UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION 10

IN THE MATTER OF: T-108, Lower Duwamish Waterway Superfund Site, Seattle, WA Port of Seattle, The City of Seattle, King County Respondents	U.S. EPA Docket No. 10-2020-0080
Proceeding Under Sections 104, 106(a), 107 and 122 of the Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. §§ 9604, 9606(a), 9607 and 9622	**ADMINISTRATIVE SETTLEMENT AGREEMENT AND ORDER ON CONSENT FOR REMOVAL ACTION ENGINEERING EVALUATION AND COST ANALYSIS**

ADMINISTRATIVE SETTLEMENT AGREEMENT AND ORDER ON CONSENT FOR REMOVAL ACTION

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I. JURISDICTION AND GENERAL PROVISIONS

1. This Administrative Settlement Agreement and Order on Consent (Settlement) is entered into voluntarily by the United States Environmental Protection Agency (EPA) and the Port of Seattle (Port), the City of Seattle (City), and King County (County) (collectively the "Respondents");. This Settlement provides for the performance of a removal action, including an Engineering Evaluation and Cost Analysis (EE/CA) for the T-108 Site by Respondents, and the payment of certain response costs by the Respondents incurred at or in connection with the T-108 Site, generally located at 4525 Diagonal Avenue South, Seattle, WA. The Site is located within the larger Lower Duwamish Waterway Superfund Site (LDW Site).

2. This Settlement is issued under the authority vested in the President of the United States by Sections 104, 106(a), 107, and 122 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, 42 U.S.C. §§ 9604, 9606(a), 9607 and 9622 (CERCLA). This authority was delegated to the Administrator of EPA on January 23, 1987, by Executive Order 12580, 52 Fed. Reg. 2923 (Jan. 29, 1987), and further delegated to Regional Administrators by EPA Delegation Nos. 14-14-A (Determinations of Imminent and Substantial Endangerment, Nov. 1, 2001), 14-14-C (Administrative Actions Through Consent Orders, Apr. 15, 1994) and 14-14-D (Cost Recovery Non-Judicial Agreements and Administrative Consent Orders, May 11, 1994). These authorities were further redelegated by the Regional Administrator of EPA Region 10 through the Director, Superfund and Emergency Management Division, to the Branch Chiefs of the Emergency Management Branch and Remedial Cleanup Branch, or equivalents by R10 14-14-C (April 15, 2019) and R10 14-14-D (April 15, 2019).

3. EPA has notified the State of Washington (State) of this action pursuant to Section 106(a) of CERCLA, 42 U.S.C. § 9606(a).

4. EPA and Respondents recognize that this Settlement has been negotiated in good faith and that the actions undertaken by Respondents in accordance with this Settlement do not constitute an admission of any liability. Respondents do not admit, and retain the right to controvert in any subsequent proceedings other than proceedings to implement or enforce this Settlement, the validity of the findings of facts, conclusions of law, and determinations in Sections IV (Findings of Fact) and V (Conclusions of Law and Determinations) of this Settlement. Respondents agree to comply with and be bound by the terms of this Settlement and further agree that they will not contest the basis or validity of this Settlement or its terms.

II. PARTIES BOUND

5. This Settlement is binding upon EPA and upon Respondents and their respective successors, and assigns. Any change in ownership or corporate status of any Respondent including, but not limited to, any transfer of assets or real or personal property shall not alter such Respondent's responsibilities under this Settlement.

6. Respondents are jointly and severally liable for carrying out all activities required by this Settlement. In the event of the insolvency or other failure of any Respondent to

implement the requirements of this Settlement, the remaining Respondents shall complete all such requirements.

7. Respondents shall provide written notice of this Settlement to each contractor hired to perform the Work required by this Settlement and to each person representing Respondents with respect to the Site or the Work. Respondents' contractors shall provide written notice of the Settlement to all subcontractors hired to perform any portion of the Work required by this Settlement. Respondents shall be responsible for ensuring that their contractors and subcontractors perform the Work in accordance with the terms of this Settlement and responsible for any violations of this Settlement committed by its contractors and sub-contractors.

III. DEFINITIONS

8. Unless otherwise expressly provided in this Settlement, terms used in this Settlement that are defined in CERCLA or in regulations promulgated under CERCLA shall have the meaning assigned to them in CERCLA or in such regulations. Whenever terms listed below are used in this Settlement or its attached appendices, the following definitions shall apply:

"Action Memorandum" shall mean an EPA Action Memorandum relating to the Site signed by the Regional Administrator, EPA Region 10, or his/her delegate, and all attachments thereto.

"Affected Property" shall mean all real property at the Site and any other real property where EPA determines, at any time, that access, land, water, or other resource use restrictions are needed to conduct the Work.

"CERCLA" shall mean the Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. §§ 9601-9675.

"Day" or "day" shall mean a calendar day. In computing any period of time under this Settlement, where the last day would fall on a Saturday, Sunday, or federal or State holiday, the period shall run until the close of business of the next working day.

"Effective Date" shall mean the effective date of this Settlement as provided in Section XXX.

"EPA" shall mean the United States Environmental Protection Agency and its successor departments, agencies, or instrumentalities.

"EPA Hazardous Substance Superfund" shall mean the Hazardous Substance Superfund established by the Internal Revenue Code, 26 U.S.C. § 9507.

"Ecology" shall mean the Washington State Department of Ecology and any successor departments or agencies of the State.

"Future Response Costs" shall mean all costs, including, but not limited to, direct and indirect costs, that the United States incurs on behalf of EPA after May 1, 2019 in developing or negotiating this Settlement, in reviewing or developing deliverables submitted pursuant to this Settlement, in overseeing implementation of the Work, or otherwise implementing, overseeing, or enforcing this Settlement, including but not limited to, payroll costs, contractor costs, inter-agency agreement costs, cooperative agreement costs, travel costs, laboratory costs, the costs incurred pursuant to Section IX (Property Requirements) (including, but not limited to, cost of attorney time and any monies paid to secure or enforce access or land, water, or other resource use restrictions, including, but not limited to, the amount of just compensation), Section XIII (Emergency Response and Notification of Releases), Paragraph 72 (Work Takeover), Paragraph 94 (Access to Financial Assurance), Paragraph 22 (Community Involvement) including, but not limited to, the costs of any technical assistance grant under Section 117(e) of CERCLA, 42 U.S.C. § 9617(e), and Section XV (Dispute Resolution), and all litigation costs related to implementation or enforcement of this Settlement. Future Response Costs shall also include Agency for Toxic Substances and Disease Registry (ATSDR) costs regarding the Site.

"Interest" shall mean interest at the rate specified for interest on investments of the EPA Hazardous Substance Superfund established by 26 U.S.C. § 9507, compounded annually on October 1 of each year, in accordance with 42 U.S.C. § 9607(a). The applicable rate of interest shall be the rate in effect at the time the interest accrues. The rate of interest is subject to change on October 1 of each year. Rates are available online at https://www.epa.gov/superfund/superfund-interest-rates.

"The Lower Duwamish Waterway Special Account" shall mean the special account within the EPA Hazardous Substance Superfund, established for the Site by EPA pursuant to Section 122(b)(3) of CERCLA, 42 U.S.C. § 9622(b)(3).

"Non-Settling Owner" shall mean any person, other than a Respondent, that owns or controls any Affected Property. The clause "Non-Settling Owner's Affected Property" means Affected Property owned or controlled by Non-Settling Owner.

"National Contingency Plan" or "NCP" shall mean the National Oil and Hazardous Substances Pollution Contingency Plan promulgated pursuant to Section 105 of CERCLA, 42 U.S.C. § 9605, codified at 40 C.F.R. Part 300, and any amendments thereto.

"Owner Respondent" shall mean any Respondent that owns or controls any Affected Property, including Port of Seattle. The clause "Owner Respondent's Affected Property" means Affected Property owned or controlled by Owner Respondent.

"Paragraph" shall mean a portion of this Settlement identified by an Arabic numeral or an upper or lower case letter.

"Parties" shall mean EPA, and the Respondents.

"Post-Removal Site Control" shall mean actions necessary to ensure the effectiveness and integrity of the removal action to be performed pursuant to this Settlement consistent with Sections 300.415(*l*) and 300.5 of the NCP and "Policy on Management of Post-Removal Site Control" (OSWER Directive No. 9360.2-02, Dec. 3, 1990).

"RCRA" shall mean the Solid Waste Disposal Act, 42 U.S.C. §§ 6901-6992 (also known as the Resource Conservation and Recovery Act).

"Respondents" shall mean the Port of Seattle, the City of Seattle and King County.

"Respondents' Response Costs" shall mean all response costs Respondents incur, consistent with the NCP, including performing Work and making payments to the EPA pursuant to this Settlement.

"Section" shall mean a portion of this Settlement identified by a Roman numeral.

"Settlement" shall mean this Administrative Settlement Agreement and Order on Consent and all appendices attached hereto (listed in Section XXIX (Integration/Appendices)). In the event of conflict between this Settlement and any appendix, this Settlement shall control.

"Site" shall mean the Port's property known as Terminal 108, encompassing approximately 20 acres, located within the LDW Site at 4525 Diagonal Avenue South in Seattle, King County, Washington (King County tax parcels 76667000515 and 766670-0510) and the areal extent of contamination and suitable areas in a very close proximity to the contamination necessary for implementation of the response action performed in connection to this Settlement. The Site is depicted generally on the map attached as Appendix A.

"State" shall mean the State of Washington.

"Statement of Work" or "SOW" shall mean the statement of work for implementation of the Work to be performed pursuant to this Settlement, as set forth in Appendix B, and any modifications made thereto in accordance with this Settlement.

"Transfer" shall mean to sell, assign, convey, lease, mortgage, or grant a security interest in, or where used as a noun, a sale, assignment, conveyance, or other disposition of any interest by operation of law or otherwise.

"United States" shall mean the United States of America and each department, agency, and instrumentality of the United States, including EPA.

"Waste Material" shall mean (a) any "hazardous substance" under Section 101(14) of CERCLA, 42 U.S.C. § 9601(14); (b) any pollutant or contaminant under Section 101(33) of CERCLA, 42 U.S.C. § 9601(33); (c) any "solid waste" under Section 1004(27) of RCRA,

42 U.S.C. § 6903(27); and (d) any "hazardous substance" under the Washington State Model Toxics Control Act, Revised Code of Washington ("RCW") Chapter 105D.

"Work" shall mean all activities and obligations Respondents are required to perform under this Settlement except those required by Section XI (Record Retention).

IV. FINDINGS OF FACT

9. For the purposes of this Settlement, EPA finds and the Respondents neither admit nor deny the following findings.

a. The Site is located at 4525 Diagonal Avenue South in Seattle, Washington. The Site covers approximately 23 acres. The Lower Duwamish Waterway provides the western border of the Site. The Site borders a King County pumping station and East Marginal Way South to its east. The Site's southern border is Diagonal Avenue South. The Site's northern borders are the South Oregon Street right-of-way, Terminal 106 West, and a Warehouse Distribution Center building. The Site is within the LDW Site at approximately 0.5 river mile of the Lower Duwamish Waterway. The Site consists of a 14-acre eastern parcel and a 9-acre western parcel.

b. The Site is currently owned by the Port. The Port acquired the Site in 1984. Chiyoda Chemical Engineering & Construction Company, Ltd (Chiyoda) owned and operated on the Site between 1972 and 1984. Chiyoda now operates as the Chiyoda Corporation. The City of Seattle owned the Site until 1972 and operated a sewage treatment plant on the Site between 1940 and 1962. The Municipality of Metropolitan Seattle (Metro) operated the sewage treatment plant from 1962 until 1969. The Port sub-divided the Site into two parcels – a western and an eastern parcel – in 1985.

c. The Port sold the eastern portion to Chevron U.S.A. Products Company, a wholly owned subsidiary of Chevron, in 1985, who sold it back to the Port in 1992. The Port leases the eastern parcel to ConGlobal Industries, whose primary activities include container storage and repair, and chassis storage.

d. The Port leased the western parcel to Lafarge Cement Company for a bulk cement terminal from 1989 to 1999. The western parcel is currently vacant, except for a small area leased for storage and for a small public-access area and habitat restoration site located the southern end of the parcel.

e. As noted in paragraph 9.b above, a sewage treatment plant operated on both the eastern and western parcels of the Site between 1940 and 1969. The City of Seattle operated the treatment plant until 1962. Metro continued plant operations until 1969 when operations ended. The plant was demolished shortly after operations ceased. The treatment plant was constructed to eliminate both floating and settleable sanitary waste from raw sewage and to protect aquatic resources in the Lower Duwamish Waterway. Sewage was treated using sedimentation, chlorination, and sludge digestion. The treatment plant structures were known to include two

large clarifiers, two digesters, three glass-covered and one open air sludge drying beds, sludge ponds, a control house, and a pump house. Starting in the mid-1950s, industrial facilities located along the eastern side of the Lower Duwamish began to convey industrial wastewaters to the pipes that conveyed combined sewage to the sewage treatment plant. The industrial wastewaters contained hazardous substances. A portion of the hazardous substances contained in the industrial wastewaters were discharged into the Lower Duwamish Waterway after they passed through plant's treatment process, and a portion of the hazardous substances likely settled into sludges that were placed in the sludge drying beds and surface ponds. A range of approximately five to fifteen feet of sludge was buried in place when the plant was demolished. The City transferred the Site to Chiyoda in 1972. In 1992 King County voters approved the merger of Metro and King County. After the merger, which occurred in 1994, King County assumed the obligations of Metro.

f. Chiyoda owned the Site from 1972 to 1984. Chiyoda planned to construct a chemical manufacturing plant with a loading dock on the Site. To prepare for the proposed plant, in approximately 1977, Chiyoda dredged an estimated 80,000 cubic yards of material from the shoreline, resulting in the shoreline being moved approximately 100 feet inland. Chiyoda placed the dredged sediment on site, in the northwestern portion of the western parcel. Chiyoda's proposed manufacturing plant was never constructed because the company failed to acquire the necessary permits for the shore-based dock.

g. On September 13, 1974, a United States contractor dropped an electrical transformer containing approximately 250-265 gallons of polychlorinated biphenyls oil (PCBs) onto a barge. The transformer was damaged and the PCB oil (Aroclor 1242) was released into the Lower Duwamish Waterway. The release occurred near Slip 1, about 2,400 feet upstream of the T-108 Site.

h. The response to this spill involved two dredging efforts. In October 1974, hydraulic dredging was conducted in the immediate vicinity of the spill, which resulted in the processing of approximately 600,000 gallons of water and the collection of approximately 215 drums of PCB-contaminated solids that were transported to a separate location for disposal. EPA estimated that approximately 70-90 gallons of the released PCBs were collected during this effort.

i. In 1975, a component of the Army accepted financial responsibility within DOD for a second dredging operation and to reimburse the agencies involved. The second dredging effort took place in 1976, after Chiyoda agreed to allow the contaminated dredge spoils to be disposed on the T-108 Site. Approximately 10,000-15,000 cubic yards of PCB contaminated sediments were hydraulically dredged from Slip 1 and the Lower Duwamish Waterway. Two 20,000-25,000 cubic yard pits were excavated in a portion of the sludge bed areas of the former sewage treatment plant at the Site to contain the dredged slurry. The pits were located in the northern portions of the Site. A flocculating agent (Nalco #7134) was added to the influent slurry for efficient sedimentation, and the liquid was treated prior to discharge to the Duwamish Waterway. EPA estimated that an additional 140-170 gallons of spilled PCBs were removed during this operation. The PCB disposal pits were eventually backfilled and, in 1989 (while the

