UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10
1200 Sixth Avenue, Suite 900
Seattle, WA 98101-3140

OFFICE OF
ENVIRONMENTAL
CLEANUP

August 7, 2017

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

Mr. Gil Leon
Vice President, Chief Financial Officer
Earle M. Jorgensen Company
10650 Alameda Street
Lynwood, California 90262

Re: Modification to the Administrative Settlement Agreement and Order on Consent for Removal Action Implementation, *U.S. EPA Region X, Comprehensive Environmental Response, Compensation and Liability Act Docket No. 10-2013-0032*

Dear Mr. Leon:

Enclosed is the Modification to the above-referenced Administrative Settlement Agreement and Administrative Order on Consent (Settlement Agreement). According to the agreed-upon Amendment to the Statement of Work, Earle M. Jorgensen Company is required to submit a draft Supplemental EE/CA Work Plan within 90 days after the effective date of the Modification.

Additionally, as provided by Paragraph 13 of the Settlement Agreement, the EPA is changing its designated Project Coordinator. Joe Wallace will be replacing Rebecca Chu as the Project Coordinator for the EPA. This assignment is effective on the date of this letter. Please direct all submissions required by the Settlement Agreement and Modification to Mr. Wallace as follows:

Joe Wallace
Remedial Project Manager
U.S. Environmental Protection Agency, Region 10
1200 Sixth Ave Suite 900; Mail Stop ECL-122
Seattle, WA 98101
Wallace.Joe@epa.gov
(206) 553-4470

If you have any questions, please contact Joe Wallace. Should there be any questions from your legal counsel, please have them directed to Richard Mednick, Associate Regional Counsel, at (206) 553-1797 or Mednick.Richard@epa.gov.

Sincerely,

Michael J. Szerlog
Acting Remedial Program Manager

Enclosure

cc: Glen St. Amant, Muckleshoot Tribe
Amy Essig Desai, Farallon Consulting
Kristen Kerns, U.S. Army Corps of Engineers, Seattle District
Alison O'Sullivan, Suquamish Tribe
James Rasmussen, DRCC/TAG
Maureen Sanchez, Washington State Department of Ecology

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION X

IN THE MATTER OF: Lower Duwamish Waterway Superfund Site Jorgensen Forge Early Action Area Seattle, Washington	MODIFICATION TO ADMINISTRATIVE SETTLEMENT AGREEMENT AND ORDER ON CONSENT FOR REMOVAL ACTION IMPLEMENTATION
Earle M. Jorgensen Company, Respondent.	U.S. EPA Region X CERCLA Docket No. 10-2013-0032 Proceeding Under Sections 104, 106(a), 107 and 122 of the Comprehensive Environmental Response, Compensation, and Liability Act, as amended, 42 U.S.C. §§ 9604, 9606(a), 9607 and 9622

I. BACKGROUND AND PURPOSE

1. The United States Environmental Protection Agency (EPA) and Earle M. Jorgensen Company (Respondent) entered into an Administrative Settlement Agreement and Order on Consent for Removal Action Implementation (Settlement Agreement) on November 5, 2012. Under the Settlement Agreement, Respondent has been performing a non-time-critical removal action at the Jorgensen Forge Early Action Area (Jorgensen Forge EAA) of the Lower Duwamish Waterway (LDW) Superfund Site in Seattle, Washington. The Respondent has also been reimbursing the EPA for response costs pursuant to the Settlement Agreement. This Modification to the Settlement Agreement is agreed to by the EPA and Respondent for the purpose of adding the performance of a Supplemental Engineering Evaluation/Cost Analysis (Supplemental EE/CA) to the Work for the Jorgensen Forge EAA.

2. On September 30, 2011, the EPA issued the Action Memorandum for a Non-Time-Critical Removal Action at the Jorgensen Forge Early Action Area of the Lower Duwamish Waterway Superfund Site, Seattle, Washington (Action Memorandum). The removal action level (RvAL) for the cleanup of polychlorinated biphenyls (PCBs) that is established in the Action Memorandum is 12 parts per million organic carbon normalized. There are also removal action levels for metals, but since metals tend to be co-located with PCBs, the cleanup of PCBs is considered an effective means for addressing metals.

