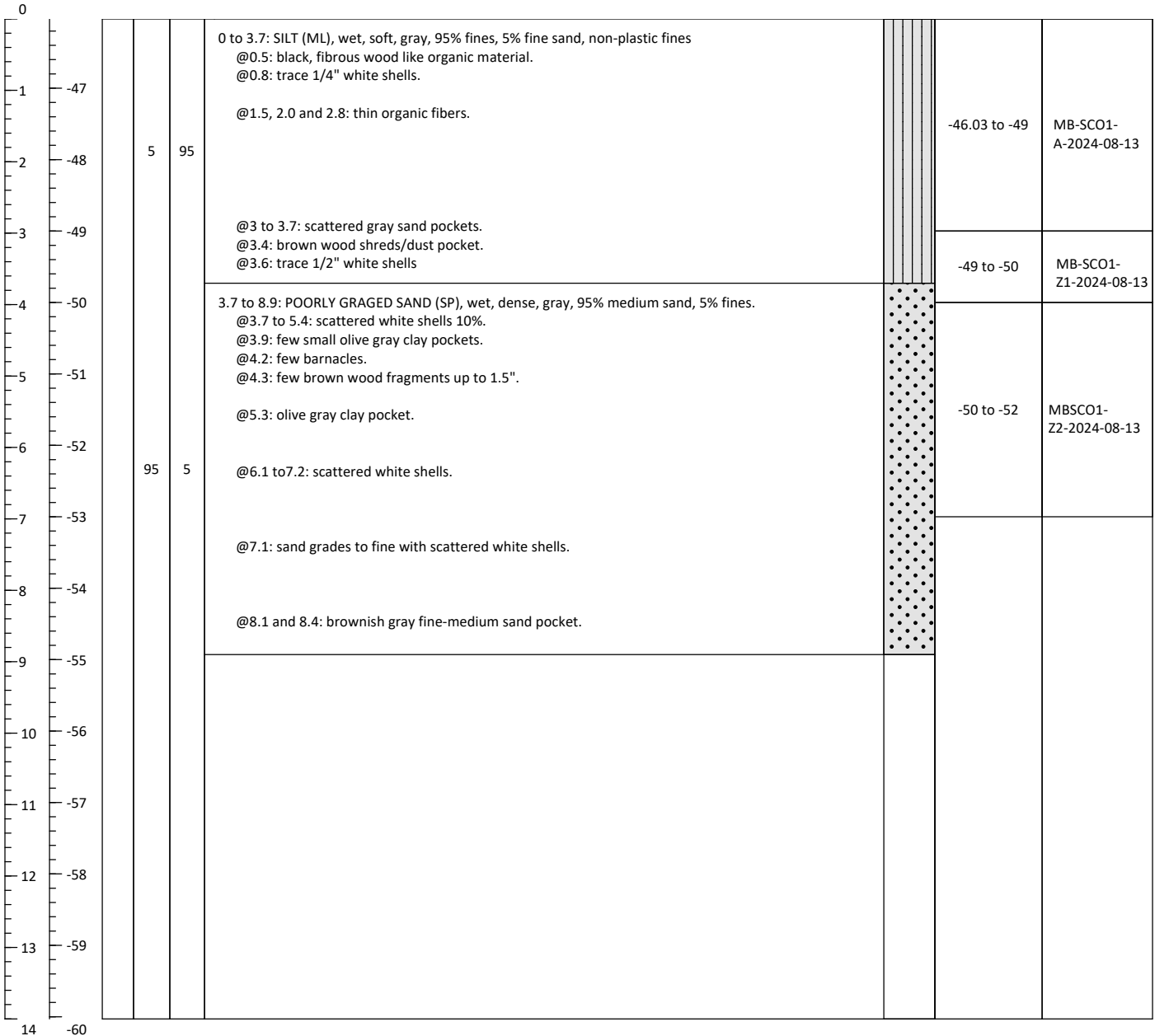
Sediment Core Log

MB-SCO1

Sheet 1 of 1

Project: Blair Waterway Deepening Program	Logged By: Arno Riolo	Latitude: 710034.91 WSP South NAD83 ft
Project #: 240092-03.05	Method/Core Diameter: Vibracore / 4 inches	Longitude: 1171118,98 WSP South NAD83 ft
Client: Port of Tacoma	Drive Length (feet): 9	Mudline Elevation (ft): -46.03
Location: Tacoma, Washington	Recovery Length (feet): 8.9	Vertical Datum: MLLW
Contractor: Gravity	Percent Recovery (%): 98%	Core Collection Date/Time: 3/13/2024 09:45

In-situ Depth (feet)	Elevation (feet MLLW)	% Gravel	% Sand	% Fines	Sediment Description <small>(Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)</small>	Lithology	Sample Depth (feet)	Sample ID
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Sediment Core Log

MB-SCO2

Sheet 1 of 1

Project: Blair Waterway Deepening Program	Logged By: Arno Riolo	Latitude: 709670.15 WSP South NAD83 ft
Project #: 240092-03.05	Method/Core Diameter: Vibracore / 4 inches	Longitude: 1171495.34 WSP South NAD83 ft
Client: Port of Tacoma	Drive Length (feet): 8	Mudline Elevation (ft): -46.63
Location: Tacoma, Washington	Recovery Length (feet): 6.6	Vertical Datum: MLLW
Contractor: Gravity	Percent Recovery (%): 82.5	Core Collection Date/Time: 8/13/2024 12:06

In-situ Depth (feet)	Elevation (feet MLLW)	% Gravel	% Sand	% Fines	Sediment Description <small>(Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)</small>	Lithology	Sample Depth (feet)	Sample ID
----------------------	-----------------------	----------	--------	---------	--	-----------	---------------------	-----------

0								
-47					0 to 3.3: SILT (ML), soft, wet, gray, 95% fines, 5% fine sand, nonplastic. @0.2: brown fibrous organics.		-46.63 to -49	MB-SCO2-A-2024-08-13
-1		5	95		@2.2: black fibrous organics. @2.3: black/bark like organics. @2.4: Fine Sand pocket.		-49 to -50	MB-SCO2-Z1-2024-08-13
-2								
-3								
-4					3.3 to 6.6: POORLY GRADED SAND (SP), wet, medium dense, gray, 95% sand, 5% fines. Multi color grains throughout (red, gray, white). @3.5: gray clay pocket. @3.7 to 3.9: scattered shell fragments. @4.3: wood bark like organics. @4.5 to 5.3: scattered shell fragments.		-50 to -52	MB-SCO2-Z2-2024-08-13
-5		95	5					
-6					@6.3: silt pocket			
-7								
-8								
-9								
-10								
-11								
-12								
-13								
-14								

ANCHOR
OEA
 1201 3rd Avenue Suite 2600
 Seattle, WA 98101
 206-287-9130

Notes:

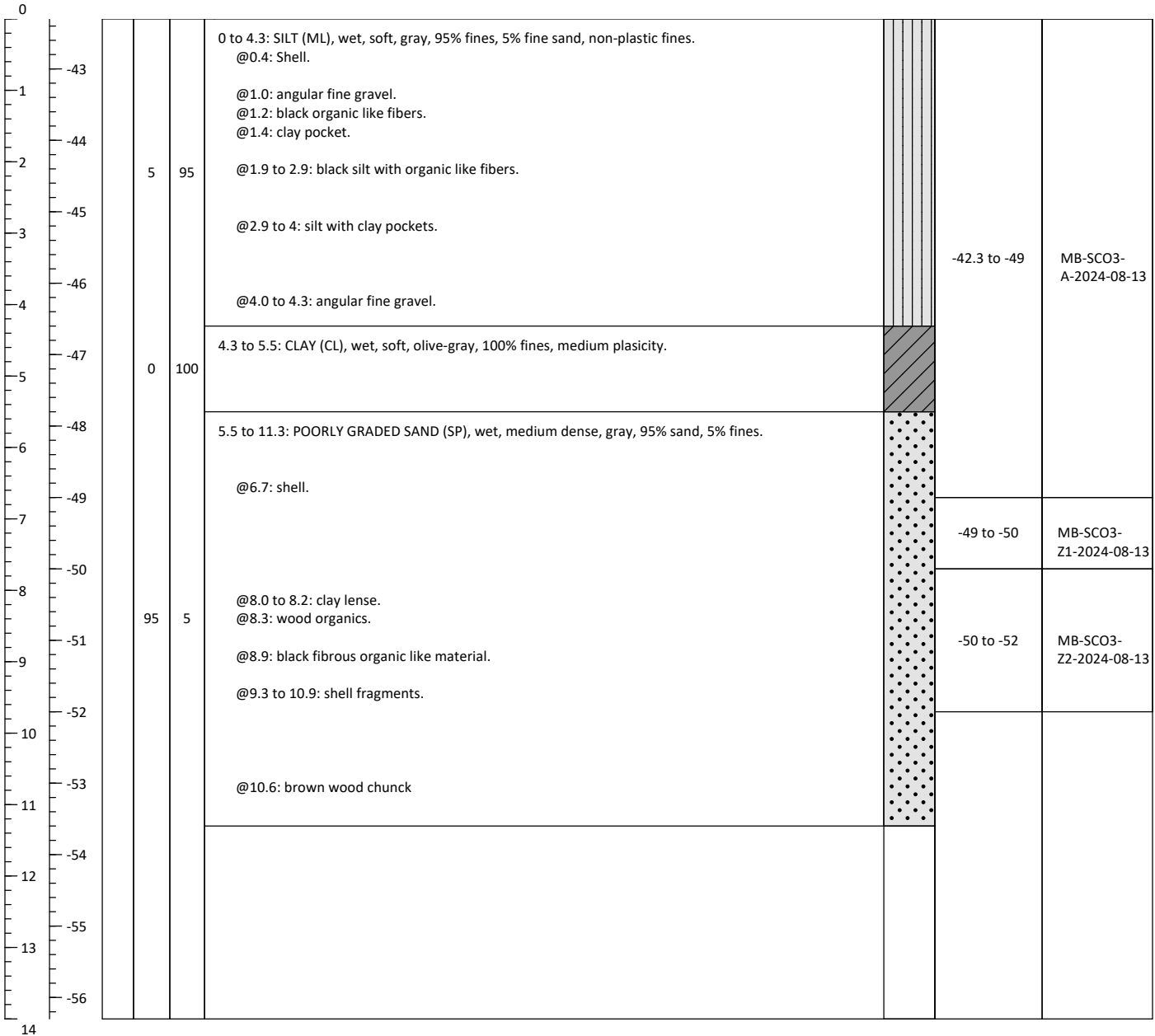
Sediment Core Log

MB-SCO3

Sheet 1 of 1

Project: Blair Waterway Deepening Program	Logged By: Arno Riolo	Latitude: 709300.58 WSP South NAD83 ft
Project #: 240092-03.05	Method/Core Diameter: Vibracore / 4 inches	Longitude: 1171899.67 WSP South NAD83 ft
Client: Port of Tacoma	Drive Length (feet): 13	Mudline Elevation (ft): -42.3
Location: Tacoma, Washington	Recovery Length (feet): 11.3	Vertical Datum: MLLW
Contractor: Gravity	Percent Recovery (%): 86	Core Collection Date/Time: 8/13/2024 15:42

In-situ Depth (feet)	Elevation (feet MLLW)	% Gravel	% Sand	% Fines	Sediment Description <small>(Density, Moisture, Color, Minor Constituent, MAJOR Constituent, with Additional Constituents, Sheen, Odor)</small>	Lithology	Sample Depth (feet)	Sample ID
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Photograph 1
MB-SC01 0 to 1.8 feet



Photograph 2
MB-SC01 0.6 to 2.7 feet



Photograph 3
MB-SC01 1.7 to 3.9 feet



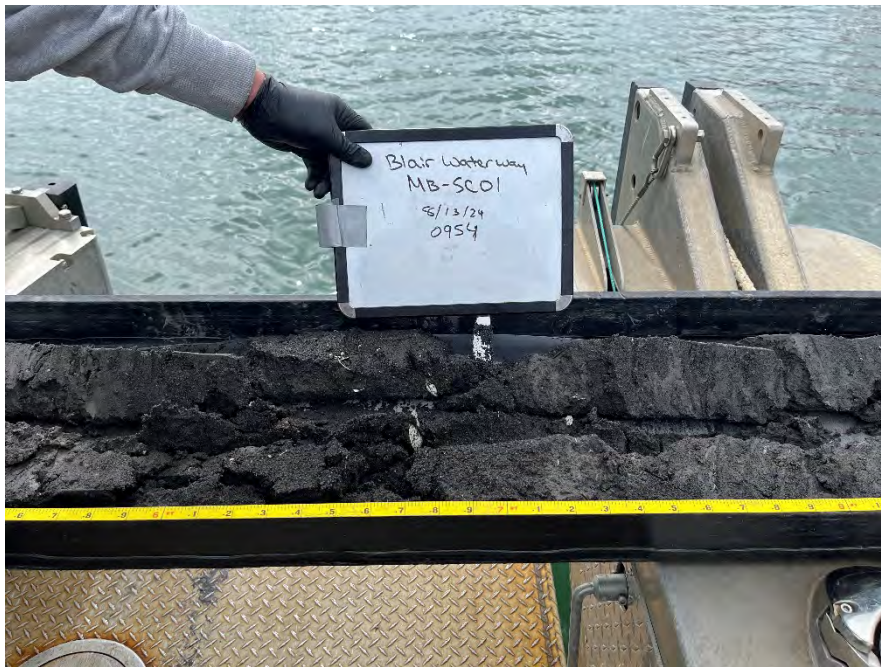
Photograph 4
MB-SC01 3.1 to 5.2 feet



Photograph 5
MB-SC01 4.5 to 6.7 feet



Photograph 6
MB-SC01 5.6 to 8.1 feet



Photograph 7
MB-SC01 6.6 to 8.9 feet



Photograph 8
MB-SC02 0 to 2.1 feet



Photograph 9
MB-SC02 0.5 to 2.8 feet



Photograph 10
MB-SC02 1.5 to 3.6 feet



Photograph 11
MB-SC02 2.5 to 4.5 feet



Photograph 12
MB-SC02 3.4 to 5.4 feet



Photograph 13
MB-SC02 4.5 to 6.6 feet



Photograph 14
MB-SC03 0 to 2.1 feet



Photograph 15
MB-SC03 1.3 to 3.6 feet



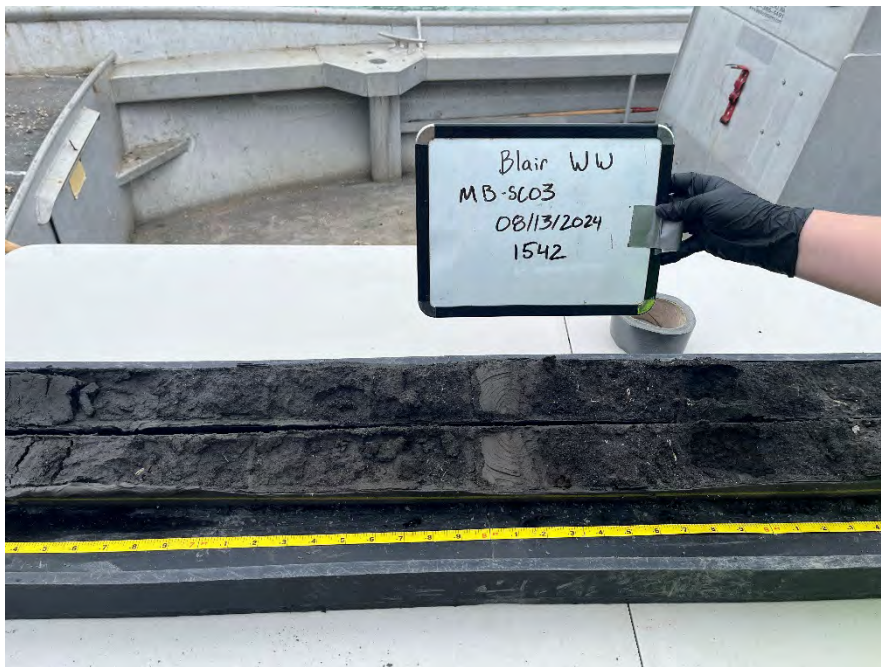
Photograph 16
MB-SC03 3.1 to 5.6 feet



Photograph 17
MB-SC03 4.7 to 7.3 feet



Photograph 18
MB-SC03 6.4 to 9.4 feet



Photograph 19
MB-SC03 7.9 to 11 feet



Photograph 20
MB-SC03 9.2 to 11.3 feet



Appendix B

Laboratory Analytical Report

File included as separate attachment

Appendix C
Data Validation Report

Data Validation Report – EPA Stage 2B

November 1, 2024

Project: Middle Blair Navigation Safety Improvement Project
 Project Number: 201037-01.01
 AQ DVR Number AQ-2024-0146

This report summarizes the review of analytical results for nine sediment samples collected August 13, 2024. The samples were collected by Anchor QEA and submitted to Analytical Resources, LLC (ARL) in Tukwila, Washington. Select samples were analyzed for grain size by AmTest Laboratories in Kirkland, Washington, and Atterberg limits were analyzed by Materials Testing and Consulting, Inc., in Burlington, Washington. The following analytical parameter results were reviewed in this report:

- Semivolatile organic compounds (SVOCs) by U.S. Environmental Protection Agency (USEPA) Methods 8270E and 8270E – select ion monitoring (SIM)
- Polychlorinated biphenyl Aroclors (PCBs) by USEPA Method 8082A
- Chlorinated pesticides by USEPA Method 8081B
- Polychlorinated dibenzo-p-dioxins and polychlorinated dibenzofurans (D/F) by USEPA Method 1613B
- Tributyltin (TBT) by USEPA Method 8270E – SIM
- Metals by USEPA Methods 6020B and 7471B
- Total organic carbon (TOC) by USEPA Method 9060A modified
- Total solids (TS) by Standard Method 2540G
- Grain size (GS) by ASTM International (ASTM) Method D2216
- Atterberg limits (AL) by ASTM Method D4318

ARL sample delivery group number (SDG) 24H0273 was reviewed in this report. Sample IDs, matrices, and analyses are presented in Table 1.

Table 1
Sample IDs, Matrices, and Analyses

Sample ID	Lab Sample ID	Matrix	Analyses
MB-SC01-A-2024-08-13	24H0273-01	Sediment	SVOCs, PCBs, pesticides, D/F, TBT, metals, TOC, TS, GS, AL
MB-SC01-Z1-2024-08-13	24H0273-02	Sediment	SVOCs, PCBs, pesticides, D/F, TBT, metals, TOC, TS
MB-SC01-Z2-2024-08-13	24H0273-03	Sediment	SVOCs, PCBs, pesticides, D/F, TBT, metals, TOC, TS
MB-SC02-A-2024-08-13	24H0273-04	Sediment	SVOCs, PCBs, pesticides, D/F, TBT, metals, TOC, TS, GS, AL
MB-SC02-Z1-2024-08-13	24H0273-05	Sediment	SVOCs, PCBs, pesticides, D/F, TBT, metals, TOC, TS
MB-SC02-Z2-2024-08-13	24H0273-06	Sediment	SVOCs, PCBs, pesticides, D/F, TBT, metals, TOC, TS
MB-SC03-A-2024-08-13	24H0273-07	Sediment	SVOCs, PCBs, pesticides, D/F, TBT, metals, TOC, TS, GS, AL

Sample ID	Lab Sample ID	Matrix	Analyses
MB-SC03-Z1-2024-08-13	24H0273-08	Sediment	SVOCs, PCBs, pesticides, D/F, TBT, metals, TOC, TS
MB-SC03-Z2-2024-08-13	24H0273-09	Sediment	SVOCs, PCBs, pesticides, D/F, TBT, metals, TOC, TS

Data Validation and Qualifications

The following comments refer to the laboratory's performance in meeting the quality assurance/quality control (QA/QC) guidelines outlined in the analytical procedures. Laboratory results were reviewed using the following guidelines:

- Middle Blair Navigation Safety Improvement Project *Sampling and Quality Assurance Project Plan* (Anchor QEA 2024)
- *Test Methods for Evaluating Solid Waste: Physical/Chemical Methods (SW-846)* (USEPA 1986)
- *National Functional Guidelines for Organic Superfund Methods Data Review* (USEPA 2020a)
- *National Functional Guidelines for Inorganic Superfund Methods Data Review* (USEPA 2020b)
- *National Functional Guidelines for High-Resolution Superfund Methods Data Review* (USEPA 2020c)

Unless noted in this report, laboratory results for the samples listed above were within QC criteria.

Field Documentation

Field documentation was checked for completeness and accuracy. The chain-of-custody form was signed by ARL at the time of sample receipt. The samples were received in good condition and within the recommended temperature range.

Sample Preservation and Holding Times

Samples were appropriately preserved and analyzed within holding times.

Laboratory Method Blanks and Calibration Blanks

Laboratory method blanks and calibration blanks were analyzed at the required frequencies. Blanks were free of target analytes with the following exceptions:

- **SVOC Batch BMH0520:** Diethyl phthalate was detected in the method blank at a level between the method detection limit (MDL) and the method reporting limit (MRL). Associated sample results were not greater than ten times the method blank concentration, as required for common laboratory contaminants, and results have been qualified as non-detects.
- **D/F:** OCDD was detected in method blank BMI0060-BLK1. Associated sample results were greater than five times the concentration detected in the blank, so no data were qualified.

- **Metals:** Mercury was detected in the method blank and the initial and continuing calibration blanks at levels between the MDL and the MRL. Associated sample results that were less than five times the concentration detected in the blank have been qualified as non-detects.
- **Conventionals:** TOC was detected between the MDL and MRL in the initial and continuing calibration blanks analyzed in association with this sample set. Results were greater than five times the concentrations detected in the blanks, except for sample MB-SC01-Z2-2024-08-13. This sample result has been qualified as a non-detect.

Field Quality Control

No field quality control samples were collected with this sample set.

Instrument Performance Checks

Instrument performance checks were analyzed at required frequencies. Ion abundance criteria were met for the SVOC analyses. Peak resolution was within ± 0.1 atomic mass units, and the percent relative standard deviation was less than 5% for metals analyses.

Initial Calibrations and Calibration Verifications

All initial calibrations, initial calibration verifications (ICVs), and continuing calibration verifications (CCVs) met method criteria with the following exceptions:

- **SVOCs:**
 - **SMH0270-ICV1:** The percent difference/drift (%D) values for acenaphthylene, indeno(1,2,3-cd)pyrene, and benzo(g,h,i)perylene were below the control limit. Associated sample results have been qualified "J" or "UJ" to indicate a potentially low bias.
 - **SMH0113-SCV1:** Benzoic acid, 2,4-dimethylphenol, 1,2,4-trichlorobenzene, and pentachlorophenol %D values were below the control limit. Associated sample results have been qualified "J" or "UJ" to indicate a potentially low bias.
 - **SMH0271-ICV2:** The dibenzo(a,h)anthracene %D value was above the control limit. Associated detected sample results have been qualified "J" to indicate a potentially high bias.
 - **SMH0394-ICV1 and SMH0394-ICV2:** Pentachlorophenol %D values were below the control limit. No reported results were associated with these CCVs, so no data were qualified.
- **PCB SMH0333-ICV2 and SMH0333-CCV4:** The average %D values for Aroclor 1260 were below the control limit. Associated sample results have been qualified "J" or "UJ" to indicate a potentially low bias.

Internal Standard Area Counts and Surrogate Recoveries

Internal standards and surrogates were added to all samples, calibration standards, and quality control analyses as required. Internal standard area counts and surrogate recoveries were within method-required or laboratory control limits.

Interference Check Sample

An interference check sample was analyzed at the required frequency, and results were within method criteria.

Laboratory Control Samples and Laboratory Control Sample Duplicates

Laboratory control samples (LCS) and laboratory control sample duplicates (LCSD) were analyzed at the required frequency and resulted in recoveries and/or relative percent difference (RPD) values within project-required control limits except for acenaphthylene and benzo(g,h,i)perylene in LCS BMH0319-BS1 and 2,4-dimethylphenol in LCS BMH0319-BS2. All three compounds recovered below the control limit, and associated batch sample results have been qualified "J" or "UJ" to indicate a potentially low bias.

Standard Reference Material

A standard reference material sample was analyzed in association with the TOC analyses and recovered within control limits.

Matrix Spike and Matrix Spike Duplicate Samples

Matrix spike (MS) and matrix spike duplicate (MSD) samples were analyzed at the required frequency. No data were qualified when native sample concentrations were greater than four times the spike concentration. All MS/MSDs were analyzed on sample MB-SC01-A-2024-08-13. Recoveries and/or RPD values were within project-required control limits, with the following exceptions:

- **SVOCs:**
 - Benzo(g,h,i)perylene recovered below the control limit in the 8270E MS, and acenaphthylene, indeno(1,2,3-cd)pyrene, and benzo(g,h,i)perylene recovered below the control limit in the MSD. Associated parent sample results have been qualified "UJ" to indicate a potentially low bias.
 - Benzoic acid and 2,4-dimethylphenol recovered below the control limit in the 8270E-SIM MS and MSD. Associated parent sample results have been qualified "J" or "UJ" to indicate a potentially low bias.
- **Tributyltin:** The MSD recovered above the control limit, and the MS/MSD RPD was also above the control limit. The parent sample result has been qualified "J" to indicate it is estimated with a potentially high bias.

- **Pesticides:** Trans-Chlordane recovered above the control limit in the MSD, and the MS/MSD RPD values were above the control limit for this analyte and for aldrin. Associated parent sample results were below detection, so no data were qualified.
- **PCBs:** The Aroclor 1260 MS/MSD RPD value was above the control limit. Associated parent sample detected sample results have been qualified "J" to indicate they are estimated.
- **Metals:** Antimony recovered below 10% in the MS. Since the post-spike sample recovery was within control limits, associated batch sample results have been qualified "UJ" to indicate a potentially low bias.

Laboratory Replicates

Laboratory duplicates and triplicates were analyzed at the required frequency except for grain size. Duplicate results that were less than five times MRLs were assessed by the difference between them instead of RPD values and evaluated using a control limit of \pm twice the MRL. Triplicates were evaluated by relative standard deviation values. Laboratory duplicate RPD or difference values were within control limits except for total PeCDF, PeCDD, HxCDD, TCDF, and TCDD in the parent sample and duplicate analyses of sample MB-SC01-A-2024-08-13. RPD or difference values were above control limits, and associated parent sample results have been qualified "J" to indicate they are estimated. Relative standard deviation values met project-required control limits.

Second Column Confirmations

Second column confirmations were analyzed as required for pesticides and PCB analyses. RPD values were less than 40% except for eleven Aroclor results reported in five samples. Associated results have been qualified "J" to indicate they are estimated.

Estimated Maximum Potential Concentration

Results qualified as estimated maximum potential concentration (EMPC) by the laboratory due to ion abundance ratios outside of method-required criteria have been qualified "J" as estimated.

Serial Dilutions

No serial dilutions were reported for this sample set.

Method Reporting Limits

Reporting limits were acceptable as reported. All values were reported using the laboratory reporting limits. Values were reported as undiluted, or when diluted, the reporting limit reflects the dilution factor. All sample results were above reporting limits.

Overall Assessment

As was determined by this evaluation, the laboratory followed the specified analytical methods, and all requested sample analyses were completed. Accuracy was acceptable as demonstrated by the calibration, internal standard, surrogate, LCS/LCSD, and MS/MSD recovery values. Precision was acceptable as demonstrated by the LCS/LCSD, MS/MSD, and laboratory duplicate RPD or difference values. All data are acceptable as reported or as qualified. Table 2 summarizes the qualifiers applied to the sample results reviewed in this report.

Data Qualifier Definitions

- U Indicates the compound or analyte was analyzed for but not detected at or above the specified limit
- J Indicates an estimated value
- UJ Indicates the compound or analyte was analyzed for but not detected and that the specified limit reported is estimated

Table 2
Data Qualification Summary

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
MB-SC01-A-2024-08-13	D/F	1,2,3,7,8-PeCDD	1.92 ng/kg	1.92J ng/kg	EMPC
		2,3,4,6,7,8-HxCDF	1.59 ng/kg	1.59J ng/kg	
		2,3,7,8-TCDF	2.65 ng/kg	2.65J ng/kg	
		Total PeCDF	10.9 ng/kg	10.9J ng/kg	LD difference above CL
		Total TCDD	10.6 ng/kg	10.6J ng/kg	
		Total TCDF	5.54 ng/kg	5.54J ng/kg	LD RPD above CL
		Total HxCDD	32.2 ng/kg	32.2J ng/kg	
	Total PeCDD	4.58 ng/kg	4.58J ng/kg		
	Metals	Antimony	0.28U mg/kg	0.28UJ mg/kg	MS %R below CL
	PCBs	Aroclor 1260	4.0U µg/kg	4.0UJ µg/kg	CCV %D below CL
		Aroclor 1248	6.1 µg/kg	6.1J µg/kg	MS/MSD RPD above CL
		Aroclor 1254	4.9 µg/kg	4.9J µg/kg	
	SVOCs	Dibenzo(a,h)anthracene	5.5 µg/kg	5.5J µg/kg	CCV %D above CL
		1,2,4-Trichlorobenzene	5.0U µg/kg	5.0UJ µg/kg	ICV %D below CL
		Pentachlorophenol	49.9U µg/kg	49.9UJ µg/kg	
		2,4-Dimethylphenol	20.0U µg/kg	20.0UJ µg/kg	LCS, MS/MSD %R below CL; ICV %D below CL
Acenaphthylene		20.0U µg/kg	20.0UJ µg/kg	LCS, MS/MSD %R, CCV %D below CL	

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
		Benzo(g,h,i)perylene	20.0U µg/kg	20.0UJ µg/kg	LCS, MSD %R, CCV %D below CL
		Diethyl phthalate	16.0J µg/kg	20.0U µg/kg	MB contamination
		Benzoic acid	51.4J µg/kg	51.4J µg/kg	MS/MSD %R, ICV %D below CL
		Indeno(1,2,3-c,d)pyrene	20.0U µg/kg	20.0UJ µg/kg	MSD %R, CCV %D below CL
		Tributyltin (ion)	4.40 µg/kg	4.40J µg/kg	MSD, MS/MSD RPD above CL
MB-SC01-Z1-2024-08-13	D/F	1,2,3,4,7,8-HxCDD	1.73 ng/kg	1.73J ng/kg	EMPC
		1,2,3,7,8,9-HxCDD	5.99 ng/kg	5.99J ng/kg	
		1,2,3,7,8-PeCDD	1.08 ng/kg	1.08J ng/kg	
		1,2,3,7,8-PeCDF	1.46 ng/kg	1.46J ng/kg	
		2,3,4,7,8-PeCDF	1.37 ng/kg	1.37J ng/kg	
	Metals	Mercury	0.0287J mg/kg	0.0301U mg/kg	MB contamination
		Antimony	0.26U mg/kg	0.26UJ mg/kg	MS %R below CL
	PCBs	Aroclor 1260	4.0U µg/kg	4.0UJ µg/kg	CCV %D below CL
		Aroclor 1248	9.9 µg/kg	9.9J µg/kg	Column confirmation RPD above CL
		Aroclor 1254	4.7 µg/kg	4.7J µg/kg	
	SVOCs	Indeno(1,2,3-c,d)pyrene	20.0U µg/kg	20.0UJ µg/kg	CCV %D below CL
		1,2,4-Trichlorobenzene	5.0U µg/kg	5.0UJ µg/kg	ICV %D below CL
		Benzoic acid	99.9U µg/kg	99.9UJ µg/kg	
		Pentachlorophenol	50.0U µg/kg	50.0UJ µg/kg	
		Acenaphthylene	20.0U µg/kg	20.0UJ µg/kg	LCS %R, CCV %D below CL
		Benzo(g,h,i)perylene	20.0U µg/kg	20.0UJ µg/kg	LCS %R, ICV %D below CL
		2,4-Dimethylphenol	20.0U µg/kg	20.0UJ µg/kg	
Diethyl phthalate	20.8 µg/kg	20.8U µg/kg	MB contamination		
MB-SC01-Z2-2024-08-13	Conventionals	Total organic carbon	0.09 pct	0.09U pct	CCB contamination
	D/F	1,2,3,4,6,7,8-HpCDD	2.66 ng/kg	2.66J ng/kg	EMPC
	Metals	Mercury	0.0171J mg/kg	0.0266U mg/kg	MB contamination
		Antimony	0.25U mg/kg	0.25UJ mg/kg	MS %R below CL
	PCBs	Aroclor 1260	4.0U µg/kg	4.0UJ µg/kg	CCV %D below CL
	SVOCs	Indeno(1,2,3-c,d)pyrene	19.9U µg/kg	19.9UJ µg/kg	
		1,2,4-Trichlorobenzene	5.0U µg/kg	5.0UJ µg/kg	
Benzoic acid		99.7U µg/kg	99.7UJ µg/kg		
Pentachlorophenol		49.8U µg/kg	49.8UJ µg/kg		

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
		Acenaphthylene	19.9U µg/kg	19.9UJ µg/kg	LCS %R, CCV %D below CL
		Benzo(g,h,i)perylene	19.9U µg/kg	19.9UJ µg/kg	
		2,4-Dimethylphenol	19.9U µg/kg	19.9UJ µg/kg	LCS %R, ICV %D below CL
		Diethyl phthalate	13.0J µg/kg	20.0U µg/kg	MB contamination
MB-SC02-A-2024-08-13	D/F	1,2,3,4,7,8,9-HpCDF	2.85 ng/kg	2.85J ng/kg	EMPC
		1,2,3,6,7,8-HxCDD	5.37 ng/kg	5.37J ng/kg	
		1,2,3,6,7,8-HxCDF	2.70 ng/kg	2.70J ng/kg	
		1,2,3,7,8-HxCDD	2.29 ng/kg	2.29J ng/kg	
		1,2,3,7,8-PeCDF	2.38 ng/kg	2.38J ng/kg	
		2,3,4,7,8-PeCDF	1.19 ng/kg	1.19J ng/kg	
	Metals	Antimony	0.28U mg/kg	0.28UJ mg/kg	MS %R below CL
	PCBs	Aroclor 1260	4.0U µg/kg	4.0UJ µg/kg	CCV %D below CL
		Aroclor 1248	5.5 µg/kg	5.5J µg/kg	Column confirmation RPD above CL
		Aroclor 1254	6.4 µg/kg	6.4J µg/kg	
	SVOCs	Dibenzo(a,h)anthracene	5.4 µg/kg	5.4J µg/kg	CCV %D above CL
		Indeno(1,2,3-c,d)pyrene	20.0U µg/kg	20.0UJ µg/kg	
		1,2,4-Trichlorobenzene	5.0U µg/kg	5.0UJ µg/kg	ICV %D below CL
		Benzoic acid	99.9U µg/kg	99.9UJ µg/kg	ICV %D below CL
		Pentachlorophenol	49.9U µg/kg	49.9UJ µg/kg	
		Acenaphthylene	20.0U µg/kg	20.0UJ µg/kg	LCS %R, CCV %D below CL
		Benzo(g,h,i)perylene	20.0U µg/kg	20.0UJ µg/kg	LCS %R, ICV %D below CL
		2,4-Dimethylphenol	20.0U µg/kg	20.0UJ µg/kg	
Diethyl phthalate	12.6J µg/kg	19.9U µg/kg	MB contamination		
MB-SC02-Z1-2024-08-13	D/F	1,2,3,4,7,8,9-HpCDF	3.23 ng/kg	3.23J ng/kg	EMPC
		1,2,3,6,7,8-HxCDD	10.6 ng/kg	10.6J ng/kg	
		1,2,3,7,8-PeCDD	1.64 ng/kg	1.64J ng/kg	
	Metals	Antimony	0.28U mg/kg	0.28UJ mg/kg	MS %R below CL
	PCBs	Aroclor 1260	6.0 µg/kg	6.0J µg/kg	CCV %D below CL; column confirmation RPD above CL
		Aroclor 1248	8.5 µg/kg	8.5J µg/kg	Column confirmation RPD above CL
		Aroclor 1254	9.2 µg/kg	9.2J µg/kg	
	SVOCs	Dibenzo(a,h)anthracene	3.1J µg/kg	3.1J µg/kg	CCV %D above CL
		Indeno(1,2,3-c,d)pyrene	19.9U µg/kg	19.9UJ µg/kg	
1,2,4-Trichlorobenzene		5.0U µg/kg	5.0UJ µg/kg	ICV %D below CL	

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
		Benzoic acid	99.7U µg/kg	99.7UJ µg/kg	ICV %D below CL
		Pentachlorophenol	49.9U µg/kg	49.9UJ µg/kg	
		Acenaphthylene	19.9U µg/kg	19.9UJ µg/kg	LCS %R, CCV %D below CL
		Benzo(g,h,i)perylene	19.9U µg/kg	19.9UJ µg/kg	
		2,4-Dimethylphenol	19.9U µg/kg	19.9UJ µg/kg	LCS %R, ICV %D below CL
		Diethyl phthalate	11.3J µg/kg	20.0U µg/kg	MB contamination
MB-SC02-Z2-2024-08-13	D/F	1,2,3,4,6,7,8-HpCDD	11.7 ng/kg	11.7J ng/kg	EMPC
		1,2,3,4,6,7,8-HpCDF	1.02 ng/kg	1.02J ng/kg	
		OCDF	0.925J ng/kg	0.925J ng/kg	
	Metals	Mercury	0.0117J mg/kg	0.0222U mg/kg	MB contamination
		Antimony	0.23U mg/kg	0.23UJ mg/kg	MS %R below CL
	PCBs	Aroclor 1260	7.4 µg/kg	7.4J µg/kg	CCV %D below CL
	SVOCs	Indeno(1,2,3-c,d)pyrene	20.0U µg/kg	20.0UJ µg/kg	CCV %D below CL
		1,2,4-Trichlorobenzene	5.0U µg/kg	5.0UJ µg/kg	ICV %D below CL
		Benzoic acid	99.8U µg/kg	99.8UJ µg/kg	
		Pentachlorophenol	49.9U µg/kg	49.9UJ µg/kg	LCS %R, CCV %D below CL
		Acenaphthylene	20.0U µg/kg	20.0UJ µg/kg	
		Benzo(g,h,i)perylene	20.0U µg/kg	20.0UJ µg/kg	LCS %R, ICV %D below CL
		2,4-Dimethylphenol	20.0U µg/kg	20.0UJ µg/kg	MB contamination
	MB-SC03-A-2024-08-13	Metals	Antimony	0.31U mg/kg	0.31UJ mg/kg
PCBs		Aroclor 1260	10.0 µg/kg	10.0J µg/kg	CCV %D below CL, column confirmation RPD above CL
		Aroclor 1248	16.9 µg/kg	16.9J µg/kg	Column confirmation RPD above CL
		Aroclor 1254	13.0 µg/kg	13.0J µg/kg	
SVOCs		Indeno(1,2,3-c,d)pyrene	20.0U µg/kg	20.0UJ µg/kg	CCV %D below CL
		1,2,4-Trichlorobenzene	5.0U µg/kg	5.0UJ µg/kg	ICV %D below CL
		Benzoic acid	99.8U µg/kg	99.8UJ µg/kg	
		Pentachlorophenol	49.9U µg/kg	49.9UJ µg/kg	LCS %R, CCV %D below CL
		Acenaphthylene	20.0U µg/kg	20.0UJ µg/kg	
		Benzo(g,h,i)perylene	20.0U µg/kg	20.0UJ µg/kg	LCS %R, ICV %D below CL
	2,4-Dimethylphenol	20.0U µg/kg	20.0UJ µg/kg	MB contamination	
	Diethyl phthalate	17.4J µg/kg	20.0U µg/kg		

Sample ID	Parameter	Analyte	Reported Result	Qualified Result	Reason
MB-SC03-Z1-2024-08-13	Metals	Mercury	0.0197J mg/kg	0.0293U mg/kg	MB contamination
		Antimony	0.23U mg/kg	0.23UJ mg/kg	MS %R below CL
	PCBs	Aroclor 1260	3.8J µg/kg	3.8J µg/kg	CCV %D below CL; column confirmation RPD above CL
	SVOCs	Indeno(1,2,3-c,d)pyrene	20.0U µg/kg	20.0UJ µg/kg	CCV %D below CL
		1,2,4-Trichlorobenzene	5.0U µg/kg	5.0UJ µg/kg	ICV %D below CL
		Benzoic acid	99.8U µg/kg	99.8UJ µg/kg	
		Pentachlorophenol	49.9U µg/kg	49.9UJ µg/kg	
		Acenaphthylene	20.0U µg/kg	20.0UJ µg/kg	LCS %R, CCV %D below CL
		Benzo(g,h,i)perylene	20.0U µg/kg	20.0UJ µg/kg	LCS %R, ICV %D below CL
		2,4-Dimethylphenol	20.0U µg/kg	20.0UJ µg/kg	
	Diethyl phthalate	14.6J µg/kg	19.9U µg/kg	MB contamination	
MB-SC03-Z2-2024-08-13	D/F	OCDF	10.5 ng/kg	10.5J ng/kg	EMPC
	Metals	Mercury	0.0174J mg/kg	0.0225U mg/kg	MB contamination
		Antimony	0.22U mg/kg	0.22UJ mg/kg	MS %R below CL
	PCBs	Aroclor 1260	4.0U µg/kg	4.0UJ µg/kg	CCV %D below CL
	SVOCs	Dibenzo(a,h)anthracene	12.6 µg/kg	12.6J µg/kg	CCV %D above CL
		Indeno(1,2,3-c,d)pyrene	21.3 µg/kg	21.3J µg/kg	
		1,2,4-Trichlorobenzene	5.0U µg/kg	5.0UJ µg/kg	ICV %D below CL
		Benzoic acid	99.4U µg/kg	99.4UJ µg/kg	
		Pentachlorophenol	49.7U µg/kg	49.7UJ µg/kg	ICV %D below CL
		Acenaphthylene	19.9U µg/kg	19.9UJ µg/kg	LCS %R, CCV %D below CL
		Benzo(g,h,i)perylene	20.2 µg/kg	20.2J µg/kg	
		2,4-Dimethylphenol	19.9U µg/kg	19.9UJ µg/kg	LCS %R, ICV %D below CL
	Diethyl phthalate	14.0J µg/kg	20.0U µg/kg	MB contamination	

Notes:

- %R: percent recovery
- µg/kg: microgram per kilogram
- CCB: continuing calibration blank
- CL: control limit
- ICV: initial calibration verification
- EMPC: estimated maximum potential concentration
- MB: method blank
- mg/kg: milligram per kilogram
- ng/kg: nanogram per kilogram

References

- Anchor QEA 2024. *Middle Blair Navigation Safety Improvement Project Sampling and Quality Assurance Project Plan*. Prepared for the Port of Tacoma. August 2024.
- USEPA (U.S. Environmental Protection Agency) 1986. *Test Methods for Evaluating Solid Waste: Physical/Chemical Methods (SW-846)*. Office of Solid Waste and Emergency Response. EPA-530/SW-846.
- USEPA 2020a. *National Functional Guidelines for Organic Superfund Methods Data Review*. Office of Superfund Remediation and Technology Innovation. EPA-540-R-20-005. November 2020.
- USEPA 2020b. *National Functional Guidelines for Inorganic Superfund Methods Data Review*. Office of Superfund Remediation and Technology Innovation. EPA-542-R-20-006. November 2020.
- USEPA 2020c. *National Functional Guidelines for High-Resolution Superfund Methods Data Review*. Office of Superfund Remediation and Technology Innovation. EPA-542-R-20-007. November 2020.

APPENDIX C

PORT OF TACOMA

ARCHAEOLOGICAL MONITORING

and

INADVERTANT DISCOVERY

PLAN



SECTION 2 - INADVERTENT DISCOVERY PLAN

(Cultural Resources Investigation Information methods/Results) In the event that cultural resources are encountered during construction-related activities, this document serves as the plan for dealing with the inadvertent discoveries of human remains, artifacts, sites, or any other cultural resources during the project.

- Pierce County Terminal (PCT) and Middle Blair Waterway Maintenance Dredge - Construction
- Attachment A provides a project summary and contacts to call in the event of a discovery.

Instructions: Please insert responsible official in blanks.

This plan will provide the Puyallup Tribe of Indians (PTOI) employees, _____ Port of Tacoma (Port) _____ and any involved contractors and their employees with the appropriate protocols and procedures so they can:

- Utilize as guidance for treatment, Chapter 27.44 Indian Graves and Records, Chapter 27.53 Archaeological Sites and Resources, and Chapter 68.60 Section 68.60.050 Protection of Historic Graves of the Revised Code of Washington (RCW);
- Describe to regulatory and review agencies the procedures the PTOI and _____ Port _____ will follow to prepare for and deal with inadvertent discoveries; and,
- Understand and follow the procedures and protocols established in this document should an inadvertent discovery occur.

Procedures for the Discovery of Cultural Resources

1. If any PTOI or _____ Port _____ employee, contractors or subcontractors suspects the inadvertent discovery of a cultural resource, all ground disturbing, construction or other activities around the immediate area of the discovery shall cease. A cultural resource may include an archaeological or historical resource.

An **archaeological resource** is defined in RCW 27.53.040 as:

All sites, objects, structures, artifacts, implements, and locations of prehistoric or archaeological interest, whether previously recorded or still unrecognized, including, but not limited to, those pertaining to prehistoric and historic American Indian or aboriginal burials, campsites, dwellings, and habitation sites, including rock shelters and caves, their artifacts and implements of culture such as projectile points, arrowheads, skeletal remains, grave goods, basketry, pestles, mauls and grinding stones, knives, scrapers, rock carvings and paintings, and other implements and artifacts of any material that are located in, on, or under the surface of any



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lands or waters owned by or under the possession, custody, or control of the state of Washington or any county, city, or political subdivision of the state are hereby declared to be archaeological resources.

A **historical resource** is defined in RCW 27.53.030 (11):

. . .mean[ing] those properties which are listed in or eligible for listing in the Washington State Register of Historic Places (Washington Heritage Register [WHR]) (RCW 27.34.220) or the National Register of Historic Places (NRHP) as defined in the National Historic Preservation Act of 1966 (Title 1, Sec. 101, Public Law 89-665; 80 Stat. 915; 16 U.S.C. Sec. 470) as now or hereafter amended. Cultural resources may qualify for the WHR and/or the NRHP listing if they are intact, aged at least 50 years old, and at least one of the following:

- Are associated with events that have made a significant contribution to the broad patterns of our history; or
- Are associated with the lives of persons significant in our past; or Embody the distinctive characteristics of a type, period, or method of construction or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- Have yielded, or may be likely to yield, information important in prehistory or history.

2. Upon discovery of a cultural resource, _____ Port _____ shall secure the area with a perimeter of not less than thirty (30) feet until all procedures are completed and the parties agree that activities can resume. If such a perimeter would materially impact agency functions mandated by law, related to health, safety or environmental concerns, then the secured area shall be of a size and extent practicable to provide maximum protection to the resource under the circumstances. Work in the immediate area will not resume until all procedures are completed and the parties agree that activities can resume.

3. The qualified archaeologist, in coordination with the Department of Archaeology and Historic Preservation (DAHP), will evaluate all inadvertently discovered cultural resources that may be considered eligible for listing in the National Register of Historic Places (NRHP) and recommend whether the cultural resource is eligible for listing in the NRHP. If the discovery is considered eligible, the DAHP and the concerned Indian Tribe(s) will consult to determine appropriate treatment, including but not limited to, photography, mapping, sampling, etc.

4. _____ Port _____ shall ensure that its appropriate personnel, contractors and permittees follow procedures stipulated in this Agreement and treat all human remains, cultural items and potential historic properties with respect.

Human Remains and Associated Funerary Objects

5. If human remains are found, _____ Port _____ shall immediately notify Tribal Police who will contact the tribal archaeologist, the Tacoma Police Department, and/or the County Coroner to determine whether the remains are Native American and to eliminate the



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site as a crime scene. Any potential or actual human remains and/or associated funerary objects shall remain in place, unwashed, un-cleaned and without analysis, with minimal disturbance and left in the original location until the remains can be determined to not be of significant cultural value by a professional archaeologist qualified to identify human skeletal remains.

6. If the human skeletal remains are determined to be Native American, PTOI will notify the DAHP and the concerned Indian Tribe(s). PTOI shall continue to maintain the remains and any associated funerary objects in place, unwashed, unexamined and undisturbed until the concerned Indian Tribe(s), the DAHP determine an appropriate treatment. All parties shall give due consideration to and honor, to the extent possible, requests by the Tribe to leave the remains and/or other cultural items undisturbed and in place. Should the Tribe request to conduct ceremonies or other traditional activities with respect to the remains at the site where the remains were found, PTOI will accommodate such requests to the maximum and practical extent possible.

7. If human remains, funerary objects and/or artifacts are inadvertently collected during any archaeological investigation and identified as Native American in the field or in the laboratory, COT will notify and return the remains, objects and/or artifacts to concerned Indian Tribe(s) within twenty-four (24) hours of the identification, to the extent possible. Such human remains, funerary objects and/or artifacts shall remain unwashed and without further analysis.

Confidentiality of Information

8. All involved parties shall make its best efforts to ensure that its appropriate personnel, contractors, and permittees keep the discovery of all inadvertent discoveries confidential, including but not limited to, refraining from contacting the media or any third party or otherwise sharing information regarding the discovery with any member of the public. Prior to any release, COT, concerned Tribe(s), and the DAHP, shall concur on the amount of information, if any, to be released to the public, any third party, and the media and the procedures for such a release, to the extent permitted by law.

CONTACT INFORMATION (Agencies, Companies, Departments)

- See Attachment A.
- In the event of a discovery, the discovering party (i.e., contractor) shall notify the Port and the Port will notify the parties listed in this IDP and Attachment A.

Signature of Applicant: _____

Mark Rettmann

**Attachment A - Project Summary & Contact Information
For
Inadvertent Discovery Plan
Port of Tacoma's
PCT & Middle Blair Waterway Maintenance Dredging Project
Tacoma, Washington
October 22, 2024**

The Port of Tacoma (Port) intends to conduct the Pierce County Terminal (PCT) and Middle Blair Waterway Maintenance Dredging Project (Project) to remove high spots within the berth area. The site is located at 4015 SR-509 N. Frontage Rd., Tacoma, Pierce County, Washington. The PCT is Port Parcel 16 and the Blair Waterway is Port Parcel 21.

Monitoring

Monitoring by professional archaeologists is not applicable; however, contractor and project personnel will monitor the work for cultural resources and will implement this inadvertent discovery plan (IDP) should any cultural resources be observed. The IDP will be provided to the contractor and available onsite.

Contacts

Upon any discovery of cultural resources, the discovering party (i.e., contractor) shall immediately notify the Port and secure the area per the IDP paragraph 2. The Port shall notify the contacts in the IDP and this Attachment A.

