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UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION 10

IN THE MATTER OF:
Bremerton Gas Works
Bremerton, Washington

Cascade Natural Gas Corporation,

Respondent

ADMINISTRATIVE SETTLEMENT AGREEMENT AND ORDER ON CONSENT FOR REMEDIAL INVESTIGATION FEASIBILITY STUDY

U.S. EPA Region 10
CERCLA Docket No.

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

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I. JURISDICTION AND GENERAL PROVISIONS

1.1 This Administrative Settlement Agreement and Order on Consent ("Settlement Agreement") is entered into voluntarily by the Environmental Protection Agency ("EPA") and Cascade Natural Gas Corporation ("Respondent"). This Settlement Agreement provides for the performance of a remedial investigation and feasibility study ("RI/FS") by Respondent and the reimbursement of certain response costs incurred by EPA at or in connection with the Bremerton Gas Works Site (the "Site") generally located at 1725 Pennsylvania Avenue, Bremerton, WA 98310, Latitude: 45.5782900, Longitude: -122.6423300.

1.2 This Settlement Agreement 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, as amended ("CERCLA").

1.3 In accordance with Sections 104(b)(2) and 122(j)(1) of CERCLA, 42 U.S.C. §§9604(b)(2) and 9622(j)(1), EPA notified the natural resource trustees of negotiations with Respondent regarding the release of hazardous substances that may have resulted in injury to the natural resources under federal and/or state trusteeship.

1.4 EPA and Respondent recognize that this Settlement Agreement has been negotiated in good faith and that the actions undertaken by Respondent in accordance with this Settlement Agreement do not constitute an admission of any liability. Respondent does not admit, and retains the right to controvert in any subsequent proceedings other than proceedings to implement or enforce this Settlement Agreement, the validity of the findings of facts, conclusions of law, and determinations in Sections V and VI of this Settlement Agreement. Respondent agrees to comply with and be bound by the terms of this Settlement Agreement and further agrees that it will not contest the basis or validity of this Settlement Agreement or its terms. Except as expressly provided in this Settlement Agreement, each party reserves all rights and defenses it may have.

II. PARTIES BOUND

2.1 This Settlement Agreement applies to and is binding upon EPA, and upon Respondent and its successors and assigns. Any change in ownership or corporate status of 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 Agreement.

2.2 Respondent shall ensure that its contractors, subcontractors, and representatives receive a copy of this Settlement Agreement and comply with this Settlement Agreement. Respondent shall be responsible for any noncompliance with this Settlement Agreement.

2.3 The undersigned representative of Respondent certifies that he or she is fully authorized to enter into the terms and conditions of this Settlement Agreement and to execute and legally bind Respondent to this Settlement Agreement.

III. STATEMENT OF PURPOSE

3.1 In entering into this Settlement Agreement, the objectives of the Parties are: (a) to determine the nature and extent of contamination and any threat to the public health, welfare, or the environment caused by the release or threatened release of hazardous substances, pollutants or contaminants at or from the Site, by conducting a remedial investigation as more specifically set forth in the Statement of Work ("SOW") attached as Appendix 1 to this Settlement Agreement; (b) to identify and evaluate remedial alternatives to prevent, mitigate or otherwise respond to or remedy any release or threatened release of hazardous substances, pollutants, or contaminants at or from the Site, by conducting a feasibility study as more specifically set forth in the SOW; (c) to recover response and oversight costs incurred by EPA with respect to this Settlement Agreement; (d) to recover Past Response Costs; (e) to evaluate the need for and identify early actions at the Site in response to the release or threatened release of hazardous substances, pollutants, or contaminants at the Site, and; (f) to implement the early action(s) identified by Respondent and approved by EPA.

IV. DEFINITIONS

4.1 Unless otherwise expressly provided in this Settlement Agreement, terms used in this Settlement Agreement which 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 Agreement or in the appendices attached hereto and incorporated hereunder, the following definitions shall apply:

"CERCLA" shall mean the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended, 42 U.S.C. §§ 9601, *et seq.*

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

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

"Deliverables" shall mean the documents Respondent is required to submit pursuant to this Settlement Agreement, the SOW, or any approved work plans, and any additional documents identified in writing by EPA and determined to be additional work in accordance with Paragraph 9.7.3. All Deliverables under this Settlement Agreement are subject to review, comment, modification, and approval as described in Section X (EPA Approval of Plans and Submissions) of this Settlement Agreement.

"Effective Date" shall be the date on which this Settlement Agreement has been signed by all of the Parties.

"EPA" shall mean the United States Environmental Protection Agency and any successor departments or agencies of the United States.

"Future Response Costs" shall mean all costs, including, but not limited to, direct and indirect costs, that the United States incurs in reviewing or developing plans, reports and other items pursuant to this Settlement Agreement, verifying the Work, or otherwise implementing, overseeing, or enforcing this Settlement Agreement, including but not limited to, payroll costs, contractor costs, costs of any cooperative agreement entered into with the Tribe, travel costs, laboratory costs, the costs incurred pursuant to Section XII (Site Access/Institutional Controls), and Section XV (Emergency Response and Notification of Releases), and Paragraph 21.3 (Work Takeover). Future Response Costs shall also include all Interim Response Costs and all Interest on those Past Response Costs Respondents have agreed to reimburse under this Settlement Agreement that has accrued pursuant to 42 U.S.C. §9607(a) during the period from June 30, 2012, to the Effective Date of this Settlement Agreement.

"Interest" shall mean interest at the rate specified for interest on investments of the EPA Hazardous Substance Superfund compounded annually on October 1 of each year, in accordance with 26 U.S.C. § 9507. 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.

"Interim Response Costs" shall mean all costs, including direct and indirect costs, (a) paid by the United States in connection with the Site between June 30, 2012 and the Effective Date, or (b) incurred prior to the Effective Date, but paid after that date.

"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. § 300, and any amendments thereto.

"Paragraph" shall mean a portion of this Settlement Agreement identified by an Arabic numeral.

"Parties" shall mean EPA and Respondent.

"Past Response Costs" shall mean all costs, including, but not limited to, direct and indirect costs, that the United States paid in the amount of $479,172.96 at or in connection with the Site through June 30, 2012.

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

"Respondent" shall mean Cascade Natural Gas Corporation.

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

"Settlement Agreement" shall mean this Administrative Settlement Agreement and Order on Consent for Remedial Investigation Feasibility Study and all appendices attached hereto (listed in Section XXXI). In the event of conflict between this Settlement Agreement and any appendix, this Settlement Agreement shall control.

"Site" or "Bremerton Gas Works Superfund Site, encompasses approximately 2.8 acres of industrial property and beachfront in Bremerton, Kitsap County, Washington, and the areal extent of contamination. The geospatial coordinates of the Site are 47.578 North Latitude, 122.643 West Longitude.

"State" shall mean the State of Washington.

"Statement of Work" or "SOW" shall mean the statement of work for implementation of the RI/FS, as set forth in Appendix 1 to this Settlement Agreement, and any modifications made thereto in accordance with this Settlement Agreement.

"Support Agency" shall mean the Tribe, which shall provide a support agency coordinator or project manager to furnish necessary data to EPA, review Deliverables as requested by EPA, and/or provide other assistance requested by the Remedial Project Manager.

"Tribe" shall mean the Suquamish Tribe of Washington, a federally recognized tribe.

"Waste Material" shall mean: (1) any "hazardous substance" under Section 101(14) of CERCLA, 42 U.S.C. § 9601(14); (2) any pollutant or contaminant under Section 101(33) of CERCLA, 42 U.S.C. § 9601(33); and (3) any "solid waste" under Section 1004(27) of RCRA, 42 U.S.C. § 6903(27).

"Work" shall mean all activities Respondent is required to perform under this Settlement Agreement.

V. FINDINGS OF FACT

5.1 EPA finds the following facts, which Respondent neither admits nor denies:

5.1.1 The Site encompasses approximately 2.8 acres of industrial property and beachfront on the south shore of Port Washington Narrows in Bremerton, Washington, between Thompson Drive and Pennsylvania Avenue.

5.1.2 A manufactured gas plant ("MGP") was formerly located on the Site, which supplied residents of Bremerton with gas for lighting, heating, and cooking. From approximately 1930 to 1955, the MGP manufactured gas from coal and other petroleum products. From approximately 1948 to 1955, liquefied petroleum (propane) was used to enrich the manufactured gas. Between approximately 1955 and 1963, the MGP manufactured gas from blending liquefied petroleum and air. Production of gas terminated in 1963 upon completion of a natural gas pipeline to the region. The MGP consisted of a brick building, aboveground gas holders, aboveground fuel tanks, and purifiers. None of the original MGP structures remain.

5.1.3 The MGP was originally operated by Western Gas Company of Washington ("WGC"). WGC operated the MGP from approximately 1930 to 1952. In 1952, Bremerton Gas Company ("BGC") purchased certain assets from WGC, including the MGP and associated property. BGC operated the MGP for approximately one year, before merging with Respondent in 1953. Respondent sold the MGP property to private individuals in 1972. Paul and Margaret McConkey (the "McConkeys") acquired the MGP property in pieces between 1979 and 1985. The McConkeys conveyed a portion of the MGP property to William and Natacha Sesko (the "Seskos") in 1992, and conveyed the remainder to the McConkey Family Trust in 2000. Between 1972 and the present, the MGP property was used for various industrial operations, including equipment storage, boat maintenance, metal fabrication, and automobile salvage.

5.1.4 Between 1993 and 2009, a number of investigations (Department of Ecology 1994; Department of Ecology 1995; GeoEngineers 2007; Ecology & Environment 2009) identified elevated concentrations of petroleum hydrocarbons, benzene, ethylbenzene, polyaromatic hydrocarbons ("PAHs") including naphthalene and phenathrene, carcinogenic PAHs ("cPAHs") including benzo(a)pyrene and benzo(b)flouranthene, arsenic, lead, and chromium in groundwater, soil, or sediment at the Site.

5.1.5 In 1995, Department of Ecology conducted a Site Hazard Assessment and placed the Site on the Hazardous Sites List. The Site scored a ranking of 1 out of a possible 5, where 1 represents the highest relative risk and 5 the lowest.

5.1.6 On August 20, 2010, the Kitsap County Health District ("KCHD") observed intermittent sheens on surface water of Port Washington Narrows near the former MGP. Further investigation by KCHD on October 4, 2010, identified a 12-inch concrete pipe in the intertidal area that appeared to be discharging product to marine waters. The sediment in the area around the pipe joint and fanning out from the joint laterally and toward the water was visibly contaminated with black oily liquid. KCHD reported the release to EPA on October 4, 2010.

5.1.7 EPA's On-Scene Coordinator ("OSC") visited the site on October 5, 2010 and collected samples of the oily liquid discharging from the pipe for analysis of PAHs. The preliminary results indicated the liquid contained PAHs.

5.1.8 On October 5, 2010, EPA placed a hard boom around the impacted beach area to prevent migration of the oily liquid to marine waters. This action was intended to mitigate the release of PAHs to marine waters.

5.1.9 On October 7, 2010, the United States Coast Guard ("USCG") visited the Site and determined the Site was within its Area of Responsibility ("AOR") and assumed responsibility for further cleanup actions. The USCG replaced the hard boom with a two level boom to better control the oily liquid.

5.1.10 After replacement of the boom, EPA and the USCG conducted a joint removal assessment to gain a basic understanding of any risks posed to human health and/or the environment by releases or threatened releases from the Site.

5.1.11 On October 18, 2010, Respondent agreed to perform a time-critical removal action with oversight by USCG. EPA acted as a support agency for this removal action. The removal action, conducted between November 5 and November 8, 2010, included the following activities: (a) location of the pipe as far into the uplands as possible; (b) plugging of the pipe at a location as close as feasible to the uplands; (c) removal of all portions of the pipe waterward of the plug, which pipe extended underground through beach sediment into the marine waters of Port Washington Narrows; (d) removal of impacted beach sediment from the trench excavated to remove the pipe; (e) backfill of excavated areas with clean material meeting specifications of the Washington Department of Fish & Wildlife for beach fill; (f) capping of impacted beach sediment around the former outfall of the pipe with an organo-clay mat topped with one foot of clean, imported beach fill; and (g) disposal of the removed pipe and beach sediment.

5.1.12 The removal action did not remove all of the existing contamination at the Site. Therefore, EPA has made a determination that an RI/FS is necessary.

5.1.13 The nearest residents live within a few hundred feet of the Site. There is access to the beach portion of the Site and children live and go to school in the neighborhood. There are also a high school, community college, and commercial businesses nearby.

5.1.14 Migratory birds are known to pass through the area.

5.1.15 Port Washington Marina is located near the Site and has numerous live-aboard tenants.

5.1.16 Lions Park is directly across the Port Washington Narrows channel from the Site. This is a City of Bremerton recreational park.

5.1.17 The Tribe maintains shellfish beds and fishing areas in usual and accustomed places in the area of Sinclair Inlet near the Site. Commercial and recreational marine fishermen also harvest in the area. The Tribe will be a Support Agency at the Site.

5.1.18 The beach portion of the Site is un-vegetated, rocky beach sediment under significant tidal influence. The tides appear to have contributed to the spread of the previously observed oily liquid.

5.1.19 Sampling of material in the pipe and beach sediment near the pipe revealed elevated levels of several PAHs. The analytical results revealed cPAH values greater than their corresponding residential soil regional screening levels ("RSLs").

5.1.20 Sampling data was compared to ecological screening level benchmarks for sediment. The PAH concentrations were found to be substantially above ecological screening level benchmarks for sediments indicating marine species having the ability to crawl on and in the impacted beach sediment could be harmed by the sediment.

5.1.21 The elevated concentrations of PAHs found at the Site indicate that a direct contact exposure pathway exists. Exposure to PAHs may result in potential health risks because persons touching PAHs may ingest or absorb them through their skin. Continued exposure could result in an increased risk of developing cancer.

5.1.22 Respondent has been cooperating in the performance of necessary response actions to date with respect to the Site.

VI. CONCLUSIONS OF LAW AND DETERMINATIONS

6.1 Based on the Findings of Fact set forth above, and the Administrative Record for this Site, EPA makes the following conclusion of law and determinations, which Respondent neither admits nor denies:

6.1.1 The Bremerton Gas Works Site is a "facility" as defined by Section 101(9) of CERCLA, 42 U.S.C. § 9601(9).

6.1.2 The contamination found at the Site, as identified in the Findings of Fact above, includes [a] "hazardous substance(s)" as defined by Section 101(14) of CERCLA, 42 U.S.C. § 9601(14).

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

6.1.4 Respondent is a potentially responsible party ("PRP") 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. Respondent or its predecessor was the "owner" and/or "operator" of the facility at the time of disposal of hazardous substances at the facility, as defined by Section 101(20) of CERCLA, 42 U.S.C. § 9601(20), and within the meaning of Section 107(a)(2) of CERCLA, 42 U.S.C. § 9607(a)(2).

6.1.5 The conditions described in 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).

6.1.6 The response actions required by this Settlement Agreement are necessary to protect the public health, welfare or the environment, are in the public interest, 42 U.S.C. § 9622(a), are consistent with CERCLA and the NCP, 42 U.S.C. §§ 9604(a)(1), 9622(a), and will expedite effective remedial action and minimize litigation, 42 U.S.C. § 9622(a).

6.1.7 EPA has determined that Respondent is qualified to conduct the RI/FS within the meaning of Section 104(a) of CERCLA, 42 U.S.C. § 9604(a), and will carry out the Work properly and promptly, in accordance with Sections 104(a) and 122(a) of CERCLA, 42 U.S.C. §§ 9604(a) and 9622(a), if Respondent complies with the terms of this Settlement Agreement.

VII. SETTLEMENT AGREEMENT AND ORDER

7.1 Based upon the foregoing Findings of Fact, Conclusions of Law, Determinations, and the Administrative Record for this Site, it is hereby Ordered and Agreed that Respondent shall comply with all provisions of this Settlement Agreement, including, but not limited to, all appendices to this Settlement Agreement and all documents incorporated by reference into this Settlement Agreement.