T-108 eastern parcel was owned by Chevron), a 2-feet-thick clay cap was placed in the location of the PCB disposal pits, approximately 400 feet from the Lower Duwamish Waterway shoreline.

j. The precise locations of the PCB disposal area, the holding pond, and water treatment units identified in Paragraph 9.i above, as well as the effectiveness of actions referenced above in containing the disposed of PCB contaminated sediments is unknown. Additional investigation is being undertaken to determine whether the Site is a source of PCBs or other contamination to the in-water portion of LDW site.

k. As noted above, Chevron owned a portion of the Site between 1985 and 1992. Chevron stockpiled petroleum contaminated soils on the portion of the Site within the area where PCB contaminated soils were disposed. Chevron tilled and watered the stored contaminated soils on a weekly basis. Chevron later removed the stored soils. Before the soils were removed they were sampled and analyzed for petroleum hydrocarbons, PCBs, benzene, toluene, ethylbenzene and xylenes. Analysis of the samples revealed that the stored soils contained PCBs. EPA is not aware of any sampling data that suggests that Chevron removed all PCB contaminated soils that were stock piled at the Site or whether the watering and tilling of the stored soils spread contamination to other areas of the Site.

l. Lafarge leased the western parcel of the Site between 1988 and 2000. Lafarge constructed and operated a bulk cement transshipment facility on the parcel. To facilitate the construction, Lafarge excavated bank sediments located on along the northern shoreline of the parcel. Lafarge placed the excavated sediments in the area where PCB contaminated sediments were placed in 1976. Lafarge graded the excavated sediments across the northern portion of the parcel. It does not appear that Lafarge sampled and analyzed the bank sediments it removed before it disposed of the sediments on the Site or after it graded and spread the excavated sediments and underlying soils on the Site. Lafarge, by the activities described in this Paragraph, likely disposed of contaminated sediments at the Site and may have spread both pre-existing PCB present contaminated soils/sediments and contaminated sediments it disposed of, to other areas of the Site.

m. Lower Duwamish Waterway sediments and bank sediments that were disposed of at the Site by Chiyoda and Lafarge likely contained hazardous substances. Sampling of sediments located in the Waterway and near the Site reveal the presence of several hazardous substances, including PCBs, Polycyclic aromatic hydrocarbons (PAHs), bis-ethyl-hexyl-phthalate, benzoic acid, mercury, acenaphthene, fluoranthene, and phenol.

n. PCBs are manmade chemicals that were widely used in coolants and oils, paints, caulking, and building material. The United States banned the use and manufacturer of PCBs in 1979. PCBs persist in the environment for a long time and can bio-accumulate in fish and shellfish. Children exposed to PCBs may develop learning and behavior problems later in life. PCBs are known to have immune and reproductive system effects and may cause cancer in people who have been exposed to PCBs over a long time.

V. CONCLUSIONS OF LAW AND DETERMINATIONS

10. Based on the Findings of Fact set forth above, and the administrative record compiled for the Site, EPA has determined and the Respondents neither admit nor deny that:

a. The T-108 Site is a "facility" as defined by Section 101(9) of CERCLA, 8842 U.S.C. § 9601(9).

b. The contamination found at the Site, as identified in the Findings of Fact above, include "hazardous substances" as defined by Section 101(14) of CERCLA, 42 U.S.C. § 9601(14).

c. Each Respondent is a "person" as defined by Section 101(21) of CERCLA, 42 U.S.C. § 9601(21).

d. Each Respondent is a responsible party under Section 107(a) of CERCLA, 42 U.S.C. § 9607(a), and is jointly and severally liable for performance of response action and for response costs incurred and to be incurred at the Site.

e. The conditions described in Paragraphs 9.e through 9.m of the Findings of Fact above constitute an actual or threatened "release" of a hazardous substance from the facility as defined by Section 101(22) of CERCLA, 42 U.S.C. § 9601(22).

f. The conditions described in Paragraphs 9.e through 9.n of the Findings of Fact above constitute an imminent and substantial endangerment to the public health or welfare or the environment because of an actual or threatened release of a hazardous substance from the facility within the meaning of Section 106(a) of CERCLA, 42 U.S.C. § 9606(a).

g. The removal action required by this Settlement is necessary to protect the public health, welfare, or the environment and, if carried out in compliance with the terms of this Settlement, will be consistent with the NCP, as provided in Section 300.700(c)(3)(ii) of the NCP.

VI. SETTLEMENT AGREEMENT AND ORDER

11. Based upon the foregoing Findings of Fact, Conclusions of Law, Determinations, and the administrative record, it is hereby Ordered and Agreed that: Respondents shall comply with all provisions of this Settlement, including, but not limited to, all attachments to this Settlement and all documents incorporated by reference into this Settlement.

VII. DESIGNATION OF CONTRACTOR, PROJECT COORDINATOR, AND ON-SCENE COORDINATOR

12. Respondents shall retain one or more contractors to perform the Work and shall notify EPA of the name(s) and qualifications of such contractor(s) within 180 days after the Effective Date. Respondent shall also notify EPA of the name(s) and qualification(s) of any other contractor(s) or subcontractor(s) retained to perform the Work at least 14 days prior to

commencement of such Work. EPA retains the right to disapprove of any or all of the contractors and/or subcontractors retained by Respondents. If EPA disapproves of a selected contractor, Respondents shall retain a different contractor and shall notify EPA of that contractor's name and qualifications within 90 days after EPA's disapproval. The proposed contractor must demonstrate compliance with ANSI/ASQC E-4-2004, "Quality Systems for Environmental Data and Technology Programs: Requirements with Guidance for Use" (American National Standard), by submitting a copy of the proposed contractor's Quality Management Plan (QMP). The QMP should be prepared in accordance with "EPA Requirements for Quality Management Plans (QA/R-2)" (EPA/240/B0-1/002, March 2001, reissued May 2006), or equivalent documentation as required by EPA.

13. Within 7 days after the Effective Date, Respondents shall designate a Project Coordinator who shall be responsible for administration of all actions by Respondents required by this Settlement and shall submit to EPA the designated Project Coordinator's name, address, telephone number, and qualifications.

14. To the greatest extent possible, the Project Coordinator shall be present on Site or readily available during Site work. EPA retains the right to disapprove of the designated Project Coordinator. If EPA disapproves of the designated Project Coordinator, Respondents shall retain a different Project Coordinator and shall notify EPA of that person's name, address, telephone number, and qualifications within 14 days following EPA's disapproval. Notice or communication relating to this Settlement from EPA to Respondents' Project Coordinator shall constitute notice or communication to all Respondents.

15. EPA has designated Anne Christopher of the Region 10 Superfund and Emergency Management Division, as its Remedial Project Manager/On-Scene Coordinator (RPM/OSC). Ms. Christopher's contact information is as follows:

Anne Christopher
USEPA Region 10 – Oregon Operations Office
805 SW Broadway
Suite 500
Mail Code: OOO
Portland OR 97205
christopher.anne@epa.gov
(503) 326-6554

EPA and Respondents shall have the right, subject to Paragraph 13, to change their respective designated RPM/OSC or Project Coordinator. Respondents shall notify EPA 14 days before such a change is made. The initial notification by Respondents may be made orally, but shall be promptly followed by a written notice.

16. The RPM/OSC shall be responsible for overseeing Respondents' implementation of this Settlement. The RPM/OSC shall have the authority vested in an RPM/OSC by the NCP,

including the authority to halt, conduct, or direct any Work required by this Settlement; or to direct any other removal action undertaken at the Site pursuant to Section XIII (Emergency Response and Notification of Releases) of this Settlement or in the event this Settlement of the SOW is later amended to include a removal action. Absence of the RPM/OSC from the Site shall not be cause for stoppage of work unless specifically directed by the RPM/OSC.

VIII. WORK TO BE PERFORMED

17. Respondents shall perform, at a minimum, all actions necessary to implement the SOW, including, but are not limited to, the performance of an EE/CA. All response actions undertaken pursuant to this Settlement shall be performed as described in the SOW and as approved by EPA. For any regulation or guidance referenced in the Settlement, the reference will be read to include any subsequent modification, amendment, or replacement of such regulation or guidance. Such modifications, amendments, or replacements apply to the Work only after Respondents receives notification from EPA of the modification, amendment, or replacement.

18. EE/CA, EE/CA Work Plan and Implementation.

a. In accordance with Paragraph 19 (Submission of Deliverables), and as described the SOW, Respondents shall submit to EPA for approval a draft EE/CA Work Plan. After reviewing the draft EE/CA Work Plan, EPA may approve, disapprove, require revisions to, or modify the draft EE/CA Work Plan, or may determine that additional environmental sampling and analysis is required. Respondents shall complete the EE/CA according to the approved Work Plan and submit a draft EE/CA to EPA for approval. EPA may approve, disapprove, require revisions to, or modify the draft EE/CA.

b. EPA may approve, disapprove, require revisions to, or modify the draft EE/CA Work Plan in whole or in part. If EPA requires revisions, Respondents shall submit a revised draft EE/CA Work Plan within 30 days after receipt of EPA's notification of the required revisions. The revised draft EE/CA Work Plan shall be submitted in accordance with the required revisions. Respondents shall implement the EE/CA Work Plan as approved in writing by EPA in accordance with the schedule approved by EPA. Once approved, or approved with modifications, the EE/CA Work Plan, the schedule, and any subsequent modifications shall be incorporated into and become fully enforceable under this Settlement.

c. Upon approval or approval with modifications of the EE/CA Work Plan, Respondents shall commence implementation of the EE/CA in accordance with the approved schedule included therein.

d. Respondents shall not commence any Work except in conformance with the terms of this Settlement. Unless otherwise provided in this Settlement, any additional deliverables that require EPA approval under the SOW or this Settlement shall be reviewed and approved by EPA in accordance with this Paragraph.

19. Submission of Deliverables.

a. General Requirements for Deliverables.

Except as otherwise provided in this Settlement, Respondents shall direct all submissions required by this Settlement to the RPM/OSC at the following address:

Anne Christopher
USEPA Region 10 – Oregon Operations Office
805 SW Broadway, Suite 500
Portland OR 97205
christopher.anne@epa.gov
(503) 326-6554

For U.S. mail or email to the U.S. Army Corps of Engineers on behalf of DOD:

Anna D. Ross
Office of Counsel
U.S. Army Corps of Engineers
P.O. Box 3755
Seattle, WA 98124-3755
anna.d.ross@usace.army.mil

For UPS or Federal Express to the U.S. Army Corps of Engineers on behalf of DOD:

Anna D. Ross
Office of Counsel
U.S. Army Corps of Engineers
4735 E. Marginal Way S
Seattle, WA 98134-2388
(206) 764-3732
and

Rick Thomas
Source Control Lead
Washington Department of Ecology
Northwest Regional Office
3190 160th Ave SE
Bellevue, WA 98008-5452

Richard.Thomas@ecy.wa.gov

(1) Respondents shall submit all deliverables required by this Settlement, the attached SOW, or any approved work plan to EPA and the U.S. Army Corps of Engineers on behalf of DOD in accordance with the schedule set forth in such plan.

(2) Respondents shall submit all deliverables in electronic form. If any deliverable includes maps, drawings, or other exhibits that are larger than 8.5" by 11", Respondents shall also provide EPA with paper copies of such exhibits.

b. Technical Specifications for Deliverables.

(1) Sampling and monitoring data should be submitted in standard regional Electronic Data Deliverable (EDD) format. Other delivery methods may be allowed if electronic direct submission presents a significant burden or as technology changes.

(2) Spatial data, including spatially-referenced data and geospatial data, should be submitted: (a) in the ESRI File Geodatabase format; (b) as unprojected geographic coordinates in decimal degree format using North American Datum 1983 (NAD83) or World Geodetic System 1984 (WGS84) as the datum; and (c) consistent with OLEM Directive 9200.2-191, Geospatial Superfund Site Data Definitions and Recommended Practices (November 29, 2017). If applicable, submissions should include the collection method(s). Projected coordinates may optionally be included but must be documented. Spatial data should be accompanied by metadata, and such metadata should be compliant with the Federal Geographic Data Committee (FGDC) Content Standard for Digital Geospatial Metadata and its EPA profile, the EPA Geospatial Metadata Technical Specification. An add-on metadata editor for ESRI software, the EPA Metadata Editor (EME), complies with these FGDC and EPA metadata requirements and is available at https://edg.epa.gov/EME/.

(3) Each file must include an attribute name for each site unit or sub-unit submitted. Consult http://www.epa.gov/geospatial/policies.html for any further available guidance on attribute identification and naming.

(4) Spatial data submitted by Respondents does not, and is not intended to, define the boundaries of the Site.

20. Health and Safety Plan.

a. As part of the draft EE/CA Work Plan submittal, Respondents shall submit for EPA review and comment a plan that ensures the protection of the public health and safety during performance of on-site work under this Settlement. This plan shall be prepared in accordance with "OSWER Integrated Health and Safety Program Operating Practices for OSWER Field Activities," Pub. 9285.0-OlC (Nov. 2002), available on the NSCEP database at http://www.epa.gov/nscep/index.html, and "EPA's Emergency Responder Health and Safety Manual," OSWER Directive 9285.3-12 (July 2005 and updates), available at

http://www.epaosc.org/_HealthSafetyManual/manual-index.htm. In addition, the plan shall comply with all currently applicable Occupational Safety and Health Administration (OSHA) regulations found at 29 C.F.R. Part 1910. If EPA determines that it is appropriate, the plan shall also include contingency planning. Respondents shall incorporate all changes to the plan recommended by EPA and shall implement the plan during the pendency of the removal action.