Port of Tacoma

P.O. Box 1837, Tacoma, WA 98401

- Contact: Norman Gilbert, Engineering Project Manager, 253-383-9406 or 253-753-0617 (mobile), ngilbert@portoftacoma.com
- Alternate Contact: Mark Rettmann, Environmental Project Manager, 253-592-6716 (desk & mobile [no text]); mrettmann@portoftacoma.com

Puyallup Tribe

Attention: Tribal Chairman, 3009 Portland Ave, Tacoma, Washington 98404

Lead Representative: Bill Sterud, Chairman, 253-370-6935

- Contact: Brandon Reynon, Tribal Historic Preservation Officer (THPO), 253-573-7965 or 253-442-9361 (mobile); brandon.reynon@PuyallupTribe-nsn.gov
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3701 South Pine Street, Tacoma, WA 98409

Lead Representative: Avery Moore, Chief of Police, 253-287-4455

Washington Department of Archaeology and Historic Preservation

PO Box 48343, Olympia, Washington 98504-8343

- Contact: Allyson Brooks, State Historic Preservation Officer, 360-480-6922;
Allyson.Brooks@dahp.wa.gov
- Alternate Contact: Stephanie Jolivette, Local Government Archaeologist, 360-628-2755; Stephanie.Jolivette@dahp.wa.gov

Pierce County Medical Examiner's Office

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Lead Representative: Karen Cline-Parhamovich, DO, Chief Medical Examiner, 253-798-6494

City of Tacoma Historic Preservation Office

747 Market Street, Tacoma, WA 98402

- Contact: Reuben McKnight, Historic Preservation Officer, 253-591-5220
- Alternate Contact: Susan Johnson, Historic Preservation Coordinator, 253-281-7445

Port Consultants

WSP

1201 Pacific Avenue, Tacoma, Washington 98402

Contact: Colin Eng, 509-481-0228, colin.eng@wsp.com

APPENDIX D

WATER QUALITY MONITORING

and

PROTECTION PLAN

WATER QUALITY MONITORING AND PROTECTION PLAN

Port of Tacoma Middle Blair Navigation Safety Improvement Project

Prepared for



Prepared by



June 2024

WATER QUALITY MONITORING AND PROTECTION PLAN

Port of Tacoma Middle Blair Navigation Safety Improvement Project

June 2024

Prepared for:



Prepared By:

Robert Brenner, MS, CEP, CPESC, CPWM
Senior Associate Scientist/Senior Business Operations Manager
Leon Environmental, LLC
Seattle, WA

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Acronyms/Abbreviations

BMP	Best management practice
Corps	U.S. Army Corps of Engineers
CY	cubic yards
DMMP	Dredged Material Management Program
Ecology	Washington State Department of Ecology
ft	foot/feet
GPS	Global positioning system
HTL	high tide line
JARPA	Joint Aquatic Resources Permit Application
MHHW	mean higher high water
MLLW	mean lower low water
MTCA	Model Toxics Control Act
NTU	Nephelometric turbidity units
OHW	ordinary high water
Port	Port of Tacoma
SAV	submerged aquatic vegetation
SPCC	spill prevention, control and countermeasures plan
SWPPP	Stormwater Pollution Prevention Plan
Tribe	Puyallup Tribe of Indians
WAC	Washington Administrative Code
WDFW	Washington Department of Fish and Wildlife
WQMPP	Water Quality Monitoring and Protection Plan
WUT	Washington United Terminal

Chapter 1. Introduction

This Water Quality Monitoring and Protection Plan (WQMPP) identifies monitoring and best management practices (BMPs) for construction activities associated with the Port of Tacoma’s Middle Blair Navigation Safety Improvement Project (Project). It was adapted from the Port’s WQMPP for the WUT and Husky Terminal maintenance dredging (Port, 2021). The Project consists of the sediments that have accumulated at critical locations from the middle Blair Waterway “knuckle” northwest to an area approximately even with Lincoln Avenue, which is adjacent to Commencement Bay in Tacoma, Washington (Figures 1, 2 and 3). This WQMPP, which is required by the Washington State Department of Ecology (Ecology), has been prepared to ensure compliance with Section 401 of the Clean Water Act, and Washington State Water Quality Standards, Chapter 173-201A of the *Washington Administrative Code* (WAC). This plan describes water quality protection measures; monitoring parameters, methods, and evaluation criteria; and contingency response and notification procedures in the event a water quality criterion is exceeded during construction (dredging) activities. The Project contractor selected to perform the construction activities will be subject to the requirements and procedures specified in this plan, as well as the contract specifications and regulatory permits issued for this project.

1.1 Project Description

The Port proposes to conduct maintenance dredging in the Blair Waterway, Tacoma, Washington across from the Washington United Terminal (WUT), in front of the marine industrial property owned by the Puyallup Tribe of Indians (Tribe) and in an area informally referred to as the Knuckle. This area has previously been dredged to a depth of at least -47 feet (ft) mean lower low water (MLLW). The authorized depth for the Blair Waterway is -51’ MLLW. Proposed dredging volumes are summarized in Table 1.

Table 1. Dredging Volumes

Location	Dredging Depth (ft MLLW)	Proposed Dredging Volumes (cy)				Maximum Total Volume (cy)
		Authorized Depth	Over Depth			
			1-ft	2-ft	3-ft	
Middle Blair “Knuckle”	-47	2,500	3,100	3,200	3,200	12,000

Prior to receiving permits and dredging, the sediments proposed for maintenance dredging will be sampled and characterized for suitability determination for open-water disposal, following Dredged Material Management Program (DMMP) guidance and direction. Material deemed suitable for open-water disposal by the DMMP will be disposed at the Commencement Bay open-water dredged material disposal site. Any unsuitable material will be disposed at an approved upland location. This WQMPP addresses dredging with both open-water and upland disposal, depending on the DMMP suitability determination. If upland disposal is required, additional coordination with the Corps and Ecology will be conducted.

Maintenance dredging will be performed by mechanical dredging equipment. A crane mounted on a barge will be positioned in the proposed dredging area using a tug. The crane will be equipped with a clamshell bucket. During the dredging operations, the crane operator will complete each pass with the clamshell. Dredged material will be placed on/in a barge for transportation to either the Commencement Bay open-water dredged material disposal site (Figure 4), or an upland site if the material is deemed to be unsuitable for open-water disposal by the DMMP. Additional Project details are provided in the Joint Aquatic Resources Permit Application (JARPA).

1.2 Water Quality Standards

The water quality monitoring turbidity standards applicable to this site per WAC 173-201A-210(1)(e) are as follows:

- Turbidity shall not exceed 10 nephelometric turbidity units (NTUs) over the background turbidity when the background turbidity is less than 50 NTUs.
- Turbidity shall not exceed a 20 percent increase in turbidity when the background turbidity is more than 50 NTUs.

The water quality standard for turbidity will need to be met at the compliance boundary at the edge of the authorized area of mixing for construction activities. The turbidity water quality standard includes an allowed 150-foot area of mixing that extends out from the in-water activity. The water quality monitoring for turbidity will be conducted at the 150-foot-radius point of compliance per the aquatic use criteria (WAC 173-201A-210(1)(e)(i)). In addition, visible turbidity greater than the background turbidity at or beyond the 150-foot-radius point of compliance is considered an exceedance of the water quality standard.

Chapter 2. Water Quality Protection Measures

This section describes the protection measures that will be implemented during all in-water (dredging) work to minimize impacts on water quality.

2.1 General Water Quality Protection Measures

The Project has been designed to avoid and minimize adverse impacts on the environment due to the Project activities (i.e., dredging and disposal). The following general water quality protection measures will be implemented on a project-wide basis to reduce, eliminate, or minimize the effects of the proposed action on water quality:

- Construction stormwater, sediment, and erosion control BMPs suitable to preventing exceedances of state water quality standards will be in place prior to starting construction activities, as applicable.
- All work will comply with the conditions of the sites' National Pollutant Discharge Elimination System, municipal separate storm sewer (MS4) stormwater permit and applicable stormwater pollution prevention plan (SWPPP), as applicable.
- All work in and near the water will be done so as to minimize turbidity, erosion, and other water quality impacts.
- No materials will be stockpiled below the project-specific Ordinary High Water Mark in any water body.
- Fueling and servicing of all equipment, with the exception of barge derricks, will be confined to an established staging area. Barge derricks will be fueled and serviced while they float. Spill containment systems will be adequate to contain all fuel leaks.
- No solvents or other chemicals will be used in or over the water during the construction or operation of the proposed action.
- A spill kit, including an oil-only adsorbing floating boom sized appropriately for the work area, will be available on-site during construction and stored in a location that facilitates immediate deployment if needed.
- All work will occur from barges moored or spudded at the project site. No intertidal or shallow subtidal habitat exists in the work area; therefore, barges can only be moored/spudded over subtidal substrate where grounding is not possible.
- The bottom of any vessel performing work on this project will be at least 1 foot above the level of the substrate at all tidal water levels.
- Equipment and vehicles will be stored in established staging areas when not in use (excluding cranes, which cannot be moved easily). Staging areas will be located a minimum of 50 feet from the waterway if not within existing impervious areas. If a staging area must be located within 50 feet of the waterway on pervious areas, the Port will provide a written explanation (with additional BMPs) and obtain approval from the Ecology Federal Permit Manager before placing the staging area with the setback area.

- A written spill prevention, control and countermeasures (SPCC) plan will be prepared by the contractor for activities that include the use of heavy equipment.
- The Port will prepare and implement this WQMPP, as required by the Ecology 401 water quality certification.
- Upon advance notice, the Port will provide access to the construction site for representatives of U.S. Army Corps of Engineers (Corps), the U.S. Fish and Wildlife Service, the National Marine Fisheries Services, the Puyallup Tribe of Indians, Ecology, and the Washington Department of Fish and Wildlife (WDFW) during all hours when the proposed action is being conducted.
- No new access roads, routes, or trails will be constructed as part of the proposed action.

2.2 Dredging

A maximum of approximately 12,000 cubic yards (CY) of material will be dredged (including a 3-foot over dredge) by means of a mechanical standard clamshell or digging bucket dredge on a floating derrick barge. Dredged material deemed suitable by the DMMP will be placed in/on a barge for transportation to the Commencement Bay open-water dredged material disposal site. The placement of the suitable material will be conducted per guidance from the DMMP and in accordance with a project suitability determination and dredge and disposal quality control plan. The DMMP and Washington State Department of Natural Resources requirements will be followed, including meeting the disposal site material specifications and placement methodologies. Conditions and requirements of Project permits shall supersede this WQMPP in the case of any discrepancies between this WQMPP and Project permits.

2.2.1 Mitigation Measures

To minimize the potential for any water quality impacts during dredging activities, the following BMPs will be implemented:

- Dredging actions will be conducted during the WDFW-approved in-water work window for Commencement Bay (July 15 – February 15 of each year), which is outside of times when juvenile salmonids are expected to be present based upon best available science.
- Dredging will occur well below the high tide line (HTL), ordinary high water (OHW), and mean higher high water (MHHW). No additional or new habitat conversion will occur. There will be no dredging in intertidal or shallow subtidal habitat. No intertidal or shallow subtidal habit will be converted to deep subtidal. Dredging will only remove targeted high-spots to maintain navigation at previously authorized depths.
- No dredging will occur in sand lance, surf smelt or herring spawning beds
- No dredging will occur in areas with submerged aquatic vegetation (SAV).
- The Port will request that the contractor utilize real-time positioning control when implementing dredging operations, as well as sand placement if required.

- The dredging contractor will not take multiple “bites” during a single clamshell cycle; each pass will be single and complete, and the contractor will not stockpile material on the bottom.
- No maintenance dredging will be performed in or within 25 ft of an existing or previously designated Washington State Model Toxics Control Act (MTCA) site.
- The remaining cut surface will be suitable, verified, and approved to not pose a contaminant risk, as determined by the Dredged Material Management Office. If the remaining surface is not suitable, up to one (1) foot of clean sand will be placed to isolate the cut surface from the surrounding environment.
- Dredging will not alter the character, scope, size, or location of the project area or previously authorized dredge prism.
- Dredging activities will be sequenced or phased to minimize the extent and duration of in-water disturbances.
- The dredging contractor will not stockpile material on the bottom.
- Dredging will occur using an open clamshell bucket.
- The bucket will be lowered slowly through the water column, closed slowly on the bottom, will not be overfilled, and will be hoisted slowly.
- If water quality impacts are observed outside the action area, the dredging contractor will adjust operations as needed to meet water quality requirements per the issued permit requirements. This usually involves reducing the speed of operations.
- Dredged material will be placed in/on a watertight barge or barge with filtration barrier for transportation to an upland or open water disposal site. If water must be decanted from the barge, it will be filtered through straw bales or similar at the project site prior to transportation. No dewatering is allowed in transit.
- If dewatering is permissible, pause the bucket at the water surface to minimize distance of discharge.
- The contractor will ensure that all material is dumped into the barge from the bucket before returning for another bite. No partial or full buckets of material will be dumped back into the water. If water must be decanted from the barge, it will be filtered through straw bales or similar media (e.g., filter fabric).
- Dredged materials will be verified by DMMP as suitable and approved for in-water or upland disposal.
- The barge used to transport dredged material to the open water disposal site will have tightly sealing doors and compartments to minimize leakage during transit.
- Barges will be secured, stabilized, and maintained as necessary to ensure no loss of balance, stability, anchorage, or other condition that can result in the release of contaminants or construction debris.

- Barges will be large enough to remain stable under foreseeable loads and adverse conditions.
- Barges will be inspected before arrival to ensure the vessel and ballast are free of invasive species if the barge has been used in any other waterbody.
- Placement activities at designated DMMP sites will be performed in accordance with the Site Management and Monitoring Plan developed under 40 CFR 228.9 and with use restrictions specified as part of the designation for these sites.
- The disposal vessel will remain within the boundaries of the disposal site during a disposal event.
- The disposal vessel should maintain a continuous speed of at least 2 knots, but no greater than 6 knots, when possible, during a disposal event.
- If the DMMP determines that dredged material is not acceptable for unconfined, in-water placement, then dredged materials will be taken to an upland facility licensed/permitted to receive the dredged materials.
- Debris greater than 1 foot in any dimension will be screened/removed and collected for upland disposal.

Chapter 3. Water Quality Monitoring Plan

The objective of water quality monitoring is to ensure that the Project activities do not result in exceedances of the applicable water quality standards at the point(s) of compliance. A combination of instrumented and visual monitoring is proposed for this Project.

3.1 Instrumented Monitoring

Turbidity will be monitored with a water quality meter during construction (dredging) activities. Instrumented monitoring for turbidity will also be implemented in response to visual observation of a significant turbidity plume, as described in Section 4.1 to better assess compliance with the water quality criteria and the effectiveness of any supplemental BMPs that may be implemented to control turbidity.

3.1.1 Monitoring Parameters

Real-time field measurements of turbidity water quality parameters (in NTUs) will be collected during instrumented monitoring, as appropriate to the activity.

3.2 Visual Monitoring

Throughout all in-water work (dredging), the contractor will conduct visual monitoring of turbidity. A turbidity plume is considered significant when it is above background and extends out the entire length of the mixing zone to 150 feet and is visible from the area of construction activity.

3.2.1 Monitoring Parameters

The following parameters will be observed during visual monitoring:

- Turbidity (visual indication of plume)
- Sheen, or oil
- Construction debris in water
- Distressed or dying fish
- Operation and effectiveness of BMPs

3.3 Monitoring Schedule for Suitable Material

For each construction activity for which instrumented turbidity monitoring will be performed, it will occur twice a day for the first week of the construction activity to establish baseline conditions and verify compliance with the water quality criteria. If no exceedance of the turbidity criteria is noted during the initial monitoring period and Ecology review and approval is received, the contractor will continue to monitor visually during the remainder of the respective construction activity, unless a visible turbidity plume triggers the return to instrumented monitoring, as described in Section 3.1 and 4.1.2. A change in equipment and/or activity will re-start instrumented monitoring.

3.4 Monitoring Locations and Depths

Monitoring locations will be measured directly from the point of construction activity. The monitoring locations will be identified in the field with the use of a global positioning system (GPS), rangefinder, or other suitable equipment on board the sampling vessel. Monitoring will be conducted at three depths at each of the following locations, which are described in more detail in Sections 3.4.1 through 3.4.3:

- Background monitoring location (300 feet upstream/upgradient prior to work)
- Compliance monitoring locations (150 feet downstream/downgradient during work)
- Early detection monitoring locations (100 feet downstream/downgradient during work)

Monitoring will be conducted at three (3) depths in the water column at each monitoring location described above. Sample measurements from each of the three (3) depths will be compared to each of the three (3) corresponding depths at the background monitoring location.

- Surface: Within 3 feet (approximately 1 meter) of the water surface.
- Middle: At mid-depth in the water column.
- Bottom: Within 3 feet (approximately 1 meter) of the mudline.

In addition to these monitoring locations and depths, visual monitoring will be performed at the location of the active in-water work operation to monitor the effectiveness of BMPs.

3.4.1 Background Monitoring Location

The background location will be positioned approximately 300 feet from the point of construction and beyond the influence of construction activities. The monitoring location will typically be directly upstream/upgradient of the point of construction, although tidal reversals are possible during flood tide conditions, which will require the monitoring location to be shifted farther upstream. The background location will be in an area with physical characteristics similar to those of the main area of construction activity (i.e., water depth and slope). Background water quality monitoring will be conducted before in-water activity begins and during each monitoring event that turbidity is measured.

3.4.2 Early Detection Monitoring Location

The early detection location will be positioned approximately 100 feet downstream/downgradient of the point of construction. The monitoring location will typically be directly downstream of the point of construction.

The objective of monitoring in the early detection location at 100 feet is to have an early indication of whether exceedances of the water quality standards may occur at the point of compliance (i.e., 150 feet) if construction activities continue without modification to the BMPs being implemented. It provides an opportunity for the adaptive management process to adjust the construction activities or BMPs prior to a water quality standard exceedance at the point of compliance.

3.4.3 Compliance Monitoring Location

The compliance location is at the edge of the mixing zone, 150 feet downstream of the point of the construction activity. The monitoring location will typically be directly downstream of the point of construction.

3.5 Monitoring Equipment

Equipment to be used for the water quality monitoring will include the following:

- Water quality meter: HACH 2100Q, Troll 9500, YSI 6920 Sonde (or other suitable equipment)
- Field logbook
- Deionized water for rinsing water quality monitoring equipment
- Personal protective equipment
- Camera
- GPS
- Cellular phone and Project contact phone numbers

Turbidity levels will be measured with a water quality meter, which will be properly operated, calibrated, and maintained by qualified personnel before each use according to the manufacturer's guidelines and recommendations. All field analyses will be recorded in a logbook and/or on the water quality monitoring form and the specific person who calibrated the equipment will be recorded.

3.6 Documentation and Reporting

The contractor will prepare daily water quality monitoring reports detailing the monitoring data collection activities and results. The contractor shall submit the water quality monitoring reports to the Port by noon on the following Monday in which water quality monitoring occurred. The Port will verify the reports are filled out accurately and will submit the reports to the Ecology Federal Permit Manager within 1 week of the completion of each week of water quality monitoring, if required. The Ecology template for the water quality monitoring form is included in Appendix A. These reports or forms will include the following information:

- Date and time of the monitoring at each location
- Turbidity measurement monitoring at each monitoring location (i.e., background, early detection, and compliance)
- Name of monitoring personnel

- Monitoring notes that may include:
 - Field conditions (weather, temperature, any prior disturbance of the water body, etc.)
 - Monitoring equipment calibration information
 - Description of construction activity taking place and duration of activity

Chapter 4. Contingency Response and Notification Plan for Suitable Material

4.1 Contingency Measures

If exceedances are measured, the background turbidity levels will be verified, and the exceedance confirmed. If an exceedance of a water quality standard occurs during either visual and/or instrumented monitoring, field personnel will stop work and assess the source of the exceedance or impact, and corrective actions will be evaluated. Once the source has been identified, field personnel will implement operation modifications or other supplemental control measures or BMPs to bring the water quality measurements back into compliance with the criteria. Dredging of suitable material may continue with additional BMPs but will be brought into compliance within 2 hours or dredging will be stopped and additional controls implemented.

At the early warning points, any elevation above the standard will trigger an inspection of all potentially contributing BMPs and will result in the addition or modification of BMPs to prevent an exceedance. Any exceedance resulting in a visible plume will be responded to by determining the extent down-current of the plume. Attempts will be made to do the same with exceedances at depths beyond visible screening capabilities, recognizing it will be far more difficult to determine extent with the same certainty as is possible for visible plumes.

Once the control measures have been deemed effective, monitoring will continue every 2 hours until the water quality exceedances have been brought into compliance (excluding during unsafe monitoring conditions such as darkness). Once compliance is met, monitoring twice per day will be re-initiated as described in Section 3.3.

4.1.1 Instrumented Monitoring

As described in Section 1.2, the numerical water quality standard for turbidity must be met at the point of compliance, which is 150-foot downstream/downgradient of the construction activity (or is shifted depending on the tides, as described in Section 3.4). Turbidity outside this established mixing zone that is greater than 10 NTUs over the background turbidity when turbidity in the background sample is 50 NTUs or less, or a 20 percent increase in turbidity when the background turbidity is more than 50 NTUs, is a violation of the turbidity water quality standard.

4.1.2 Visual Monitoring

As described in Section 1.2, visible turbidity greater than the background turbidity at or beyond the 150-foot point of compliance is considered an exceedance, or violation of, the turbidity water quality standard. If a visible turbidity plume is evident at the compliance boundary, it will be photo-documented, corrective actions will be taken to eliminate the source of the turbidity, and follow-up instrumented turbidity monitoring will be implemented to confirm the turbidity exceedance and will continue every 2 hours until the turbidity complies with the water quality standard (excluding during unsafe monitoring conditions, such as darkness). Once compliance is met, monitoring twice per day will be re-initiated as described in Section 3.3.

If construction debris is observed in the waterway, effort will be made to retrieve the debris. If sheen or oil is observed originating from Project activities, the contractor will immediately cease operations. Corrective actions will be implemented to make repairs to equipment, address the spill, or modify construction activities or BMPs, and conduct appropriate notifications with the Port,

National Response Center at 1-800-424-8802, Washington Military Department's Emergency Management Division at 1-800-258-5990, and permitting agencies, as appropriate. Work may resume after the corrective actions have been deemed effective, the turbidity complies with the water quality standard, and as directed by the Port or permitting agencies.

If distressed or dying fish are observed at the construction site that can be attributed to construction activities, work will stop immediately and the Port and Ecology will be notified as described in Section 4.2, as well as notifying other permitting agencies, as appropriate.

4.2 Notification

If compliance monitoring data indicate an exceedance of the water quality standard for turbidity or evidence of noncompliance, such as distressed or dying fish or a discharge of oil, is noted at the compliance monitoring location (i.e., 150 feet downstream), the Port will be notified by the contractor immediately. In turn, the Port will immediately notify Ecology's 24-hour Spill Response Team and, within 24 hours of the observed noncompliance, notify the Ecology federal permit manager (Laura Inouye) for all noncompliance conditions or spills.

Contact information for notifications:

- Port of Tacoma:
 - Norm Gilbert, Engineering Project Manager, office: (253) 383-9406
 - Mike Kisak, Inspector, work mobile: (253) 377-3342
 - Robert Brenner, Temporary Environmental Project Manager, office: (253) 592-6210
- National Response Center: (800) 424-8802
- Ecology's 24-hour Spill Response Team: (800) 258-5990 or (360) 407-6300
- Ecology federal permit manager:
 - Laura Inouye, office: (360) 407-6165, work mobile: (360) 515-8213, email: lino461@ecy.wa.gov

The notification should include the following:

1. A description of the nature, extent, and cause of noncompliance. Sheens that drift in on the wind or tide will be reported as unknown source and unknown volume if neither is known. No further action to determine the source will be made by the contractor beyond reporting, as required.
2. The period of noncompliance, including the date, time, and anticipated time when the activity will return to compliance.
3. The steps taken to minimize, eliminate, and prevent a reoccurrence of the noncompliance action.
4. A written report to Ecology within 5 days of the noncompliance, if required, that provides

a description of the nature of the violation, the sampling results and location, photographs, a description of the BMPs that were or will be implemented to prevent further violations, and any other pertinent information.

Chapter 5. Unsuitable Material Dredging and Transloading

If any dredged material is determined to be unsuitable for open-water disposal, additional coordination and planning will be conducted with the Corps and Ecology to determine specific dredging and transloading BMPs, transloading location, and water quality monitoring requirements. The additional details for unsuitable material dredging, transloading, and disposal will be provided prior to or with the contractor's dredge plan to be approved by the Corps and Ecology prior to dredging.

At a minimum, the same contingency and response procedures followed for suitable materials will be applied to unsuitable materials. The following additional information will be provided in a plan to the DMMP and Ecology for their approval prior to dredging unsuitable material:

- In- water work (dredging) for unsuitable material will include:
 - Early detection monitoring location turbidity elevations may trigger additional BMPs as proactive measures to prevent an exceedance at the point of compliance. Any elevation above the standard will result in an inspection of all potentially contributing BMPs and the addition or modification of BMPs.
 - Turbidity exceedances at the point of compliance results in stop work, plume chasing, and monitoring every two hours until compliance is met (or sundown). Work restarts only when compliance is met, with new BMPs employed. In case of exceedance, Ecology must be notified within 2 hours.
 - A more tiered turbidity metered monitoring approach which includes Intensive Phase Monitoring conducted twice a day for the first week of dredging. Once approved by Ecology, the Intensive Phase Monitoring will change to Routine Monitoring which will include monitoring twice a day, two times a week, and will continue until dredging is complete or an exceedance triggers the return to the Intensive Phase Monitoring. Unsuitable material dredging will always be monitored by one of these two types of metered turbidity monitoring in addition to visual monitoring. Any exceedance will restart the Intensive Phase Monitoring.
- Transloading of unsuitable material will occur at a facility permitted for this activity, or at a Port-provided location meeting the following minimum criteria and approved by the Corps, Ecology, and other applicable permitting agencies.
 - The location and details of the transload site will be provided.
 - The transload site will be an isolated upland location which controls discharges and prevents water that encounters dredged material from entering stormwater drains. A SWPPP will be prepared for the transloading work, if it becomes necessary.
 - Turbidity monitoring will be conducted twice per day at the end of pipe if there is a discharge to surface water from the transloading site and during all transloading activities. Discharge will be halted if standards are not met. Additional BMPs and/or modifications to transloading operations will be conducted so that discharge is below the water quality standards prior to resuming discharge from the transload site. If

transloading at a facility, the facility's monitoring plan and response procedures will be followed.

Chapter 6. References

Port of Tacoma (Port). 2021. Final Water Quality Monitoring and Protection Plan, Blair Waterway Berth Maintenance Dredge: Washington United Terminal & Husky Terminal March 22, 2021

Figures

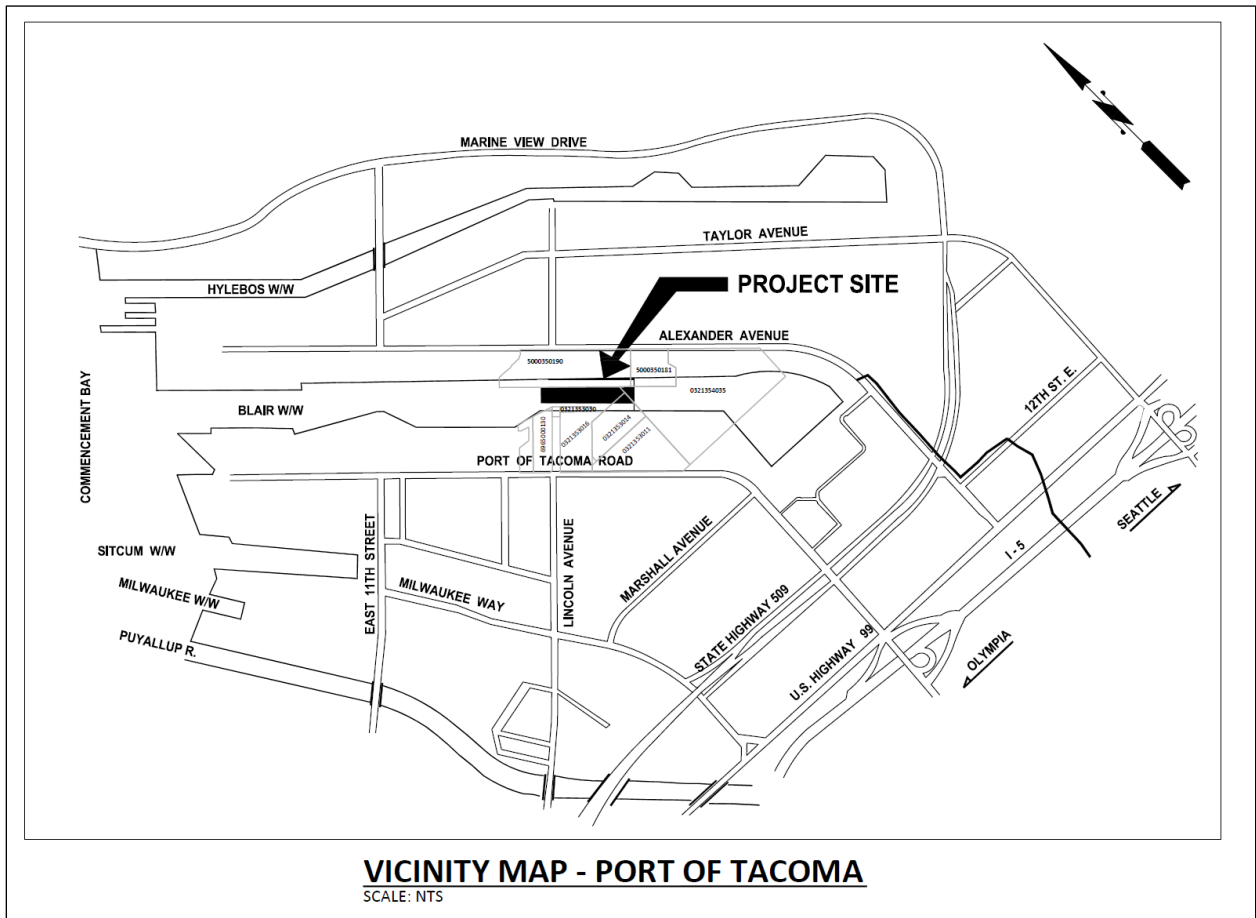


Figure 1. Vicinity Map

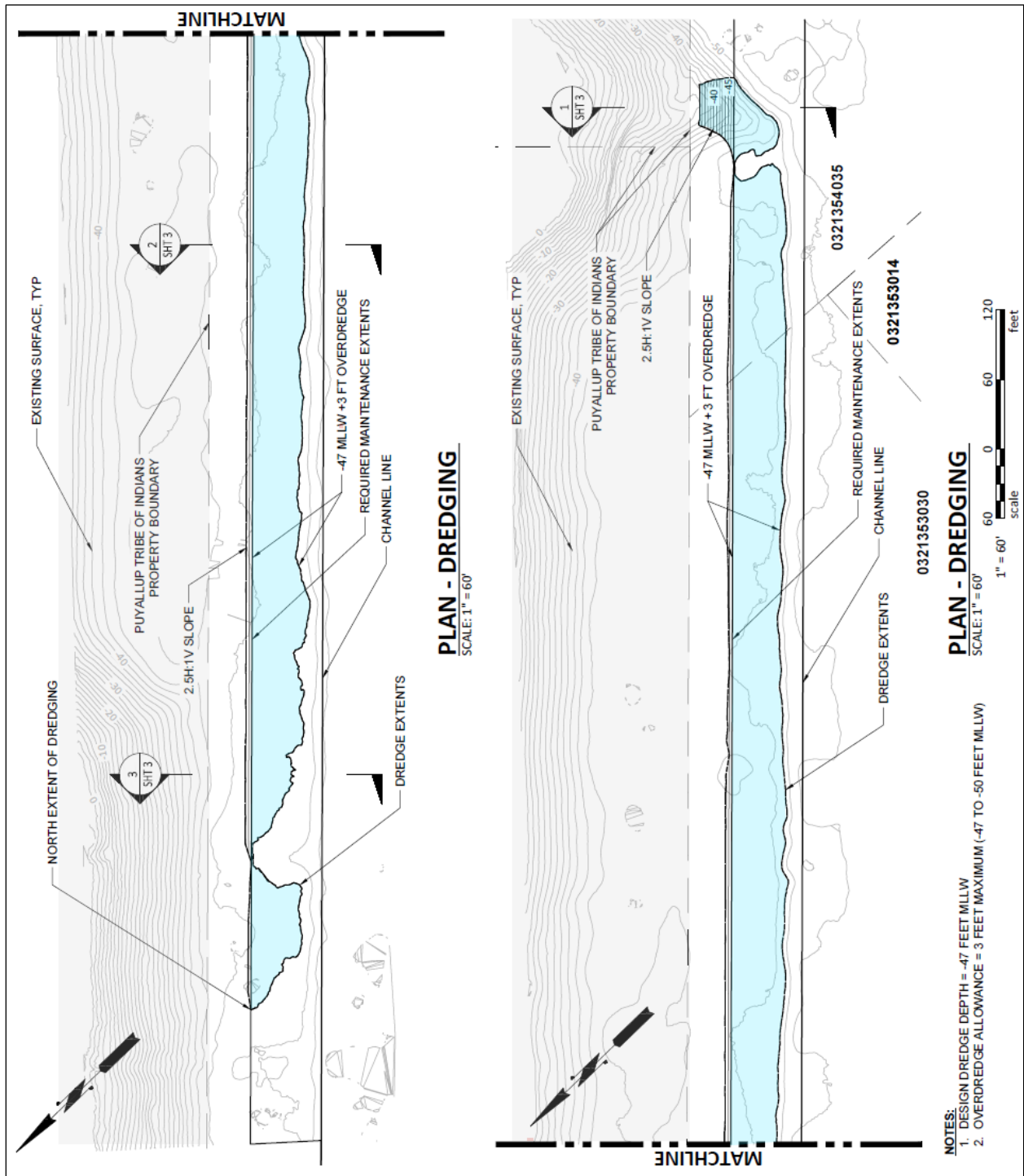


Figure 2. Middle Blair Waterway Site Overview, Plan View

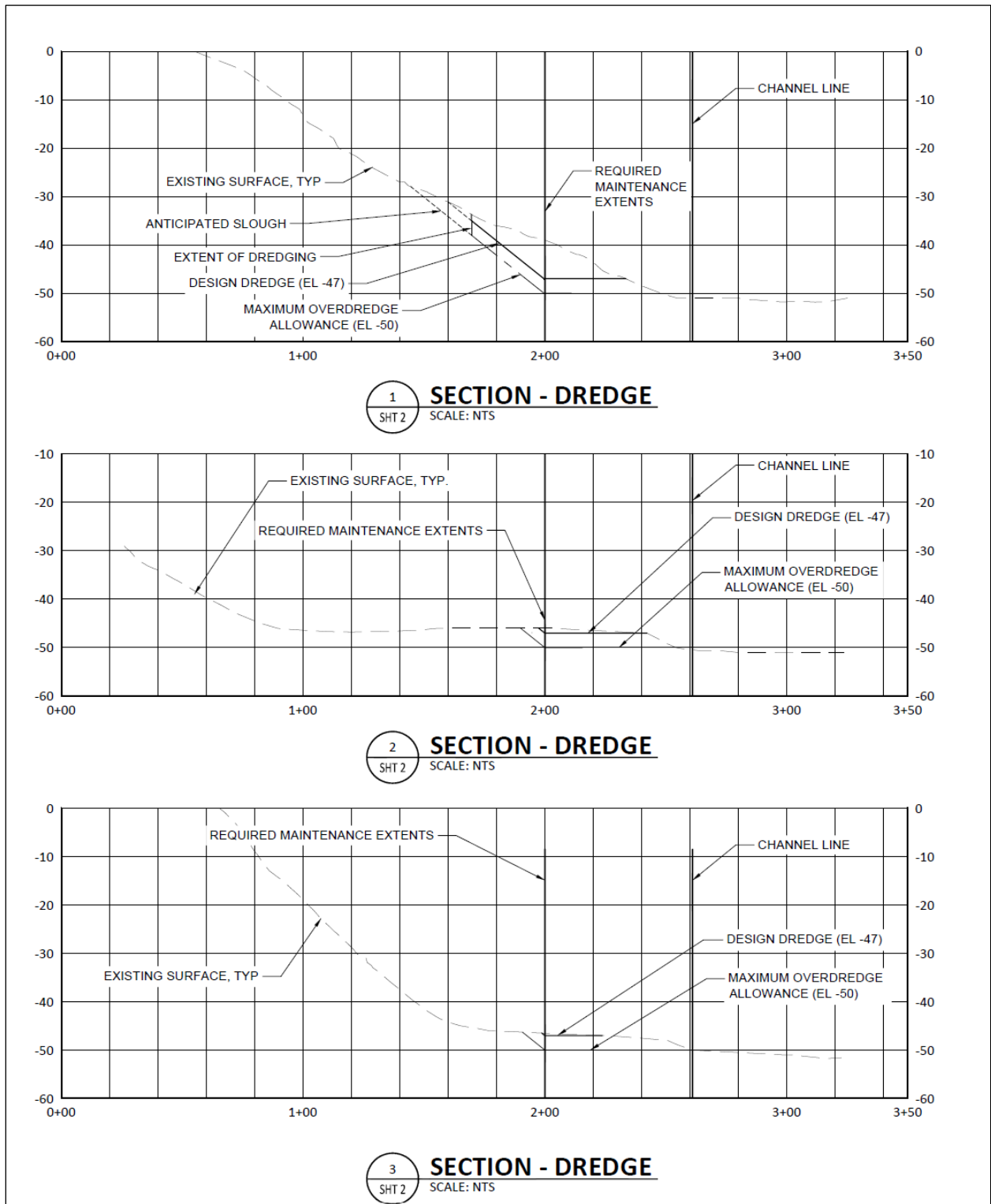


Figure 3. Middle Blair Waterway Site Overview, Section View

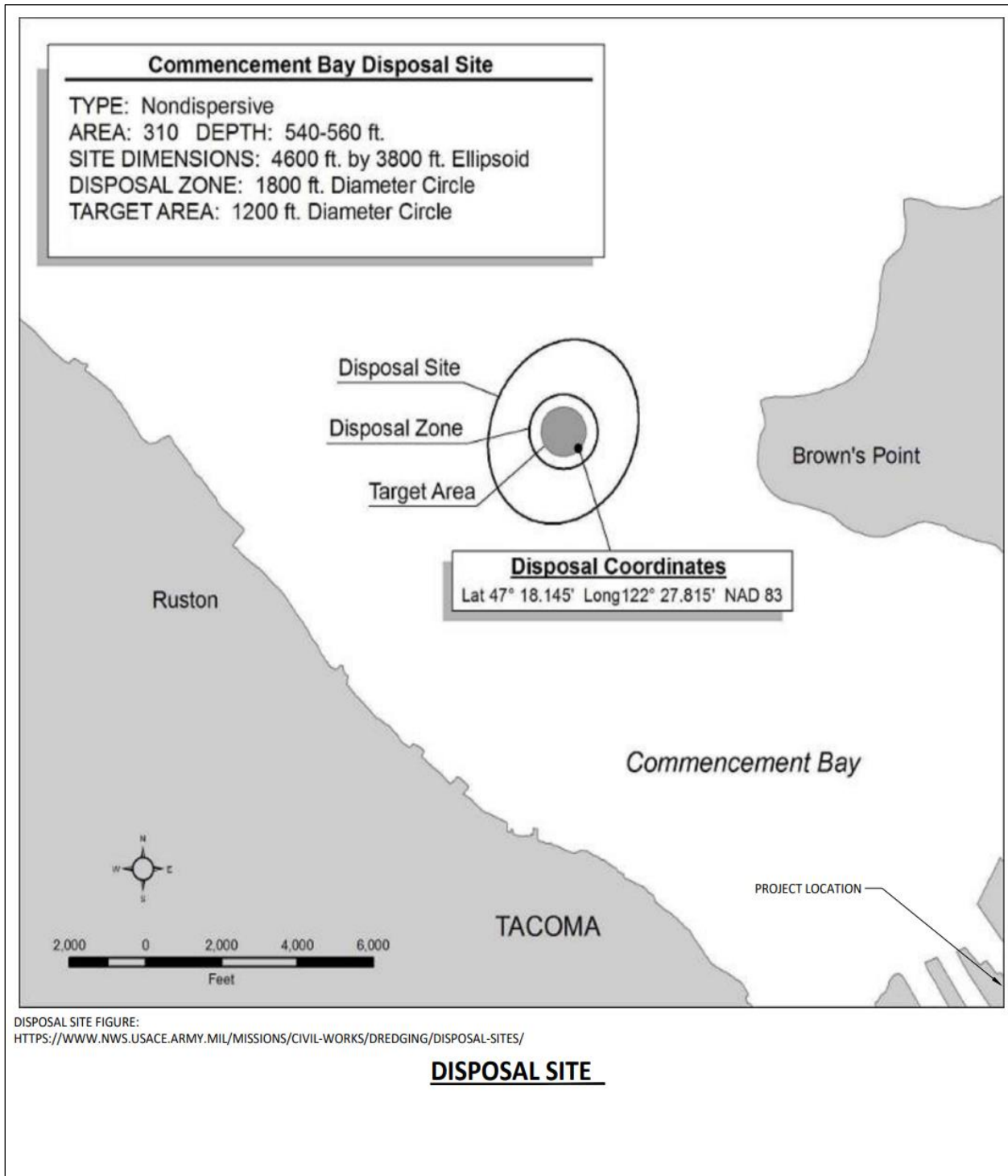


Figure 4. Commencement Bay Disposal Site

Appendix A. Water Quality Monitoring Form

Water Quality Monitoring Turbidity Data Sheet

Project Name: Middle Blair Navigation Safety Improvement Project _____

Corps Reference No.: _____

Ecology Order No.: _____

Sampling Personnel: _____

Date	Background 300' Upstream		Early Detection 100' Turbidity		Compliance Point 150' Turbidity		Calculated Water Quality Standards		Depth of Monitoring <small>- Surface (3 ft of surface) - Middle (mid-depth) - Bottom (3ft of bottom)</small>	Work Activity	Notes (weather, calibration, NVT, etc.)
	Time	Reading	Time	Reading	Time	Reading	Number	Exceedanc e (Y/N)			

Notes:
 The water quality monitoring turbidity standards applicable to this site per WAC 173-201A-210(1)(e) are as follows:
 1 Turbidity shall not exceed 10 NTUs over the background turbidity when the background turbidity is less than 50 NTUs.
 2 Turbidity shall not exceed a 20 percent increase in turbidity when the background turbidity is more than 50 NTUs.

Abbreviations:
 NTU Nephelometric turbidity units
 NVT No visual turbidity (for visual monitoring)
 WAC Washington Administrative Code

APPENDIX E

MIDDLE BLAIR

SPECIFIC PERMITS

- 1) STATE ENVIRONMENTAL POLICY ACT (SEPA)
COMPLIANCE DETERMINATION OF
NONSIGNIFICANCE**
- 2) SHORELINE MANAGEMENT ACT / CRITICAL AREAS
COMPLIANCE EXEMPTION LU24-0102**
- 3) HYDRAULIC PROJECT APPROVAL 2024-6-383+01**
- 4) DMMP SUITABILITY DETERMINATION MEMORANDUM**
- 5) UNITED STATES ARMY CORP of ENGINEERS NWS-2024-
XXX-WRD**
- 6) DEPARTMENT of ECOLOGY WATER QUALITY
CERTIFICATION 23248**
- 7) DEPARTMENT of ECOLOGY COASTAL ZONE
MANAGEMENT**

**1) STATE ENVIRONMENTAL POLICY ACT
(SEPA) COMPLIANCE DETERMINATION
OF NONSIGNIFICANCE**



**DETERMINATION OF NONSIGNIFICANCE
WAC 197-11-970**

Project Name: Middle Blair Navigation Safety Improvement Project

Description of proposal: The Port of Tacoma proposes maintenance dredging in the Blair Waterway, across from Washington United Terminal (WUT), to allow ships to safely transit the waterway.

Proponent: Port of Tacoma

Location of proposal, including street address, if any: The Project is located at Port of Tacoma – Blair Waterway, Washington United Terminals; 1815 Port of Tacoma Road Tacoma, WA 98421; Section 35, Township 21, Range 03, NE ¼ 47. 26372° N / 122.38866° E

Lead agency: Port of Tacoma

The lead agency for this proposal has determined that the project does not have a probable significant adverse impact on the environment. An environmental impact statement (EIS) is not required under Revised Code of Washington (RCW) 43.21C.030(2)(c). This decision was made after review of a completed environmental checklist and other information on file with the lead agency. Additional project and/or State Environmental Policy Act (SEPA) information is available upon request at the Port of Tacoma’s Administration building, located at One Sitcum Plaza, Tacoma, WA 98421 or at the Port’s website at <http://www.portoftacoma.com/sepa>.

Comments: This Determination of Non-Significance (DNS) is issued under Chapter 197-11-340(2) Washington Administrative Code (WAC). Pursuant to Port policy, all interested parties shall have 14 calendars days to comment on the proposed SEPA threshold determination. The lead agency will not act on this proposal for 14 days from the start date of the comment period described below. Comments shall be submitted to the Port of Tacoma, Environmental Programs, C/O Heather Curbow at One Sitcum Plaza, Tacoma, WA 98421 or at the Port’s website at <http://www.portoftacoma.com/sepa>.

Responsible official: Jason Jordan

Position/title: Director, Environmental and Planning Programs

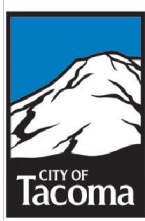
Signature  **Date:** Jul 29, 2024

Jason Jordan (Jul 29, 2024 15:54 PDT)

Comment Start Date: August 1,2024

Comment End Date: August 15,2024

**2) SHORELINE MANAGEMENT ACT /
CRITICAL AREAS COMPLIANCE
EXEMPTION
LU24-0102**



City of Tacoma
Planning and Development Services

August 26th, 2024

Stanley Sasser, Port of Tacoma
One Sitcum Plaza
Tacoma, WA 98421

via email: ssasser@portoftacoma.com and
brenner@leon-environmental.com

RE: LU24-0102 - Shoreline Substantial Development Permit Exemption for the
Port of Tacoma Middle Blair Navigation Safety Improvements Maintenance
Dredging at 500 E Alexander Ave, Parcel No. 0321353030, 0321353014,
0321354035.

Dear Mr. Sasser:

You have requested a shoreline exemption for maintenance dredging at the middle of Blair Waterway. The Port of Tacoma (Port) proposes to dredge sediment mounds and shallower berth elevations at the Middle Blair Waterway which will restore terminal operations to full capacity. The Port proposes to dredge a volume estimated at up to 2,500 cubic yards (CY) to restore the authorized depth of -47 ft Mean Lower Low Water (MLLW). The Port also requests authorization for up to 3-foot over-dredge, which could increase the dredging volume by up to approximately 9,500 CY, for a total volume of approximately 12,000 CY. The Port proposes a 2-foot over-dredge depth; however, if testing indicates that the post-dredge sediment surface (Z-layer) exceeds anti-degradation criteria, the Port has requested up to a 3-foot over-dredge. The additional over-dredge is proposed to either reach a post-dredge surface that meets anti-degradation criteria or to provide sufficient depth to place up to a 1-foot layer of clean sand (up to 3,500 CY) to isolate the Z layer from direct exposure to the water, if required by the Dredged Material Management Plan (DMMP). Although the Port will characterize the sediments within the 2-ft over-dredge, it does not anticipate dredging to substantially exceed the 12,000 CY dredge volume.

All work will be completed within the approved work window provided by the Hydraulic Project Approval (HPA) for this proposal. Additional procedures and Best Management Practices (BMPs) to minimize potential temporary impacts to habitat, fish and wildlife, include but are not limited to:

- Dredging actions will be conducted during the Washington Department of Fish and Wildlife (WDFW) approved in-water work window for Commencement Bay (July 15 – February 15 of each year), which is outside of times when juvenile salmonids are expected to be present based upon best available science;
- No dredging will occur in any identified sand lance, surf smelt or herring spawning areas; and
- No dredging will occur in areas with eelgrass or kelp.

A comprehensive list of BMPs are contained within the applicant's Joint Aquatic Resources Permit Application (JARPA) and Shoreline Narrative Memorandum.

The project is occurring in a highly industrial, urban waterway with limited habitat. There are no eelgrass, kelp or forage fish spawning in or adjacent to the berthing areas being dredged. There will be no dredging in intertidal or shallow subtidal habitat. No intertidal or shallow subtidal habitat will be converted to deep subtidal. Dredging will remove targeted high-spots to maintain navigation at previously authorized depths. Restoring the water depths to previously authorized depths will not impact natural hydrographic conditions and will not result in unsafe, obstructed passage of fish and wildlife.

Pursuant to State Environmental Policy Act (SEPA), WAC 197-11-340, the Port of Tacoma, as Lead Agency, must issue an environmental determination for the project. The SEPA Determination is included with the application documents. For further information regarding SEPA, please contact the project applicant.

The proposed maintenance dredging has been determined to be consistent with the Tacoma Shoreline Master Program (TSMP) exemption criteria in TMC 19.02.030.C.2. and D.1. for normal maintenance dredging activities and to prevent a decline, lapse, or cessation from a lawfully established condition.

The requested exemption to the City's Shoreline Substantial Development Permit requirement is consistent with the policies of the Shoreline Master Act, the policies and implementing regulations of the TSMP and with the criteria set forth in the Washington Administrative Code (WAC) and Revised code of Washington (RCW) for the authorization of such permits.

Therefore, the exemption request is Approved, subject to the following **Conditions**:

1. The work must be accomplished per the approved plans and specifications.
2. All minimization measures and BMPs provided in the JARPA, and Shoreline Narrative shall be followed.
3. Approval from the Army Corps of Engineers is required prior to issuance of City of Tacoma construction permits and shall be uploaded with the permit application(s).
4. A HPA from WDFW is required prior to issuance of City of Tacoma construction permits and shall be uploaded with the permit application(s). The applicant shall follow the work window for construction listed under the HPA.
5. A copy of this exemption letter shall be available on the site during all stages of the project.

The applicant is also **Advised** of the following:

- This Exemption Letter is only applicable to the proposed project as described above and based upon the information submitted by the applicant. Future activities or development within the waters of the state or shoreline jurisdiction may be subject to further review and additional permits or exemptions as required in accordance with TMC Title 19.
- This Letter of Exemption shall expire (5) years after its date of issuance.
- The applicant shall obtain other approvals prior to construction as required by other local, state and federal agencies. The City of Tacoma is not the only reviewing agency with jurisdiction over the project area. The United States Army Corps of Engineers (USACE), WDFW and/or Washington Department of Natural Resources (DNR) may have requirements regarding work within regulated waters that may be applicable to the project.

We are issuing this letter of exemption per the provisions of TSMP and Tacoma Municipal Code (TMC) Title 19 to comply with the requirements of WAC 173-27-050 and WAC 173-27-040. Should you have any further questions or requests please do not hesitate to contact me at 253-345-1367 / AHenderson2@cityoftacoma.org.

Sincerely,



Alexia Henderson
Senior Regulatory Compliance Analyst

cc via e-mail:

Port of Tacoma – Info@portoftacoma.com

Puyallup Tribe - Jennifer.M.Keating@puyalluptribe-nsn.gov, Brandon.Reynon@PuyallupTribe-nsn.gov

Washington Department of Ecology, Shorelands & Environmental Assistance Program, Zach Meyer - zmey461@ecy.wa.gov

Washington Department of Fish and Wildlife - R6SSplanning@dfw.wa.gov

U.S. Army Corps of Engineers, Attn: Regulatory Branch, CENWS-OD-RG - halie.endicott@usace.army.mil

Washington Department of Natural Resources - elyse.weaver@dnr.wa.gov

U.S. Fish & Wildlife Service, Attn: Judy Lantor, 510 Desmond Drive SE #102, Lacey, WA 98503 – judy_lantor@fws.gov

3) HYDRAULIC PROJECT APPROVAL
2024-6-383+01



HYDRAULIC PROJECT APPROVAL

Washington Department of
Fish & Wildlife
PO Box 43234
Olympia, WA 98504-3234
(360) 902-2200

Issued Date: October 09, 2024
Project End Date: October 08, 2029

Permit Number: 2024-6-383+01
FPA/Public Notice Number: N/A
Application ID: 35396

PERMITTEE	AUTHORIZED AGENT OR CONTRACTOR
Port of Tacoma ATTENTION: Robert Brenner PO Box 1837 Tacoma, WA 98401-1837	Leon Environmental ATTENTION: Michael Cecil 8047 Burke Ave N Seattle, WA 98103

Project Name: Port of Tacoma (Port) Middle Blair Navigation Safety Improvement Project

Project Description: The Port of Tacoma (Port) proposes to conduct maintenance dredging in the Blair Waterway, Tacoma, Washington across from the Washington United Terminal (WUT), in front of the marine industrial property owned by the Puyallup Tribe of Indians (Tribe) and in an area informally referred to as the Knuckle. This area has previously been dredged to a depth of at least -47 feet (ft) mean lower low water (MLLW). The authorized depth for the Blair Waterway is -51' MLLW.