VIII. DESIGNATION OF CONTRACTORS AND PROJECT COORDINATORS

8.1 Selection of Contractors, Personnel. All Work performed under this Settlement Agreement shall be under the direction and supervision of qualified personnel. No more than 30 days prior to the commencement of the Work, Respondent shall notify EPA in writing of the names, titles, and qualifications of the personnel, including contractors, subcontractors, consultants and laboratories to be used in carrying out such Work. With respect to any proposed contractor, Respondent shall demonstrate that the proposed contractor has a quality system which complies with ANSI/ASQC E4-1994, "Specifications and Guidelines for Quality Systems for Environmental Data Collection and Environmental Technology Programs," (American National Standard, January 5, 1995, or most recent version), 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/B-01/002, March 2001 or subsequently issued guidance) or equivalent documentation as determined by EPA. The qualifications of the persons undertaking the Work for Respondent shall be subject to EPA's review, for verification that such persons meet minimum technical

background and experience requirements. This Settlement Agreement is contingent on Respondent's demonstration to EPA's satisfaction that Respondent's contractors and personnel are qualified to perform properly and promptly the actions set forth in this Settlement Agreement. If EPA disapproves in writing of any person's technical qualifications, Respondent shall notify EPA of the identity and qualifications of the replacements within 30 days of the written notice. If EPA subsequently disapproves of the replacement, EPA reserves the right to terminate this Settlement Agreement and to conduct a complete RI/FS, and to seek reimbursement for costs and penalties from Respondent. During the course of the RI/FS, Respondent shall notify EPA in writing of any changes or additions in the personnel used to carry out such Work, providing their names, titles, and qualifications. EPA shall have the same right to disapprove changes and additions to personnel as it has hereunder regarding the initial notification.

8.2 Within 30 days after the Effective Date, Respondent shall designate a Project Coordinator who shall be responsible for administration of all actions by Respondent required by this Settlement Agreement and shall submit to EPA the designated Project Coordinator's name, address, telephone number, and qualifications. To the greatest extent possible, the Project Coordinator shall be present or readily available during performance of field work. EPA retains the right to disapprove of the designated Project Coordinator. If EPA disapproves of the designated Project Coordinator, Respondent shall designate a different Project Coordinator and notify EPA of that person's name, address, telephone number, and qualifications within 7 days after EPA's disapproval. Respondent shall have the right, subject to the provisions of this Paragraph, to change its designated Project Coordinator. Respondent shall notify EPA 7 days before such a change is made.

8.3 EPA has designated William Ryan as its initial Remedial Project Manager ("RPM"). EPA has designated Kathy Parker as its initial OSC for purposes relating to identification and implementation of early actions at the Site. EPA may, in its discretion, assign a new RPM or OSC at any time. The RPM shall have the authority lawfully vested in a Remedial Project Manager and OSC by the NCP. In addition, the RPM shall have the authority consistent with the NCP, to halt any Work required by this Settlement Agreement, and to take any necessary response action when s/he determines that conditions at the Site may present an immediate endangerment to public health or welfare or the environment. The absence of the RPM from the Site shall not be cause for the stoppage or delay of Work. Except as otherwise provided in this Settlement Agreement, Respondent shall direct all submissions required by this Settlement Agreement to the RPM at EPA Region 10, Office of Environmental Cleanup (ECL-113), 1200 Sixth Avenue, Suite 900, Seattle, WA 98101. Respondent shall direct all submissions required by this Settlement Agreement to the OSC at EPA Region 10, Office of Environmental Cleanup (ECL-116), 1200 Sixth Avenue, Suite 900, Seattle, WA 98101. Copies of Deliverables shall be sent to the RPM and OSC in the manner described in the SOW.

IX. WORK TO BE PERFORMED

9.1 Respondent shall conduct activities and submit Deliverables as provided by the attached SOW, which is incorporated by reference, for the development of the Removal Evaluation, potential early action implementation, and the RI/FS. The Work shall be conducted in accordance with the provisions of this Settlement Agreement, the SOW, an approved RI/FS Work Plan, other approved Deliverables, CERCLA, the NCP, and EPA guidance, including, but not limited to, the "Interim Final Guidance for Conducting Remedial Investigations and Feasibility Studies under CERCLA" (OSWER Directive #9355.3-01, October 1988) or subsequently issued guidance, "Guidance for Data Useability in Risk Assessment" (OSWER Directive #9285.7-05, October 1990) or subsequently issued guidance, and guidance referenced therein, and guidance documents referenced in the SOW, as may be amended or modified by EPA All plans, reports and other Deliverables will be reviewed and approved by EPA pursuant to Section X (EPA Approval of Plans and Submissions).

9.2 The Removal Evaluation shall consist of an assessment of releases or threatened releases of contamination at the Site to determine whether such releases present an imminent and substantial endangerment to public health or welfare or the environment which warrants performance of one or more additional removal actions before completion of the RI/FS and selection of a final remedy. If the Removal Evaluation concludes that such releases exists, EPA may, after approving the Removal Evaluation, issue an Action Memorandum for the conduct of an early action to address the releases, and Respondent shall implement the selected early action pursuant to this Settlement Agreement.

9.3 The Remedial Investigation ("RI") shall consist of collecting data to characterize site conditions, determining the nature and extent of the contamination at or from the Site, assessing risk to human health and the environment, and conducting treatability testing as necessary to evaluate the potential performance and cost of the treatment technologies that are being considered.

9.4 The Feasibility Study ("FS") shall determine and evaluate (based on treatability testing, where appropriate) alternatives for remedial action to prevent, mitigate or otherwise respond to or remedy the release or threatened release of hazardous substances, pollutants, or contaminants at or from the Site. The alternatives evaluated must include, but shall not be limited to, the range of alternatives described in the NCP, and shall include remedial actions that utilize permanent solutions and alternative treatment technologies or resource recovery technologies to the maximum extent practicable. In evaluating the alternatives, Respondent shall address the factors required to be taken into account by Section 121 of CERCLA, 42 U.S.C. § 9621, and Section 300.430(e) of the NCP, 40 C.F.R. § 300.430(e).

9.5 Upon request by EPA, Respondent shall submit in electronic form all portions of any plan, report or other Deliverable Respondent is required to submit pursuant to this Settlement Agreement.

9.6 Community Relations Plan. EPA will prepare a community relations plan in accordance with EPA guidance and the NCP. As requested by EPA, Respondent shall provide information supporting EPA's community relations plan and shall participate in the preparation of such information for dissemination to the public and in public meetings which may be held or sponsored by EPA to explain activities at or concerning the Site.

9.7 Modification of RI/FS Work Plan.

9.7.1 If at any time during the RI/FS process, Respondent identifies a need for additional data, Respondent shall submit a memorandum documenting the need for additional data to the RPM within 20 days of identification. EPA in its discretion will determine whether the additional data will be collected by Respondent and whether it will be incorporated into any Deliverables.

9.7.2 In the event of unanticipated or changed circumstances at the Site, Respondent shall notify the RPM by telephone within 24 hours of discovery of the unanticipated or changed circumstances. In the event that EPA determines that the immediate threat or the unanticipated or changed circumstances warrant changes in the RI/FS Work Plan, EPA shall so notify Respondent and Respondent shall modify or amend the RI/FS Work Plan in writing accordingly, subject to Respondent's ability to invoke dispute resolution as provided in Paragraph 9.7.4. Respondent shall perform the RI/FS Work Plan as modified or amended.

9.7.3 EPA may determine that in addition to tasks defined in the initially approved RI/FS Work Plan, other additional Work may be necessary to accomplish the objectives of the RI/FS. Subject to Respondent's ability to invoke dispute resolution as provided in Paragraph 9.7.4, Respondent shall perform these response actions in addition to those required by the initially approved RI/FS Work Plan, including any approved modifications, if EPA determines that such actions are necessary for a complete RI/FS.

9.7.4 Respondent shall confirm its willingness to perform the additional Work in writing to EPA within 20 days of receipt of the EPA request. If Respondent objects to any modification determined by EPA to be necessary pursuant to this Paragraph 9.7, Respondent may seek dispute resolution pursuant to Section XVII (Dispute Resolution). The RI/FS Work Plan shall be modified in accordance with the final resolution of the dispute.

9.7.5 Respondent shall complete the additional Work according to the standards, specifications, and schedule set forth or approved by EPA in a written modification to the RI/FS Work Plan. If Respondent fails to conduct any additional or modified Work required by EPA pursuant to this Paragraph 9.7, EPA reserves the right to conduct such Work itself at any point, to seek reimbursement from Respondent, and/or to seek any other appropriate relief.

9.7.6 Nothing in this Paragraph 9.7 shall be construed to limit EPA's authority to require performance of further response actions at the Site.

9.8 Off-Site Shipment of Waste Material.

9.8.1 Respondent shall, prior to any off-site shipment of Waste Material from the Site to an out-of-state waste management facility, provide written notification of such shipment of Waste Material to the appropriate state environmental official in the receiving facility's state and to the RPM. However, this notification requirement shall not apply to any off-site shipments when the total volume of all such shipments will not exceed 10 cubic yards.

9.8.2 Respondent shall include in the written notification the following information: (1) the name and location of the facility to which the Waste Material is to be shipped: (2) the type and quantity of the Waste Material to be shipped; (3) the expected schedule for the shipment of the Waste Material; and (4) the method of transportation. Respondent shall notify the state in which the planned receiving facility is located of major changes in the shipment plan, such as a decision to ship the Waste Material to another facility within the same state, or to a facility in another state.

9.8.3 The identity of the receiving facility and state will be determined by Respondent following the award of the contract for the RI/FS. Respondent shall provide the information required by Paragraphs 9.8.1 and 9.8.2 as soon as practicable after the award of the contract and before the Waste Material is actually shipped.

9.8.4 Before shipping any hazardous substances, pollutants, or contaminants from the Site to an off-site location, Respondent shall obtain EPA's certification that the proposed receiving facility is operating in compliance with the requirements of CERCLA Section 121(d)(3), 42 U.S.C. § 9621(d)(3), and 40 C.F.R. § 300.440. Respondent shall only send hazardous substances, pollutants, or contaminants from the Site to an off-site facility that complies with the requirements of the statutory provision and regulation cited in the preceding sentence.

9.9 Meetings. Respondent shall make presentations at, and participate in, meetings at the request of EPA during the initiation, conduct, and completion of the RI/FS. In addition to discussion of the technical aspects of the RI/FS, topics will include anticipated problems or new issues. Meetings will be scheduled at EPA's discretion, with reasonable advance notice thereof.

9.10 Progress Reports. In addition to the Deliverables set forth in this Settlement Agreement, Respondent shall provide to EPA quarterly progress reports by the 15th day of the following quarter. At a minimum, with respect to the preceding quarter, these progress reports shall: (1) describe the actions which have been taken to comply with this Settlement Agreement during that month, (2) include all results of sampling and tests and all other data received by Respondent, (3) describe Work planned for the next three months with schedules relating such Work to the overall project

schedule for RI/FS completion, and (4) describe all problems encountered and any anticipated problems, any actual or anticipated delays, and solutions developed and implemented to address any actual or anticipated problems or delays.

X. EPA APPROVAL OF PLANS AND SUBMISSIONS

10.1 After review of any Deliverable that is required to be submitted for approval pursuant to this Settlement Agreement, in a notice to Respondent EPA shall: (a) approve, in whole or in part, the submission; (b) approve the submission upon specified conditions; (c) modify the submission to cure the deficiencies; (d) disapprove, in whole or in part, the submission, directing that Respondent modify the submission; or (e) any combination of the above. However, EPA shall not modify a submission without first providing Respondent at least one notice of deficiency and an opportunity to cure within 30 days, except where to do so would cause serious disruption to the Work or where previous submission(s) have been disapproved due to material defects.

10.2 In the event of approval, approval upon conditions, or modification by EPA, pursuant to Paragraph 10.1(a), (b), (c) or (e), Respondent shall proceed to take any action required by Deliverable, as approved or modified by EPA subject only to its right to invoke the dispute resolution procedures set forth in Section XVII (Dispute Resolution) with respect to the modifications or conditions made by EPA. Following EPA approval or modification of a submission or portion thereof, Respondent shall not thereafter alter or amend such submission or portion thereof unless directed by EPA. In the event that EPA modifies the submission to cure the deficiencies pursuant to Paragraph 10.1(c) and the submission had a material defect, EPA retains the right to seek stipulated penalties, as provided in Section XIX (Stipulated Penalties).

10.3 Resubmission.

10.3.1 Upon receipt of a notice of disapproval, Respondent shall, within 30 days or such longer time as specified by EPA in such notice, correct the deficiencies and resubmit the Deliverable for approval. Any stipulated penalties applicable to the submission, as provided in Section XIX (Stipulated Penalties), shall accrue during the 30-day period or otherwise specified period but shall not be payable unless the resubmission is disapproved or modified due to a material defect as provided in Paragraphs 10.4 and 10.5.

10.3.2 Notwithstanding the receipt of a notice of disapproval, Respondent shall proceed to take any action required by any non-deficient portion of the submission, unless otherwise directed by EPA. Implementation of any non-deficient portion of a submission shall not relieve Respondent of any liability for stipulated penalties under Section XIX (Stipulated Penalties).

10.3.3 Respondent shall not proceed further with any subsequent activities or tasks until receiving EPA approval, approval on condition or modification of the following Deliverables: Removal Evaluation Work Plan, Removal Evaluation

Report, Removal Action Work Plan (if required), Removal Action Report (if required), RI/FS Work Plan, RI Report, and FS Report. While awaiting EPA approval, approval on condition, or modification of these Deliverables, Respondent shall proceed with all other tasks and activities which may be conducted independently of these Deliverables, in accordance with the schedule set forth under this Settlement Agreement.

10.3.4 For all remaining Deliverables not listed above in Paragraph 10.3.3, Respondent shall proceed with all subsequent tasks, activities and Deliverables without awaiting EPA approval on the submitted Deliverable. EPA reserves the right to stop Respondent from proceeding further, either temporarily or permanently, on any task, activity or Deliverable at any point during the Work.

10.4 If EPA disapproves a resubmitted Deliverable, or portion thereof, EPA may again direct Respondent to correct the deficiencies. EPA shall also retain the right to modify or develop the Deliverable. Respondent shall implement any such Deliverable as corrected, modified or developed by EPA, subject to Respondent's right to invoke the dispute procedures set forth in Section XVII (Dispute Resolution).

10.5 If upon resubmission, a Deliverable is disapproved or modified by EPA due to a material defect, Respondent shall be deemed to have failed to submit such Deliverable timely and adequately unless Respondent invokes the dispute resolution procedures in accordance with XVII (Dispute Resolution) and EPA's action is revoked, or substantially modified, or superseded as a result of a decision or agreement reached pursuant to the Dispute Resolution process set forth in Section XVII. The provisions of Section XVII (Dispute Resolution) and Section XIX (Stipulated Penalties) shall govern the implementation of the Work and accrual and payment of any stipulated penalties during dispute resolution. If EPA's disapproval or modification of a Deliverable is not otherwise revoked, substantially modified, or superseded as a result of a decision or agreement reached pursuant to the Dispute Resolution process set forth in Section XVII, then stipulated penalties shall accrue for such violation from the date on which the Deliverable was originally required, as provided in Section XIX.

10.6 In the event that EPA takes over a portion of the Work pursuant to Paragraph 21.3, but not the preparation of the Removal Action Evaluation Report, Remedial Investigation Report, or Feasibility Study Report, Respondent shall incorporate and integrate information supplied by EPA into those reports.

10.7 All Deliverables submitted to EPA under this Settlement Agreement shall, upon approval or modification by EPA, be incorporated into and enforceable under this Settlement Agreement. In the event EPA approves or modifies a portion of a Deliverable submitted to EPA under this Settlement Agreement, the approved or modified portion shall be incorporated into and enforceable under this Settlement Agreement.

10.8 Neither failure of EPA to expressly approve or disapprove of a Deliverable within a specified time period, nor the absence of comments, shall be

construed as approval by EPA. Whether or not EPA gives express approval for a Deliverable, Respondent is responsible for preparing Deliverables acceptable to EPA.

XI. QUALITY ASSURANCE, SAMPLING, AND ACCESS TO INFORMATION

11.1 Quality Assurance. Respondent shall assure that Work performed, samples taken and analyses conducted conform to the requirements of the SOW, the Quality Assurance Project Plan ("QAPP"), and guidance documents identified therein. Respondent will assure that field personnel used by Respondent are properly trained in the use of field equipment and in chain of custody procedures. Respondent shall only use laboratories which have a documented quality system that complies with "EPA Requirements for Quality Management Plans (QA/R-2)" (EPA/240/B-01/002, March 2001) or equivalent documentation as determined by EPA.

11.2 Sampling.

11.2.1 All results of sampling, tests, modeling or other data (including raw data) generated by Respondent, or on Respondent's behalf, during the period that this Settlement Agreement is effective, shall be submitted to EPA in the next quarterly progress report as described in Paragraph 9.10. EPA will make available to Respondent validated data generated by EPA within 30 days unless it is exempt from disclosure by any federal or state law or regulation.

11.2.2 Respondent shall verbally notify EPA at least 15 working days prior to conducting significant field work described in any approved work plans. At EPA's verbal or written request, or the request of EPA's oversight assistant, Respondent shall allow split or duplicate samples to be taken by EPA (and its authorized representatives) of any samples collected in implementing this Settlement Agreement. All split samples of Respondent shall be analyzed by the methods identified in the QAPP.