3. Respondent performed dredging and removal of PCB-contaminated sediments from the Jorgensen Forge EAA in 2014. With the exception of the area closest to the navigation channel of the LDW,

Respondent then installed backfill over the exposed areas of sediment. Data analysis subsequent to that Work shows that PCBs are present at concentrations that exceed the RvAL in areas of the Jorgensen Forge EAA.

4. The U.S. Army Corps of Engineers produced a Technical Memorandum for the EPA, dated September 13, 2016 which demonstrates that there is a potential for the subsurface PCB-contamination above the RvAL to migrate to the surface of the backfill.

5. An analysis of alternatives will be performed as part of the Supplemental EE/CA to address the risk of exposure presented by PCBs at concentrations above the RvAL remaining in the Jorgensen Forge EAA.

II. ADDITIONAL WORK

6. In October 2011, Respondent produced an Engineering Evaluation/Cost Analysis which provided response alternatives for the Jorgensen Forge EAA. In order to further develop alternatives that take into account the goals of the Action Memorandum, current conditions, and the projections identified in the Technical Memorandum, Respondent will perform a Supplemental EE/CA.

7. A Statement of Work is attached as Appendix A to the Settlement Agreement. An Amendment to the Statement of Work which provides for performance of the Supplemental EE/CA is attached to this Modification to the Settlement Agreement. This Modification of the Settlement Agreement and the attached Amendment to the Statement of Work are incorporated as Appendix F into the Settlement Agreement. Respondent will undertake the Supplemental EE/CA in accordance with the Amendment to the Statement of Work and this Modification to the Settlement Agreement. The Supplemental EE/CA is considered to be "Work" under the Settlement Agreement.

III. RESPONSE COSTS

8. The costs incurred by the United States to produce the Technical Memorandum and that are related to performance of the Supplemental EE/CA and not inconsistent with the National Contingency Plan codified at 40 C.F.R. Part 300 are considered "Future Response Costs" under the Settlement Agreement. As such, the Respondent is responsible for payment of these costs as provided by Section XV of the Settlement Agreement.

IV. NO ADMISSIONS

9. By entering into this Modification to Settlement Agreement and performing the work prescribed in the Amendment to the Statement of Work, Respondent is not making any admission of any kind, including any admission that Respondent has not complied with its obligations under the Comprehensive Environmental Response, Compensation, and Liability Act, Washington State's Model Toxics Control Act, the Settlement Agreement, the Settlement Agreement's Statement of Work, the Action Memorandum or any other source of law or obligation.

V. SETTLEMENT AGREEMENT

10. All other provisions of the Settlement Agreement shall remain in effect as stated therein.

VI. EFFECTIVE DATE

11. This Modification to the Settlement Agreement shall be effective on the day it is issued by the EPA. The undersigned representatives certify that they are fully authorized to enter into the terms and conditions of this Modification to the Settlement Agreement and to bind the parties they represent to this document.

Earle M. Jorgensen Company

Agreed this day of AUG 1, 2017

By: _____
Gil Leon
Vice President, Chief Financial Officer

United States Environmental Protection Agency

ORDERED, AGREED and ISSUED this day of Aug 7, 2017

BY: _____
Michael J. Szerlog, Acting Program Manager
Remedial Cleanup Program
Office of Environmental Cleanup, Region 10

APPENDIX F
AMENDMENT TO THE STATEMENT OF WORK

PREPARATION OF SUPPLEMENTAL ENGINEERING EVALUATION/COST ANALYSIS FOR JORGENSEN FORGE EARLY ACTION AREA

1. PURPOSE

This Amendment to the Statement of Work (the "Amendment to SOW") outlines the general requirements in preparing a Supplemental Engineering Evaluation/Cost Analysis (the "Supplemental EE/CA") by Earle M. Jorgensen Company ("Respondent") at the request of the United States Environmental Protection Agency ("EPA") to address releases and threats of releases of hazardous substances at or from the Jorgensen Forge Early Action Area ("EAA") located at 8531 East Marginal Way South in Seattle Washington. This Amendment to the SOW, along with the Modification to Administrative Settlement Agreement and Order on Consent for Removal Action Implementation, CERCLA Docket No. 10-2013-0032 (the "Modification to Settlement Agreement") to which the Amendment to SOW is attached, constitute Appendix F to the original Administrative Settlement Agreement and Order on Consent for Removal Action Implementation, CERCLA Docket No. 10-2013-0032 (the "Settlement Agreement"), entered into by Respondent and EPA in 2013. Respondent shall conduct the Supplemental EE/CA in accordance with the Modification to the Settlement Agreement and EPA's Guidance for Conducting Non-Time-Critical-Removal Actions under CERCLA (1993).