Dredge volume estimated at up to 12,000 cubic yards to restore a depth of -47 ft MLLW, including authorization for up to 3 feet of over dredge (-50 MLLW). A 1-foot layer of clean sand (up to 3,500 cubic yards) will be placed if necessary to isolate the post-dredge sediment surface from direct exposure to the water.

PROVISIONS

AUTHORIZED WORK TIMES

1. **TIMING LIMITATION:** To protect fish and shellfish habitats at the job site, work below the ordinary high water line must occur from July 15 through December 31 and January 1 through February 15 of any year.
2. **APPROVED PLANS:** Work must be accomplished per plans and specifications submitted with the application and approved by the Washington Department of Fish and Wildlife, entitled "20240625_POT Middle Blair Dredge JARPA_Dwgs.pdf", uploaded to APPS on August 27, 2024,, except as modified by this Hydraulic Project Approval. You must have a copy of these plans available on site during all phases of the project construction.

NOTIFICATION

3. **PRE- AND POST-CONSTRUCTION NOTIFICATION:** You, your agent, or contractor must contact the Washington Department of Fish and Wildlife by e-mail at HPAapplications@dfw.wa.gov; mail to Post Office Box 43234, Olympia, Washington 98504-3234; or fax to (360) 902-2946 at least three business days before starting work, and again within seven days after completing the work. The notification must include the permittee's name, project location, starting date for work or date the work was completed, and the permit number. The Washington Department of Fish and Wildlife may conduct inspections during and after construction; however, the Washington Department of Fish and Wildlife will notify you or your agent before conducting the inspection.
4. **FISH KILL/ WATER QUALITY PROBLEM NOTIFICATION:** If a fish kill occurs or fish are observed in distress at the job site, immediately stop all activities causing harm. Immediately notify the Washington Department of Fish and Wildlife of the problem. If the likely cause of the fish kill or fish distress is related to water quality, also notify the Washington Military Department Emergency Management Division at 1-800-258-5990. Activities related to the fish kill or fish distress must not resume until the Washington Department of Fish and Wildlife gives approval. The Washington



HYDRAULIC PROJECT APPROVAL

Washington Department of
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Department of Fish and Wildlife may require additional measures to mitigate impacts.

STAGING, JOB SITE ACCESS AND EQUIPMENT

5. Establish the staging area (used for activities such as equipment storage, vehicle storage, fueling, servicing, and hazardous material storage) in a location and manner that will prevent contaminants like petroleum products, hydraulic fluid, fresh concrete, sediments, sediment-laden water, chemicals, or any other toxic or harmful materials from entering waters of the state.
6. Check equipment daily for leaks and complete any required repairs before using the equipment in or near the water.
7. Lubricants composed of biodegradable base oils such as vegetable oils, synthetic esters, and polyalkylene glycols are recommended for use in equipment operated in or near water.
8. Operate vessels with minimal propulsion power to avoid prop scour damage to the bed and marine vegetation habitats.

CONSTRUCTION-RELATED SEDIMENT, EROSION AND POLLUTION CONTAINMENT

9. Prevent contaminants from the project, such as petroleum products, hydraulic fluid, fresh concrete, sediments, sediment-laden water, chemicals, or any other toxic or harmful materials, from entering or leaching into waters of the state.

DREDGING

10. Conduct dredging with dredge types and methods that cause the least impacts to fish and shellfish.
11. Operate a hydraulic dredge with the intake at or below the bed surface. Raise the intake up to three feet above the bed only for brief periods of purging or flushing the intake system.
12. Operate a dragline or clamshell to minimize turbidity. During excavation, complete each pass with the clamshell or dragline bucket. Do not stockpile dredged material waterward of the ordinary high water line.
13. Dispose of dredged materials at the designated deep water disposal site shown in the plans, or dispose of dredged bed materials in an upland area landward of the ordinary high water line.
14. To minimize turbidity, hopper dredges, scows and barges used to transport dredged materials to the disposal or transfer sites must completely contain the dredged material.
15. To avoid attracting fish to artificial light at night, limit dredging activities to daylight hours whenever feasible.
16. You are authorized to place up to 3,500 cubic yards of sand in the areas and at the depths shown in the approved plan document. Sand should be placed uniformly and must be free of materials that could leach metals, petroleum products, or other hazardous materials.

LOCATION #1:	Site Name: Middle Blair Waterway 1815 Port of Tacoma Road, Tacoma, WA 98421					
WORK START:	October 9, 2024			WORK END:	October 8, 2029	
<u>WRIA</u>	<u>Waterbody:</u>			<u>Tributary to:</u>		
10 - Puyallup - White	Wria 10 Marine			7964		
<u>1/4 SEC:</u>	<u>Section:</u>	<u>Township:</u>	<u>Range:</u>	<u>Latitude:</u>	<u>Longitude:</u>	<u>County:</u>
NE 1/4	35	21 N	03 E	47.26372	-122.38866	Pierce



HYDRAULIC PROJECT APPROVAL

Washington Department of
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PO Box 43234
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Project End Date: October 08, 2029

FPA/Public Notice Number: N/A

Application ID: 35396

Location #1 Driving Directions

From I-5 S, take exit 136 for Port of Tacoma. Turn right onto Port of Tacoma Rd, follow for 1.7 miles. Turn right, after 184 feet turn right again. Take a slight left and then turn right. Washington United Terminals is at 1815 Port of Tacoma Road, Tacoma, WA 98421. The proposed work area is in the Blair Waterway near Washington United Terminals.

APPLY TO ALL HYDRAULIC PROJECT APPROVALS

This Hydraulic Project Approval pertains only to those requirements of the Washington State Hydraulic Code, specifically Chapter 77.55 RCW. Additional authorization from other public agencies may be necessary for this project. The person(s) to whom this Hydraulic Project Approval is issued is responsible for applying for and obtaining any additional authorization from other public agencies (local, state and/or federal) that may be necessary for this project.

This Hydraulic Project Approval shall be available on the job site at all times and all its provisions followed by the person (s) to whom this Hydraulic Project Approval is issued and operator(s) performing the work.

This Hydraulic Project Approval does not authorize trespass.

The person(s) to whom this Hydraulic Project Approval is issued and operator(s) performing the work may be held liable for any loss or damage to fish life or fish habitat that results from failure to comply with the provisions of this Hydraulic Project Approval.

Failure to comply with the provisions of this Hydraulic Project Approval could result in civil action against you, including, but not limited to, a stop work order or notice to comply, and/or a gross misdemeanor criminal charge, possibly punishable by fine and/or imprisonment.

All Hydraulic Project Approvals issued under RCW 77.55.021 are subject to additional restrictions, conditions, or revocation if the Department of Fish and Wildlife determines that changed conditions require such action. The person(s) to whom this Hydraulic Project Approval is issued has the right to appeal those decisions. Procedures for filing appeals are listed below.



HYDRAULIC PROJECT APPROVAL

Washington Department of
Fish & Wildlife
PO Box 43234
Olympia, WA 98504-3234
(360) 902-2200

Issued Date: October 09, 2024

Permit Number: 2024-6-383+01

Project End Date: October 08, 2029

FPA/Public Notice Number: N/A

Application ID: 35396

MINOR MODIFICATIONS TO THIS HPA: You may request approval of minor modifications to the required work timing or to the plans and specifications approved in this HPA unless this is a General HPA. If this is a General HPA you must use the Major Modification process described below. Any approved minor modification will require issuance of a letter documenting the approval. A minor modification to the required work timing means any change to the work start or end dates of the current work season to enable project or work phase completion. Minor modifications will be approved only if spawning or incubating fish are not present within the vicinity of the project. You may request subsequent minor modifications to the required work timing. A minor modification of the plans and specifications means any changes in the materials, characteristics or construction of your project that does not alter the project's impact to fish life or habitat and does not require a change in the provisions of the HPA to mitigate the impacts of the modification. If you originally applied for your HPA through the online Aquatic Protection Permitting System (APPS), you may request a minor modification through APPS. A link to APPS is at <http://wdfw.wa.gov/licensing/hpa/>. If you did not use APPS you must submit a written request that clearly indicates you are seeking a minor modification to an existing HPA. Written requests must include the name of the applicant, the name of the authorized agent if one is acting for the applicant, the APP ID number of the HPA, the date issued, the permitting biologist, the requested changes to the HPA, the reason for the requested change, the date of the request, and the requestor's signature. Send by mail to: Washington Department of Fish and Wildlife, PO Box 43234, Olympia, Washington 98504-3234, or by email to HPAapplications@dfw.wa.gov. You should allow up to 45 days for the department to process your request.

MAJOR MODIFICATIONS TO THIS HPA: You may request approval of major modifications to any aspect of your HPA. Any approved change other than a minor modification to your HPA will require issuance of a new HPA. If you originally applied for your HPA through the online Aquatic Protection Permitting System (APPS), you may request a major modification through APPS. A link to APPS is at <http://wdfw.wa.gov/licensing/hpa/>. If you did not use APPS you must submit a written request that clearly indicates you are requesting a major modification to an existing HPA. Written requests must include the name of the applicant, the name of the authorized agent if one is acting for the applicant, the APP ID number of the HPA, the date issued, the permitting biologist, the requested changes to the HPA, the reason for the requested change, the date of the request, and the requestor's signature. Send your written request by mail to: Washington Department of Fish and Wildlife, PO Box 43234, Olympia, Washington 98504-3234. You may email your request for a major modification to HPAapplications@dfw.wa.gov. You should allow up to 45 days for the department to process your request.

APPEALS INFORMATION

If you wish to appeal the issuance, denial, conditioning, or modification of a Hydraulic Project Approval (HPA), Washington Department of Fish and Wildlife (WDFW) recommends that you first contact the department employee who issued or denied the HPA to discuss your concerns. Such a discussion may resolve your concerns without the need for further appeal action. If you proceed with an appeal, you may request an informal or formal appeal. WDFW encourages you to take advantage of the informal appeal process before initiating a formal appeal. The informal appeal process includes a review by department management of the HPA or denial and often resolves issues faster and with less legal complexity than the formal appeal process. If the informal appeal process does not resolve your concerns, you may advance your appeal to the formal process. You may contact the HPA Appeals Coordinator at (360) 902-2534 for more information.

A. INFORMAL APPEALS: WAC 220-660-460 is the rule describing how to request an informal appeal of WDFW actions taken under Chapter 77.55 RCW. Please refer to that rule for complete informal appeal procedures. The following information summarizes that rule.



HYDRAULIC PROJECT APPROVAL

Washington Department of
Fish & Wildlife
PO Box 43234
Olympia, WA 98504-3234
(360) 902-2200

Issued Date: October 09, 2024
Project End Date: October 08, 2029

Permit Number: 2024-6-383+01
FPA/Public Notice Number: N/A
Application ID: 35396

A person who is aggrieved by the issuance, denial, conditioning, or modification of an HPA may request an informal appeal of that action. You must send your request to WDFW by mail to the HPA Appeals Coordinator, Department of Fish and Wildlife, Habitat Program, PO Box 43234, Olympia, Washington 98504-3234; e-mail to HPAapplications@dfw.wa.gov; fax to (360) 902-2946; or hand-delivery to the Natural Resources Building, 1111 Washington St SE, Habitat Program, Fifth floor. WDFW must receive your request within 30 days from the date you receive notice of the decision. If you agree, and you applied for the HPA, resolution of the appeal may be facilitated through an informal conference with the WDFW employee responsible for the decision and a supervisor. If a resolution is not reached through the informal conference, or you are not the person who applied for the HPA, the HPA Appeals Coordinator or designee may conduct an informal hearing or review and recommend a decision to the Director or designee. If you are not satisfied with the results of the informal appeal, you may file a request for a formal appeal.

B. FORMAL APPEALS: WAC 220-660-470 is the rule describing how to request a formal appeal of WDFW actions taken under Chapter 77.55 RCW. Please refer to that rule for complete formal appeal procedures. The following information summarizes that rule.

A person who is aggrieved by the issuance, denial, conditioning, or modification of an HPA may request a formal appeal of that action. You must send your request for a formal appeal to the clerk of the Pollution Control Hearings Boards and serve a copy on WDFW within 30 days from the date you receive notice of the decision. You may serve WDFW by mail to the HPA Appeals Coordinator, Department of Fish and Wildlife, Habitat Program, PO Box 43234, Olympia, Washington 98504-3234; e-mail to HPAapplications@dfw.wa.gov; fax to (360) 902-2946; or hand-delivery to the Natural Resources Building, 1111 Washington St SE, Habitat Program, Fifth floor. The time period for requesting a formal appeal is suspended during consideration of a timely informal appeal. If there has been an informal appeal, you may request a formal appeal within 30 days from the date you receive the Director's or designee's written decision in response to the informal appeal.

C. FAILURE TO APPEAL WITHIN THE REQUIRED TIME PERIODS: If there is no timely request for an appeal, the WDFW action shall be final and unappealable.

Habitat Biologist Miles.Penk@dfw.wa.gov
Miles Penk 360-480-2908

for Director
WDFW

**4) DMMP SUITABILITY DETERMINATION
MEMORANDUM**

**5) UNITED STATES ARMY CORP of
ENGINEERS
NWS-2024-563-WRD**

**6) DEPARTMENT of ECOLOGY WATER
QUALITY CERTIFICATION 23248**



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

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

October 23, 2024

Port of Tacoma
Attn: Robert Brenner
P.O. Box 1837
Tacoma, WA 98401

Re: Amendment to 401 Water Quality Certification Order No. **23248** for U.S. Army Corps of Engineers Reference No. **NWS-2024-563**, Middle Blair Navigation Safety Improvement, Pierce County, Washington

Dear Robert Brenner:

Enclosed is an amendment to Water Quality Certification Order No. 23248, issued on October 17, 2024, for the above project. We have also included a strikeout version of the Water Quality Certification that reflects the changes made. All other conditions of Water Quality Certification No. 23248 remain in effect.

The purpose of this amendment is to correct the project description.

If you have any questions, please contact Laura Inouye at 360-515-8213. The enclosed Amendment may be appealed by following the procedures described in the Amendment.

Sincerely,

Loree' Randall, Section Manager
Aquatic Permitting and Protection Section
Shorelands and Environmental Assistance Program

Enclosure (2)

By certified mail: 9489 0090 0027 6391 8522 55

First Amendment to Order No. 23248
Aquatics ID No. 143897, Corps No. NWS-2024-563
October 23, 2024
Page 2 of 2

Sent via e-mail: rbrenner@portoftacoma.com

E-cc: Andrew Shuckhart, U.S. Army Corps of Engineers
Erin Hanlon Brown, Ecology
Laura Inouye, Ecology
ecyrefedpermits@ecy.wa.gov

In The Matter of Granting a Water Quality
Certification (WQC) to Port of Tacoma
pursuant to 33 U.S.C. 1341 (FWPCA § 401), RCW 90.48.120, RCW
90.48.260 and Chapter 173-201A WAC

Port of Tacoma
Attn: Robert Brenner
P.O. Box 1837
Tacoma, WA 98401

WQC Order No.	23248, First Amendment
Corps Reference No.	NWS-2024-563
Site Location	Middle Blair Navigation Safety Improvement, located within Blair Waterway, Tacoma, Pierce County, Washington.

On October 17, 2024, the Washington Department of Ecology (Ecology) issued a 401 Water Quality Certification to the Port of Tacoma for the above-referenced project pursuant to the provisions of 33 U.S.C. 1341 (FWPCA § 401).

Ecology received a request on October 17, 2024, to correct the project description.

WQC Order No. 23248 dated October 17, 2024, is hereby amended as follows:

I. The project description which reads:

The project proposes to dredge a navigational hazard that is directly across from the Washington United Terminal (WUT), located in the Blair Waterway. This hazard feature is informally called "The Knuckle". The intent of the project is to dredge to -48' MLLW, with up to 2 feet of overdredge, an area of approximately 50,000 square feet across from WUT. Up to 12,000 cy will be dredged, with either upland placement or disposal at the Commencement Bay open water disposal site.

Is replaced with:

The project proposes to dredge a navigationally hazardous area that is across from the Washington United Terminals (WUT) facility, located in the Blair Waterway. The area of this hazard is informally called "The Knuckle". The intent of the project is to dredge to -47' MLLW, with up to 3 feet of overdredge, an area of approximately 95,300 square feet across from WUT. Up to 12,000 cy will be dredged, with either upland placement or disposal at the Commencement Bay open water disposal site. Due to the presence of contamination, the requested -47' MLLW + up to 3 feet of overdredge is approved as -48' MLLW + up to 2 feet of overdredge.

No other conditions or requirements of the above referenced Order are affected by this amendment.

Ecology retains continuing jurisdiction to make modifications hereto through supplemental order, if it appears necessary to further protect the public interest.

Failure to comply with this amended Order may result in the issuance of civil penalties or other actions whether administrative or judicial, to enforce the terms of this amended Order.

Your right to appeal

You have a right to appeal this Order to the Pollution Control Hearings Board (PCHB) within 30 days of the date of receipt. The appeal process is governed by Chapter 43.21B RCW and Chapter 371-08 WAC. "Date of receipt" is defined in RCW 43.21B.001(2).

To appeal, you must do all of the following within 30 days of the date of receipt of this Order:

- File your notice of appeal and a copy of this Order with the PCHB (see filing options below). "Filing" means actual receipt by the PCHB during regular business hours as defined in WAC 371-08-305 and -335. "Notice of appeal" is defined in WAC 371-08-340.
- Serve a copy of your notice of appeal and this Order on the Department of Ecology mail, in person, or by email (see addresses below).

You must also comply with other applicable requirements in Chapter 43.21B RCW and Chapter 371-08 WAC.

Filing an appeal

Filing with the PCHB

For the most current information regarding filing with the PCHB, visit: <https://elaho.wa.gov/> or call: 360-664-9160.

Service on Ecology

Street Addresses:

Department of Ecology
Attn: Appeals Processing Desk
300 Desmond Drive SE
Lacey, WA 98503

Mailing Addresses:

Department of Ecology
Attn: Appeals Processing Desk
PO Box 47608
Olympia, WA 98504-7608

E-Mail Address:

ecologyappeals@ecy.wa.gov

Contact Information

Please direct all questions about this Order to:

Laura Inouye
Department of Ecology
360-515-8213
Laura.Inouye@ecy.wa.gov

More Information

- **Pollution Control Hearings Board Website**
<https://eluhho.wa.gov>
- **Chapter 43.21B RCW - Environmental and Land Use Hearings Office – Pollution Control Hearings Board**
<http://app.leg.wa.gov/RCW/default.aspx?cite=43.21B>
- **Chapter 371-08 WAC – Practice and Procedure**
<http://app.leg.wa.gov/WAC/default.aspx?cite=371-08>
- **Chapter 34.05 RCW – Administrative Procedure Act**
<http://app.leg.wa.gov/RCW/default.aspx?cite=34.05>

First Amendment to WQC Order No. 23248
Aquatics No. 143897, Corps No. NWS-2024-563
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Signature

Dated this 23rd day of October 2024 at the Department of Ecology, Lacey, Washington.



Loree' Randall, Section Manager
Aquatic Permitting and Protection Section
Shorelands and Environmental Assistance Program

This document shows the activities and/or conditions that have been amended since the original Order was issued. Therefore, it is not the official certification and should be used for information purposes only.

**In The Matter of Granting a Water Quality
Certification with Conditions to Port of Tacoma
pursuant to 33 U.S.C. 1341 (FWPCA § 401), RCW 90.48.120,
RCW 90.48.260 and Chapter 173-201A WAC**

Port of Tacoma
Attn: Robert Brenner
P.O. Box 1837
Tacoma, WA 98401

WQC Order No.	23248, First Amendment
Corps Reference No.	NWS-2024-563
Site Location	Middle Blair Navigation Safety Improvement, located within Blair Waterway, Tacoma, Pierce County, Washington.

Port of Tacoma submitted a request for a Section 401 Water Quality Certification (WQC) under the federal Clean Water Act to the Department of Ecology (Ecology) for the Middle Blair Navigation Safety Improvement, Pierce County, Washington. The following required processing dates are listed below:

- On 05/22/2024 the Port of Tacoma submitted a pre-filing meeting request.
- On 8/27/2024, Ecology received a request for Clean Water Section 401 Water Quality Certification. The Department of Ecology (Ecology) considered the Request valid on this date.
- On 9/4/2024, Ecology issued a public notice for the project.
- Ecology's "Reasonable Period of Time" for this project has been established as 8/27/2025.

~~The project proposes to dredge a navigational hazard that is directly across from the Washington United Terminal (WUT), located in the Blair Waterway. This hazard feature is informally called "The Knuckle". The intent of the project is to dredge to -48' MLLW, with up to 2 feet of overdredge, an area of approximately 50,000 square feet across from WUT. Up to 12,000 cy will be dredged, with either upland placement or disposal at the Commencement Bay open water disposal site.~~

The project proposes to dredge a navigationally hazardous area that is across from the Washington United Terminals (WUT) facility, located in the Blair Waterway. The area of this hazard is informally called "The Knuckle". The intent of the project is to dredge to -47' MLLW, with up to 3 feet of overdredge, an area of approximately 95,300 square feet across from WUT. Up to 12,000 cy will be dredged, with either upland placement or disposal at the Commencement Bay open water disposal

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site. Due to the presence of contamination, the requested -47' MLLW + up to 3 feet of overdredge is approved as -48' MLLW + up to 2 feet of overdredge.

The project site is located directly across from the Washington United Terminal (WUT), in the Blair Waterway, Pierce County, Washington, Section NE35, Township 21N., Range 03 E., within Water Resource Inventory Area (WRIA) 10 (Puyallup/White).

Authorities

In exercising authority under 33 U.S.C. §1341, 40 CFR Part 121, RCW 90.48.120, RCW 90.48.260, and Chapter 173-201A, Ecology has reviewed this WQC request pursuant to the following:

1. Conformance with applicable water quality-based, technology-based, and toxic or pretreatment effluent limitations as provided under 33 U.S.C. §§1311, 1312, 1313, 1316, and 1317.
2. Conformance with the state water quality standards contained in Chapter 173-201A WAC and authorized by 33 U.S.C. §1313 and by Chapter 90.48 RCW, and with other applicable state laws; and
3. Conformance with the provision of using all known, available and reasonable methods to prevent and control pollution of state waters as required by RCW 90.48.010.
4. Conformance with Washington’s prohibition on discharges that cause or tend to cause pollution of waters of the state of Washington. RCW 90.48.080.
5. The Project Proponent of the project authorized is responsible for obtaining all other permits, licenses, and certifications that may be required by federal, state, local or tribal authorities.

With this Water Quality Certification Order (WQC Order), Ecology is granting with conditions Port of Tacoma’s request for a Section 401 Water Quality Certification for the Middle Blair Navigation Safety Improvement, Blair Waterway located in Pierce County. Ecology has determined that the proposed discharges will comply with all applicable state water quality and other appropriate requirements of State law, provided the project is conducted in accordance with the WQC request that Ecology received on 8/27/2024, the supporting documents referenced in Table 1 below, **and the conditions of this WQC Order.**

Table 1 Supporting Documents

Date Received	Document Type	Title and Date	Author
8/27/2024	Joint Aquatic Resources Permit	JARPA, signed 8/27/2024	Robert Brenner, Port of Tacoma

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	Application (JARPA) Form		
8/27/2024	State Environmental Policy Act	Determination of Nonsignificance. Dated 7/29/2024	Jason Jordan, Port of Tacoma
8/27/2024	Puget Sound Habitat Nearshore Conservation Calculator	Puget Sound Habitat Nearshore Conservation Calculator, Excel spreadsheet dated 6/18/2024	Janae Dinkins, Port of Tacoma
9/11/2024	Water Quality Monitoring and Protection Plan	Water Quality Monitoring and Protection Plan, dated 6/1/2024	Robert Brenner, Port of Tacoma
9/11/2024	Dredge Plan	Dredge Plan, dated 8/26/2024	Robert Brenner, Port of Tacoma

Issuance of this Section 401 Water Quality Certification for this proposal does not authorize Port of Tacoma to exceed applicable state water quality standards (Chapter 173-201A WAC), ground water quality standards (Chapter 173-200 WAC) or sediment quality standards (Chapter 173-204 WAC) or other appropriate requirements of State law. Furthermore, nothing in this Section 401 Water Quality Certification absolves the Port of Tacoma from liability for contamination and any subsequent cleanup of surface waters, ground waters, or sediments resulting from project construction or operations.

Water Quality Certification Conditions

The following conditions will be incorporated into the Corps permit and strictly adhered to by the Port of Tacoma. Specific condition justifications and citations are provided below.

A. General Conditions

1. In this WQC Order, the term “Project Proponent” shall mean the Port of Tacoma and its agents, assignees, and contractors.
 - Justification - Ecology needs to identify that conditions of this WQC Order apply to anyone conducting work on behalf of the Project Proponent to ensure compliance with the water quality standards and other applicable state laws.

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- Citation - 40 CFR 121.1(j), Chapter 90.48 RCW, RCW 90.48.080, RCW 90.48.120, RCW 90.48.260, Chapter 173-200 WAC, Chapter 173-201A WAC, and WAC 173-225-010.
2. All submittals required by this WQC Order shall be sent to Ecology's Headquarters Office, Attn: Federal Permit Manager, via e-mail to fednotification@ecy.wa.gov and cc to Laura.Inouye@ecy.wa.gov. The submittals shall be identified with WQC Order No. 23248 and include the Project Proponent's name, Corps permit number, project name, project contact, and the contact phone number.
 - Justification - Ecology needs to identify where information and submittals are to be submitted to be in compliance with the requirements of this WQC Order.
 - Citation - Chapter 90.48 RCW, RCW 90.48.120, RCW 90.48.260, Chapter 173-201A WAC, and WAC 173-225-010.
 3. Work authorized by this WQC Order is limited to the work described in the WQC request package received by Ecology on 8/27/2024 and the supporting documentation identified in Table 1.
 - Justification - Ecology has the authority to prevent and control pollution of state waters. By authorizing a discharge into a water of the state, through a WQC, Ecology is certifying the project as proposed will not negatively impact water quality. Therefore, it is imperative the project is conducted as it was presented during the review process. Any deviations from information within the WQC Request package and this WQC Order must be disclosed prior to the initiation of the planned work, and may require a new WQC request.
 - Citation - 40 CFR 121.5, 40 CFR 121.10, 40 CFR 121.11, Chapter 90.48 RCW, RCW 90.48.030, RCW 90.48.120, RCW 90.48.260, Chapter 173-200 WAC, Chapter 173-201A WAC, Chapter 173-204 WAC, and WAC 173-225-010.
 4. The Project Proponent shall keep copies of this WQC Order on the job site and readily available for reference by Ecology personnel, the construction superintendent, construction managers and lead workers, and state and local government inspectors.
 - Justification - All parties (including on-site contractors) must be aware of and comply with the WQC Order for the protection of water quality.
 - Citation - Chapter 90.48 RCW, RCW 90.48.030, Chapter 173-201A WAC, and WAC 173-225-010.

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5. The Project Proponent shall provide access to the project site and all mitigation sites upon request by Ecology personnel for site inspections, monitoring, and/or necessary data collection, to ensure that conditions of this WQC Order are being met.
 - Justification - Ecology must be able to investigate and inspect construction sites and facilities for compliance with all state rules and laws.
 - Citation - Chapter 90.48 RCW, RCW 90.48.030, RCW 90.48.090, RCW 90.48.120, Chapter 173-201A WAC, and WAC 173-225-010.
6. The Project Proponent shall ensure that all project engineers, contractors, and other workers at the project site with authority to direct work have read and understand relevant conditions of this WQC Order and all permits, approvals, and documents referenced in this WQC Order. The Project Proponent shall provide Ecology a signed statement (see Attachment A for an example) before construction begins.
 - Justification - Ecology needs to ensure that anyone conducting work at the project, on behalf of the Project Proponent, are aware of and understand the required conditions of this WQC Order to ensure compliance with the water quality standards and other applicable state laws.
 - Citation - Chapter 90.48 RCW, RCW 90.48.030, Chapter 173-201A WAC, and WAC 173-225-010.
7. This WQC Order does not authorize direct, indirect, permanent, or temporary impacts to waters of the state or related aquatic resources, except as specifically provided for in conditions of this WQC Order.
 - Justification - Ecology has the authority to prevent and control pollution of state waters, and to protect designated uses. By authorizing a discharge into a water of the state, through a water quality certification, Ecology is certifying the project as proposed will not negatively impact state water quality and will comply with the state's water quality requirements. Therefore, it is imperative the project is conducted as it was presented during the review process, and as conditioned herein.
 - Citation - Chapter 90.48 RCW, RCW 90.48.030, RCW 90.48.120, Chapter 173-200 WAC, Chapter 173-201A WAC, WAC 173-201A-300(2)(e)(i), WAC 173-201A-310, WAC 173-204-120, and WAC 173-225-010.
8. Failure of any person or entity to comply with the WQC Order may result in the issuance of civil penalties or other actions, whether administrative or judicial, to enforce the state's water quality standards and the conditions of this WQC Order.

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- Justification - Ecology must protect waters of the state from all discharges and potential discharges of pollution that can affect water quality to protect aquatic life and beneficial uses. Ecology has independent state authority to ensure protection of state water quality. Civil penalties and other enforcement actions are the primary means of securing compliance with water quality requirements.
 - Citation - Chapter 90.48 RCW, RCW 90.48.030, RCW 90.48.037, RCW 90.48.080, RCW 90.48.120, RCW 90.48.140, RCW 90.48.142, RCW 90.48.144, and WAC 173-225-010.
9. The Project Proponent shall provide Ecology documentation for review before undertaking any major changes to the proposed project that could significantly and adversely affect water quality, other than those project changes required by this WQC Order.
- Justification - Ecology has independent authority to enforce our 401 certification conditions issued through this WQC Order pursuant to RCW 90.48, and has independent state authority to ensure protection of state water quality. In order to ensure the project will comply with water quality standards in the event of any major changes, Ecology must be able to review the scope of work involved in the construction and operation of the project, otherwise all work must stop and a new 401 certification pre-filing meeting, followed by a new WQC request (after requisite 30-days) is required.
 - Citation - 40 CFR 121.1(k) and (n), 40 CFR 121.3, 40 CFR 121.5, 40 CFR 121.11, Chapter 90.48 RCW, and Chapter 173-201 WAC.
10. The Project Proponent shall send (per A.2.) a copy of the final Federal permit via e-mail to fednotification@ecy.wa.gov and cc to Federal Permit Manager prior to the starting of any work authorized by this WQC Order. If the Federal Agency determines the proposed project does not require a Federal permit, the Project Proponent shall immediately inform Ecology.
- Justification - This condition is needed to ensure that the federal permit has been issued and all the conditions of the WQC Order have been included into the federal permit.
 - Citation - 40 CFR 121.10, 40 CFR 121.11, and Chapter 90.48 RCW.
11. To transfer this WQC Order to a new owner or operator the Project Proponent shall:
- Complete a Request for Transfer of Order with a specific transfer date of the WQC Order's obligations, coverage, and liability and submit it to Ecology per condition A.2. Link to form: <https://apps.ecology.wa.gov/publications/SummaryPages/ECY070695.html>;
- Provide a copy of this WQC Order to the new owner or operator; and

The transfer is not considered valid until the Project Proponent receives written notification from Ecology that the transfer has been approved.

- Justification – Ecology has independent state authority to ensure protection of state water quality. Ecology needs to ensure that anyone conducting work at the project, including any new owners or operators, are aware of and understand the required conditions of this WQC Order to ensure compliance with the water quality standards and other applicable state laws.
- Citation – 40 CFR 121.5, Chapter 90.48 RCW, RCW 90.48.030, Chapter 173-201A WAC, and WAC 173-225-010.

Not Official Copy

B. Notification Requirements

1. The following notifications shall be made via phone or e-mail (e-mail is preferred) to Ecology's Federal Permit Manager via e-mail to fednotification@ecy.wa.gov and cc to Laura.Inouye@ecy.wa.gov. Notifications shall be identified with WQC Order No. 23248, Corps Reference No. NWS-2024-00563, and include the Project Proponent name, project name, project location, project contact and the phone number.
 - a. Immediately following a violation of state water quality standards or when the project is out of compliance with any conditions of this WQC Order;
 - b. At least ten (10) days prior to all pre-dredge meetings;
 - c. At least ten (10) days prior to conducting initial in-water work activities; and
 - d. Within seven (7) days of completion of each in-water work activity
 - Justification - Ecology has independent state authority to ensure protection of state water quality. Ecology must be aware of when a project starts and ends and whether there are any issues. This allows Ecology to evaluate compliance with the state water quality requirements.
 - Citation - Chapter 90.48 RCW, RCW 90.48.030, RCW 90.48.120, Chapter 173-201A WAC, WAC 173-201A-300 - 330, Chapter 173-204 WAC, and WAC 173-225-010.
2. In addition to the phone or e-mail notification required under B.1.a. above, the Project Proponent shall submit a detailed written report to Ecology within five (5) days that describes the nature of the event, corrective action taken and/or planned, steps to be taken to prevent a recurrence, results of any samples taken, and any other pertinent information.
 - Justification - Ecology has independent state authority to ensure protection of state water quality. This condition is intended to assure the Project Proponent remains in full compliance with state water quality requirements for the duration of the project.
 - Citation - Chapter 90.48 RCW, RCW 90.48.120, Chapter 173-201A WAC, and WAC 173-225-010.
3. If the project construction is not completed within 13 months of issuance of this WQC Order, the Project Proponent shall submit per Condition A2 a written construction status report and submit status reports every 12 months until construction is completed.

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- Justification - Ecology has independent state authority to ensure protection of state water quality. Ecology must be aware of when a project starts and ends and whether there are any issues. This allows Ecology to evaluate compliance with the state water quality requirements.
- Citation - Chapter 90.48 RCW, RCW 90.48.030, RCW 90.48.120, Chapter 173-201A WAC, WAC 173-201A-300 - 330, Chapter 173-204 WAC, and WAC 173-225-010.

C. Timing

1. This WQC Order is effective upon issuance of the U.S. Corps of Engineers (Corps) individual permit for this project and will remain valid until the project is completed.
 - Justification – Certifications are required for any license or permit that authorizes an activity that may result in a discharge or fill material into waters. This WQC Order is not valid until the Federal agency issues a permit. Additionally, Ecology needs to be able to specify how long the WQC Order will be in effect.
 - Citation – Chapter 90.48 RCW, Chapter 173-201A WAC, and WAC 173-225-010.
2. The following in-water work windows apply to the project:
 - All activities within the wetted perimeter of the Blair Waterway may be conducted between July 15 through February 15 of any year.
 - Justification - This condition is reaffirming the project will take place during a time period that will not harm fish or other aquatic species.
 - Citation - Chapter 77.55 RCW, Chapter 90.48 RCW, RCW 90.48.030, RCW 90.48.080, Chapter 173-201A WAC, WAC 173-201A-300, WAC 173-201A-330, WAC 173-225-010, and Chapter 220-660 WAC.
3. Any project change that requires a new or revised Hydraulic Project Approval (HPA) from the Department of Fish and Wildlife should be sent to Ecology for review before the change is implemented.
 - Justification - This condition is reaffirming the project will take place during a time period that will not harm fish or other aquatic species.
 - Citation - Chapter 77.55 RCW, Chapter 90.48 RCW, RCW 90.48.030, RCW 90.48.080, Chapter 173-201A WAC, WAC 173-201A-300, WAC 173-201A-330, WAC 173-225-010, and Chapter 220-660 WAC.

D. Water Quality Monitoring and Criteria

1. This WQC Order does not authorize the Project Proponent to exceed applicable water quality standards beyond the limits established in Chapter 173-201A WAC, except as authorized by this WQC Order.
 - Justification - This condition ensures compliance with water quality standards to protect surface waters of the state. Ecology must protect waters of the state from all discharges and potential discharges of pollution that can affect water quality to protect aquatic life and beneficial uses.
 - Citation - Chapter 90.48 RCW, RCW 90.48.030, RCW 90.48.080, Chapter 173-201A WAC, WAC 173-201A-300 - 330, WAC 173-204-120, and WAC 173-225-010.
2. For in-water activities within marine waters turbidity shall not exceed 10 NTU over background when the background is 50 NTU or less; or a 20 percent increase in turbidity when the background turbidity is more than 50 NTU.
 - Justification - Ecology must protect waters of the state from all discharges and potential discharges of pollution and prevent exceedances of the water quality standards that protect aquatic life and beneficial uses.
 - Citation - Chapter 90.48 RCW, RCW 90.48.030, RCW 90.48.080, Chapter 173-201A WAC, WAC 173-201A-300 - 330, WAC 173-204-120, and WAC 173-225-010.
3. This WQC Order does not authorize the Project Proponent to exceed applicable turbidity standards beyond the limits established in Chapter 173-201A WAC as set forth below, unless otherwise authorized in this WQC Order:
 - a. Temporary area of mixing for turbidity established within the state water quality standards for marine waters (WAC 173-201A-210) is as follows:
 01. For estuaries or marine waters, the point of compliance for a temporary area of mixing shall be at a radius of one hundred fifty feet from the activity causing the turbidity exceedance.
 - Justification - Ecology must protect waters of the state from all discharges and potential discharges of pollution and prevent exceedances of the water quality standards that protect aquatic life and beneficial uses.
 - Citation - Chapter 90.48 RCW, RCW 90.48.030, RCW 90.48.080, Chapter 173-201A WAC, WAC 173-201A-300 - 330, WAC 173-204-120, and WAC 173-225-010.

4. The Project Proponent shall implement the approved Water Quality Monitoring and Protection Plan (WQMPP), identified in Table 1.
 - Justification - This condition is necessary to ensure that the monitoring and BMPs that are proposed by the Project Proponent and authorized by Ecology are conducted to protect water quality. Ecology must protect waters of the state from all discharges and potential discharges of pollution that can affect water quality to protect aquatic life and beneficial uses.
 - Citation - Chapter 90.48 RCW, RCW 90.48.030, RCW 90.48.080, Chapter 173-201A WAC, WAC 173-201A-300 - 330, WAC 173-204-120, and WAC 173-225-010.
5. If water quality exceedances for turbidity are observed outside the point of compliance, work shall cease immediately and the Project Proponent or the contractor shall assess the cause of the water quality problem and take immediate action to stop, contain, and correct the problem and prevent further water quality turbidity exceedances.
 - Justification - Ecology must protect waters of the state from all discharges and potential discharges of pollution and prevent exceedances of the water quality standards that protect aquatic life and beneficial uses.
 - Citation - Chapter 90.48 RCW, RCW 90.48.030, RCW 90.48.080, Chapter 173-201A WAC, WAC 173-201A-300 - 330, WAC 173-204-120, and WAC 173-225-010.
6. Visible turbidity anywhere beyond the temporary area of mixing (point of compliance) from the activity, shall be considered an exceedance of the standard.
 - Justification - Ecology must protect waters of the state from all discharges and potential discharges of pollution and prevent exceedances of the water quality standards that protect aquatic life and beneficial uses.
 - Citation - Chapter 90.48 RCW, RCW 90.48.030, RCW 90.48.080, Chapter 173-201A WAC, WAC 173-201A-300 - 330, WAC 173-204-120, and WAC 173-225-010.
7. Monitoring results shall be submitted according to the approved WQMPP (table 1) to Ecology's Federal Permit Manager, per condition A.2.
 - Justification - Ecology must protect waters of the state from all discharges and potential discharges of pollution and prevent exceedances of the water quality standards that protect aquatic life and beneficial uses.

- Citation - Chapter 90.48 RCW, RCW 90.48.030, RCW 90.48.080, Chapter 173-201A WAC, WAC 173-201A-300 - 330, WAC 173-204-120, and WAC 173-225-010.
8. Ecology may ask or could use its discretionary authority to require the Project Proponent to provide mitigation and/or additional monitoring if the monitoring results indicate that the water quality standards have not been met.
- Justification - Ecology must protect waters of the state from all discharges and potential discharges of pollution and ensure that aquatic life and beneficial uses are protected.
 - Citation - RCW 90.48, RCW 90.48.010, RCW 90.48.030, RCW 90.48.080, RCW 90.48.120, Chapter 173-201A WAC, 173-201A-300-330 WAC, and Chapter 173-204 WAC.

E. Construction

General Conditions

1. All work in and near waters of the state shall be conducted to minimize turbidity, erosion, and other water quality impacts. Construction stormwater, sediment, and erosion control Best Management Practices (BMPs) suitable to prevent exceedances of state water quality standards shall be in place before starting maintenance and shall be maintained throughout the duration of the activity.
 - Justification - Disturbed areas without appropriate BMPs and construction methods can discharge excess sediment to waters of the state and degrade water quality. Ecology must protect waters of the state from all discharges and potential discharges of pollution that can affect water quality to protect aquatic life and beneficial uses.
 - Citation - Chapter 90.48 RCW, Chapter 90.48.030 RCW, Chapter 90.48.080 RCW, Chapter 173-201A WAC, Chapter 173-201A-300-330 WAC, Chapter 173-204-120 WAC, and Chapter 173-225-010 WAC.
2. No petroleum products, fresh concrete, lime or concrete, chemicals, or other toxic or deleterious materials shall be allowed to enter waters of the state.
 - Justification - Ecology must protect waters of the state from all discharges and potential discharges of pollution that can affect water quality to protect aquatic life and beneficial uses.
 - Citation - Chapter 90.48 RCW, RCW 90.48.030, RCW 90.48.080, Chapter 173-201A WAC, WAC 173-201A-300 - 330, WAC 173-204-120, and WAC 173-225-010.

Equipment and Maintenance

3. Fuel hoses, oil drums, oil or fuel transfer valves and fittings, etc., shall be checked regularly for drips or leaks, and shall be maintained and stored properly to prevent spills into state waters.
 - Justification - Ecology must protect waters of the state from all discharges and potential discharges of pollution that can affect water quality to protect aquatic life and beneficial uses.
 - Citation - Chapter 90.48 RCW, RCW 90.48.030, RCW 90.48.080, Chapter 90.56 RCW, Chapter 173-200, Chapter 173-201A WAC, WAC 173-201A-300 - 330, WAC 173-204-120, and WAC 173-225-010.
4. Barges shall not be allowed to ground-out during in-water construction.
 - Justification - This condition is necessary to protect shallow water habitat and prevent suspension of sediment. Ecology must protect waters of the state from all discharges and potential discharges of pollution that can affect water quality to protect aquatic life and beneficial uses.
 - Citation - Chapter 90.48 RCW, RCW 90.48.030, Chapter 173-201A WAC, 173-201A-300-330 WAC, and Chapter 173-204 WAC.
5. Barges shall be kept free of material that could be blown into water.
 - Justification - Ecology must protect waters of the state from all discharges and potential discharges of pollution that can affect water quality to protect aquatic life and beneficial uses.
 - Citation - Chapter 90.48 RCW, RCW 90.48.030, RCW 90.48.080, Chapter 173-201A WAC, WAC 173-201A-300 - 330, WAC 173-204-120, and WAC 173-225-010.
6. No return water is allowed to discharge from the barge(s) into waters of the state during transit to the disposal site.
 - Justification - Ecology must protect waters of the state from all discharges and potential discharges of pollution that can affect water quality to protect aquatic life and beneficial uses.
 - Citation - Chapter 90.48 RCW, RCW 90.48.030, RCW 90.48.080, Chapter 173-201A WAC, WAC 173-201A-300 - 330, WAC 173-204-120, and WAC 173-225-010.

Dredging

7. All dredging is to be done using a mechanical (clamshell) dredge. Ecology must approve any other dredging method prior to its use.

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- Justification - Ecology has reviewed the project and the BMPs for a specific type of dredging. Changes to the dredging method would require different BMPs. If new dredging methods are proposed, a new WQC pre-filing meeting request, followed by a new WQC request (after requisite 30-days) is required.
 - Citation - Chapter 90.48 RCW, RCW 90.48.030, RCW 90.48.080, Chapter 90.52-040 RCW, Chapter 90.54.020(2)(b) RCW, Chapter 173-201A WAC, Chapter 173-201A-240(5)(b) WAC, and Chapter 173-204-400(2) WAC, and WAC 173-225-010.
8. All suitable dredged material will be disposed of by bottom dump barge at the Commencement Bay open-water disposal site.
- Justification - Ecology has reviewed the project and the BMPs for a specific type of disposal technique and disposal location. If different in-water disposal sites are proposed, a new WQC pre-filing meeting request, followed by a new WQC request (after requisite 30-days) is required.
 - Citation - Chapter 90.48 RCW, RCW 90.48.030, RCW 90.48.080, Chapter 90.52-040 RCW, Chapter 90.54.020(2)(b) RCW, Chapter 173-201A WAC, Chapter 173-201A-240(5)(b) WAC, and Chapter 173-204-400(2), and WAC 173-225-010.
9. All unsuitable material will be transloaded at a permitted facility and disposed of at a permitted upland disposal site.
- Justification - Use of a permitted transloading facility ensures that appropriate BMPs, including appropriate containment and spill plans, are implemented. Additionally, use of a permitted disposal location ensures appropriate BMPs will be implemented to prevent contaminants from migrating into groundwater or surface waters.
 - Citation - Chapter 90.48 RCW, RCW 90.48.030, RCW 90.48.080, Chapter 90.52-040 RCW, Chapter 90.54.020(2) (b) RCW, Chapter 173-200 WAC, Chapter 173-201A WAC, Chapter 173-201A-240(5)(b) WAC, and Chapter 173-204-400(2), and WAC 173-225-010.
10. Dredging operations shall be conducted in a manner that minimizes the disturbance and siltation of adjacent waters and prevents the accidental discharge of petroleum products, chemicals or other toxic or deleterious substances into state waters.
- Justification - Ecology must protect waters of the state from all discharges and potential discharges of pollution that can affect water quality to protect aquatic life and beneficial uses.

- Citation - Chapter 90.48 RCW, RCW 90.48.030, RCW 90.48.080, Chapter 90.56 RCW, Chapter 173-201A WAC, WAC 173-201A-300 - 330, WAC 173-204-120, and WAC 173-225-010.
11. Dredged material shall not be temporarily or permanently stockpiled below the OHWM.
- Justification - Stockpiles below the OHWM can discharge excess sediment to waters of the state and degrade water quality. Ecology must protect waters of the state from all discharges and potential discharges of pollution that can affect water quality to protect aquatic life and beneficial uses.
 - Citation - Chapter 90.48 RCW, RCW 90.48.030, RCW 90.48.080, Chapter 173-201A WAC, WAC 173-201A-300 - 330, WAC 173-204-120, and WAC 173-225-010.
12. All debris larger than two (2) feet in any dimension shall be removed from the dredged sediment prior to disposal at the open water site. Similar-sized debris floating in the dredging or disposal area shall be removed.
- Justification - Ecology must be assured that the Project Proponent is managing and disposing of material to protect waters of the state from all discharges and potential discharges of pollution that can affect water quality to protect aquatic life and beneficial uses.
 - Citation - Chapter 90.48 RCW, RCW 90.48.030, RCW 90.48.080, Chapter 173-201A WAC, WAC 173-201A-300 - 330, WAC 173-204-120, and WAC 173-225-010.
13. A pre-dredge meeting is required to be convened prior to the start of dredging. A final **Dredging and Disposal Work plan** consistent with the draft dredge plan in Table 1 shall be submitted to Ecology per Condition A2 two weeks prior to the pre-dredge meeting. The Dredging and Disposal work plan shall include the following:
- a. General information including schedule, primary contact, and hours of operation.
 - b. Dredged quantities and disposal location, including any upland locations.
 - c. Dredging procedures and sequence.
 - d. Equipment list.
 - e. A description of the BMPs to be used for dredging, dewatering, trans loading, and disposal.

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- Justification - Ecology needs to meet with the Project Proponent and contractor to go over the work plan prior start of work to ensure that the plan reflects the project that has been authorized by this WQC Order. This condition is intended to assure the Project Proponent remains in full compliance with state water quality requirements for the duration of the project.
 - Citation - Chapter 70A.200 RCW, Chapter 77.55 RCW, RCW 79.02.300, Chapter 90.48 RCW, RCW 90.48.030, RCW 90.48.080, Chapter 90.52-040 RCW, RCW 90.54.020(2)(b), Chapter 173-201A WAC, WAC 173-201A-240(5)(b), WAC 173-201A-300, WAC 173-201A-330, WAC 173-204-400(2), WAC 173-225-010, and Chapter 220-660 WAC.
14. All dredging and disposal shall have a valid suitability determination at least two weeks prior to the pre-dredge meeting.
- Justification - The DMMP process confirms that material is suitable for in-water disposal and that the project meets state anti-degradation regulations.
 - Citation - Chapter 173-201A WAC, Chapter 173-201A-230 WAC, WAC 173-201A-240(1), WAC 173-201A-240(2), Chapter 173-204 WAC, WAC 173-204-110-120, WAC 173-204-400(2), WAC 173-204-410(7), WAC 173-204-350(d), and Chapter 173-225 WAC.
15. Dredging of up to 12,000 cubic yards of dredged material is allowed. Note: If additional material needs to be dredged and disposed of, a new WQC pre-filing meeting request, followed by a new WQC request (after requisite 30-days) is required.
- Justification – Ecology must protect waters of the state from all discharges and potential discharges of pollution that can affect water quality to protect aquatic life and beneficial uses.
 - Citation - Chapter 173-201A WAC, WAC 173-201A-230, WAC 173-201A-240(1), WAC 173-201A-240(2), WAC, Chapter 173-204 WAC, WAC 173-204-110-120, WAC 173-204-400(2), WAC 173-204-410(7), WAC 173-204-350(d), and Chapter 173-225 WAC.
16. If contamination is discovered on site, it must be reported to Ecology (per Condition A.2.). Protective measures shall be implemented to isolate and remove the contaminated media and avoid escaping dust, soil erosion, and water pollution during construction activities.
- Justification - Ecology must protect waters of the state from all discharges and potential discharges of pollution that can affect water quality to protect aquatic life and beneficial uses.