11.2.3 EPA will verbally notify Respondent prior to conducting significant field events at the Site, including but not limited to sampling. Upon request, EPA shall allow Respondent to take split or duplicate samples EPA takes as part of its oversight of Respondent's implementation of the Work. All split samples of EPA shall be analyzed by the methods identified in the QAPP.

11.3 Access to Information.

11.3.1 Respondent shall provide to EPA, upon request, copies of all documents and information within its possession or control or that of its contractors or agents relating to activities at the Site or to the implementation of this Settlement Agreement, 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 related to the Work. Respondent shall also make available to EPA, for purposes of investigation, information gathering, or testimony, their

employees, agents, or representatives with knowledge of relevant facts concerning the performance of the Work.

11.3.2 Respondent may assert business confidentiality claims covering part or all of the documents or information submitted to EPA under this Settlement Agreement 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). Documents or information 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 documents or information when it is submitted to EPA, or if EPA has notified Respondent that the documents or information are not confidential under the standards of Section 104(e)(7) of CERCLA or 40 C.F.R. Part 2, Subpart B, then the public may be given access to such documents or information without further notice to Respondent. Respondent shall segregate and clearly identify all documents or information submitted under this Settlement Agreement for which Respondent asserts business confidentiality claims.

11.3.3 Respondent may assert that certain documents, records and other information are privileged under the attorney-client privilege or any other privilege recognized by federal law. If the Respondent asserts such a privilege in lieu of providing documents, it shall provide EPA with the following: (1) the title of the document, record, or information; (2) the date of the document, record, or information; (3) the name and title of the author of the document, record, or information; (4) the name and title of each addressee and recipient; (5) a description of the contents of the document, record, or information; and (6) the privilege asserted by Respondent. However, no documents, reports or other information created or generated pursuant to the requirements of this Settlement Agreement shall be withheld on the grounds that they are privileged.

11.3.4 No claim of confidentiality shall be made with respect to any data, including, but not limited to, all sampling, analytical, monitoring, hydrogeologic, scientific, chemical, or engineering data, or any other documents or information evidencing conditions at or around the Site.

11.4. In entering into this Settlement Agreement, Respondent waives any objections to any data gathered, generated, or evaluated by EPA or Respondent in the performance or oversight of the Work that has been verified according to the quality assurance/quality control ("QA/QC") procedures required by this Settlement Agreement or any EPA-approved work plans. If Respondent objects to any other data relating to the RI/FS, Respondent 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 30 days of the quarterly progress report containing the data.

XII. SITE ACCESS AND INSTITUTIONAL CONTROLS

12.1 If the Site, or any other property where access is needed to implement this Settlement Agreement, is owned or controlled by Respondent, Respondent shall,

commencing on the Effective Date, provide EPA and its representatives, including contractors, with access at all reasonable times to the Site, or such other property, for the purpose of conducting any activity related to this Settlement Agreement. EPA shall provide reasonable notice under the circumstances to Respondent concerning any EPA activities under this Settlement Agreement for which access to the Site will be necessary.

12.2 Where any response action under this Settlement Agreement is to be performed in areas owned by or in possession of someone other than Respondent, Respondent shall use its best efforts to obtain all necessary access agreements within 30 days after the Effective Date, or as otherwise specified in writing by the RPM. Respondent shall immediately notify EPA if after using its best efforts it is unable to obtain such agreements. For purposes of this Paragraph, "best efforts" includes the payment of reasonable sums of money in consideration of access. Respondent shall describe in writing its efforts to obtain access. If Respondent cannot obtain access agreements, then EPA may either: (i) obtain access for Respondent or assist Respondent in gaining access to the extent necessary to perform the needed response action(s), using such means as EPA deems appropriate; (ii) if EPA cannot obtain access for Respondent, then it may perform such response action(s) with EPA contractors after providing Respondent with written notice describing the scope and schedule for such response action(s); or (iii) terminate this Settlement Agreement. Respondent shall reimburse EPA for all costs and attorneys' fees incurred by the United States in obtaining such access, in accordance with the procedures in Section XVI (Payment of Response Costs). If EPA performs any response action(s) with EPA contractors and does not terminate this Settlement Agreement, then Respondent shall perform all other response actions not requiring access to that property, and shall reimburse EPA for all costs incurred in performing such response action(s). Respondent shall integrate the results of any response action(s) undertaken by EPA into its Deliverables. Respondent may object to any decision by EPA to perform response action(s) pursuant to this Paragraph, which dispute will be resolved using the dispute resolution procedures described in Section XVII.

12.3 Notwithstanding any provision of this Settlement Agreement, EPA retains all of its access authorities and, including enforcement authorities related thereto, under CERCLA, RCRA, and any other applicable statutes or regulations.

XIII. RECORD RETENTION

13.1 Until 10 years after Respondent's receipt of EPA's notification pursuant to Section XXIX (Notice of Completion of Work), Respondent shall preserve and retain all non-identical copies of records and documents (including records or documents in electronic form) now in its possession or control or which come into its possession or control that relate in any manner to the performance of the Work or the liability of any person under CERCLA with respect to the Site, regardless of any corporate retention policy to the contrary. Until 10 years after Respondent's receipt of EPA's notification pursuant to Section XXIX (Notice of Completion of Work), Respondent shall also

instruct its contractors and agents to preserve all documents, records, and information of whatever kind, nature or description relating to performance of the Work.

13.2 At the conclusion of this document retention period, Respondent shall notify EPA at least 90 days prior to the destruction of any such records or documents, and, upon request by EPA, Respondent shall deliver any such records or documents to EPA. Respondent may assert that certain documents, records and other information are privileged under the attorney-client privilege or any other privilege recognized by federal law. If Respondent asserts such a privilege, it shall provide EPA with the following: (1) the title of the document, record, or information; (2) the date of the document, record, or information; (3) the name and title of the author of the document, record, or information; (4) the name and title of each addressee and recipient; (5) a description of the subject of the document, record, or information; and (6) the privilege asserted by Respondent. However, no documents, reports or other information created or generated pursuant to the requirements of this Settlement Agreement shall be withheld on the grounds that they are privileged.

13.3 Respondent hereby 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, documents, or other information that it has not otherwise preserved in electronic form 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 requests for information 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.

XIV. COMPLIANCE WITH OTHER LAWS

14.1 Respondent shall comply with all applicable local, state and federal laws and regulations when performing the Work. No local, state, or federal permit shall be required for any portion of any action conducted entirely on-site, 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 is to be conducted off-site and requires a federal or state permit or approval, Respondent shall submit timely and complete applications and take all other actions necessary to obtain and to comply with all such permits or approvals. This Settlement Agreement is not, and shall not be construed to be, a permit issued pursuant to any federal or state statute or regulation.

XV. EMERGENCY RESPONSE AND NOTIFICATION OF RELEASES

15.1 In the event of any action or occurrence during performance of the Work which causes or threatens a release of Waste Material from the Site that constitutes an emergency situation or may present an immediate threat to public health or welfare or the environment, Respondent shall immediately take all appropriate action. Respondent shall take these actions in accordance with all applicable provisions of this Settlement Agreement in order to prevent, abate or minimize such release or endangerment caused or

threatened by the release. Respondent shall also immediately notify the OSC or RPM and the 24 hour EPA Region 10, Emergency Response Duty Officer, (206) 553-1263, of the incident or Site conditions. In the event that Respondent fails to take appropriate response action as required by this Paragraph, and EPA takes such action instead, Respondent shall reimburse EPA all costs of the response action not inconsistent with the NCP pursuant to Section XVI (Payment of Response Costs).

15.2 In addition, in the event of any release of a hazardous substance from the Site, Respondent shall immediately notify the OSC or RPM, the 24 Hour Duty Officer, (206) 553-1263, and the National Response Center at (800) 424-8802. Respondent 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, *et seq.*

XVI. PAYMENT OF RESPONSE COSTS

16.1 Payment of Past Response Costs.

16.1.1 Within 30 days after the Effective Date, Respondent shall pay to EPA $479,172.96 for Past Response Costs. Payment shall be made to EPA by Electronic Funds Transfer ("EFT") in accordance with current EFT procedures to be provided to Respondent by EPA Region 10, and shall be accompanied by a statement identifying the name and address of the party making payment, the Site name, the EPA Region and Site/Spill ID Number 10JS, and the EPA docket number for this action.

16.1.2 At the time of payment, Respondent shall send notice that such payment has been made by email to acctsreceivable.cinwd@epa.gov, and to:

EPA Cincinnati Finance Office
26 Martin Luther King Drive
Cincinnati, Ohio 45268

16.1.3 The total amount to be paid by Respondent pursuant to Paragraph 16.1.1 shall be deposited by EPA in the Bremerton Gas Works 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.

16.2 Payments for Future Response Costs.

16.2.1 Respondent shall reimburse EPA for all Future Response Costs associated with the Site not inconsistent with the NCP. On a periodic basis EPA will send Respondent a bill for Future Response Costs. The bill will include a written

summary of all costs, direct and indirect, incurred by EPA and its contractors, and describe the costs incurred and the purpose of such costs. If the bill includes costs arising under any cooperative agreement, EPA shall provide Respondent with a copy of the cooperative agreement under which the costs arose together with documents supporting such costs. Respondent shall make all payments within thirty (30) days after Respondent's receipt of each bill requiring payment. The total amount paid will be deposited by EPA in the Bremerton Gas Works Special Account.

16.2.2 Payments made pursuant to this Paragraph 16.2 shall be made by EFT in accordance with EFT instructions provided by EPA, or by submitting a certified or cashier's check or checks made payable to "EPA Hazardous Substance Superfund," referencing the name and address of the party making the payment, and the EPA Site/Spill ID Number10BH. Respondent shall send the check to:

US Environmental Protection Agency
Superfund Payments
Cincinnati Finance Center
P.O. Box 979076
St. Louis, MO 63197-9000

Respondent shall use the following address for payments made by overnight mail:

U.S. Bank
1005 Convention Plaza
Mail Station SL-MO-C2GL
St. Louis, MO 63101-1229

16.2.3 At the time of payment, Respondent shall send notice that payment has been made to EPA to the RPM and to the Servicing Finance Office, EPA Finance Center, MS-NWD, Cincinnati, OH 45268.

16.3 The total amount paid will be deposited by EPA in the Bremerton Gas Works Special Account. These funds will be retained and used by EPA 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.

16.4. In the event that the payment for Past Response Costs is not made within 30 days after the Effective Date, or payment for Future Response Costs is not made within 30 days after Respondent' receipt of a bill, Respondent shall pay Interest on the unpaid balance. The Interest on Past Response Costs shall begin to accrue on the Effective Date and shall continue to accrue until the date of payment. The Interest on Future Response Costs shall begin to accrue on the date Respondent receives the bill and shall continue to accrue until the date of 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 Respondent's failure to make timely payments under this Section, including but not limited to, payment of stipulated penalties pursuant to Section XIX.

16.5 Respondent may contest payment of any Future Response Costs if it determines that EPA has made a mathematical error or if it believes EPA incurred costs as a direct result of an EPA action that is inconsistent with the NCP. Such objection shall be made in writing within 30 days of receipt of the bill and must be sent to the RPM. Any such objection shall specifically identify the contested Future Response Costs and the basis for objection. In the event of an objection, Respondent shall within the 30-day period pay all uncontested Future Response Costs to EPA in the manner described in Paragraph 16.2. Simultaneously, Respondent shall establish an interest-bearing escrow account in a federally-insured bank duly chartered in the State of Washington and remit to that escrow account funds equivalent to the amount of the contested Future Response Costs. Respondent shall send to the EPA RPM 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. Simultaneously with establishment of the escrow account, Respondent shall initiate the dispute resolution procedures in Section XVII (Dispute Resolution). If EPA prevails in the dispute, within 5 days of the resolution of the dispute, Respondent shall pay the sums due (with accrued interest) to EPA in the manner described in Paragraph 16.2. If Respondent prevails concerning any aspect of the contested costs, Respondent shall pay that portion of the costs (plus associated accrued interest) for which it did not prevail to EPA in the manner described in Paragraph 16.2. Respondent 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 XVII (Dispute Resolution) shall be the exclusive mechanisms for resolving disputes regarding Respondent's obligation to reimburse EPA for its Future Response Costs.

XVII. DISPUTE RESOLUTION

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

17.2 If Respondent objects to any EPA action taken pursuant to this Settlement Agreement, including billings for Future Response Costs, it shall notify EPA in writing of its objection(s) within 30 days of such action, unless the objection(s) has/have been resolved informally. EPA and Respondent shall have 30 days from EPA's receipt of Respondent's written objection(s) to resolve the dispute through formal negotiations ("Negotiation Period"). The Negotiation Period may be extended at the sole discretion of EPA.

17.3 Any agreement reached by the parties pursuant to this Section shall be in writing and shall, upon signature by both parties, be incorporated into and become an

enforceable part of this Settlement Agreement. If the Parties are unable to reach an agreement within the Negotiation Period, the Director of the EPA Region X Office of Environmental Cleanup or his/her Associate Director will issue a written decision on the dispute to Respondent. EPA's decision shall be incorporated into and become an enforceable part of this Settlement Agreement. Respondent's obligations under this Settlement Agreement shall not be tolled by submission of any objection for dispute resolution under this Section. Following resolution of the dispute, as provided by this Section, Respondent shall fulfill the requirement that was the subject of the dispute in accordance with the agreement reached or with EPA's decision, whichever occurs, and regardless of whether Respondent agrees with the decision.

XVIII. FORCE MAJEURE

18.1 Respondent agrees to perform all requirements of this Settlement Agreement within the time limits established under this Settlement Agreement, unless the performance is delayed by a *force majeure* event. For purposes of this Settlement Agreement, a *force majeure* event is defined as any event arising from causes beyond the control of Respondent, or of any entity controlled by Respondent, including but not limited to their contractors and subcontractors, which delays or prevents performance of any obligation under this Settlement Agreement despite Respondent' best efforts to fulfill the obligation. *Force majeure* does not include financial inability to complete the Work, or increased cost of performance.

18.2 If any event occurs or has occurred that may delay the performance of any obligation under this Settlement Agreement, whether or not caused by a *force majeure* event, Respondent shall notify EPA orally within 24 hours of when Respondent first knew that the event might cause a delay. Within 10 days thereafter, Respondent shall provide to EPA in writing 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; Respondent's rationale for attributing such delay to a *force majeure* event if it intends to assert such a claim; and a statement as to whether, in the opinion of Respondent, such event may cause or contribute to an endangerment to public health, welfare or the environment. Failure to comply with the above requirements shall preclude Respondent from asserting any claim of *force majeure* for that event for the period of time of such failure to comply and for any additional delay caused by such failure.

18.3 If EPA agrees that the delay or anticipated delay is attributable to a *force majeure* event, the time for performance of the obligations under this Settlement Agreement that are affected by the *force majeure* event 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* event 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* event, EPA will notify Respondent in writing of its decision. If EPA agrees that the delay is attributable

to a *force majeure* event, EPA will notify Respondent in writing of the length of the extension, if any, for performance of the obligations affected by the *force majeure* event.

XIX. STIPULATED PENALTIES

19.1 Unless there has been a written modification of a compliance date or other requirement of this Settlement Agreement by the Remedial Project Manager, or a *force majeure* event as defined herein, in the event Respondent fails to meet any requirement of this Settlement Agreement, Respondent shall be liable for stipulated penalties in the amount of $1,000 per day, per violation for the 1st through 14th days of noncompliance; $3,000 per day, per violation for the 15th through 30th day of noncompliance; and $7,500 per day, per violation for the 31st day of noncompliance and every day thereafter. Compliance by Respondent shall include complete and timely performance of each activity required under this Settlement Agreement including, but not limited to, payment of response costs pursuant to Section XVI or complete and timely performance of all Work or any activities described in any plan, statement or Deliverable approved under this Settlement Agreement.

19.2 All penalties shall begin to accrue on the day after 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: (1) with respect to a deficient submission of a Deliverable, except as provided in Paragraph 10.3.1; and (2) with respect to a matter subject to dispute resolution (Section XVII), during the period, if any, beginning on the day that notice of dispute is given until the date that the Director of the EPA Region X Office of Environmental Cleanup issues a final decision regarding such dispute. Nothing herein shall prevent the simultaneous accrual of separate penalties for separate violations of this Settlement Agreement.