In general, the requirements of the Supplemental EE/CA described in this Amendment to the SOW are to determine the nature and extent of remaining contamination in the EAA, particularly in sediments, and to analyze alternatives for addressing this contamination. Tasks 3 and 4 of the Amendment to the SOW are organized to follow the standard Data Quality Objectives ("DQO") process contained in EPA DQO guidance.

The work under this Amendment to the SOW will be conducted in three phases:

Phase 1. Develop a Supplemental EE/CA Work Plan (draft and final) that includes a: Project Work Plan describing the project from initiation through the generation of the final Supplemental EE/CA report; project schedule; summary of site historical operations and current site conditions; future conditions assessment; revised Conceptual Site Model ("CSM"); summary of existing data and Data Gaps Analysis.

Phase 2. If data gaps are identified under Phase 1, Phase 2 will require preparation and delivery of a Data Gap Sampling and Analysis Work Plan(s) and subsequent data report(s).

Phase 3. Preparation of the Supplemental EE/CA (draft and final). The Supplemental EE/CA will include a supplemental Biological Assessment ("BA")/Essential Fish Habitat ("EFH") assessment and Supplemental Clean Water Act ("CWA") Section 404 analysis memorandum (the BA-CWA Analysis Memorandum").

These phases of work are described in Tasks 2 through 4 below.

2. STATEMENT OF WORK

TASK 1 – COMMUNICATION AND MEETING

This task delineates the requirements for Respondent and EPA to manage the three phases of Supplemental EE/CA, and for Respondent to communicate with EPA in a timely and consistent manner.

This task will include, but not be limited to, the following:

- Regularly scheduled meetings or conference calls between Respondent and EPA.
- Preparation of progress reports submitted to EPA in accordance with the schedule in Section III of Appendix A, SOW, of the Settlement Agreement and reporting requirements detailed in Section VIII(20)(a) of the Settlement Agreement.
- Notification to EPA of impending field activities at least 30 days prior to field activities to allow EPA to determine whether oversight of any field activities will occur. If a field activity is necessary to begin earlier than 30 days from notice in order to prevent or mitigate a threat to human health or the environment, Respondent shall provide EPA as much notice as possible under the circumstances and explain in such notice why waiting the full 30-day period is not warranted.

TASK 2 – Supplemental EE/CAWork Plan

Respondent shall submit a Supplemental EE/CA Work Plan that will include: Project Work Plan describing the project from initiation through the generation of the final Supplemental EE/CA report; project schedule; summary of site historical operations and current site conditions; describe previous removal actions at the EAA, including the existing Removal Action Objectives; description of future conditions/uses at the EAA, including the preparation of a future conditions assessment; describe characteristics of the EAA, including those which directly affect the nature and extent of contamination and needed to evaluate overall effectiveness of removal activities; identify ongoing sources to the site; update the EAA CSM; summarize potential technologies for removal action; and perform a data gaps analysis ("DGA") specific to establishing nature and extent of contamination at the EAA, assessing risks posed by contamination at the EAA and evaluating alternative technologies for removal action.

The Supplemental EE/CA Work Plan shall include, at a minimum, the following information:

- Introduction and Purpose;
- EAA location and history;
- Description of previous removal actions at the EAA, including:
  - Scope and objectives of the previous removal action;
  - Amount of time spent on previous removal action;
  - Nature and extent of contaminated materials treated and/or controlled;
  - Technologies used and/or treatment levels used; and
  - Construction report (to be provided as an appendix), including as-built documents, which details the NTCRA activities that were performed in 2014.
- Description of the existing CERCLA Non-Time Critical Removal Action (NTCRA) Objectives in the Action Memorandum (AM), and the Lower Duwamish Waterway (LDW) Record of Decision (ROD) Remedial Action Objectives, together with proposed cleanup levels for EAA and the basis for those levels taking into account ARARs/AM/ROD;
- Nature, extent and volume of existing contamination in the EAA to the extent known;
- Current and reasonably anticipated future land use(s);

- Assess future conditions of the physical attributes affecting the long-term effectiveness and permanence of removal work performed at the site, including:
  - identifying and describing the future conditions of the Site (e.g. changes to: sea level; groundwater flow; surface water (in-water and stormwater discharges into the Site) flows; and deposition/erosion patterns and rates);
  - current data about the future conditions of the Site;
  - identify where the future conditions may impact long-term effectiveness and permanence of any removal action; and
  - description of how the EE/CA will consider the future conditions to assess the long-term effectiveness and permanence of the alternatives.