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- Citation - Chapter 70.105D RCW, RCW 90.48, 90.48, RCW 90.48.030, Chapter 173-200 WAC, Chapter 173-201A WAC, WAC 173-201A-300-330, Chapter 173-204 WAC, and WAC 173-225-010.
17. Any deviations from the authorized dredging footprint, depths, or volumes must be reported to the Project Manager within 24 hours of discovery.
- Justification - Ecology has the authority to prevent and control pollution of state waters. By authorizing a discharge into a water of the state, through a WQC, Ecology is certifying the project as proposed will not negatively impact water quality. Therefore, it is imperative the project is conducted as it was presented during the review process.
 - Citation - 40 CFR 121.5, 40 CFR 121.10, 40 CFR 121.11, Chapter 90.48 RCW, RCW 90.48.030, RCW 90.48.120, RCW 90.48.260, Chapter 173-200 WAC, Chapter 173-201A WAC, Chapter 173-204 WAC, and WAC 173-225-010.
18. A post-dredge report shall be submitted to the Project Manager within 30 days of completion of dredging for each dredging season and shall include:
- a. The final dredge volume.
 - b. Location(s) of in-water placement.
 - c. Volume and location(s) of material placed in uplands.
 - d. Plotted results of the post-dredge bathymetric survey. Results must clearly display the post-dredge sediment surface in relation to the permitted dredge boundary and depth, as well as the location of project features such as docks, wharfs and other landmarks. The vertical datum must be clearly indicated.
- Justification - Ecology has the authority to prevent and control pollution of state waters. By authorizing a discharge into a water of the state, through a WQC, Ecology is certifying the project as proposed will not negatively impact water quality. Therefore, it is imperative the project is conducted as it was presented during the review process.
 - Citation - 40 CFR 121.5, 40 CFR 121.10, 40 CFR 121.11, Chapter 90.48 RCW, RCW 90.48.030, RCW 90.48.120, RCW 90.48.260, Chapter 173-200 WAC, Chapter 173-201A WAC, Chapter 173-204 WAC, and WAC 173-225-010.

F. Emergency/Contingency Measures

1. The Project Proponent shall develop and implement a spill prevention and containment plan for all aspects of this project.

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- Justification - Ecology must ensure that the Project Proponent has a plan to prevent pollution from entering waterways. Ecology must protect waters of the state from all discharges and potential discharges of pollution that can affect water quality to protect aquatic life and beneficial uses.
 - Citation - Chapter 90.48 RCW, RCW 90.48.030, RCW 90.48.080, Chapter 90.56 RCW, Chapter 90.56.280 RCW, Chapter 173-201A WAC, WAC 173-201A-300 - 330, WAC 173-204-120, WAC 173-225-010, and WAC 173-303-145.
2. The Project Proponent shall have adequate and appropriate spill response and cleanup materials available on site to respond to any release of petroleum products or any other material into waters of the state.
- Justification - Ecology must have assurance that the Project Proponent has the material readily available in WQC Order to address any spills that might occur to protect waters of the state. Ecology must protect waters of the state from all discharges and potential discharges of pollution that can affect water quality to protect aquatic life and beneficial uses.
 - Citation - Chapter 90.48 RCW, RCW 90.48.030, RCW 90.48.080, Chapter 90.56 RCW, RCW 90.56.280, Chapter 173-201A WAC, WAC 173-201A-300 - 330, WAC 173-204-120, WAC 173-225-010, and WAC 173-303-145.
3. Fuel hoses, oil drums, oil or fuel transfer valves and fittings, etc., shall be checked regularly for drips or leaks, and shall be maintained and stored properly to prevent spills into state waters.
- Justification - Ecology must protect waters of the state from all discharges and potential discharges of pollution that can affect water quality to protect aquatic life and beneficial uses.
 - Citation - Chapter 90.48 RCW, RCW 90.48.030, RCW 90.48.080, Chapter 90.56 RCW, RCW 90.56.280, Chapter 173-201A WAC, WAC 173-201A-300 - 330, WAC 173-204-120, WAC 173-225-010, and WAC 173-303-145.
4. Work causing distressed or dying fish and discharges of oil, fuel, or chemicals into state waters or onto land with a potential for entry into state waters is prohibited. If such work, conditions, or discharges occur, the Project Proponent shall notify Ecology's Federal Permit Manager, per condition A2, and immediately take the following actions:
- a. Cease operations at the location of the non-compliance.

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- b. Assess the cause of the water quality problem and take appropriate measures to correct the problem and prevent further environmental damage.
 - c. In the event of a discharge of oil, fuel, or chemicals into state waters, or onto land with a potential for entry into state waters, containment and cleanup efforts shall begin immediately and be completed as soon as possible, taking precedence over normal work. Cleanup shall include proper disposal of any spilled material and used cleanup materials.
 - d. Immediately notify Ecology's Regional Spill Response Office and the Washington State Department of Fish and Wildlife with the nature and details of the problem, any actions taken to correct the problem, and any proposed changes in operation to prevent further problems.
 - e. Immediately notify the National Response Center at 1-800-424-8802, for actual spills to water only.
 - Justification - This condition is necessary to prevent oil and hazardous materials spills from causing environmental damage and to ensure compliance with water quality requirements. The sooner a spill is reported, the quicker it can be addressed, resulting in less harm. Ecology must protect waters of the state from all discharges and potential discharges of pollution that can affect water quality to protect aquatic life and beneficial uses.
 - Citation - Chapter 90.48 RCW, RCW 90.48.030, RCW 90.48.080, Chapter 90.56 RCW, RCW 90.56.280, Chapter 173-201A WAC, WAC 173-201A-300 - 330, WAC 173-204-120, WAC 173-225-010, and WAC 173-303-145.
5. Notify Ecology's Regional Spill Response Office immediately if chemical containers (e.g. drums) are discovered on-site or any conditions present indicating disposal or burial of chemicals on-site that may impact surface water or ground water.
- Justification - Oil and hazardous materials spills cause environmental damage. The sooner a spill is reported, the quicker it can be addressed, resulting in less harm. Ecology must protect waters of the state from all discharges and potential discharges of pollution that can affect water quality to protect aquatic life and beneficial uses.
 - Citation - Chapter 90.48 RCW, RCW 90.48.030, RCW 90.48.080, Chapter 90.56 RCW, RCW 90.56.280, Chapter 173-201A WAC, WAC 173-201A-300 - 330, WAC 173-204-120, WAC 173-225-010, and WAC 173-303-145.

**7) DEPARTMENT of ECOLOGY COASTAL
ZONE MANAGEMENT**



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

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

October 24, 2024

Port of Tacoma
Attn: Robert Brenner
P.O. Box 1837
Tacoma, WA 98401

Re: Coastal Zone Management Federal Consistency Decision for Middle Blair Navigation Safety Improvement (Corps No. NWS-2024-563), Blair Waterway, Tacoma, Pierce County, Washington

Dear Robert Brenner:

On August 5, 2024, the Department of Ecology (Ecology) received a Certification of Consistency with the Washington State Coastal Zone Management Program (CZMP) for the above project. Pursuant to Section 307(c)(3) of the Coastal Zone Management Act of 1972 as amended, Ecology concurs with the Port of Tacoma's determination that the proposed work is consistent with Washington's CZMP.

The project proposes to dredge a navigationally hazardous area that is across from the Washington United Terminals (WUT) facility, located in the Blair Waterway. The area of this hazard is informally called "The Knuckle." The intent of the project is to dredge to - 47' MLLW, with up to 3 feet of overdredge, an area of approximately 95,300 square feet across from WUT. Up to 12,000 cy will be dredged, with either upland placement or disposal at the Commencement Bay open water disposal site. Due to the presence of contamination, the requested -47' MLLW + up to 3 feet of overdredge is approved as - 48' MLLW + up to 2 feet of overdredge. This activity will occur in Blair Waterway, Tacoma, Pierce County, Washington.

If you have any questions regarding Ecology's decision, please contact Laura Inouye at 360-515-8213.

Your right to appeal

You have a right to appeal this decision to the Pollution Control Hearings Board (PCHB) within 30 days of the date of receipt. The appeal process is governed by Chapter 43.21B RCW and Chapter 371-08 WAC. "Date of receipt" is defined in RCW 43.21B.001(2).

To appeal, you must do all of the following within 30 days of the date of receipt of this decision:

- File your notice of appeal and a copy of this decision with the PCHB (see filing information below). "Filing" means actual receipt by the PCHB during regular business hours as defined in WAC 371-08-305 and -335. "Notice of appeal" is defined in WAC 371-08-340.
- Serve a copy of your notice of appeal and this decision on the Department of Ecology mail, in person, or by email (see addresses below).

You must also comply with other applicable requirements in Chapter 43.21B RCW and Chapter 371-08 WAC.

Filing an appeal

Filing with the PCHB

For the most current information regarding filing with the PCHB, visit: <https://elaho.wa.gov/> or call: 360-664-9160.

Service on Ecology

Street Addresses:

Department of Ecology
Attn: Appeals Processing Desk
300 Desmond Drive SE
Lacey, WA 98503

Mailing Addresses:

Department of Ecology
Attn: Appeals Processing Desk
PO Box 47608
Olympia, WA 98504-7608

E-Mail Address:

ecologyappeals@ecy.wa.gov

Corps No. NWS-2024-563, Aquatics ID No. 143897

October 24, 2024

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Sincerely,

A handwritten signature in black ink that reads "Loree' Randall". The signature is written in a cursive, flowing style.

Loree' Randall, Section Manager
Aquatic Permitting & Protection Section
Shorelands and Environmental Assistance Program

Sent via e-mail: rbrenner@portoftacoma.com

E-cc: Andrew Shuckart, U.S. Army Corps of Engineers
Laura Inouye, Ecology
fedconsistency@ecy.wa.gov

APPENDIX F

PIERCE COUNTY (PCT)

SPECIFIC PERMITS

- 1) STATE ENVIRONMENTAL POLICY ACT (SEPA)
COMPLIANCE DETERMINATION OF
NONSIGNIFICANCE**
- 2) SHORELINE MANAGEMENT ACT / CRITICAL AREAS
COMPLIANCE EXEMPTION LU24-0143**
- 3) HYDRAULIC PROJECT APPROVAL 2023-6-111+01**
- 4) DMMP SUITABILITY DETERMINATION MEMORANDUM**
- 5) UNITED STATES ARMY CORP of ENGINEERS NWS-2024-
XXX-WRD**
- 6) DEPARTMENT of ECOLOGY WATER QUALITY
CERTIFICATION 23234**
- 7) DEPARTMENT of ECOLOGY COASTAL ZONE
MANAGEMENT**
- 8) DEPARTMENT OF NATURAL RESOURCES SITE USE
AUTHORIZATION XXXX**

**1) STATE ENVIRONMENTAL POLICY ACT
(SEPA) COMPLIANCE DETERMINATION
OF NONSIGNIFICANCE**



DETERMINATION OF NONSIGNIFICANCE WAC 197-11-970

Project Name: Port of Tacoma Pierce County Terminal (PCT) Maintenance Dredging Project

Description of proposal: The Port of Tacoma needs to perform maintenance dredging at the Pierce County Terminal (PCT) facility located along the Blair Waterway in order to remove shoaling areas that are preventing vessels from being fully loaded with cargo. "Light loading" vessels is causing economic impacts and safety concerns. The proposed maintenance dredging will remove shoaling caused by propwash along the berthing areas at Pierce County Terminal allowing the terminal operator to resume normal operations.

The purpose of the proposed project is to restore the berthing areas at PCT to the permitted depth of -51 feet MLLW, with an incidental 2-foot over-dredge allowance. Maintenance dredging is needed to allow normal operation at the terminals to resume. The current conditions do not allow for full vessel loading (economic impact) and could lead to grounding out of vessels (safety issue). To achieve this purpose, the Port must dredge up to 28,000 CY of sediments, of which up to roughly 13,000 CY is over dredge. The proposed maintenance dredging is the minimum work needed to return the terminal to normal operations

Proponent: Port of Tacoma

Location of proposal, including street address, if any: The project location is the berth area of the Port's PCT Terminal: 4015 SR-509 N. Frontage Rd Tacoma, WA 98421

Lead agency: Port of Tacoma

The lead agency for this proposal has determined that the project does not have a probable significant adverse impact on the environment. An environmental impact statement (EIS) is not required under Revised Code of Washington (RCW) 43.21C.030(2)(c). This decision was made after review of a completed environmental checklist and other information on file with the lead agency. Additional project and/or State Environmental Policy Act (SEPA) information is available upon request at the Port of Tacoma's Administrative building, located at One Sitcum Plaza, Tacoma, WA 98421 or at the Port's website at <http://www.portoftacoma.com/sepa>.

Comments and Request for Reconsideration: This Determination of Non-Significance (DNS) is issued under Chapter 197-11-340(2) Washington Administrative Code (WAC). Pursuant to Port policy, all interested parties shall have fourteen calendar days to comment on the proposed SEPA threshold determination. Only those who commented within the fourteen-day comment period shall have standing to file a Request for Reconsideration. Any challenge to a SEPA threshold determination shall be initiated by filing a Request for Reconsideration with the Responsible Official or designee no later than seven calendar days following the end of the fourteen-day comment period for the SEPA determination. The lead agency will not act on this proposal for fourteen days from the start date of the comment period described below. Comments shall be submitted to the Port of Tacoma, Environmental Programs, C/O Environmental Specialist at One Sitcum Plaza, Tacoma, WA 98421 or at the Port's website at <http://www.portoftacoma.com/sepa>.

Responsible official: Jason Jordan

Position/title: Director of Environmental and Planning

Signature 
Jason Jordan (Sep 2, 2022 17:38 PDT)

Comment Start Date: September 8, 2022

Comment End Date: September 22, 2022

Request for Reconsideration End Date: September 29, 2022

**2) SHORELINE MANAGEMENT ACT /
CRITICAL AREAS COMPLIANCE
EXEMPTION
LU24-0143**



City of Tacoma
Planning and Development Services

October 11, 2024

Robert Brenner, Port of Tacoma
One Sitcum Plaza
Tacoma, WA 98421

via email: rbrenner@portoftacoma.org

RE: LU22-0143 - Shoreline Substantial Development Permit Exemption for the
Pierce County Terminal - Maintenance Dredging at 2611 Port of Tacoma Road,
Parcel No. 0320021003 and 0320012066

Dear Mr. Brenner:

You have requested a shoreline exemption for maintenance dredging at the Pierce County Terminal (PCT), located on the Blair Waterway.

The Port of Tacoma (Port) proposes to dredge sediment mounds and shallower berth elevations at the PCT which will restore terminal operations to full capacity at PCT. The Port proposes to dredge a volume estimated at up to 15,000 cubic yards (CY) to restore the authorized depth of -51 ft Mean Lower Low Water (MLLW). The Port also requests authorization for a 2-foot over dredge, which could increase the total dredging volume by up to approximately 13,000 CY. Although the Port will characterize the sediments within the 2-ft over dredge, it does not anticipate dredging to substantially exceed the 28,000 cy dredge volume.

All work will be completed within the approved work window provided by the HPA for this proposal. Additional procedures and Best Management Practices to minimize potential temporary impacts to habitat, fish and wildlife, include but are not limited to:

- Dredging actions will be conducted during the WDFW approved in-water work window for Commencement Bay (July 16 – February 14 of each year), which is outside of times when juvenile salmonids are expected to be present based upon best available science;
- No dredging will occur in any identified sand lance, surf smelt or herring spawning areas; and
- No dredging will occur in areas with eelgrass or kelp.

A comprehensive list of BMPs are contained within the applicant's JARPA, Shoreline Narrative and Biological Evaluation.

The project is occurring in a highly industrial, urban waterway with limited habitat. There are no eelgrass, kelp or forage fish spawning in or adjacent to the berthing areas being dredged. Maintenance dredging project is required to remove high spots in designated berthing areas. Restoring the water depths to previously authorized depths will not impact natural hydrographic conditions and will not result in unsafe, obstructed passage of fish and wildlife.

Pursuant to SEPA, WAC 197-11-340, the Port of Tacoma, as Lead Agency, issued an environmental determination for the project. The SEPA Determination is included with the application documents. For further information regarding SEPA, please contact the project applicant.

The proposed maintenance dredging has been determined to be consistent with the City's SMP exemption criteria in TMC 19.02.030.C.2. and D.1. for dredging activities and to prevent a decline, lapse, or cessation from a lawfully established condition.

The requested exemption to the City's Shoreline Substantial Development Permit requirement is consistent with the policies of the Shoreline Master Act, the policies and implementing regulations of the SMP and with the criteria set forth in the WAC and RCW for the authorization of such permits.

Therefore, the exemption request is Approved, subject to the following **Conditions**:

1. The work must be accomplished per the approved plans and specifications.
2. All minimization measures and BMPs provided in the Biological Evaluation, JARPA, and Shoreline Narrative shall be followed.
3. Approval from the Army Corps of Engineers is required prior to issuance of City of Tacoma construction permits and shall be uploaded with the building permit application.
4. Hydraulic Project Approval (HPA) from the WA Department of Fish and Wildlife (WDFW) is required and shall be uploaded with the building permit application. The applicant shall follow the work window for construction listed under the HPA.
5. A copy of this exemption letter shall be available on the site during all phases of the project.

The applicant is also **Advised** of the following:

- This Exemption Letter is only applicable to the proposed project as described above and based upon the information submitted by the applicant. Future activities or development within the waters of the state or shoreline jurisdiction may be subject to further review and additional permits or exemptions as required in accordance with TMC Title 19.
- This Letter of Exemption shall expire 5 years after its date of issuance.
- The applicant shall obtain other approvals prior to construction as required by other local, state and federal agencies. The City of Tacoma is not the only reviewing agency with jurisdiction over the project area. The USACE, WDFW and/or DNR may have requirements regarding work within regulated waters that may be applicable to the project.
- City staff will add an Unanticipated Discovery Plan (UDP) to the future development permits for this site. See Director's Rule 1-2022 for this requirement at: <https://www.tacomapermits.org/wp-content/uploads/2022/07/Directors-Rule-01-2022Unanticipated-Discovery-Plan.pdf> and <https://cityoftacoma.org/culturalresources>.

We are issuing this letter of exemption per the provisions of Tacoma's Shoreline Master Program and Tacoma Municipal Code (TMC) Title 19 to comply with the requirements of WAC 173-27-050 and WAC 173-27-040. Should you have any further questions or requests please do not hesitate to contact me at 253-345-1367 / AHenderson2@cityoftacoma.org.

Sincerely,



Alexia Henderson
Senior Regulatory Compliance Analyst

cc via e-mail:

Port of Tacoma – Info@portoftacoma.com

Puyallup Tribe - Jennifer.M.Keating@puyalluptribe-nsn.gov, Brandon.Reynon@PuyallupTribe-nsn.gov

Washington Department of Ecology, Shorelands & Environmental Assistance Program, Zach Meyer - zmey461@ecy.wa.gov

Washington Department of Fish and Wildlife - R6SSplanning@dfw.wa.gov

U.S. Army Corps of Engineers, Attn: Regulatory Branch, CENWS-OD-RG - halie.endicott@usace.army.mil

Washington Department of Natural Resources - elyse.weaver@dnr.wa.gov

U.S. Fish & Wildlife Service, Attn: Judy Lantor, 510 Desmond Drive SE #102, Lacey, WA 98503 – judy_lantor@fws.gov

3) HYDRAULIC PROJECT APPROVAL
2023-6-111+01



HYDRAULIC PROJECT APPROVAL

Washington Department of
Fish & Wildlife
PO Box 43234
Olympia, WA 98504-3234
(360) 902-2200

Issued Date: March 10, 2023
Project End Date: March 09, 2028

Permit Number: 2023-6-111+01
FPA/Public Notice Number: N/A
Application ID: 29621

PERMITTEE	AUTHORIZED AGENT OR CONTRACTOR
Port of Tacoma ATTENTION: Stanley Sasser PO Box 1837 Tacoma, WA 98401-1837	

Project Name: Port of Tacoma Pierce County Terminal (PCT) Maintenance Dredging Project

Project Description: The purpose of the proposed project is to restore the berthing areas at PCT to the permitted depth of -51 feet MLLW, with an incidental 2-foot over-dredge allowance to cover potential over dredging by the contractor. Maintenance dredging is needed to allow normal operation at the terminals to resume. The current conditions do not allow for full vessel loading (economic impact) and could lead to grounding out of vessels (safety issue). To achieve this purpose, the Port must dredge up to 28,000 CY of sediments, of which up to roughly 13,000 CY is over dredge. The proposed maintenance dredging is the minimum work needed to return the terminal to normal operations.

PROVISIONS

AUTHORIZED WORK TIMES

1. **TIMING LIMITATION:** To protect fish and shellfish habitats at the job site, work below the ordinary high water line must occur from July 15 through December 31 and January 1 through February 15 of any year.
2. **APPROVED PLANS:** Work must be accomplished per plans and specifications submitted with the application and approved by the Washington Department of Fish and Wildlife, entitled "Final_Blair Waterway PCT Dredge JARPA_Drawings.pdf", received on August 31, 2022, except as modified by this Hydraulic Project Approval. You must have a copy of these plans available on site during all phases of the project construction.
3. **APPROVED WORK:** Maintenance dredging at two sites in the Blair Waterway within the Port of Tacoma. Total volume (cubic yards [CY]) is approximately 28,000 CY (including 13,000 CY of over dredge allowance).

NOTIFICATION

4. **NOTIFICATION:** You, your agent, or contractor must contact the Washington Department of Fish and Wildlife by e-mail at HPAapplications@dfw.wa.gov; mail to Post Office Box 43234, Olympia, Washington 98504-3234; or fax to (360) 902-2946 at least three business days before starting work. The notification must include the permittee's name, project location, starting date, and the hydraulic Project Approval permit number.
5. **FISH KILL/ WATER QUALITY PROBLEM NOTIFICATION:** If a fish kill occurs or fish are observed in distress at the job site, immediately stop all activities causing harm. Immediately notify the Washington Department of Fish and Wildlife of the problem. If the likely cause of the fish kill or fish distress is related to water quality, also notify the Washington Military Department Emergency Management Division at 1-800-258-5990. Activities related to the fish kill or fish distress must not resume until the Washington Department of Fish and Wildlife gives approval. The Washington Department of Fish and Wildlife may require additional measures to mitigate impacts.

STAGING, JOB SITE ACCESS AND EQUIPMENT

6. Establish the staging area (used for activities such as equipment storage, vehicle storage, fueling, servicing, and



HYDRAULIC PROJECT APPROVAL

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PO Box 43234
Olympia, WA 98504-3234
(360) 902-2200

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FPA/Public Notice Number: N/A
Application ID: 29621

hazardous material storage) in a location and manner that will prevent contaminants like petroleum products, hydraulic fluid, fresh concrete, sediments, sediment-laden water, chemicals, or any other toxic or harmful materials from entering waters of the state.

7. Check equipment daily for leaks and complete any required repairs before using the equipment in or near the water.
8. Lubricants composed of biodegradable base oils such as vegetable oils, synthetic esters, and polyalkylene glycols are recommended for use in equipment operated in or near water.
9. Operate vessels with minimal propulsion power to avoid prop scour damage to the bed and marine vegetation habitats.

CONSTRUCTION-RELATED SEDIMENT, EROSION AND POLLUTION CONTAINMENT

10. Prevent contaminants from the project, such as petroleum products, hydraulic fluid, fresh concrete, sediments, sediment-laden water, chemicals, or any other toxic or harmful materials, from entering or leaching into waters of the state.

DREDGING

11. Conduct dredging with dredge types and methods that cause the least impacts to fish and shellfish.
12. Operate a hydraulic dredge with the intake at or below the bed surface. Raise the intake up to three feet above the bed only for brief periods of purging or flushing the intake system.
13. Operate a dragline or clamshell to minimize turbidity. During excavation, complete each pass with the clamshell or dragline bucket. Do not stockpile dredged material waterward of the ordinary high water line.
14. Dispose of dredged materials at an approved, designated Department of Natural Resources deep water disposal site or dispose of dredged bed materials in an upland area landward of the ordinary high water line.
15. To minimize turbidity, hopper dredges, scows and barges used to transport dredged materials to the disposal or transfer sites must completely contain the dredged material.
16. To avoid attracting fish to artificial light at night, limit dredging activities to daylight hours whenever feasible.

LOCATION #1:		Site Name: Port of Tacoma Pierce County Terminal 4015 SR-509 N Frontage Rd, Tacoma, WA 98421				
WORK START:		March 10, 2023		WORK END:		March 9, 2028
<u>WRIA</u>		<u>Waterbody:</u>			<u>Tributary to:</u>	
10 - Puyallup - White		Puyallup River			Puyallup River	
<u>1/4 SEC:</u>	<u>Section:</u>	<u>Township:</u>	<u>Range:</u>	<u>Latitude:</u>	<u>Longitude:</u>	<u>County:</u>
NE 1/4	02	20 N	03 E	47.254465	-122.378103	Pierce
<u>Location #1 Driving Directions</u>						
Tacoma / S 21st Street. Turn right onto WA-509. Turn left onto E. Alexander Ave. Pierce County Terminal's office is at 4015 State Route 509 Rd, Tacoma, WA 98421						

APPLY TO ALL HYDRAULIC PROJECT APPROVALS



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This Hydraulic Project Approval pertains only to those requirements of the Washington State Hydraulic Code, specifically Chapter 77.55 RCW. Additional authorization from other public agencies may be necessary for this project. The person(s) to whom this Hydraulic Project Approval is issued is responsible for applying for and obtaining any additional authorization from other public agencies (local, state and/or federal) that may be necessary for this project.

This Hydraulic Project Approval shall be available on the job site at all times and all its provisions followed by the person (s) to whom this Hydraulic Project Approval is issued and operator(s) performing the work.

This Hydraulic Project Approval does not authorize trespass.

The person(s) to whom this Hydraulic Project Approval is issued and operator(s) performing the work may be held liable for any loss or damage to fish life or fish habitat that results from failure to comply with the provisions of this Hydraulic Project Approval.

Failure to comply with the provisions of this Hydraulic Project Approval could result in civil action against you, including, but not limited to, a stop work order or notice to comply, and/or a gross misdemeanor criminal charge, possibly punishable by fine and/or imprisonment.

All Hydraulic Project Approvals issued under RCW 77.55.021 are subject to additional restrictions, conditions, or revocation if the Department of Fish and Wildlife determines that changed conditions require such action. The person(s) to whom this Hydraulic Project Approval is issued has the right to appeal those decisions. Procedures for filing appeals are listed below.

MINOR MODIFICATIONS TO THIS HPA: You may request approval of minor modifications to the required work timing or to the plans and specifications approved in this HPA unless this is a General HPA. If this is a General HPA you must use the Major Modification process described below. Any approved minor modification will require issuance of a letter documenting the approval. A minor modification to the required work timing means any change to the work start or end dates of the current work season to enable project or work phase completion. Minor modifications will be approved only if spawning or incubating fish are not present within the vicinity of the project. You may request subsequent minor modifications to the required work timing. A minor modification of the plans and specifications means any changes in the materials, characteristics or construction of your project that does not alter the project's impact to fish life or habitat and does not require a change in the provisions of the HPA to mitigate the impacts of the modification. If you originally applied for your HPA through the online Aquatic Protection Permitting System (APPS), you may request a minor modification through APPS. A link to APPS is at <http://wdfw.wa.gov/licensing/hpa/>. If you did not use APPS you must submit a written request that clearly indicates you are seeking a minor modification to an existing HPA. Written requests must include the name of the applicant, the name of the authorized agent if one is acting for the applicant, the APP ID number of the HPA, the date issued, the permitting biologist, the requested changes to the HPA, the reason for the requested change, the date of the request, and the requestor's signature. Send by mail to: Washington Department of Fish and Wildlife, PO Box 43234, Olympia, Washington 98504-3234, or by email to HPAapplications@dfw.wa.gov. You should allow up to 45 days for the department to process your request.



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MAJOR MODIFICATIONS TO THIS HPA: You may request approval of major modifications to any aspect of your HPA. Any approved change other than a minor modification to your HPA will require issuance of a new HPA. If you originally applied for your HPA through the online Aquatic Protection Permitting System (APPS), you may request a major modification through APPS. A link to APPS is at <http://wdfw.wa.gov/licensing/hpa/>. If you did not use APPS you must submit a written request that clearly indicates you are requesting a major modification to an existing HPA. Written requests must include the name of the applicant, the name of the authorized agent if one is acting for the applicant, the APP ID number of the HPA, the date issued, the permitting biologist, the requested changes to the HPA, the reason for the requested change, the date of the request, and the requestor's signature. Send your written request by mail to: Washington Department of Fish and Wildlife, PO Box 43234, Olympia, Washington 98504-3234. You may email your request for a major modification to HPAapplications@dfw.wa.gov. You should allow up to 45 days for the department to process your request.

APPEALS INFORMATION

If you wish to appeal the issuance, denial, conditioning, or modification of a Hydraulic Project Approval (HPA), Washington Department of Fish and Wildlife (WDFW) recommends that you first contact the department employee who issued or denied the HPA to discuss your concerns. Such a discussion may resolve your concerns without the need for further appeal action. If you proceed with an appeal, you may request an informal or formal appeal. WDFW encourages you to take advantage of the informal appeal process before initiating a formal appeal. The informal appeal process includes a review by department management of the HPA or denial and often resolves issues faster and with less legal complexity than the formal appeal process. If the informal appeal process does not resolve your concerns, you may advance your appeal to the formal process. You may contact the HPA Appeals Coordinator at (360) 902-2534 for more information.

A. INFORMAL APPEALS: WAC 220-660-460 is the rule describing how to request an informal appeal of WDFW actions taken under Chapter 77.55 RCW. Please refer to that rule for complete informal appeal procedures. The following information summarizes that rule.

A person who is aggrieved by the issuance, denial, conditioning, or modification of an HPA may request an informal appeal of that action. You must send your request to WDFW by mail to the HPA Appeals Coordinator, Department of Fish and Wildlife, Habitat Program, PO Box 43234, Olympia, Washington 98504-3234; e-mail to HPAapplications@dfw.wa.gov; fax to (360) 902-2946; or hand-delivery to the Natural Resources Building, 1111 Washington St SE, Habitat Program, Fifth floor. WDFW must receive your request within 30 days from the date you receive notice of the decision. If you agree, and you applied for the HPA, resolution of the appeal may be facilitated through an informal conference with the WDFW employee responsible for the decision and a supervisor. If a resolution is not reached through the informal conference, or you are not the person who applied for the HPA, the HPA Appeals Coordinator or designee may conduct an informal hearing or review and recommend a decision to the Director or designee. If you are not satisfied with the results of the informal appeal, you may file a request for a formal appeal.

B. FORMAL APPEALS: WAC 220-660-470 is the rule describing how to request a formal appeal of WDFW actions taken under Chapter 77.55 RCW. Please refer to that rule for complete formal appeal procedures. The following information summarizes that rule.



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A person who is aggrieved by the issuance, denial, conditioning, or modification of an HPA may request a formal appeal of that action. You must send your request for a formal appeal to the clerk of the Pollution Control Hearings Boards and serve a copy on WDFW within 30 days from the date you receive notice of the decision. You may serve WDFW by mail to the HPA Appeals Coordinator, Department of Fish and Wildlife, Habitat Program, PO Box 43234, Olympia, Washington 98504-3234; e-mail to HPAapplications@dfw.wa.gov; fax to (360) 902-2946; or hand-delivery to the Natural Resources Building, 1111 Washington St SE, Habitat Program, Fifth floor. The time period for requesting a formal appeal is suspended during consideration of a timely informal appeal. If there has been an informal appeal, you may request a formal appeal within 30 days from the date you receive the Director's or designee's written decision in response to the informal appeal.

C. FAILURE TO APPEAL WITHIN THE REQUIRED TIME PERIODS: If there is no timely request for an appeal, the WDFW action shall be final and unappealable.

Habitat Biologist Jennifer.eberly@dfw.wa.gov
Jennifer Eberly 360-584-4731

for Director
WDFW

**4) DMMP SUITABILITY DETERMINATION
MEMORANDUM**

Prepared by:
Dredged Material Management Office
Seattle District, US Army Corps of Engineers

Memorandum for Record

April 15, 2024

Subject: Suitability Determination Memorandum and Antidegradation Assessment for Blair Waterway, Pierce County Terminal in Tacoma, Washington (NWS-2022-0681).

Introduction

This suitability determination memorandum (SDM) and antidegradation assessment documents the consensus regarding the suitability of the proposed dredged material for unconfined aquatic disposal and compliance of the post-dredge leave surface as determined by the Dredged Material Management Program (DMMP) agencies (U.S. Army Corps of Engineers (USACE), Washington Departments of Ecology and Natural Resources, and the U.S. Environmental Protection Agency (EPA)).

Project Description

In October 2020, the Port of Tacoma (Port) conducted a Dredged Material Management Program (DMMP) chemistry-only characterization of sediment mounds created by propeller-wash in the berthing area of Washington United Terminal (WUT), Husky Terminal (Husky), and Pierce County Terminal (PCT), Port of Tacoma, WA (NewFields and Leon Environmental, 2021). The mounds posed a navigation hazard to Port operations, requiring terminal operators to “light-load” vessels. The 2020 DMMP characterization determined that the proposed dredged material from WUT and Husky terminals was suitable for open-water disposal (DMMP, 2021a). However, the dioxin/furan (D/F) concentrations measured in the proposed dredged material at PCT triggered supplemental bioaccumulation testing to determine whether the material would be suitable for open-water disposal. Because bioaccumulation testing would have delayed the more urgently required dredging at WUT and Husky, the Port removed dredging of PCT from the 2020 maintenance action.

In the summer of 2022, the Port conducted DMMP bioaccumulation testing and chemical analysis at PCT to assess whether the proposed dredged material was suitable for open-water disposal at the Commencement Bay DMMP site. Bioaccumulation testing was conducted due to D/F concentrations that exceeded the bioaccumulation trigger (BT) for DMMUs PCT-1 and PCT-2 during the 2020 DMMP characterization. In addition, the test sediment from DMMU PCT-2 was re-analyzed for total chlordane using a high-resolution method (EPA method 1699) to ensure reporting limits were below the SL. All other DMMP chemical parameters were undetected or measured at concentrations below corresponding SLs during the 2020 DMMP characterization.

The berthing depth for PCT is -51 feet MLLW. The sediment characterization depth was the berthing depth including an additional 1 foot of allowable overdepth to -52 feet MLLW. After the 2020 characterization the Port requested an additional 1 ft of overdepth to -53 feet MLLW. The DMMP requested that the characterization depth remain consistent with the 2020 study to avoid any dilution with deeper native material. Characterization of the Z-sample composites covered the additional 1 foot of overdepth that may be needed by the Port due to dredging constraints, as well as compliance with the antidegradation standards for the “leave” surface (DMMP, 2022).

Project Summary

Waterbody	Blair Waterway in Tacoma Harbor
Water classification	Marine

Project rank	Moderate
Total proposed dredging volume (cy)	27,462
Authorized dredging depth	-51 ft MLLW
Max. proposed dredging depth (includes 2 feet overdepth)	-53 ft MLLW
Proposed disposal location(s)	Non-dispersive open-water disposal
Dredged Material Management Units (DMMUs): No. of stations	2 DMMUs from 6 stations
Z-samples	2 composites (same stations as DMMUs)
DMMO tracking number	POTBW1AF456
EIM Study ID	POTBW24
USACE Regulatory Reference Number	NWS-2020-1017-WRD
Sampling and Analysis Plan (SAP) Approval Date	June 17, 2022 (NewFields and Leon Env., 2022)
Sampling Date(s)	June 21-24, 2022
Sediment Characterization Report Approval Date	April 10, 2024 (NewFields and Leon Env., 2024)
Testing Parameters	Total chlordane and dioxins/furans (D/F)
Biological Testing	Bioaccumulation study for D/F
Suitability Outcome	All material found suitable for non-dispersive in-water disposal
Recency Expiration Date M=5 years	June 2027
Antidegradation Assessment	In compliance

Sampling and Analysis Description

Sediment sampling activities were conducted in the PCT berthing areas from June 21 through 24, 2022 using Gravity Environmental's research vessel *Ingalls*, a 36-foot aluminum landing craft. The mudline elevation at each sampling location was determined using a lead line. Real-time tidal corrections were applied using water level measurements from the National Oceanic and Atmospheric Administration (NOAA) Tacoma, WA, tide station (Station ID: 9446484). Samples were transported to a shore-side location for processing.

To obtain similar D/F concentrations, core sampling locations were the same as targeted during the 2020 Blair Waterway maintenance dredging project, except for Station P3. Based on the review of the bathymetry collected by Seattle District in October 2021, the mound near P3 had shifted 25 meters to the northeast. Figure 1 shows the sample locations and Table 1 provides the sample collection details.

A reference sediment was collected from Carr Inlet by EcoAnalysts on June 30, 2022, using a stainless steel 0.6-m² Ponar grab sampler. The latitude and longitude of the reference sample in NAD83 datum are 47.33240 and 122.67673, respectively.

Bioaccumulation testing was conducted by EcoAnalysts using the adult bivalve (*Macoma nasuta*) and adult polychaete (*Alitta virens*) exposed in separate exposure tanks for a 45-day period. Five replicates for each species were generated for each DMMU and Z-layer composite, as well as three pre-test replicates for each species.

Sediment and tissue D/F testing and conventionals were conducted by Analytical Resources, Inc. High resolution total chlordane sediment testing was conducted by Vista Analytical.

Data Validation

NewFields conducted an EPA Stage 2B review and validation of all sediment and tissue chemistry data. The validation process resulted in some additional J and UJ qualified data (estimated values) and U qualified data (estimated maximum possible concentrations [EMPCs] and analytes associated with method blank detections) beyond those assigned by the lab, based on specified protocol or technical advisory. Due to elevated estimated detection limits (EDLs) in the initial tissue analyses, maintenance was performed on the laboratory instrument and samples were re-analyzed, yielding lower EDLs. The reanalyzed data were used, and the original results were qualified as “Do Not Report” to provide just one reportable result per sample parameter. Completeness was 100%; all reported data are usable as qualified.

Analytical Testing Results

Total Chlordane and Conventionals. Table 2 provides the sediment chemistry data. Sample PCT-2-C, which was 2.98 ug/kg U in the 2020 analysis was 0.26 ug/kg using the high-resolution method, which is below the 2.8 DMMP screening level.

Samples were predominately sand (52%-70%) with varying fines (28%-46%). TOC ranged from 0.34% – 0.63%.

Dioxins/furans. The DMMU and Z-sample composite sediment chemistry results were comparable to the 2020 characterization (DMMP, 2021a) and ranged from 8.9 to 17.5 ng/kg-TEQ. *Macoma nasuta* and *Alitta virens* tissue chemistry results for D/Fs are provided in Table 3 and 4, respectively. All results were below 1 ng/kg-TEQ.

Bioaccumulation Evaluation

The Port used a weight-of-evidence approach, outlined in the DMMP User Manual (DMMP 2021b), to evaluate the bioaccumulation study tissue data. The factors included:

- Statistical comparison to reference.
- The magnitude of the bioaccumulation from PCT sediments compared to reference sediments.
- Evaluation of PCT tissue concentrations relative to Practical Quantitation Limits (PQLs).
- Evaluation of the impact of non-detects on PCT tissue total TEQ values.
- Comparison of PCT tissue total TEQ values to those of comparable species found in the vicinity of the Commencement Bay DMMP disposal site.

Statistical Comparisons to Reference

The mean D/F total TEQs in tissues exposed to each DMMU and Z-layer composite (Table 5) were compared with the mean D/F total TEQs in tissues exposed to the Carr Inlet reference using a one-sided t-test and an alpha level of 0.1. The t-tests were conducted using BioStat (USACE 2007) and evaluated the null hypothesis that mean tissue D/F total TEQ for the test sediment was less than or equal to the mean tissue D/F total TEQ for the reference.

A Bonferroni correction for the t-test was then applied using R Studio 4.3.1 to confirm statistical significance. A Bonferroni correction adjusts the probability value (p-value) for a statistical test to reduce the instance of a false positive (type I error) and prevent data from incorrectly appearing to be statistically significant. A significance level of 0.1 was used for the Bonferroni's correction and one-tailed was specified for the t-test.

The results of the t-tests with Bonferroni's p-value adjustments are summarized in Table 6. The tissue concentrations for *A. virens* for sample PCT-1-C were not statistically different from the Carr Inlet reference for both ND=1/2*EDL and ND=0*EDL. The tissue concentrations for *A. virens* for sample PCT-2-C were not statistically different from the Carr Inlet reference for ND=1/2*EDL.

With the exception of tissue concentrations for *A. virens* for PCT-1-C for ND=1/2*EDL and ND=0*EDL and *A. virens* for PCT-2-C for ND=1/2*EDL, the remaining *A. virens* and all *M. nasuta* tissue concentrations associated with the DMMUs and Z-layer composites were significantly greater than the Carr Inlet reference for both ND=1/2*EDL and ND=0*EDL (Table 6). Because statistically significant differences between test tissues and reference were observed, several additional factors were considered to determine whether PCT dredged material is suitable for open-water disposal.

Magnitude of Bioaccumulation Compared to Reference

The statistical comparison presented identified significant differences between PCT and reference sediment bioaccumulation, but not the magnitude of these differences. Therefore, relative percent differences (RPDs) were calculated for the mean D/F TEQ tissue values (ND=1/2*EDL) for the DMMUs and Z-layer composites and compared to the mean D/F TEQ tissue values for Carr Inlet. The RPDs for the *A. virens* samples ranged from 22.9% for PCT-1-C to 56.4% for PCT-2-Z relative to the Carr Inlet reference. The RPDs were greater for the *M. nasuta* samples due to the relatively low mean TEQ for the Carr Inlet tissues. The RPDs for the *M. nasuta* samples ranged from 82.7% for PCT-2-C to 120.4% for PCT-2-Z relative to the Carr Inlet reference. Expressed differently, the mean *A. virens* TEQ for each DMMU and Z-layer composite was between 1.26 and 1.79 times greater than the mean *A. virens* TEQ exposed to the Carr Inlet reference material. The mean TEQ among *M. nasuta* samples ranged between 2.41 and 4.02 times greater than the Carr Inlet reference material.

Evaluation of Tissue Concentrations Relative to PQLs

The PQL is the lowest concentration of an analyte that can be reliably measured within specified limits of precision and accuracy under routine laboratory operating conditions. Concentrations reported above the PQL can be considered with a high degree of confidence, while concentrations below the PQL are typically considered estimated values. Therefore, PQLs are an important consideration for evaluating data when concentrations are low. The PQL for each D/F congener for this project was defined as the lowest method calibration standard used by ARI to calibrate its instruments.

The significance of laboratory-reported estimated D/F congener concentrations can be evaluated by comparing TEQs measured in tissue to the sum TEF-weighted PQLs. The sum of TEF-weighted PQLs for this project was 1.58 ng/kg ww TEQ. The tissue PQL for dioxins/furans as a sum of TEQ is defined by Ecology as 1 ng/kg ww TEQ (Ecology 2021). For both *M. nasuta* and *A. virens*, the mean total TEQ as well as the total TEQs for the five replicates analyzed for each sample were less than both the project-specific and Ecology PQLs (Figures 2 and 3).

Influence of Non-Detects on the Total TEQ

The DMMU and Z-layer exceedances of BT and SL criteria are driven predominantly by the summation of non-detected D/F congeners. On average 36% to 49% of the congeners were not detected for both the *M. nasuta* and *A. virens* tissues.

The influence of the non-detected D/F congener results on the TEQs were evaluated based on their TEF-weighted concentrations. The contribution of the TEF-weighted non-detected congener concentrations

to the D/F total TEQs ($ND=1/2*EDL$) for each sample is shown in Figures 4 and 5. Non-detected congeners contributed 20.8% to 39.1% of the total TEQ for *M. nasuta* when $ND=1/2*EDL$. On average, non-detected congeners contributed 30% of the total TEQ calculated for the *M. nasuta* tissues. For *A. virens*, non-detected congeners contributed approximately 14.4% to 34.7% of the total TEQ when $ND=1/2*EDL$. On average, non-detected congeners contributed 25% of the total TEQ calculated for the *A. virens* tissues.

For this project, all EMPCs were qualified as non-detects. Congeners reported and validated as EMPCs contributed between 17.4% and 26.1% of the total TEQ for *M. nasuta* and between 18.2% and 21.5% of the total TEQ for *A. virens* (when calculated as half of the reported concentration). The contribution of the TEF-weighted EMPC concentrations to the D/F total TEQs ($ND=1/2*EDL$) for each sample is also shown in Figures 4 and 5.

Tissue Concentrations of Comparable Species in Commencement Bay

Comparing PCT tissue total TEQ values to those measured in comparable species at the Commencement Bay DMMP disposal site provides additional evidence to evaluate the potential for PCT material to cause unacceptable adverse ecological impacts at the site. In 2007, the DMMP conducted a special D/F study at the unconfined open water dredged material disposal sites in Puget Sound (SAIC 2008). Organisms were collected in the vicinity of the DMMP sites and analyzed for D/F congeners. At the Commencement Bay DMMP site, three genera of polychaetes (*Glyceridae*, *Maldanidae*, and *Travisia*) and one genera of bivalve (*Compsomyax*) were collected from six offsite stations in the vicinity of the disposal site boundary (perimeter and transect stations).

Figures 6 and 7 present comparisons of the PCT D/F tissue total TEQs ($ND=1/2*EDL$) to tissue total TEQs from species found in the vicinity of the Commencement Bay disposal site. Comparison of the *M. nasuta* bioaccumulation results to the *Compsomyax* tissue in Commencement Bay is not considered to be appropriate due to the different feeding strategies of these two species of clams. The *Compsomyax* clam has a relatively short siphon and is typically a filter feeder that lives exclusively in the subtidal (Lauzier 1997), compared to the *Macoma* clam which has adapted to a broad range of depths and substrate types and is primarily a deposit feeder (Hylleberg and Gallucci 1975). Therefore, comparison of the *M. nasuta* bioaccumulation results to the Commencement Bay polychaete species was deemed a more appropriate comparison.

Observed D/F TEQ values in PCT test organisms are generally comparable to that observed in polychaete tissues collected from the vicinity of the Commencement Bay DMMP disposal site.

DMMP Determinations

Suitability Determination

The bioaccumulation testing data can be summarized as follows. Dredged material samples from the PCT resulted in tissue concentrations that were statistically greater than reference, however the accumulated concentrations were very low. Statistical comparisons were driven by the low measured variance among reference replicates, resulting in even small differences between test and reference being statistically significant. In addition to bioaccumulated concentrations being very low, the calculated TEQs were driven to a large extent by non-detects and EMPCs. All detected concentrations were below the Ecology tissue PQL. Lastly, the test results were within the range of tissue

concentrations found in the vicinity of the Commencement Bay disposal site (perimeter and transect stations) during testing in 2007.

The DMMP dioxin guidelines allow for case-by-case determinations to be made based on consideration of the individual aspects of a dredging project. After careful evaluation, the DMMP agencies find that the weight of evidence supports a determination that placement of the PCT material at the Commencement Bay site will not result in adverse effects. Therefore, the DMMP agencies concluded that all 27,462 cubic yards proposed for dredging from PCT are suitable for open-water disposal at the Commencement Bay non-dispersive site.

Antidegradation Determination

The sediment to be exposed by dredging must either meet the State of Washington Sediment Management Standards (SMS) or the State's Antidegradation Standard (Ecology, 2013) as outlined by DMMP guidance (DMMP, 2008). Z-layer samples were included in the bioaccumulation testing and evaluation presented in this memo. The pre-dredge and post-dredge tissue concentrations were similar to each other and all below the Ecology tissue PQL of 1 ng/kg ww TEQ (Ecology 2021), thus considered compliant with the State of Washington Antidegradation Standard.

Dredge Sequencing

Because higher D/F concentrations were measured in DMMU PCT-2 sediments, dredging shall be sequenced so this DMMU is dredged and disposed first.

Debris Management

The DMMP agencies implemented a debris management requirement following the 2015 SMARM to prevent the disposal of debris (natural or anthropogenic) greater than 12 inches in any dimension at open-water disposal sites in Puget Sound. Debris screens shall be used for this project unless it can be demonstrated that debris is unlikely to be present or that the debris is large woody debris that can be easily observed and removed by other means during dredging. Debris screen usage, or detailed justification for not using one, must be included in the dredging quality assurance plan.

Notes and Clarifications

The decisions documented in this memorandum do **not** constitute final agency approval of the project. During the public comment period that follows a public notice, resource agencies will provide input on the overall project. A final decision will be made after full consideration of agency input, and after an alternatives analysis is done under section 404(b)(1) of the Clean Water Act.

A pre-dredge meeting with DNR, Ecology and the Corps of Engineers is required at least 7 days prior to dredging. A dredging quality control plan must be developed and submitted to the USACE Seattle District's Regulatory Branch and Ecology. Refer to the USACE permit and Ecology 401 certification for project-specific submittal requirements and timelines.

Projects proposing to use one of the DMMP open-water disposal sites must submit their application for a Site Use Authorization (SUA) to the Washington State Department of Natural Resources (DNR) at least 4 weeks prior to dredging. Applications submitted less than 4 weeks prior to dredging may be subject to delays.