19.3 For noncompliance other than that governed by Paragraph 10.1, following EPA's determination that Respondent has failed to comply with a requirement of this Settlement Agreement, EPA may give Respondent written notification of the failure and describe the noncompliance. Any such notice of violation shall afford Respondent an opportunity to cure the noncompliance before EPA asserts a demand for payment of penalties. EPA may send Respondent a written demand for payment of penalties at any time after issuing a notice of violation. However, penalties shall accrue as provided in Paragraph 19.2 regardless of whether EPA has notified Respondent of a violation.

19.4 All penalties accruing under this Section shall be due and payable to EPA within 30 days of Respondent's receipt from EPA of a demand for payment of the penalties, unless Respondent invokes the dispute resolution procedures under Section XVII (Dispute Resolution). All payments to EPA under this Section shall be paid by certified or cashier's check(s) in accordance with instructions provided by the RPM.

19.5 The payment of penalties shall not alter in any way Respondent's obligation to complete performance of the Work required under this Settlement Agreement.

19.6 Penalties shall continue to accrue during any dispute resolution period, but need not be paid until 30 days after the dispute is resolved by agreement or by Respondent's receipt of EPA's decision pursuant to Paragraph 17.3.

19.7 If Respondent fails to pay stipulated penalties when due, EPA may institute proceedings to collect the penalties, as well as Interest. Respondent shall pay Interest on the unpaid balance, which shall begin to accrue on the date of demand made pursuant to Paragraph 19.4. Nothing in this Settlement Agreement 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 Respondent's violation of this Settlement Agreement 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 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 Section, except in the case of a willful violation of this Settlement Agreement, or in the event that EPA assumes performance of a portion or all of the Work pursuant to Paragraph 21.3. 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 Agreement.

XX. COVENANT NOT TO SUE BY EPA

20.1 In consideration of the actions that will be performed and the payments that will be made by Respondent under the terms of this Settlement Agreement, and except as otherwise specifically provided in this Settlement Agreement, EPA covenants not to sue or to take administrative action against Respondent pursuant to Sections 106 and 107(a) of CERCLA, 42 U.S.C. §§ 9606 and 9607(a), for the Work, Past Response Costs, and Future Response Costs. This covenant not to sue shall take effect upon receipt by EPA of the Past Response Costs due under Section XVI of this Settlement Agreement and any Interest or Stipulated Penalties due for failure to pay Past Response Costs as required by Sections XVI and XIX of this Settlement Agreement. This covenant not to sue is conditioned upon the complete and satisfactory performance by Respondent of its obligations under this Settlement Agreement, including, but not limited to, payment of Future Response Costs pursuant to Section XVI. This covenant not to sue extends only to Respondent and does not extend to any other person.

XXI. RESERVATIONS OF RIGHTS BY EPA

21.1 Except as specifically provided in this Settlement Agreement, nothing in this Settlement Agreement 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 Agreement shall prevent EPA from seeking legal or equitable relief to enforce the terms of this Settlement Agreement, from taking other legal or equitable action as it deems appropriate and necessary, or from requiring Respondent in the future to perform additional activities pursuant to CERCLA or any other applicable law.

21.2 The covenant not to sue set forth in Section XX does not pertain to any matters other than those expressly identified therein. EPA reserves, and this Settlement Agreement is without prejudice to, all rights against Respondent with respect to all other matters, including, but not limited to:

a. claims based on a failure by Respondent to meet a requirement of this Settlement Agreement;

b. liability for costs not included within the definitions of Past Response Costs or Future Response Costs;

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

d. criminal liability;

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

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

g. liability for costs incurred or to be incurred by the Agency for Toxic Substances and Disease Registry related to the Site.

21.3 Work Takeover. In the event EPA determines that Respondent has ceased implementation of any portion of the Work, is seriously or repeatedly deficient or late in its performance of the Work, or is implementing the Work in a manner which may cause an endangerment to human health or the environment, EPA may assume the performance of all or any portion of the Work as EPA determines necessary. Respondent may invoke the procedures set forth in Section XVII (Dispute Resolution) to dispute EPA's determination that takeover of the Work is warranted under this Paragraph. Costs incurred by the United States in performing the Work pursuant to this Paragraph shall be considered Future Response Costs that Respondent shall pay pursuant to Section XVI (Payments of Response Costs). Notwithstanding any other provision of this Settlement Agreement, EPA retains all authority and reserves all rights to take any and all response actions authorized by law.

XXII. COVENANT NOT TO SUE BY RESPONDENT

22.1 Respondent covenants not to sue and agrees not to assert any claims or causes of action against the United States, or its contractors or employees, with respect to the Work, Past Response Costs, Future Response Costs, or this Settlement Agreement, including, but not limited to:

22.1.1 any direct or indirect claim for reimbursement from the Hazardous Substance Superfund established by 26 U.S.C. § 9507, based on 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;

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

22.1.3 any claim against the United States pursuant to Sections 107 and 113 of CERCLA, 42 U.S.C. §§ 9607 and 9613, relating to the Work, Past Response Costs, or Future Response Costs. The covenants not to sue in this Paragraph 22.1 shall not apply in the event the United States brings a cause of action or issues an order pursuant to the reservations set forth in Paragraphs 21.2 (b), (c), and (e) - (g), but only to the extent that Respondent's claims arise from the same response action, response costs, or damages that the United States is seeking pursuant to the applicable reservation.

22.2 Nothing in this Settlement Agreement 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).

22.3 Respondent agrees not to seek judicial review of the final rule listing the Site on the National Priorities List based on a claim that changed site conditions that resulted from the performance of the Work in any way affected the basis for listing the Site.

XXIII. OTHER CLAIMS

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

23.2 Except as expressly provided in Section XX (Covenant Not to Sue by EPA), nothing in this Settlement Agreement constitutes a satisfaction of or release from any claim or cause of action against Respondent or any person not a party to this

Settlement Agreement, 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.

23.3 No action or decision by EPA pursuant to this Settlement Agreement 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).

XXIV. CONTRIBUTION

24.1 The Parties agree that this Settlement Agreement constitutes an administrative settlement for purposes of Section 113(f)(2) of CERCLA, 42 U.S.C. § 9613(f)(2), and that Respondent 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, 42 U.S.C. §§ 9613(f)(2) and 9622(h)(4), for "matters addressed" in this Settlement Agreement. The "matters addressed" in this Settlement Agreement are the Work, Past Response Costs, and Future Response Costs.

24.2 The Parties agree that this Settlement Agreement constitutes an administrative settlement for purposes of Section 113(f)(3)(B) of CERCLA, 42 U.S.C. § 9613(f)(3)(B), pursuant to which Respondent has, as of the Effective Date, resolved its liability to the United States for the Work, Past Response Costs, and Future Response Costs.

24.3 Nothing in this Settlement Agreement precludes the United States or Respondent from asserting any claims, causes of action, or demands for indemnification, contribution, or cost recovery against any persons not parties to this Settlement Agreement. Nothing in this Settlement Agreement 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).

XXV. INDEMNIFICATION

25.1 Respondent shall indemnify, save and hold harmless the United States, its officials, agents, contractors, subcontractors, employees and representatives from any and all claims or causes of action arising from, or on account of, negligent or other wrongful acts or omissions of Respondent, its officers, directors, employees, agents, contractors, or subcontractors, in carrying out actions pursuant to this Settlement Agreement. In addition, Respondent agrees to pay the United States all costs incurred by the United States, 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 Respondent, its officers, directors, employees, agents, contractors, subcontractors and any persons acting on its behalf or

under its control, in carrying out activities pursuant to this Settlement Agreement. The United States shall not be held out as a party to any contract entered into by or on behalf of Respondent in carrying out activities pursuant to this Settlement Agreement. Neither Respondent nor any such contractor shall be considered an agent of the United States.

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

25.3 Respondent waives all claims 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 Respondent 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, Respondent 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 Respondent and any person for performance of Work on or relating to the Site, including, but not limited to, claims on account of construction delays.

XXVI. INSURANCE

26.1 At least 15 days prior to commencing any field work under this Settlement Agreement, Respondent shall secure, and shall maintain for the duration of this Settlement Agreement, commercial general liability insurance and automobile insurance with limits of One Million Dollars ($1,000,000), combined single limit, naming EPA as an additional insured. Within the same time period, Respondent shall provide EPA with certificates of such insurance and a copy of each insurance policy. Respondent shall submit such certificates and copies of policies each year on the anniversary of the Effective Date. In addition, for the duration of this Settlement Agreement, Respondent 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 Respondent in furtherance of this Settlement Agreement. If Respondent demonstrates 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 equal or lesser amount, then Respondent need provide only that portion of the insurance described above which is not maintained by such contractor or subcontractor.

XXVII. FINANCIAL ASSURANCE

27.1 Within 30 days after the Effective Date, Respondent shall establish and maintain financial security for the benefit of EPA in the amount of $2,200,000.00 in one or more of the following forms, in order to secure the full and final completion of Work by Respondent:

27.1.1 a surety bond unconditionally guaranteeing payment and/or performance of the Work;

27.1.2 one or more irrevocable letters of credit, payable to or at the direction of EPA, issued by financial institution(s) acceptable in all respects to EPA;

27.1.3 a trust fund administered by a trustee acceptable in all respects to EPA;

27.1.4 a policy of insurance issued by an insurance carrier acceptable in all respects to EPA, which ensures the payment and/or performance of the Work;

27.1.5 a written guarantee to pay for or perform the Work provided by one or more parent companies of Respondent, or by one or more unrelated companies that have a substantial business relationship with Respondent, including a demonstration that any such guarantor company satisfies the financial test requirements of 40 C.F.R. Part 264.143(f); and/or

27.1.6 a demonstration Respondent satisfies the financial test requirements of 40 C.F.R. Part 264.143(f).

27.2 Any and all financial assurance instruments provided pursuant to this Section shall be in form and substance satisfactory to EPA, determined in EPA's sole discretion. In the event that EPA determines at any time that the financial assurances provided pursuant to this Section (including, without limitation, the instrument(s) evidencing such assurances) are inadequate, Respondent shall, within 30 days of receipt of notice of EPA's determination, obtain and present to EPA for approval one of the other forms of financial assurance listed in Paragraph 27.1 above. In addition, if at any time EPA notifies Respondent that the anticipated cost of completing the Work has increased, then, within 30 days of such notification, Respondent shall obtain and present to EPA for approval a revised form of financial assurance (otherwise acceptable under this Section) that reflects such cost increase. Respondent's inability to demonstrate financial ability to complete the Work shall in no way excuse performance of any activities required under this Settlement Agreement.

27.3 If Respondent seeks to ensure completion of the Work through a guarantee pursuant to Paragraph 27.1.5 or 27.1.6, Respondent shall: (i) demonstrate to EPA's satisfaction that the guarantor satisfies the requirements of 40 C.F.R. Part 264.143(f); and (ii) resubmit to EPA sworn statements conveying the information required by 40 C.F.R. Part 264.143(f) annually, on the anniversary of the Effective Date or such other date as agreed by EPA. For the purposes of this Settlement Agreement, wherever 40 C.F.R. Part 264.143(f) references "sum of current closure and post-closure costs estimates and the current plugging and abandonment costs estimates," the dollar amount to be used in the relevant financial test calculations shall be the current cost estimate of $2,200,000 for the Work at the Site <u>plus</u> any other RCRA, CERCLA, TSCA, or other

federal environmental obligations financially assured by the relevant Respondent or guarantor to EPA by means of passing a financial test.

27.4 If, after the Effective Date, Respondent can show that the estimated cost to complete the remaining Work has diminished below the amount set forth in Paragraph 27.1, Respondent may, on any anniversary date of the Effective Date, or at any other time agreed to by the Parties, reduce the amount of the financial security provided under this Section to the estimated cost of the remaining Work to be performed. Respondent shall submit a proposal for such reduction to EPA, in accordance with the requirements of this Section, and may reduce the amount of the security after receiving written approval from EPA. In the event of a dispute, Respondent may seek dispute resolution pursuant to Section XVII (Dispute Resolution). Respondent may reduce the amount of security in accordance with EPA's written decision resolving the dispute.

27.5 Respondent may change the form of financial assurance provided under this Section at any time, upon notice to and prior written approval by EPA, provided that EPA determines that the new form of assurance meets the requirements of this Section. In the event of a dispute, Respondent may change the form of the financial assurance only in accordance with the written decision resolving the dispute.

XXVIII. MODIFICATIONS

28.1 This Settlement Agreement may be amended by mutual agreement of EPA and Respondent. Amendments shall be in writing and shall be effective when signed by EPA and Respondent. The RPM and OSC do not have the authority to sign amendments to this Settlement Agreement.

28.2 If Respondent seeks permission to deviate from any approved work plan or schedule, Respondent's Project Coordinator shall submit a written request to EPA for approval outlining the proposed modification and its basis. Respondent may not proceed with the requested deviation until receiving written approval from the RPM.

28.3 No informal advice, guidance, suggestion, or comment by the RPM or other EPA representatives regarding reports, plans, specifications, schedules, or any other writing submitted by Respondent shall relieve Respondent of its obligation to obtain any formal approval required by this Settlement Agreement, or to comply with all requirements of this Settlement Agreement, unless it is formally modified.

XXIX. NOTICE OF COMPLETION OF WORK

29.1 When EPA determines that all Work has been fully performed in accordance with this Settlement Agreement, with the exception of any continuing obligations required by this Settlement Agreement, including but not limited to Section XIII (Record Retention), Section XXV (Indemnification), and Section XXII (Covenant Not to Sue by Respondent), EPA will provide written notice to Respondent. If EPA determines that any such Work has not been completed in accordance with this

Settlement Agreement, EPA will notify Respondent, provide a list of the deficiencies, and require that Respondent modify the applicable work plan if appropriate in order to correct such deficiencies. Respondent shall, if applicable, implement the modified and approved work plan. Failure by Respondent to implement such modified and approved work plan shall be a violation of this Settlement Agreement.

XXX. ADMINISTRATIVE RECORD

30.1 EPA will determine the contents of the administrative record file for selection of the remedial action. Respondent shall submit to EPA documents developed during the course of the RI/FS upon which selection of the response action may be based. Upon request of EPA, Respondent shall provide copies of plans, task memoranda for further action, quality assurance memoranda and audits, raw data, field notes, laboratory analytical reports and other reports. Upon request of EPA, Respondent shall additionally submit any previous studies conducted under state, local or other federal authorities relating to selection of the response action, and all communications between Respondent and state, local or other federal authorities concerning selection of the response action. At EPA's discretion, Respondent shall establish a community information repository at or near the Site, to house one copy of the administrative record.

XXXI. INTEGRATION/APPENDICES

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

Appendix 1 Statement of Work

The undersigned representative of Respondent certifies that it is fully authorized to enter into the terms and conditions of this Settlement Agreement and to bind the party it represents to this document.

Agreed this ___ day of _____, 2013.

For Respondent:

CASCADE NATURAL GAS CORPORATION

By: _____

Printed Name: _____

Title: _____

Date: _____

The undersigned representative of Respondent certifies that it is fully authorized to enter into the terms and conditions of this Settlement Agreement and to bind the party it represents to this document.

Agreed this 1 day of MAY, 2013.

For Respondent:

CASCADE NATURAL GAS CORPORATION

By: _____

Printed Name: Scott Madison

Title: EVP & General Manager

Date: May 1, 2013

It is so ORDERED and Agreed this 1st day of May, 2013.

Cami Grandinetti

Cami Grandinetti, Program Manager
Remedial Cleanup Program, Region 10
U.S. Environmental Protection Agency

APPENDIX 1

STATEMENT OF WORK FOR THE BREMERTON GASWORKS SITE REMEDIAL INVESTIGATION AND FEASIBILITY STUDY

Bremerton, WA

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GLOSSARY

ARAR	Applicable or Relevant and Appropriate Requirement
BA	Biological Assessment
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CFR	Code of Federal Regulations
CLP	Contract Laboratory Program
COC	Contaminant of Concern
COI	Contaminant of Interest
CSM	Conceptual Site Model
CWA	Clean Water Act
Ecology	State of Washington Department of Ecology
DQO	Data Quality Objective
EE/CA	Engineering Evaluation/Cost Analysis
FS	Feasibility Study
FSP	Field Sampling Plan
GIS	Geographic Information System
HASP	Health and Safety Plan
IC	Institutional Control
NCP	National Contingency Plan
OSHA	Occupational Safety and Health Administration
OSWER	Office of Solid Waste and Emergency Response
QA	Quality Assurance
QAPP	Quality Assurance Project Plan
QA/QC	Quality Assurance/Quality Control
RAO	Removal Action Objectives
RI	Remedial Investigation
RI/FS	Remedial Investigation and Feasibility Study
ROD	Record of Decision
SAP	Sampling and Analysis Plan
SOW	Statement of Work
Respondent	Cascade Natural Gas Corporation
EPA	U.S. Environmental Protection Agency

1.0 INTRODUCTION

1.1 General

This Statement of Work (SOW) provides an overview of the removal evaluation, potential early action, and remedial investigation and feasibility study (RI/FS) work to be conducted by Respondent at the Site and outlines the tasks necessary to complete such Work. Upon approval of a recommendation for early action and after issuance of an Action Memorandum by the Environmental Protection Agency (EPA), Respondent shall conduct such early action pursuant to this Settlement Agreement. This SOW is consistent with the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) and the National Contingency Plan (NCP). Any discrepancies between the Settlement Agreement and this SOW are unintended and, if there is a discrepancy, the Settlement Agreement will control in any interpretive disputes.