21. Quality Assurance, Sampling, and Data Analysis.

a. Respondents shall use quality assurance, quality control, and other technical activities and chain of custody procedures for all samples consistent with "EPA Requirements for Quality Assurance Project Plans (QA/R5)" (EPA/240/B-01/003, March 2001, reissued May 2006), "Guidance for Quality Assurance Project Plans (QA/G-5)" (EPA/240/R-02/009, December 2002), and subsequent amendments to such guidelines upon notification by EPA to Respondents of such amendment. Amended guidelines shall apply only to procedures conducted after such notification.

b. Prior to the commencement of any monitoring project under this Settlement, Respondents shall submit to EPA for approval a Quality Assurance Project Plan (QAPP) that is consistent with the SOW, the EE/CA Work Plan, the NCP, and applicable guidance documents. Respondents shall ensure that EPA and its authorized representatives are allowed access at reasonable times to all laboratories utilized by Respondents in implementing this Settlement. In addition, Respondents shall ensure that such laboratories shall analyze all samples submitted by EPA pursuant to the QAPP for quality assurance, quality control, and technical activities that will satisfy the stated performance criteria as specified in the QAPP and that sampling and field activities are conducted in accordance with EPA's "Field Operations Group Operational Guidelines for Field Activities"(https://nelac-institute.org/docs/comm/nefap/FieldOperationsGroupOperationalGuidelinesForFieldActivities.pdf) and "EPA QA Field Activities Procedure" (http://www.epa.gov/irmpoli8/policies/2105-p-02.pdf). Respondents shall ensure that the laboratories they utilize for the analysis of samples taken pursuant to this Settlement meet the competency requirements set forth in EPA's "Policy to Assure Competency of Laboratories, Field Sampling, and Other Organizations Generating Environmental Measurement Data under Agency-Funded Acquisitions" (http://www.epa.gov/fem/pdfs/fem-lab-competency-policy.pdf) and that the laboratories perform all analyses according to accepted EPA methods. Accepted EPA methods consist of, but are not limited to, methods that are documented in the EPA's Contract Laboratory Program (http://www.epa.gov/superfund/programs/clp/), SW 846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods" (http://www.epa.gov/epawaste/hazard/testmethods/sw846/online/index.htm), "Standard Methods for the Examination of Water and Wastewater" (http://www.standardmethods.org/), 40 C.F.R. Part 136, "Air Toxics - Monitoring Methods" (http://www.epa.gov/ttnamti1/airtox.html)," and any amendments made thereto during the course of the implementation of this Settlement. However, upon approval by EPA, Respondents may use other appropriate analytical method(s), as long as quality assurance/quality control (QA/QC) criteria are contained in the method(s) and the method(s) are included in the QAPP, (b) the analytical method(s) are at least as stringent as the methods listed above, and (c) the method(s) have been approved for use by a nationally

recognized organization responsible for verification and publication of analytical methods, e.g., EPA, ASTM, NIOSH, OSHA, etc. Respondents shall ensure that all laboratories they use for analysis of samples taken pursuant to this Settlement have a documented Quality System that complies with ANSI/ASQC E-4-2004, "Quality Systems for Environmental Data and Technology Programs: Requirements with Guidance for Use" (American National Standard, 2004, and "EPA Requirements for Quality Management Plans (QA/R-2)" (EPA/240/B-01/002, March 2001, reissued May 2006), or equivalent documentation as determined by EPA. EPA may consider Environmental Response Laboratory Network (ERLN) laboratories, laboratories accredited under the National Environmental Laboratory Accreditation Program (NELAP), or laboratories that meet International Standardization Organization (ISO 17025) standards or other nationally recognized programs (http://www.epa.gov/fem/accredit.htm) as meeting the Quality System requirements. Respondents shall ensure that all field methodologies utilized in collecting samples for subsequent analysis pursuant to this Settlement are conducted in accordance with the procedures set forth in the QAPP approved by EPA.

c. Upon request, Respondents shall provide split or duplicate samples to EPA. Respondents shall notify EPA not less than 7 days in advance of any sample collection activity unless shorter notice is agreed to by EPA. In addition, EPA shall have the right to take any additional samples that EPA deems necessary. Upon request, EPA shall provide to Respondents split or duplicate samples of any samples it takes as part of EPA's oversight of Respondents' implementation of the Work.

d. Respondents shall submit to EPA the results of all sampling and/or tests or other data obtained or generated by or on behalf of Respondents with respect to the Site and/or the implementation of this Settlement.

e. Respondents waive any objections to any data gathered, generated, or evaluated by EPA or Respondents in the performance or oversight of the Work that has been verified according to the QA/QC procedures required by the Settlement or any EPA-approved Work Plans or Sampling and Analysis Plans. If Respondents object to any other data relating to the Work, Respondents shall submit to EPA a report that specifically identifies and explains its objections, describes the acceptable uses of the data, if any, and identifies any limitations to the use of the data. The report must be submitted to EPA within 15 days after the monthly progress report containing the data.

f. Notwithstanding any provision of this Settlement, the United States retains all of its information gathering and inspection authorities and rights, including enforcement actions related thereto, under CERCLA, RCRA, and any other applicable statutes and regulations.

22. Community Involvement EPA intends to use the LDW Site Community Involvement Plan to involve the public in Work related to this Settlement. If requested by EPA, Respondents shall participate in community involvement activities pursuant to the plan, including participation in (1) the preparation of information regarding the Work for dissemination to the public, with consideration given to including mass media and/or Internet

notification, and (2) public meetings that may be held or sponsored by EPA to explain activities and/or solicit public comment at or relating to the Site. Respondents' support of EPA's community involvement activities may include providing online access to initial submissions and updates of deliverables to (1) any community advisory groups, (2) any technical assistance grant recipients and their advisors, and (3) other entities to provide them with a reasonable opportunity for review and comment. All community involvement activities conducted by Respondents at EPA's request are subject to EPA's oversight. At EPA's discretion, Respondents shall establish a community information repository at or near the Site to house one copy of the administrative record.

23. Post-Removal Site Control. In accordance with the Removal Action Work Plan schedule, or as otherwise directed by EPA, Respondents shall submit a proposal for Post-Removal Site Control which shall include, but not be limited to: prohibitions of activities that may interfere with or compromise the effectiveness of response actions undertaken at or near the Site, of land uses inconsistent with the protectiveness of the implemented response action, and use of groundwater wells for any consumptive use. Upon EPA approval, Respondents shall either conduct Post-Removal Site Control activities, or obtain a written commitment from another party for conduct of such activities, until such time as EPA determines that no further Post-Removal Site Control is necessary. Respondents shall provide EPA with documentation of all Post-Removal Site Control commitments.

24. Progress Reports. Respondents shall submit a written progress report to EPA concerning actions undertaken pursuant to this Settlement on a monthly basis, or as otherwise requested by EPA, from the date of receipt of EPA's approval of the EE/CA Work Plan until issuance of Notice of Completion of Work pursuant to Section XXVIII, unless otherwise directed in writing by the RPM/OSC. These reports shall describe all significant developments during the preceding period, including the actions performed and any problems encountered, analytical data received during the reporting period, and the developments anticipated during the next reporting period, including a schedule of actions to be performed, anticipated problems, and planned resolutions of past or anticipated problems.

25. Final Report. Within 45 days after completion of all Work required by this Settlement, other than continuing obligations listed in Paragraph 101 (notice of completion), Respondents shall submit for EPA review and approval a final report summarizing the actions taken to comply with this Settlement. The final report shall conform, at a minimum, with the requirements set forth in Section 300.165 of the NCP entitled "OSC Reports." The final report shall include a good faith estimate of total costs or a statement of actual costs incurred in complying with the Settlement, a listing of quantities and types of materials removed off-Site or handled on-Site, if applicable a discussion of removal and disposal options considered for those materials, if applicable, a listing of the ultimate destination(s) of those materials, a presentation of the analytical results of all sampling and analyses performed, and accompanying appendices containing all relevant documentation generated during the removal action (e.g., manifests, invoices, bills, contracts, and permits). The final report shall also include the following certification signed by a responsible corporate official of a Respondents or Respondents' Project Coordinator: "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 gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the 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."

26. Off-Site Shipments.

a. Respondents may ship hazardous substances, pollutants and contaminants from the Site to an off-Site facility only if they comply with Section 121(d)(3) of CERCLA, 42 U.S.C. § 9621(d)(3), and 40 C.F.R. § 300.440. Respondents will be deemed to be in compliance with CERCLA Section 121(d)(3) and 40 C.F.R. § 300.440 regarding a shipment if Respondents obtain a prior determination from EPA that the proposed receiving facility for such shipment is acceptable under the criteria of 40 C.F.R. § 300.440(b). Respondents may ship Investigation Derived Waste (IDW) from the Site to an off-Site facility only if Respondents comply with EPA's "Guide to Management of Investigation Derived Waste," OSWER 9345.3-03FS (Jan. 1992).

b. Respondents may ship Waste Material from the Site to an out-of-state waste management facility only if, prior to any shipment, they provide written notice to the appropriate state environmental official in the receiving facility's state and to the RPM/OSC. This written notice requirement shall not apply to any off-Site shipments when the total quantity of all such shipments will not exceed ten cubic yards. The written notice must include the following information, if available: (1) the name and location of the receiving facility; (2) the type and quantity of Waste Material to be shipped; (3) the schedule for the shipment; and (4) the method of transportation. Respondents also shall notify the state environmental official referenced above and the OSC of any major changes in the shipment plan, such as a decision to ship the Waste Material to a different out-of-state facility. Respondents shall provide the written notice after the award of the contract for the removal action and before the Waste Material is shipped.

IX. PROPERTY REQUIREMENTS

27. Agreements Regarding Access and Non-Interference. Respondents shall, with respect to any Non-Settling Owner's Affected Property, use best efforts to secure from such Non-Settling Owner an agreement, enforceable by Respondents and the EPA, providing that such Non-Settling Owner, and Respondents shall, with respect to Non-Settling Owner's and Respondents' Affected Property: (i) provide the EPA, the State, Respondents, and their representatives, contractors, and subcontractors with access at all reasonable times to such Affected Property to conduct any activity regarding the Settlement, including those activities listed in Paragraph 0 (Access Requirements); and, (ii) if EPA provides written notification regarding Non-Settling Owner's and/or Settling Owner's Affected Property, refrain from using such Affected Property in any manner that EPA determines will pose an unacceptable risk to human health or to the environment due to exposure to Waste Material, or interfere with or

adversely affect the implementation, integrity, or protectiveness of the removal action[, including the restrictions listed in Paragraph 0 (Land, Water, or Other Resource Use Restrictions).

a. Access Requirements. The following is a list of activities for which access is required regarding the Affected Property:

(1) Monitoring the Work;

(2) Verifying any data or information submitted to the United States or the State;

(3) Conducting investigations regarding contamination at or near the Site;

(4) Obtaining samples;

(5) Assessing the need for, planning, implementing, or monitoring response actions;

(6) Assessing implementation of quality assurance and quality control practices as defined in the approved construction quality assurance quality control plan as provided in the SOW or as defined in the approved QAPP;

(7) Implementing the Work pursuant to the conditions set forth in Paragraph 72 (Work Takeover);

(8) Inspecting and copying records, operating logs, contracts, or other documents maintained or generated by Respondents or their agents, consistent with Section X (Access to Information);

(9) Assessing Respondents' compliance with the Settlement;

(10) Determining whether the Affected Property is being used in a manner that is prohibited or restricted, or that may need to be prohibited or restricted under the Settlement; and

(11) Implementing, monitoring, maintaining, reporting on, and enforcing any land, water, or other resource use restrictions regarding the Affected Property.

b. Land, Water, or Other Resource Use Restrictions. The following is a list of land, water, or other resource use restrictions that EPA may determine to be applicable to the Affected Property:

(1) Prohibiting activities which could interfere with the removal action;

(2) Prohibiting use of contaminated groundwater;

(3) Prohibiting activities which could result in exposure to contaminants in subsurface soils and groundwater;

(4) Ensuring that any new structures on the Affected Property will not be constructed in the following manner which could interfere with the removal action; and

(5) Ensuring that any new structures on the Affected Property will be constructed in manner which will minimize potential risk of inhalation of contaminants.

28. Best Efforts. As used in this Section, "best efforts" means the efforts that a reasonable person in the position of Respondents would use so as to achieve the goal in a timely manner, including the cost of employing professional assistance and the payment of reasonable sums of money to secure access and/or use restriction agreements, as required by this Section. If Respondents are unable to accomplish what is required through "best efforts" in a timely manner, they shall notify EPA, and include a description of the steps taken to comply with the requirements. If EPA deems it appropriate, it may assist Respondents, or take independent action, in obtaining such access and/or use restrictions. All costs incurred by the United States in providing such assistance or taking such action, including the cost of attorney time and the amount of monetary consideration or just compensation paid, constitute Future Response Costs to be reimbursed under Section XIV (Payment of Future Response Costs).

29. Respondents shall not Transfer its Affected Property unless it has first secured EPA's approval of, and transferee's consent to, an agreement that: (i) is enforceable by Respondents and EPA; and (ii) requires the transferee to provide access to and refrain from using the Affected Property to the same extent as is provided under Paragraphs 0and, if applicable, 27.b.

30. If EPA determines in a decision document prepared in accordance with the NCP that institutional controls in the form of state or local laws, regulations, ordinances, zoning restrictions, or other governmental controls or notices are needed, Respondents shall cooperate with EPA's and the State's efforts to secure and ensure compliance with such institutional controls.

31. In the event of any Transfer of the Affected Property, unless the United States otherwise consents in writing, Respondents shall continue to comply with their obligations under the Settlement, including their obligation to secure access and ensure compliance with any land, water, or other resource use restrictions regarding the Affected Property.

32. Notice to Successors-in-Title.

a. Respondents shall, within 15 days of receiving a request to file a notice to successors-in-title, submit for EPA approval a notice to be filed regarding Respondents' Affected Property in the appropriate land records. The notice must: (1) include a proper legal description of the Affected Property; (2) provide notice to all successors-in-title that: (i) the Affected

Property is part of, or related to, the Site; (ii) EPA has selected a removal action for the Site; and (iii) potentially responsible parties have entered into an Administrative Settlement Agreement and Order on Consent requiring implementation of that removal action; and (3) identify the name, docket number, and effective date of this Settlement. Respondents shall record the notice within 10 days after EPA's approval of the notice and submit to EPA, within 10 days thereafter, a certified copy of the recorded notice.

b. Respondents shall, prior to entering into a contract to Transfer its Affected Property, or 60 days prior to Transferring its Affected Property, whichever is earlier:

(1) Notify the proposed transferee that EPA has selected a removal action regarding the Site, that potentially responsible parties have entered into an Administrative Settlement Agreement and Order on Consent requiring implementation of such removal action, (identifying the name, docket number, and the effective date of this Settlement); and

(2) Notify EPA of the name and address of the proposed transferee and provide EPA with a copy of the above notice that it provided to the proposed transferee.

33. Notwithstanding any provision of the Settlement, EPA retains all of its access authorities and rights, as well as all of its rights to require land, water, or other resource use restrictions, including enforcement authorities related thereto under CERCLA, RCRA, and any other applicable statute or regulations.

X. ACCESS TO INFORMATION

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

35. Privileged and Protected Claims.

a. Respondents may assert all or part of a Record requested by EPA is privileged or protected as provided under federal law, in lieu of providing the Record, provided Respondents comply with Paragraph 35.b, and except as provided in Paragraph 35.c.

b. If Respondents assert such a privilege or protection, they shall provide EPA with the following information regarding such Record: its title; its date; the name, title, affiliation (e.g., company or firm), and address of the author, of each addressee, and of each

recipient; a description of the Record's contents; and the privilege or protection asserted. If a claim of privilege or protection applies only to a portion of a Record, Respondents shall provide the Record to EPA in redacted form to mask the privileged or protected portion only. Respondents shall retain all Records that they claim to be privileged or protected until EPA has had a reasonable opportunity to dispute the privilege or protection claim and any such dispute has been resolved in Respondents' favor.

c. Respondents may make no claim of privilege or protection regarding: (1) any data regarding the Site, including, but not limited to, all sampling, analytical, monitoring, hydrogeologic, scientific, chemical, radiological, or engineering data, or the portion of any other Record that evidences conditions at or around the Site; or (2) the portion of any Record that Respondents are required to create or generate pursuant to this Settlement.

36. Business Confidential Claims. Respondents may assert that all or part of a Record provided to EPA under this Section or Section XI (Record Retention) is business confidential to the extent permitted by and in accordance with Section 104(e)(7) of CERCLA, 42 U.S.C. § 9604(e)(7), and 40 C.F.R. § 2.203(b). Respondents shall segregate and clearly identify all Records or parts thereof submitted under this Settlement for which Respondents assert business confidentiality claims. Records submitted to EPA determined to be confidential by EPA will be afforded the protection specified in 40 C.F.R. Part 2, Subpart B. If no claim of confidentiality accompanies Records when they are submitted to EPA, or if EPA has notified Respondents that the Records are not confidential under the standards of Section 104(e)(7) of CERCLA or 40 C.F.R. Part 2, Subpart B, the public may be given access to such Records without further notice to Respondents.

37. Notwithstanding any provision of this Settlement, EPA retains all of its information gathering and inspection authorities and rights, including enforcement actions related thereto, under CERCLA, RCRA, and any other applicable statutes or regulations.

