

VA Medical Center Federal Facility Agreement

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 8

AND THE

STATE OF UTAH

AND THE

UNITED STATES DEPARTMENT OF VETERANS AFFAIRS

IN THE MATTER OF:

U.S. Department of Veterans Affairs
VA Salt Lake City Health Care System
George E. Wahlen Department of
Veterans Affairs Medical Center
Salt Lake City, Utah

FEDERAL FACILITY AGREEMENT
under CERCLA Section 120

Administrative
Docket Number:

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Veterans Affairs Medical Center Campus,
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Based on the information available to the Parties on the Effective Date of this FEDERAL FACILITY AGREEMENT (Agreement), and without trial or adjudication of any issues of fact or law, the Parties agree as follows:

I. JURISDICTION

Each Party is entering into this Agreement pursuant to the following authorities:

1.1 The U.S. Environmental Protection Agency (EPA) Region 8 enters into those portions of this Agreement that relate to the Remedial Investigation/Feasibility Study (RI/FS) pursuant to Section 120(e)(1) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 42 U.S.C. § 9620(e)(1), as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA), Pub. L. No. 99-499 (hereinafter jointly referred to as CERCLA), and Sections 6001, 3008(h) and 3004(u) and (v) of the Resource Conservation and Recovery Act (RCRA), 42 U.S.C. Sections 6961, 6928(h), 6924(u) and (v) as amended by the Hazardous and Solid Waste Amendments of 1984 (HSWA) (hereinafter jointly referred to as RCRA), and Executive Order 12580.

1.2 EPA Region 8 enters into those portions of this Agreement that relate to interim remedial actions and final remedial actions pursuant to CERCLA Section 120(e)(2), 42 U.S.C. Section

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9620(e)(2), RCRA Sections 6001, 3008(h) and 3004(u) and (v), 42 U.S.C. Sections 6961, 6928(h), 6924(u) and (v), and Executive Order 12580.

1.3 The United States Department of Veterans Affairs (VA) enters into those portions of this Agreement that relate to the RI/FS pursuant to CERCLA Section 120(e)(1), 42 U.S.C. Section 9620(e)(1), RCRA Sections 6001, 3008(h) and 3004(u) and (v), 42 U.S.C. Sections 6961, 6928(h), 6924(u) and (v), Executive Order 12580, and the National Environmental Policy Act, 42 U.S.C. Section 4321.

1.4 VA enters into those portions of this Agreement that relate to interim remedial actions and final remedial actions pursuant to CERCLA Section 120(e)(2), 42 U.S.C. Section 9620(e)(2), RCRA Sections 6001, 3008(h), 3004(u) and (v), 42 U.S.C. Sections 6961, 6928(h), 6924(u) and (v), and Executive Order 12580.

1.5 The Utah Department of Environmental Quality (UDEQ) enters into this Agreement pursuant to CERCLA Sections 120(f) and 121(f), 42 U.S.C. Sections 9620(f) and 9621(f), Section 3006 of RCRA, 42 U.S.C. Sections 6926, 19-6-323, Utah Code Annotated, and Section 101 et seq., Title 19, Chapter 6, Utah Code Annotated..

II. DEFINITIONS

Except as noted below or otherwise explicitly stated, the definitions provided in CERCLA and the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) shall control the meaning of terms used in this Agreement.

2.1 “Accelerated Operable Unit” or “AOU” shall mean a remedial action, which prevents, controls, or responds to a release or threatened release of hazardous substances, pollutants, and contaminants where prompt action is necessary, but a response under removal authorities is not appropriate or desirable. The purpose of an AOU is to allow the Parties to proceed with a remedial action for that Operable Unit prior to completion of the final Record of Decision (ROD) for the total remedial action. AOU's are particularly appropriate where the size and complexity of the total remedial action would seriously delay implementation of independent parts of the action. AOU's will only proceed after complying with applicable procedures in the NCP, and the Parties shall make every effort to expedite these procedures. It is not intended that AOU's diminish the requirements for or delay the conduct of a total remedial action.

2.2 “Agreement” shall refer to this document and shall include all Appendices to this document. All such Appendices are integral parts of this Agreement and shall be enforceable to the extent provided herein.

2.3 “Applicable State law” shall mean all State of Utah laws administered by the UDEQ determined to be applicable under this Agreement. The term shall include all State laws determined to be Applicable or Relevant and Appropriate Requirements (ARARs).

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2.4 “Applicable or Relevant and Appropriate Requirements” or “ARARs” shall mean “legally applicable” or “relevant and appropriate” requirements, standards, criteria or limitations, as those terms are used in Section 121 of CERCLA, 42 U.S.C. Section 9621, and as defined in the NCP.