The RI/FS is expected to be an iterative process. Virtually all RI/FS efforts at CERCLA sites require multiple iterations of sampling and analysis before EPA approves the final RI/FS. The SOW outlines a decision process that will be used to focus sampling programs to gather data that are needed for the RI/FS. EPA understands that Respondent may be concerned that this iterative process has the potential to lead to an increase in the size, cost, and scope of the RI/FS. Balanced against Respondent's concern is EPA's obligation under CERCLA to protect human health and the environment wherever hazardous substances released at or from a Site come to be located. To balance these competing concerns without defining Site boundaries in advance of completion of the RI/FS, an Initial Study Area (ISA) will be developed pursuant to this SOW. The ISA does not define Site boundaries in any manner. It is intended to provide a manageable area, based on information gathered during the scoping process, to focus sampling and analysis in the first phase of the RI/FS.

1.2 Oversight

All work products submitted to EPA are subject to EPA approval, including but not limited to, deliverables required by any Work Plan or the Settlement Agreement and additional deliverables that may be required under any Work Plan modifications. Respondent shall ensure that all plans, reports, and records are comprehensive, accurate, and consistent in content and format with the NCP and relevant EPA guidance unless otherwise specified by EPA.

Respondent shall prepare and submit Quarterly Progress Reports to EPA to aid in project planning. These reports will document the status of all work products under development. These reports shall describe the actions and decisions taken, and problems encountered during the previous quarter, and activities scheduled during the upcoming reporting period. These reports shall also summarize the extent to which the procedures and dates set forth in the Settlement Agreement and any Work Plans are being met. These reports shall be submitted according to the schedule in Table 1 and are not subject to EPA approval.

Respondent shall coordinate monthly meetings and/or teleconferences with EPA to discuss the status of work described in this SOW. Monthly meetings may be cancelled or postponed upon agreement between EPA and Respondent.

Respondent shall also coordinate stakeholder briefings as appropriate with EPA and project stakeholders including, but not necessarily limited to, the Washington State Department of Ecology (Ecology) and/or the Suquamish Tribe (Tribe). These briefings may be combined with the EPA/Respondent monthly meeting or teleconference, as determined by EPA. Ecology and

the Tribe may review deliverables submitted by Respondent and may submit comments to EPA for consideration. EPA will incorporate comments into one document and provide the comments to Respondent. Respondent shall fully incorporate and address all comments provided by EPA in the next draft deliverable.

1.3 Schedule

Refer to Table 1 for a summary of the deliverables required by this SOW and the associated schedule for submission of those deliverables.

1.4 Guidance

Respondent shall conduct all work and produce reports that are in accordance with: (i) the Settlement Agreement and this SOW; (ii) the Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA (RI/FS Guidance) (U.S. EPA, Office of Emergency and Remedial Response, October 1988); and (iii) any other EPA guidance relevant to the removal evaluation, early action, and RI/FS work to be conducted under the Settlement Agreement and this SOW. The RI/FS Guidance describes the report format and the required report content. EPA's Remedial Project Manager for the Site will have authority under the NCP to determine when application of any guidance would be inappropriate. Respondent may raise with the Remedial Project Manager any guidance issues it considers inappropriate during implementation of the Settlement Agreement or this SOW.

1.5 Remedy Requirements

The remedial action alternative selected by EPA will meet the cleanup standards specified in Section 121 of CERCLA. That is, the selected remedial action will be protective of human health and the environment; will be in compliance with, or include a waiver of, applicable or relevant and appropriate requirements (ARARs) of other laws; will be cost-effective; will utilize permanent solutions and alternative treatment technologies or resource recovery technologies to the maximum extent practicable; and will address the statutory preference for treatment of the principal threats. The final RI/FS and risk assessment reports, as adopted by EPA, will, with the administrative record, form the basis for the selection of the Site's remedy and will provide the information necessary to support the development of the Record of Decision (ROD).

2.0 REMOVAL EVALUATION AND REMOVAL ACTION

2.1 General

Respondent shall conduct a Removal Evaluation to determine whether the contamination at the Site presents a threat to public health, welfare, or the environment, which threat warrants performance of one or more additional Removal Actions before completion of the RI/FS and selection of a final remedy. If the Removal Evaluation determines such a threat exists, EPA may, after approving the Removal Evaluation, issue an Action Memorandum for the conduct of Removal Action in response to such threat, and Respondent shall implement the selected Removal Action pursuant to the Settlement Agreement and this SOW.

2.2 Oversight and Guidance

In addition to the oversight activities described in Section 1.2, all investigation and cleanup activities performed at the Site during any Removal Action will be conducted under the oversight and at the direction of the EPA On-Scene Coordinator (OSC). An EPA Superfund Technical

Assessment and Response Team (START) contractor may provide technical assistance and support to the OSC in planning, field, and reporting activities for the Removal Action.

Respondent shall coordinate meetings and/or teleconferences with EPA, as needed, during performance of the Removal Evaluation and the Removal Action to discuss the status of work.

In addition to any applicable guidance identified in Section 1.4, the Removal Evaluation and all sampling performed during the Removal Action shall be conducted in accordance with the CERCLA Data Quality Objectives (DQOs) planning process (EPA QA/G-4, August 2000) and other applicable EPA guidance. EPA is aware that not all guidance used for evaluation of removal actions may be applicable to this Site.

2.3 Removal Evaluation

The primary objectives of the Removal Evaluation are as follows:

- Assess whether contaminant migration pathways at the Site pose a threat to human health, welfare, or the environment if left unaddressed before completion of the RI/FS.
- Identify one or more Removal Actions that may be conducted to effectively control any such migration pathways, should any be identified.
- Determine whether the boundaries of the identified Removal Action(s) can be defined as discrete from the larger investigation of the nature and extent of contamination at the Site.
- Propose boundaries for the identified Removal Action(s).
- Document available information regarding the presence of Site-associated contaminants and any non-aqueous phase liquids (NAPL) in soil, groundwater, or sediments within the proposed boundaries of the identified Removal Action(s).
- Describe the recommended methods for completing the identified Removal Action(s).
- Describe how implementation of the identified Removal Action(s) will be consistent with and facilitate final remediation of the Site.

The Removal Evaluation shall include the following:

- Preparation and approval of a Removal Evaluation Work Plan which must identify the schedule and work to be performed to assess suspected migration pathways at the Site.
- Inclusion in the Removal Evaluation Work Plan of a brief summary of the Time Critical Removal Action completed in November 2010, as well as a description, based on available historical records, of the former piping and drainage systems addressed by the 2010 Time-Critical Removal Action.
- Preparation and approval of a Sampling and Quality Assurance Project Plan (SQAPP), which will identify sampling, analysis, and quality assurance procedures to be conducted to characterize any pathways for migration of Site contamination that poses a threat to human health, welfare, or the environment. The SQAPP will provide for:
    - The east-west lineal extent of sampling will span the beach from the marina on the west to 100 feet east of the eastern edge of the cap installed on the beach in November 2010. The north-south lineal extent will span the mean

low tide line to the base of the upland slope. It may also include targeted areas of soil or liquid on the slope.
    - The depth of sampling will be surface composites (0-10 cm) and targeted subsurface grabs.
    - Bathimetry data may be collected to assist the development of a conceptual site model.
    - Samples will be analyzed for PAHs and Total Organic Carbon.
    - Required Method Detection Limits and removal action levels will be determined in consultation with EPA risk assessors.
    - An additional sampling event may occur if necessary to aid in the development of a conceptual site model or to determine the perimeter of a Removal Action.
- Performance of sampling and analysis according to the SQAPP.
- Preparation and approval of a Removal Evaluation Report, which will recommend, if appropriate, the performance of one or more Removal Actions before completion of the RI/FS and selection of a final remedy.

The Removal Evaluation Work Plan and SQAPP may be combined in one document. Upon approval of the Removal Evaluation Work Plan and SQAPP, Respondent shall implement the Removal Evaluation.

Respondent shall submit the Removal Evaluation Report to EPA following completion of the Removal Evaluation. Data collected during the Removal Evaluation will also be included in the RI/FS Work Plan. The Removal Evaluation Report shall include the following:

- Locations, lab reports and summary of results of sample collection and analysis.
- Quality assurance review of analytical data.
- Conceptual site model for area sampled.
- Evaluation of Potential Removal Actions: To the extent conditions are identified during the Removal Evaluation indicating contaminant migration pathways at the Site pose a threat to human health, welfare, or the environment that should be addressed before completion of the RI/FS, then the Removal Evaluation Report shall include a description of one or more potential Removal Actions that could be conducted to mitigate such threat. This description shall include a summary of the migration pathways requiring control, the data available describing such pathways, and the specific actions recommended to control such pathways. Any proposed Removal Actions shall, to the extent practicable, be consistent with the RI/FS, and shall be consistent with and facilitate final remediation of the Site. Proposed Removal Actions approved by EPA shall be performed under this Settlement Agreement.
- The Removal Evaluation Report shall be based on information and data available at the time the report is submitted to EPA.

All deliverables required by this Section 2.3 must be submitted in accordance with the schedule in Table 1.

2.4 Removal Action

If EPA approves a Removal Action recommended in the Removal Evaluation Report and issues an Action Memorandum for implementation of such Removal Action, then Respondent shall undertake all planning tasks necessary to mobilize to the field and perform the Removal Action. Respondent shall plan for and provide the appropriate level of personnel and resources to conduct field activities in an expedited and efficient manner. Planning tasks include the preparation and submittal of the following plans:

- Removal Action Work Plan for the removal or mitigation of hazardous substances or their migration pathways at the Site. The Work Plan shall provide a concise description of the activities to be conducted to comply with the actions identified in the Action Memorandum and a proposed schedule for implementing and completing such activities. The Work Plan shall include a description of the waste transportation and disposal activities necessary to complete the Removal Action. Temporary Best Management Practices shall be employed during conduct of the Removal Action to control erosion and fugitive dust, to manage water, and to avoid adverse impacts on the Port Washington Narrows, associated wildlife, and their habitats.
- Health and Safety Plan (HASP) prepared in accordance with EPA's Superfund Standard Operating Safety Guide, dated June 1992, and which complies with all current Occupation Safety and Health Administration (OSHA) regulations applicable to Hazardous Waste Operations and Emergency Response, 29 C.F.R. Part 1910.
- SQAPP to address all sampling and analytical activities planned during the Removal Action, to meet disposal requirements, and to conduct confirmatory sampling on cleanup activities at the Site.

Upon approval of the Removal Action Work Plan, HASP, and SQAPP, Respondent shall implement the Removal Action in accordance with the approved schedule for the Removal Action.

Respondent shall submit a Removal Action Report following completion of the Removal Action. Data collected during the Removal Action will be included in the RI/FS Work Plan. The Removal Action Report shall include the following:

- Description of the activities conducted to comply with the Action Memorandum.
- Actual schedule under which such activities were conducted.
- Description of the waste transportation and disposal activities performed.
- Description and supporting analytical data for known hazardous substances remaining on-site after completion of the Removal Action.
- Locations, lab reports, and summary of results of sample collection and analysis.
- Quality assurance review of analytical data.

All deliverables required by this Section 2.4 must be submitted in accordance with the schedule in Table 1.

3.0 REMEDIAL INVESTIGATION

The objective of the RI is to characterize the nature and extent of contamination at the Site. The Site must be sufficiently characterized to perform the baseline human and ecological risk assessments (Section 4) and develop and evaluate remedial alternatives for Site-associated contaminants in the FS (Section 5).

The RI phase of the project includes the following:

- Project planning and scoping, including identification of existing information and data and developing a preliminary conceptual site model;
- Preparing an RI/FS Work Plan, which identifies data needed to complete the RI/FS and describes methods of collecting the data;
- Site characterization, in which the RI/FS Work Plan is implemented and data is collected; and
- Preparing an RI Report that documents data collected and analyses performed.

Specific RI tasks are described below.

3.1 Project Scoping Process

Scoping is the initial planning process of the RI/FS. Initial project planning activities will include a meeting and site visit as described below. The meeting and site visit may be combined. The scoping process shall include:

- Identify and compile applicable historical information and data that are of acceptable quality for use during the RI/FS process;
- Identify relevant existing studies regarding the characteristics of environmental media and the condition of receptor populations at the Site;
- Identify useable information and data from current and historical studies for use in developing a conceptual site model (CSM);
- Propose an ISA for the RI/FS;
- Identify site-specific objectives of the RI/FS, including Preliminary Remediation Goals, to help evaluate the adequacy of the existing information and to identify any data gaps;
- Establish a preliminary list of applicable and relevant and appropriate requirements (ARARs); and
- Document the need for additional information and data to the extent practicable to support the development of an RI/FS.

3.1.1 Project Meeting

Respondent and EPA will conduct a meeting to discuss any particular concerns or issues regarding the Site or the RI/FS process.

3.1.2 Site Visit

Respondent and EPA will conduct a site visit to assist in developing a conceptual understanding of sources and areas of contamination, as well as potential exposure pathways and receptors at the Site. During the site visit, Respondent shall observe the Site's physiographic, hydrology, geology, and demographics, as well as natural resource, ecological, and cultural features. This information will be utilized to better scope the project and to determine the extent of additional

data necessary to characterize the Site, better define potential ARARs, and narrow the range of preliminarily identified remedial alternatives.

3.1.3 Scoping Memorandum

Scoping is the initial planning process of the RI/FS. Respondent shall develop and document the specific project scope in a Scoping Memorandum, which will be submitted to EPA for review. EPA comments on the Scoping Memorandum will be addressed in the RI/FS Work Plan.

The objectives of the scoping process are as follows:

- Identify and compile applicable historical information and data that are of acceptable quality for use during the RI/FS process;
- Identify relevant existing studies regarding the characteristics of environmental media and the condition of receptor populations at the Site;
- Identify useable information and data from current and historical studies for use in developing a conceptual site model (CSM);
- Identify an ISA
- Identify site-specific objectives of the RI/FS, including Preliminary Remediation Goals, to help evaluate the adequacy of the existing information and to identify any data gaps;
- Establish preliminary list of applicable and relevant and appropriate requirements (ARARs)

Document the need for additional information and data to the extent practicable to support the development of an RI/FS.

Specific components of the Scoping Memorandum are described below.

3.1.4 Identify and Compile Historical Information and Data

Respondent shall identify and compile existing historical information and data regarding the Site and use this information and data to develop a preliminary CSM. Specifically, this will include presently available information and data relating to the types and quantities/concentrations of hazardous substances and/or solid wastes (including petroleum products) released to the environment at the Site, and past disposal practices and/or releases (including spills and point discharges) that may have impacted the Site. This will include results from any previous sampling events that may have been conducted. Information regarding potential upgradient sources of contamination also will be collected and evaluated.

3.1.5 Develop Preliminary Remediation Goals (PRGs) and Preliminary Analytical Concentration Goals

To support RI/FS activities, Respondent shall develop Preliminary Remediation Goals (PRGs) for Site contaminants of potential concern. Respondent will meet with EPA technical representatives prior to initiating this task. The objective of these meetings will be to discuss application of EPA guidance and other appropriate benchmarks for PRGs. Respondent shall develop PRGs based on the following objectives:

3.1.9 Develop Database

Respondent shall incorporate acceptable data and information into a single relational database. At a minimum, the database will support geographic information system (GIS) presentation of information and data, and Respondent shall present information and data relevant to the decision-making process in this format during the course of the RI/FS. Prior to preparing the database, Respondent and EPA will meet to determine other minimum requirements to ensure the database can be used by EPA. The draft database will be submitted no later than the date of the Scoping Memorandum for EPA's approval.

3.1.10 Develop Preliminary Conceptual Site Model

A CSM presents a conceptual understanding of the Site to evaluate potential risks to human health and the environment. The preliminary CSM will portray the relationship among chemicals of potential concern, their sources, transport mechanisms (including potential mechanisms and conduits for soil, sediments, surface water, and groundwater transport), receptors, and other information concerning the Site. Additional information for evaluating exposure concerns through the use of a conceptual model is provided in EPA DQO guidance documents. The CSM will be updated as new information becomes available.