References

- DMMP, 2008. *Quality of Post-Dredge Sediment Surfaces (Updated)*. A Clarification Paper Prepared by David Fox (USACE), Erika Hoffman (EPA) and Tom Gries (Ecology) for the Dredged Material Management Program, June 2008.
- DMMP, 2021a. Suitability Determination Memorandum and Antidegradation Assessment for Maintenance Dredging of the Port of Tacoma Blair Waterway Berth Areas in Tacoma, Washington (NWS-2020-1017-WRD). April 16, 2021.
<https://usace.contentdm.oclc.org/utils/getfile/collection/p266001coll1/id/10407>
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Agency Signatures

4/15/2024

Date



Joy Dunay – U.S. Army Corps of Engineers, Seattle District

4/16/2024

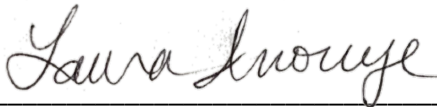
Date



Whitney Conard, PhD. – U.S. Environmental Protection Agency, Region 10

04/16/2024

Date



Laura Inouye, PhD. – Washington State Department of Ecology

April 16, 2024

Date



Shannon Soto – Washington State Department of Natural Resources

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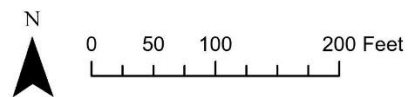
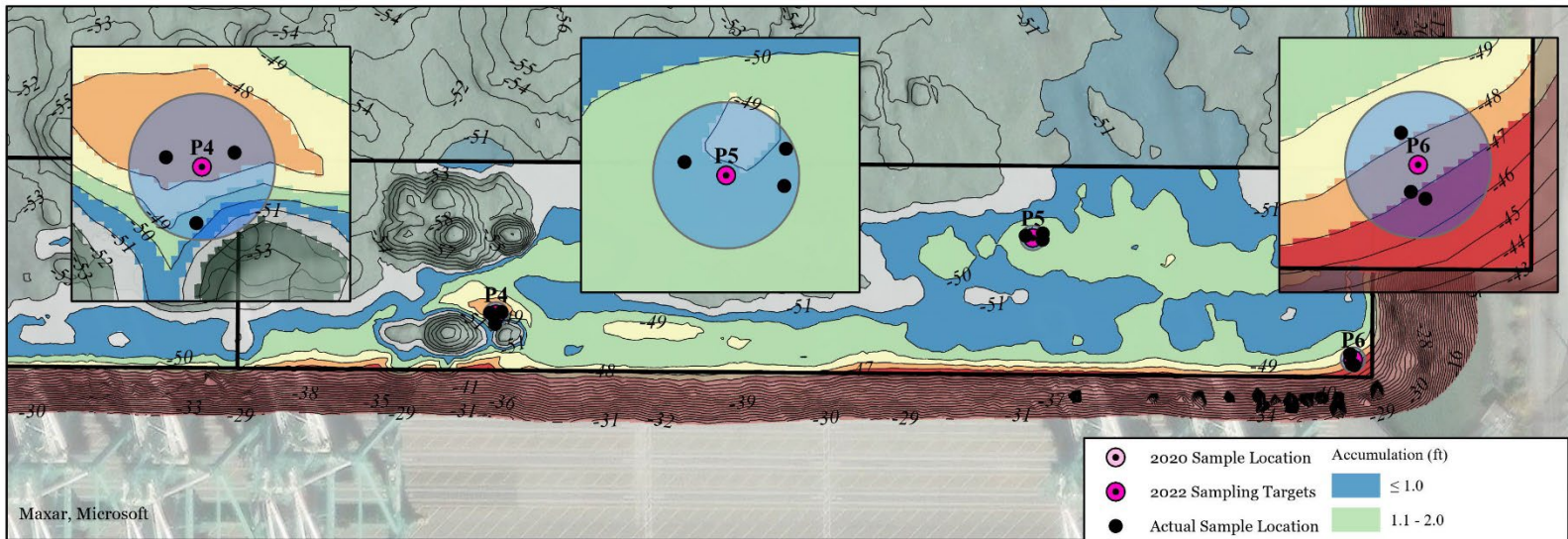
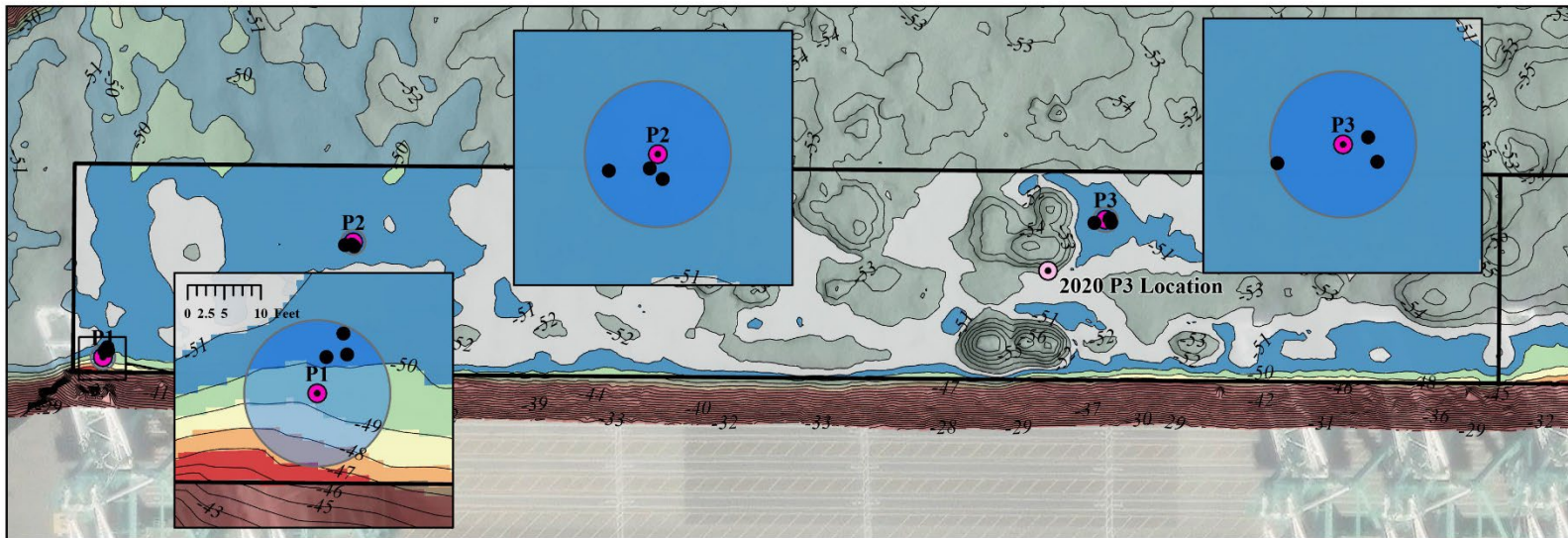
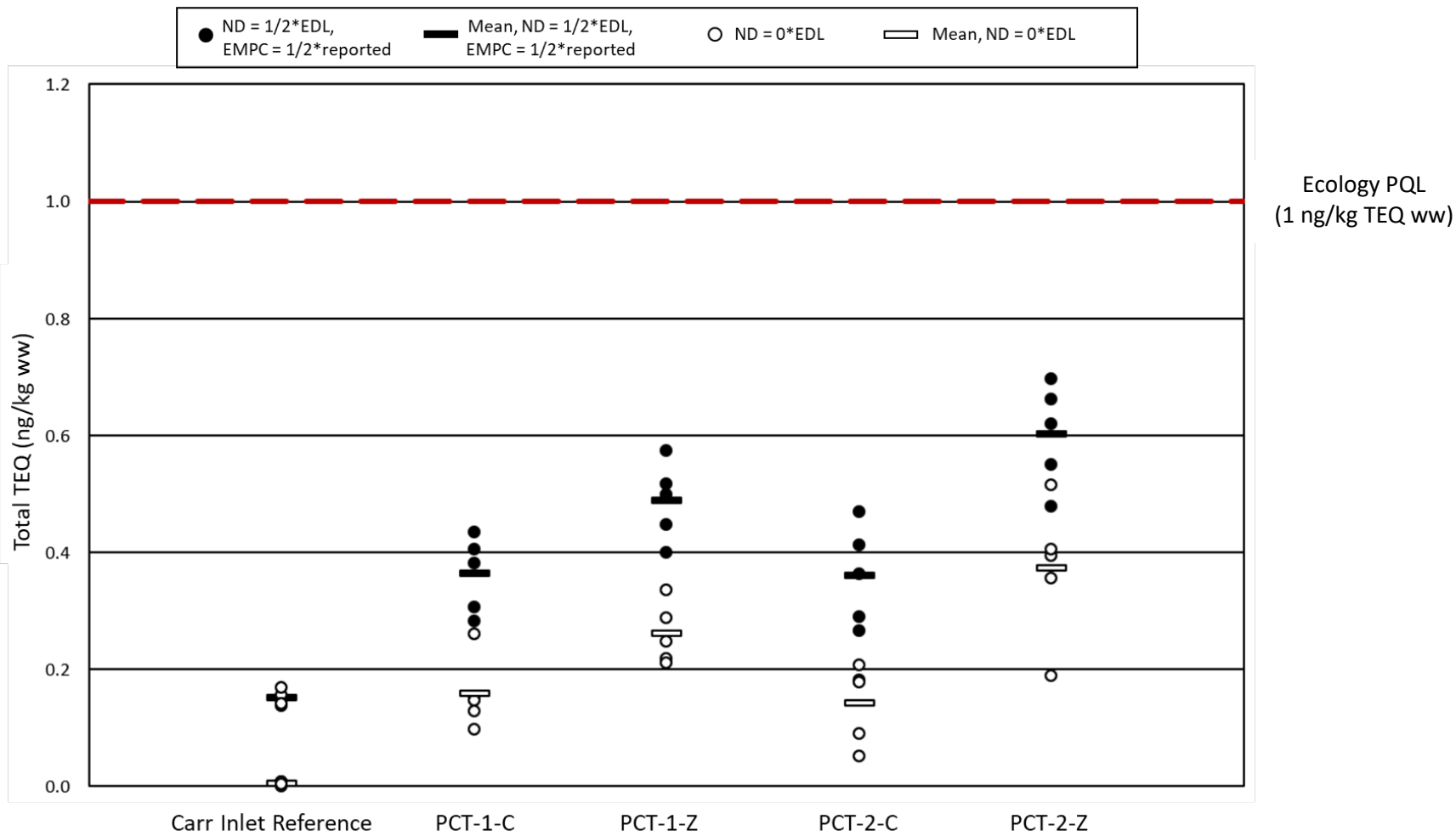


Figure 1 Pierce County Terminal Actual Sample Locations for 2022 Survey

Mean Total TEQ for *M. nasuta* Tissue



Notes:

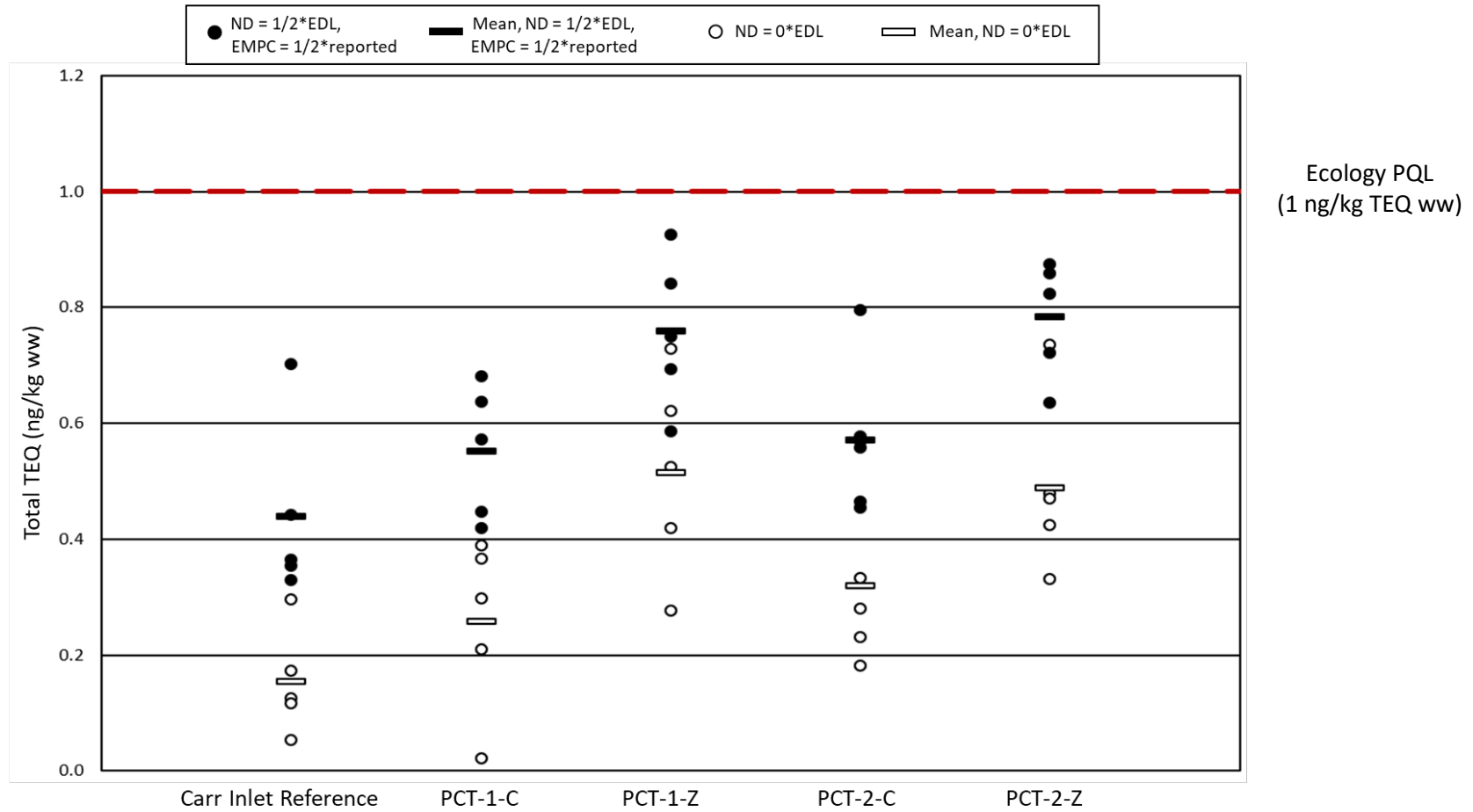
EDL = estimated detection limit
 PQL = practical quantitation limit

EMPC = estimated maximum possible concentration
 TEQ = toxic equivalent

ND = not detected

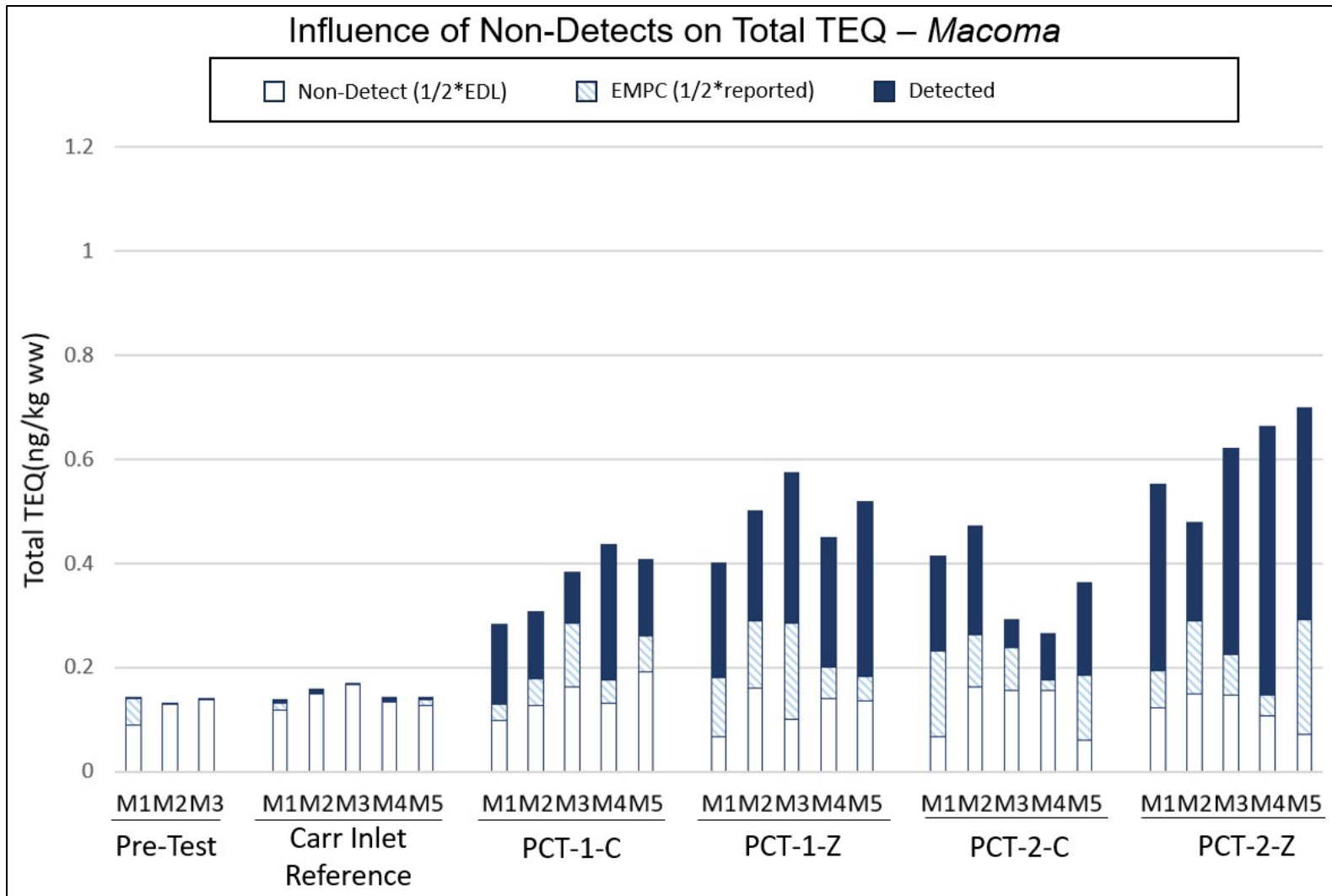
Figure 2. Mean Total TEQ for *M. nasuta* Tissue Samples

Mean Total TEQ for *A. virens* Tissue



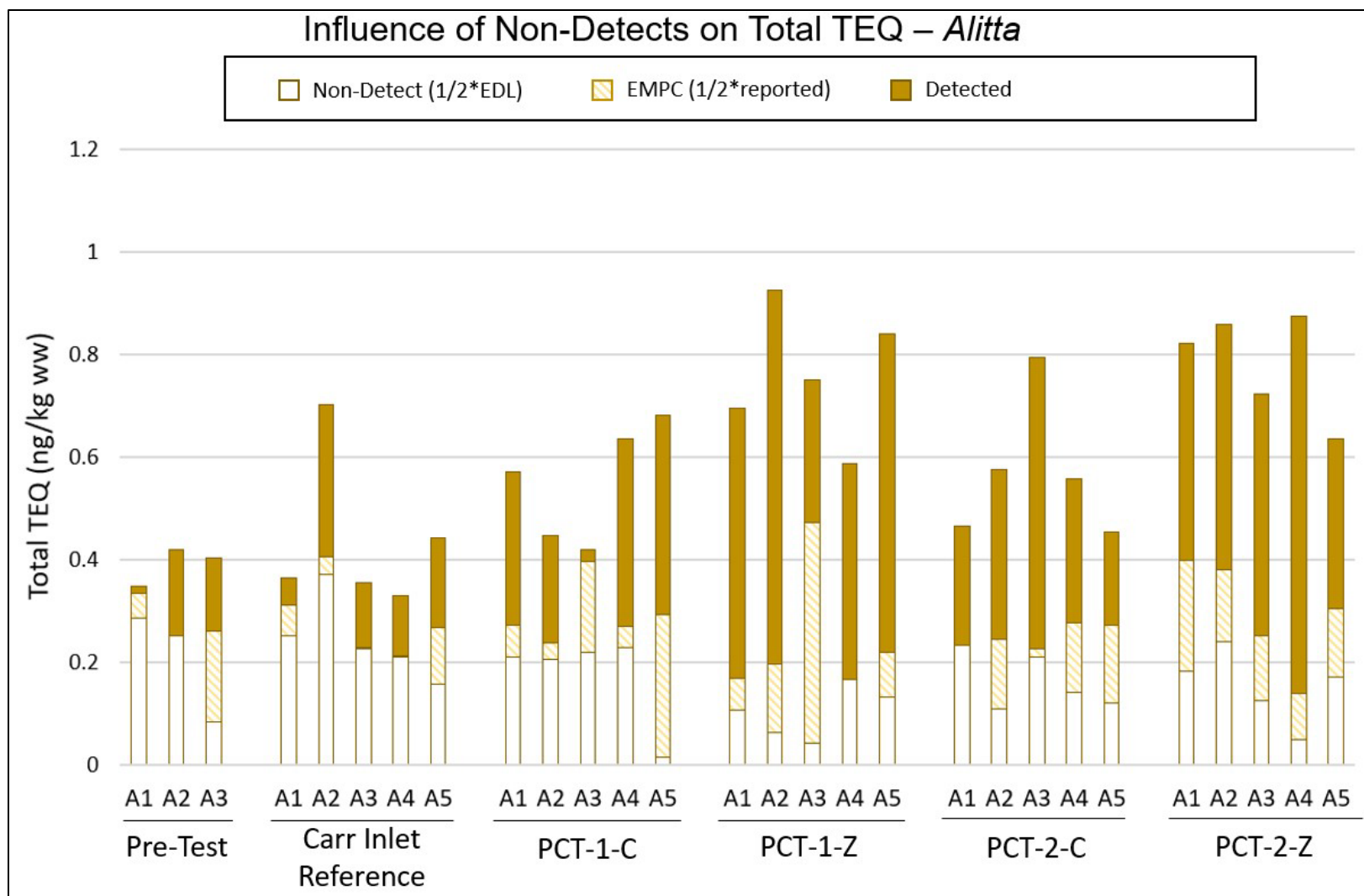
Notes:
 EDL = estimated detection limit
 PQL = practical quantitation limit
 EMPC = estimated maximum possible concentration
 TEQ = toxic equivalent
 ND = not detected

Figure 3 Mean Total TEQ for *A. virens* Tissue Samples



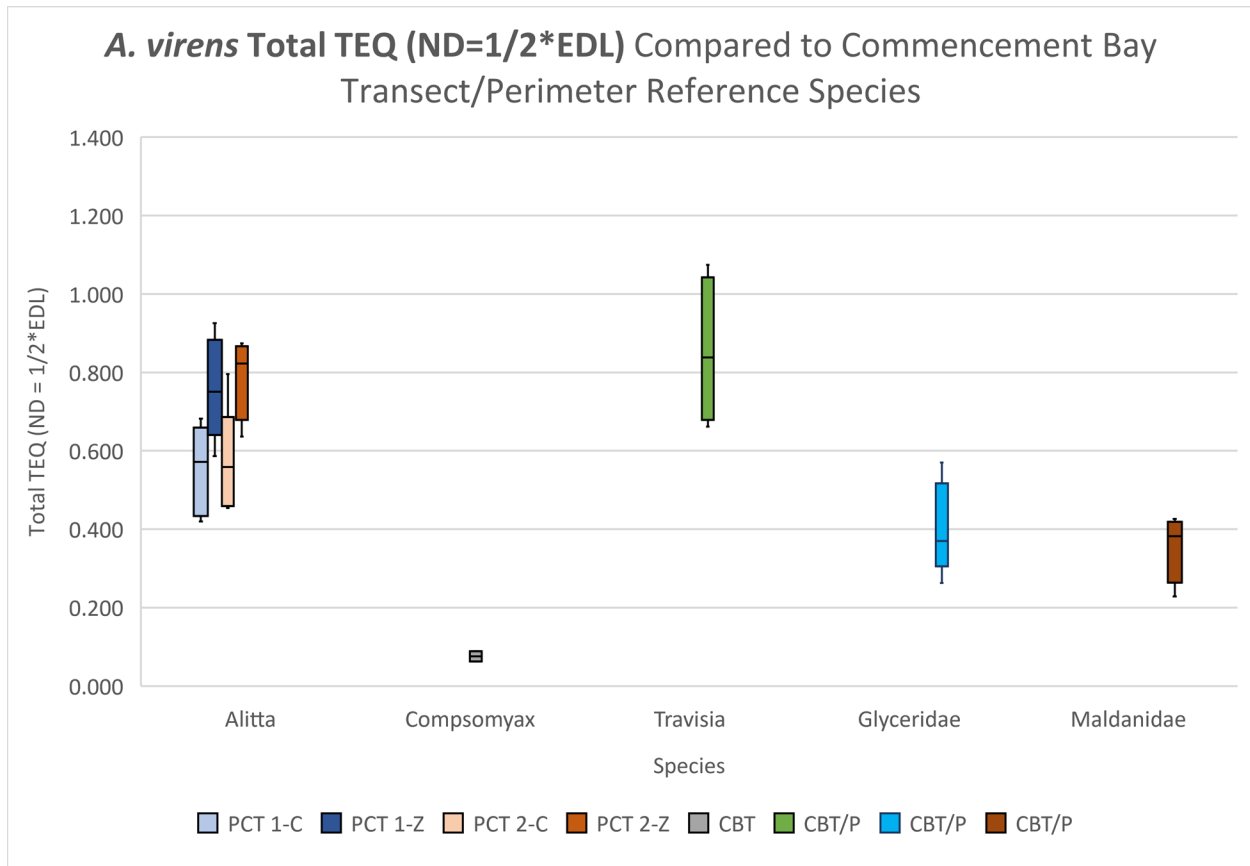
Notes:
 EDL = estimated detection limit EMPC = estimated maximum possible concentration
 TEQ = toxic equivalent

Figure 4 Influence of Non-Detects on Total TEQ for *M. nasuta*



Notes:
 EDL = estimated detection limit EMPC = estimated maximum possible concentration
 TEQ = toxic equivalent

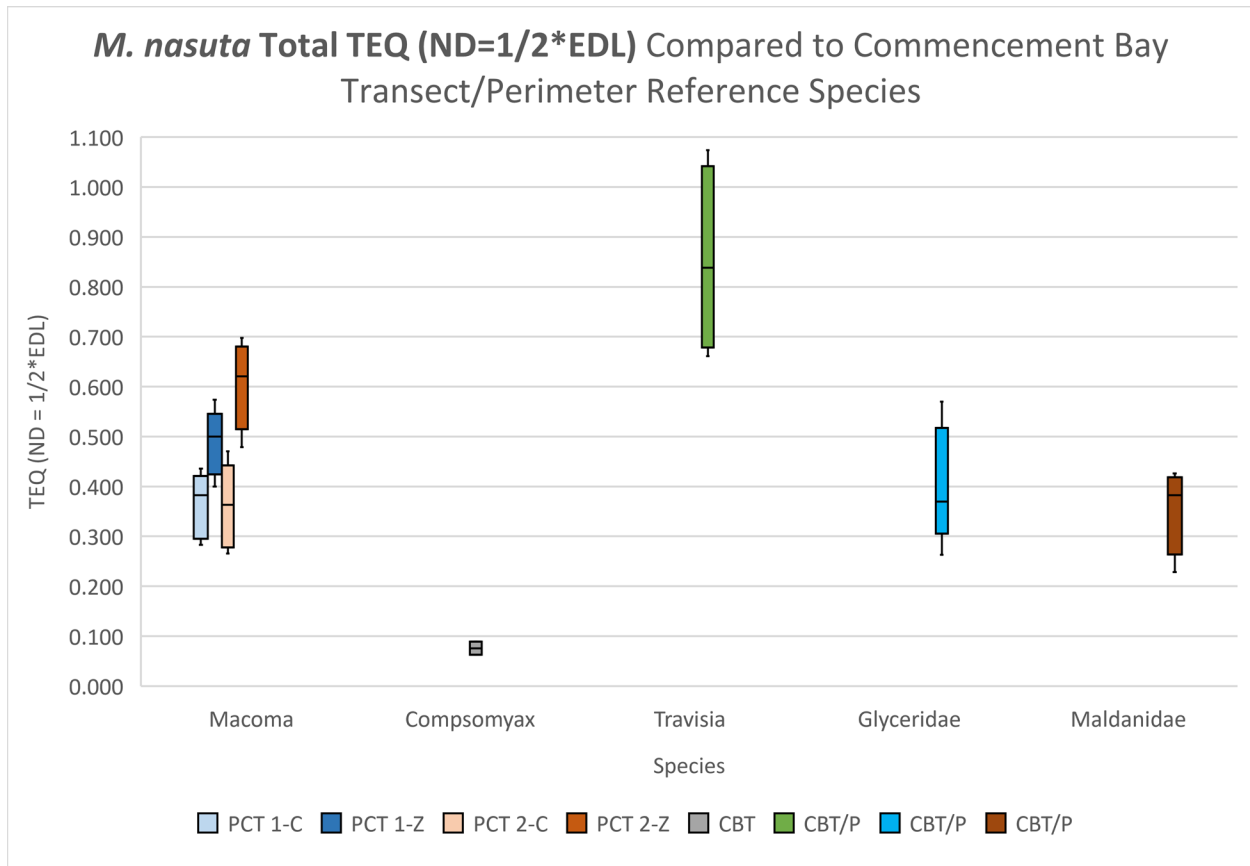
Figure 5 Influence of Non-Detects on Total TEQ for *A. virens*



Notes:

EDL = estimated detection limit ND = not detected TEQ = toxic equivalent

Figure 6 *A. virens* Dioxin/Furan Total TEQ (ND=1/2*EDL) Compared to Commencement Bay DMMP Site Tissues



Notes:

EDL = estimated detection limit ND = not detected TEQ = toxic equivalent

Figure 7 *M. nasuta* Dioxin/Furan Total TEQ (ND=1/2*EDL) Compared to Commencement Bay DMMP Site Tissues

Table 1 DMMUs, Sample Locations, Actual Sampling Coordinates, Mudline, and Sample Elevations

Surface DMMU	Estimated Volume (cy)	Z-Layer Composite	Sample Location	Core Replicate Processed	Date (mm/dd/yyyy)	Time (hh:mm)	State Plane WA-S, NAD83 (ft)		Latitude (N) NAD83	Longitude (W) NAD83	Core Penetration (ft.)	Core Recovery (ft.)	Recovery (percent)	Measured Water Depth (ft.)	Tidal Height (ft.)	Mudline (ft. MLLW)	Surface DMMU (ft. MLLW)		Z-sample (ft. MLLW)		Z2-sample (ft. MLLW)	
							Northing	Easting									Top	Bottom	Top	Bottom	Top	Bottom
PCT-1-C	15,969	PCT-1-Z	P1	D	6/21/2022	13:45	1173077.41	706092.76	47.25425125	122.38205669	5.5	6.2	113	-56.8	+6.5	-50.3	-50.3	-52.0	-52.0	-54.0	-54.0	-56.2
				G	6/21/2022	15:37	1173074.97	706089.62	47.25424249	122.38206621	5.5	6.8	124	-54.2	+3.9	-50.3	-50.3	-52.0	-52.0	-54.0	-54.0	-56.4
				H	6/23/2022	8:10	1173077.81	706089.87	47.25424336	122.38205480	5.7	5.6	98	-51.5	+1.3	-49.8	-49.8	-52.0	-52.0	-54.0	-54.0	-55.4
			P2	C	6/22/2022	11:07	1173281.28	706167.74	47.25447008	122.38124319	6.0	4.5	75	-56.5	+6.5	-50.0	-50.0	-52.0	-52.0	-54.0		
				D	6/22/2022	11:40	1173273.96	706169.14	47.25447344	122.38127278	6.0	4.7	78	-57.4	+7.1	-50.3	-50.3	-52.0	-52.0	-54.0	-54.0	-54.5
				G	6/22/2022	13:17	1173279.57	706169.25	47.25447411	122.38125022	5.0	4.0	80	-58.3	+8.0	-50.3	-50.3	-52.0	-52.0	-54.0	-54.0	-54.3
			P3	D	6/24/2022	10:30	1173898.82	706165.16	47.25450336	122.37875694	5.0	4.0	80	-51.9	+1.2	-50.7	-50.7	-52.0	-52.0	-54.0	-54.0	-54.7
				E	6/24/2022	10:50	1173885.15	706165.46	47.25450331	122.37881197	5.0	4.6	92	-52.3	+1.4	-50.8	-50.8	-52.0	-52.0	-54.0	-54.0	-55.1
				F	6/24/2022	11:00	1173897.69	706168.56	47.25451261	122.37876181	5.0	5.0	100	-52.7	+2.0	-50.7	-50.7	-52.0	-52.0	-54.0	-54.0	-55.4
PCT-2-C	11,384	PCT-2-Z	P4	A	6/23/2022	09:10	1174417.04	706060.76	47.25425106	122.37666072	8.0	6.0	75	-49.0	+1.6	-47.4	-47.4	-52.0	-52.0	-53.4		
				B	6/23/2022	09:40	1174426.44	706061.06	47.25425247	122.37662294	8.0	7.9	98	-49.4	+2.1	-47.3	-47.3	-52.0	-52.0	-54.0	-54.0	-54.7
				E	6/23/2022	10:54	1174420.89	706051.62	47.25422625	122.37664436	6.0	5.3	88	-55.6	+5.6	-50.0	-50.0	-52.0	-52.0	-54.0	-54.0	-54.8
			P5	A	6/23/2022	14:00	1174855.77	706108.06	47.25440928	122.37489911	6.0	5.6	93	-57.9	+8.4	-49.5	-49.5	-52.0	-52.0	-54.0	-54.0	-54.8
				B	6/23/2022	14:30	1174869.69	706109.39	47.25441383	122.37484319	6.0	7.0	117	-58.0	+8.7	-49.3	-49.3	-52.0	-52.0	-54.0	-54.0	-56.0
				C	6/23/2022	14:55	1174869.28	706104.32	47.25439992	122.37484433	6.0	5.0	83	-58.0	+8.7	-49.3	-49.3	-52.0	-52.0	-54.0		
			P6	A	6/23/2022	15:35	1175119.64	705993.06	47.25411128	122.37382583	9.0	9.5	106	-55.2	+8.6	-46.6	-46.6	-52.0	-52.0	-54.0	-54.0	-56.0
				B	6/23/2022	15:55	1175117.68	705994.07	47.25411392	122.37383383	9.0	9.0	100	-55.1	+8.9	-46.7	-46.7	-52.0	-52.0	-54.0	-54.0	-55.4
				D	6/24/2022	09:35	1175116.62	706002.19	47.25413611	122.37383886	9.0	8.3	92	-48.3	+0.2	-48.1	-48.1	-52.0	-52.0	-54.0	-54.0	-56.0

Notes:
 Z-layer composites were comprised of the Z-samples collected for each of the DMMUs. For example, PCT-1-Z is the Z-layer composite sample comprised of Z-samples collected from the cores collected at P1, P2, and P3.
 Z2 sample archives not available for collection in cores P2 Rep C, P4 Rep A, and P5 Rep C
 NAD83 = North American Datum of 1983

Table 2 PCT DMMU, Z-Layer Composite, and Carr Inlet Sediment Chemistry Results

Compound	Units	DMMU			BW22-PCT-1-C	VQ	BW22-PCT-1-Z	VQ	BW22-PCT-2-C	VQ	BW22-PCT-2-Z	VQ	BW22-CAR-C	VQ
		SL	BT	ML										
Conventionals														
Total Solids	%	-	-	-	67.02		75.08		68.1		71.17		70.86	
Total Solids, Sulfide	%	-	-	-	68.24		73.23		67.56		71.11		71.92	
Total Volatile Solids	%	-	-	-	2.75		1.84		3.1		2.34		1.47	
Total Organic Carbon	% dry	-	-	-	0.5		0.34		0.63		0.53		0.28	
Total Sulfides	mg/kg dry	-	-	-	527	J	501		1300		964		130	J
Ammonia	mg/kg dry	-	-	-	13.7		13.1		22.1		28.2		8.73	
Total Gravel	%	-	-	-	1.30		2.20		5.10		1.80		0.2	
Total Sand	%	-	-	-	55.10		69.50		60.80		52.30		75.2	
Total Silt	%	-	-	-	32.90		22.90		28.50		39.20		17.3	
Total Clay	%	-	-	-	10.80		5.40		5.70		6.80		7.2	
Total Fines (Silt + Clay)	%	-	-	-	43.70		28.30		34.20		46.00		24.50	
Pesticides														
Total Chlordane	µg/kg	2.8	37	-	-		-		0.26	J	-		-	
Dioxin/Furan Congeners														
2,3,7,8-TCDD	ng/kg dw	-	-	-	0.241	U	0.243	U	0.205	U	0.234	U	0.207	U
1,2,3,7,8-PeCDD	ng/kg dw	-	-	-	1.12		1.08		0.934	UJ	0.965	J	0.32	U
1,2,3,4,7,8-HxCDD	ng/kg dw	-	-	-	0.386	U	1.44		1.64		0.954	J	0.339	U
1,2,3,6,7,8-HxCDD	ng/kg dw	-	-	-	4.89		6.11		6.97		5.53		0.32	U
1,2,3,7,8,9-HxCDD	ng/kg dw	-	-	-	2.65		2.82		3.31		0.45	U	0.355	U
1,2,3,4,6,7,8-HpCDD	ng/kg dw	-	-	-	125		113		126		81.6		5.16	
OCDD	ng/kg dw	-	-	-	1200		1050		1120		667		37.5	
2,3,7,8-TCDF	ng/kg dw	-	-	-	5.76	J	5.18		8.3		15.6		0.209	U
1,2,3,7,8-PeCDF	ng/kg dw	-	-	-	10.3	J	12		20.7		29.9		0.258	U
2,3,4,7,8-PeCDF	ng/kg dw	-	-	-	3.78		4.42		7.59		10.6		0.243	U
1,2,3,4,7,8-HxCDF	ng/kg dw	-	-	-	19.4	J	17.7		31		56.2		0.25	U
1,2,3,6,7,8-HxCDF	ng/kg dw	-	-	-	5.2	J	4.9		8.94		17.3		0.243	U
1,2,3,7,8,9-HxCDF	ng/kg dw	-	-	-	2.62		3.08		4.74		7.7		0.344	U
2,3,4,6,7,8-HxCDF	ng/kg dw	-	-	-	2.12		2.29		3.91		4.97		0.249	U
1,2,3,4,6,7,8-HpCDF	ng/kg dw	-	-	-	23.7		21.4		33.5		35.2		1.23	U
1,2,3,4,7,8,9-HpCDF	ng/kg dw	-	-	-	4.45		3.3		5.67		9.86		0.336	U
OCDF	ng/kg dw	-	-	-	67.6		48		81.9		67.4		1.9	UJ

Table 2

Compound	Units	DMMP			BW22-PCT-1-C	VQ	BW22-PCT-1-Z	VQ	BW22-PCT-2-C	VQ	BW22-PCT-2-Z	VQ	BW22-CAR-C	VQ
		SL	BT	ML										
Total TEQ (ND = 0*EDL)	ng/kg dw	4	10	-	8.74		8.82		12.73		17.35		0.063	
Total TEQ (ND = 1/2*EDL)	ng/kg dw	4	10	-	8.88		8.95		12.83		17.49		0.490	
Total TCDF	ng/kg dw	-	-	-	11.5		12.1		22.7		37.9		0.999	U
Total TCDD	ng/kg dw	-	-	-	1.4		0.147	U	1.13		1.61		0.999	U
Total PeCDF	ng/kg dw	-	-	-	33.6		32		58.1		59.9		0.408	J
Total PeCDD	ng/kg dw	-	-	-	2.38		2.11		1.92		2.54		0.999	U
Total HxCDF	ng/kg dw	-	-	-	60.9		57		90.6		123		0.342	J
Total HxCDD	ng/kg dw	-	-	-	40.7		47		46.5		31.5		1.09	
Total HpCDF	ng/kg dw	-	-	-	78.6		61.8		93.2		84.1		1.75	
Total HpCDD	ng/kg dw	-	-	-	304		272		264		190		11.9	

Exceeds SL	Exceeds BT	Exceeds ML
---------------	---------------	---------------

Validation Qualifiers (VQ):

- J The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample
- U The analyte was analyzed for but was not detected above the reported sample quantitation limit.
- UJ The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

Table 3 PCT Bioaccumulation Testing – *M. nasuta* Tissue Chemistry Results

<i>M. nasuta</i> Tissue Sample	Total Solids (%)	Lipids (%)	Dioxin/Furan Total TEQ (ND = 0*EDL) ng/kg ww	Dioxin/Furan Total TEQ (ND = ½*EDL) ng/kg ww
PreTest-M1	15.02	0.61	0.000	0.139
PreTest-M2	15.66	0.76	0.000	0.130
PreTest-M3	19.36	0.72	0.000	0.139
BW22-PCT-1-C-M1	15.72	0.53	0.153	0.283
BW22-PCT-1-C-M2	15.34	0.67	0.129	0.307
BW22-PCT-1-C-M3	16.17	0.65	0.098	0.382
BW22-PCT-1-C-M4	15.96	0.65	0.261	0.436
BW22-PCT-1-C-M5	17.33	0.65	0.147	0.406
BW22-PCT-1-Z-M1	14.80	0.54	0.219	0.399
BW22-PCT-1-Z-M2	13.81	0.61	0.211	0.500
BW22-PCT-1-Z-M3	14.74	0.54	0.289	0.574
BW22-PCT-1-Z-M4	14.55	0.61	0.249	0.449
BW22-PCT-1-Z-M5	14.75	0.70	0.335	0.517
BW22-PCT-2-C-M1	14.71	0.52	0.183	0.413
BW22-PCT-2-C-M2	14.42	0.55	0.209	0.471
BW22-PCT-2-C-M3	14.20	0.51	0.052	0.291
BW22-PCT-2-C-M4	16.41	0.63	0.091	0.266
BW22-PCT-2-C-M5	14.70	0.62	0.179	0.363
BW22-PCT-2-Z-M1	14.85	0.69	0.357	0.550
BW22-PCT-2-Z-M2	14.06	0.62	0.190	0.479
BW22-PCT-2-Z-M3	15.20	0.58	0.395	0.620
BW22-PCT-2-Z-M4	14.20	0.68	0.515	0.663
BW22-PCT-2-Z-M5	15.37	0.61	0.406	0.698
BW22-CAR-M1	15.24	0.52	0.006	0.138
BW22-CAR-M2	14.53	0.57	0.009	0.157
BW22-CAR-M3	16.28	0.63	0.000	0.169
BW22-CAR-M4	16.01	0.69	0.007	0.142
BW22-CAR-M5	15.78	0.66	0.005	0.142

Table 4 PCT Bioaccumulation Testing – *A. virens* Tissue Chemistry Results

<i>A. virens</i> Tissue Sample	Total Solids (%)	Lipids (%)	Dioxin/Furan Total TEQ (ND = 0*EDL) ng/kg ww	Dioxin/Furan Total TEQ (ND = 1/2*EDL) ng/kg ww
PreTest-A1	13.38	0.88	0.016	0.349
PreTest-A2	12.87	0.92	0.169	0.420
PreTest-A3	12.61	0.78	0.141	0.403
BW22-PCT-1-C-A1	12.65	1.20	0.299	0.572
BW22-PCT-1-C-A2	11.99	0.91	0.209	0.448
BW22-PCT-1-C-A3	12.34	0.82	0.022	0.420
BW22-PCT-1-C-A4	12.59	0.81	0.366	0.637
BW22-PCT-1-C-A5	12.18	0.72	0.389	0.682
BW22-PCT-1-Z-A1	12.16	1.10	0.526	0.694
BW22-PCT-1-Z-A2	13.02	1.40	0.728	0.925
BW22-PCT-1-Z-A3	12.68	1.20	0.277	0.751
BW22-PCT-1-Z-A4	11.79	0.90	0.420	0.587
BW22-PCT-1-Z-A5	11.96	0.82	0.621	0.840
BW22-PCT-2-C-A1	12.32	0.81	0.231	0.465
BW22-PCT-2-C-A2	11.96	0.66	0.333	0.577
BW22-PCT-2-C-A3	12.99	1.20	0.568	0.795
BW22-PCT-2-C-A4	12.83	0.80	0.281	0.558
BW22-PCT-2-C-A5	11.43	1.00	0.183	0.454
BW22-PCT-2-Z-A1	11.68	0.80	0.425	0.823
BW22-PCT-2-Z-A2	12.97	0.77	0.480	0.859
BW22-PCT-2-Z-A3	11.90	0.94	0.469	0.722
BW22-PCT-2-Z-A4	12.74	1.00	0.735	0.874
BW22-PCT-2-Z-A5	12.48	0.86	0.331	0.636
BW22-CAR-A1	13.30	1.10	0.053	0.365
BW22-CAR-A2	12.79	1.70	0.297	0.701
BW22-CAR-A3	12.38	0.92	0.125	0.354
BW22-CAR-A4	12.35	0.70	0.118	0.329
BW22-CAR-A5	12.60	0.83	0.174	0.443

Table 5 Mean Dioxin/Furan TEQ Values in Tissues

Sample	Mean Dioxin/Furan TEQ ng/kg ww (ND=1/2*EDL)			
	<i>M. nasuta</i>		<i>A. virens</i>	
	Mean	Standard Deviation	Mean	Standard Deviation
Carr Inlet	0.150	0.013	0.438	0.153
PCT-1-C	0.363	0.065	0.552	0.115
PCT-1-Z	0.488	0.067	0.759	0.131
PCT-2-C	0.361	0.085	0.570	0.137
PCT-2-Z	0.602	0.088	0.783	0.101
Sample	Mean Dioxin/Furan TEQ ng/kg ww (ND=0*EDL)			
	<i>M. nasuta</i>		<i>A. virens</i>	
	Mean	Standard Deviation	Mean	Standard Deviation
Carr Inlet	0.005	0.003	0.153	0.091
PCT-1-C	0.158	0.062	0.257	0.149
PCT-1-Z	0.261	0.052	0.514	0.175
PCT-2-C	0.143	0.067	0.319	0.150
PCT-2-Z	0.373	0.118	0.488	0.150

Table 6 Results of the T-Tests and Bonferroni Tests Comparing Mean Dioxin/Furan TEQs in Organisms Exposed to PCT Sediments with Organisms Exposed to the Carr Inlet Reference

Organism	Dioxin/Furan TEQ	P Value (one-sided)			
		PCT-1-C	PCT-1-Z	PCT-2-C	PCT-2-Z
<i>M. nasuta</i>	ND=1/2*EDL	0.0007	0.0001	0.0023	0.0001
	ND=0*EDL	0.0026	0.0002	0.0051	0.0011
<i>A. virens</i>	ND=1/2*EDL	0.1126	0.0037	0.0954	0.0015
	ND=0*EDL	0.1098	0.0017	0.0339	0.0014
Organism	Dioxin/Furan TEQ	Bonferroni-Adjusted P Value (one-sided)			
		PCT-1-C	PCT-1-Z	PCT-2-C	PCT-2-Z
<i>M. nasuta</i>	ND=1/2*EDL	0.0120	0.0019	0.0374	0.0022
	ND=0*EDL	0.0411	0.0030	0.0818	0.0177
<i>A. virens</i>	ND=1/2*EDL	1	0.0585	1	0.0241
	ND=0*EDL	1	0.0277	0.5416	0.0220

Notes:

P values < 0.10 indicate a value significantly greater than the Carr Inlet reference.

ND = not detected

EDL = estimated detection limit

TEQ = toxic equivalent

**5) UNITED STATES ARMY CORP of
ENGINEERS
NWS-2022-681-WRD**

**6) DEPARTMENT of ECOLOGY WATER
QUALITY CERTIFICATION 23234**



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

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

September 23, 2024

Port of Tacoma
ATTN: Robert Brenner
P.O. Box 1837
Tacoma, WA, 98401-1837

Re: Water Quality Certification Order No. **23234** (Corps No. **NWS-2022-00681**), Port of Tacoma Pierce County Terminal (PCT) Maintenance Dredging, Pierce County, Washington

Dear Robert Brenner:

On 4/1/2024, the Port of Tacoma submitted a request for a Section 401 Water Quality Certification (WQC) under the federal Clean Water Act for the Port of Tacoma Pierce County Terminal (PCT) Maintenance Dredging, Pierce County, Washington.

On behalf of the state of Washington, the Department of Ecology certifies with conditions that the work described in the Water Quality Certification Request and supplemental documents complies with applicable provisions of Sections 301, 302, 303, 306, and 307 of the Clean Water Act, as amended, and applicable state laws. **This certification is subject to the enclosed Water Quality Certification Order (WQC Order).**

Please ensure that anyone doing work under this WQC Order has read, is familiar with, and is able to follow all of the provisions within the attached WQC Order.

If you have any questions about this decision, please contact Laura Inouye at 360-515-8213. The enclosed WQC Order may be appealed by following the procedures described within.

Sincerely,

Loree' Randall, Section Manager
Aquatic Permitting and Protection Section
Shorelands and Environmental Assistance Program

WQC Order No. 23234, Corps No. NWS-2022-00681
Aquatics ID No. 141761
September 23, 2024
Page 2 of 2

Enclosure (1)

By certified mail: 9489 0090 0027 6391 8524 84

Sent via e-mail: rbrenner@portoftacoma.com

E-cc: LeeAnn Simmons, U.S. Army Corps of Engineers
Laura Inouye, Ecology
ECYREFEDPERMITS@ecy.wa.gov

**In The Matter of Granting a Water Quality
Certification with Conditions to Port of Tacoma
pursuant to 33 U.S.C. 1341 (FWPCA § 401), RCW 90.48.120,
RCW 90.48.260 and Chapter 173-201A WAC**

Port of Tacoma
Attn: Robert Brenner
P.O. Box 1837
Tacoma, WA 98401-1837

WQC Order No.	23234
Corps Reference No.	NWS-2022-00681
Site Location	Port of Tacoma Pierce County Terminal (PCT) Maintenance Dredging, located within Blair Waterway, Tacoma, Pierce County, Washington.

Port of Tacoma submitted a request for a Section 401 Water Quality Certification (WQC) under the federal Clean Water Act to the Department of Ecology (Ecology) for the Port of Tacoma Pierce County Terminal (PCT) Maintenance Dredging, Pierce County, Washington. The following required processing dates are listed below:

- On 6/22/2022 the Port of Tacoma submitted a pre-filing meeting request.
- On 4/1/2024 Ecology received a request for Clean Water Section 401 Water Quality Certification.
- On 4/5/2024, the Port of Tacoma submitted additional information, and the Department of Ecology (Ecology) considered the Request valid on this date.
- On 6/20/2024, Ecology issued a public notice for the project.
- Ecology’s “Reasonable Period of Time” for this project has been established as 4/1/2025.

The project proposes to dredge approximately 27,462 cubic yards from high spots created by propeller-wash in the berthing area of Pierce County Terminal (PCT) in the Blair Waterway. Maximum dredge depth is -51 feet MLLW + 2 feet of over dredge allowance.

The project site is located at the Port of Tacoma Pierce County Terminal (PCT) Maintenance Dredging, located within Blair Waterway, Pierce County, Washington, Section NE 2, Township 20 N., Range 3 E., and Section NW 1, Township 20 N., Range 3 E. within Water Resource Inventory Area (WRIA) 10 (Puyallup/White).

Authorities

In exercising authority under 33 U.S.C. §1341, 40 CFR Part 121, RCW 90.48.120, RCW 90.48.260, and Chapter 173-201A, Ecology has reviewed this WQC request pursuant to the following:

1. Conformance with applicable water quality-based, technology-based, and toxic or pretreatment effluent limitations as provided under 33 U.S.C. §§1311, 1312, 1313, 1316, and 1317.
2. Conformance with the state water quality standards contained in Chapter 173-201A WAC and authorized by 33 U.S.C. §1313 and by Chapter 90.48 RCW, and with other applicable state laws; and
3. Conformance with the provision of using all known, available and reasonable methods to prevent and control pollution of state waters as required by RCW 90.48.010.
4. Conformance with Washington’s prohibition on discharges that cause or tend to cause pollution of waters of the state of Washington. RCW 90.48.080.
5. The Project Proponent of the project authorized is responsible for obtaining all other permits, licenses, and certifications that may be required by federal, state, local or tribal authorities.

With this Water Quality Certification Order (WQC Order), Ecology is granting with conditions Port of Tacoma’s request for a Section 401 Water Quality Certification for the Port of Tacoma Pierce County Terminal (PCT) Maintenance Dredging, Blair Waterway, located in Pierce County. Ecology has determined that the proposed discharges will comply with all applicable state water quality and other appropriate requirements of State law, provided the project is conducted in accordance with the WQC request that Ecology received on 4/1/2024, the supporting documents referenced in Table 1 below, **and the conditions of this WQC Order.**

Table 1 Supporting Documents

Date Received	Document Type	Title and Date	Author
4/1/2024	Joint Aquatic Resources Permit Application (JARPA) Form	JARPA 8/31/2022	Stanley Sasser, Port of Tacoma
4/1/2024	State Environmental Policy Act	Determination of Nonsignificance 9/2/2022	Jason Jordan, Port of Tacoma
7/5/2024	Suitability Determination	Suitability Determination Memorandum and	DMMP

		Antidegradation Assessment for Blair Waterway, Pierce County Terminal in Tacoma, Washington (NWS-2022-0681). 4/15/2024	
8/28/2024	Hydraulic Project Approval (HPA)	Hydraulic Project Approval, Port of Tacoma Pierce County Terminal (PCT) Maintenance Dredging Project 3/10/2023	Jennifer Eberly, WDFW
8/30/2024	Water Quality Monitoring and Protection Plan	Water Quality Monitoring and Protection Plan, Port of Tacoma Pierce County Terminal (PCT) Maintenance Dredging, 8/30/2024	Robert Brenner, Port of Tacoma
8/30/2023	Dredge Plan	Draft Dredging Plan – Pierce County Terminal (PCT) Maintenance Dredging Project, 8/30/2024	Robert Brenner, Port of Tacoma

Issuance of this Section 401 Water Quality Certification for this proposal does not authorize Port of Tacoma to exceed applicable state water quality standards (Chapter 173-201A WAC), ground water quality standards (Chapter 173-200 WAC) or sediment quality standards (Chapter 173-204 WAC) or other appropriate requirements of State law. Furthermore, nothing in this Section 401 Water Quality Certification absolves the Port of Tacoma from liability for contamination and any subsequent cleanup of surface waters, ground waters, or sediments resulting from project construction or operations.