2.5 “CERCLA” shall mean the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, 42 U.S.C. Section 9601 et seq., as amended by the Superfund Amendments and Reauthorization Act of 1986, (SARA) Public Law No. 99-499, and any amendments thereto.

2.6 “Community Relations” shall mean the program to inform and involve the public in the installation restoration, CERCLA and RCRA processes and to respond to community concerns.

2.7 “Days” shall mean calendar days, unless business days are specified. Any submittal, written statement of position, or written statement of dispute, which, under the terms of this Agreement, would be due on a Saturday, Sunday, Federal or State holiday shall be due on the following business day.

2.8 “Deadlines” shall mean the Near Term Milestones specifically established for the current fiscal year under the Site Management Plan. Deadlines are subject to stipulated penalties in accordance with Section XX – STIPULATED PENALTIES.

2.9 “Deliverable Documents” shall mean those required documents listed as Primary and Secondary Documents under this Agreement.

2.10 “Documents” or “records” shall mean any documents, writings, correspondence, and all other tangible things on which information has been stored that relates to this Agreement or to any activities to be undertaken relating to this Agreement.

2.11 “EPA” or “U.S. EPA” or “Agency” shall mean the United States Environmental Protection Agency, its employees, agents, authorized representatives, successors and assigns.

2.12 “Facility” shall mean that property owned by the United States and operated by VA as the George E. Wahlen Department of Veterans Affairs Medical Center Campus (VA Medical Center), located in Salt Lake City, Utah. This definition is for the purpose of describing a geographical area and not a governmental entity.

2.13 “Fiscal year” shall mean the time period used by the United States Government for budget management and commences on October 1 and ends on September 30 of the following calendar year.

2.14 “Focused Feasibility Study” or “FFS” shall mean a comparison of alternatives, which concentrates on a particular contaminated medium or a discrete portion of the Site that does not need added investigation in order to progress forward in the remedial process.

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2.15 “Guidance” shall mean any requirements or policy directives issued by EPA or the State that are of general application to environmental matters and which are otherwise applicable to VA’s work under this Agreement.

2.16 “Interim Remedial Action” shall mean all discrete Remedial Actions, including, but not limited to, Accelerated Operable Units (AOUs), implemented prior to a final Remedial Action that are taken to prevent or minimize the release of hazardous substances, pollutants, or contaminants.

2.17 “Land Use Controls” or “LUCs” shall mean any restriction or administrative action, including engineering and institutional controls, arising from the need to reduce risk to human health and the environment.

2.18 “Milestones” shall mean the dates established by the Parties in the Site Management Plan for the initiation or completion of Primary Actions and the submission of Primary Documents and Project End Dates. Milestones shall include Near Term Milestones, Out Year Milestones, Primary Actions, and Project End Dates.

2.19 “National Contingency Plan” or “NCP” shall mean the National Oil and Hazardous Substances Pollution Contingency Plan, 40 C.F.R. Part 300, and any amendment thereto.

2.20 “Near Term Milestones” shall mean the Milestones within the current fiscal year (FY), the next fiscal year or “budget year” (FY+1), and the year for which the budget is being developed or “planning year” (FY+2).

2.21 “On-site” shall have the meaning as defined in the NCP.

2.22 “Operable Unit” or “OU” shall mean a discrete action that comprises an incremental step toward comprehensively remediating the Site. This discrete portion of a remedial response manages migration, or eliminates or mitigates a release, threat of release, or pathway of exposure related to the Site. Operable Units may address geographical portions of the Site, specific Site problems, or initial phases of an action, or may consist of any set of actions performed over time or any actions that are concurrent but located in different parts of the Site. The cleanup of the Site can be divided into a number of Operable Units, depending on the complexity of the problems associated with the Site. The term “Operable Unit” is not intended to refer to the term “operating unit” as used in RCRA. All Operable Units shall be addressed in accordance with the NCP, EPA Guidance and the requirements of CERCLA.

2.23 “Out Year Milestones” shall mean the Milestones within those years occurring after the planning year until the completion of the cleanup or phase of the cleanup (FY+3 through Project End Date).

2.24 “Parties” shall mean VA, the UDEQ and EPA.

2.25 “Primary Actions” as used in these definitions shall mean those specified major, discrete actions that the Parties identify as such in the Site Management Plan. The Parties should identify

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all major, discrete actions for which there are sufficient information to be confident that the date for taking such action is implementable.

2.26 “Project End Dates” shall mean the dates established by the Parties in the Site Management Plan for the completion of major portions of the cleanup or completion of the cleanup of the facility. The Parties recognize that, in many cases, a higher degree of flexibility is appropriate with Project End Dates due to uncertainties associated with establishing such dates.