The preliminary CSM for the ecological risk assessment (ERA) will include species and their habitats that could be impacted by Site-related contamination based on information generated during the historical and data review and will show the relationships among species and potential exposure pathways. The preliminary CSM for the human health risk assessment (HHRA) will include potential human health exposure pathways.

The CSM will be prepared in graphical form and summarize available information (e.g., likely sources of contamination, flow lines showing likely direction of flow, estimates of pollutant discharges to the waters of Port Washington Narrows through upland pathways, etc.) in maps and/or cross-sections as appropriate.

3.1.11 Identify Initial Study Area

Respondent shall propose an ISA for EPA review and approval in the Scoping Memorandum. The proposal for the ISA will be based on the review and analysis of information compiled during the project scoping process. It is anticipated the ISA will encompass the area of operation of a former manufactured gas plant (MGP), the general location of which is shown on the drawing attached to this SOW as Exhibit A, including the area where contaminants from the area of operation have come to be located, which includes upland, beach and sediments. The actual area of the ISA will be approved by EPA depending on information compiled during the project scoping process.

The ISA will provide a focus area for investigation by Respondent in the initial RI/FS effort. Data collected during the initial phase of the RI/FS may indicate a need for additional work within or outside of the ISA in order to determine the nature and extent of contamination at the Site. If contaminants are discovered that are unrelated to the former MGP, the EPA will consider using its enforcement authorities to require the participation of other potentially responsible parties.

- Protection of human health assuming direct contact with potentially contaminated environmental media or receptors at or from the Site, including soil, surface water, sediments and ground water, resulting from occupational activities, recreational use, transient use and other activities at the Site in which contact may occur.
- Protection of benthic invertebrates, resident fish and piscivorous wildlife receptors, if any, that may be affected by potential water or sediment contamination in Port Washington Narrows. PRGs will be based on existing EPA guidance documents and other relevant published guidelines to the extent possible, and with respect to sediments will include consideration of nationally-developed and/or regionally-developed numerical sediment guidelines for the protection of benthic invertebrates. PRGs can be the basis for media- and contaminant-specific screening levels that can guide the iterative scope of the RI/FS.

Preliminary analytical concentration goals will also be developed to assist in selecting appropriate analytical methods and setting analytical DQOs for ecological and human health exposure pathways identified in the CSM.

3.1.6 Begin Preliminary Identification of ARARs

A preliminary identification of potential ARARs in the scoping phase will assist in initially identifying remedial alternatives and will be used for initiating communications with support agencies to facilitate identification of ARARs. Early identification of potential ARARs will allow better planning of field activities. Given the iterative nature of the RI/FS process, ARAR identification will continue throughout the RI/FS process as a better understanding is gained of Site conditions, Site contaminants, and remedial action alternatives.

3.1.7 Develop Data Quality Objectives (DQOs)

Respondent shall develop DQOs for evaluating the collected information. The objective of the DQOs will be to determine which collected information is appropriate for incorporation into a Site database.

3.1.8 Evaluate Quality and Usability of Existing Data

Respondent shall evaluate the quality and usability of existing data and provide EPA with the results of this evaluation for approval. The evaluation will include:

- An assessment of the quality and usability of existing data to support specific intended uses consistent with EPA guidance;
- Potential limitations or caveats on the data; and
- Recommendations on actions needed (e.g., confirmation sampling, relaxation of acceptance criteria) for data to support intended uses.

Because this deliverable will precede submittal of an RI/FS Work Plan, there may be some data sets for which intended uses are generally known but have not been specifically defined. For such data sets, quality and usability will be further evaluated as uses are refined to ensure that data of appropriate type and quality are used to support intended uses. Final approval of the data for these intended uses will be part of the final approval of the RI/FS Work Plan (Section 3.3).

3.1.12 Identify Preliminary Remedial Action Objectives (RAOs)

Respondent shall identify preliminary Remedial Action Objectives (RAOs) that are consistent with CERCLA, the NCP, and EPA interpretive guidance, and which may be appropriate for consideration as part of the RI/FS. It is anticipated that these preliminary RAOs will be updated as part of the Feasibility Study. To assist identification of preliminary RAOs, Respondent shall identify potential state and federal ARARs (chemical-specific, location-specific, and action-specific), in accordance with the NCP. Respondent shall also identify other advisories, criteria, guidance, and other "to be considered" initiatives.

3.1.13 Describe Risk Assessment Methodology

Respondent shall describe the general approach for conducting the baseline ecological and human health risk assessments.

3.1.14 Identify Data Gaps

Respondent shall review the information to identify, to the extent practicable and based on application of relevant EPA guidance, data needed to complete the RI/FS. This analysis will be based on application of relevant EPA guidance, and the results of any tasks completed prior to the data gaps analysis effort. The analysis will identify additional information and data that will be required to determine the nature and extent of contamination, complete the baseline human health and ecological risk assessments, identify the need for removal actions at the Site, and identify and screen remedial action alternatives.

3.2 Prepare RI/FS Work Plan

Once EPA approves the Scoping Memorandum, detailed project planning will begin. Respondent shall submit a draft RI/FS Work Plan for the Site to EPA which incorporates information and data obtained during implementation of the scoping and planning activities described in Sections 3.1 and 3.2, identifies data gaps, and proposes work to address those data gaps. Tasks to be conducted during the RI/FS must be identified and documented in the RI/FS Work Plan. RI/FS Work Plan objectives and elements are summarized below. Respondent will refer to Appendix B of the RI/FS Guidance for a comprehensive description of the contents of the RI/FS Work Plan.

3.2.1 Objectives

The objectives of the work to be proposed in the RI/FS Work Plan are as follows:

- Investigate and define physical, chemical, and biological characteristics of Site;
- Define sources of contamination;
- Define human and ecological use of the Site to be considered in developing a Baseline Risk Assessment; and
- Describe the nature and extent of contamination.

These objectives are described below.

3.2.1.1 Investigate and Define Physical, Chemical, and Biological Characteristics of Site

Respondent shall collect information and data on the physical, chemical, and biological characteristics of the Site and its surrounding areas, relevant to the presence and migration of hazardous substances and solid wastes at or from the Site, the evaluation of risks to human health

and the environment, and the development and evaluation of potential remedial alternatives for Site-associated contaminants. Data gathering will be focused on those characteristics that impact the decision-making process, including the physiographic, geology, chemistry, hydrology, and specific physical characteristics identified in any approved Work Plan. This information will be ascertained through various means that may include a combination of physical measurements, observations, and sampling efforts, and will be utilized to define potential transport pathways and human and ecological receptor populations. In defining the Site's physical characteristics, Respondent shall also obtain sufficient engineering data (such as pumping characteristics) for the projection of contaminant fate and transport, and development and screening of remedial action alternatives, including information to assess treatment technologies.

3.2.1.2 Define Sources of Contamination

Respondent shall locate each source of contamination within the Site. For each location, the areal extent and depth of contamination will be determined by sampling at incremental depths on a sampling grid. The physical characteristics and chemical constituents and their concentrations will be determined for all known and discovered sources of contamination. Respondent shall conduct sufficient sampling to define the boundaries of the Site contaminant sources to the level established in the QA/QC plan and DQOs. Defining the source of contamination will include analyzing the potential for contaminant release (e.g., long term leaching from soil), contaminant mobility and persistence, and characteristics important for evaluating remedial actions, including information to assess treatment technologies. If off-Site sources of contamination are identified that pose a significant ongoing risk of recontamination to the Site, then the RI will compile available information so that the potential for these off-Site sources to recontaminate the Site may be assessed in the FS.

3.2.1.3 Define Human and Ecological Use of Site

Respondent shall gather the information and data necessary to define use of the Site so that a Site-specific exposure assessment can be performed. In addition to existing literature, information and data gathering, defining the use of the Site may require observation, surveys, and personal interviews. Year-round Site use will be determined. In addition, potential exposures associated with proposed future uses of the property at the Site will be considered. Respondent shall identify planned or projected developments and any other reasonably foreseeable future uses that may increase or decrease potential human or ecological exposure to hazardous substances and contaminants at the Site.

3.2.1.4 Describe the Nature and Extent of Contamination

Respondent shall gather the information necessary to describe the nature and extent of Site contamination as needed to identify and evaluate potential exposures above acceptable risk levels as a final step during the field investigation. Respondent shall then implement sampling that will generate information and data on contaminant distributions, potential migration pathways and potential biological effects. Any study program identified in an approved Work Plan or SAP will utilize analytical techniques sufficient to detect and quantify the concentration of contaminants and the migration of contaminants through groundwater, surface water, soils, and sediments at or from the Site. In addition, Respondent shall collect the information and data necessary to assess contaminant fate and transport. Subsequent sampling events may be required. This process is continued until sufficient information and data are known to characterize the area and extent of Site contamination to complete the RI and to evaluate potential remedial alternatives.

Respondent shall use the information on the nature and extent, and fate and transport, of contamination in conjunction with screening level and baseline risk assessments to determine the level of risk presented by contamination at or from the Site. Respondent shall also use this information to help determine the appropriate potential remedial alternatives to be evaluated. If off-Site sources of contamination are identified that pose a significant ongoing risk of recontamination to the Site, then the RI will compile available information so that the potential for these off-Site sources to recontaminate the Site may be assessed in the FS.

3.2.2 RI/FS Work Plan Elements

The RI/FS Work Plan will build on the information and data presented in the Scoping Memorandum. The RI/FS Work Plan will include the following:

- Maps depicting the Site's physiographic, hydrology, geology, land use, and ecological and natural resource features;
- A summary (including graphical depictions as appropriate) of the existing information and data in terms of physical and chemical characteristics of the contaminants identified, and their distribution among environmental media at the Site;
- PRGs;
- Preliminary RAOs;
- Identification of site characterization data gaps;
- Identification of FS data gaps;
- A description of work proposed to address data gaps, including methods used and information and resources needed to perform the work;
- The rationale for the proposed work;
- DQOs associated with each proposed information and data collection effort;
- A table that shows the relationship between the preliminary RAOs and PRGs, identified data gaps, and proposed sampling locations; and
- A schedule for implementation of the work.

To facilitate identification of FS data gaps, remedial technologies that will likely be considered for the Site will be described, and site characterization information that is needed to evaluate those technologies will be identified. This will include data needed to evaluate monitored natural attenuation options.

It is anticipated that the investigation work described in the RI/FS Work Plan will be implemented in a phased approach in which collected data is evaluated at specific decision points to determine if data gaps have been adequately addressed and if any new data gaps are identified. The RI/FS Work Plan will describe how each subsequent phase of work will flow from the previous phases, and identify the following:

- The different phases of work, including specific decision points separating each phase;
- Information to be produced during and at the conclusion of each phase;
- A description of the work products that will be submitted to EPA; and
- The decision-making processes that will be followed by Respondent to interpret results and make recommendations for future work under the RI/FS.

Respondent or EPA may identify during the RI/FS process the need for information and data in addition to that identified in the RI/FS Work Plan. Respondent is responsible for fulfilling additional information and data and analysis needs that Respondent or EPA identifies, consistent with the Settlement Agreement. An addendum to the RI/FS Work Plan may be prepared to identify additional data needed and the means of collecting it.

The RI/FS Work Plan will include a project management plan, including a data management plan (e.g., requirements for project management systems and software, minimum data requirements, data format and backup data management). The RI/FS Work Plan will include a schedule for reports to EPA as well as meetings and presentations to EPA at the conclusion of each major phase that has been identified as a critical decision point during implementation of the Settlement Agreement.

The RI/FS Work Plan will be developed in conjunction with a sampling and analysis plan and a Site health and safety plan, although each plan may be delivered under separate cover. These plans are described below.

3.2.2.1 Sampling and Analysis Plan

Respondent shall prepare a sampling and analysis plan (SAP) to ensure that sample collection and analytical activities are conducted in accordance with technically acceptable protocols. The SAP provides a mechanism for planning field activities and, as specified in the NCP, 40 CFR 300.420(c)(4) and 300.430(b)(8), consists of a field sampling plan (FSP) and a quality assurance project plan (QAPP). These documents may be combined.

The FSP will define in detail the sampling and data-gathering methods that will be used on the project. It will include sampling quality assurance objectives, sample location and frequency, sampling equipment and procedures, and sample handling and laboratory analysis. The QAPP will describe the project objectives and organization, functional activities, and quality assurance and quality control (QA/QC) protocols that will be used. The laboratory QA/QC will, at a minimum, reflect use of analytic methods to identify contamination consistent with the concentrations for RAOs and PRGs. In addition, the QAPP will address sampling procedures, sample custody, analytical procedures, data reduction, validation, reporting, personnel qualifications, and, where appropriate, innovative and streamlined data collection techniques.

Respondent shall demonstrate in the SAP that each laboratory it may use is qualified to conduct the proposed work. This includes use of methods and analytical protocols for the chemicals of concern in the media of interest within detection and quantification limits consistent with both QA/QC procedures and DQOs approved in the QAPP. The laboratory must have and follow an approved QA program. If the laboratory is not in the CLP program, a laboratory QA program must be submitted for EPA review and approval. EPA may require that Respondent submit information demonstrating that the laboratory is qualified to conduct the work, including information on personnel qualifications, equipment, and material specifications. Respondent shall provide assurances that EPA has access to laboratory personnel, equipment, and records for sample collection, transportation, and analysis.

3.2.2.2 Site Health and Safety Plan

A health and safety plan (HASP) will be prepared in conformance with Respondent's health and safety programs, and in compliance with OSHA and FRA regulations and protocols. The health and safety plan will include the eleven (11) elements described in the RI/FS Guidance, such as a

health and safety risk analysis, a description of monitoring and personal protective equipment, medical monitoring, and Site control. Additionally, dive operations will be addressed in all appropriate HASPs, if diving is planned. Dive plans will also be sent to EPA for review and comment at least two weeks prior to diving work. It should be noted that EPA does not "approve" the HASP, but rather EPA reviews it to ensure that all necessary elements are included, and that the plan provides for the protection of human health and the environment.

3.3 Site Characterization

The overall objective of Site characterization is to implement the data collection activities described in the RI/FS Work Plan.

The information collected during Site characterization will include that necessary to evaluate the need for remedial actions or corrective measures (including potential additional removal actions), develop the baseline risk assessment, and develop and evaluate potential remedial alternatives, as appropriate.

During Site characterization, Respondent shall implement the RI/FS Work Plan, SAP, and HASP. Field data are collected and analyzed to provide the information required to accomplish the objectives of the study.

3.3.1 Implement and Document Field Support Activities

Respondent shall initiate field support activities following approval of the RI/FS Work Plan and SAP. Field support activities may include obtaining access to the Site, scheduling, and procuring equipment, office space, laboratory services, and/or contractors. Respondent shall notify EPA of the status of field support activities as part of monthly meetings and quarterly progress reports. Respondent shall also notify EPA, in writing, if issues arise during field support activities that may adversely impact the project schedule.

3.3.2 Implement and Document Field Activities

Respondent must notify EPA at least two weeks in advance of the field work regarding the planned dates for field activities, including, but not limited to, ecological field surveys, field layout of the sampling grid, excavation, installation of wells, initiating sampling, installation, and calibration of equipment, pump tests, and initiation of analysis and other field investigation activities. Information gathered during Site characterization shall be documented and adequately recorded by Respondent in well-maintained field logs and laboratory reports. The method(s) of documentation must be specified in the RI/FS Work Plan and/or the SAP. Field logs must be utilized to document observations, measurements, and significant events that have occurred during field activities. Laboratory reports must document: sample custody; analytical responsibility; analytical results; adherence to prescribed protocols, nonconformity events and corrections thereof; and/or data deficiencies.

3.3.3 Maintain Sample Management and Tracking

Respondent shall maintain field reports, sample shipment records, analytical results, and QA/QC reports to ensure that only validated analytical data are reported and utilized in the characterization of the nature and extent of contamination and the development and evaluation of potential remedial alternatives. Analytical results developed under the RI/FS Work Plan will not be included in any site characterization reports unless accompanied by or cross-referenced to a corresponding QA/QC report. In addition, Respondent shall establish a data security system to

safeguard chain-of-custody forms and other project records to prevent loss, damage, or alteration of project documentation.

3.3.4 Data Management Procedures

Respondent shall consistently document the quality and validity of field and laboratory data compiled and generated during the RI.