XI. RECORD RETENTION

38. Until ten (10) years after EPA provides Respondents with notice, pursuant to Section XXVIII (Notice of Completion of Work), that all Work has been fully performed in accordance with this Settlement, Respondents shall preserve and retain all non-identical copies of Records (including Records in electronic form) now in their possession or control, or that come into their possession or control, that relate in any manner to their liability under CERCLA with regard to the Site, provided, however, that a Respondents who are potentially liable as owners or operators of the Site must retain, in addition, all Records that relate to the liability of any other person under CERCLA with respect to the Site. Respondents must also retain, and instruct its contractors and agents to preserve, for the same period of time specified above all non-identical copies of the last draft or final version of any Records (including Records in electronic form) now in their possession or control or that come into their possession or control that relate in any manner to the performance of the Work, provided, however, that each Respondents (and its contractors and agents) must retain, in addition, copies of all data generated during the performance of the Work and not contained in the aforementioned Records required to

be retained. Each of the above record retention requirements shall apply regardless of any corporate retention policy to the contrary.

39. At the conclusion of the document retention period, Respondents shall notify EPA at least 90 days prior to the destruction of any such Records, and, upon request by EPA, and except as provided in Paragraph 35 (Privileged and Protected Claims), Respondents shall deliver any such Records to EPA.

40. Each Respondent certifies individually that, to the best of its knowledge and belief, after thorough inquiry, it has not altered, mutilated, discarded, destroyed, or otherwise disposed of any Records (other than identical copies) relating to its potential liability regarding the Site since notification of potential liability by EPA or the State and that it has fully complied with any and all EPA and State requests for information regarding the Site pursuant to Sections 104(e) and 122(e) of CERCLA, 42 U.S.C. §§ 9604(e) and 9622(e), and Section 3007 of RCRA, 42 U.S.C. § 6927, and state law.

XII. COMPLIANCE WITH OTHER LAWS

41. Nothing in this Settlement limits Respondents' obligations to comply with the requirements of all applicable state and federal laws and regulations, except as provided in Section 121(e) of CERCLA, 42 U.S.C. § 6921(e), and 40 C.F.R. §§ 300.400(e) and 300.415(j). In accordance with 40 C.F.R. § 300.415(j), all on-site actions required pursuant to this Settlement shall, to the extent practicable, as determined by EPA, considering the exigencies of the situation, attain applicable or relevant and appropriate requirements (ARARs) under federal environmental or state environmental or facility siting laws.

42. No local, state, or federal permit shall be required for any portion of the Work conducted entirely on-site (i.e., within the areal extent of contamination or in very close proximity to the contamination and necessary for implementation of the Work), including studies, if the action is selected and carried out in compliance with Section 121 of CERCLA, 42 U.S.C. § 9621. Where any portion of the Work that is not on-site requires a federal or state permit or approval, Respondents shall submit timely and complete applications and take all other actions necessary to obtain and to comply with all such permits or approvals. Respondents may seek relief under the provisions of Section XVI (Force Majeure) for any delay in the performance of the Work resulting from a failure to obtain, or a delay in obtaining, any permit or approval required for the Work, provided that they have submitted timely and complete applications and taken all other actions necessary to obtain all such permits or approvals. This Settlement is not, and shall not be construed to be, a permit issued pursuant to any federal or state statute or regulation.

XIII. EMERGENCY RESPONSE AND NOTIFICATION OF RELEASES

43. Emergency Response. If any event occurs during performance of the Work that causes or threatens to cause a release of Waste Material on, at, or from the Site that either constitutes an emergency situation or that may present an immediate threat to public health or

welfare or the environment, Respondents shall immediately take all appropriate action to prevent, abate, or minimize such release or threat of release. Respondents shall take these actions in accordance with all applicable provisions of this Settlement, including, but not limited to, the Health and Safety Plan. Respondents shall also immediately notify the RPM/OSC or, in the event of his/her unavailability, the Regional Duty Officer at 1 (800) 424-4372 or 1(206) 553-4973 of the incident or Site conditions. In the event that Respondents fail to take appropriate response action as required by this Paragraph, and EPA takes such action instead, Respondents shall reimburse EPA all costs of the response action not inconsistent with the NCP pursuant to Section XIV (Payment of Response Costs).

44. Release Reporting. In addition, in the event of any release of a hazardous substance from the Site, Respondents shall immediately notify the RPM/OSC or, in the event of his/her unavailability, the Regional Duty Officer at 1 (800) 424-4372 or 1 (206) 553-4973, and the National Response Center at (800) 424-8802. Respondents shall submit a written report to EPA within 7 days after each release, setting forth the events that occurred and the measures taken or to be taken to mitigate any release or endangerment caused or threatened by the release and to prevent the reoccurrence of such a release. This reporting requirement is in addition to, and not in lieu of, reporting under Section 103(c) of CERCLA, 42 U.S.C. § 9603(c), and Section 304 of the Emergency Planning and Community Right-To-Know Act of 1986, 42 U.S.C. § 11004.

XIV. PAYMENT OF FUTURE RESPONSE COSTS

45. Payments for Future Response Costs. Respondents shall pay to EPA all Future Response Costs not inconsistent with the NCP.

a. On a periodic basis, EPA will send Respondents a bill requiring payment that includes a Superfund Cost Recovery Package Imaging and On-Line System (SCORPIOS) report, which includes direct and indirect costs incurred by EPA, its contractors, subcontractors, and the United States Department of Justice. Upon request by Respondents, EPA may provide work performed documentation (excluding any confidential business information or personal identifier information contained in such documentation). Respondents shall make all payments within 30 days after Respondents' receipt of each bill requiring payment except as otherwise provided in Paragraph 48 (Contesting Future Response Costs). EPA will, if requested by Respondents after their receipt of a Future Response Cost bill, provide Respondents with the work performed documentation supporting the bill to the extent that such information is not subject to a claim of privilege, confidential business information, or personal identifier information. In order to facilitate prompt payment, EPA will send its bills to:

Port of Seattle Environmental Finance Department
Attn: Terri Haider
P O Box 1209
Seattle, WA 98111-1209

With copies by email to:

Terri Haider, haider.t@portseattle.org

Roy Kuroiwa, kuroiwa.r@portseattle.org

b. Respondents shall make all payments required by this Paragraph to EPA by Fedwire Electronic Funds Transfer ("EFT") to:

Federal Reserve Bank of New York
ABA = 021030004
Account = 68010727
SWIFT address = FRNYUS33
33 Liberty Street
New York, NY 10045
Field Tag 4200 of the Fedwire message should read "D 68010727 Environmental Protection Agency"

and shall reference Site/Spill ID Number 10QG and the EPA docket number for this action.

46. Deposit of Future Response Costs Payments. The total amount to be paid by Respondents pursuant to Paragraph 45.a shall be deposited by EPA in the Lower Duwamish Waterway Superfund Site Special Account to be retained and used to conduct or finance response actions at or in connection with the Site, or to be transferred by EPA to the EPA Hazardous Substance Superfund, provided, however, that EPA may deposit a Future Response Costs payment directly into the EPA Hazardous Substance Superfund if, at the time the payment is received, EPA estimates that the Lower Duwamish Waterway Superfund Site Special Account balance is sufficient to address currently anticipated future response actions to be conducted or financed by EPA at or in connection with the Site. Any decision by EPA to deposit a Future Response Costs payment directly into the EPA Hazardous Substance Superfund for this reason shall not be subject to challenge by Respondents pursuant to the dispute resolution provisions of this Settlement or in any other forum.

47. Interest. In the event that any payment for Future Response Costs is not made by the date required, Respondents shall pay Interest on the unpaid balance. The Interest on Future Response Costs shall begin to accrue on the date of the bill. The Interest shall accrue through the date of Respondents' payment. Payments of Interest made under this Paragraph shall be in addition to such other remedies or sanctions available to the United States by virtue of Respondents' failure to make timely payments under this Section, including but not limited to, payment of stipulated penalties pursuant to Paragraph 59 (Stipulated Penalties - Work).

48. Contesting Future Response Costs. Respondents may submit a Notice of Dispute, initiating the procedures of Section XV (Dispute Resolution) regarding payment of any Future

Response Costs billed under Paragraph 45 if they determine that EPA has made a mathematical error or included a cost item that is not within the definition of Future Response Costs, or if they believe EPA incurred excess costs as a direct result of an EPA action that was inconsistent with a specific provision or provisions of the NCP. Such Notice of Dispute shall be submitted in writing within 30 days after receipt of the bill and must be sent to the RPM/OSC. Any such Notice of Dispute shall specifically identify the contested Future Response Costs and the basis for objection. If Respondents submit a Notice of Dispute, Respondents shall within the 30-day period pay all uncontested Future Response Costs to EPA in the manner described in Paragraph 45. Simultaneously, Respondents shall establish, in a duly chartered bank or trust company, an interest-bearing escrow account that is insured by the Federal Deposit Insurance Corporation (FDIC), and remit to that escrow account funds equivalent to the amount of the contested Future Response Costs. Respondents shall send to the RPM/OSC a copy of the transmittal letter and check paying the uncontested Future Response Costs, and a copy of the correspondence that establishes and funds the escrow account, including, but not limited to, information containing the identity of the bank and bank account under which the escrow account is established as well as a bank statement showing the initial balance of the escrow account. If EPA prevails in the dispute, within 5 days after the resolution of the dispute, Respondents shall pay the sums due (with accrued interest) to EPA in the manner described in Paragraph 45. If Respondents prevail concerning any aspect of the contested costs, Respondents shall pay that portion of the costs (plus associated accrued interest) for which they did not prevail to EPA in the manner described in Paragraph 45. Respondents shall be disbursed any balance of the escrow account. The dispute resolution procedures set forth in this Paragraph in conjunction with the procedures set forth in Section XV (Dispute Resolution) shall be the exclusive mechanisms for resolving disputes regarding Respondents' obligation to reimburse EPA for its Future Response Costs.

XV. DISPUTE RESOLUTION

49. Unless otherwise expressly provided for in this Settlement, the dispute resolution procedures of this Section shall be the exclusive mechanism for resolving disputes arising under this Settlement. The Parties shall attempt to resolve any disagreements concerning this Settlement expeditiously and informally.

50. Informal Dispute Resolution. If Respondents object to any EPA action taken pursuant to this Settlement, including billings for Future Response Costs, they shall send EPA a written Notice of Dispute describing the objection(s) within 7 days after such action. EPA and Respondents shall have 21 days from EPA's receipt of Respondents' Notice of Dispute to resolve the dispute through informal negotiations (the "Negotiation Period"). The Negotiation Period may be extended at the sole discretion of EPA. Any agreement reached by the Parties pursuant to this Section shall be in writing and shall, upon signature by the Parties, be incorporated into and become an enforceable part of this Settlement.

51. Formal Dispute Resolution. If the Parties are unable to reach an agreement within the Negotiation Period, Respondents shall, within 20 days after the end of the Negotiation Period, submit a statement of position to the OSC/RPM. EPA may, within 20 days thereafter,

submit a statement of position. Thereafter, the Director of the Region 10 Superfund and Emergency Management Division or designee will issue a written decision on the dispute to Respondents. EPA's decision shall be incorporated into and become an enforceable part of this Settlement. Following resolution of the dispute, as provided by this Section, Respondents shall fulfill the requirement that was the subject of the dispute in accordance with the agreement reached or with EPA's decision, whichever occurs.

52. Except as provided in Paragraph 48 (Contesting Future Response Costs) or as agreed by EPA, the invocation of formal dispute resolution procedures under this Section does not extend, postpone, or affect in any way any obligation of Respondents under this Settlement. Stipulated penalties with respect to the disputed matter shall continue to accrue but payment shall be stayed pending resolution of the dispute as provided in Paragraph 62. Notwithstanding the stay of payment, stipulated penalties shall accrue from the first day of noncompliance with any applicable provision of this Settlement except as provided in Paragraph 62. In the event that Respondents do not prevail on the disputed issue, stipulated penalties shall be assessed by EPA and shall be paid as provided in Section XVII (Stipulated Penalties).

XVI. FORCE MAJEURE

53. "Force Majeure" for purposes of this Settlement, is defined as any event arising from causes beyond the control of Respondents, of any entity controlled by Respondents, or of Respondents' contractors that delays or prevents the performance of any obligation under this Settlement despite Respondents' best efforts to fulfill the obligation. The requirement that Respondents exercise "best efforts to fulfill the obligation" includes using best efforts to anticipate any potential force majeure and best efforts to address the effects of any potential force majeure (a) as it is occurring and (b) following the potential force majeure such that the delay and any adverse effects of the delay are minimized to the greatest extent possible. "Force majeure" does not include financial inability to complete the Work, increased cost of performance, or a failure to attain an EPA approved performance standard.

54. If any event occurs or has occurred that may delay the performance of any obligation under this Settlement for which Respondents intend or may intend to assert a claim of force majeure, Respondents shall notify EPA's RPM/OSC orally or, in his or her absence, the alternate EPA RPM/OSC, or, in the event both of EPA's designated representatives are unavailable, the Director of the Superfund and Emergency Management Division, EPA Region 10, within 48 hours of when Respondents first knew that the event might cause a delay. Within 7 days thereafter, Respondents shall provide in writing to EPA an explanation and description of the reasons for the delay; the anticipated duration of the delay; all actions taken or to be taken to prevent or minimize the delay; a schedule for implementation of any measures to be taken to prevent or mitigate the delay or the effect of the delay; Respondents' rationale for attributing such delay to a force majeure; and a statement as to whether, in the opinion of Respondents, such event may cause or contribute to an endangerment to public health or welfare, or the environment. Respondents shall include with any notice all available documentation supporting their claim that the delay was attributable to a force majeure. Respondents shall be deemed to know of any circumstance of which Respondents, any entity controlled by Respondents, or

Respondents' contractors knew or should have known. Failure to comply with the above requirements regarding an event shall preclude Respondents from asserting any claim of force majeure regarding that event, provided, however, that if EPA, despite the late or incomplete notice, is able to assess to its satisfaction whether the event is a force majeure under Paragraph 53 and whether Respondents have exercised their best efforts under Paragraph 53, EPA may, in its unreviewable discretion, excuse in writing Respondents' failure to submit timely or complete notices under this Paragraph.

55. If EPA agrees that the delay or anticipated delay is attributable to a force majeure, the time for performance of the obligations under this Settlement that are affected by the force majeure will be extended by EPA for such time as is necessary to complete those obligations. An extension of the time for performance of the obligations affected by the force majeure shall not, of itself, extend the time for performance of any other obligation. If EPA does not agree that the delay or anticipated delay has been or will be caused by a force majeure, EPA will notify Respondents in writing of its decision. If EPA agrees that the delay is attributable to a force majeure, EPA will notify Respondents in writing of the length of the extension, if any, for performance of the obligations affected by the force majeure.

56. If Respondents elect to invoke the dispute resolution procedures set forth in Section XV (Dispute Resolution), they shall do so no later than 15 days after receipt of EPA's notice. In any such proceeding, Respondents shall have the burden of demonstrating by a preponderance of the evidence that the delay or anticipated delay has been or will be caused by a force majeure, that the duration of the delay or the extension sought was or will be warranted under the circumstances, that best efforts were exercised to avoid and mitigate the effects of the delay, and that Respondents complied with the requirements of Paragraphs 53 and 54. If Respondents carry this burden, the delay at issue shall be deemed not to be a violation by Respondents of the affected obligation of this Settlement identified to EPA.

57. The failure by EPA to timely complete any obligation under the Settlement is not a violation of the Settlement; provided, however, that if such failure prevents Respondents from meeting one or more deadlines under the Settlement, Respondents may seek relief under this Section.