2.27 “Project Manager” shall mean each person designated by the Parties to represent that Party’s interests and manage all response actions undertaken at the Site.

2.28 “RCRA” shall mean the Resource Conservation and Recovery Act, 42 U.S.C. Section 6901 et seq., as amended by the Hazardous and Solid Waste Amendments of 1984, (HSWA), Public Law No. 98-616, and any amendments thereto.

2.29 “Record(s) of Decision” or “ROD(s)” shall be the public document(s) that select(s) and explain(s) which cleanup alternative(s) will be implemented at the Site, and includes the basis for the selection of such remedy(ies). The bases include, but are not limited to, information and technical analyses generated during the RI/FS and consideration of public comments and community concerns.

2.30 “Schedule” shall mean a timetable or plan that indicates the time and sequence of events.

2.31 “Site” shall include areas within the Facility, and any other areas, where a hazardous substance, hazardous waste, hazardous constituent, pollutant, or contaminant from the Facility has been deposited, stored, disposed of, or placed, or has migrated or otherwise come to be located. The Site is a “facility” within the meaning of Section 101(9) of CERCLA, 42 U.S.C. Section 9601(9). This definition is not intended to include hazardous substances or wastes intentionally transported from the Facility by motor vehicle.

2.32 “Site Management Plan” or “SMP” shall mean a planning document entitled “700 S 1600 E PCE Plume Site Management Plan,” prepared specifically under Section XI – DEADLINES AND CONTENTS OF SITE MANAGEMENT PLAN, which contains timetables, plans, or Schedules that indicate the times and sequences of events. The Site Management Plan will be used as a management tool in planning, reviewing and setting priorities for all response activities at the facility. When final, the SMP shall be attached to and incorporated in to this Agreement. Milestones developed under the terms of this Agreement are listed in the SMP. Deadlines listed in the SMP are subject to stipulated penalties in accordance with Section XX – STIPULATED PENALTIES.

2.33 “Solid Waste Management Unit” or “SWMU”, as defined pursuant to RCRA, shall mean any discernible unit at which solid wastes have been placed at any time, irrespective of whether the unit was intended for the management of solid and/or hazardous waste. Such units include any area at a facility at which solid wastes have been routinely and systematically released.

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2.34 “State” shall mean the State of Utah by and through UDEQ unless the context indicates otherwise.

2.35 “Target Dates” shall mean dates established for the completion and transmission of Secondary Documents. Target Dates are not subject to dispute resolution and they are not Milestones.

2.36 “Transmit” shall mean the following: any document or notice to be transmitted by a certain date will be considered as transmitted on time if: (1) it is provided to the carrier on a next day mail basis no later than the day before it is due to be delivered according to the requirements of this Agreement; (2) it is hand-delivered by the due date; (3) it is sent by certified mail return receipt requested no later than two days before it is due to be delivered according to the requirements of this Agreement. Any other means of transmission must arrive on or before the due date to be considered as timely delivered.

2.37 “UDEQ” shall mean the State of Utah Department of Environmental Quality and its authorized employees and authorized representatives.

2.38 “VA” shall mean the United States Department of Veterans Affairs and its employees, agents, authorized representatives, successors and assigns.

2.39 VISN shall mean Veterans Integrated Service Network

2.40 “Work” shall mean all activities VA is required to perform under this Agreement, except those required by Section XXX – RECORD PRESERVATION.

III. PARTIES BOUND

3.1 The Parties to this Agreement are the EPA, VA, and the UDEQ. The terms of the Agreement shall apply to and be binding upon the Parties and their successors and assigns. VA agrees to include the notices required by Section 120(h) of CERCLA in any contract for the sale or transfer of real property affected by this Agreement. Transfer or conveyance of any interest in real property affected by this Subsection 3.1 shall not relieve VA of its applicable obligations under this Agreement.

3.2 This Agreement shall be enforceable against all of the Parties to this Agreement. VA shall notify the EPA and the UDEQ of the identity and assigned tasks of each of its contractors performing Work under this Agreement upon their selection and contract award. VA shall provide copies of this Agreement to all contractors performing any Work called for by this Agreement. Each Party shall be responsible for ensuring that its contractors comply with the terms and conditions of this Agreement.

3.3 The UDEQ is the designated single State agency, in accordance with the laws of the State of Utah, responsible for the State and Federal programs to be carried out under this Agreement, and the lead agency for the State of Utah, and its participation in the obligations under this Agreement are binding on the State of Utah, as provided by 19-6-323, Utah Code Annotated.