3.3.5 RI/FS Data Report

After completing the Site Characterization, Respondent shall submit a concise site characterization data report, a Data Report, as described in the RI/FS Work Plan. The Data Report will be submitted, in both paper and electronic format, compiling all data collected as part of the Site Characterization. The Data Report will review the investigative activities that have taken place, and describe and display Site information and data documenting the location and characteristics of surface and subsurface features and contamination at or from the Site, including sample locations, chemicals concentration distributions and the results of any biological testing. The Data Report will include, to the extent practicable, the quantity and location of chemicals and distributions relative to known sources and migration pathways, tabular and visual screening of contaminants of concern against ARARs and PRGs, the location and varying concentrations of contaminants in areas influenced by sources, and the extent of contaminant migration through or from the Site.

3.3.6 RI/FS Work Plan Addendum (if applicable)

If the data collected during implementation of the Site Characterization warrant changes to the RI/FS Work Plan, these changes shall be proposed in an addendum to the RI/FS Work Plan (an RI/FS Work Plan Addendum). If applicable, the RI/FS Work Plan Addendum shall be submitted contemporaneously with the Data Report. The RI/FS Work Plan Addendum shall describe the basis for any proposed changes, and shall describe updated sampling locations or methodology. Any changes to the FSP, QAPP or HASP shall also be described as appropriate.

3.4 Analyze Data

Respondent shall analyze and evaluate the information and data developed during Site Characterization to describe: (1) Site physical, chemical, and biological characteristics; (2) Site contaminant source characteristics in areas impacted by contaminant sources; (3) nature and extent of contamination at or from the Site as needed to identify and evaluate potential exposures above acceptable risk levels, including tabular and visual comparison to PRGs; and (4) contaminant fate and transport to receptors that may be exposed above acceptable risk levels. If off-Site sources of contamination are identified that pose an ongoing risk of recontamination to the Site, then the RI will compile available information so that the potential for these off-Site sources to recontaminate the Site may be assessed in the FS. Site physical characteristics, source assessments, and extent of contamination analyses are utilized in the analysis of contaminant fate and transport. The evaluation of contaminant fate and transport will include the extent of horizontal and vertical spread of contamination at the Site as well as information from the literature on contaminant mobility and persistence of contaminants. If Respondent considers modeling appropriate, such models will be identified to EPA in a technical memorandum prior to their use. Except as otherwise provided in the Settlement Agreement, all data and programming used in generating any model, including any proprietary programs, will be made available to EPA together with a sensitivity and uncertainty analysis.

3.5 Prepare a Remedial Investigation (RI) Report

Respondent shall prepare and submit a draft RI Report to EPA for review and approval. This report will summarize results of field activities to characterize the Site, sources of contamination, nature and extent of contamination, and the fate and transport of contaminants. Respondent will refer to the RI/FS Guidance for an outline of the report format and contents. Following comment by EPA, Respondent shall prepare a final RI Report that satisfactorily addresses EPA's comments. Draft and final RI Reports shall be submitted to EPA in paper as well as electronic data deliverable format. See Section 8 for details on submittal of electronic data.

4.0 RISK ASSESSMENT

4.1 Assess Human and Ecological Risk

The baseline human health and ecological risk assessments will be initiated following the completion of Site Characterization.

Respondent shall perform baseline risk assessments for human health and ecological impacts using guidance designated by EPA. This guidance may include, but not be limited to, the following: Risk Assessment Guidance for Superfund: Volume 1 – Human Health Evaluation Manual (Parts A through F); Interim Guidance: Developing Risk Based Clean-up Levels at Resource Conservation and Recovery Act Sites in Region 10, (January, 1998); Ecological Risk Assessment for Superfund: Process for Designing and Conducting Ecological Risk Assessments, Interim Final, June 1997; and Guidelines for Ecological Risk Assessment, EPA/630/R95/002-F, 1998. Many of these guidance documents and others may be found at the following web sites:

www.epa.gov/superfund/programs/risk/humhlth.htm
www.epa.gov/r10earth/offices/oea/risk/r0riskec.htm

Risk assessment activities shall be scoped during development of the Scoping Memorandum and RI/FS Work Plan. The RI/FS Work Plan will describe the scope of the human health and ecological risk assessments as developed in coordination with EPA, describe the key elements of the human health and ecological risk assessments (e.g., exposure pathway and receptor identification), and outline the anticipated risk assessment deliverables.

4.2 Prepare Human Health & Ecological Risk Assessment Reports

Draft baseline human health and ecological risk assessment reports will be submitted to EPA for review and comment. EPA guidance will be consulted in preparing the risk assessment reports. The final risk assessment reports, addressing EPA comments, will be included with the Final RI Report. Draft and final risk assessment reports shall be submitted to EPA in paper as well as electronic format.

5.0 FEASIBILITY STUDY

Following completion of the RI and baseline risk assessments, Respondent shall conduct an FS to develop and evaluate a range of appropriate alternatives that ensure protection of human health and the environment. The FS will include the following elements:

- Preparation of an Alternatives Development Memorandum that develops and screens a range of potential remedial alternatives;
- Performing treatability studies, if determined necessary to complete evaluation of remedial alternatives;

- Preparation of an Alternatives Evaluation Memorandum that conducts a detailed analysis of remedial alternatives relative to each other and the nine CERCLA criteria; and
- Preparation of an FS Report that addresses EPA comments on the technical memoranda listed above.

The FS Report, as ultimately adopted or amended by EPA, will provide a basis for remedy selection by Respondent and EPA and document the development and analysis of remedial alternatives.

5.1 Alternatives Development Memorandum

Respondent shall develop and screen potential remedial alternatives for the Site. This range of alternatives may include, but not be limited to the following: no action; natural attenuation; enhanced natural recovery and/or attenuation; in-place confinement (capping); containment (e.g., barrier walls, hydraulic control); excavation and disposal in existing landfills; treatment as appropriate, to reduce the toxicity, mobility, or volume of hazardous substances (e.g., soil stabilization or in-situ groundwater treatment); the use of presumptive remedies; and options combining aspects of these and/or other alternatives including the use of institutional controls and engineering controls.

Respondent shall perform the activities described in Sections 5.1.1 through 5.1.6 as a function of the development and screening of remedial alternatives. These activities shall be documented in an Alternatives Development Memorandum, which will include an identification of the alternatives selected for detailed analysis. Respondent shall modify the Alternatives Development Memorandum if required by EPA's comments to assure identification of a complete and appropriate range of viable alternatives to be considered in the detailed analysis.

5.1.1 Refine and Document Remedial Action Objectives

Based on the baseline risk assessments and the results of the RI, Respondent shall review and, if necessary, modify the Site-specific RAOs and PRGs. Revised RAOs must reflect updated PRGs that were developed as part of the risk assessment. These modified PRGs will specify the contaminants and media of interest, exposure pathways and receptors, and an acceptable contaminant concentration or range of concentrations at particular locations for each exposure route.

5.1.2 Develop General Response Actions

Respondent shall develop general response actions for each media of interest defining natural attenuation, enhanced natural attenuation, containment, treatment, engineering controls, institutional controls, the use of EPA-approved presumptive remedies, or other actions, singly or in combination, as appropriate to satisfy the RAOs.

5.1.3 Identify Areas or Volumes of Media

Respondent shall identify areas and volumes of Site-associated contaminants to which general response actions, other than removal actions, may apply, taking into account requirements for protectiveness as identified in the RAOs. The chemical and physical characterization of the Site will also be taken into account. If off-Site sources of contamination are identified that pose a significant ongoing risk of recontamination to the Site, then the information available for these

off-Site sources of contamination will be summarized, including a summary of completed or ongoing actions, if any, being taken by others to address such contamination.

5.1.4 Identify, Screen, and Document Remedial Technologies

Respondent shall identify and evaluate technologies applicable to each general response action to eliminate those that cannot be implemented and/or are not feasible at the Site. General response actions will be refined to specify remedial technology types. Technology process options for each of the technology types will be identified either concurrent with the identification of technology types, or following the screening of the considered technology types. Process options will be evaluated on the basis of short- and long-term effectiveness, implementability, and cost factors to select and retain one or, if necessary, more than one representative process for each technology type. If two technologies are of equal effectiveness and implementability, Respondent may propose that the more costly technology be eliminated from consideration. The technology types and process options will be summarized for inclusion in the Alternatives Development Memorandum. The reasons for eliminating alternatives must be specified.

5.1.5 Assemble and Document Alternatives

Respondent shall assemble selected representative technologies into alternatives for the Site or, if appropriate, for each affected medium or operable unit. Together, all of the alternatives will represent a range of treatment and containment combinations that will address contaminants of concern at or from each operable unit or the Site as a whole. Respondent shall prepare a summary of the assembled alternatives and their related action-specific and chemical-specific ARARs and PRGs for inclusion in the Alternatives Development Memorandum. The reasons for eliminating alternatives during the preliminary screening process must be specified.

5.1.6 Conduct and Document Screening Evaluation of Each Alternative

Respondent may perform a screening process based on short- and long-term aspects of effectiveness, implementability, and relative cost. Generally, this screening process is only necessary when there are many feasible alternatives available for detailed analysis. If necessary, the screening of alternatives will be conducted to assure that only the alternatives with the most favorable composite evaluation of all factors are retained for further analysis. The range of remaining alternatives will include options that use treatment technologies and permanent solutions to the maximum extent practicable. Respondent shall provide the results and reasoning employed in screening, arraying alternatives that remain after screening, and identifying the action-specific and chemical-specific ARARs and PRGs for the alternatives that remain after screening.

5.2 Treatability Studies (If Necessary)

To the extent necessary to complete the screening of potential remedial alternatives, treatability testing will be performed by Respondent to assist in the detailed analysis of alternatives. If treatability testing is determined to be necessary by EPA, Respondent shall submit a Treatability Testing Work Plan describing the technology to be evaluated, the information needed to support that evaluation, and the methods to be used to perform the treatability testing. Relevant EPA guidance shall be consulted in developing the Treatability Testing Work Plan. The Treatability Testing Work Plan, if required, shall include a SAP (including FSP, QAPP and HASP) as appropriate. The Treatability Testing Work Plan shall also document the schedule for completion of any required treatability studies.

Results of treatability testing, if required, shall be described in a draft Treatability Study Evaluation Report. The draft report shall be submitted to EPA for review and comment, with comments addressed in a final Treatability Study Evaluation Report.

5.3 Alternatives Evaluation Memorandum

Respondent shall conduct a detailed analysis of alternatives that will consist of an analysis of each option against the set of nine CERCLA evaluation criteria and a comparative analysis of all options using the same evaluation criteria as a basis for comparison. The alternatives analysis will be performed using the final set of alternatives developed as part of the Alternatives Development Memorandum. These analyses are described below. The results of these analyses will be documented in an Alternatives Evaluation Memorandum.

5.3.1 Apply Nine Criteria and Document Analysis

Respondent shall apply the nine CERCLA evaluation criteria to the assembled remedial actions or corrective measures to ensure that the selected remedial alternative(s) will be protective of human health and the environment; will be in compliance with, or include a waiver of, ARARs; will be cost-effective; will utilize permanent solutions and alternative treatment technologies, or resource recovery technologies, to the maximum extent practicable; and will address the statutory preference for treatment as a principal element. The evaluation criteria are:

1. Overall protection of human health and the environment;
2. Compliance with ARARs;
3. Long-term effectiveness and permanence;
4. Reduction in toxicity, mobility, or volume;
5. Short-term effectiveness;
6. Implementability;
7. Costs;
8. State (or support agency) acceptance; and
9. Community acceptance.

(Note: Criteria 8 and 9 are considered after the RI and FS Reports have been released to the general public.)

For each alternative, Respondent shall provide:

- A description of the alternative that outlines the remedial strategy involved and identifies the key RAOs, ARARs and PRGs associated with each alternative; and
- A discussion of the assessment of each alternative against each of the nine criteria. If Respondent does not have direct input on criterion 8 (state or support agency acceptance) or criterion 9 (community acceptance), these will be addressed by EPA.

5.3.2 Compare Alternatives Against Each Other and Document the Comparison of Alternatives

Respondent shall perform a comparative analysis between the remedial alternatives to evaluate the relative performance of each alternative in relation to each specific evaluation criterion. That is, each alternative will be compared against the others using the evaluation criteria as a basis of comparison. Identification and selection of the preferred alternative will be performed by EPA. Respondent shall prepare and submit the Alternatives Evaluation Memorandum summarizing the results of the comparative analysis prior to preparation of the FS Report.

5.4 Feasibility Study Report

Following receipt of EPA's comments on the Alternatives Evaluation Memorandum, Respondent shall prepare a draft FS Report for EPA review and comment. Respondent shall refer to the RI/FS Guidance for an outline of the report format and the required report content. Respondent shall prepare a final FS Report that satisfactorily addresses EPA's comments. Draft and final FS Reports shall be submitted to EPA in paper as well as electronic format. Once EPA's comments have been addressed by Respondent to EPA's satisfaction, the final FS Report may be bound with the final RI Report.

6.0 COMMUNITY RELATIONS

The development and implementation of community relations activities are the responsibility of EPA. The critical community relations planning steps performed by EPA include conducting community interviews and developing a community relations plan. Although implementation of the community relations plan is the responsibility of EPA, Respondent shall assist, when requested by EPA, by providing information regarding the Site's history, participating in public meetings, and preparing fact sheets for distribution to the general public. In addition, Respondent shall establish a community information repository near the Site, to house one copy of the administrative record. The extent of community relations activities by potentially responsible parties (PRPs) is left to the discretion of EPA. Respondent's community relations responsibilities, if any, are specified in the community relations plan. Any PRP-conducted community relations activities will be subject to oversight by EPA.

7.0 SCHEDULE

Refer to Table 1 for a summary of the deliverables required by this SOW and the associated schedule for submission of those deliverables.

8.0 ELECTRONIC DATA SUBMITTAL

Respondent shall submit results of field measurements and laboratory analyses of samples to be compiled and used in the RI Report in electronic form. This data will also be provided to EPA in a format usable to EPA and EPA's consultants for the purpose of assessing data relationships and data gaps at the site.

Respondent shall provide results of field measurements, laboratory analyses of samples, and other data relevant to accomplishing the tasks in this SOW, such as CAD files of base maps and other graphic presentations of data, in a usable format to facilitate EPA review of data submittals.

Electronic data includes Site or project-level data, maps or graphical data, sampling data, analytical laboratory data, etc. These data files are generally organized in a readily exportable format (e.g. tabular, dbf, xml, etc.) and allow the regulatory agency or data recipient to easily import the information into a database or to quantitatively analyze the data independently. The data should be submitted in an unsecured format for EPA review.

Examples of data that should be submitted electronically:

1. Site Map:
    a. Preference is for GIS layer file or computer-aided design (CAD) format with all relevant surface features; however PDF or other file format may be acceptable.

2. Boring Logs and Well Construction Details:
   a. X, Y, and Z coordinates, and location ID.
   b. Ground surface elevation, top of casing elevation, depth to lithologic units, lithologic descriptions, depth to well construction material, well construction material type, diameter of casing, drilling method, well development information, etc.
   c. Field test data (e.g., photoionization detector (PID), field x-ray fluorescence (XRF), immunoassay, etc.).
   d. Aquifer slug test or pump test data.
   e. Geophysical test data.
3. Location Data:
   a. X, Y, and Z coordinates.
   b. Coordinate system and projection in use.
4. Depth to Water Data:
   a. Location ID and X, Y, and Z coordinates.
   b. Depth to water.
   c. Date and time of measurement.
   d. Sample collection pumping rates/purge rates.
5. Lab Data:
   a. Chain-of-custody information, e.g., sample collection information (date/time collected, sample matrix, etc.), preservatives used, sample containers used, and condition after transport, etc.
   b. Lab results, e.g., analyses performed, parameters reported, analytical results, and analytical method detection and reporting limits, etc.
   c. QA/QC information, e.g., detection limits, QA/QC standard failures, laboratory narrative regarding non-compliance, etc.
6. Electronic Reports:
   a. Complete electronic copies of all project documents and reports.
   b. Complete electronic copies of all sampling field books and laboratory log books.

Historic information already stored in an electronic format will be provided to EPA and/or its contractor(s) upon request. A brief description of newly acquired data will be included in each monthly report. Newly acquired data will be transmitted within one month of its acquisition (or validation, if needed) unless a longer holding time is agreed upon.

All documents required to be submitted by this SOW shall be provided in its original format and in web-posting ready format (PDF), as directed by EPA. The maximum size document that may be electronically mailed (email) to EPA is 25 MBs per email. Packages larger than 25 MBs should be sent on CD to retain file linkages. Respondent shall follow the following procedures for providing web-posting ready format documents unless otherwise directed by EPA:

- Bookmark documents longer than 10 pages for easier navigation (e.g., chapters).
- Ensure that file/document properties/initial view is for "bookmarks panel and page" if there are bookmarks.
- For documents composed of multiple files, link together with a starter file that is less than 2 MB, i.e., the document's executive summary. The executive summary should have a bookmarks panel with bookmark links to the other files (as an example, look at

the website, T4 EE/CA). Ensure that all files are saved to the same folder, rather than multiple folders so that the linkage is retained during web posting.