- Compilation and assessment of the physical and chemical characterization data for:
  - Available survey coordinates;
  - Structures in and around the EAA;
  - Sewer line/utilities in and around EAA;
  - Meteorological characteristics (current and future);
  - Surface and subsurface sediment quality, grain size distribution, and total organic carbon;
  - Backfill and surface sediments;
  - Groundwater characteristics into the EAA;
  - Stormwater discharging into the EAA;
  - Surface water;
  - Bank materials (e.g., soils, sediments, rip-rap); and
  - Engineering characteristics e.g. sediment consistency, dredge-ability, potential slope stability issues related to dredging, and potential sediment consolidation issues associated with capping.
- Biological/ecological resources within the EAA, including:
  - Species listed as endangered or threatened and critical habitat identified under the Endangered Species Act;
  - Essential Fish Habitat designation status under the Magnuson-Stevens Fishery Conservation and Management Act;
  - Connection to the human food chain or food chains of other organisms; and
  - Coastal zone.
- Identification of ongoing sources that have the potential to contaminate the EAA and description of environmental investigations, environmental cleanups and planned upland source control measures. Including:
  - Location, description, and elevation of historical and existing stormwater discharges originating from the EAA; and
  - Delineation of EAA outfall drainage areas.
- Updated EAA CSM that includes a three-dimensional depiction of backfill placement within the EAA; utilities; structures; and environmental features (groundwater/stormwater discharge into the EAA); as well as future conditions for attributes that affect the long-term effectiveness of removal work at the site (e.g. future sea level; groundwater flow; surface water flow; and erosion/deposition patterns and rates).
- Summary of potential technologies to consider to address contamination within the EAA;

- DGA specific to:
  - Nature and extent of the contamination within the EAA;
  - Assessing risks posed by contamination at the EAA;
  - Evaluation of alternative technologies for long-term removal action effectiveness.
- The DGA will identify mechanisms that will be used to fill the data gaps, including additional sampling needs, in preparing the Supplemental EE/CA Report.

Respondent shall provide copies of reports to the EPA for any reports cited in the data review that were not generated as part of the NTCRA requirements under the Settlement Agreement. Data must meet the EPA's data quality requirements to be used in the Supplemental EE/CA.

TASK 3 - DATA GAP SAMPLING WORK PLAN AND REPORT

Upon completion, and EPA's review and approval of the DGA performed in Task 2, the EPA will notify Respondent in writing regarding the need for developing a draft or final data gap sampling work plan ("DGSWP") and subsequent data gap report ("DGR").

If the EPA determines that a DGSWP and DGR are necessary for the purpose of Supplemental EE/CA Report, the Respondent shall submit a DGSWP for EPA's review and approval. The DGSWP shall summarize the results of the DGA prepared in Task 2, including the identification of any data gaps needed to perform the Supplemental EE/CA and the CSM. The DGSWP will define the location, depth, media to be sampled, and the sampling and analytical methods to be utilized to fill the data gaps. Attachments to the DGSWP shall include a Sampling and Analysis Plan ("SAP"), a Quality Assurance Project Plan ("QAPP"), and a Health and Safety Plan ("HSP").

A. Data Gap Sampling Work Plan

The DGSWP shall specify key tasks to be accomplished to complete the investigation of the EAA. The DGSWP shall clearly describe the overall management strategy for planning, performing, and documenting investigative activities. The responsibility and authority of all organizations and key personnel involved in performing investigative tasks shall be outlined.