3.4 This Section shall not be construed as an agreement to indemnify any person.

IV. PURPOSE

4.1 The general purposes of this Agreement are to:

4.1.1 Ensure that the environmental impacts associated with past and present activities at the Site are thoroughly investigated and appropriate remedial action taken as necessary to protect the public health, welfare and the environment;

4.1.2 Establish a procedural framework and Schedule for developing, implementing and monitoring appropriate response actions at the Site in accordance with CERCLA, as amended by SARA, the NCP, Superfund Guidance and policy, RCRA, RCRA Guidance and policy, and applicable State law; and

4.1.3 Facilitate cooperation, exchange of information and participation of the Parties in such actions.

4.2 Specifically, the purposes of this Agreement are to:

4.2.1 Identify interim remedial action (IRA) alternatives, which are appropriate at the Site prior to the implementation of final remedial actions(s) for the Site. The IRA alternatives shall be identified and proposed to the Parties as early as possible prior to formal proposal of IRAs to EPA and the State pursuant to CERCLA and applicable State law. This process is designed to promote cooperation among the Parties in identifying IRA alternatives prior to selection of final IRAs.

4.2.2 Establish requirements for the performance of a RI to determine fully the nature and extent of the threat to the public health or welfare or the environment caused by the release and threatened release of hazardous substances, pollutants or contaminants at the Site and to establish requirements for the performance of a FS for the Site to identify, evaluate and select alternatives for the appropriate remedial action(s) to prevent, mitigate, or abate the release or threatened release of hazardous substances, pollutants or contaminants at the Site in accordance with CERCLA and applicable State law.

4.2.3 Identify the nature, objective and Schedule of response actions to be taken at the Site. Response actions at the Site shall attain that degree of cleanup of hazardous substances, pollutants or contaminants mandated by CERCLA and applicable State law;

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4.2.4 Implement the selected interim remedial and final remedial action(s) in accordance with CERCLA and applicable State law and meet the requirements of CERCLA Section 120(e)(2) for an interagency agreement among the Parties.

4.2.5 Ensure compliance, through this Agreement, with RCRA and other Federal and State hazardous waste laws and regulations for matters covered herein.

4.2.6 Coordinate response actions at the Site with the mission and support activities at VA Medical Center.

4.2.7 Expedite the cleanup process to the extent consistent with protection of human health and the environment.

4.2.8 Provide for UDEQ involvement in the initiation, development, selection, and enforcement of remedial actions to be undertaken at the Site, including the review of all applicable data as it becomes available, and the development of studies, reports, and action plans; and to identify and integrate State ARARs into the remedial action process.

4.2.9 Provide for operation and maintenance of any remedial action selected and implemented pursuant to this Agreement.

4.2.10 Provide for interactive community involvement in the initiation, development and selection of remedial action(s) to be undertaken at the Site, through proper maintenance of and provision for public access to the Administrative Record, and implementation of the Community Relations Plan provided for in this Agreement.

V. SCOPE OF AGREEMENT

5.1 This Agreement is entered into by the Parties to enable VA to meet the provisions of CERCLA, 42 U.S.C. Section 9601 et seq., and RCRA Sections 3004(u) and (v) and 3008(h), as amended, 42 U.S.C. Sections 6924(u) and (v) and 6928(h).

5.2 This Agreement is intended to cover the investigation, development, selection, and implementation of response actions for releases or threatened releases of hazardous substances, contaminants, hazardous wastes, hazardous constituents, or pollutants at or from the Site. This Agreement covers all phases of remediation for these releases, bringing together into one agreement the requirements for remediation as well as the system the Parties will use to determine and accomplish remediation, ensuring the necessary and proper level of participation by each Party. Although all such releases at the Site are not currently known, the Agreement establishes the system for dealing with those undiscovered releases. To accomplish remediation of those undiscovered releases, the Parties will establish Schedules and Deadlines as necessary and as information becomes available and, if required, amend this Agreement as needed.

5.3 This Agreement is intended to address and satisfy any of VA's RCRA corrective action obligations, which relate to the release(s) of hazardous substances, hazardous wastes, hazardous

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constituents, pollutants, or contaminants at or from all areas addressed under future corrective action permits. This Agreement is not intended to limit any requirements under RCRA or any other law or regulation to obtain permits, or to address releases that are subject to corrective action under such permits that are not associated with the ground water contamination described in Section VI Findings of Fact, and is not intended to affect the treatment, storage, or disposal by VA Medical Center of hazardous wastes. This Agreement is not intended to encompass response to spills of hazardous substances from ongoing operations unless those spills occur in conjunction with CERCLA removal actions or remedial actions pursuant to this Agreement.