XVII. STIPULATED PENALTIES

58. Respondents shall be liable to EPA for stipulated penalties in the amounts set forth in Paragraphs 59 and 60 for failure to comply with the requirements of this Settlement specified below, unless excused under Section XVI (Force Majeure). "Compliance" by Respondents shall include completion of all activities and obligations, including payments, required under this Settlement, or any deliverable approved under this Settlement, in accordance with all applicable requirements of law, this Settlement, the attached SOW, and any deliverables approved under this Settlement and within the specified time schedules established by and approved under this Settlement.

59. Stipulated Penalty Amounts - Work (Including Payments and Excluding Deliverables).

a. The following stipulated penalties shall accrue per violation per day for any noncompliance identified in Paragraph 59.b:

Penalty Per Violation Per Day	Period of Noncompliance
$750	1st through 14th day
$2,000	15th through 30th day
$4,000	31st day and beyond

b. Compliance Milestones. Establishment and maintenance of financial assurance in compliance with the timelines and other substantive and procedural requirements of Section XXV (Financial Assurance) within 30 days of the Effective Date, paying Future Response Costs on the date required by Section XIV (Payment of Future Response Costs), initiating field sampling on the date approved by EPA, completing a field sampling on the date approved by EPA, or submitting a field sampling report on the date approved by EPA.

60. Stipulated Penalty Amounts - Deliverables. The following stipulated penalties shall accrue per violation per day for failure to submit timely or adequate deliverables pursuant to this Settlement:

Penalty Per Violation Per Day	Period of Noncompliance
$750	1st through 14th day
$2,000	15th through 30th day
$4,000	31st day and beyond

61. In the event that EPA assumes performance of all or any portion(s) of the Work pursuant to Paragraph 72 (Work Takeover), Respondents shall be liable for a stipulated penalty in an amount selected by EPA that will not exceed 33%the cost of EPA's performance of the Work it performs. Stipulated penalties under this Paragraph are in addition to the remedies available to EPA under Paragraphs 72 (Work Takeover) and 94 (Access to Financial Assurance).

62. All penalties shall begin to accrue on the day after the complete performance is due or the day a violation occurs and shall continue to accrue through the final day of the correction of the noncompliance or completion of the activity. However, stipulated penalties shall not accrue: (a) with respect to a deficient submission under Paragraph 18 (Work Plan and Implementation), during the period, if any, beginning on the 31st day after EPA's receipt of such submission until the date that EPA notifies Respondents of any deficiency; and (b) with respect to a decision by the EPA Region 10, Superfund and Emergency Management Division Director or designee, under Paragraph 51 of Section XV (Dispute Resolution), during the period, if any, beginning the21st day after the Negotiation Period begins until the date that the EPA Superfund and Emergency Management Division Director or designee issues a final decision regarding such

dispute. Nothing in this Settlement shall prevent the simultaneous accrual of separate penalties for separate violations of this Settlement. Penalties shall continue to accrue during any dispute resolution period, and shall be paid within 15 days after the agreement or the receipt of EPA's decision or order.

63. Following EPA's determination that Respondents have failed to comply with a requirement of this Settlement, EPA may give Respondents written notification of the failure and describe the noncompliance. EPA may send Respondents a written demand for payment of the penalties. However, penalties shall accrue as provided in the preceding Paragraph regardless of whether EPA has notified Respondents of a violation.

64. All penalties accruing under this Section shall be due and payable to EPA within 30 days after Respondents' receipt from EPA of a demand for payment of the penalties, unless Respondents invoke the Dispute Resolution procedures under Section XV (Dispute Resolution) within the 30-day period. All payments to EPA under this Section shall indicate that the payment is for stipulated penalties and shall be made in accordance with Paragraph 45 (Payments for Future Response Costs).

65. If Respondents fail to pay stipulated penalties when due, Respondents shall pay Interest on the unpaid stipulated penalties as follows: (a) if Respondents have timely invoked dispute resolution such that the obligation to pay stipulated penalties has been stayed pending the outcome of dispute resolution, Interest shall accrue from the date stipulated penalties are due pursuant to Paragraph 62 until the date of payment; and (b) if Respondents failed to timely invoke dispute resolution, Interest shall accrue from the date of demand under Paragraph 64 until the date of payment. If Respondents fail to pay stipulated penalties and Interest when due, the United States may institute proceedings to collect the penalties and Interest.

66. The payment of penalties and Interest, if any, shall not alter in any way Respondents' obligation to complete the performance of the Work required under this Settlement.

67. Nothing in this Settlement shall be construed as prohibiting, altering, or in any way limiting the ability of EPA to seek any other remedies or sanctions available by virtue of Respondents' violation of this Settlement or of the statutes and regulations upon which it is based, including, but not limited to, penalties pursuant to Sections 106(b) and 122(*l*) of CERCLA, 42 U.S.C. §§ 9606(b) and 9622(*l*), and punitive damages pursuant to Section 107(c)(3) of CERCLA, 42 U.S.C. § 9607(c)(3), provided however, that EPA shall not seek civil penalties pursuant to Section 106(b) or Section 122(*l*) of CERCLA or punitive damages pursuant to Section 107(c)(3) of CERCLA for any violation for which a stipulated penalty is provided in this Settlement, except in the case of a willful violation of this Settlement or in the event that EPA assumes performance of a portion or all of the Work pursuant to Paragraph 72 (Work Takeover).

68. Notwithstanding any other provision of this Section, EPA may, in its unreviewable discretion, waive any portion of stipulated penalties that have accrued pursuant to this Settlement.

XVIII. COVENANTS BY EPA

69. Covenants for Respondents. Except as provided in Section XIX (Reservations of Rights by EPA), EPA covenants not to sue or to take administrative action against Respondents pursuant to Sections 106 and 107(a) of CERCLA, 42 U.S.C. §§ 9606 and 9607(a), for the Work and Future Response Costs. These covenants shall take effect upon the Effective Date. These covenants are conditioned upon the complete and satisfactory performance by Respondents of their obligations under this Settlement. These covenants extend only to Respondents and do not extend to any other person.

XIX. RESERVATIONS OF RIGHTS BY EPA

70. Except as specifically provided in this Settlement, nothing in this Settlement shall limit the power and authority of EPA or the United States to take, direct, or order all actions necessary to protect public health, welfare, or the environment or to prevent, abate, or minimize an actual or threatened release of hazardous substances, pollutants, or contaminants, or hazardous or solid waste on, at, or from the Site. Further, nothing in this Settlement shall prevent EPA from seeking legal or equitable relief to enforce the terms of this Settlement, from taking other legal or equitable action as it deems appropriate and necessary, or from requiring Respondents in the future to perform additional activities pursuant to CERCLA or any other applicable law.

71. The covenants set forth in Section XVIII (Covenants by EPA) do not pertain to any matters other than those expressly identified therein. EPA reserves, and this Settlement is without prejudice to, all rights against Respondents with respect to all other matters, including, but not limited to:

a. liability for failure by Respondents to meet a requirement of this Settlement;

b. liability for costs not included within the definition Future Response Costs;

c. liability for performance of response action other than the Work;

d. criminal liability;

e. liability for violations of federal or state law that occur during or after implementation of the Work;

f. liability for damages for injury to, destruction of, or loss of natural resources, and for the costs of any natural resource damage assessments;

g. liability arising from the past, present, or future disposal, release or threat of release of Waste Materials outside of the Site; and

h. liability for costs incurred or to be incurred by the Agency for Toxic Substances and Disease Registry related to the Site not paid as Future Response Costs under this Settlement.

72. Work Takeover.

a. In the event EPA determines that Respondents: (1) have ceased implementation of any portion of the Work; (2) are seriously or repeatedly deficient or late in their performance of the Work; or (3) are implementing the Work in a manner that may cause an endangerment to human health or the environment, EPA may issue a written notice ("Work Takeover Notice") to Respondents. Any Work Takeover Notice issued by EPA (which writing may be electronic) will specify the grounds upon which such notice was issued and will provide Respondents a period of 3 days within which to remedy the circumstances giving rise to EPA's issuance of such notice.

b. If, after expiration of the 3-day notice period specified in Paragraph 72.a, Respondents has not remedied to EPA's satisfaction the circumstances giving rise to EPA's issuance of the relevant Work Takeover Notice, EPA may at any time thereafter assume the performance of all or any portion(s) of the Work as EPA deems necessary ("Work Takeover"). EPA will notify Respondents in writing (which writing may be electronic) if EPA determines that implementation of a Work Takeover is warranted under this Paragraph 72.b. Funding of Work Takeover costs is addressed under Paragraph 94 (Access to Financial Assurance).

c. Respondents may invoke the procedures set forth in Paragraph 51 (Formal Dispute Resolution) to dispute EPA's implementation of a Work Takeover under Paragraph 72.b. However, notwithstanding Respondents' invocation of such dispute resolution procedures, and during the pendency of any such dispute, EPA may in its sole discretion commence and continue a Work Takeover under Paragraph 72.b until the earlier of (1) the date that Respondents remedy, to EPA's satisfaction, the circumstances giving rise to EPA's issuance of the relevant Work Takeover Notice, or (2) the date that a written decision terminating such Work Takeover is rendered in accordance with Paragraph 51 (Formal Dispute Resolution).

d. Notwithstanding any other provision of this Settlement, EPA retains all authority and reserves all rights to take any and all response actions authorized by law.

XX. COVENANTS BY RESPONDENT

73. Except as provided in Paragraph 77 below, Respondents covenant not to sue and agree not to assert any claims or causes of action against the United States, or its contractors or

employees, with respect to the Work, Future Response Costs, and this Settlement, including, but not limited to:

a. any direct or indirect claim for reimbursement from the EPA Hazardous Substance Superfund through Sections 106(b)(2), 107, 111, 112, or 113 of CERCLA, 42 U.S.C. §§ 9606(b)(2), 9607, 9611, 9612, or 9613, or any other provision of law;

b. any claims under Sections 107 and 113 of CERCLA, Section 7002(a) of RCRA, 42 U.S.C. § 6972(a), or state law regarding the Work, Future Response Costs, and this Settlement;

c. any claim arising out of response actions at or in connection with the Site, including any claim under the United States Constitution, the State Constitution, the Tucker Act, 28 U.S.C. § 1491, the Equal Access to Justice Act, 28 U.S.C. § 2412, or at common law.

74. Except as provided in Paragraph 78 (Waiver of Claims by Respondents), these covenants not to sue shall not apply in the event the United States brings a cause of action or issues an order pursuant to any of the reservations set forth in Section XIX (Reservations of Rights by EPA), other than in Paragraph 74.a (liability for failure to meet a requirement of the Settlement), 71.d (criminal liability), or 71.e (violations of federal/state law during or after implementation of the Work), but only to the extent that Respondents' claims arise from the same response action, response costs, or damages that the United States is seeking pursuant to the applicable reservation.

75. Nothing in this Settlement shall be deemed to constitute approval or preauthorization of a claim within the meaning of Section 111 of CERCLA, 42 U.S.C. § 9611, or 40 C.F.R. § 300.700(d).

76. Respondents reserve, and this Settlement is without prejudice to, claims against the United States, subject to the provisions of Chapter 171 of Title 28 of the United States Code, and brought pursuant to any statute other than CERCLA or RCRA and for which the waiver of sovereign immunity is found in a statute other than CERCLA or RCRA, for money damages for injury or loss of property or personal injury or death caused by the negligent or wrongful act or omission of any employee of the United States, as that term is defined in 28 U.S.C. § 2671, while acting within the scope of his or her office or employment under circumstances where the United States, if a private person, would be liable to the claimant in accordance with the law of the place where the act or omission occurred. However, the foregoing shall not include any claim based on EPA's selection of response actions, or the oversight or approval of Respondents' deliverables or activities.

77. Notwithstanding any other provision of this Settlement, this Settlement Agreement shall not have any effect on claims or causes of action that any Respondent has or may have pursuant to Section 113(f) of CERCLA, 42 U.S.C. § 9613(f), against the United States on behalf of the United States General Services Administration, and the United States Department of Defense, including but not limited to the United States Army (including the

United States Army Corps of Engineers), the United States Navy, and the United States Air Force, based upon the United States' status as a potentially responsible party pursuant to Section 107(a) of CERCLA, 42 U.S.C. § 9607(a), relating to the Work, Future Response Costs, and this Settlement.

78. Waiver of Claims by Respondents.

a. Respondents agree not to assert any claims and to waive all claims or causes of action (including but not limited to claims or causes of action under Sections 107(a) and 113 of CERCLA) that they may have:

(1) De Micromis Waiver. For all matters relating to the Site against any person where the person's liability to Respondents with respect to the Site is based solely on having arranged for disposal or treatment, or for transport for disposal or treatment, of hazardous substances at the Site, or having accepted for transport for disposal or treatment of hazardous substances at the Site, if all or part of the disposal, treatment, or transport occurred before April 1, 2001, and the total amount of material containing hazardous substances contributed by such person to the Site was less than 110 gallons of liquid materials or 200 pounds of solid materials.

(2) *De Minimis*/Ability to Pay Waiver. For response costs relating to the Site against any person that has entered or in the future enters into a final Section 122(g) *de minimis* settlement, or a final settlement based on limited ability to pay with EPA with respect to the Site.

b. Exceptions to Waivers.

(1) The waivers under this Paragraph 78 shall not apply with respect to any defense, claim, or cause of action that a Respondents may have against any person otherwise covered by such waivers if such person asserts a claim or cause of action relating to the Site against such Respondents.

(2) The waiver under Paragraph 78.a(1) (De Micromis Waiver) shall not apply to any claim or cause of action against any person otherwise covered by such waiver if EPA determines that: (i) the materials containing hazardous substances contributed to the Site by such person contributed significantly or could contribute significantly, either individually or in the aggregate, to the cost of the response action or natural resource restoration at the Site; or (ii) such person has failed to comply with any information request or administrative subpoena issued pursuant to Sections 104(e) or 122(e) of CERCLA, 42 U.S.C. §§ 9604(e) or 9622(e), or Section 3007 of RCRA, 42 U.S.C. § 6927, or has impeded or is impeding, through action or inaction, the performance of a response action or natural resource restoration with respect to the Site; or if (iii) such person has been convicted of a criminal violation for the conduct to which the waiver would apply and that conviction has not been vitiated on appeal or otherwise.

XXI. OTHER CLAIMS

79. By issuance of this Settlement, the United States and EPA assume no liability for injuries or damages to persons or property resulting from any acts or omissions of Respondents. The United States or EPA shall not be deemed a party to any contract entered into by Respondents or their directors, officers, employees, agents, successors, representatives, assigns, contractors, or consultants in carrying out actions pursuant to this Settlement.

80. Except as expressly provided in Paragraphs 78 (Waiver of Claims by Respondents) and Section XVIII (Covenants by EPA), nothing in this Settlement constitutes a satisfaction of or release from any claim or cause of action against Respondents or any person not a party to this Settlement, for any liability such person may have under CERCLA, other statutes, or common law, including but not limited to any claims of the United States for costs, damages, and interest under Sections 106 and 107 of CERCLA, 42 U.S.C. §§ 9606 and 9607.

81. No action or decision by EPA pursuant to this Settlement shall give rise to any right to judicial review, except as set forth in Section 113(h) of CERCLA, 42 U.S.C. § 9613(h).