Water Quality Certification Conditions

The following conditions will be incorporated into the Corps permit and strictly adhered to by the Port of Tacoma. Specific condition justifications and citations are provided below.

A. General Conditions

1. In this WQC Order, the term “Project Proponent” shall mean the Port of Tacoma and its agents, assignees, and contractors.
 - Justification - Ecology needs to identify that conditions of this WQC Order apply to anyone conducting work on behalf of the Project Proponent to ensure compliance with the water quality standards and other applicable state laws.
 - Citation - 40 CFR 121.1(j), Chapter 90.48 RCW, RCW 90.48.080, RCW 90.48.120, RCW 90.48.260, Chapter 173-200 WAC, Chapter 173-201A WAC, and WAC 173-225-010.
2. All submittals required by this WQC Order shall be sent to Ecology’s Headquarters Office, Attn: Federal Permit Manager, via e-mail to fednotification@ecy.wa.gov and cc to Laura.Inouye@ecy.wa.gov. The submittals shall be identified with WQC Order No. 23234 and include the Project Proponent’s name, Corps permit number, project name, project contact, and the contact phone number.
 - Justification - Ecology needs to identify where information and submittals are to be submitted to be in compliance with the requirements of this WQC Order.
 - Citation - Chapter 90.48 RCW, RCW 90.48.120, RCW 90.48.260, Chapter 173-201A WAC, and WAC 173-225-010.
3. Work authorized by this WQC Order is limited to the work described in the WQC request package received by Ecology on 4/1/2024 and the supporting documentation identified in Table 1.
 - Justification - Ecology has the authority to prevent and control pollution of state waters. By authorizing a discharge into a water of the state, through a WQC, Ecology is certifying the project as proposed will not negatively impact water quality. Therefore, it is imperative the project is conducted as it was presented during the review process. Any deviations from information within the WQC Request package and this WQC Order must be disclosed prior to the initiation of the planned work, and may require a new WQC request.
 - Citation - 40 CFR 121.5, 40 CFR 121.10, 40 CFR 121.11, Chapter 90.48 RCW, RCW 90.48.030, RCW 90.48.120, RCW 90.48.260, Chapter 173-200 WAC, Chapter 173-201A WAC, Chapter 173-204 WAC, and WAC 173-225-010.
4. The Project Proponent shall keep copies of this WQC Order on the job site and readily available for reference by Ecology personnel, the construction superintendent, construction managers and lead workers, and state and local government inspectors.

- Justification - All parties (including on-site contractors) must be aware of and comply with the WQC Order for the protection of water quality.
 - Citation - Chapter 90.48 RCW, RCW 90.48.030, Chapter 173-201A WAC, and WAC 173-225-010.
5. The Project Proponent shall provide access to the project site and all mitigation sites upon request by Ecology personnel for site inspections, monitoring, and/or necessary data collection, to ensure that conditions of this WQC Order are being met.
- Justification - Ecology must be able to investigate and inspect construction sites and facilities for compliance with all state rules and laws.
 - Citation - Chapter 90.48 RCW, RCW 90.48.030, RCW 90.48.090, RCW 90.48.120, Chapter 173-201A WAC, and WAC 173-225-010.
6. The Project Proponent shall ensure that all project engineers, contractors, and other workers at the project site with authority to direct work have read and understand relevant conditions of this WQC Order and all permits, approvals, and documents referenced in this WQC Order. The Project Proponent shall provide Ecology a signed statement (see Attachment A for an example) before construction begins.
- Justification - Ecology needs to ensure that anyone conducting work at the project, on behalf of the Project Proponent, are aware of and understand the required conditions of this WQC Order to ensure compliance with the water quality standards and other applicable state laws.
 - Citation - Chapter 90.48 RCW, RCW 90.48.030, Chapter 173-201A WAC, and WAC 173-225-010.
7. This WQC Order does not authorize direct, indirect, permanent, or temporary impacts to waters of the state or related aquatic resources, except as specifically provided for in conditions of this WQC Order.
- Justification - Ecology has the authority to prevent and control pollution of state waters, and to protect designated uses. By authorizing a discharge into a water of the state, through a water quality certification, Ecology is certifying the project as proposed will not negatively impact state water quality and will comply with the state's water quality requirements. Therefore, it is imperative the project is conducted as it was presented during the review process, and as conditioned herein.

- Citation - Chapter 90.48 RCW, RCW 90.48.030, RCW 90.48.120, Chapter 173-200 WAC, Chapter 173-201A WAC, WAC 173-201A-300(2)(e)(i), WAC 173-201A-310, WAC 173-204-120, and WAC 173-225-010.
8. Failure of any person or entity to comply with the WQC Order may result in the issuance of civil penalties or other actions, whether administrative or judicial, to enforce the state's water quality standards and the conditions of this WQC Order.
- Justification - Ecology must protect waters of the state from all discharges and potential discharges of pollution that can affect water quality to protect aquatic life and beneficial uses. Ecology has independent state authority to ensure protection of state water quality. Civil penalties and other enforcement actions are the primary means of securing compliance with water quality requirements.
 - Citation - Chapter 90.48 RCW, RCW 90.48.030, RCW 90.48.037, RCW 90.48.080, RCW 90.48.120, RCW 90.48.140, RCW 90.48.142, RCW 90.48.144, and WAC 173-225-010.
9. The Project Proponent shall provide Ecology documentation for review before undertaking any major changes to the proposed project that could significantly and adversely affect water quality, other than those project changes required by this WQC Order.
- Justification - Ecology has independent authority to enforce our 401 certification conditions issued through this WQC Order pursuant to RCW 90.48, and has independent state authority to ensure protection of state water quality. In order to ensure the project will comply with water quality standards in the event of any major changes, Ecology must be able to review the scope of work involved in the construction and operation of the project, otherwise all work must stop and a new 401 certification pre-filing meeting, followed by a new WQC request (after requisite 30-days) is required.
 - Citation - 40 CFR 121.1(k) and (n), 40 CFR 121.3, 40 CFR 121.5, 40 CFR 121.11, Chapter 90.48 RCW, and Chapter 173-201 WAC.
10. The Project Proponent shall send (per A.2.) a copy of the final Federal permit via e-mail to fednotification@ecy.wa.gov and cc to Laura.Inouye@ecy.wa.gov prior to the starting of any work authorized by this WQC Order. If the Federal Agency determines the proposed project does not require a Federal permit, the Project Proponent shall immediately inform Ecology.
- Justification - This condition is needed to ensure that the federal permit has been issued and all the conditions of the WQC Order have been included into the federal permit.
 - Citation - 40 CFR 121.10, 40 CFR 121.11, and Chapter 90.48 RCW.
11. To transfer this WQC Order to a new owner or operator the Project Proponent shall:

- a. Complete a Request for Transfer of Order with a specific transfer date of the WQC Order's obligations, coverage, and liability and submit it to Ecology per condition A.2. Link to form: <https://apps.ecology.wa.gov/publications/SummaryPages/ECY070695.html>;
- b. Provide a copy of this WQC Order to the new owner or operator; and
- c. The transfer is not considered valid until the Project Proponent receives written notification from Ecology that the transfer has been approved.
 - Justification – Ecology has independent state authority to ensure protection of state water quality. Ecology needs to ensure that anyone conducting work at the project, including any new owners or operators, are aware of and understand the required conditions of this WQC Order to ensure compliance with the water quality standards and other applicable state laws.
 - Citation – 40 CFR 121.5, Chapter 90.48 RCW, RCW 90.48.030, Chapter 173-201A WAC, and WAC 173-225-010.

B. Notification Requirements

1. The following notifications shall be made via phone or e-mail (e-mail is preferred) to Ecology's Federal Permit Manager via e-mail to fednotification@ecy.wa.gov and cc to Laura.Inouye@ecy.wa.gov. Notifications shall be identified with WQC Order No. 23234, Corps Reference No. NWS-2022-00681, and include the Project Proponent name, project name, project location, project contact and the phone number.
 - a. Immediately following a violation of state water quality standards or when the project is out of compliance with any conditions of this WQC Order;
 - b. At least ten (10) days prior to all pre-construction meetings;
 - c. At least ten (10) days prior to conducting initial in-water work activities; and
 - d. Within seven (7) days of completion of each in-water work activities.
 - Justification - Ecology has independent state authority to ensure protection of state water quality. Ecology must be aware of when a project starts and ends and whether there are any issues. This allows Ecology to evaluate compliance with the state water quality requirements.
 - Citation - Chapter 90.48 RCW, RCW 90.48.030, RCW 90.48.120, Chapter 173-201A WAC, WAC 173-201A-300 - 330, Chapter 173-204 WAC, and WAC 173-225-010.

2. In addition to the phone or e-mail notification required under B.1.a. above, the Project Proponent shall submit a detailed written report to Ecology within five (5) days that describes the nature of the event, corrective action taken and/or planned, steps to be taken to prevent a recurrence, results of any samples taken, and any other pertinent information.
 - Justification - Ecology has independent state authority to ensure protection of state water quality. This condition is intended to assure the Project Proponent remains in full compliance with state water quality requirements for the duration of the project.
 - Citation - Chapter 90.48 RCW, RCW 90.48.120, Chapter 173-201A WAC, and WAC 173-225-010.
3. If the project construction is not completed within 13 months of issuance of this WQC Order, the Project Proponent shall submit per Condition A2 a written construction status report and submit status reports every 12 months until construction and mitigation are completed.
 - Justification - Ecology has independent state authority to ensure protection of state water quality. Ecology must be aware of when a project starts and ends and whether there are any issues. This allows Ecology to evaluate compliance with the state water quality requirements.
 - Citation - Chapter 90.48 RCW, RCW 90.48.030, RCW 90.48.120, Chapter 173-201A WAC, WAC 173-201A-300 - 330, Chapter 173-204 WAC, and WAC 173-225-010.

C. Timing

1. This WQC Order is effective upon issuance of the U.S. Corps of Engineers (Corps) individual permit for this project and will remain valid for 5 years after the issuance of this Water Quality Certification.
 - Justification – Certifications are required for any license or permit that authorizes an activity that may result in a discharge or fill material into waters. This WQC Order is not valid until the Federal agency issues a permit. Additionally, Ecology needs to be able to specify how long the WQC Order will be in effect.
 - Citation – Chapter 90.48 RCW, Chapter 173-201A WAC, and WAC 173-225-010.
2. The following in-water work windows apply to the project:
 - a. All activities within the wetted perimeter of the Blair Waterway may be conducted between July 15 through February 15 of any year.

- Justification - This condition is reaffirming the project will take place during a time period that will not harm fish or other aquatic species.
 - Citation - Chapter 77.55 RCW, Chapter 90.48 RCW, RCW 90.48.030, RCW 90.48.080, Chapter 173-201A WAC, WAC 173-201A-300, WAC 173-201A-330, WAC 173-225-010, and Chapter 220-660 WAC.
3. Any project change that requires a new or revised Hydraulic Project Approval (HPA) from the Department of Fish and Wildlife should be sent to Ecology for review before the change is implemented.
- Justification - This condition is reaffirming the project will take place during a time period that will not harm fish or other aquatic species.
 - Citation - Chapter 77.55 RCW, Chapter 90.48 RCW, RCW 90.48.030, RCW 90.48.080, Chapter 173-201A WAC, WAC 173-201A-300, WAC 173-201A-330, WAC 173-225-010, and Chapter 220-660 WAC.

D. Water Quality Monitoring and Criteria

1. This WQC Order does not authorize the Project Proponent to exceed applicable water quality standards beyond the limits established in Chapter 173-201A WAC, except as authorized by this WQC Order.
- Justification - This condition ensures compliance with water quality standards to protect surface waters of the state. Ecology must protect waters of the state from all discharges and potential discharges of pollution that can affect water quality to protect aquatic life and beneficial uses.
 - Citation - Chapter 90.48 RCW, RCW 90.48.030, RCW 90.48.080, Chapter 173-201A WAC, WAC 173-201A-300 - 330, WAC 173-204-120, and WAC 173-225-010.
2. For in-water activities within marine waters turbidity shall not exceed 10 NTU over background when the background is 50 NTU or less; or a 20 percent increase in turbidity when the background turbidity is more than 50 NTU.
- Justification - Ecology must protect waters of the state from all discharges and potential discharges of pollution and prevent exceedances of the water quality standards that protect aquatic life and beneficial uses.
 - Citation - Chapter 90.48 RCW, RCW 90.48.030, RCW 90.48.080, Chapter 173-201A WAC, WAC 173-201A-300 - 330, WAC 173-204-120, and WAC 173-225-010.

3. This WQC Order does not authorize the Project Proponent to exceed applicable turbidity standards beyond the limits established in Chapter 173-201A WAC as set forth below, unless otherwise authorized in this WQC Order:
 - a. Temporary area of mixing for turbidity established within the state water quality standards for marine waters (WAC 173-201A-210) is as follows:
 01. For estuaries or marine waters, the point of compliance for a temporary area of mixing shall be at a radius of one hundred fifty feet from the activity causing the turbidity exceedance.
 - Justification - Ecology must protect waters of the state from all discharges and potential discharges of pollution and prevent exceedances of the water quality standards that protect aquatic life and beneficial uses.
 - Citation - Chapter 90.48 RCW, RCW 90.48.030, RCW 90.48.080, Chapter 173-201A WAC, WAC 173-201A-300 - 330, WAC 173-204-120, and WAC 173-225-010.
4. The Project Proponent shall implement the approved Water Quality Monitoring and Protection Plan (WQMPP), identified in Table 1.
 - Justification - This condition is necessary to ensure that the monitoring and BMPs that are proposed by the Project Proponent and authorized by Ecology are conducted to protect water quality. Ecology must protect waters of the state from all discharges and potential discharges of pollution that can affect water quality to protect aquatic life and beneficial uses.
 - Citation - Chapter 90.48 RCW, RCW 90.48.030, RCW 90.48.080, Chapter 173-201A WAC, WAC 173-201A-300 - 330, WAC 173-204-120, and WAC 173-225-010.
5. If water quality exceedances for turbidity are observed outside the point of compliance, work shall cease immediately and the Project Proponent or the contractor shall assess the cause of the water quality problem and take immediate action to stop, contain, and correct the problem and prevent further water quality turbidity exceedances.
 - Justification - Ecology must protect waters of the state from all discharges and potential discharges of pollution and prevent exceedances of the water quality standards that protect aquatic life and beneficial uses.
 - Citation - Chapter 90.48 RCW, RCW 90.48.030, RCW 90.48.080, Chapter 173-201A WAC, WAC 173-201A-300 - 330, WAC 173-204-120, and WAC 173-225-010.

6. Visible turbidity anywhere beyond the temporary area of mixing (point of compliance) from the activity, shall be considered an exceedance of the standard.
 - Justification - Ecology must protect waters of the state from all discharges and potential discharges of pollution and prevent exceedances of the water quality standards that protect aquatic life and beneficial uses.
 - Citation - Chapter 90.48 RCW, RCW 90.48.030, RCW 90.48.080, Chapter 173-201A WAC, WAC 173-201A-300 - 330, WAC 173-204-120, and WAC 173-225-010.
7. Monitoring results shall be submitted weekly to Ecology's Federal Permit Manager, per condition A.2.
 - Justification - Ecology must protect waters of the state from all discharges and potential discharges of pollution and prevent exceedances of the water quality standards that protect aquatic life and beneficial uses.
 - Citation - Chapter 90.48 RCW, RCW 90.48.030, RCW 90.48.080, Chapter 173-201A WAC, WAC 173-201A-300 - 330, WAC 173-204-120, and WAC 173-225-010.
8. Ecology may ask or could use its discretionary authority to require the Project Proponent to provide mitigation and/or additional monitoring if the monitoring results indicate that the water quality standards have not been met.
 - Justification - Ecology must protect waters of the state from all discharges and potential discharges of pollution and ensure that aquatic life and beneficial uses are protected.
 - Citation - RCW 90.48, RCW 90.48.010, RCW 90.48.030, RCW 90.48.080, RCW 90.48.120, Chapter 173-201A WAC, 173-201A-300-330 WAC, and Chapter 173-204 WAC.

E. Construction

General Conditions

1. All construction debris, excess sediment, and other solid waste material shall be properly managed and disposed of in an upland disposal site approved by the appropriate regulatory authority.
 - Justification - Ecology must be assured that the Project Proponent is managing and disposing of material to protect waters of the state from all discharges and potential discharges of pollution that can affect water quality to protect aquatic life and beneficial uses.

- Citation - Chapter 90.48 RCW, RCW 90.48.030, RCW 90.48.080, Chapter 173-201A WAC, WAC 173-201A-300 - 330, WAC 173-204-120, and WAC 173-225-010.
2. All equipment being used below the ordinary high water mark shall utilize biodegradable hydraulic fluid.
 - Justification - Ecology must protect waters of the state from all discharges and potential discharges of pollution that can affect water quality to protect aquatic life and beneficial uses.
 - Citation - Chapter 90.48 RCW, RCW 90.48.030, RCW 90.48.080, Chapter 173-201A WAC, WAC 173-201A-300 - 330, WAC 173-204-120, and WAC 173-225-010.

Equipment and Maintenance

3. Equipment used for this project shall be free of external petroleum-based products while used around the waters of the state, including wetlands. Accumulation of soils or debris shall be removed from the drive mechanisms (wheels, tires, tracks, etc.) and the undercarriage of equipment prior to its use around waters of the state, including wetlands.
 - Justification - Ecology must protect waters of the state from all discharges and potential discharges of pollution that can affect water quality to protect aquatic life and beneficial uses.
 - Citation - Chapter 90.48 RCW, RCW 90.48.030, RCW 90.48.080, Chapter 90.56 RCW, Chapter 173-201A WAC, WAC 173-201A-300 - 330, WAC 173-204-120, and WAC 173-225-010.
4. Fuel hoses, oil drums, oil or fuel transfer valves and fittings, etc., shall be checked regularly for drips or leaks, and shall be maintained and stored properly to prevent spills into state waters.
 - Justification - Ecology must protect waters of the state from all discharges and potential discharges of pollution that can affect water quality to protect aquatic life and beneficial uses.
 - Citation - Chapter 90.48 RCW, RCW 90.48.030, RCW 90.48.080, Chapter 90.56 RCW, Chapter 173-200, Chapter 173-201A WAC, WAC 173-201A-300 - 330, WAC 173-204-120, and WAC 173-225-010.
5. Barges shall not be allowed to ground-out during in-water construction.
 - Justification - This condition is necessary to protect shallow water habitat and prevent suspension of sediment. Ecology must protect waters of the state from all discharges and potential discharges of pollution that can affect water quality to protect aquatic life and beneficial uses.

- Citation - Chapter 90.48 RCW, RCW 90.48.030, Chapter 173-201A WAC, 173-201A-300-330 WAC, and Chapter 173-204 WAC.
6. Barges shall be kept free of material that could be blown into water.
- Justification - Ecology must protect waters of the state from all discharges and potential discharges of pollution that can affect water quality to protect aquatic life and beneficial uses.
 - Citation - Chapter 90.48 RCW, RCW 90.48.030, RCW 90.48.080, Chapter 173-201A WAC, WAC 173-201A-300 - 330, WAC 173-204-120, and WAC 173-225-010.
7. No return water is allowed to discharge from the barge(s) into waters of the state during transit to the disposal site.
- Justification - Ecology must protect waters of the state from all discharges and potential discharges of pollution that can affect water quality to protect aquatic life and beneficial uses.
 - Citation - Chapter 90.48 RCW, RCW 90.48.030, RCW 90.48.080, Chapter 173-201A WAC, WAC 173-201A-300 - 330, WAC 173-204-120, and WAC 173-225-010.

Dredging

8. All dredging is to be done using a mechanical (clamshell) dredge. Ecology must approve any other dredging method prior to its use.
- Justification - Ecology has reviewed the project and the BMPs for a specific type of dredging. Changes to the dredging method would require different BMPs. If new dredging methods are proposed, a new WQC pre-filing meeting request, followed by a new WQC request (after requisite 30-days) is required.
 - Citation - Chapter 90.48 RCW, RCW 90.48.030, RCW 90.48.080, Chapter 90.52-040 RCW, Chapter 90.54.020(2)(b) RCW, Chapter 173-201A WAC, Chapter 173-201A-240(5)(b) WAC, and Chapter 173-204-400(2) WAC, and WAC 173-225-010.
9. All suitable dredged material will be disposed of by bottom dump barge at the Commencement Bay open-water disposal site.
- Justification - Ecology has reviewed the project and the BMPs for a specific type of disposal technique and disposal location. If different in-water disposal sites are proposed, a new WQC pre-filing meeting request, followed by a new WQC request (after requisite 30-days) is required.

- Citation - Chapter 90.48 RCW, RCW 90.48.030, RCW 90.48.080, Chapter 90.52-040 RCW, Chapter 90.54.020(2)(b) RCW, Chapter 173-201A WAC, Chapter 173-201A-240(5)(b) WAC, and Chapter 173-204-400(2), and WAC 173-225-010.
10. Dredging operations shall be conducted in a manner that minimizes the disturbance and siltation of adjacent waters and prevents the accidental discharge of petroleum products, chemicals or other toxic or deleterious substances into state waters.
- Justification - Ecology must protect waters of the state from all discharges and potential discharges of pollution that can affect water quality to protect aquatic life and beneficial uses.
 - Citation - Chapter 90.48 RCW, RCW 90.48.030, RCW 90.48.080, Chapter 90.56 RCW, Chapter 173-201A WAC, WAC 173-201A-300 - 330, WAC 173-204-120, and WAC 173-225-010.
11. Dredged material shall not be temporarily or permanently stockpiled below the OHWM.
- Justification - Stockpiles below the OHWM can discharge excess sediment to waters of the state and degrade water quality. Ecology must protect waters of the state from all discharges and potential discharges of pollution that can affect water quality to protect aquatic life and beneficial uses.
 - Citation - Chapter 90.48 RCW, RCW 90.48.030, RCW 90.48.080, Chapter 173-201A WAC, WAC 173-201A-300 - 330, WAC 173-204-120, and WAC 173-225-010.
12. All debris larger than two (2) feet in any dimension shall be removed from the dredged sediment prior to disposal at the open water site. Similar-sized debris floating in the dredging or disposal area shall be removed.
- Justification - Ecology must be assured that the Project Proponent is managing and disposing of material to protect waters of the state from all discharges and potential discharges of pollution that can affect water quality to protect aquatic life and beneficial uses.
 - Citation - Chapter 90.48 RCW, RCW 90.48.030, RCW 90.48.080, Chapter 173-201A WAC, WAC 173-201A-300 - 330, WAC 173-204-120, and WAC 173-225-010.
13. A pre-dredge meeting is required to be convened prior to the start of dredging. A **Dredging and Disposal Work plan** (work plan) shall be submitted to Ecology per Condition A2 two weeks prior to the pre-dredge meeting. The Dredging and Disposal work plan (work plan) shall include the following:
- a. General information including schedule, primary contact, and hours of operation.

- b. Dredged quantities and disposal location, including any upland locations.
 - c. Dredging procedures and sequence.
 - d. Equipment list.
 - e. A description of the BMPs to be used for dredging, debris control, dewatering, trans loading, and disposal.
 - Justification - Ecology needs to meet with the Project Proponent and contractor to go over the work plan prior start of work to ensure that the plan reflects the project that has been authorized by this WQC Order. This condition is intended to assure the Project Proponent remains in full compliance with state water quality requirements for the duration of the project.
 - Citation - Chapter 70A.200 RCW, Chapter 77.55 RCW, RCW 79.02.300, Chapter 90.48 RCW, RCW 90.48.030, RCW 90.48.080, Chapter 90.52-040 RCW, RCW 90.54.020(2)(b), Chapter 173-201A WAC, WAC 173-201A-240(5)(b), WAC 173-201A-300, WAC 173-201A-330, WAC 173-204-400(2), WAC 173-225-010, and Chapter 220-660 WAC.
14. All dredging and disposal shall have a valid suitability determination prior to in-water work. This area ranks moderate in potential for contamination and the recency determination extends through June 2027. Contact the DMMO for a possible extension on this suitability determination.
- Justification - The DMMP process confirms that material is suitable for in-water disposal and that the project meets state anti-degradation regulations.
 - Citation - Chapter 173-201A WAC, Chapter 173-201A-230 WAC, WAC 173-201A-240(1), WAC 173-201A-240(2), Chapter 173-204 WAC, WAC 173-204-110-120, WAC 173-204-400(2), WAC 173-204-410(7), WAC 173-204-350(d), and Chapter 173-225 WAC.
15. Only approximately 27,462 cubic yards of dredged material is allowed for this one-time dredge event. Note: If additional material needs to be dredged and disposed of, a new WQC pre-filing meeting request, followed by a new WQC request (after requisite 30-days) is required.
- Justification – Ecology must protect waters of the state from all discharges and potential discharges of pollution that can affect water quality to protect aquatic life and beneficial uses.

- Citation - Chapter 173-201A WAC, WAC 173-201A-230, WAC 173-201A-240(1), WAC 173-201A-240(2), WAC, Chapter 173-204 WAC, WAC 173-204-110-120, WAC 173-204-400(2), WAC 173-204-410(7), WAC 173-204-350(d), and Chapter 173-225 WAC.
16. Any deviations from the authorized dredging footprint, depths, or volumes must be reported to the Project Manager within 24 hours of discovery.
- Justification - Ecology has the authority to prevent and control pollution of state waters. By authorizing a discharge into a water of the state, through a WQC, Ecology is certifying the project as proposed will not negatively impact water quality. Therefore, it is imperative the project is conducted as proposed.
 - Citation - 40 CFR 121.5, 40 CFR 121.10, 40 CFR 121.11, Chapter 90.48 RCW, RCW 90.48.030, RCW 90.48.120, RCW 90.48.260, Chapter 173-200 WAC, Chapter 173-201A WAC, Chapter 173-204 WAC, and WAC 173-225-010.
17. A post-dredge report shall be submitted to the Project Manager within 30 days of completion of dredging shall include:
- a. The final dredge volume
 - b. location(s) of in-water placement
 - c. volume and location(s) of material placed in uplands.
 - d. Plotted results of the post-dredge bathymetric survey. Results must clearly display the post-dredge sediment surface in relation to the permitted dredge boundary and depth, as well as the location of project features such as docks, wharfs and other landmarks. The vertical datum must be clearly indicated.
- Justification - Ecology has the authority to prevent and control pollution of state waters. By authorizing a discharge into a water of the state, through a WQC, Ecology is certifying the project as proposed will not negatively impact water quality. Therefore, it is imperative the project is conducted as proposed.
 - Citation - 40 CFR 121.5, 40 CFR 121.10, 40 CFR 121.11, Chapter 90.48 RCW, RCW 90.48.030, RCW 90.48.120, RCW 90.48.260, Chapter 173-200 WAC, Chapter 173-201A WAC, Chapter 173-204 WAC, and WAC 173-225-010.

F. Emergency/Contingency Measures

1. The Project Proponent shall develop and implement a spill prevention and containment plan for all aspects of this project.

- Justification - Ecology must ensure that the Project Proponent has a plan to prevent pollution from entering waterways. Ecology must protect waters of the state from all discharges and potential discharges of pollution that can affect water quality to protect aquatic life and beneficial uses.
 - Citation - Chapter 90.48 RCW, RCW 90.48.030, RCW 90.48.080, Chapter 90.56 RCW, Chapter 90.56.280 RCW, Chapter 173-201A WAC, WAC 173-201A-300 - 330, WAC 173-204-120, WAC 173-225-010, and WAC 173-303-145.
2. The Project Proponent shall have adequate and appropriate spill response and cleanup materials available on site to respond to any release of petroleum products or any other material into waters of the state.
- Justification - Ecology must have assurance that the Project Proponent has the material readily available in WQC Order to address any spills that might occur to protect waters of the state. Ecology must protect waters of the state from all discharges and potential discharges of pollution that can affect water quality to protect aquatic life and beneficial uses.
 - Citation - Chapter 90.48 RCW, RCW 90.48.030, RCW 90.48.080, Chapter 90.56 RCW, RCW 90.56.280, Chapter 173-201A WAC, WAC 173-201A-300 - 330, WAC 173-204-120, WAC 173-225-010, and WAC 173-303-145.
3. Fuel hoses, oil drums, oil or fuel transfer valves and fittings, etc., shall be checked regularly for drips or leaks, and shall be maintained and stored properly to prevent spills into state waters.
- Justification - Ecology must protect waters of the state from all discharges and potential discharges of pollution that can affect water quality to protect aquatic life and beneficial uses.
 - Citation - Chapter 90.48 RCW, RCW 90.48.030, RCW 90.48.080, Chapter 90.56 RCW, RCW 90.56.280, Chapter 173-201A WAC, WAC 173-201A-300 - 330, WAC 173-204-120, WAC 173-225-010, and WAC 173-303-145.
4. Work causing distressed or dying fish and discharges of oil, fuel, or chemicals into state waters or onto land with a potential for entry into state waters is is prohibited. If such work, conditions, or discharges occur, the Project Proponent shall notify Ecology's Federal Permit Manager, per condition A2, and immediately take the following actions:
- a. Cease operations at the location of the non-compliance.
 - b. Assess the cause of the water quality problem and take appropriate measures to correct the problem and prevent further environmental damage.

- c. In the event of a discharge of oil, fuel, or chemicals into state waters, or onto land with a potential for entry into state waters, containment and cleanup efforts shall begin immediately and be completed as soon as possible, taking precedence over normal work. Cleanup shall include proper disposal of any spilled material and used cleanup materials.
 - d. Immediately notify Ecology's Regional Spill Response Office and the Washington State Department of Fish and Wildlife with the nature and details of the problem, any actions taken to correct the problem, and any proposed changes in operation to prevent further problems.
 - e. Immediately notify the National Response Center at 1-800-424-8802, for actual spills to water only.
 - Justification - This condition is necessary to prevent oil and hazardous materials spills from causing environmental damage and to ensure compliance with water quality requirements. The sooner a spill is reported, the quicker it can be addressed, resulting in less harm. Ecology must protect waters of the state from all discharges and potential discharges of pollution that can affect water quality to protect aquatic life and beneficial uses.
 - Citation - Chapter 90.48 RCW, RCW 90.48.030, RCW 90.48.080, Chapter 90.56 RCW, RCW 90.56.280, Chapter 173-201A WAC, WAC 173-201A-300 - 330, WAC 173-204-120, WAC 173-225-010, and WAC 173-303-145.
5. Notify Ecology's Regional Spill Response Office immediately if chemical containers (e.g. drums) are discovered on-site or any conditions present indicating disposal or burial of chemicals on-site that may impact surface water or ground water.
- Justification - Oil and hazardous materials spills cause environmental damage. The sooner a spill is reported, the quicker it can be addressed, resulting in less harm. Ecology must protect waters of the state from all discharges and potential discharges of pollution that can affect water quality to protect aquatic life and beneficial uses.
 - Citation - Chapter 90.48 RCW, RCW 90.48.030, RCW 90.48.080, Chapter 90.56 RCW, RCW 90.56.280, Chapter 173-201A WAC, WAC 173-201A-300 - 330, WAC 173-204-120, WAC 173-225-010, and WAC 173-303-145.

Your right to appeal

You have a right to appeal this WQC Order to the Pollution Control Hearings Board (PCHB) within 30 days of the date of receipt. The appeal process is governed by Chapter 43.21B RCW and Chapter 371-08 WAC. "Date of receipt" is defined in RCW 43.21B.001(2).

To appeal, you must do all of the following within 30 days of the date of receipt of this WQC Order:

- File your notice of appeal and a copy of this WQC Order with the PCHB (see filing information below). "Filing" means actual receipt by the PCHB during regular business hours as defined in WAC 371-08-305 and -335. "Notice of appeal" is defined in WAC 371-08-340.
- Serve a copy of your notice of appeal and this WQC Order on the Department of Ecology mail, in person, or by email (see addresses below).

You must also comply with other applicable requirements in Chapter 43.21B RCW and Chapter 371-08 WAC.

Filing an appeal

Filing with the PCHB

For the most current information regarding filing with the PCHB, visit: <https://eluhwa.wa.gov/> or call: 360-664-9160.

Service on Ecology

Street Addresses:

Department of Ecology
Attn: Appeals Processing Desk
300 Desmond Drive SE
Lacey, WA 98503

Mailing Addresses:

Department of Ecology
Attn: Appeals Processing Desk
PO Box 47608
Olympia, WA 98504-7608

E-Mail Address:

ecologyappeals@ecy.wa.gov

Americans with Disabilities Act Information

Accommodation Requests

To request ADA accommodation including materials in a format for the visually impaired, call Ecology at 360-407-6831 or visit <https://ecology.wa.gov/accessibility>. People with impaired hearing may call Washington Relay Service at 711. People with speech disability may call TTY at 877-833-6341.

Contact Information

Please direct all questions about this WQC Order to:

Laura Inouye
Department of Ecology
360-515-8213
Laura.Inouye@ecy.wa.gov

More Information

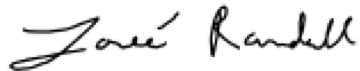
- **Pollution Control Hearings Board Website**
<https://elaho.wa.gov>
- **Chapter 43.21B RCW - Environmental and Land Use Hearings Office – Pollution Control Hearings Board**
<http://app.leg.wa.gov/RCW/default.aspx?cite=43.21B>
- **Chapter 371-08 WAC – Practice and Procedure**
<http://app.leg.wa.gov/WAC/default.aspx?cite=371-08>
- **Chapter 34.05 RCW – Administrative Procedure Act**
<http://app.leg.wa.gov/RCW/default.aspx?cite=34.05>
- **Chapter 90.48 RCW – Water Pollution Control**
<http://app.leg.wa.gov/RCW/default.aspx?cite=90.48>
- **Chapter 173.204 WAC – Sediment Management Standards**
<http://apps.leg.wa.gov/WAC/default.aspx?cite=173-204>
- **Chapter 173-200 WAC – Water Quality Standards for Ground Waters of the State of Washington**
<http://apps.leg.wa.gov/WAC/default.aspx?cite=173-200>

- **Chapter 173-201A WAC – Water Quality Standards for Surface Waters of the State of Washington**

<http://apps.leg.wa.gov/WAC/default.aspx?cite=173-201A>

Signature

Dated this 23rd day of September 2024 at the Department of Ecology, Lacey, Washington.



Loree' Randall, Section Manager
Aquatic Permitting and Protection Section
Shorelands and Environmental Assistance Program

Attachment A

**Statement of Understanding
Water Quality Certification Conditions**

Port of Tacoma Pierce County Terminal (PCT) Maintenance Dredging

Water Quality Certification WQC Order No. 23234

As the Project Proponent for Port of Tacoma Pierce County Terminal (PCT) Maintenance Dredging project, I have read and understand the conditions of Washington State Department of Ecology WQC Order No. 23234, and any permits, plans, documents, and approvals referenced in the WQC Order. I have and will continue to ensure that all project engineers, contractors, and other workers at the project site with authority to direct work have read and understand the conditions of this WQC Order and any permits, plans, documents, and approvals referenced in the WQC Order.

Signature

Date

Title

Phone

Company

**7) DEPARTMENT of ECOLOGY COASTAL
ZONE MANAGEMENT**



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

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

September 24, 2024

Port of Tacoma
Attn: Robert Brenner
P.O. Box 1837
Tacoma, WA 98401

Re: Coastal Zone Management Federal Consistency Decision for Port of Tacoma Pierce County Terminal (PCT) Maintenance Dredging (Corps No. NWS-2022-00681), Blair Waterway, Tacoma, Pierce County, Washington

Dear Robert Brenner:

On June 14, 2024, the Department of Ecology (Ecology) received a Certification of Consistency with the Washington State Coastal Zone Management Program (CZMP) for the above project. Pursuant to Section 307(c)(3) of the Coastal Zone Management Act of 1972 as amended, Ecology concurs with the Port of Tacoma's determination that the proposed work is consistent with Washington's CZMP.

The proposed work includes dredging approximately 27,462 cubic yards from high spots created by propeller-wash in the berthing area of Pierce County Terminal (PCT) in the Blair Waterway. Maximum dredge depth is -51 feet MLLW + 2 feet of over dredge allowance. This activity will occur in Blair Waterway, Tacoma, Pierce County, Washington.

If you have any questions regarding Ecology's decision, please contact Laura Inouye at 360-515-8213.

Your right to appeal

You have a right to appeal this decision to the Pollution Control Hearings Board (PCHB) within 30 days of the date of receipt. The appeal process is governed by Chapter 43.21B RCW and Chapter 371-08 WAC. "Date of receipt" is defined in RCW 43.21B.001(2).

To appeal, you must do all of the following within 30 days of the date of receipt of this decision:

- File your notice of appeal and a copy of this decision with the PCHB (see filing information below). “Filing” means actual receipt by the PCHB during regular business hours as defined in WAC 371-08-305 and -335. “Notice of appeal” is defined in WAC 371-08-340.
- Serve a copy of your notice of appeal and this decision on the Department of Ecology mail, in person, or by email (see addresses below).

You must also comply with other applicable requirements in Chapter 43.21B RCW and Chapter 371-08 WAC.

Filing an appeal

Filing with the PCHB

For the most current information regarding filing with the PCHB, visit: <https://elaho.wa.gov/> or call: 360-664-9160.

Service on Ecology

Street Addresses:

Department of Ecology
Attn: Appeals Processing Desk
300 Desmond Drive SE
Lacey, WA 98503

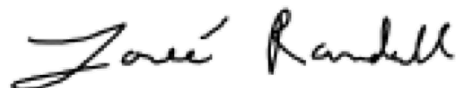
Mailing Addresses:

Department of Ecology
Attn: Appeals Processing Desk
PO Box 47608
Olympia, WA 98504-7608

E-Mail Address:

ecologyappeals@ecy.wa.gov

Sincerely,



Loree' Randall, Section Manager
Aquatic Permitting & Protection Section
Shorelands and Environmental Assistance Program

Corps No. NWS-2022-00681, Aquatics ID No. 141761

September 24, 2024

Page 3 of 3

Sent via e-mail: rbrenner@portoftacoma.com

E-cc: LeeAnn Simmons, U.S. Army Corps of Engineers

Laura Inouye, Ecology

fedconsistency@ecy.wa.gov

**8) DEPARTMENT OF NATURAL RESOURCES
SITE USE AUTHORIZATION XXXX**

APPENDIX G

TRANSLOAD FACILITY SPECIFIC PERMITS

- 1) DEPARTMENT of ECOLOGY CONSTRUCTION
STORMWATER GENERAL PERMIT**
- 2) PIERCE COUNTY WASTE DISPOSAL AGREEMENT**

**1) DEPARTMENT of ECOLOGY
CONSTRUCTION STORMWATER GENERAL
PERMIT**

Issuance Date: November 18, 2020
Effective Date: January 1, 2021
Expiration Date: December 31, 2025

CONSTRUCTION STORMWATER GENERAL PERMIT

National Pollutant Discharge Elimination System (NPDES) and State Waste Discharge
General Permit for Stormwater Discharges Associated with Construction Activity

State of Washington
Department of Ecology
Olympia, Washington 98504

In compliance with the provisions of
Chapter 90.48 Revised Code of Washington
(State of Washington Water Pollution Control Act)
and
Title 33 United States Code, Section 1251 et seq.
The Federal Water Pollution Control Act (The Clean Water Act)

Until this permit expires, is modified, or revoked, Permittees that have properly
obtained coverage under this general permit are authorized to discharge in accordance
with the special and general conditions that follow.



Vincent McGowan, P.E.
Water Quality Program Manager
Washington State Department of Ecology

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SUMMARY OF PERMIT REPORT SUBMITTALS

Refer to the Special and General Conditions within this permit for additional submittal requirements. Appendix A provides a list of definitions. Appendix B provides a list of acronyms.

Table 1 Summary of Required Submittals

Permit Section	Submittal	Frequency	First Submittal Date
S5.A and S8	High Turbidity/Transparency Phone Reporting	As Necessary	Within 24 hours
S5.B	Discharge Monitoring Report	Monthly*	Within 15 days following the end of each month
S5.F and S8	Noncompliance Notification – Telephone Notification	As necessary	Within 24 hours
S5.F	Noncompliance Notification – Written Report	As necessary	Within 5 Days of non-compliance
S9.D	Request for Chemical Treatment Form	As necessary	Written approval from Ecology is required prior to using chemical treatment (with the exception of dry ice, CO ₂ or food grade vinegar to adjust pH)
G2	Notice of Change in Authorization	As necessary	
G6	Permit Application for Substantive Changes to the Discharge	As necessary	
G8	Application for Permit Renewal	1/permit cycle	No later than 180 days before expiration
S2.A	Notice of Permit Transfer	As necessary	
G19	Notice of Planned Changes	As necessary	
G21	Reporting Anticipated Non-compliance	As necessary	

NOTE: *Permittees must submit electronic Discharge Monitoring Reports (DMRs) to the Washington State Department of Ecology monthly, regardless of site discharge, for the full duration of permit coverage. Refer to Section S5.B of this General Permit for more specific information regarding DMRs.

Table 2 Summary of Required On-site Documentation

Document Title	Permit Conditions
Permit Coverage Letter	See Conditions S2, S5
Construction Stormwater General Permit (CSWGP)	See Conditions S2, S5
Site Log Book	See Conditions S4, S5
Stormwater Pollution Prevention Plan (SWPPP)	See Conditions S5, S9
Site Map	See Conditions S5, S9

SPECIAL CONDITIONS

S1. PERMIT COVERAGE

A. Permit Area

This Construction Stormwater General Permit (CSWGP) covers all areas of Washington State, except for federal operators and Indian Country as specified in Special Condition S1.E.3 and 4.

B. Operators Required to Seek Coverage Under this General Permit

1. Operators of the following construction activities are required to seek coverage under this CSWGP:
 - a. Clearing, grading and/or excavation that results in the disturbance of one or more acres (including off-site disturbance acreage related to construction-support activity as authorized in S1.C.2) and discharges stormwater to surface waters of the State; and clearing, grading and/or excavation on sites smaller than one acre that are part of a larger common plan of development or sale, if the common plan of development or sale will ultimately disturb one acre or more and discharge stormwater to surface waters of the State.
 - i. This category includes forest practices (including, but not limited to, class IV conversions) that are part of a construction activity that will result in the disturbance of one or more acres, and discharge to surface waters of the State (that is, forest practices that prepare a site for construction activities); and
 - b. Any size construction activity discharging stormwater to waters of the State that the Washington State Department of Ecology (Ecology):
 - i. Determines to be a significant contributor of pollutants to waters of the State of Washington.
 - ii. Reasonably expects to cause a violation of any water quality standard.
2. Operators of the following activities are not required to seek coverage under this CSWGP (unless specifically required under Special Condition S1.B.1.b, above):
 - a. Construction activities that discharge all stormwater and non-stormwater to groundwater, sanitary sewer, or combined sewer, and have no point source discharge to either surface water or a storm sewer system that drains to surface waters of the State.
 - b. Construction activities covered under an Erosivity Waiver (Special Condition S1.F).
 - c. Routine maintenance that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of a facility.

C. Authorized Discharges

1. **Stormwater Associated with Construction Activity.** Subject to compliance with the terms and conditions of this permit, Permittees are authorized to discharge stormwater associated with construction activity to surface waters of the State or to a storm sewer system that drains to surface waters of the State. (Note that “surface waters of the

State” may exist on a construction site as well as off site; for example, a creek running through a site.)

2. **Stormwater Associated with Construction Support Activity.** This permit also authorizes stormwater discharge from support activities related to the permitted construction site (for example, an on-site portable rock crusher, off-site equipment staging yards, material storage areas, borrow areas, etc.) provided:
 - a. The support activity relates directly to the permitted construction site that is required to have an NPDES permit; and
 - b. The support activity is not a commercial operation serving multiple unrelated construction projects, and does not operate beyond the completion of the construction activity; and
 - c. Appropriate controls and measures are identified in the Stormwater Pollution Prevention Plan (SWPPP) for the discharges from the support activity areas.
3. **Non-Stormwater Discharges.** The categories and sources of non-stormwater discharges identified below are authorized conditionally, provided the discharge is consistent with the terms and conditions of this permit:
 - a. Discharges from fire-fighting activities.
 - b. Fire hydrant system flushing.
 - c. Potable water, including uncontaminated water line flushing.
 - d. Hydrostatic test water.
 - e. Uncontaminated air conditioning or compressor condensate.
 - f. Uncontaminated groundwater or spring water.
 - g. Uncontaminated excavation dewatering water (in accordance with S9.D.10).
 - h. Uncontaminated discharges from foundation or footing drains.
 - i. Uncontaminated or potable water used to control dust. Permittees must minimize the amount of dust control water used.
 - j. Routine external building wash down that does not use detergents.
 - k. Landscape irrigation water.

The SWPPP must adequately address all authorized non-stormwater discharges, except for discharges from fire-fighting activities, and must comply with Special Condition S3. At a minimum, discharges from potable water (including water line flushing), fire hydrant system flushing, and pipeline hydrostatic test water must undergo the following: dechlorination to a concentration of 0.1 parts per million (ppm) or less, and pH adjustment to within 6.5 – 8.5 standard units (su), if necessary.

D. Prohibited Discharges

The following discharges to waters of the State, including groundwater, are prohibited:

1. Concrete wastewater
2. Wastewater from washout and clean-up of stucco, paint, form release oils, curing compounds and other construction materials.
3. Process wastewater as defined by 40 Code of Federal Regulations (CFR) 122.2 (See Appendix A of this permit).
4. Slurry materials and waste from shaft drilling, including process wastewater from shaft drilling for construction of building, road, and bridge foundations unless managed according to Special Condition S9.D.9.j.
5. Fuels, oils, or other pollutants used in vehicle and equipment operation and maintenance.
6. Soaps or solvents used in vehicle and equipment washing.
7. Wheel wash wastewater, unless managed according to Special Condition S9.D.9.
8. Discharges from dewatering activities, including discharges from dewatering of trenches and excavations, unless managed according to Special Condition S9.D.10.

E. Limits on Coverage

Ecology may require any discharger to apply for and obtain coverage under an individual permit or another more specific general permit. Such alternative coverage will be required when Ecology determines that this CSWGP does not provide adequate assurance that water quality will be protected, or there is a reasonable potential for the project to cause or contribute to a violation of water quality standards.

The following stormwater discharges are not covered by this permit:

1. Post-construction stormwater discharges that originate from the site after completion of construction activities and the site has undergone final stabilization.
2. Non-point source silvicultural activities such as nursery operations, site preparation, reforestation and subsequent cultural treatment, thinning, prescribed burning, pest and fire control, harvesting operations, surface drainage, or road construction and maintenance, from which there is natural runoff as excluded in 40 CFR Subpart 122.
3. Stormwater from any federal operator.
4. Stormwater from facilities located on **Indian Country** as defined in 18 U.S.C.§1151, except portions of the Puyallup Reservation as noted below.

Indian Country includes:

- a. All land within any Indian Reservation notwithstanding the issuance of any patent, and, including rights-of-way running through the reservation. This includes all federal, tribal, and Indian and non-Indian privately owned land within the reservation.
- b. All off-reservation Indian allotments, the Indian titles to which have not been extinguished, including rights-of-way running through the same.
- c. All off-reservation federal trust lands held for Native American Tribes.

Puyallup Exception: Following the *Puyallup Tribes of Indians Land Settlement Act of 1989*, 25 U.S.C. §1773; the permit does apply to land within the Puyallup Reservation except for discharges to surface water on land held in trust by the federal government.

5. Stormwater from any site covered under an existing NPDES individual permit in which stormwater management and/or treatment requirements are included for all stormwater discharges associated with construction activity.
6. Stormwater from a site where an applicable Total Maximum Daily Load (TMDL) requirement specifically precludes or prohibits discharges from construction activity.

F. Erosivity Waiver

Construction site operators may qualify for an Erosivity Waiver from the CSWGP if the following conditions are met:

1. The site will result in the disturbance of fewer than five (5) acres and the site is not a portion of a common plan of development or sale that will disturb five (5) acres or greater.
2. Calculation of Erosivity “R” Factor and Regional Timeframe:
 - a. The project’s calculated rainfall erosivity factor (“R” Factor) must be less than five (5) during the period of construction activity, (See the CSWGP homepage <http://www.ecy.wa.gov/programs/wq/stormwater/construction/index.html> for a link to the EPA’s calculator and step by step instructions on computing the “R” Factor in the *EPA Erosivity Waiver Fact Sheet*). The period of construction activity starts when the land is first disturbed and ends with final stabilization. In addition:
 - b. The entire period of construction activity must fall within the following timeframes:
 - i. For sites west of the Cascades Crest: June 15 – September 15.
 - ii. For sites east of the Cascades Crest, excluding the Central Basin: June 15 – October 15.
 - iii. For sites east of the Cascades Crest, within the Central Basin: no timeframe restrictions apply. The Central Basin is defined as the portions of Eastern Washington with mean annual precipitation of less than 12 inches. For a map of the Central Basin (Average Annual Precipitation Region 2), refer to: <http://www.ecy.wa.gov/programs/wq/stormwater/construction/resourcesguidance.html>.
3. Construction site operators must submit a complete Erosivity Waiver certification form at least one week before disturbing the land. Certification must include statements that the operator will:
 - a. Comply with applicable local stormwater requirements; and
 - b. Implement appropriate erosion and sediment control BMPs to prevent violations of water quality standards.
4. This waiver is not available for facilities declared significant contributors of pollutants as defined in Special Condition S1.B.1.b or for any size construction activity that could

reasonably expect to cause a violation of any water quality standard as defined in Special Condition S1.B.1.b.ii.

5. This waiver does not apply to construction activities which include non-stormwater discharges listed in Special Condition S1.C.3.
6. If construction activity extends beyond the certified waiver period for any reason, the operator must either:
 - a. Recalculate the rainfall erosivity “R” factor using the original start date and a new projected ending date and, if the “R” factor is still under 5 *and* the entire project falls within the applicable regional timeframe in Special Condition S1.F.2.b, complete and submit an amended waiver certification form before the original waiver expires; *or*
 - b. Submit a complete permit application to Ecology in accordance with Special Condition S2.A and B before the end of the certified waiver period.

S2. APPLICATION REQUIREMENTS

A. Permit Application Forms

1. *Notice of Intent Form*

- a. Operators of new or previously unpermitted construction activities must submit a complete and accurate permit application (Notice of Intent, or NOI) to Ecology.
- b. Operators must apply using the electronic application form (NOI) available on Ecology’s website (<http://ecy.wa.gov/programs/wq/stormwater/construction/index.html>). Permittees unable to submit electronically (for example, those who do not have an internet connection) must contact Ecology to request a waiver and obtain instructions on how to obtain a paper NOI.

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Olympia, Washington 98504-7696

- c. The operator must submit the NOI at least 60 days before discharging stormwater from construction activities and must submit it prior to the date of the first public notice (See Special Condition S2.B, below, for details). The 30-day public comment period begins on the publication date of the second public notice. Unless Ecology responds to the complete application in writing, coverage under the general permit will automatically commence on the 31st day following receipt by Ecology of a *completed* NOI, or the issuance date of this permit, whichever is later; unless Ecology specifies a later date in writing as required by WAC173-226-200(2). See S8.B for Limits on Coverage for New Discharges to TMDL or 303(d)-Listed Waters.
- d. If an applicant intends to use a Best Management Practice (BMP) selected on the basis of Special Condition S9.C.4 (“demonstrably equivalent” BMPs), the applicant must notify Ecology of its selection as part of the NOI. In the event the applicant selects BMPs after submission of the NOI, the applicant must provide notice of the

selection of an equivalent BMP to Ecology at least 60 days before intended use of the equivalent BMP.