5.4 The scope of this Agreement extends to the entire Site, as listed in the Federal Register proposing the Site for the National Priorities List (NPL) and as provided for in this Agreement. A release at the Site cannot be deleted from the NPL unless it is determined, in accordance with CERCLA, the NCP, and this Agreement, that all appropriate response actions for such release have been implemented, and that the release at the Site no longer poses a threat to human health or the environment. All response actions at the Site shall occur in discrete locations termed Operable Units (OUs) identified at the Site pursuant to this Agreement.

5.5 Any response action in progress on the Effective Date of this Agreement shall be subject to the obligations and procedures of this Agreement.

5.6 The Parties agree to expedite the initiation of response actions at the Site, including any interim response actions, and to carry out all activities under this Agreement so as to protect the public health, welfare and the environment. Upon request, the Parties agree to provide applicable Guidance or reasonable assistance in obtaining such Guidance relevant to the implementation of this Agreement.

VI. FINDINGS OF FACT

6.1 For purposes of this Agreement, the following constitutes a summary of the findings upon which this Agreement is based. Nothing contained in this Agreement shall constitute an admission of any liability by VA for any matters contained herein nor shall anything in this Agreement constitute an admission by VA with respect to any finding of fact or any legal determination noted herein.

6.2 The George E. Wahlen Department of Veterans Affairs Medical Center Campus ("VA Medical Center") occupies approximately 72 acres located in Salt Lake City, Utah. This medical center is a 121-bed tertiary care facility serving Veterans residing within a 125,000 square mile primary service area within VA's Rocky Mountain Network (VISN 19). The Salt Lake City Healthcare System offers all of the traditional services plus specialty areas such as pathology, radiology, neurology, nuclear medicine, psychiatry, and open heart surgery, including cardiac transplantation.

6.3 VA Medical Center is bounded on the north by 500 South, on the south by Sunnyside Avenue, on the east by Foothill Drive, and on the west by Guardsman Way. The diversely

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developed area surrounding VA Medical Center includes university campus buildings, retail businesses, a cemetery and residential neighborhoods.

6.4 Construction of VA Medical Center was completed in 1952. Hospital consolidation (i.e., 12th Street with Fort Douglas) occurred in 1961.

6.5 From 1976 to 1984, VA Medical Center operated a part-time onsite dry cleaning operation for its Veteran patients in Building 7. This operation consisted of a single dry cleaning machine that typically operated for 3-4 hours per day, 3-4 days per week. Since its construction, the use of Building 7 has been multipurpose and, in addition to laundry facilities, has previously been used for warehousing, animal surgery and research.

6.6 Ground water contaminated with tetrachloroethylene (PCE) was discovered in 1990 during routine sampling of the Mount Olivet Cemetery irrigation well, which is located approximately 2,200 feet hydraulically downgradient from Building 7.

6.7 A Salt Lake City municipal drinking water well (SLCWS Well #18) was permanently shut down due to PCE contamination in 2004. The well is located approximately 2, 200 feet northwest of Building 7 and the sanitary sewer line.

6.8 The full extent of contaminated ground water is unknown, but with the 2010/2011 discovery of downgradient PCE-contaminated springs, contamination is estimated to cover at least 200 acres. The area of contamination is generally referred to as the 700 S 1600 E PCE Plume Site.

6.9 On September 18, 2012, EPA completed, pursuant to CERCLA, a Hazard Ranking System (HRS) evaluation of the 700 S 1600 E PCE Plume Site that resulted in a score of 50. Based on the HRS evaluation, and in accordance with EPA policy, on September 18, 2012, the 700 S 1600 E PCE Plume Site was proposed for inclusion on the National Priorities List (NPL). On May 24, 2013, the 700 S 1600 E PCE Plume Site was finalized on the NPL. The notice was published in the Federal Register at 79 FR 31417. During the HRS scoring process, one potential source area was identified. The identified source area is the historic disposal of PCE-contaminated condensate from the former VA Medical Center dry cleaning operation to the sanitary sewer line that leads from Building 7.

6.10 Numerous investigations were undertaken from the late 1980s through 2012 in an effort to characterize the source of the contamination and the potential threats to human health and the environment. The nature of these investigations ranged from analyzing ground water, surface water, spring water, and soil gas to inserting video cameras into the sewer line that leads from floor drains in Building 7.

6.11 Based on the documented waste disposal practices at the former dry cleaning operation in Building 7, the condition of the sewer line leading from the operation, the detection of PCE in soil gas above the sewer line in concentrations greater than background levels, and the detection of PCE in ground water and springs downgradient of Building 7 a release of hazardous substances has occurred to the ground water migration pathway.