XXII. EFFECT OF SETTLEMENT/CONTRIBUTION

82. Except as provided in Paragraphs 78 (Waiver of Claims by Respondents), nothing in this Settlement shall be construed to create any rights in, or grant any cause of action to, any person not a Party to this Settlement. Except as provided in Section XX (Covenants by Respondents), each of the Parties expressly reserves any and all rights (including, but not limited to, Section 113 of CERCLA, 42 U.S.C. § 9613), defenses, claims, demands, and causes of action which each Party may have with respect to any matter, transaction, or occurrence relating in any way to the Site against any person not a Party hereto. Nothing in this Settlement diminishes the right of the United States, pursuant to Section 113(f)(2) and (3) of CERCLA, 42 U.S.C. § 9613(f)(2)-(3), to pursue any such persons to obtain additional response costs or response action and to enter into settlements that give rise to contribution protection pursuant to Section 113(f)(2).

83. The Parties agree that this Settlement constitutes an administrative settlement pursuant to which Respondents have, as of the Effective Date, resolved liability to the United States within the meaning of Sections 113(f)(2) and 122(h)(4) of CERCLA, 42 U.S.C. §§ 9613(f)(2) and 9622(h)(4), and is entitled, as of the Effective Date, to protection from contribution actions or claims as provided by Sections 113(f)(2) and 122(h)(4) of CERCLA, or as may be otherwise provided by law, for the "matters addressed" in this Settlement. The "matters addressed" in this Settlement are the Work, Future Response Costs, and Respondents' Response Costs.

84. Respondents shall, with respect to any suit or claim brought by it for matters related to this Settlement, notify EPA in writing no later than 60 days prior to the initiation of

such suit or claim. Respondents also shall, with respect to any suit or claim brought against it for matters related to this Settlement, notify EPA in writing within 10 days after service of the complaint or claim upon it. In addition, Respondents shall notify EPA within 10 days after service or receipt of any Motion for Summary Judgment and within 10 days after receipt of any order from a court setting a case for trial, for matters related to this Settlement.

85. In any subsequent administrative or judicial proceeding initiated by EPA, or by the United States on behalf of EPA, for injunctive relief, recovery of response costs, or other relief relating to the Site, Respondents shall not assert, and may not maintain, any defense or claim based upon the principles of waiver, res judicata, collateral estoppel, issue preclusion, claim-splitting, or other defenses based upon any contention that the claims raised in the subsequent proceeding were or should have been brought in the instant case; provided, however, that nothing in this Paragraph affects the enforceability of the covenant by EPA set forth in Section XVIII (Covenants by EPA).

XXIII. INDEMNIFICATION

86. The United States does not assume any liability by entering into this Settlement or by virtue of any designation of Respondents as EPA's authorized representatives under Section 104(e) of CERCLA, 42 U.S.C. § 9604(e), and 40 C.F.R. 300.400(d)(3). To the extent permitted by law, Respondents shall indemnify, save, and hold harmless the United States, its officials, agents, employees, contractors, subcontractors, and representatives for or from any and all claims or causes of action arising from, or on account of, negligent or other wrongful acts or omissions of Respondents, their officers, directors, employees, agents, contractors, or subcontractors, and any persons acting on Respondents' behalf or under their control, in carrying out activities pursuant to this Settlement. Further, Respondents agree to pay the United States all costs it incurs, including but not limited to attorneys' fees and other expenses of litigation and settlement arising from, or on account of, claims made against the United States based on negligent or other wrongful acts or omissions of Respondents, their officers, directors, employees, agents, contractors, subcontractors, and any persons acting on their behalf or under their control, in carrying out activities pursuant to this Settlement. The United States shall not be held out as a party to any contract entered into by or on behalf of Respondents in carrying out activities pursuant to this Settlement. Neither Respondents nor any such contractor shall be considered an agent of the United States.

87. The United States shall give Respondents notice of any claim for which the United States plans to seek indemnification pursuant to this Section and shall consult with Respondents prior to settling such claim.

88. Respondents covenant not to sue and agree not to assert any claims or causes of action against the United States for damages or reimbursement or for set-off of any payments made or to be made to the United States, arising from or on account of any contract, agreement, or arrangement between any one or more of Respondents and any person for performance of Work on or relating to the Site, including, but not limited to, claims on account of construction delays. In addition, Respondents shall indemnify and hold harmless the United States with

respect to any and all claims for damages or reimbursement arising from or on account of any contract, agreement, or arrangement between any one or more of Respondents and any person for performance of Work on or relating to the Site, including, but not limited to, claims on account of construction delays.

XXIV. INSURANCE

89. No later than 30 days before commencing any on-site Work, Respondents shall secure, and shall maintain until the first anniversary after issuance of Notice of Completion of Work pursuant to Section XXVIII (Notice of Completion of Work), commercial general liability insurance with limits of $5 million, for any one occurrence, and automobile insurance with limits of $2 million, combined single limit, naming EPA as an additional insured with respect to all liability arising out of the activities performed by or on behalf of Respondents pursuant to this Settlement. In addition, for the duration of the Settlement, Respondents shall provide EPA with certificates of such insurance and a copy of each insurance policy. Respondents shall resubmit such certificates and copies of policies each year on the anniversary of the Effective Date. In addition, for the duration of the Settlement, Respondents shall satisfy, or shall ensure that its contractors or subcontractors satisfy, all applicable laws and regulations regarding the provision of worker's compensation insurance for all persons performing the Work on behalf of Respondents in furtherance of this Settlement. If Respondents demonstrate by evidence satisfactory to EPA that any contractor or subcontractor maintains insurance equivalent to that described above, or insurance covering some or all of the same risks but in an lesser amount, Respondents need provide only that portion of the insurance described above that is not maintained by the contractor or subcontractor.

XXV. FINANCIAL ASSURANCE

90. In order to ensure completion of the Work, Respondents shall secure financial assurance, initially in the amount of $1,000,000 ("Estimated Cost of the Work"), for the benefit of EPA. The financial assurance must be one or more of the mechanisms listed below, in a form substantially identical to the relevant sample documents available from the "Financial Assurance" category on the Cleanup Enforcement Model Language and Sample Documents Database at http://cfpub.epa.gov/compliance/models/, and satisfactory to EPA. Respondents may use multiple mechanisms if they are limited to surety bonds guaranteeing payment, letters of credit, trust funds, and/or insurance policies.

a. A surety bond guaranteeing payment and/or performance of the Work that is issued by a surety company among those listed as acceptable sureties on federal bonds as set forth in Circular 570 of the U.S. Department of the Treasury;

b. An irrevocable letter of credit, payable to or at the direction of EPA, that is issued by an entity that has the authority to issue letters of credit and whose letter-of-credit operations are regulated and examined by a federal or state agency;

c. A trust fund established for the benefit of EPA that is administered by a trustee that has the authority to act as a trustee and whose trust operations are regulated and examined by a federal or state agency;

d. A policy of insurance that provides EPA with acceptable rights as a beneficiary thereof and that is issued by an insurance carrier that has the authority to issue insurance policies in the applicable jurisdiction(s) and whose insurance operations are regulated and examined by a federal or state agency;

e. A demonstration by Respondents that Respondents meet the relevant financial test criteria of 40 C.F.R. § 264.143(f) and reporting requirements of this Section for the sum of the Estimated Cost of the Work and the amounts, if any, of other federal, state, or tribal environmental obligations financially assured through the use of a financial test or guarantee; or

f. A guarantee to fund or perform the Work executed in favor of EPA by one of the following: (1) a direct or indirect parent company of a Respondent; or (2) a company that has a "substantial business relationship" (as defined in 40 C.F.R. § 264.141(h)) with a Respondent; provided, however, that any company providing such a guarantee must demonstrate to EPA's satisfaction that it meets the relevant financial test criteria of 40 C.F.R. § 264.143(f) and reporting requirements of this Section for the sum of the Estimated Cost of the Work and the amounts, if any, of other federal, state, or tribal environmental obligations financially assured through the use of a financial test or guarantee.

91. Within 30 days of the Effective Date, Respondents shall submit to EPA a draft of the form and substance of Respondents' financial assurance. Respondents shall secure all executed and/or otherwise finalized mechanisms or other documents consistent with the EPA-approved form of financial assurance and shall submit such mechanisms and documents to the EPA RPM/OSC at the address specified in Paragraph 15 with a copy to Ted Yackulic, EPA Assistant Regional Counsel at EPA Region 10, Office of Regional Counsel, 1200 Sixth Avenue, Suite 900 (ORC-113), Seattle, WA 98103. Respondents shall submit the executed and/or otherwise finalized mechanisms or other documents consistent with the EPA-approved form of financial assurance by June 30, 2020.

92. If Respondents provide financial assurance by means of a demonstration or guarantee under Paragraph 90.e or 90.f, the affected Respondents shall also comply and shall ensure that their guarantors comply with the other relevant criteria and requirements of 40 C.F.R. § 264.143(f) and this Section, including, but not limited to: (a) the initial submission to EPA of required documents from the affected entity's chief financial officer and independent certified public accountant no later than June 30, 2020; (b) the annual resubmission of such documents by June 30 of each year; and (c) the notification of EPA no later than 30 days, in accordance with Paragraph 937, after any such entity determines that it no longer satisfies the relevant financial test criteria and requirements set forth at 40 C.F.R. § 264.143(f)(1). Respondents agree that EPA may also, based on a belief that an affected entity may no longer meet the financial test requirements of Paragraph 90.e or 90.f, require reports of financial condition at any time from such entity in addition to those specified in this Paragraph. For purposes of this Section,

references in 40 C.F.R. Part 264, Subpart H, to: (1) the terms "current closure cost estimate," "current post-closure cost estimate," and "current plugging and abandonment cost estimate" include the Estimated Cost of the Work; (2) the phrase "the sum of the current closure and post-closure cost estimates and the current plugging and abandonment cost estimates" includes the sum of all environmental obligations (including obligations under CERCLA, RCRA, and any other federal, state, or tribal environmental obligation) guaranteed by such company or for which such company is otherwise financially obligated in addition to the Estimated Cost of the Work under this Settlement; (3) the terms "owner" and "operator" include Respondents making a demonstration or obtaining a guarantee under Paragraph 90.e or 90.f; and (4) the terms "facility" and "hazardous waste management facility" include the Site.

93. Respondents shall diligently monitor the adequacy of the financial assurance. If Respondents become aware of any information indicating that the financial assurance provided under this Section is inadequate or otherwise no longer satisfies the requirements of this Section, such Respondents shall notify EPA of such information within 7 days. If EPA determines that the financial assurance provided under this Section is inadequate or otherwise no longer satisfies the requirements of this Section, EPA will notify the affected Respondents of such determination. Respondents shall, within 30 days after notifying EPA or receiving notice from EPA under this Paragraph, secure and submit to EPA for approval a proposal for a revised or alternative financial assurance mechanism that satisfies the requirements of this Section. EPA may extend this deadline for such time as is reasonably necessary for the affected Respondent, in the exercise of due diligence, to secure and submit to EPA a proposal for a revised or alternative financial assurance mechanism, not to exceed 60 days. Respondents shall follow the procedures of Paragraph 95 (Modification of Amount, Form, or Terms of Financial Assurance) in seeking approval of, and submitting documentation for, the revised or alternative financial assurance mechanism. Respondents' inability to secure and submit to EPA financial assurance in accordance with this Section shall in no way excuse performance of any other requirements of this Settlement, including, without limitation, the obligation of Respondents to complete the Work in accordance with the terms of this Settlement.

94. Access to Financial Assurance.

a. If EPA issues a notice of implementation of a Work Takeover under Paragraph 72.b, then, in accordance with any applicable financial assurance mechanism, EPA is entitled to: (1) the performance of the Work; and/or (2) require that any funds guaranteed be paid in accordance with Paragraph 94.d.

b. If EPA is notified by the issuer of a financial assurance mechanism that it intends to cancel such mechanism, and Respondents fail to provide an alternative financial assurance mechanism in accordance with this Section at least 30 days prior to the cancellation date, the funds guaranteed under such mechanism must be paid prior to cancellation in accordance with Paragraph 94.d.

c. If, upon issuance of a notice of implementation of a Work Takeover under Paragraph 72, either: (1) EPA is unable for any reason to promptly secure the resources

guaranteed under any applicable financial assurance mechanism, whether in cash or in kind, to continue and complete the Work; or (2) the financial assurance is provided under Paragraph 90.e or 90.f, then EPA may demand an amount, as determined by EPA, sufficient to cover the cost of the remaining Work to be performed. Respondents shall, within 30 days of such demand, pay the amount demanded as directed by EPA.

d. Any amounts required to be paid under this Paragraph 94 shall be, as directed by EPA: (i) paid to EPA in order to facilitate the completion of the Work by EPA or by another person; or (ii) deposited into an interest-bearing account, established at a duly chartered bank or trust company that is insured by the FDIC, in order to facilitate the completion of the Work by another person. If payment is made to EPA, EPA may deposit the payment into the EPA Hazardous Substance Superfund or into the Lower Duwamish Waterway Superfund Site Special Account within the EPA Hazardous Substance Superfund to be retained and used to conduct or finance response actions at or in connection with the Site, or to be transferred by EPA to the EPA Hazardous Substance Superfund.

e. All EPA Work Takeover costs not paid under this Paragraph 94 must be reimbursed as Future Response Costs under Section XIV (Payments for Response Costs).

95. Modification of Amount, Form, or Terms of Financial Assurance. Respondents may submit, on any anniversary of the Effective Date or at any other time agreed to by the Parties, a request to reduce the amount, or change the form or terms, of the financial assurance mechanism. Any such request must be submitted to EPA in accordance with Paragraph 90, and must include an estimate of the cost of the remaining Work, an explanation of the bases for the cost calculation, and a description of the proposed changes, if any, to the form or terms of the financial assurance. EPA will notify Respondents of their decision to accept or reject a requested reduction or change pursuant to this Paragraph. Respondents may reduce the amount of the financial assurance mechanism only in accordance with: (a) EPA's approval; or (b) if there is a dispute, the agreement or written decision resolving such dispute under Section XV (Dispute Resolution). Any decision made by EPA on a request submitted under this Paragraph to change the form or terms of a financial assurance mechanism shall be made in EPA's sole and unreviewable discretion, and such decision shall not be subject to challenge by Respondents pursuant to the dispute resolution provisions of this Settlement or in any other forum. Within 30 days after receipt of EPA's approval of, or the agreement or decision resolving a dispute relating to, the requested modifications pursuant to this Paragraph, Respondents shall submit to EPA documentation of the reduced, revised, or alternative financial assurance mechanism in accordance with Paragraph 90.

96. Release, Cancellation, or Discontinuation of Financial Assurance. Respondents may release, cancel, or discontinue any financial assurance provided under this Section only: (a) if EPA issues a Notice of Completion of Work under Section XXVIII (Notice of Completion of Work); (b) in accordance with EPA's approval of such release, cancellation, or discontinuation; or (c) if there is a dispute regarding the release, cancellation or discontinuance of any financial assurance, in accordance with the agreement, final administrative decision, or final judicial decision resolving such dispute under to Section XV (Dispute Resolution).

XXVI. MODIFICATION

97. Subject to Paragraph 100, the RPM/OSC may modify any plan or schedule or SOW in writing or by oral direction. Any oral modification will be memorialized in writing by EPA promptly, but shall have as its effective date the date of the RPM/OSC's oral direction. Any other requirements of this Settlement may be modified in writing by mutual agreement of the Parties.

98. If Respondents seek permission to deviate from any approved work plan or schedule or the SOW, Respondents' Project Coordinator shall submit a written request to EPA for approval outlining the proposed modification and its basis. Respondents may not proceed with the requested deviation until receiving oral or written approval from the RPM/OSC pursuant to Paragraph 971.