- e. Applicants must notify Ecology if they are aware of contaminated soils and/or groundwater associated with the construction activity. Provide detailed information with the NOI (as known and readily available) on the nature and extent of the contamination (concentrations, locations, and depth), as well as pollution prevention and/or treatment BMPs proposed to control the discharge of soil and/or groundwater contaminants in stormwater. Examples of such detail may include, but are not limited to:
 - i. List or table of all known contaminants with laboratory test results showing concentration and depth,
 - ii. Map with sample locations,
 - iii. Related portions of the Stormwater Pollution Prevention Plan (SWPPP) that address the management of contaminated and potentially contaminated construction stormwater and dewatering water,
 - iv. Dewatering plan and/or dewatering contingency plan.

2. ***Transfer of Coverage Form***

The Permittee can transfer current coverage under this permit to one or more new operators, including operators of sites within a Common Plan of Development, provided:

- i. The Permittee submits a complete Transfer of Coverage Form to Ecology, signed by the current and new discharger and containing a specific date for transfer of permit responsibility, coverage and liability (including any Administrative Orders associated with the permit); and
- ii. Ecology does not notify the current discharger and new discharger of intent to revoke coverage under the general permit. If this notice is not given, the transfer is effective on the date specified in the written agreement.

When a current discharger (Permittee) transfers a portion of a permitted site, the current discharger must also indicate the remaining permitted acreage after the transfer. Transfers do not require public notice.

3. ***Modification of Coverage Form***

Permittees must notify Ecology regarding any changes to the information provided on the NOI by submitting an Update/Modification of Permit Coverage form in accordance with General Conditions G6 and G19. Examples of such changes include, but are not limited to:

- i. Changes to the Permittee's mailing address,
- ii. Changes to the on-site contact person information, and
- iii. Changes to the area/acreage affected by construction activity.

B. Public Notice

For new or previously unpermitted construction activities, the applicant must publish a public notice at least one time each week for two consecutive weeks, at least 7 days apart, in a newspaper with general circulation in the county where the construction is to take place. The notice must be run after the NOI has been submitted and must contain:

1. A statement that *“The applicant is seeking coverage under the Washington State Department of Ecology’s Construction Stormwater NPDES and State Waste Discharge General Permit.”*
2. The name, address, and location of the construction site.
3. The name and address of the applicant.
4. The type of construction activity that will result in a discharge (for example, residential construction, commercial construction, etc.), and the total number of acres to be disturbed over the lifetime of the project.
5. The name of the receiving water(s) (that is, the surface water(s) to which the site will discharge), or, if the discharge is through a storm sewer system, the name of the operator of the system and the receiving water(s) the system discharges to.
6. The statement: *Any persons desiring to present their views to the Washington State Department of Ecology regarding this application, or interested in Ecology’s action on this application, may notify Ecology in writing no later than 30 days of the last date of publication of this notice. Ecology reviews public comments and considers whether discharges from this project would cause a measurable change in receiving water quality, and, if so, whether the project is necessary and in the overriding public interest according to Tier II antidegradation requirements under WAC 173-201A-320. Comments can be submitted to: Department of Ecology, PO Box 47696, Olympia, Washington 98504-7696 Attn: Water Quality Program, Construction Stormwater.*

S3. COMPLIANCE WITH STANDARDS

- A. **Discharges must not** cause or contribute to a violation of surface water quality standards (Chapter 173-201A WAC), groundwater quality standards (Chapter 173-200 WAC), sediment management standards (Chapter 173-204 WAC), and human health-based criteria in the Federal water quality criteria applicable to Washington. (40 CFR Part 131.45) Discharges that are not in compliance with these standards are prohibited.
- B. **Prior to the discharge** of stormwater and non-stormwater to waters of the State, the Permittee must apply All Known, Available, and Reasonable methods of prevention, control, and Treatment (AKART). This includes the preparation and implementation of an adequate SWPPP, with all appropriate BMPs installed and maintained in accordance with the SWPPP and the terms and conditions of this permit.
- C. **Ecology presumes** that a Permittee complies with water quality standards unless discharge monitoring data or other site-specific information demonstrates that a discharge causes or contributes to a violation of water quality standards, when the Permittee complies with the following conditions. The Permittee must fully:

1. Comply with all permit conditions, including; planning, sampling, monitoring, reporting, and recordkeeping conditions.
 2. Implement stormwater BMPs contained in stormwater management manuals published or approved by Ecology, or BMPs that are demonstrably equivalent to BMPs contained in stormwater management manuals published or approved by Ecology, including the proper selection, implementation, and maintenance of all applicable and appropriate BMPs for on-site pollution control. (For purposes of this section, the stormwater manuals listed in Appendix 10 of the *Phase I Municipal Stormwater Permit* are approved by Ecology.)
- D. Where construction sites** also discharge to groundwater, the groundwater discharges must also meet the terms and conditions of this CSWGP. Permittees who discharge to groundwater through an injection well must also comply with any applicable requirements of the Underground Injection Control (UIC) regulations, Chapter 173-218 WAC.

S4. MONITORING REQUIREMENTS, BENCHMARKS, AND REPORTING TRIGGERS

A. Site Log Book

The Permittee must maintain a site log book that contains a record of the implementation of the SWPPP and other permit requirements, including the installation and maintenance of BMPs, site inspections, and stormwater monitoring.

B. Site Inspections

Construction sites one (1) acre or larger that discharge stormwater to surface waters of the State must have site inspections conducted by a Certified Erosion and Sediment Control Lead (CESCL). Sites less than one (1) acre may have a person without CESCL certification conduct inspections. (See Special Conditions S4.B.3 and B.4, below, for detailed requirements of the Permittee's CESCL.)

Site inspections must include all areas disturbed by construction activities, all BMPs, and all stormwater discharge points under the Permittee's operational control.

1. The Permittee must have staff knowledgeable in the principles and practices of erosion and sediment control. The CESCL (sites one acre or more) or inspector (sites less than one acre) must have the skills to assess the:
 - a. Site conditions and construction activities that could impact the quality of stormwater; and
 - b. Effectiveness of erosion and sediment control measures used to control the quality of stormwater discharges. The SWPPP must identify the CESCL or inspector, who must be present on site or on-call at all times. The CESCL (sites one (1) acre or more) must obtain this certification through an approved erosion and sediment control training program that meets the minimum training standards established by Ecology. (See BMP C160 in the manual, referred to in Special Condition S9.C.1 and 2.)
2. The CESCL or inspector must examine stormwater visually for the presence of suspended sediment, turbidity, discoloration, and oil sheen. BMP effectiveness must be evaluated to

determine if it is necessary to install, maintain, or repair BMPs to improve the quality of stormwater discharges.

Based on the results of the inspection, the Permittee must correct the problems identified, by:

- a. Reviewing the SWPPP for compliance with Special Condition S9 and making appropriate revisions within 7 days of the inspection.
 - b. Immediately beginning the process of fully implementing and maintaining appropriate source control and/or treatment BMPs, within 10 days of the inspection. If installation of necessary treatment BMPs is not feasible within 10 days, Ecology may approve additional time when an extension is requested by a Permittee within the initial 10-day response period.
 - c. Documenting BMP implementation and maintenance in the site log book.
3. The CESCL or inspector must inspect all areas disturbed by construction activities, all BMPs, and all stormwater discharge points at least once every calendar week and within 24 hours of any discharge from the site. (For purposes of this condition, individual discharge events that last more than one (1) day do not require daily inspections. For example, if a stormwater pond discharges continuously over the course of a week, only one (1) inspection is required that week.) Inspection frequency may be reduced to once every calendar month for inactive sites that are temporarily stabilized.
4. The Permittee must summarize the results of each inspection in an inspection report or checklist and enter the report/checklist into, or attach it to, the site log book. At a minimum, each inspection report or checklist must include:
- a. Inspection date and time.
 - b. Weather information.
 - c. The general conditions during inspection.
 - d. The approximate amount of precipitation since the last inspection.
 - e. The approximate amount of precipitation within the last 24 hours.
 - f. A summary or list of all implemented BMPs, including observations of all erosion/sediment control structures or practices.
 - g. A description of:
 - i. BMPs inspected (including location).
 - ii. BMPs that need maintenance and why.
 - iii. BMPs that failed to operate as designed or intended, and
 - iv. Where additional or different BMPs are needed, and why.
 - h. A description of stormwater discharged from the site. The Permittee must note the presence of suspended sediment, turbidity, discoloration, and oil sheen, as applicable.

- i. Any water quality monitoring performed during inspection.
- j. General comments and notes, including a brief description of any BMP repairs, maintenance, or installations made following the inspection.
- k. An implementation schedule for the remedial actions that the Permittee plans to take if the site inspection indicates that the site is out of compliance. The remedial actions taken must meet the requirements of the SWPPP and the permit.
- l. A summary report of the inspection.
- m. The name, title, and signature of the person conducting the site inspection, a phone number or other reliable method to reach this person, and the following statement:
I certify that this report is true, accurate, and complete to the best of my knowledge and belief.

Table 3 Summary of Primary Monitoring Requirements

Size of Soil Disturbance ¹	Weekly Site Inspections	Weekly Sampling w/ Turbidity Meter	Weekly Sampling w/ Transparency Tube	Weekly pH Sampling ²	CESCL Required for Inspections?
Sites that disturb less than 1 acre, but are part of a larger Common Plan of Development	Required	Not Required	Not Required	Not Required	No
Sites that disturb 1 acre or more, but fewer than 5 acres	Required	Sampling Required – either method ³		Required	Yes
Sites that disturb 5 acres or more	Required	Required	Not Required ⁴	Required	Yes

¹ Soil disturbance is calculated by adding together all areas that will be affected by construction activity. Construction activity means clearing, grading, excavation, and any other activity that disturbs the surface of the land, including ingress/egress from the site.

² If construction activity results in the disturbance of 1 acre or more, and involves significant concrete work (1,000 cubic yards of concrete or recycled concrete placed or poured over the life of a project) or the use of engineered soils (soil amendments including but not limited to Portland cement-treated base [CTB], cement kiln dust [CKD], or fly ash), and stormwater from the affected area drains to surface waters of the State or to a storm sewer stormwater collection system that drains to other surface waters of the State, the Permittee must conduct pH sampling in accordance with Special Condition S4.D.

³ Sites with one or more acres, but fewer than 5 acres of soil disturbance, must conduct turbidity or transparency sampling in accordance with Special Condition S4.C.4.a or b.

⁴ Sites equal to or greater than 5 acres of soil disturbance must conduct turbidity sampling using a turbidity meter in accordance with Special Condition S4.C.4.a.

C. Turbidity/Transparency Sampling Requirements

1. Sampling Methods

- a. If construction activity involves the disturbance of five (5) acres or more, the Permittee must conduct turbidity sampling per Special Condition S4.C.4.a, below.
- b. If construction activity involves one (1) acre or more but fewer than five (5) acres of soil disturbance, the Permittee must conduct either transparency sampling *or* turbidity sampling per Special Condition S4.C.4.a or b, below.

2. Sampling Frequency

- a. The Permittee must sample all discharge points at least once every calendar week when stormwater (or authorized non-stormwater) discharges from the site or enters any on-site surface waters of the state (for example, a creek running through a site); sampling is not required on sites that disturb less than an acre.
- b. Samples must be representative of the flow and characteristics of the discharge.
- c. Sampling is not required when there is no discharge during a calendar week.
- d. Sampling is not required outside of normal working hours or during unsafe conditions.
- e. If the Permittee is unable to sample during a monitoring period, the Permittee must include a brief explanation in the monthly Discharge Monitoring Report (DMR).
- f. Sampling is not required before construction activity begins.
- g. The Permittee may reduce the sampling frequency for temporarily stabilized, inactive sites to once every calendar month.

3. Sampling Locations

- a. Sampling is required at all points where stormwater associated with construction activity (or authorized non-stormwater) is discharged off site, including where it enters any on-site surface waters of the state (for example, a creek running through a site).
- b. The Permittee may discontinue sampling at discharge points that drain areas of the project that are fully stabilized to prevent erosion.
- c. The Permittee must identify all sampling point(s) in the SWPPP and on the site map and clearly mark these points in the field with a flag, tape, stake or other visible marker.
- d. Sampling is not required for discharge that is sent directly to sanitary or combined sewer systems.
- e. The Permittee may discontinue sampling at discharge points in areas of the project where the Permittee no longer has operational control of the construction activity.

4. Sampling and Analysis Methods

- a. The Permittee performs turbidity analysis with a calibrated turbidity meter (turbidimeter) either on site or at an accredited lab. The Permittee must record the results in the site log book in nephelometric turbidity units (NTUs).
- b. The Permittee performs transparency analysis on site with a 1¾ inch diameter, 60 centimeter (cm)-long transparency tube. The Permittee will record the results in the site log book in centimeters (cm).

Table 4 Monitoring and Reporting Requirements

Parameter	Unit	Analytical Method	Sampling Frequency	Benchmark Value
Turbidity	NTU	SM2130	Weekly, if discharging	25 NTUs
Transparency	Cm	Manufacturer instructions, or Ecology guidance	Weekly, if discharging	33 cm

5. Turbidity/Transparency Benchmark Values and Reporting Triggers

The benchmark value for turbidity is 25 NTUs. The benchmark value for transparency is 33 centimeters (cm). Note: Benchmark values do not apply to discharges to segments of water bodies on Washington State’s 303(d) list (Category 5) for turbidity, fine sediment, or phosphorus; these discharges are subject to a numeric effluent limit for turbidity. Refer to Special Condition S8 for more information and follow S5.F – Noncompliance Notification for reporting requirements applicable to discharges which exceed the numeric effluent limit for turbidity.

- a. Turbidity 26 – 249 NTUs, or Transparency 32 – 7 cm:

If the discharge turbidity is 26 to 249 NTUs; or if discharge transparency is 32 to 7 cm, the Permittee must:

- i. Immediately begin the process to fully implement and maintain appropriate source control and/or treatment BMPs, and no later than 10 days of the date the discharge exceeded the benchmark. If installation of necessary treatment BMPs is not feasible within 10 days, Ecology may approve additional time when the Permittee requests an extension within the initial 10-day response period.
- ii. Review the SWPPP for compliance with Special Condition S9 and make appropriate revisions within 7 days of the date the discharge exceeded the benchmark.
- iii. Document BMP implementation and maintenance in the site log book.

- b. Turbidity 250 NTUs or greater, or Transparency 6 cm or less:

If a discharge point’s turbidity is 250 NTUs or greater, or if discharge transparency is less than or equal to 6 cm, the Permittee must complete the reporting and adaptive

management process described below. For discharges which are subject to a numeric effluent limit for turbidity, see S5.F – Noncompliance Notification.

- i. Within 24 hours, telephone or submit an electronic report to the applicable Ecology Region’s Environmental Report Tracking System (ERTS) number (or through Ecology’s Water Quality Permitting Portal [WQWebPortal] – Permit Submittals when the form is available), in accordance with Special Condition S5.A.
 - **Central Region** (Okanogan, Chelan, Douglas, Kittitas, Yakima, Klickitat, Benton): (509) 575-2490
 - **Eastern Region** (Adams, Asotin, Columbia, Ferry, Franklin, Garfield, Grant, Lincoln, Pend Oreille, Spokane, Stevens, Walla Walla, Whitman): (509) 329-3400
 - **Northwest Region** (Kitsap, Snohomish, Island, King, San Juan, Skagit, Whatcom): (425) 649-7000
 - **Southwest Region** (Grays Harbor, Lewis, Mason, Thurston, Pierce, Clark, Cowlitz, Skamania, Wahkiakum, Clallam, Jefferson, Pacific): (360) 407-6300

These numbers and a link to the ERTS reporting page are also listed at the following website: <http://www.ecy.wa.gov/programs/wq/stormwater/construction/index.html>.

- ii. Immediately begin the process to fully implement and maintain appropriate source control and/or treatment BMPs as soon as possible, addressing the problems within 10 days of the date the discharge exceeded the benchmark. If installation of necessary treatment BMPs is not feasible within 10 days, Ecology may approve additional time when the Permittee requests an extension within the initial 10-day response period.
- iii. Sample discharges daily until:
 - a) Turbidity is 25 NTUs (or lower); or
 - b) Transparency is 33 cm (or greater); or
 - c) The Permittee has demonstrated compliance with the water quality standard for turbidity:
 - 1) No more than 5 NTUs over background turbidity, if background is less than 50 NTUs, or
 - 2) No more than 10% over background turbidity, if background is 50 NTUs or greater; or

*Note: background turbidity in the receiving water must be measured immediately upstream (upgradient) or outside of the area of influence of the discharge.
 - d) The discharge stops or is eliminated.
- iv. Review the SWPPP for compliance with Special Condition S9 and make appropriate revisions within seven (7) days of the date the discharge exceeded the benchmark.

- v. Document BMP implementation and maintenance in the site log book.

Compliance with these requirements does not relieve the Permittee from responsibility to maintain continuous compliance with permit benchmarks.

D. pH Sampling Requirements – Significant Concrete Work or Engineered Soils

If construction activity results in the disturbance of 1 acre or more, *and* involves significant concrete work (significant concrete work means greater than 1000 cubic yards placed or poured concrete or recycled concrete used over the life of a project) or the use of engineered soils (soil amendments including but not limited to Portland cement-treated base [CTB], cement kiln dust [CKD], or fly ash), and stormwater from the affected area drains to surface waters of the State or to a storm sewer system that drains to surface waters of the State, the Permittee must conduct pH sampling as set forth below. Note: In addition, discharges to segments of water bodies on Washington State's 303(d) list (Category 5) for high pH are subject to a numeric effluent limit for pH; refer to Special Condition S8.

1. The Permittee must perform pH analysis on site with a calibrated pH meter, pH test kit, or wide range pH indicator paper. The Permittee must record pH sampling results in the site log book.
2. During the applicable pH monitoring period defined below, the Permittee must obtain a representative sample of stormwater and conduct pH analysis at least once per week.
 - a. For sites with significant concrete work, the Permittee must begin the pH sampling period when the concrete is first placed or poured and exposed to precipitation, and continue weekly throughout and after the concrete placement, pour and curing period, until stormwater pH is in the range of 6.5 to 8.5 (su).
 - b. For sites with recycled concrete where monitoring is required, the Permittee must begin the weekly pH sampling period when the recycled concrete is first exposed to precipitation and must continue until the recycled concrete is fully stabilized with the stormwater pH in the range of 6.5 to 8.5 (su).
 - c. For sites with engineered soils, the Permittee must begin the pH sampling period when the soil amendments are first exposed to precipitation and must continue until the area of engineered soils is fully stabilized.
3. The Permittee must sample pH in the sediment trap/pond(s) or other locations that receive stormwater runoff from the area of significant concrete work or engineered soils before the stormwater discharges to surface waters.
4. The benchmark value for pH is 8.5 standard units. Anytime sampling indicates that pH is 8.5 or greater, the Permittee must either:
 - a. Prevent the high pH water (8.5 or above) from entering storm sewer systems or surface waters of the state; *or*
 - b. If necessary, adjust or neutralize the high pH water until it is in the range of pH 6.5 to 8.5 (su) using an appropriate treatment BMP such as carbon dioxide (CO₂) sparging, dry ice or food grade vinegar. The Permittee must obtain written approval from Ecology before using any form of chemical treatment other than CO₂ sparging, dry ice or food grade vinegar.

S5. REPORTING AND RECORDKEEPING REQUIREMENTS

A. High Turbidity Reporting

Anytime sampling performed in accordance with Special Condition S4.C indicates turbidity has reached the 250 NTUs or more (or transparency less than or equal to 6 cm), high turbidity reporting level, the Permittee must notify Ecology within 24 hours of analysis either by calling the applicable Ecology Region's Environmental Report Tracking System (ERTS) number by phone or by submitting an electronic ERTS report (through Ecology's Water Quality Permitting Portal (WQWebPortal) – Permit Submittals when the form is available). See the CSWGP website for links to ERTS and the WQWebPortal. (<http://www.ecy.wa.gov/programs/wq/stormwater/construction/index.html>) Also, see phone numbers in Special Condition S4.C.5.b.i.

B. Discharge Monitoring Reports (DMRs)

Permittees required to conduct water quality sampling in accordance with Special Conditions S4.C (Turbidity/Transparency), S4.D (pH), S8 (303[d]/TMDL sampling), and/or G12 (Additional Sampling) must submit the results to Ecology.

Permittees must submit monitoring data using Ecology's WQWebDMR web application accessed through Ecology's Water Quality Permitting Portal.

Permittees unable to submit electronically (for example, those who do not have an internet connection) must contact Ecology to request a waiver and obtain instructions on how to obtain a paper copy DMR at:

Department of Ecology
Water Quality Program - Construction Stormwater
PO Box 47696
Olympia, WA 98504-7696

Permittees who obtain a waiver not to use WQWebDMR must use the forms provided to them by Ecology; submittals must be mailed to the address above. Permittees must submit DMR forms to be received by Ecology within 15 days following the end of each month.

If there was no discharge during a given monitoring period, all Permittees must submit a DMR as required with "no discharge" entered in place of the monitoring results. DMRs are required for the full duration of permit coverage (from the first full month following the effective date of permit coverage up until Ecology has approved termination of the coverage). For more information, contact Ecology staff using information provided at the following website: www.ecy.wa.gov/programs/wq/permits/paris/contacts.html.

C. Records Retention

The Permittee must retain records of all monitoring information (site log book, sampling results, inspection reports/checklists, etc.), Stormwater Pollution Prevention Plan, copy of the permit coverage letter (including Transfer of Coverage documentation) and any other documentation of compliance with permit requirements for the entire life of the construction project and for a minimum of five (5) years following the termination of permit coverage. Such information must include all calibration and maintenance records, and records of all data used to complete the application for this permit. This period of retention must be extended during

the course of any unresolved litigation regarding the discharge of pollutants by the Permittee or when requested by Ecology.

D. Recording Results

For each measurement or sample taken, the Permittee must record the following information:

1. Date, place, method, and time of sampling or measurement.
2. The first and last name of the individual who performed the sampling or measurement.
3. The date(s) the analyses were performed.
4. The first and last name of the individual who performed the analyses.
5. The analytical techniques or methods used.
6. The results of all analyses.

E. Additional Monitoring by the Permittee

If the Permittee samples or monitors any pollutant more frequently than required by this permit using test procedures specified by Special Condition S4 of this permit, the sampling results for this monitoring must be included in the calculation and reporting of the data submitted in the Permittee's DMR.

F. Noncompliance Notification

In the event the Permittee is unable to comply with any part of the terms and conditions of this permit, and the resulting noncompliance may cause a threat to human health or the environment (such as but not limited to spills or fuels or other materials, catastrophic pond or slope failure, and discharges that violate water quality standards), or exceed numeric effluent limitations (see S8 – Discharges to 303(d) or TMDL Waterbodies), the Permittee must, upon becoming aware of the circumstance:

1. Notify Ecology within 24 hours of the failure to comply by calling the applicable Regional office ERTS phone number (refer to Special Condition S4.C.5.b.i, or go to <https://ecology.wa.gov/About-us/Get-involved/Report-an-environmental-issue> to find contact information for the regional offices.)
2. Immediately take action to prevent the discharge/pollution, or otherwise stop or correct the noncompliance, and, if applicable, repeat sampling and analysis of any noncompliance immediately and submit the results to Ecology within five (5) days of becoming aware of the violation (See S5.F.3, below, for details on submitting results in a report).
3. Submit a detailed written report to Ecology within five (5) days of the time the Permittee becomes aware of the circumstances, unless requested earlier by Ecology. The report must be submitted using Ecology's Water Quality Permitting Portal (WQWebPortal) – Permit Submittals, unless a waiver from electronic reporting has been granted according to S5.B. The report must contain a description of the noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and the steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

The Permittee must report any unanticipated bypass and/or upset that exceeds any effluent limit in the permit in accordance with the 24-hour reporting requirement contained in 40 C.F.R. 122.41(l)(6).

Compliance with these requirements does not relieve the Permittee from responsibility to maintain continuous compliance with the terms and conditions of this permit or the resulting liability for failure to comply. Upon request of the Permittee, Ecology may waive the requirement for a written report on a case-by-case basis, if the immediate notification is received by Ecology within 24 hours.

G. Access to Plans and Records

1. The Permittee must retain the following permit documentation (plans and records) on site, or within reasonable access to the site, for use by the operator or for on-site review by Ecology or the local jurisdiction:
 - a. General Permit
 - b. Permit Coverage Letter
 - c. Stormwater Pollution Prevention Plan (SWPPP)
 - d. Site Log Book
 - e. Erosivity Waiver (if applicable)
2. The Permittee must address written requests for plans and records listed above (Special Condition S5.G.1) as follows:
 - a. The Permittee must provide a copy of plans and records to Ecology within 14 days of receipt of a written request from Ecology.
 - b. The Permittee must provide a copy of plans and records to the public when requested in writing. Upon receiving a written request from the public for the Permittee's plans and records, the Permittee must either:
 - i. Provide a copy of the plans and records to the requester within 14 days of a receipt of the written request; *or*
 - ii. Notify the requester within 10 days of receipt of the written request of the location and times within normal business hours when the plans and records may be viewed; and provide access to the plans and records within 14 days of receipt of the written request; *or*

Within 14 days of receipt of the written request, the Permittee may submit a copy of the plans and records to Ecology for viewing and/or copying by the requester at an Ecology office, or a mutually agreed location. If plans and records are viewed and/or copied at a location other than at an Ecology office, the Permittee will provide reasonable access to copying services for which a reasonable fee may be charged. The Permittee must notify the requester within 10 days of receipt of the request where the plans and records may be viewed and/or copied.

S6. PERMIT FEES

The Permittee must pay permit fees assessed by Ecology. Fees for stormwater discharges covered under this permit are established by Chapter 173-224 WAC. Ecology continues to assess permit fees until the permit is terminated in accordance with Special Condition S10 or revoked in accordance with General Condition G5.

S7. SOLID AND LIQUID WASTE DISPOSAL

The Permittee must handle and dispose of solid and liquid wastes generated by construction activity, such as demolition debris, construction materials, contaminated materials, and waste materials from maintenance activities, including liquids and solids from cleaning catch basins and other stormwater facilities, in accordance with:

- A. Special Condition S3, Compliance with Standards.
- B. WAC 173-216-110.
- C. Other applicable regulations.

S8. DISCHARGES TO 303(d) OR TMDL WATERBODIES

A. Sampling and Numeric Effluent Limits For Certain Discharges to 303(d)-Listed Water Bodies

1. Permittees who discharge to segments of water bodies listed as impaired by the State of Washington under Section 303(d) of the Clean Water Act for turbidity, fine sediment, high pH, or phosphorus, must conduct water quality sampling according to the requirements of this section, and Special Conditions S4.C.2.b-f and S4.C.3.b-d, and must comply with the applicable numeric effluent limitations in S8.C and S8.D.
2. All references and requirements associated with Section 303(d) of the Clean Water Act mean the most current listing by Ecology of impaired waters (Category 5) that exists on January 1, 2021, or the date when the operator's complete permit application is received by Ecology, whichever is later.

B. Limits on Coverage for New Discharges to TMDL or 303(d)-Listed Waters

Construction sites that discharge to a TMDL or 303(d)-listed waterbody are not eligible for coverage under this permit *unless* the operator:

1. Prevents exposing stormwater to pollutants for which the waterbody is impaired, and retains documentation in the SWPPP that details procedures taken to prevent exposure on site; *or*
2. Documents that the pollutants for which the waterbody is impaired are not present at the site, and retains documentation of this finding within the SWPPP; *or*
3. Provides Ecology with data indicating the discharge is not expected to cause or contribute to an exceedance of a water quality standard, and retains such data on site with the SWPPP. The operator must provide data and other technical information to Ecology that sufficiently demonstrate:
 - a. For discharges to waters without an EPA-approved or -established TMDL, that the discharge of the pollutant for which the water is impaired will meet in-stream water quality criteria at the point of discharge to the waterbody; *or*
 - b. For discharges to waters with an EPA-approved or -established TMDL, that there is sufficient remaining wasteload allocation in the TMDL to allow construction stormwater discharge and that existing dischargers to the waterbody are subject to compliance schedules designed to bring the waterbody into attainment with water quality standards.

Operators of construction sites are eligible for coverage under this permit only after Ecology makes an affirmative determination that the *discharge will not cause or contribute to the existing impairment or exceed the TMDL.*

C. Sampling and Numeric Effluent Limits for Discharges to Water Bodies on the 303(d) List for Turbidity, Fine Sediment, or Phosphorus

1. Permittees who discharge to segments of water bodies on the 303(d) list (Category 5) for turbidity, fine sediment, or phosphorus must conduct turbidity sampling in accordance with Special Condition S4.C.2 and comply with either of the numeric effluent limits noted in Table 5 below.
2. As an alternative to the 25 NTUs effluent limit noted in Table 5 below (applied at the point where stormwater [or authorized non-stormwater] is discharged off-site), Permittees may choose to comply with the surface water quality standard for turbidity. The standard is: no more than 5 NTUs over background turbidity when the background turbidity is 50 NTUs or less, or no more than a 10% increase in turbidity when the background turbidity is more than 50 NTUs. In order to use the water quality standard requirement, the sampling must take place at the following locations:
 - a. Background turbidity in the 303(d)-listed receiving water immediately upstream (upgradient) or outside the area of influence of the discharge.
 - b. Turbidity at the point of discharge into the 303(d)-listed receiving water, inside the area of influence of the discharge.
3. Discharges that exceed the numeric effluent limit for turbidity constitute a violation of this permit.
4. Permittees whose discharges exceed the numeric effluent limit must sample discharges daily until the violation is corrected and comply with the non-compliance notification requirements in Special Condition S5.F.

Table 5 Turbidity, Fine Sediment & Phosphorus Sampling and Limits for 303(d)-Listed Waters

Parameter identified in 303(d) listing	Parameter Sampled	Unit	Analytical Method	Sampling Frequency	Numeric Effluent Limit ¹
<ul style="list-style-type: none"> • Turbidity • Fine Sediment • Phosphorus 	Turbidity	NTU	SM2130	Weekly, if discharging	25 NTUs, at the point where stormwater is discharged from the site; <i>OR</i> In compliance with the surface water quality standard for turbidity (S8.C.2.a)

¹ Permittees subject to a numeric effluent limit for turbidity may, at their discretion, choose either numeric effluent limitation based on site-specific considerations including, but not limited to, safety, access and convenience.

D. Discharges to Water Bodies on the 303(d) List for High pH

1. Permittees who discharge to segments of water bodies on the 303(d) list (Category 5) for high pH must conduct pH sampling in accordance with the table below, and comply with the numeric effluent limit of pH 6.5 to 8.5 su (Table 6).

Table 6 pH Sampling and Limits for 303(d)-Listed Waters

Parameter identified in 303(d) listing	Parameter Sampled/Units	Analytical Method	Sampling Frequency	Numeric Effluent Limit
High pH	pH /Standard Units	pH meter	Weekly, if discharging	In the range of 6.5 – 8.5 su

2. At the Permittee’s discretion, compliance with the limit shall be assessed at one of the following locations:
 - a. Directly in the 303(d)-listed waterbody segment, inside the immediate area of influence of the discharge; *or*
 - b. Alternatively, the Permittee may measure pH at the point where the discharge leaves the construction site, rather than in the receiving water.
3. Discharges that exceed the numeric effluent limit for pH (outside the range of 6.5 – 8.5 su) constitute a violation of this permit.
4. Permittees whose discharges exceed the numeric effluent limit must sample discharges daily until the violation is corrected and comply with the non-compliance notification requirements in Special Condition S5.F.

E. Sampling and Limits for Sites Discharging to Waters Covered by a TMDL or another Pollution Control Plan

1. Discharges to a waterbody that is subject to a Total Maximum Daily Load (TMDL) for turbidity, fine sediment, high pH, or phosphorus must be consistent with the TMDL. Refer to <http://www.ecy.wa.gov/programs/wq/tmdl/TMDLsbyWria/TMDLbyWria.html> for more information on TMDLs.
 - a. Where an applicable TMDL sets specific waste load allocations or requirements for discharges covered by this permit, discharges must be consistent with any specific waste load allocations or requirements established by the applicable TMDL.
 - i. The Permittee must sample discharges weekly, unless otherwise specified by the TMDL, to evaluate compliance with the specific waste load allocations or requirements.
 - ii. Analytical methods used to meet the monitoring requirements must conform to the latest revision of the *Guidelines Establishing Test Procedures for the Analysis of Pollutants* contained in 40 CFR Part 136.
 - iii. Turbidity and pH methods need not be accredited or registered unless conducted at a laboratory which must otherwise be accredited or registered.
 - b. Where an applicable TMDL has established a general waste load allocation for construction stormwater discharges, but has not identified specific requirements, compliance with Special Conditions S4 (Monitoring) and S9 (SWPPPs) will constitute compliance with the approved TMDL.
 - c. Where an applicable TMDL has not specified a waste load allocation for construction stormwater discharges, but has not excluded these discharges, compliance with Special Conditions S4 (Monitoring) and S9 (SWPPPs) will constitute compliance with the approved TMDL.
 - d. Where an applicable TMDL specifically precludes or prohibits discharges from construction activity, the operator is not eligible for coverage under this permit.

S9. STORMWATER POLLUTION PREVENTION PLAN

The Permittee must prepare and properly implement an adequate Stormwater Pollution Prevention Plan (SWPPP) for construction activity in accordance with the requirements of this permit beginning with initial soil disturbance and until final stabilization.

A. The Permittee's SWPPP must meet the following objectives:

1. To identify best management practices (BMPs) which prevent erosion and sedimentation, and to reduce, eliminate or prevent stormwater contamination and water pollution from construction activity.
2. To prevent violations of surface water quality, groundwater quality, or sediment management standards.
3. To control peak volumetric flow rates and velocities of stormwater discharges.

B. General Requirements

1. The SWPPP must include a narrative and drawings. All BMPs must be clearly referenced in the narrative and marked on the drawings. The SWPPP narrative must include documentation to explain and justify the pollution prevention decisions made for the project. Documentation must include:
 - a. Information about existing site conditions (topography, drainage, soils, vegetation, etc.).
 - b. Potential erosion problem areas.
 - c. The 13 elements of a SWPPP in Special Condition S9.D.1-13, including BMPs used to address each element.
 - d. Construction phasing/sequence and general BMP implementation schedule.
 - e. The actions to be taken if BMP performance goals are not achieved—for example, a contingency plan for additional treatment and/or storage of stormwater that would violate the water quality standards if discharged.
 - f. Engineering calculations for ponds, treatment systems, and any other designed structures. When a treatment system requires engineering calculations, these calculations must be included in the SWPPP. Engineering calculations do not need to be included in the SWPPP for treatment systems that do not require such calculations.
2. The Permittee must modify the SWPPP if, during inspections or investigations conducted by the owner/operator, or the applicable local or state regulatory authority, it is determined that the SWPPP is, or would be, ineffective in eliminating or significantly minimizing pollutants in stormwater discharges from the site. The Permittee must then:
 - a. Review the SWPPP for compliance with Special Condition S9 and make appropriate revisions within 7 days of the inspection or investigation.
 - b. Immediately begin the process to fully implement and maintain appropriate source control and/or treatment BMPs as soon as possible, addressing the problems no later than 10 days from the inspection or investigation. If installation of necessary treatment BMPs is not feasible within 10 days, Ecology may approve additional time when an extension is requested by a Permittee within the initial 10-day response period.
 - c. Document BMP implementation and maintenance in the site log book.

The Permittee must modify the SWPPP whenever there is a change in design, construction, operation, or maintenance at the construction site that has, or could have, a significant effect on the discharge of pollutants to waters of the State.

C. Stormwater Best Management Practices (BMPs)

BMPs must be consistent with:

1. *Stormwater Management Manual for Western Washington* (most current approved edition at the time this permit was issued), for sites west of the crest of the Cascade Mountains; or

2. *Stormwater Management Manual for Eastern Washington* (most current approved edition at the time this permit was issued), for sites east of the crest of the Cascade Mountains; *or*
3. Revisions to the manuals listed in Special Condition S9.C.1 & 2, or other stormwater management guidance documents or manuals which provide an equivalent level of pollution prevention, that are approved by Ecology and incorporated into this permit in accordance with the permit modification requirements of WAC 173-226-230; *or*
4. Documentation in the SWPPP that the BMPs selected provide an equivalent level of pollution prevention, compared to the applicable stormwater management manuals, including:
 - a. The technical basis for the selection of all stormwater BMPs (scientific, technical studies, and/or modeling) that support the performance claims for the BMPs being selected.
 - b. An assessment of how the selected BMP will satisfy AKART requirements and the applicable federal technology-based treatment requirements under 40 CFR part 125.3.

D. SWPPP – Narrative Contents and Requirements

The Permittee must include each of the 13 elements below in Special Condition S9.D.1-13 in the narrative of the SWPPP and implement them unless site conditions render the element unnecessary and the exemption from that element is clearly justified in the SWPPP.

1. Preserve Vegetation/Mark Clearing Limits
 - a. Before beginning land-disturbing activities, including clearing and grading, clearly mark all clearing limits, sensitive areas and their buffers, and trees that are to be preserved within the construction area.
 - b. Retain the duff layer, native topsoil, and natural vegetation in an undisturbed state to the maximum degree practicable.
2. Establish Construction Access
 - a. Limit construction vehicle access and exit to one route, if possible.
 - b. Stabilize access points with a pad of quarry spalls, crushed rock, or other equivalent BMPs, to minimize tracking sediment onto roads.
 - c. Locate wheel wash or tire baths on site, if the stabilized construction entrance is not effective in preventing tracking sediment onto roads.
 - d. If sediment is tracked off site, clean the affected roadway thoroughly at the end of each day, or more frequently as necessary (for example, during wet weather). Remove sediment from roads by shoveling, sweeping, or pickup and transport of the sediment to a controlled sediment disposal area.
 - e. Conduct street washing only after sediment removal in accordance with Special Condition S9.D.2.d.
 - f. Control street wash wastewater by pumping back on site or otherwise preventing it from discharging into systems tributary to waters of the State.

3. Control Flow Rates

- a. Protect properties and waterways downstream of construction sites from erosion and the associated discharge of turbid waters due to increases in the velocity and peak volumetric flow rate of stormwater runoff from the project site, as required by local plan approval authority.
- b. Where necessary to comply with Special Condition S9.D.3.a, construct stormwater infiltration or detention BMPs as one of the first steps in grading. Assure that detention BMPs function properly before constructing site improvements (for example, impervious surfaces).
- c. If permanent infiltration ponds are used for flow control during construction, protect these facilities from sedimentation during the construction phase.

4. Install Sediment Controls

The Permittee must design, install and maintain effective erosion controls and sediment controls to minimize the discharge of pollutants. At a minimum, the Permittee must:

- a. Construct sediment control BMPs (sediment ponds, traps, filters, infiltration facilities, etc.) as one of the first steps in grading. These BMPs must be functional before other land disturbing activities take place.
- b. Minimize sediment discharges from the site. The design, installation and maintenance of erosion and sediment controls must address factors such as the amount, frequency, intensity and duration of precipitation, the nature of resulting stormwater runoff, and soil characteristics, including the range of soil particle sizes expected to be present on the site.
- c. Direct stormwater runoff from disturbed areas through a sediment pond or other appropriate sediment removal BMP, before the runoff leaves a construction site or before discharge to an infiltration facility. Runoff from fully stabilized areas may be discharged without a sediment removal BMP, but must meet the flow control performance standard of Special Condition S9.D.3.a.
- d. Locate BMPs intended to trap sediment on site in a manner to avoid interference with the movement of juvenile salmonids attempting to enter off-channel areas or drainages.
- e. Provide and maintain natural buffers around surface waters, direct stormwater to vegetated areas to increase sediment removal and maximize stormwater infiltration, unless infeasible.
- f. Where feasible, design outlet structures that withdraw impounded stormwater from the surface to avoid discharging sediment that is still suspended lower in the water column.

5. Stabilize Soils

- a. The Permittee must stabilize exposed and unworked soils by application of effective BMPs that prevent erosion. Applicable BMPs include, but are not limited to: temporary and permanent seeding, sodding, mulching, plastic covering, erosion

control fabrics and matting, soil application of polyacrylamide (PAM), the early application of gravel base on areas to be paved, and dust control.

- b. The Permittee must control stormwater volume and velocity within the site to minimize soil erosion.
- c. The Permittee must control stormwater discharges, including both peak flow rates and total stormwater volume, to minimize erosion at outlets and to minimize downstream channel and stream bank erosion.
- d. Depending on the geographic location of the project, the Permittee must not allow soils to remain exposed and unworked for more than the time periods set forth below to prevent erosion.

West of the Cascade Mountains Crest

During the dry season (May 1 - September 30): 7 days

During the wet season (October 1 - April 30): 2 days

East of the Cascade Mountains Crest, except for Central Basin*

During the dry season (July 1 - September 30): 10 days

During the wet season (October 1 - June 30): 5 days

The Central Basin*, East of the Cascade Mountains Crest

During the dry Season (July 1 - September 30): 30 days

During the wet season (October 1 - June 30): 15 days

***Note: The Central Basin** is defined as the portions of Eastern Washington with mean annual precipitation of less than 12 inches.

- e. The Permittee must stabilize soils at the end of the shift before a holiday or weekend if needed based on the weather forecast.
- f. The Permittee must stabilize soil stockpiles from erosion, protected with sediment trapping measures, and where possible, be located away from storm drain inlets, waterways, and drainage channels.
- g. The Permittee must minimize the amount of soil exposed during construction activity.
- h. The Permittee must minimize the disturbance of steep slopes.
- i. The Permittee must minimize soil compaction and, unless infeasible, preserve topsoil.

6. Protect Slopes

- a. The Permittee must design and construct cut-and-fill slopes in a manner to minimize erosion. Applicable practices include, but are not limited to, reducing continuous length of slope with terracing and diversions, reducing slope steepness, and roughening slope surfaces (for example, track walking).
- b. The Permittee must divert off-site stormwater (run-on) or groundwater away from slopes and disturbed areas with interceptor dikes, pipes, and/or swales. Off-site stormwater should be managed separately from stormwater generated on the site.
- c. At the top of slopes, collect drainage in pipe slope drains or protected channels to prevent erosion.

- i. West of the Cascade Mountains Crest: Temporary pipe slope drains must handle the peak 10-minute flow rate from a Type 1A, 10-year, 24-hour frequency storm for the developed condition. Alternatively, the 10-year, 1-hour flow rate predicted by an approved continuous runoff model, increased by a factor of 1.6, may be used. The hydrologic analysis must use the existing land cover condition for predicting flow rates from tributary areas outside the project limits. For tributary areas on the project site, the analysis must use the temporary or permanent project land cover condition, whichever will produce the highest flow rates. If using the Western Washington Hydrology Model (WVHM) to predict flows, bare soil areas should be modeled as "landscaped area."
 - ii. East of the Cascade Mountains Crest: Temporary pipe slope drains must handle the expected peak flow rate from a 6-month, 3-hour storm for the developed condition, referred to as the short duration storm.
 - d. Place excavated material on the uphill side of trenches, consistent with safety and space considerations.
 - e. Place check dams at regular intervals within constructed channels that are cut down a slope.
7. Protect Drain Inlets
- a. Protect all storm drain inlets made operable during construction so that stormwater runoff does not enter the conveyance system without first being filtered or treated to remove sediment.
 - b. Clean or remove and replace inlet protection devices when sediment has filled one-third of the available storage (unless a different standard is specified by the product manufacturer).
8. Stabilize Channels and Outlets
- a. Design, construct and stabilize all on-site conveyance channels to prevent erosion from the following expected peak flows:
 - i. West of the Cascade Mountains Crest: Channels must handle the peak 10-minute flow rate from a Type 1A, 10-year, 24-hour frequency storm for the developed condition. Alternatively, the 10-year, 1-hour flow rate indicated by an approved continuous runoff model, increased by a factor of 1.6, may be used. The hydrologic analysis must use the existing land cover condition for predicting flow rates from tributary areas outside the project limits. For tributary areas on the project site, the analysis must use the temporary or permanent project land cover condition, whichever will produce the highest flow rates. If using the WVHM to predict flows, bare soil areas should be modeled as "landscaped area."
 - ii. East of the Cascade Mountains Crest: Channels must handle the expected peak flow rate from a 6-month, 3-hour storm for the developed condition, referred to as the short duration storm.
 - b. Provide stabilization, including armoring material, adequate to prevent erosion of outlets, adjacent stream banks, slopes, and downstream reaches at the outlets of all conveyance systems.

9. Control Pollutants

Design, install, implement and maintain effective pollution prevention measures to minimize the discharge of pollutants. The Permittee must:

- a. Handle and dispose of all pollutants, including waste materials and demolition debris that occur on site in a manner that does not cause contamination of stormwater.
- b. Provide cover, containment, and protection from vandalism for all chemicals, liquid products, petroleum products, and other materials that have the potential to pose a threat to human health or the environment. Minimize storage of hazardous materials on-site. Safety Data Sheets (SDS) should be supplied for all materials stored. Chemicals should be kept in their original labeled containers. On-site fueling tanks must include secondary containment. Secondary containment means placing tanks or containers within an impervious structure capable of containing 110% of the volume of the largest tank within the containment structure. Double-walled tanks do not require additional secondary containment.
- c. Conduct maintenance, fueling, and repair of heavy equipment and vehicles using spill prevention and control measures. Clean contaminated surfaces immediately following any spill incident.
- d. Discharge wheel wash or tire bath wastewater to a separate on-site treatment system that prevents discharge to surface water, such as closed-loop recirculation or upland land application, or to the sanitary sewer with local sewer district approval.
- e. Apply fertilizers and pesticides in a manner and at application rates that will not result in loss of chemical to stormwater runoff. Follow manufacturers' label requirements for application rates and procedures.
- f. Use BMPs to prevent contamination of stormwater runoff by pH-modifying sources. The sources for this contamination include, but are not limited to: bulk cement, cement kiln dust, fly ash, new concrete washing and curing waters, recycled concrete stockpiles, waste streams generated from concrete grinding and sawing, exposed aggregate processes, dewatering concrete vaults, concrete pumping and mixer washout waters. (Also refer to the definition for "concrete wastewater" in Appendix A – Definitions.)
- g. Adjust the pH of stormwater or authorized non-stormwater if necessary to prevent an exceedance of groundwater and/or surface water quality standards.
- h. Assure that washout of concrete trucks is performed off-site or in designated concrete washout areas only. Do not wash out concrete truck drums onto the ground, or into storm drains, open ditches, streets, or streams. Washout of small concrete handling equipment may be disposed of in a formed area awaiting concrete where it will not contaminate surface or groundwater. Do not dump excess concrete on site, except in designated concrete washout areas. Concrete spillage or concrete discharge directly to groundwater or surface waters of the State is

prohibited. At no time shall concrete be washed off into the footprint of an area where an infiltration BMP will be installed.

- i. Obtain written approval from Ecology before using any chemical treatment, with the exception of CO₂, dry ice or food grade vinegar, to adjust pH.
- j. Uncontaminated water from water-only based shaft drilling for construction of building, road, and bridge foundations may be infiltrated provided the wastewater is managed in a way that prohibits discharge to surface waters. Prior to infiltration, water from water-only based shaft drilling that comes into contact with curing concrete must be neutralized until pH is in the range of 6.5 to 8.5 (su).

10. Control Dewatering

- a. Permittees must discharge foundation, vault, and trench dewatering water, which have characteristics similar to stormwater runoff at the site, in conjunction with BMPs to reduce sedimentation before discharge to a sediment trap or sediment pond.
- b. Permittees may discharge clean, non-turbid dewatering water, such as well-point groundwater, to systems tributary to, or directly into surface waters of the State, as specified in Special Condition S9.D.8, provided the dewatering flow does not cause erosion or flooding of receiving waters. Do not route clean dewatering water through stormwater sediment ponds. Note that "surface waters of the State" may exist on a construction site as well as off site; for example, a creek running through a site.
- c. Other dewatering treatment or disposal options may include:
 - i. Infiltration
 - ii. Transport off site in a vehicle, such as a vacuum flush truck, for legal disposal in a manner that does not pollute state waters.
 - iii. Ecology-approved on-site chemical treatment or other suitable treatment technologies (See S9.D.9.i, regarding chemical treatment written approval).
 - iv. Sanitary or combined sewer discharge with local sewer district approval, if there is no other option.
 - v. Use of a sedimentation bag with discharge to a ditch or swale for small volumes of localized dewatering.
- d. Permittees must handle highly turbid or contaminated dewatering water separately from stormwater.

11. Maintain BMPs

- a. Permittees must maintain and repair all temporary and permanent erosion and sediment control BMPs as needed to assure continued performance of their intended function in accordance with BMP specifications.
- b. Permittees must remove all temporary erosion and sediment control BMPs within 30 days after achieving final site stabilization or after the temporary BMPs are no longer needed.

12. Manage the Project

- a. Phase development projects to the maximum degree practicable and take into account seasonal work limitations.
- b. Inspect, maintain and repair all BMPs as needed to assure continued performance of their intended function. Conduct site inspections and monitoring in accordance with Special Condition S4.
- c. Maintain, update, and implement the SWPPP in accordance with Special Conditions S3, S4, and S9.

13. Protect Low Impact Development (LID) BMPs

The primary purpose of on-site LID Stormwater Management is to reduce the disruption of the natural site hydrology through infiltration. LID BMPs are permanent facilities.

- a. Permittees must protect all LID BMPs (including, but not limited to, Bioretention and Rain Garden facilities) from sedimentation through installation and maintenance of erosion and sediment control BMPs on portions of the site that drain into the Bioretention and/or Rain Garden facilities. Restore the BMPs to their fully functioning condition if they accumulate sediment during construction. Restoring the facility must include removal of sediment and any sediment-laden bioretention/ rain garden soils, and replacing the removed soils with soils meeting the design specification.
- b. Permittees must maintain the infiltration capabilities of LID BMPs by protecting against compaction by construction equipment and foot traffic. Protect completed lawn and landscaped areas from compaction due to construction equipment.
- c. Permittees must control erosion and avoid introducing sediment from surrounding land uses onto permeable pavements. Do not allow muddy construction equipment on the base material or pavement. Do not allow sediment-laden runoff onto permeable pavements or base materials.
- d. Permittees must clean permeable pavements fouled with sediments or no longer passing an initial infiltration test using local stormwater manual methodology or the manufacturer's procedures.
- e. Permittees must keep all heavy equipment off existing soils under LID BMPs that have been excavated to final grade to retain the infiltration rate of the soils.

E. SWPPP – Map Contents and Requirements

The Permittee's SWPPP must also include a vicinity map or general location map (for example, a USGS quadrangle map, a portion of a county or city map, or other appropriate map) with enough detail to identify the location of the construction site and receiving waters within one mile of the site.

The SWPPP must also include a legible site map (or maps) showing the entire construction site. The following features must be identified, unless not applicable due to site conditions.

1. The direction of north, property lines, and existing structures and roads.
2. Cut and fill slopes indicating the top and bottom of slope catch lines.

3. Approximate slopes, contours, and direction of stormwater flow before and after major grading activities.
4. Areas of soil disturbance and areas that will not be disturbed.
5. Locations of structural and nonstructural controls (BMPs) identified in the SWPPP.
6. Locations of off-site material, stockpiles, waste storage, borrow areas, and vehicle/equipment storage areas.
7. Locations of all surface water bodies, including wetlands.
8. Locations where stormwater or non-stormwater discharges off-site and/or to a surface waterbody, including wetlands.
9. Location of water quality sampling station(s), if sampling is required by state or local permitting authority.
10. Areas where final stabilization has been accomplished and no further construction-phase permit requirements apply.
11. Location or proposed location of LID facilities.