VII. EPA DETERMINATIONS

7.1 The following constitutes a summary of the determinations relied upon by EPA to establish its jurisdiction and authority to enter into this Agreement. None of these determinations shall be considered admissions to any person, related or unrelated to this Agreement, for purposes other than determining the basis of this Agreement or establishing the jurisdiction and authority of the Parties to enter into this Agreement.

7.2 The United States Department of Veterans Affairs is a “person” as defined in Section 101(21) of CERCLA, 42 U.S.C. Section 9601(21).

7.3 VA Medical Center is a “facility” as defined by Section 101(9) of CERCLA, 42 U.S.C. Section 9601(9), and 10 U.S.C. Section 2701 *et seq.*

7.4 The United States is the owner and operator of VA Medical Center as defined in Sections 101(20) and 107(a)(1) of CERCLA, 42 U.S.C. Sections 9601(20) and 9607(a)(1). VA is charged with fulfilling the obligations of the owner/operator under CERCLA at VA Medical Center. VA is also the “lead agency,” as defined in 40 C.F.R. § 300.5, for planning and implementing response actions under CERCLA at the 700 S 1600 E PCE Plume Site.

7.5 There has been a release or a substantial threat of a release of hazardous substances, pollutants, contaminants, hazardous wastes or constituents at or from the Facility.

7.6 The actions provided for in this Agreement are not inconsistent with the NCP.

7.7 The actions provided for in this Agreement are necessary to protect the public health, welfare, and the environment.

7.8 This Agreement provides for the expeditious completion of all necessary response actions.

VIII. STATUTORY COMPLIANCE/RCRA-CERCLA INTEGRATION

8.1 The Parties intend to integrate VA’s CERCLA response obligations and RCRA corrective action obligations which relate to the release(s) of hazardous substances, hazardous wastes, pollutants or contaminants covered by this Agreement into this comprehensive Agreement. Therefore, the Parties intend that activities covered by this Agreement will be deemed to achieve compliance with CERCLA, 42 U.S.C. Section 9601 *et seq.*; to satisfy the corrective action requirements of RCRA Sections 3004(u) and (v), 42 U.S.C. Sections 6924(u) and (v), for a RCRA permit, and RCRA Section 3008(h), 42 U.S.C. Section 6928(h), for interim status facilities; and to meet or exceed all applicable or relevant and appropriate Federal and

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State laws and regulations, to the extent required by CERCLA Section 121, 42 U.S.C. Section 9621 and applicable State law.

8.2 Based upon the foregoing, the Parties intend that any remedial action selected, implemented and completed under this Agreement will be deemed by the Parties to be protective of human health and the environment such that remediation of releases covered by this Agreement shall obviate the need for further corrective action under RCRA (i.e., no further corrective action shall be required). The Parties agree that, with respect to releases of hazardous waste covered by this Agreement, RCRA shall be considered an applicable or relevant and appropriate requirement pursuant to CERCLA Section 121, 42 U.S.C. Section 9621.

8.3 The Parties recognize that the requirement to obtain permits for response actions undertaken pursuant to this Agreement shall be as provided for in CERCLA and the NCP. The Parties further recognize that ongoing hazardous waste management activities at the VA Medical Center may require the issuance of permits under Federal and State laws. This Agreement does not affect the requirements, if any, to obtain such permits. However, if a permit is issued to the VA Medical Center for ongoing hazardous waste management activities at the Site, U.S. EPA and or the State shall reference and incorporate any appropriate provisions, including appropriate schedules (and the provision for extension of such schedules), of this Agreement into such permit. With respect to those portions of this Agreement incorporated by reference into permits, the Parties intend that judicial review of the incorporated portions shall, to the extent authorized by law, only be reviewed under the provisions of CERCLA.

8.4 Nothing in this Agreement shall alter VA's authority with respect to removal actions conducted pursuant to CERCLA Section 104, 42 U.S.C. Section 9604.

IX. WORK TO BE PERFORMED

9.1 The Parties recognize that background information exists and has been reviewed prior to developing the Work Plans required by this Agreement. VA need not halt currently ongoing work but may be obligated to modify or supplement work previously done to meet the requirements of this Agreement. It is the intent of the Parties to this Agreement that work done and data generated prior to the Effective Date of this Agreement be retained and utilized as elements of the RI/FS to the maximum extent feasible.

9.2 Operable Units

9.2.1 VA shall develop, implement and report on Remedial Investigations and Feasibility Studies (RI/FSs) for the 700 S 1600 E PCE Plume Site, including potential sources of the contamination at the Site, and any Operable Units established under Subsection 9.2.2. If an Operable Unit is modified under Subsection 9.2.3, and RI/FS work is appropriate for the modified Operable Unit, then VA shall develop, implement and report on a RI/FS for the modified Operable Unit.