99. No informal advice, guidance, suggestion, or comment by the RPM/OSC or other EPA representatives regarding any deliverable submitted by Respondents shall relieve Respondents of their obligation to obtain any formal approval required by this Settlement, or to comply with all requirements of this Settlement, unless it is formally modified.

XXVII. ADDITIONAL REMOVAL ACTION

100. Respondents or EPA may propose a modification to this Settlement or the SOW to provide for additional required actions, potentially including a Non-Time-Critical Removal Action or other removal action addressing hazardous substances at the facility. Such a modification to this Settlement or its SOW shall be based on mutual agreement of the Parties in written form. Upon signature of the Respondents and EPA, the agreed-upon modifications shall be incorporated into and become an enforceable part of this Settlement. Any additional removal actions undertaken under this Settlement shall conform to the applicable requirements of Section VIII (Work to Be Performed) of this Settlement and all related plans shall be subject to EPA's approval of the plan pursuant to Paragraph 18 (Work Plan and Implementation), and Respondents shall implement the plan(s) for additional removal actions in accordance with the provisions and schedule as approved by EPA. This Section does not alter or diminish the RPM/OSC's authority to make oral modifications to any plan or schedule pursuant to Section XXVI (Modification). This section does not alter of diminish Respondents' obligation to perform response actions pursuant to Section XIII (Emergency Response and Notification of Releases) of this Settlement.

XXVIII. NOTICE OF COMPLETION OF WORK

101. When EPA determines, after EPA's review of the Final Report, that all Work has been fully performed in accordance with this Settlement, with the exception of any continuing obligations required by this Settlement, including Post-Removal Site Controls; land, water, or other use restrictions; payment of Future Response Costs, or record retention, EPA will provide written notice to Respondents. If EPA determines that such Work has not been completed in accordance with this Settlement, EPA will notify Respondents, provide a list of the deficiencies,

and require that Respondents modify the Removal Work Plan if appropriate in order to correct such deficiencies. Respondents shall implement the modified and approved Removal Work Plan and shall submit a modified Final Report in accordance with the EPA notice. Failure by Respondents to implement the approved modified Removal Work Plan shall be a violation of this Settlement.

XXIX. INTEGRATION/APPENDICES

102. This Settlement and its appendices constitute the final, complete, and exclusive agreement and understanding among the Parties with respect to the settlement embodied in this Settlement. The Parties acknowledge that there are no representations, agreements, or understandings relating to the settlement other than those expressly contained in this Settlement. The following appendices are attached to and incorporated into this Settlement:

"Appendix A" is the description and/or map of the Site.

"Appendix B" is the SOW.

XXX. EFFECTIVE DATE

103. This Settlement shall be effective on the date the Settlement is signed by the Regional Administrator or his/her delegatee.

IT IS SO AGREED AND ORDERED:

U.S. ENVIRONMENTAL PROTECTION AGENCY:

_____ _____

Dated

Calvin J. Terada
Director
Superfund and Emergency Management Division
Region 10, US EPA

Signature Page for Settlement Regarding Terminal 108, Lower Duwamish Waterway Superfund Site, Seattle WA.

FOR PORT OF SEATTLE:

_____	_____
Dated	Stephen P. Metruck Executive Director

Signature Page for Settlement Regarding Terminal 108, Lower Duwamish Waterway Superfund Site, Seattle WA.

FORCITY OF SEATTLE:

_____ _____

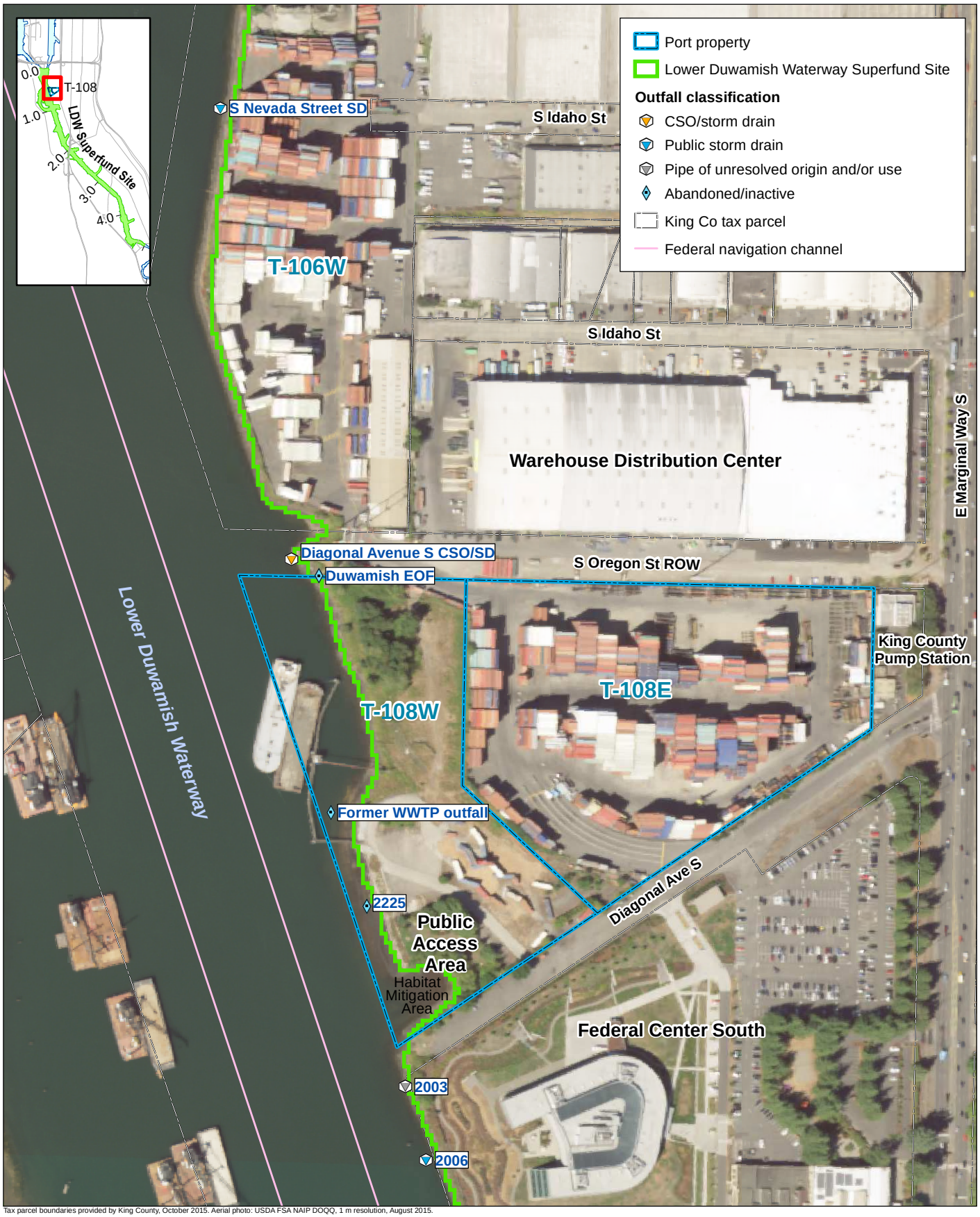
Dated

Mami Hara
General Manager, Seattle Public Utilities

Signature Page for Settlement Regarding Terminal 108, Lower Duwamish Waterway Superfund Site, Seattle WA.

FOR KING COUNTY:

_____	_____	
Dated	Title	Christie True, Director Department of Natural Resources and Parks



Tax parcel boundaries provided by King County, October 2015. Aerial photo: USDA FSA NAIP DOQQ, 1 m resolution, August 2015.

Windward environmental LLC

N

0 50 100 Yards

0 50 100 Meters

Appendix A. Terminal 108

Prepared by craigh, 3/8/2018; W:\Projects\Duwamish Allocation\Data\GIS\Maps and Analyses\Allocation support\6038 T-108.mxd

APPENDIX B STATEMENT OF WORK

Terminal 108
Lower Duwamish Waterway Superfund Site
Seattle, Washington

ADMINISTRATIVE SETTLEMENT AGREEMENT AND ORDER ON CONSENT FOR REMOVAL ACTION
ENGINEERING EVALUATION AND COST ANALYSIS

I. PURPOSE

This Statement of Work (SOW) is Appendix B to the Administrative Settlement Agreement and Order on Consent (ASAOC or Settlement Agreement) for the Terminal-108 Site (T-108 Site or the Site), which is within the Lower Duwamish Waterway (LDW) Superfund Site, EPA Docket No. CERCLA-10-2011-0089. The SOW sets forth an outline of the requirements for the Removal Action Engineering Evaluation and Cost Analysis (EE/CA).

In accordance with a previous ASAOC for Removal Action (U.S. EPA Docket No. 10-2018-0218) that the Port of Seattle (Port) signed with the United States Environmental Protection Agency (EPA) on April 5, 2018, the Port submitted a Final Preliminary Assessment Report on February 5, 2019. The report contains a comprehensive site history, an evaluation of site activities that may have resulted in releases at or from the Site, an evaluation of all existing environmental data for the Site, and identification of data gaps related to the Site history and current conditions. It also provides a summary of contaminants of potential concern (COPCs) and a discussion of the potential contaminant sources and migration and exposure pathways.

This SOW sets forth the tasks necessary to complete the EE/CA for this Site pursuant to this Settlement Agreement. The primary objectives of the EE/CA are as follows:

- Evaluate the adequacy of previously screened data, identify data gaps, and develop a sampling plan and groundwater monitoring plan for any data gaps that need to be filled to characterize the Site
- Present a conceptual site model (CSM) that determines complete and incomplete contaminant migration pathways and exposure pathways and evaluates receptors and exposure scenarios
- Evaluate the potential human health and ecological risks posed by the Site COPCs for all complete pathways and receptors through a streamlined risk evaluation
- Evaluate the need for a removal action
- Propose boundaries for any needed removal action, if appropriate
- Identify removal action objectives and evaluate removal action alternatives for the Site, if appropriate. The removal action objectives need to include addressing:
    - direct contact exposure,
    - control of contaminant sources from T-108 to the LDW, which includes prevention of recontamination of LDW sediments; and,
    - evaluation of potential recontamination of T-108 from the Adjacent Sites and vice versa. Adjacent sites include the former Washington State Liquor Control Board facility, the U.S. General Services Administration Federal Center South, and adjacent rights-of-way.

II. WORK TO BE PERFORMED BY RESPONDENTS

General Requirements:

Respondents shall conduct the EE/CA in accordance with and subject to the terms of the Settlement Agreement and consistent with the removal action requirements at 40 CFR 300.415, EPA's Guidance on Conducting Non-Time Critical Removal Actions Under CERCLA (EPA 1993), and other published EPA policy and guidance for conducting removal actions.

A list of the major deliverables and a schedule for their submittal is attached (Attachment 1). Consistent with the Settlement Agreement, all deliverables required by the Settlement Agreement or this SOW shall be subject to EPA review and approval. Respondents shall complete the following four tasks:

1) EE/CA Work Plan

    a) Quality Assurance Project Plan

    b) Health and Safety Plan

    c) Groundwater Monitoring Plan

2) Work Plan Implementation

3) EE/CA

4) Community Involvement Activities

SOW Tasks

Task 1. EE/CA Work Plan

Respondents shall submit a Draft and Final EE/CA Work Plan and its appendices, unless otherwise approved by EPA.

The EE/CA Work Plan shall include a conceptual site model (CSM) and data gaps analysis. The data gaps analysis shall include, but not be limited to, data gaps related to: the sufficiency of the existing data to characterize contamination sources; identification of extent of contamination and migration pathways to the Upland, Bank, LDW Sediments, or Adjacent Sites; identification of exposure pathways and risk; and evaluation of the need for a removal action and, if warranted, removal action alternatives. The EE/CA Work Plan shall include a plan for additional data collection based on the data gaps analysis. The Work Plan shall provide a summary of existing data from the T-108 Preliminary Assessment Report and any relevant recent LDW data, including chemical and physical data in soil, sediment, biota, and groundwater, and shall identify preliminary data gaps relative to assessing the potential for recontamination of the LDW including the Duwamish Diagonal Early Action Area.

The data gaps analysis shall consider the completeness of existing data and the significance of the exposure pathways to be evaluated. The CSM shall include pathways evaluated in the LDW Human Health Risk Assessment and shall consider the *Environmental Cleanup Best Management Practices: Effective Use of the Project Life Cycle Conceptual Site Model, EPA 542-F-11-011, July 2011*. The data

gaps analysis shall specifically address whether existing site characterization data (considering all media and Model Toxics Control Act (MTCA), LDW COCs, and other contaminants relevant to T-108 as directed by EPA) are adequate to support preparation of an EE/CA and implementation of any selected removal action. The data gap analysis shall determine if sufficient data is available to conduct a streamlined human health risk evaluation and evaluate the potential for recontamination of sediments at concentrations exceeding LDW clean up levels (CULs) and remedial action levels (RALs), (LDW ROD Tables 19, 20, 27 and 28). Risks from human consumption of seafood and sediment direct contact have been assessed in the LDW ROD and actions needed to address those risks are decided in the LDW ROD and ongoing remedial design. Further assessment of those risks is not required for the T-108 streamlined risk evaluation.

The CSM shall include sources of contamination to the T-108 Site and areas where contamination from the T-108 Site may come to be located. Existing data for the T-108 Site extends 6 to 20 feet below ground surface only. The CSM shall consider contamination and groundwater migration to LDW surface water and sediments.

The Work Plan shall include a schedule for project activities, including field sample collection efforts, laboratory testing and data validation and reporting.

The EE/CA Work Plan shall include the following appendices to support EE/CA data collection activities: Quality Assurance Project Plan (QAPP), Health and Safety Plan, and Groundwater Monitoring Plan. The Draft EE/CA Work Plan shall be submitted to EPA for review first and the appendices will be submitted to EPA 45 days following receipt of EPA comments on the Draft EE/CA Work Plan.

Task 1a. Quality Assurance Project Pan

Respondents shall develop a project-specific QAPP for sample analysis and data handling for any samples collected at T-108 in accordance with Paragraph 21 of the Settlement Agreement, this SOW, and EPA guidance. The QAPP will be prepared in accordance with "EPA Requirements for Quality Assurance Project Plans (QA/R-5)" (EPA/240/8-01/003, March 2001) and "Guidance on Quality Assurance Project Plans (QA/G-5)" (EP A/240/R-02/009, December 2002). The QAPP will ensure that sample collection and analytical activities are conducted in accordance with the Puget Sound Estuary Program protocols, where appropriate.

In addition, the QAPP shall clarify the following requirements:

- The QAPP will define in detail the sampling and data-gathering methods that will be used on the project for each media. It will include sampling objectives and data quality objectives (DQOs), a detailed description of sampling activities, sample locations, sample analysis, sampling equipment and procedures, sampling schedule, station positioning, and sample handling (e.g., sample containers and labels, sample preservation, sample compositing). The QAPP will also describe the quality assurance and quality control (QA/QC) protocols necessary to achieve required DQOs and the points where EPA approval is required.
- All sampling and analyses performed pursuant to this Settlement Agreement shall conform to EPA direction, approval and guidance regarding sampling, QA/QC, data validation, and chain-of-custody procedures. Respondents shall ensure that the laboratory used to perform the analyses participates in a QA/QC program that complies with the appropriate EPA guidance, such as “EPA Requirements for Quality Management Plans (QA/R-2)" (EPA/240/B-0 1-002, March 2001) or equivalent documentation as determined by EPA and be accredited by the Washington State Department of Ecology (or equivalent) for the analyses to be performed. Respondents will

provide assurances that EPA has access to laboratory personnel, equipment and records for sample collection, transportation. and analysis.