Elements of the DGSWP will include, but not be limited to, the following:

- A summary of the DGA prepared under Task 2;
- A Project Management strategy, describing the strategy for managing investigative activities and achieving timely submittal of deliverables;
- A project schedule, including a timeline for completion of all investigative subtasks and interim and final deliverables, including but not limited to the deliverables enumerated in Table 1 of this Amendment to the SOW;
- The composition and individual qualifications of any environmental consulting or technical firm Respondent engages and of any subcontractor any such environmental or technical firm engages to perform the work required by this Amendment to SOW;
- A listing of standards, criteria, and regulations applicable to the investigation;

- A data management plan that provides:
    - A unique identification code assigned to all monitoring and sampling stations;
    - Location data and descriptive information recorded and encoded of all monitoring and sampling stations described in standard latitude and longitude coordinates or state plane coordinates;
    - Analytical results and other observations correlated with the sampling station location and descriptive code using common identification codes assigned to station locations.
- A list and description of individual investigative activities necessary to address data gaps that may include:
    - EAA survey:
        - Location, description, and elevation of historical and existing outfalls associated with the EAA.
    - Physical Characterization (current and future conditions), including:
        - Groundwater chemistry
        - Groundwater flow direction;
        - Sources and discharge points for storm and surface water to the EAA;
        - EAA water chemistry, currents and sediment transport.
    - Environmental Media Sampling, including:
        - Surface and subsurface sediment samples;
        - Groundwater sampling

The Draft DGSWP will be submitted to the EPA for review and revision or modification. Following satisfactory incorporation of EPA's revision(s) or modification(s), the Final DGSWP, with the schedules for performance of related activities and submission of deliverables, shall be incorporated into this Amendment to the SOW by reference and shall be implemented in accordance with the approved schedule.

1. Sampling and Analysis Plan

Respondent shall submit to the EPA a SAP for review and approval, consistent with Appendix A of the Settlement Agreement. The purpose of the SAP is to provide the specifics of the data gap sampling program and to obtain the necessary information needed to fill the data gaps summarized in the DGSWP.

The SAP shall describe the sampling objectives, the rationale for the sampling approach (based in part on the data gaps identified during the summary of existing data) and plans for data use, and shall provide a detailed description of sampling tasks, consistent with the EPA standard methods, ASTM International (originally known as the American Society for Testing and Materials or ASTM) methods, Puget Sound Estuary Program ("PSEP"), or other protocols, as applicable. The SAP shall describe specifications for sample identifiers; operation of major sampling equipment (e.g., drilling equipment); the type, number, and location of samples to be collected; the analyses to be performed; descriptions of sampling gear and methods to be used; documentation of samples; sample containers, collection and handling; and the sampling schedule.

The SAP shall describe the DQOs, and identify and describe measures that will be taken during performance of all sampling and analysis tasks to ensure fulfillment of the DQOs.
The DQOs will reflect criteria or threshold values used for potential future remedial decisions.

2. Quality Assurance Project Plan

The Respondent shall submit to the EPA a QAPP for investigation sampling and analysis activities for review and approval by the EPA in accordance with the document submittal schedule set forth in Section III of this Amendment to the SOW. DQOs will reflect the criteria or threshold values used for potential future removal decisions. The QAPP shall be prepared in accordance with EPA Requirements for Quality Assurance Project Plans (QA/R-5), March 2001(Reissued May 2006), EPA/240/B-01/003; and EPA Guidance for Preparation of Quality Assurance Project Plans, EPA/240/R-02/009, December 2002, QA/G-5 and in accordance with the requirements of EPA Contract Laboratory Program (CLP – OLC03.2 or OLM04.3 or more recent statement of work for organic analysis) and shall contain the following elements:

- Title and Approval Sheet
- Table of Contents
- Distribution List
- Project/Task Organization
- Problem Definition/Background
- Project/Task Description
- Quality Objectives and Criteria for Measurement Data
- Special Training Needs/Certification
- Documents and Records
- Sampling Process Design (Experimental Design)
- Sampling Methods
- Sample Handling and Custody
- Analytical methods (including parameters, preparation and analysis methods, reporting limits, and volume of sample required for each matrix)
- Quality Control (including number/type of quality control samples, spikes and replicates required)
- Instrument/Equipment Testing, Inspection, and Maintenance
- Instrument/Equipment Calibration and Frequency
- Inspection/Acceptance of Supplies and Consumables
- Non-direct Measurements
- Data Management
- Assessments and Response Actions
- Reports to Management
- Data Review, Verification, and Validation
- Verification and Validation Methods
- Reconciliation with User Requirements

Where some of the QAPP information overlaps with the information required in the SAP, references to the appropriate section(s) of the SAP may be made in the QAPP.