9.2.2 Any Party may propose the designation of an Operable Unit within the Site. The proposal must be in writing to the other Parties and must state the reasons for designating a new Operable Unit. The proposal shall be discussed by all Project Managers within forty-five (45) days of the written notice. Dispute Resolution may be invoked if the Parties are not in agreement on the proposal of a specific Operable Unit. If Dispute Resolution is not invoked by the Parties within thirty (30) days after completion of the Project Managers' discussion concerning the proposal, or if the need for an Operable Unit is established through Dispute Resolution, new Operable Unit, as that term is defined in Section II – DEFINITIONS of this Agreement, is established

9.2.3 A Party may propose that an established Operable Unit be modified. The proposal must be in writing to the other Parties, and must state the reasons for the modification. The proposal shall be discussed by the Project Managers within forty-five (45) days of the written notice. Dispute Resolution may be invoked if the Parties are not in agreement on the proposal to modify a specific Operable Unit. If Dispute Resolution is not invoked within thirty (30) days after the Project Managers' discussion concerning the modification, or if the need for modifying an Operable Unit is established through Dispute Resolution, the Operable Unit, as defined in Section II – DEFINITIONS, shall be modified.

9.2.4 In the Site Management Plan, VA shall include a Schedule and Milestone(s) for submitting RI/FS Work Plan(s) for the areas identified in subsection 9.2.1. When a new Operable Unit is established under Subsection 9.2.2, VA shall, in the next draft amendment to the Site Management Plan, propose a Milestone for submitting a RI/FS Work Plan for the new Operable Unit. When an Operable Unit is modified under Subsection 9.2.3, and RI/FS work is appropriate for the modified Operable Unit, VA shall, in the next draft amendment to the Site Management Plan, propose a Milestone for submitting a RI/FS Work Plan for the modified Operable Unit. The RI/FS Work Plan(s) shall contain proposed Schedules and Milestone(s) for the submittal of the RI/FS Report(s). The Schedule(s) and Milestone(s) included in the Final RI/FS Work Plan(s) shall be incorporated into the Site Management Plan in accordance with Section XI – DEADLINES AND CONTENTS OF SITE MANAGEMENT PLAN of this Agreement. The development of the FS(s) will proceed in accordance with Subsection 9.2.7 of this Agreement.

9.2.5 For those areas that the Parties determine represent a negligible or minimal risk and are strong candidates for no action, VA shall submit a concise FS statement indicating negligible or minimal risks were found and no action is warranted. If the Parties determine that no action is required, a no-action Proposed Plan will be prepared. A Schedule for completing a no-action Proposed Plan will be developed in accordance with Section XI – DEADLINES AND CONTENTS OF SITE MANAGEMENT PLAN of this Agreement.

9.2.6 RIs shall be conducted in accordance with the requirements and Schedules set forth in the approved RI/FS Work Plan(s) and Site Management Plan. RIs shall meet the purposes set forth in Section IV – PURPOSE, of this Agreement. A Baseline Risk Assessment shall be a component of the RIs. Final Site clean-up level criteria will only be determined following completion of the Baseline Risk Assessment.

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9.2.7 VA agrees it shall develop, implement and report upon a FS for areas subject to a RI. The FS shall be conducted in accordance with the requirements and Schedules set forth in the Site Management Plan. The FS shall meet the purposes set forth in Section IV – PURPOSE of this Agreement.

9.2.8 If during performance of the RI/FS any non-VA contributing source(s) to the 700 S 1600 E PCE Plume Site are identified, the parties will consider the need for additional response and the use of all available enforcement authorities to provide such response. If additional contributing sources of contamination are identified, VA agrees to assist EPA in identifying and encouraging other PRPs to participate in any response actions taken to address the plume. To the extent that viable responsible parties exist for additional sources contributing to the plume, EPA and VA agree to coordinate in pursuing cost recovery actions against those responsible parties. Amendments to this Agreement based on the identification of additional contributing sources, if any, will be made according to the process set forth in Section XXXVI.

9.2.9 If during the performance of the RI and/or FS, VA presents information to EPA and UDEQ demonstrating that VA did not contribute to the 700 S 1600 East PCE Plume Site and EPA and UDEQ agree in writing that VA is not a contributing source to the Site and the source is not located on VA property, this Agreement shall terminate as provided herein within ninety (90) days of the written agreement. Upon termination, VA shall have no further obligations under this Agreement except the maintenance of Land Use Controls (LUCs) located on VA property and instituted by VA prior to termination under this paragraph, annual inspections of such LUCs, and annual reporting to EPA and UDEQ on the status of such LUCs, and granting EPA, its agents, and whomever is performing the response action access at reasonable times to VA property for the purpose of implementing the investigation and cleanup. Following termination of this agreement as provided in this paragraph, VA also has the obligation to preserve LUCs established on VA property as part of the remedial action by someone other than VA and to notify EPA and UDEQ, within 15 days of discovery, of any observed breaches to the LUCs.