- Bookmarks to other files should indicate the name of that file (and size of that file, if over 1 MB).
- "Tag" the document for accessibility if this was not done by the source application (advanced/accessibility/tag) for section 508 compliance.
- Enter document properties: 1) title, author (should be XXXX for EPA Region 10), 2) subject, and 3) keywords.
- "Add links" (advanced/links/create links from URLs in document) to the document so that they can be used to go to the website directly from the document. Links need to start with "http:"etc. to be usable.

9.0 REFERENCES

9.1 References Cited in Document

The following list, although not comprehensive, comprises many of the regulations and guidance documents that apply to the RI/FS Process:

The National Oil and Hazardous Substance Pollution Contingency Plan (NCP), 40 CFR Part 300 et seq.

"Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA," U.S. EPA, Office of Emergency and Remedial Response, October 1988, OSWER Directive No. 9355.3-01.

"Guidance on Conducting Non-Time-Critical Removal Actions Under CERCLA," U.S. EPA, Office of Emergency and Remedial Response, August 1993, OSWER Directive No. 9360.0-32.

"Land Use in the CERCLA Remedy Selection Process," U.S. EPA, Office of Solid Waste and Emergency Response, May 1995, OSWER Directive No. 9355.7-04.

"Reuse Assessments: A Tool to Implement the Superfund Land Use Directive," U.S. EPA/OERR, OSWER Directive No. 9355.7-06P, June 2001.

"Interim Guidance on Potentially Responsible Party Participation in Remedial Investigation and Feasibility Studies," U.S. EPA, Office of Waste Programs Enforcement, Appendix A to OSWER Directive No. 9355.3-01.

"Guidance on Oversight of Potentially Responsible Party Remedial Investigations and Feasibility Studies," Volumes I and II, U.S. EPA, Office of Waste Programs Enforcement, July 1991, OSWER Directive No. 9835.1(c) and .1(d).

"A Compendium of Superfund Field Operations Methods," Two Volumes, U.S. EPA, Office of Emergency and Remedial Response, EPA/540/P-87/001a, August 1987, OSWER Directive No. 9355.0-14.

"RCRA Facility Investigation Guidance," U.S. EPA, May 1989, EPA Doc. No. EPA 530/SW-89-031.

"RCRA Corrective Action Plan," U.S. EPA Office of Solid Waste, May 1994, OSWER Directive No. 9902.3-2a.

"Handbook of Groundwater Protection and Cleanup Policies for RCRA Corrective Action," U.S. EPA, April 2004, EPA Doc. No. EPA/530/R-01/015.

"RCRA Public Participation Manual," U.S. EPA, Sept. 1996, No. 530-R-96-007.

"Guidance for the Data Quality Objectives Process EPA QA/G-4," U.S. EPA, Office of Environmental Information, EPA/600/R-96/055, August 2000.

"Guidance for the Preparation of Standard Operating Procedures QA-G-6. U.S. EPA Office of Environmental Information, EPA/240/B-01/004, March 2001.

"EPA Requirements for Quality Assurance Project Plans," USEPA. EPA QA/R5, March 2001.

"EPA Requirements for Quality Management Plans," U.S. EPA, Office of Emergency and Remedial Response and Office of Waste Programs Enforcement, EPA QA/R-2, EPA/240/B-01/002, March 2001 (revised May 2006).

"EPA Guidance on Quality Assurance Project Plans," QA/G-5, U.S. EPA, Office of Emergency and Remedial Response and Office of Waste Programs Enforcement, EPA/600/R-98/018, February 1998.

"Users Guide to the EPA Contract Laboratory Program: U.S. EPA, Sample Management Office," January 1991, OSWER Directive No. 9240.0-01D.

"Interim Guidance on Compliance with Applicable or Relevant and Appropriate Requirements," U.S. EPA, Office of Emergency and Remedial Response, July 9, 1987, OSWER Directive No. 9234.0-05.

"CERCLA Compliance with Other Laws Manual," Two Volumes, U.S. EPA, Office of Emergency and Remedial Response, August 1988 (draft), OSWER Directive No. 9234.1-01 and -02.

"Presumptive Remedies: Policy and Procedures," U.S. EPA, Office of Emergency and Solid Waste and Emergency Response, Sept. 1993, OSWER Directive No. 9355.0-47FS.

"Presumptive Response Strategy and Ex-Situ Treatment Technologies for Contaminated Groundwater at CERCLA Sites," U.S. EPA, Office of Emergency and Remedial Response, Oct. 1996, OSWER Directive No. 9283.1-12.

"Draft Guidance on Preparing Superfund Decision Documents," U.S. EPA, Office of Emergency and Remedial Response, March 1988, OSWER Directive No. 9355.3-02.

"Risk Assessment Guidance for Superfund--Volume I, Human Health Evaluation Manual (Part A)," December 1989, EPA/540/1-89/002.

"Risk Assessment Guidance for Superfund--Volume II Environmental Evaluation Manual," March 1989, EPA/540/1-89/001.

"Ecological Risk Assessment Guidance for Superfund: Process for Designing and Conducting Ecological Risk Assessments," U.S. EPA, OSWER Directive No. 9285.7-25, June 1998, EPA/540-R-97-006.

"Guidance for Data Usability in Risk Assessment," October 1990, EPA/540/G-90/008.

"Performance of Risk Assessments in Remedial Investigation/ Feasibility Studies (RI/FSs) Conducted by Potentially Responsible Parties (PRPs)," August 28, 1990, OSWER Directive No. 9835.15.

"Supplemental Guidance on Performing Risk Assessments in Remedial Investigation/Feasibility Studies (RI/FSs) Conducted by Potentially Responsible Parties (PRPs)," July 1991, OSWER Directive No. 9835.15(a).

"Supplemental Risk Assessment Guidance for Superfund," Region 10 U.S. EPA, Health and Environmental Assessment Section, August 1991.

"Role of the Baseline Risk Assessment in Superfund Remedy Selection Decisions," April 22, 1991, OSWER Directive No. 9355.0-30.

"Guidance for Comparing Background and Chemical Concentrations in Soil for CERCLA Sites, U.S. EPA, OSWER 9285.7-41, September 2002.

"Role of Background in the CERCLA Cleanup Program," U.S. EPA, OSWER Directive No. 9230.0-97, April 2002.

"Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites," U.S. EPA, OSWER Directive 9355.4-24, March 2003.

"Health and Safety Requirements of Employees Employed in Field Activities," U.S. EPA, Office of Emergency and Remedial Response, July 12, 1981, EPA Order No. 1440.2.

OSHA Regulations in 29 CFR 1910.120 (Federal Register 45654, December 19, 1986).

"Interim guidance on Administrative Records for Selection of CERCLA Response Actions," U.S. EPA, Office of Waste Programs Enforcement, March 1, 1989, OSWER Directive No. 9833.3A.

"Community Relations in Superfund: A Handbook," U.S. EPA, Office of Emergency and Remedial Response, January 1992, OSWER Directive No. 9320.0-03C.

"Community Relations During Enforcement Activities and Development of the Administrative Record," U.S. EPA, Office of Waste Programs Enforcement, November 1988, OSWER Directive No. 9836.0-1A.

"Coordination between RCRA Corrective Action and Closure and CERCLA Site Activities," Office of Enforcement and Compliance Assurance, U.S. EPA, September 24, 1996.

"Superfund Reforms: Updating Remedy Decisions," U.S. EPA, OSWER 9200.0-22, September 27, 1996.

"Institutional Controls: A Guide to Implementing, Monitoring, and Enforcing Institutional Controls at Superfund, Brownfields, Federal Facility, UST and RCRA Corrective Action Cleanups," [Draft] U.S. EPA OSWER, March 2003.

"Fingerprint Analysis of Contaminant Data: A Forensic Tool for Evaluating Environmental Contamination," EPA 600-5-04-054, May 2004.

"Ground-Water Sampling Guidelines for Superfund and RCRA Project Managers," EPA 542-S-02-001, May 2002.

"Proceedings of the Ground-Water/Surface-Water Interactions Workshop," Parts 1, 2, and 3, EPA/542/R-00/007, July 2000.

ECO Update/ Ground Water Forum Issue Paper, Publication 9285.6-17, EPA-540-R-06-072, July 2008. Evaluating Ground-Water/Surface-Water Transition Zones in Ecological Risk Assessments.
http://www.epa.gov/oswer/riskassessment/ecoup/pdf/eco_update_08.pdf

"Phytoremediation of Contaminated Soil and Ground Water at Hazardous Waste Sites," EPA/540/S-01/500, February 2000.

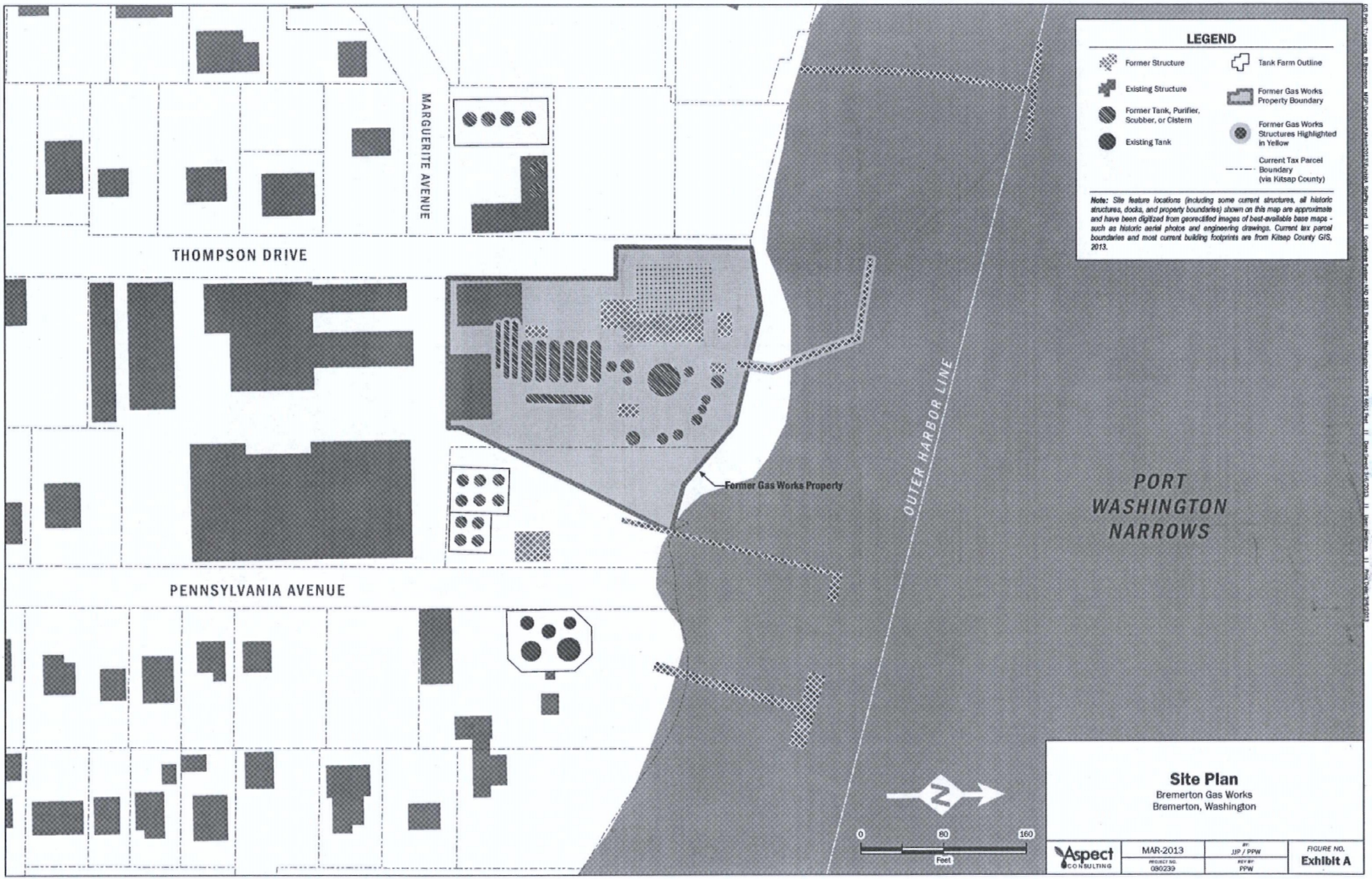
EPA's OSWER Directive 9283.1-33, June 26, 2009. Summary of Key Existing EPA

CERCLA Policies for Groundwater Restoration.
http://www.epa.gov/superfund/health/conmedia/gwdocs/pdfs/9283_1-33.pdf

TABLE 1 – Schedule of Project Deliverables[1]		
TASK	**DELIVERABLE**	**DUE DATE**
Removal Evaluation Work Plan and SQAPP (these can be submitted together or separate)	Draft Removal Evaluation Work Plan and SQAPP Final Removal Evaluation Work Plan and SQAPP	Within 45 days after the effective date of the Settlement Agreement. Within 60 days of Respondent's receipt of EPA's comments.
Removal Evaluation Report	Draft Removal Evaluation Report Final Removal Evaluation Report	Within 90 days of Respondent's receipt of validated data from samples collected during Removal Evaluation. Within 60 days of Respondent's receipt of EPA's comments.
Removal Action Work Plan (if applicable)	Draft Removal Action Work Plan Final Removal Action Work Plan	Within 90 days after issuance by EPA of Action Memorandum. Within 60 days of Respondent's receipt of EPA's comments.
Removal Action HASP and SQAPP (if applicable)	Draft Removal Action HASP and SQAPP Final Removal Action HASP and SQAPP	Concurrent with Removal Action Work Plan.
Conduct Removal Action (if necessary)	None	Time mutually agreed upon by the parties.
Removal Action Report (if applicable)	Draft Removal Action Report Final Removal Action Report	Within 90 days of Respondent's receipt of validated data from samples collected during Removal Action. Within 60 days of Respondent's receipt of EPA's comments.
Scoping Memorandum	Draft Scoping Memorandum Final Scoping Memorandum	Within 90 days of Respondent's receipt of notice from EPA that EPA has approved the Final Removal Action Report or the Removal Evaluation Report if no Removal Action is performed. Within 45 days of Respondent's receipt of EPA's comments.
RI/FS Work Plan	Draft RI/FS Work Plan Final RI/FS Work Plan	Within 120 days of Respondent's receipt of EPA's comments on the Draft Scoping Memorandum. Within 60 days of Respondent's receipt of EPA's comments.

[1] All deadlines in this Table are subject to extension as set forth in the Settlement Agreement, including without limitation, for *Force Majeure* events.

TABLE 1 – Schedule of Project Deliverables[1]		
Site Characterization	Phase 1 Data Report (and addendum to RI/FS Work Plan – if applicable) Phase 2 Data Report (if applicable)	In accordance with the schedule in the RI/FS Work Plan. In accordance with the schedule in the RI/FS Work Plan (if applicable).
Remedial Investigation Report	Draft RI Report Final RI Report	Within 360 days of Respondent's receipt of validated data from samples collected during Site characterization activities. Within 90 days after Respondent receives EPA's comments.
Baseline Ecological Risk Assessment	Draft Baseline Ecological Risk Assessment Report Final Baseline Ecological Risk Assessment Report	Within 180 days of Respondent's receipt of validated data from samples collected during Site characterization activities. Included in the Final RI Report.
Baseline Human Health Risk Assessment	Draft Baseline Human Health Risk Assessment Report Final Baseline Human Health Risk Assessment Report	Within 180 days of Respondent's receipt of validated data from samples collected during Site characterization activities. Included in the Final RI Report.
Alternatives Development Memorandum	Alternatives Development Memorandum	Within 90 days of Respondent's receipt of notice from EPA that EPA has approved the Final RI Report.
Treatability Studies	Treatability Testing Work Plan Treatability Study Evaluation Report	TBD if necessary. TBD if necessary.
Alternatives Evaluation Memorandum	Alternatives Evaluation Memorandum	Within 90 days of Respondent's receipt of EPA's comments on the Alternatives Development Memorandum and Treatability Study Evaluation Report (if applicable).
Feasibility Study Report	Draft FS Report Final FS Report	Within 120 days of Respondent's receipt of notice from EPA that EPA has approved the Alternatives Evaluation Memorandum. Within 60 days after Respondent receives EPA's comments.



Site Plan
Bremerton Gas Works
Bremerton, Washington

Aspect CONSULTING	MAR-2013	BY: JJP / PPW	FIGURE NO.
	PROJECT NO. 080239	REV BY: PPW	Exhibit A