3. Health and Safety Plan

Respondent shall submit a HSP for investigation sampling and analysis activities. The HSP must be consistent with the requirements of CERCLA, the Occupational Safety and Health Administration (OSHA), and the Washington Safety and Health Administration (WSHA). The HSP shall identify specific monitoring and management responsibilities and activities to ensure the protection of human health and to promote safety for the activities associated with investigation sampling. The HSP shall be modified as necessary for changes or revisions to the SAP and QAPP.

B. Data Gap Report

Upon completion of the sampling activities described in the DGWSP, the Respondent shall submit to the EPA a DGR including all data from investigations conducted during this task. The DGR shall include tabulated data, a sample identification matrix that relates sample identification numbers to sample locations, maps showing actual sample locations, field logs, laboratory data sheets, and a summary of field activities and methods, including a discussion of any discrepancies with the SAP and the effect of such changes upon data usability. All results shall be compared to appropriate regulatory criteria or screening levels defined in the Environmental Sampling Work Plan that will include Sediment Management Standards (SMS; WAC 173-204), MTCA regulations (MTCA; WAC 173-340), and other appropriate regulatory programs. If requested by the EPA, the Respondent shall also make available any additional records generated to support data collection, such as chain-of-custody forms. The Investigation Data Summary Report shall include a discussion of data validation conducted in accordance with the EPA-approved QAPP and addenda (if any).

The report may include, as appropriate:

- A summary, including maps and illustrations of historical releases and sources of contamination.
- A summary, including maps and illustrations, of all historical groundwater, stormwater, surface water, sediment and pore water data.
- A summary of physical properties (current and future conditions) affecting potential release and migration of re-contamination of the EAA from upstream or other sources of contaminated LDW sediments and the potential release and migration of contamination from the EAA to adjacent areas of the LDW.
- Quality assurance analytical results of soil and sediment samples.
- A summary, including maps and illustrations, of the nature and extent of potential sources of contamination of the EAA from upstream or other sources of contaminated LDW sediments and the potential release and migration of contamination from the EAA to adjacent areas of the LDW.

The data shall be submitted in electronic format such as Excel or similar spreadsheet software. The data must also be submitted into Washington State Department of Ecology's Environmental Information System ("EIM") and EPA's water quality exchange ("WQX") or SCRIBE, whichever the EPA prefers.

All data submitted to the EPA must be of known and documented quality. The Respondent will be responsible for monitoring the quality of the data obtained from its contract laboratory.

Where data submitted by EMJ fails to meet the QAPP or is of insufficient quality to be used for the purposes of the removal action, sampling will need to be redone to obtain data of sufficient quality.

Thr EPA reserves the right to reject or qualify any data not generated or collected in accordance with the Settlement Agreement.

TASK 4 – SUPPLEMENTAL ENGINEERING EVALUATION AND COST ANALYSIS

A. Proposed Removal Alternatives Technical Briefing

Based on data obtained previously and in accordance with Task 3, and in consideration of EPA's guidance for removal actions, the Respondent will prepare a technical briefing for the EPA on the proposed removal alternatives that will be presented by the Respondent in the Supplemental EE/CA. A minimum of three alternatives must be presented by the Respondent in the technical briefing. After the technical briefing, Respondent, in consideration of comments received at the technical briefing, will submit a first draft of the Supplemental EE/CA.

B. Supplemental EE/CA Report

At a minimum, the Supplemental EE/CA must include the following information. Additional information/topics may also be added.

Executive summary

1. Introduction

2. Background
   - 2.1. EAA location and description
   - 2.2. Overview of EMJ cleanup activities
     - 2.2.1. Statutory basis for action
   - 2.3. Previously prepared documents and environmental investigations

3. Site characterization
   - 3.1. EAA location and description
   - 3.2. Demographic setting
   - 3.3. EAA geology and hydrogeology
   - 3.4. Topography
   - 3.5. Future site conditions
   - 3.6. History
   - 3.7. Summary of all sampling data and analytical data
   - 3.8. Source, nature and extent of contamination
   - 3.9. Previous removal actions
   - 3.10 Risk evaluation
   - 3.11 Recontamination potential