S10. NOTICE OF TERMINATION

Partial terminations of permit coverage are not authorized.

- A.** The site is eligible for termination of coverage when it has met any of the following conditions:
 1. The site has undergone final stabilization, the Permittee has removed all temporary BMPs (except biodegradable BMPs clearly manufactured with the intention for the material to be left in place and not interfere with maintenance or land use), and all stormwater discharges associated with construction activity have been eliminated; *or*
 2. All portions of the site that have not undergone final stabilization per Special Condition S10.A.1 have been sold and/or transferred (per Special Condition S2.A), and the Permittee no longer has operational control of the construction activity; *or*
 3. For residential construction only, the Permittee has completed temporary stabilization and the homeowners have taken possession of the residences.
- B.** When the site is eligible for termination, the Permittee must submit a complete and accurate Notice of Termination (NOT) form, signed in accordance with General Condition G2, to:

Department of Ecology
Water Quality Program - Construction Stormwater
PO Box 47696
Olympia, WA 98504-7696

When an electronic termination form is available, the Permittee may choose to submit a complete and accurate Notice of Termination (NOT) form through the Water Quality Permitting Portal rather than mailing a hardcopy as noted above.

The termination is effective on the 31st calendar day following the date Ecology receives a complete NOT form, unless Ecology notifies the Permittee that termination request is denied because the Permittee has not met the eligibility requirements in Special Condition S10.A.

Permittees are required to comply with all conditions and effluent limitations in the permit until the permit has been terminated.

Permittees transferring the property to a new property owner or operator/Permittee are required to complete and submit the Notice of Transfer form to Ecology, but are not required to submit a Notice of Termination form for this type of transaction.

GENERAL CONDITIONS

G1. DISCHARGE VIOLATIONS

All discharges and activities authorized by this general permit must be consistent with the terms and conditions of this general permit. Any discharge of any pollutant more frequent than or at a level in excess of that identified and authorized by the general permit must constitute a violation of the terms and conditions of this permit.

G2. SIGNATORY REQUIREMENTS

- A.** All permit applications must bear a certification of correctness to be signed:
1. In the case of corporations, by a responsible corporate officer.
 2. In the case of a partnership, by a general partner of a partnership.
 3. In the case of sole proprietorship, by the proprietor.
 4. In the case of a municipal, state, or other public facility, by either a principal executive officer or ranking elected official.
- B.** All reports required by this permit and other information requested by Ecology (including NOIs, NOTs, and Transfer of Coverage forms) must be signed by a person described above or by a duly authorized representative of that person. A person is a duly authorized representative only if:
1. The authorization is made in writing by a person described above and submitted to Ecology.
 2. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility, such as the position of plant manager, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters.
- C.** Changes to authorization. If an authorization under paragraph G2.B.2 above is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of paragraph G2.B.2 above must be submitted to Ecology prior to or together with any reports, information, or applications to be signed by an authorized representative.
- D.** Certification. Any person signing a document under this section must make the following certification:

I certify under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

G3. RIGHT OF INSPECTION AND ENTRY

The Permittee must allow an authorized representative of Ecology, upon the presentation of credentials and such other documents as may be required by law:

- A.** To enter upon the premises where a discharge is located or where any records are kept under the terms and conditions of this permit.
- B.** To have access to and copy, at reasonable times and at reasonable cost, any records required to be kept under the terms and conditions of this permit.
- C.** To inspect, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, methods, or operations regulated or required under this permit.
- D.** To sample or monitor, at reasonable times, any substances or parameters at any location for purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act.

G4. GENERAL PERMIT MODIFICATION AND REVOCATION

This permit may be modified, revoked and reissued, or terminated in accordance with the provisions of Chapter 173-226 WAC. Grounds for modification, revocation and reissuance, or termination include, but are not limited to, the following:

- A.** When a change occurs in the technology or practices for control or abatement of pollutants applicable to the category of dischargers covered under this permit.
- B.** When effluent limitation guidelines or standards are promulgated pursuant to the CWA or Chapter 90.48 RCW, for the category of dischargers covered under this permit.
- C.** When a water quality management plan containing requirements applicable to the category of dischargers covered under this permit is approved, or
- D.** When information is obtained that indicates cumulative effects on the environment from dischargers covered under this permit are unacceptable.

G5. REVOCATION OF COVERAGE UNDER THE PERMIT

Pursuant to Chapter 43.21B RCW and Chapter 173-226 WAC, the Director may terminate coverage for any discharger under this permit for cause. Cases where coverage may be terminated include, but are not limited to, the following:

- A.** Violation of any term or condition of this permit.
- B.** Obtaining coverage under this permit by misrepresentation or failure to disclose fully all relevant facts.
- C.** A change in any condition that requires either a temporary or permanent reduction or elimination of the permitted discharge.
- D.** Failure or refusal of the Permittee to allow entry as required in RCW 90.48.090.
- E.** A determination that the permitted activity endangers human health or the environment, or contributes to water quality standards violations.
- F.** Nonpayment of permit fees or penalties assessed pursuant to RCW 90.48.465 and Chapter 173-224 WAC.

- G.** Failure of the Permittee to satisfy the public notice requirements of WAC 173-226-130(5), when applicable.

The Director may require any discharger under this permit to apply for and obtain coverage under an individual permit or another more specific general permit. Permittees who have their coverage revoked for cause according to WAC 173-226-240 may request temporary coverage under this permit during the time an individual permit is being developed, provided the request is made within ninety (90) days from the time of revocation and is submitted along with a complete individual permit application form.

G6. REPORTING A CAUSE FOR MODIFICATION

The Permittee must submit a new application, or a supplement to the previous application, whenever a material change to the construction activity or in the quantity or type of discharge is anticipated which is not specifically authorized by this permit. This application must be submitted at least sixty (60) days prior to any proposed changes. Filing a request for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not relieve the Permittee of the duty to comply with the existing permit until it is modified or reissued.

G7. COMPLIANCE WITH OTHER LAWS AND STATUTES

Nothing in this permit will be construed as excusing the Permittee from compliance with any applicable federal, state, or local statutes, ordinances, or regulations.

G8. DUTY TO REAPPLY

The Permittee must apply for permit renewal at least 180 days prior to the specified expiration date of this permit. The Permittee must reapply using the electronic application form (NOI) available on Ecology's website. Permittees unable to submit electronically (for example, those who do not have an internet connection) must contact Ecology to request a waiver and obtain instructions on how to obtain a paper NOI.

Department of Ecology
Water Quality Program - Construction Stormwater
PO Box 47696
Olympia, WA 98504-7696

G9. REMOVED SUBSTANCE

The Permittee must not re-suspend or reintroduce collected screenings, grit, solids, sludges, filter backwash, or other pollutants removed in the course of treatment or control of stormwater to the final effluent stream for discharge to state waters.

G10. DUTY TO PROVIDE INFORMATION

The Permittee must submit to Ecology, within a reasonable time, all information that Ecology may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. The Permittee must also submit to Ecology, upon request, copies of records required to be kept by this permit [40 CFR 122.41(h)].

G11. OTHER REQUIREMENTS OF 40 CFR

All other requirements of 40 CFR 122.41 and 122.42 are incorporated in this permit by reference.

G12. ADDITIONAL MONITORING

Ecology may establish specific monitoring requirements in addition to those contained in this permit by administrative order or permit modification.

G13. PENALTIES FOR VIOLATING PERMIT CONDITIONS

Any person who is found guilty of willfully violating the terms and conditions of this permit shall be deemed guilty of a crime, and upon conviction thereof shall be punished by a fine of up to ten thousand dollars (\$10,000) and costs of prosecution, or by imprisonment at the discretion of the court. Each day upon which a willful violation occurs may be deemed a separate and additional violation.

Any person who violates the terms and conditions of a waste discharge permit shall incur, in addition to any other penalty as provided by law, a civil penalty in the amount of up to ten thousand dollars (\$10,000) for every such violation. Each and every such violation shall be a separate and distinct offense, and in case of a continuing violation, every day's continuance shall be deemed to be a separate and distinct violation.

G14. UPSET

Definition – "Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the Permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

An upset constitutes an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limitations if the requirements of the following paragraph are met.

A Permittee who wishes to establish the affirmative defense of upset must demonstrate, through properly signed, contemporaneous operating logs or other relevant evidence that: 1) an upset occurred and that the Permittee can identify the cause(s) of the upset; 2) the permitted facility was being properly operated at the time of the upset; 3) the Permittee submitted notice of the upset as required in Special Condition S5.F, and; 4) the Permittee complied with any remedial measures required under this permit.

In any enforcement proceeding, the Permittee seeking to establish the occurrence of an upset has the burden of proof.

G15. PROPERTY RIGHTS

This permit does not convey any property rights of any sort, or any exclusive privilege.

G16. DUTY TO COMPLY

The Permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Clean Water Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application.

G17. TOXIC POLLUTANTS

The Permittee must comply with effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants within the time provided in the regulations that establish those standards or prohibitions, even if this permit has not yet been modified to incorporate the requirement.

G18. PENALTIES FOR TAMPERING

The Clean Water Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than two years per violation, or by both. If a conviction of a person is for a violation committed after a first conviction of such person under this condition, punishment shall be a fine of not more than \$20,000 per day of violation, or imprisonment of not more than four (4) years, or both.

G19. REPORTING PLANNED CHANGES

The Permittee must, as soon as possible, give notice to Ecology of planned physical alterations, modifications or additions to the permitted construction activity. The Permittee should be aware that, depending on the nature and size of the changes to the original permit, a new public notice and other permit process requirements may be required. Changes in activities that require reporting to Ecology include those that will result in:

- A.** The permitted facility being determined to be a new source pursuant to 40 CFR 122.29(b).
- B.** A significant change in the nature or an increase in quantity of pollutants discharged, including but not limited to: a 20% or greater increase in acreage disturbed by construction activity.
- C.** A change in or addition of surface water(s) receiving stormwater or non-stormwater from the construction activity.
- D.** A change in the construction plans and/or activity that affects the Permittee's monitoring requirements in Special Condition S4.

Following such notice, permit coverage may be modified, or revoked and reissued pursuant to 40 CFR 122.62(a) to specify and limit any pollutants not previously limited. Until such modification is effective, any new or increased discharge in excess of permit limits or not specifically authorized by this permit constitutes a violation.

G20. REPORTING OTHER INFORMATION

Where the Permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to Ecology, it must promptly submit such facts or information.

G21. REPORTING ANTICIPATED NON-COMPLIANCE

The Permittee must give advance notice to Ecology by submission of a new application or supplement thereto at least forty-five (45) days prior to commencement of such discharges, of any facility expansions, production increases, or other planned changes, such as process modifications, in the permitted facility or activity which may result in noncompliance with permit limits or conditions. Any maintenance of facilities, which might necessitate unavoidable interruption of

operation and degradation of effluent quality, must be scheduled during non-critical water quality periods and carried out in a manner approved by Ecology.

G22. REQUESTS TO BE EXCLUDED FROM COVERAGE UNDER THE PERMIT

Any discharger authorized by this permit may request to be excluded from coverage under the general permit by applying for an individual permit. The discharger must submit to the Director an application as described in WAC 173-220-040 or WAC 173-216-070, whichever is applicable, with reasons supporting the request. These reasons will fully document how an individual permit will apply to the applicant in a way that the general permit cannot. Ecology may make specific requests for information to support the request. The Director will either issue an individual permit or deny the request with a statement explaining the reason for the denial. When an individual permit is issued to a discharger otherwise subject to the construction stormwater general permit, the applicability of the construction stormwater general permit to that Permittee is automatically terminated on the effective date of the individual permit.

G23. APPEALS

- A.** The terms and conditions of this general permit, as they apply to the appropriate class of dischargers, are subject to appeal by any person within 30 days of issuance of this general permit, in accordance with Chapter 43.21B RCW, and Chapter 173-226 WAC.
- B.** The terms and conditions of this general permit, as they apply to an individual discharger, are appealable in accordance with Chapter 43.21B RCW within 30 days of the effective date of coverage of that discharger. Consideration of an appeal of general permit coverage of an individual discharger is limited to the general permit's applicability or nonapplicability to that individual discharger.
- C.** The appeal of general permit coverage of an individual discharger does not affect any other dischargers covered under this general permit. If the terms and conditions of this general permit are found to be inapplicable to any individual discharger(s), the matter shall be remanded to Ecology for consideration of issuance of an individual permit or permits.

G24. SEVERABILITY

The provisions of this permit are severable, and if any provision of this permit, or application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit shall not be affected thereby.

G25. BYPASS PROHIBITED

A. Bypass Procedures

Bypass, which is the intentional diversion of waste streams from any portion of a treatment facility, is prohibited for stormwater events below the design criteria for stormwater management. Ecology may take enforcement action against a Permittee for bypass unless one of the following circumstances (1, 2, 3 or 4) is applicable.

- 1. Bypass of stormwater is consistent with the design criteria and part of an approved management practice in the applicable stormwater management manual.
- 2. Bypass for essential maintenance without the potential to cause violation of permit limits or conditions.

Bypass is authorized if it is for essential maintenance and does not have the potential to cause violations of limitations or other conditions of this permit, or adversely impact public health.

3. Bypass of stormwater is unavoidable, unanticipated, and results in noncompliance of this permit.

This bypass is permitted only if:

- a. Bypass is unavoidable to prevent loss of life, personal injury, or severe property damage. "Severe property damage" means substantial physical damage to property, damage to the treatment facilities which would cause them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass.
 - b. There are no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, maintenance during normal periods of equipment downtime (but not if adequate backup equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventative maintenance), or transport of untreated wastes to another treatment facility.
 - c. Ecology is properly notified of the bypass as required in Special Condition S5.F of this permit.
4. A planned action that would cause bypass of stormwater and has the potential to result in noncompliance of this permit during a storm event.

The Permittee must notify Ecology at least thirty (30) days before the planned date of bypass. The notice must contain:

- a. A description of the bypass and its cause
 - b. An analysis of all known alternatives which would eliminate, reduce, or mitigate the need for bypassing.
 - c. A cost-effectiveness analysis of alternatives including comparative resource damage assessment.
 - d. The minimum and maximum duration of bypass under each alternative.
 - e. A recommendation as to the preferred alternative for conducting the bypass.
 - f. The projected date of bypass initiation.
 - g. A statement of compliance with SEPA.
 - h. A request for modification of water quality standards as provided for in WAC 173-201A-110, if an exceedance of any water quality standard is anticipated.
 - i. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the bypass.
5. For probable construction bypasses, the need to bypass is to be identified as early in the planning process as possible. The analysis required above must be considered during

preparation of the Stormwater Pollution Prevention Plan (SWPPP) and must be included to the extent practical. In cases where the probable need to bypass is determined early, continued analysis is necessary up to and including the construction period in an effort to minimize or eliminate the bypass.

Ecology will consider the following before issuing an administrative order for this type bypass:

- a. If the bypass is necessary to perform construction or maintenance-related activities essential to meet the requirements of this permit.
- b. If there are feasible alternatives to bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, stopping production, maintenance during normal periods of equipment down time, or transport of untreated wastes to another treatment facility.
- c. If the bypass is planned and scheduled to minimize adverse effects on the public and the environment.

After consideration of the above and the adverse effects of the proposed bypass and any other relevant factors, Ecology will approve, conditionally approve, or deny the request. The public must be notified and given an opportunity to comment on bypass incidents of significant duration, to the extent feasible. Approval of a request to bypass will be by administrative order issued by Ecology under RCW 90.48.120.

B. Duty to Mitigate

The Permittee is required to take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this permit that has a reasonable likelihood of adversely affecting human health or the environment.

APPENDIX A – DEFINITIONS

AKART is an acronym for “All Known, Available, and Reasonable methods of prevention, control, and Treatment.” AKART represents the most current methodology that can be reasonably required for preventing, controlling, or abating the pollutants and controlling pollution associated with a discharge.

Applicable TMDL means a TMDL for turbidity, fine sediment, high pH, or phosphorus, which was completed and approved by EPA before January 1, 2021, or before the date the operator’s complete permit application is received by Ecology, whichever is later. TMDLs completed after a complete permit application is received by Ecology become applicable to the Permittee only if they are imposed through an administrative order by Ecology, or through a modification of permit coverage.

Applicant means an *operator* seeking coverage under this permit.

Benchmark means a pollutant concentration used as a permit threshold, below which a pollutant is considered unlikely to cause a water quality violation, and above which it may. When pollutant concentrations exceed benchmarks, corrective action requirements take effect. Benchmark values are not water quality standards and are not numeric effluent limitations; they are indicator values.

Best Management Practices (BMPs) means schedules of activities, prohibitions of practices, maintenance procedures, and other physical, structural and/or managerial practices to prevent or reduce the pollution of waters of the State. BMPs include treatment systems, operating procedures, and practices to control stormwater associated with construction activity, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

Buffer means an area designated by a local jurisdiction that is contiguous to and intended to protect a sensitive area.

Bypass means the intentional diversion of waste streams from any portion of a treatment facility.

Calendar Day A period of 24 consecutive hours starting at 12:00 midnight and ending the following 12:00 midnight.

Calendar Week (same as **Week**) means a period of seven consecutive days starting at 12:01 a.m. (0:01 hours) on Sunday.

Certified Erosion and Sediment Control Lead (CESCL) means a person who has current certification through an approved erosion and sediment control training program that meets the minimum training standards established by Ecology (See BMP C160 in the SWMM).

Chemical Treatment means the addition of chemicals to stormwater and/or authorized non-stormwater prior to filtration and discharge to surface waters.

Clean Water Act (CWA) means the Federal Water Pollution Control Act enacted by Public Law 92-500, as amended by Public Laws 95-217, 95-576, 96-483, and 97-117; USC 1251 et seq.

Combined Sewer means a sewer which has been designed to serve as a sanitary sewer and a storm sewer, and into which inflow is allowed by local ordinance.

Common Plan of Development or Sale means a site where multiple separate and distinct construction activities may be taking place at different times on different schedules and/or by different contractors, but still under a single plan. Examples include: 1) phased projects and projects with multiple filings or lots, even if the separate phases or filings/lots will be constructed under separate contract or by separate owners (e.g., a development where lots are sold to separate builders); 2) a development plan that may be phased over multiple years, but is still under a consistent plan for long-term development; 3) projects in a contiguous area that may be unrelated but still under the same contract, such as construction of a building extension and a new parking lot at the same facility; and 4) linear projects such as roads, pipelines, or utilities. If the project is part of a common plan of development or sale, the disturbed area of the entire plan must be used in determining permit requirements.

Composite Sample means a mixture of grab samples collected at the same sampling point at different times, formed either by continuous sampling or by mixing discrete samples. May be "time-composite" (collected at constant time intervals) or "flow-proportional" (collected either as a constant sample volume at time intervals proportional to stream flow, or collected by increasing the volume of each aliquot as the flow increases while maintaining a constant time interval between the aliquots).

Concrete Wastewater means any water used in the production, pouring and/or clean-up of concrete or concrete products, and any water used to cut, grind, wash, or otherwise modify concrete or concrete products. Examples include water used for or resulting from concrete truck/mixer/pumper/tool/chute rinsing or washing, concrete saw cutting and surfacing (sawing, coring, grinding, roughening, hydro-demolition, bridge and road surfacing). When stormwater combines with concrete wastewater, the resulting water is considered concrete wastewater and must be managed to prevent discharge to waters of the State, including groundwater.

Construction Activity means land disturbing operations including clearing, grading or excavation which disturbs the surface of the land (including off-site disturbance acreage related to construction-support activity). Such activities may include road construction, construction of residential houses, office buildings, or industrial buildings, site preparation, soil compaction, movement and stockpiling of topsoils, and demolition activity.

Construction Support Activity means off-site acreage that will be disturbed as a direct result of the construction project and will discharge stormwater. For example, off-site equipment staging yards, material storage areas, borrow areas, and parking areas.

Contaminant means any hazardous substance that does not occur naturally or occurs at greater than natural background levels. See definition of "hazardous substance" and WAC 173-340-200.

Contaminated soil means soil which contains contaminants, pollutants, or hazardous substances that do not occur naturally or occur at levels greater than natural background.

Contaminated groundwater means groundwater which contains contaminants, pollutants, or hazardous substances that do not occur naturally or occur at levels greater than natural background.

Demonstrably Equivalent means that the technical basis for the selection of all stormwater BMPs is documented within a SWPPP, including:

1. The method and reasons for choosing the stormwater BMPs selected.
2. The pollutant removal performance expected from the BMPs selected.

3. The technical basis supporting the performance claims for the BMPs selected, including any available data concerning field performance of the BMPs selected.
4. An assessment of how the selected BMPs will comply with state water quality standards.
5. An assessment of how the selected BMPs will satisfy both applicable federal technology-based treatment requirements and state requirements to use all known, available, and reasonable methods of prevention, control, and treatment (AKART).

Department means the Washington State Department of Ecology.

Detention means the temporary storage of stormwater to improve quality and/or to reduce the mass flow rate of discharge.

Dewatering means the act of pumping groundwater or stormwater away from an active construction site.

Director means the Director of the Washington State Department of Ecology or his/her authorized representative.

Discharger means an owner or operator of any facility or activity subject to regulation under Chapter 90.48 RCW or the Federal Clean Water Act.

Domestic Wastewater means water carrying human wastes, including kitchen, bath, and laundry wastes from residences, buildings, industrial establishments, or other places, together with such groundwater infiltration or surface waters as may be present.

Ecology means the Washington State Department of Ecology.

Engineered Soils means the use of soil amendments including, but not limited, to Portland cement treated base (CTB), cement kiln dust (CKD), or fly ash to achieve certain desirable soil characteristics.

Equivalent BMPs means operational, source control, treatment, or innovative BMPs which result in equal or better quality of stormwater discharge to surface water or to groundwater than BMPs selected from the SWMM.

Erosion means the wearing away of the land surface by running water, wind, ice, or other geological agents, including such processes as gravitational creep.

Erosion and Sediment Control BMPs means BMPs intended to prevent erosion and sedimentation, such as preserving natural vegetation, seeding, mulching and matting, plastic covering, filter fences, sediment traps, and ponds. Erosion and sediment control BMPs are synonymous with stabilization and structural BMPs.

Federal Operator is an entity that meets the definition of "Operator" in this permit and is either any department, agency or instrumentality of the executive, legislative, and judicial branches of the Federal government of the United States, or another entity, such as a private contractor, performing construction activity for any such department, agency, or instrumentality.

Final Stabilization (same as **fully stabilized** or **full stabilization**) means the completion of all soil disturbing activities at the site and the establishment of permanent vegetative cover, or equivalent permanent stabilization measures (such as pavement, riprap, gabions, or geotextiles) which will prevent erosion. See the applicable Stormwater Management Manual for more information on vegetative cover expectations and equivalent permanent stabilization measures.

Groundwater means water in a saturated zone or stratum beneath the land surface or a surface waterbody.

Hazardous Substance means any dangerous or extremely hazardous waste as defined in RCW 70.105.010 (5) and (6), or any dangerous or extremely dangerous waste as designated by rule under chapter 70.105 RCW; any hazardous sub-stance as defined in RCW 70.105.010(14) or any hazardous substance as defined by rule under chapter 70.105 RCW; any substance that, on the effective date of this section, is a hazardous substance under section 101(14) of the federal cleanup law, 42U.S.C., Sec. 9601(14); petroleum or petroleum products; and any substance or category of substances, including solid waste decomposition products, determined by the director by rule to present a threat to human health or the environment if released into the environment. The term hazardous substance does not include any of the following when contained in an underground storage tank from which there is not a release: crude oil or any fraction thereof or petroleum, if the tank is in compliance with all applicable federal, state, and local law.

Injection Well means a well that is used for the subsurface emplacement of fluids. (See **Well**.)

Jurisdiction means a political unit such as a city, town or county; incorporated for local self-government.

National Pollutant Discharge Elimination System (NPDES) means the national program for issuing, modifying, revoking and reissuing, terminating, monitoring, and enforcing permits, and imposing and enforcing pretreatment requirements, under sections 307, 402, 318, and 405 of the Federal Clean Water Act, for the discharge of pollutants to surface waters of the State from point sources. These permits are referred to as NPDES permits and, in Washington State, are administered by the Washington State Department of Ecology.

Notice of Intent (NOI) means the application for, or a request for coverage under this general permit pursuant to WAC 173-226-200.

Notice of Termination (NOT) means a request for termination of coverage under this general permit as specified by Special Condition S10 of this permit.

Operator means any party associated with a construction project that meets either of the following two criteria:

- The party has operational control over construction plans and specifications, including the ability to make modifications to those plans and specifications; or
- The party has day-to-day operational control of those activities at a project that are necessary to ensure compliance with a SWPPP for the site or other permit conditions (e.g., they are authorized to direct workers at a site to carry out activities required by the SWPPP or comply with other permit conditions).

Permittee means individual or entity that receives notice of coverage under this general permit.

pH means a liquid's measure of acidity or alkalinity. A pH of 7 is defined as neutral. Large variations above or below this value are considered harmful to most aquatic life.

pH Monitoring Period means the time period in which the pH of stormwater runoff from a site must be tested a minimum of once every seven days to determine if stormwater pH is between 6.5 and 8.5.

Point Source means any discernible, confined, and discrete conveyance, including but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, and container from which pollutants are or may be discharged to surface waters of the State. This term does not include return flows from irrigated agriculture. (See the Fact Sheet for further explanation)

Pollutant means dredged spoil, solid waste, incinerator residue, filter backwash, sewage, garbage, domestic sewage sludge (biosolids), munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt, and industrial, municipal, and agricultural waste. This term does not include sewage from vessels within the meaning of section 312 of the CWA, nor does it include dredged or fill material discharged in accordance with a permit issued under section 404 of the CWA.

Pollution means contamination or other alteration of the physical, chemical, or biological properties of waters of the State; including change in temperature, taste, color, turbidity, or odor of the waters; or such discharge of any liquid, gaseous, solid, radioactive or other substance into any waters of the State as will or is likely to create a nuisance or render such waters harmful, detrimental or injurious to the public health, safety or welfare; or to domestic, commercial, industrial, agricultural, recreational, or other legitimate beneficial uses; or to livestock, wild animals, birds, fish or other aquatic life.

Process Wastewater means any non-stormwater which, during manufacturing or processing, comes into direct contact with or results from the production or use of any raw material, intermediate product, finished product, byproduct, or waste product. If stormwater commingles with process wastewater, the commingled water is considered process wastewater.

Receiving Water means the waterbody at the point of discharge. If the discharge is to a storm sewer system, either surface or subsurface, the receiving water is the waterbody to which the storm system discharges. Systems designed primarily for other purposes such as for groundwater drainage, redirecting stream natural flows, or for conveyance of irrigation water/return flows that coincidentally convey stormwater are considered the receiving water.

Representative means a stormwater or wastewater sample which represents the flow and characteristics of the discharge. Representative samples may be a grab sample, a time-proportionate *composite sample*, or a flow proportionate sample. Ecology's Construction Stormwater Monitoring Manual provides guidance on representative sampling.

Responsible Corporate Officer for the purpose of signatory authority means: (i) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or (ii) the manager of one or more manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures (40 CFR 122.22).

Sanitary Sewer means a sewer which is designed to convey domestic wastewater.

Sediment means the fragmented material that originates from the weathering and erosion of rocks or unconsolidated deposits, and is transported by, suspended in, or deposited by water.

Sedimentation means the depositing or formation of sediment.

Sensitive Area means a waterbody, wetland, stream, aquifer recharge area, or channel migration zone.

SEPA (State Environmental Policy Act) means the Washington State Law, RCW 43.21C.020, intended to prevent or eliminate damage to the environment.

Significant Amount means an amount of a pollutant in a discharge that is amenable to available and reasonable methods of prevention or treatment; or an amount of a pollutant that has a reasonable potential to cause a violation of surface or groundwater quality or sediment management standards.

Significant Concrete Work means greater than 1000 cubic yards placed or poured concrete or recycled concrete used over the life of a project.

Significant Contributor of Pollutants means a facility determined by Ecology to be a contributor of a significant amount(s) of a pollutant(s) to waters of the State of Washington.

Site means the land or water area where any "facility or activity" is physically located or conducted.

Source Control BMPs means physical, structural or mechanical devices or facilities that are intended to prevent pollutants from entering stormwater. A few examples of source control BMPs are erosion control practices, maintenance of stormwater facilities, constructing roofs over storage and working areas, and directing wash water and similar discharges to the sanitary sewer or a dead end sump.

Stabilization means the application of appropriate BMPs to prevent the erosion of soils, such as, temporary and permanent seeding, vegetative covers, mulching and matting, plastic covering and sodding. See also the definition of Erosion and Sediment Control BMPs.

Storm Drain means any drain which drains directly into a *storm sewer system*, usually found along roadways or in parking lots.

Storm Sewer System means a means a conveyance, or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, manmade channels, or storm drains designed or used for collecting or conveying stormwater. This does not include systems which are part of a *combined sewer* or Publicly Owned Treatment Works (POTW), as defined at 40 CFR 122.2.

Stormwater means that portion of precipitation that does not naturally percolate into the ground or evaporate, but flows via overland flow, interflow, pipes, and other features of a stormwater drainage system into a defined surface waterbody, or a constructed infiltration facility.

Stormwater Management Manual (SWMM) or Manual means the technical Manual published by Ecology for use by local governments that contain descriptions of and design criteria for BMPs to prevent, control, or treat pollutants in stormwater.

Stormwater Pollution Prevention Plan (SWPPP) means a documented plan to implement measures to identify, prevent, and control the contamination of point source discharges of stormwater.

Surface Waters of the State includes lakes, rivers, ponds, streams, inland waters, salt waters, and all other surface waters and water courses within the jurisdiction of the state of Washington.

Temporary Stabilization means the exposed ground surface has been covered with appropriate materials to provide temporary stabilization of the surface from water or wind erosion. Materials include, but are not limited to, mulch, riprap, erosion control mats or blankets and temporary cover crops. Seeding alone is not considered stabilization. Temporary stabilization is not a substitute for the more permanent "final stabilization."

Total Maximum Daily Load (TMDL) means a calculation of the maximum amount of a pollutant that a waterbody can receive and still meet state water quality standards. Percentages of the total maximum daily load are allocated to the various pollutant sources. A TMDL is the sum of the allowable loads of a single pollutant from all contributing point and nonpoint sources. The TMDL calculations must include a "margin of safety" to ensure that the waterbody can be protected in case there are unforeseen events or unknown sources of the pollutant. The calculation must also account for seasonable variation in water quality.

Transfer of Coverage (TOC) means a request for transfer of coverage under this general permit as specified by Special Condition S2.A of this permit.

Treatment BMPs means BMPs that are intended to remove pollutants from stormwater. A few examples of treatment BMPs are detention ponds, oil/water separators, biofiltration, and constructed wetlands.

Transparency means a measurement of water clarity in centimeters (cm), using a 60 cm transparency tube. The transparency tube is used to estimate the relative clarity or transparency of water by noting the depth at which a black and white Secchi disc becomes visible when water is released from a value in the bottom of the tube. A transparency tube is sometimes referred to as a "turbidity tube."

Turbidity means the clarity of water expressed as nephelometric turbidity units (NTUs) and measured with a calibrated turbidimeter.

Uncontaminated means free from any contaminant. See definition of "contaminant" and WAC 173-340-200.

Upset means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the Permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

Waste Load Allocation (WLA) means the portion of a receiving water's loading capacity that is allocated to one of its existing or future point sources of pollution. WLAs constitute a type of water quality based effluent limitation (40 CFR 130.2[h]).

Water-Only Based Shaft Drilling is a shaft drilling process that uses water only and no additives are involved in the drilling of shafts for construction of building, road, or bridge foundations.

Water Quality means the chemical, physical, and biological characteristics of water, usually with respect to its suitability for a particular purpose.

Waters of the State includes those waters as defined as "waters of the United States" in 40 CFR Subpart 122.2 within the geographic boundaries of Washington State and "waters of the State" as defined in Chapter 90.48 RCW, which include lakes, rivers, ponds, streams, inland waters, underground waters, salt

waters, and all other surface waters and water courses within the jurisdiction of the state of Washington.

Well means a bored, drilled or driven shaft, or dug hole whose depth is greater than the largest surface dimension. (See **Injection Well**.)

Wheel Wash Wastewater means any water used in, or resulting from the operation of, a tire bath or wheel wash (BMP C106: Wheel Wash), or other structure or practice that uses water to physically remove mud and debris from vehicles leaving a construction site and prevent track-out onto roads. When stormwater combines with wheel wash wastewater, the resulting water is considered wheel wash wastewater and must be managed according to Special Condition S9.D.9.

APPENDIX B – ACRONYMS

AKART	All Known, Available, and Reasonable Methods of Prevention, Control, and Treatment
BMP	Best Management Practice
CESCL	Certified Erosion and Sediment Control Lead
CFR	Code of Federal Regulations
CKD	Cement Kiln Dust
cm	Centimeters
CPD	Common Plan of Development
CTB	Cement-Treated Base
CWA	Clean Water Act
DMR	Discharge Monitoring Report
EPA	Environmental Protection Agency
ERTS	Environmental Report Tracking System
ESC	Erosion and Sediment Control
FR	Federal Register
LID	Low Impact Development
NOI	Notice of Intent
NOT	Notice of Termination
NPDES	National Pollutant Discharge Elimination System
NTU	Nephelometric Turbidity Unit
RCW	Revised Code of Washington
SEPA	State Environmental Policy Act
SWMM	Stormwater Management Manual
SWPPP	Stormwater Pollution Prevention Plan
TMDL	Total Maximum Daily Load
UIC	Underground Injection Control
USC	United States Code
USEPA	United States Environmental Protection Agency
WAC	Washington Administrative Code
WQ	Water Quality
WWHM	Western Washington Hydrology Model

**2) PIERCE COUNTY WASTE DISPOSAL
AGREEMENT SAMPLE**



SPECIAL WASTE DISPOSAL AGREEMENT

Special Waste Profile Number: TBD

Customer Name and Billing Information

Name: _____
Address: _____
City: _____
State: _____ Zip: _____
Phone: _____ Fax: _____
Contact: _____
Project: _____

Waste Connections Subsidiary ("Service Provider")

Additional Information: _____

1. **Special Waste Service.** Subject to the terms and conditions contained herein, Service Provider and Customer agree to be legally bound hereby, and Service Provider agrees to accept at its Facility Acceptable Waste (as defined below) delivered by Customer and which is acceptable to Service Provider as herein provided.
2. **Acceptable Waste.** Only those Special Wastes described in Section 3 herein and in any Special Waste Profile(s) approved by Service Provider in writing, which are otherwise in accordance with all laws, rules, regulations, ordinances and permits, shall be acceptable for disposal at the Facility ("Acceptable Waste").

3. (A) **Rates for Disposal:**

<u>Special Waste Type</u>	<u>Disposal Method</u>	<u>Disposal Rate</u>	<u>Fees / Taxes / Misc.</u>	<u>Transportation</u>
<u>Soil</u>	<u>Landfill</u>	_____	<u>Included</u>	_____
_____	_____	_____	_____	_____

Additional Information / Special Provisions: _____ Disposal Rate Includes transportation and disposal

Customer shall also be liable for all taxes, fees, or other charges imposed by federal, state, local or provincial laws and regulations. Environmental Surcharges may also apply.

County and State of origin of Waste: _____

(B) **Incorporation by Reference.** Approved Special Waste Profile(s) and the Terms and Conditions of Special Waste Disposal Agreement attached hereto are incorporated herein by reference.

4. **Term of Agreement.** This Agreement is effective for 12 months, commencing on _____, _____.

SERVICE PROVIDER AND CUSTOMER, IN CONSIDERATION OF THE MUTUAL OBLIGATIONS CONTAINED HEREIN, AGREE THAT THIS IS A LEGALLY BINDING AGREEMENT WHICH IS SUBJECT TO THE TERMS AND CONDITIONS SET FORTH ON THIS PAGE AND ON THE PAGES ATTACHED HERETO.

x _____
CUSTOMER SIGNATURE (Authorized Representative)

x _____
SERVICE PROVIDER SIGNATURE (Authorized Representative)

x _____
CUSTOMER NAME AND TITLE (Please Print)

x _____
SERVICE PROVIDER NAME AND TITLE (Please Print)

x _____
DATE

x _____
DATE

Terms and Conditions of Special Waste Disposal Agreement

5. **The Agreement**. This Special Waste Disposal Agreement (this "Agreement") for the disposal of Special Waste shall consist of this Agreement and any application, permit and/or approval that may be applicable to such Special Waste.
6. **Waste Accepted at Facility**. Customer represents, warrants and covenants that the Special Waste delivered to Service Provider at its Facility hereunder will be Acceptable Waste and will not contain any unacceptable quantity of hazardous materials or substances, radioactive materials or substances, or toxic waste or substances, as defined by applicable federal, state, local or provincial laws, regulations or any permit. Any waste which does not meet these requirements shall hereinafter be referred to as "Unacceptable Waste". In all matters relating to the collection, transportation and disposal of the Special Waste hereunder, Customer shall comply with all applicable federal, state and local laws, regulations, rules, permits and orders regarding the same. The word "Facility" shall mean any landfill, transfer station or other location used to transfer, process or otherwise dispose of such Special Waste.
7. **Special Waste**. Customer represents, warrants and covenants that the Special Waste delivered to Service Provider hereunder (i) will not contain any Special Waste that is not specifically described on any application which is attached hereto or which is subsequently approved by Service Provider, (ii) will meet the material description as set forth in any application and otherwise in all significant respects and (iii) will not contain Unacceptable Waste. The parties hereto may incorporate additional Special Waste as part of this Agreement if prior to delivery of such Special Waste to Service Provider, Customer has provided an application for such Special Waste and Service Provider has approved disposal of such Special Waste within the limitations and conditions contained in Service Provider's written notice of approval of Special Waste Disposal. Title to any and all (i) Special Waste that is not specifically described on an approved Special Waste Profile submitted in connection herewith, and (ii) Unacceptable Waste, handled or disposed of by Service Provider, shall at all times remain with Customer and any agent of Customer (if an agent is involved).
8. **Rights of Refusal/Rejection**. Customer shall inspect all Special Waste at the place(s) of collection and shall remove any and all Unacceptable Waste. Service Provider has the right to refuse, or to reject after acceptance, any load(s) of Special Waste(s) delivered to its Facility including if Service Provider believes Customer has breached (or is breaching) its representations, warranties, covenants or agreements hereunder, or any applicable federal, state or local laws, regulations, rules or orders, even if only a portion of such Special Waste load is unacceptable. Service Provider shall have the right to inspect all vehicles and containers, including Customer's vehicles, in order to determine whether the Special Waste is Acceptable Waste or Unacceptable Waste pursuant to this Agreement and all applicable federal, state and local laws, rules, permits and regulations. Service Provider's exercise, or failure to exercise, its rights hereunder shall not operate to relieve Customer of its responsibilities or liability under this Agreement. Customer shall be responsible for, and bear all reasonable expenses and damages incurred by Service Provider, as a result of the Unacceptable Waste and in the reloading and removal of Unacceptable Waste disposed in the Facility. Service Provider may also, in its sole discretion, require Customer to promptly remove the Unacceptable Waste.
9. **Limited License to Enter**. This Agreement provides Customer with a license to enter the Facility for the limited purpose of, and only to the extent necessary for, off-loading Acceptable Waste at the Facility in the manner directed by Service Provider. Except in an emergency, Customer's personnel shall not leave the immediate vicinity of their vehicle. After off-loading the Acceptable Waste, Customer's personnel shall promptly leave the Facility. Under no circumstances shall Customer or its personnel engage in any scavenging of waste or other materials at the Facility. Service Provider reserves the right to make, maintain, modify and enforce reasonable rules and regulations concerning the operation of the Facility, the conduct of the drivers and others on the Facility premises, quantities and sources of waste, and any other matters necessary or desirable for the safe, legal and efficient operation of the Facility including, but not limited to, speed limits on haul roads imposed by Service Provider, and the wearing of hard hats and other personal protection equipment by all individuals allowed on the Facility premises. Customer and its subcontractors shall conform to and comply with all such rules and regulations as they may be established and amended from time to time and failure to do so may result in Service Provider immediately terminating this Agreement in its sole discretion. Service Provider may refuse to accept Acceptable Waste from and shall deny an entrance license to any personnel of Customer or any Customer subcontractor whom Service Provider believes is under the influence of alcohol or other chemical substances. Customer shall be solely responsible for its employees and subcontractors performing in a safe manner when at the facility of Service Provider and in full compliance with all laws, ordinances, rules, permits and regulations, including but not limited to those issued by or relating to the DOT, EPA and OSHA.
10. **Charges and Payment**. Payment shall be made by Customer within thirty (30) days after each invoice date. In the event that any amount is overdue, Service Provider may immediately terminate this Agreement. Customer agrees to pay a finance charge equal to the maximum interest rate permitted by law. Customer shall be liable for all taxes, fees, or other charges imposed upon the disposal of the Acceptable Waste by federal, state, local or provincial laws and regulations. Customer agrees that Service Provider may increase the rates, from time to time, to account for increases in Service Provider's operating costs and increases in Service Provider's costs due to changes in local, state or federal rules, ordinances, permits or regulations applicable to Service Provider's operations or the services provided hereunder and increases in taxes, fees or other governmental charges assessed against or passed through to Service Provider (other than income or real property taxes). Any dispute or claim against Service Provider concerning any amount invoiced by Service Provider must be asserted by Customer in writing to Service Provider not later than one hundred eighty (180) days following the event or circumstance giving rise to the underlying dispute or claim; the failure to abide by such time requirement shall constitute a release and waiver by Customer of any rights in respect of, and shall constitute a bar on, any claims or requests for relief by Customer on the basis of such dispute or claim.
11. **Termination**. Customer's obligations, representations, warranties and covenants regarding the Acceptable Waste delivered and all indemnities shall survive expiration or

Terms and Conditions of Special Waste Disposal Agreement

termination of this Agreement. Should Customer materially default in any of its obligations hereunder, then Service Provider may immediately terminate this Agreement and Customer shall be liable for all costs and damages incurred by Service Provider.

12. **Driver’s Knowledge and Authority.** Customer represents, warrants and covenants that its drivers who deliver Acceptable Waste to Service Provider’s Facility have been advised by Customer of: Service Provider’s prohibition on deliveries of hazardous materials or substances, radioactive materials or substances, toxic waste or substances or any other Unacceptable Waste to the Facility; Service Provider’s restrictions on deliveries of Special Waste to the Facility; the definitions of “Hazardous Waste” and “Hazardous Substances” as provided by applicable federal, state and local law, rules and regulations and “Unacceptable Waste” and “Acceptable Waste” as provided herein; and the terms of the limited license to enter Service Provider’s Facility.

13. **Indemnification.** Customer shall indemnify, defend and hold harmless Service Provider and its subsidiaries, affiliates and parent corporations, as applicable, and their respective officers, directors, lenders, employees, subcontractors and agents from and against any and all claims, suits, losses, liabilities, assessments, damages, fines, costs and expenses, including reasonable attorneys’ fees (collectively, “Claims”) to the extent arising or resulting from: (a) the acts, omissions, negligence, or willful misconduct (including criminal acts) of Customer, or its employees, representatives, agents, contractors, or subcontractors (excluding Service Provider), (b) the violation of any law, rule, regulation, license, permit, ordinance, or order by Customer, or its employees, representatives, agents, contractors, or subcontractors (excluding Service Provider), (c) Customer’s breach of any term, condition, representation, warranty, or covenant herein, or (d) Unacceptable Waste. Customer shall also be responsible for increased inspection, testing, study and analysis costs made necessary due to reasonable concerns of Service Provider as to the content of the Special Waste, following discovery of Unacceptable Waste. This indemnification and other obligations stated in this Section 13 shall survive the termination of this Agreement.

14. **Insurance.** Customer and its subcontractor(s) and all other third parties acting on Customer’s behalf shall maintain in full force and effect throughout the term of this Agreement the following types of insurance in at least the amounts specified below:

<u>Coverages</u>	<u>Minimum Amounts of Insurance</u>
Worker’s Compensation	Statutory
Employer’s Liability	\$1,000,000 per incident
General Liability	\$2,000,000 combined single limit
Automobile Liability	\$2,000,000 combined single limit (including MCS-90)
Excess/Umbrella	\$2,000,000 in excess of each coverage, except Worker’s Comp.

All insurance will be by insurers authorized to do business in the state in which the Facility is located. Prior to Customer or its agent or subcontractor being allowed on Facility premises, Customer shall provide Service Provider with certificates of insurance or other satisfactory evidence that such insurance has

been procured and is in force. All policies, except workers’ compensation, must add Servicer Provider as an additional insured, must contain waivers of subrogation in favor of Servicer Provider, and must be primary and non-contributory to any insurance policies carried by Service Provider. Said policies shall not thereafter be cancelled, be permitted to expire or lapse, or be changed without thirty (30) days advance written notice to Service Provider. Customer warrants that it will secure the above minimum amounts of insurance for any transportation of the Acceptable Waste to the Facility.

15. **Failure to Perform.** Except for the payment of amounts owed hereunder, neither party hereto shall be liable for its failure to perform hereunder due to circumstances not its fault and beyond its reasonable control, including, but not limited to, strikes or other labor disputes, riots, protests, civil disturbances or sabotage, changes in law, fires, floods, compliance with government requests, explosions, accidents, weather, lack of required natural resources, epidemics, action of any governmental authority or acts of God affecting either party hereto. In the event of any of the circumstances provided for in the preceding sentence, including, but not limited to, whether any federal, state or local court or governmental authority takes any action which would (i) close or restrict operations at the Facility, (ii) limit the quantity or prohibit the disposal of waste at the Facility, or (iii) limit the ability of or prohibit Customer from delivering waste to the Facility, Service Provider shall have the right, at its option, to reduce, suspend or terminate Customer’s access to the Facility immediately, without prior notice and without any additional liabilities between the parties, other than Customer’s payment obligation hereunder. Neither Party is required hereunder to settle any labor dispute against its own best judgment.

16. **Other Termination.** The occurrence of any of the following events shall also constitute an event of default by Customer and shall give Service Provider the right to immediately terminate this Agreement:

- (i) A petition for reorganization or bankruptcy filed by or against Customer.
- (ii) Failure by Customer to pay any amounts due to Service Provider.
- (iii) Any breach by Customer of any of its obligations pursuant to the Agreement.

Customer shall be liable for and shall indemnify, defend and hold harmless Service Provider from any losses, claims expenses or damages incurred by Service Provider as a result of termination hereunder.

17. **Assignment.** Customer may not assign, transfer or otherwise vest in any other Service Provider, entity or person, in whole or in part, any of its rights or obligations under the Agreement without the prior written consent of Service Provider. Service Provider may, without any prior written consent, assign its rights and/or obligations under the Agreement.

18. **Right of Disposal.** This Agreement does not grant any rights to dispose of Acceptable Waste other than in accordance herewith. Additionally, the ability to dispose of Acceptable Waste at the Facility may be limited at any time, and from time to time, by Service Provider in connection with the Facility’s permit(s), and capacity constraints, in addition to applicable laws, rules, and regulations. Service Provider reserves the right

Terms and Conditions of Special Waste Disposal Agreement

to immediately terminate access to the Facility by Customer and Customer's personnel and agents in the event of breach or violation by Customer of any of the terms of this Agreement, Service Provider's operating rules or payment policies or any applicable laws or regulations.

19. **Continuing Compliance.** Customer has a continuing obligation to inform Service Provider of any new information, or information not previously provided to Service Provider by Customer which may affect the acceptability of the Special Waste by Service Provider. Further, Customer shall comply with all Service Provider requests for evidence of Customer's continuing compliance with the terms of the Agreement including but not limited to the following: (i) providing new, updated waste profiles on the Special Waste(s) offered for disposal, or (ii) providing appropriate certification that the Special Waste being offered for disposal is accurately reflected by the appropriate application, or (iii) re-sample the Special Waste at Customer's expense if reasonable cause exists as to its acceptability under the terms of this Agreement, or (iv) allow Service Provider to re-sample the Special Waste if reasonable cause exists as to its acceptability under the terms of this Agreement (and Customer shall be responsible for all costs and expenses associated with such sampling if such Special Waste is determined to be Unacceptable Waste), or (v) all of the above.

20. **Notices.** All notices herein provided for shall be considered as having been given upon being placed in the mail, certified postage prepaid addressed to Service Provider or Customer at the address set forth in this Agreement or to such other address as may be given to the other party in writing.

21. **Miscellaneous.**

(i) This Agreement shall be governed by the laws of the State in which the Facility is located.

(ii) No waiver of a breach of any of the obligations contained in the Agreement shall be construed to be a waiver of any prior or succeeding breach of the same obligation or of any other obligation of this Agreement.

(iii) No modification, release, discharge or waiver of any provision or obligation hereof shall be of any force, or effect, unless in writing signed by all parties to this Agreement.

(iv) Customer shall treat as confidential and not disclose to others during or subsequent to the term of this Agreement, except as is necessary to perform this Agreement, or to comply with any applicable law or regulation, any information (including the terms of this Agreement) regarding Service Provider's plans, programs, plants, processes, products, costs, equipment or operations which may come within the knowledge of Customer or its employees in the performance of this Agreement, without in each instance securing the prior written consent of Service Provider.

(v) If any term, phrase, obligation or provision of this Agreement shall be held to be invalid, illegal or unenforceable in any respect, this Agreement shall remain in effect and be construed without regard to such term, phrase, obligation or provision.

(vi) This Agreement constitutes the entire understanding between the parties regarding the subject matter herein, replacing and amending any prior agreements between the parties regarding the subject matter herein, and shall be binding upon all parties hereto, their successors, heirs, representatives and

assigns. Any provision, term or condition in any acknowledgement, purchase order or other response by Customer which is in addition to or different from the provisions of this Agreement shall be deemed objected to by Service Provider and shall be of no effect.

(vii) Customer represents, warrants and covenants that it is and, during the term of this Agreement will remain, in compliance with and will perform its obligations pursuant to all applicable laws, ordinances, permits, rules and regulations and shall indemnify, defend and hold harmless Service Provider from any breach thereof.

(viii) It is the understanding and agreement of the parties that Service Provider is an independent contractor, and is not an agent, nor an authorized representative of Customer.

(ix) In any dispute relating to this Agreement, the prevailing party shall fully recover from the non-prevailing party all fees, costs and expenses that the prevailing party reasonably incurred in such dispute, including, without limitation, reasonable attorneys' fees and expenses. In determining which party is the "prevailing party," the Court: (a) **must** take into account the claims pursued, the claims on which the pursuing party was successful, the claims on which the defending party was successful, the amount of money sought, the amount of money awarded, and offsets or counterclaims pursued (successfully or unsuccessfully) by the other party; and (b) **must not** take into account any other factors provided by law or otherwise.

(x) The parties hereto agree that any and all disputes, controversies or claims of any nature, whether relating to this agreement or otherwise, must be brought in a party's individual capacity, and not as a plaintiff or class member in any purported class, consolidated, collective or representative proceeding. Accordingly, each party hereby waives any and all rights to bring any claim or action as a plaintiff or class member in any purported class, consolidated, collective or representative proceeding relating to any disputes, controversies or claims between the parties.

(xi) Service Provider shall not be liable to Customer for any special, incidental or consequential damages, whether arising in contract, tort, strict liability, or in any other cause of action whatsoever.