- Upon request by EPA, Respondents shall have such a laboratory analyze samples submitted by EPA for quality-assurance monitoring. Respondents agree that EPA personnel may audit any laboratory that performs analytical work under this Settlement Agreement. Prior to awarding any work to an analytical laboratory, Respondents will inform the laboratory that an audit may be performed, and that the laboratory agrees to coordinate with EPA on the audit prior to performing analyses.
- Respondents shall provide to EPA the QA/QC procedures followed by all sampling teams and laboratories performing data collection and/or analysis.
- Upon request by EPA, Respondents shall allow EPA or its authorized representatives to take split and/or duplicate samples. Respondents shall notify EPA not less than 7 days in advance of any sample collection activity, unless shorter notice is agreed to by EPA. In the event that the sampling design specified in the QAPP cannot be met in the field due to unexpected conditions or circumstances, the Respondents shall consult with EPA and EPA shall have the right to take or to require any additional samples that EPA deems necessary during the sampling event to ensure adequate data are collected to support drafting the EE/CA. Upon request, EPA shall allow Respondents to take split or duplicate samples of any samples it takes as part of its oversight of Respondents' implementation of the Work.
- All analytical data collected under this Settlement Agreement shall be provided electronically to EPA and Ecology, uploaded into SCRIBE, and uploaded into EIM.

Task 1b. Health and Safety Plan

The Health and Safety Plan shall be completed in accordance with Paragraph 20 of the Settlement Agreement.

Task 1c. Groundwater Monitoring Plan

Respondents shall submit to EPA for review and approval a Draft and Final Groundwater Monitoring Plan for T-108 following the Guidelines for Groundwater Monitoring below, unless otherwise approved by EPA. The objectives of the groundwater monitoring are to:

- Determine if groundwater entering T-108 from the Adjacent Sites contains contaminants at levels that have the potential to recontaminate T-108 (soil/banks and groundwater).
- Determine if groundwater at T-108 contains contaminants above sediment or surface water ARARs or risk-based levels, or levels that may impact LDW sediments at levels exceeding the CULS or RALs identified in the LDW ROD.

The CSM/Data Gaps Analysis in the EE/CA Work Plan will review the sufficiency of current data and the plan to fill any data gaps. If additional borings, sediment samples, seep samples, or ground water monitoring is needed, the Groundwater Monitoring section of the QAPP shall include a conceptual site model in accordance with EPA guidance, DQOs, and a detailed description of the monitoring well installation, sampling, and analysis.

The Monitoring Plan will identify the statistics that will be used with the data collected and the formulated monitoring decision rules, for example EPA’s Groundwater Statistics Tool User’s Guide (September 2018).

Groundwater monitoring shall include analysis for Site COPCs and any other contaminants EPA considers of potential concern. Analytical detection limits shall allow for comparison of results to

applicable performance criteria, including the Washington State Sediment Management Standards or Washington State Water Quality Standards at a minimum. Respondents may request that EPA approve a reduction in the analyte list upon demonstration that certain analytes are not of concern at specific monitoring locations or throughout the Site. Respondents may also request that EPA approve a reduction in monitoring frequency after completion of one (1) year of groundwater monitoring.

For the first groundwater monitoring event, a Draft and Final Data Package will be submitted for EPA review. For each subsequent groundwater monitoring event, a Draft and Final Data Report will be submitted to EPA for review. A Data Package includes the laboratories data reports, which includes the results, lab qualifiers, and associated QA/QC data and the data validation report. A Data Report includes a summary of the analytical results and does not include the Data Package materials. All groundwater analytical data shall be provided electronically to EPA and Ecology, uploaded into SCRIBE, and uploaded into EIM.

Task 2. Work Plan Implementation

Field work shall be initiated and performed in accordance with the approved Work Plan schedule and appendices. After the initial round of sampling and analysis for all media except groundwater, Respondents shall submit a Draft Data Package for all media except groundwater for EPA review to determine if the QAPP has been fully implemented and if there are any additional data needs. If there are additional data needs, a QAPP addendum may be required. All investigation results will be summarized and reported in the EE/CA.

Task 3. EE/CA

Respondents shall submit a Draft, Draft Final, and Final EE/CA which assess the need for a removal action and, if warranted, provide a recommended removal action alternative(s) for the Site and the information listed below, unless otherwise approved by EPA. The Draft Final EE/CA will be released for public comment. EPA will review public comments received and provide direction to Respondents. Respondents shall revise the EE/CA in response to EPA direction, and submit a Final EE/CA to EPA for approval.

The Final EE/CA report submittal shall be stamped by a professional engineer licensed in the State of Washington. The final report shall include data summary tables, plus appendices with complete data, validation reports, chain of custody, etc. The final report, including analytical data and graphics, shall be provided electronically, in native format and web-ready pdf, to EPA. The report shall comply with EPA's Guidance on Conducting Non-Time Critical Removal Actions Under CERCLA (EPA 1993) and shall provide as a minimum the following items.

EE/CA Outline

- Executive Summary
- Site Characterization
    - Site description and background
    - Previous removal actions
    - Source, nature, and extent of contamination
    - Conceptual Site Model
    - Analytical data
    - Streamlined risk evaluation
    - Identification of applicable or relevant and appropriate requirements (ARARs)
- Assessment and Need for Removal Action and Identification of Removal Action Objectives

    - Statutory limits on removal actions
    - Determination of removal action and preliminary scope
    - Determination of removal schedule
- Identification and Analysis of Removal Action Alternatives
    - Effectiveness
    - Implementability
    - Cost
- Comparative Analysis of Removal Action Alternatives
- Recommended Removal Action Alternative including description and rational

Task 4 -Community Involvement Activities

In accordance with Paragraph 22 of the Settlement Agreement, as requested by EPA, Respondents shall provide information supporting EPA's community involvement programs related to the Work performed pursuant to this Settlement Agreement and shall participate in public meetings that may be held or sponsored by EPA to discuss activities concerning this Work. Respondents shall coordinate with EPA on any other community involvement activities they undertake related to the Work.

III. SUMMARY OF MAJOR DELIVERABLES/SCHEDULE OF ACTIVITIES

The schedule for activities and submission to EPA of deliverables described in the SOW is presented in Attachment 1, unless otherwise approved by EPA in the schedule provided in the EE/CA Work Plan.

ATTACHMENT 1 -- SCHEDULE

"Day" is calendar day. If the date for submission of any item or notification required by this SOW occurs on a weekend or state or federal holiday, the date for submission of that item or notification is extended to the next working day following the weekend or holiday.

#	**Activity/Submission**	**Due Date**
	Consultant Contract Notice to Proceed (NTP)	180 days after Effective Date
Task 1 EE/CA Work Plan	1.1 Draft EE/CA Work Plan	1.1 Within 90 days after Consultant NTP
	1.2 Draft EE/CA Work Plan Appendices: Draft QAPP, Draft Health and Safety Plan, Draft Groundwater Monitoring Plan	1.2 Within 45 days after receipt of EPA comments on the Draft EE/CA Work Plan
	1.3 Final EE/CA Work Plan with Final Appendices	1.3 Within 30 days after receipt of EPA comments on Draft EE/CA Work Plan Appendices
Task 2 Work Plan Implementation	2.1 Initiate Field Investigations	2.1 Within 30 days after EPA approval of Final EE/CA Work Plan and Appendices
	2.2 Draft Data Package for all media except groundwater	2.2 Within 100 days after the last field event for all media except groundwater
	2.3 Groundwater Monitoring Well Installation	2.3 Within 30 days after EPA approval of Groundwater Monitoring Plan and QAPP
	2.4 Groundwater Monitoring First Event Implementation	2.4 No earlier than 5 days after last Well Installation
	2.5 Groundwater Monitoring First Event Draft Data Package and Draft Groundwater Monitoring Well Installation Report	2.5 Within 60 days after monitoring event.
	2.6 Groundwater Monitoring First Event Final Data Package and Final Groundwater Monitoring Well Installation Report	2.6 Within 14 days after receipt of EPA comments on Draft Data Package and Draft Groundwater Monitoring Well Installation Report

	2.7 Groundwater Monitoring Subsequent Events	2.7 Quarterly for total of two years
	2.8 Groundwater Monitoring Subsequent Draft Data Reports	2.8 Within 60 days after monitoring event
	2.9 Groundwater Monitoring Subsequent Final Data Reports	2.9 Within 14 days after receipt of EPA comments on Draft Data Reports
	2.10 Draft QAPP Addendum for any necessary additional field investigations for all media except groundwater, if required after EPA review of Draft Data Package	2.10 Within 60 days after EPA review of Draft Data Package for all media except groundwater
	2.11 Initiate any necessary additional field investigations for all media except groundwater, if required after EPA review of Draft Data Package	2.11 Within 30 days after EPA approval of QAPP Addendum
	2.12 Complete Field Investigations	2.12 Within 60 days after initiation of field work for all media except groundwater (unless additional sampling is required), within 2 years for groundwater monitoring or per schedule in EPA-approved Final EE/CA Work Plan for expressly identified field work completion dates
Task 3 Engineering Evaluation/Cost Analysis (EE/CA)	3.1 Draft EE/CA	3.1 Within 75 days after final quarter of groundwater monitoring
	3.2 Draft Final EE/CA (for 30-day public comment)	3.2 Within 30 days after receipt of EPA comments on Draft EE/CA
	3.3 Final EE/CA	3.3 Within 30 days after receipt of public comments and responsiveness summary from EPA.
Task 4 Community Involvement Activities		Throughout the process

Guidelines for Groundwater Monitoring

The Groundwater Monitoring section of the QAPP will, at a minimum, provide for the following:

(1) A monitoring well network and plans for groundwater monitoring will be designed to establish a baseline of Site contamination in site groundwater. The Groundwater Monitoring section of the QAPP will specify the network design and the installation procedures to be used. The groundwater monitoring will be at a frequency and over a time period to provide representative groundwater samples sufficient for assessment of the sources, fate, and transport, and for monitoring the effectiveness of any removal actions to be taken.

(2) The groundwater conceptual site model will be included as part of the site CSM required under the EE/CA Work Plan The conceptual site model will be periodically updated as appropriate based on new information and will be included in the EE/CA Report.

(3) As the wells are drilled, the soil borings will be logged by a qualified, state-registered geologist. Respondents will submit the credentials of the qualified, state registered geologist to EPA. The Groundwater Monitoring section of the QAPP will document the procedures to be used in making the above determinations (e.g., well design, well construction, etc.).

(4) Lithologic descriptions will include, but not be limited to, items such as grain size and sorting, depositional environment, and description according to the Unified Soil Classification System.

(5) The monitoring well data will enable development of a baseline of COPC concentrations in the aquifer against which progress in addressing contamination can be measured. Well locations must be sufficient to meet EPA approved QAPP.

(6) The shallow monitoring wells must have screens that allow sampling of the uppermost zone of the surficial aquifer and capture the full range of water surface elevations in the area to be monitored. For each shallow well, the well screen length will be determined at the time of monitoring well installation. The deep monitoring wells will have five-foot screens unless the Respondents propose and EPA approves an alternative approach.

(7) The wells will be monitored on at least a quarterly basis. Monitoring will include all field parameters (temperature, pH, turbidity, depth to water, water elevation, etc.), and the Site COPCs. Monitoring will continue for a period of 2 years (i.e., 8 rounds) from the date of the first sampling event.

(8) After a year of monitoring, at the EPA's discretion, frequency and parameters for subsequent sampling events may be reduced.

(9) Pressure transducers with data loggers will be installed in wells (selection of appropriate location and number of wells will be determined by EPA) within the boundary of the Site to measure tidal fluctuations in the water table. Measurements from these instruments will be collected once a week until the EPA determines that these measurements may cease unless the Respondents propose and EPA approves an alternative approach.

(10) No earlier than 5 days after last well installation, Respondents will commence groundwater sampling. Data to be collected will include the date, time and location of sampling, environmental conditions during sampling, media sampled, field parameters, contaminant concentrations, and the identity of the individuals performing the sampling and analysis.

(11) Respondents will collect information sufficient to support submission of well construction and lithologic logs in the Groundwater Monitoring Well Installation Report (appended to the EE/CA).

(12) Description of well development methods and procedures. Respondents will use the method in the *Monitoring Well Development Guidelines for Superfund Project Managers*, April 1992, unless Respondents propose and EPA approves an alternative method.

(13) Respondents will complete a land survey of the all well locations and elevations to be performed by a Washington State licensed professional land surveyor. Wells will be surveyed using, or existing well elevations converted to, the National Geodetic Vertical Datum (NGVD), 1929, or updated to North American Vertical Datum of 1988 (NAVD88) to an accuracy of within 0.01 feet. Horizontal surveying accuracy will be within 1.0 foot and must include the Washington State Coordinate System of each location. The table which provides these data must reference the datum used for all measurements. Additional Regional guidance on constructing maps and formatting tabulated data will be provided by the EPA.

(14) The QAPP will include plans for a multi-day 24-hour tidal study incorporating site wells with transducers at different locations, including upland and close to the shoreline. The study should consist of monitoring the wells with transducers and incorporating the interpretation of the data obtained into the CSM in the EE/CA. The Groundwater Monitoring Plan may need to be updated based on the results of the tidal study at the EPA's discretion.

(15) The Groundwater Monitoring section of the QAPP will specify the outline and format for the Groundwater Monitoring Well Installation Report.

Groundwater Monitoring Well Installation Report

The Groundwater Monitoring Well Installation Report will include, at a minimum, the following information for all groundwater monitoring wells used to meet the DQOs in the EPA approved QAPP and to meet the Monitoring Well Development Guidelines for Superfund Project Managers (April 1992):

a. A description and map showing all well locations, including each well's surveyed surface reference point and vertical reference point elevation surveyed by a Washington State licensed surveyor.

b. A base map to identify the groundwater monitoring locations in reference to potential contaminant sources or source areas. Base maps prepared from aerial photographs must reference: source of the photograph, date, north arrow, scale, altitude, name, photograph number or identification code, photo provider, camera calibration, etc. Image maps should be based on orthorectified or geo-registered imagery.

c. Site maps must show the locations of major features such as structures (buildings, tanks, lagoons, etc.), natural features, monitoring wells, other sampling locations, major surface topography characteristics, spill areas, discharge points (pipes, culverts, weirs, etc.), scale, roads (including names), property and fence lines, etc. They must also include the base map reference, date of latest revision, project name and number, site location, north arrow, scale, and legend with the appropriate information depicted on the map.

d. The boring and casing diameter and depth of each well; description of well intake design, including screen slot type, size and length, depth of screen, filter pack materials, and method of filter pack emplacement.

e. As-built descriptions of the well casing and screen materials. Well construction materials will be chosen based on parameters to be monitored, and the nature of contaminants that could potentially exist and migrate at or from the Site. Well materials will: (1) minimize the potential of adsorption of constituents from the samples, and (2) not be a source of sample contamination. Wells will be constructed for the purpose of long-term monitoring in accordance with all applicable federal, state, and local laws.

f. Documentation of methods used to seal the well from the surface to prevent infiltration of water into the well and downward migration of contaminants through the well annulus.

g. Description of well development methods and procedures, including volume purged and parameter measurements.

h. Documentation that all boring, well installation, and well abandonment procedures comply with all applicable federal, state, and local laws, and were conducted by a well driller licensed in the State of Washington.