4. Removal Action Objectives
   4.1. Removal action schedule
   4.2. Applicable or relevant and appropriate requirements

5. Identification and analysis of removal action alternatives
   5.1. Development of removal action alternatives, including identification and analysis of disposal facility options
   5.2. Evaluate Effectiveness
      5.2.1. Overall protection of human health and the environment
      5.2.2. Short-term effectiveness
      5.2.3. Long-term effectiveness and permanence (including future conditions)
      5.2.4. Reduction of toxicity, mobility, or volume through treatment
      5.2.5. Implementability
         - Technical feasibility
         - Administrative feasibility
         - Availability of services and materials
         - State acceptance
         - Community acceptance
      5.2.6. Compliance with ARARs
      5.2.7. Costs
   5.3. Comparative analysis of alternatives
   5.4. Recommended Removal Action Alternative

6. List of references, including the title, date and author of referenced documents

The Supplemental EE/CA will be submitted to the EPA in draft format for review, comment, revision or modification, and approval. Following the satisfactory incorporation of the EPA comments, the Final Supplemental EE/CA shall be incorporated into this Amendment to SOW by reference. A public comment period of at least thirty (30) days is required for the Supplemental EE/CA. The Respondent shall assist the EPA, as requested, before and during the comment period with its community relations activities concerning the Supplemental EE/CA. If, based on public comments received, the EPA determines additional data or analyses are required to complete the Supplemental EE/CA, the Respondent shall collect such data, or perform such analyses, as determined necessary by the EPA.

C. BA/EFH Assessment-CWA Analysis Memorandum

In addition to the Supplemental EE/CA Report, Respondent must prepare a revised BA/EFH Assessment-CWA Analysis Memorandum.

The BA/EFH will identify 1) the presence of threatened, endangered, proposed or candidate species, or their habitat, under the Endangered Species Act and 2) designated EFH under the Magnuson-Stevens Fishery Conservation and Management Act within the vicinity of the EAA. The Respondent will prepare, for EPA's approval, a draft BA/EFH Assessment to support compliance with the substantive requirements of the Endangered Species Act and Magnuson-Stevens Fishery Conservation and Management Act.

The draft BA/EFH Assessment will characterize baseline of existing habitat; address potential project impacts that the NTCRA may have on these species, their habitat, and their food stocks; and describe best management practices and conservation measures designed to avoid or minimize any negative impacts.

If dredging, placement of backfill, or other filling is a component of any of the alternatives, the Respondent shall submit a draft memorandum that provides sufficient information to demonstrate compliance with the substantive requirements of Section 404(b)(1) of the CWA. The memorandum shall document the information gathered regarding practicability and cost, long- and short-term impacts from all proposed alternatives, minimization of adverse effects, and an analysis of the need for any mitigation.

D. Community Involvement Activities

If requested by the EPA, the Respondent shall provide information supporting EPA's community involvement programs related to the Work performed pursuant to this Amendment to the SOW, and shall participate in public meetings that may be held or sponsored by the EPA to explain activities at the EAA or concerning the work performed pursuant to this Amendment to the SOW.

3. SUMMARY OF MAJOR DELIVERABLES/SCHEDULE

The schedule for submission to the EPA of deliverables described in this Amendment to the SOW is presented in Table 1.

Table 1. Schedule of Project Deliverables

Deliverable		Due Date
Supplemental EE/CA Work Plan		
	Draft Supplemental EE/CA Work Plan	Within 90 days after effective date of SOW Amendment
	Final Supplemental EE/CA Work Plan	Within 45 days after receipt of EPA comments on draft
Data Gap Sampling Work Plan		
	Draft DGSWP	Within 60 days after EPA approval of Final Supplemental EE/CA Work Plan
	Final DGSWP	Within 45 days after receipt of EPA comments on draft

Data Gap Report		
	Draft Data Gap Report	Within 45 days of completion of validated data.
	Final Data Gap Report	Within 30 days after receipt of EPA comments on draft.
Supplemental EE/CA Report		
	Technical Briefing on Proposed Removal Alternatives	Within 45 days of EPA approval of the Final Data Gap Report
	First Draft of Supplemental EE/CA	Within 60 days of Technical Briefing on Proposed Removal Alternatives
	Second Draft (Public Review) of Supplemental EE/CA	Within 45 days after receipt of EPA comments on First Draft EE/CA
	Final Supplemental EE/CA	Within 45 after receipt of EPA comments on Second Draft EE/CA
Biological Assessment and CWA Memorandum		
	Draft BA-CWA Analysis Memorandum	Within 90 days after EPA issuance of the Removal Action Memorandum
	Revised Draft BA-CWA Analysis Memorandum	Within 45 days after EPA comments on Draft BA and Draft CWA Memorandum