9.3 Procedures for Interim Remedial Actions

9.3.1 VA shall implement those Interim Remedial Actions (IRA) necessary to prevent, minimize, or eliminate risks to human health and the environment caused by the release of hazardous substances, pollutants, or contaminants. An Interim Remedial Action is identified, proposed, and implemented prior to a final Remedial Action. An IRA shall attain ARARs to the extent required by CERCLA or the NCP and be consistent with, and contribute to, the efficient performance of a final Remedial Action(s) taken at an area or Operable Unit. An IRA must be protective of human health and the environment, and comply with CERCLA, the NCP, and State laws to the extent that they are legally applicable, or relevant and appropriate requirements in accordance with Section 121 of CERCLA, and this Agreement.

9.3.2 When a Party to this Agreement determines that an Interim Remedial Action is necessary for any area(s) within the Site, such Party shall notify, in writing, the other Parties, of the proposal. The Proposal Notification to the other Parties under this Subsection 9.3.2 shall at a minimum include the location(s) of such area(s) within the Site and the reason(s) the Party

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believes an Interim Remedial Action is required. Any Party may propose an IRA for those Operable Unit(s) most suitable for an Interim Remedial Action.

9.3.3 Within thirty (30) days of notification, any Party may request a meeting of the Parties to assist in expediting the decision to proceed with an IRA. If a dispute(s) arises over whether to address such an area(s) under this Agreement that cannot be settled between the Parties within thirty (30) days from completion of the meeting, the dispute(s) shall be immediately brought to the Dispute Resolution Committee (DRC) pursuant to Section XIX – DISPUTE RESOLUTION.

9.3.4 After the determination that an Interim Remedial Action is required under this Agreement, VA shall, in the next draft amended Site Management Plan, submit to the EPA and the UDEQ proposed Milestone(s) for the submission of Work Plan(s) for the performance of a Focused Feasibility Study (FFS) for the identified area(s). The Milestone(s) will be finalized in accordance with Section XI – DEADLINES AND CONTENTS OF SITE MANAGEMENT PLAN. The Schedule and Milestone(s) included in the approved, final FFS Work Plan will immediately be incorporated in the Site Management Plan. The FFS shall include a limited number of proposed Interim Remedial Action alternatives. To the extent possible, the FFS shall provide an assessment of the degree to which these alternatives were analyzed during their development and screening. VA shall develop, implement, and report upon each FFS in accordance with the requirements set forth in the final FFS Work Plan. VA shall follow the steps outlined in Subsections 9.4.2 through 9.7.4 below.

9.4 Records of Decision and Plans for Remedial Action

9.4.1 This Subsection 9.4 shall apply to selection of remedial actions and any disputes relating thereto.

9.4.2 Within seventy-five (75) days after finalization of a RI/FS or FFS, VA shall submit a draft Proposed Plan to the EPA and the UDEQ for review and comment as described in Section X – CONSULTATION. Within fourteen (14) days after receiving EPA's acceptance and the UDEQ's comments on the Proposed Plan, VA shall publish its Proposed Plan for thirty (30) days of public review and comment. During the public comment period, VA shall make the Proposed Plan and supporting analysis and information available to the public in the Administrative Record. VA shall hold a public information meeting during the public comment period to discuss the preferred alternative for each Remedial Action. Copies of all written and oral public comments received will be provided to the Parties. Public review and comment shall be conducted in accordance with Section 117(a) of CERCLA, 42 U.S.C. Section 9617(a), and applicable EPA and State Guidance.

9.4.3 Following public comment, VA, in consultation with the EPA and the UDEQ, will determine if the Proposed Plan should be modified based on the comments received. These modifications will be made by VA and the modified documents will be provided to the EPA and the UDEQ for review. The Parties may recommend that additional public comment be solicited if modifications to the Proposed Plan substantially change the remedy originally proposed to the public. The determination concerning whether a Proposed Plan should be modified or whether

additional public comment is necessary is subject to the dispute resolution provisions of this Agreement, Section XIX – DISPUTE RESOLUTION.

9.4.4 VA shall submit its draft ROD to the EPA and the UDEQ within seventy-five (75) days following the close of the public comment period, including any extensions, on the Proposed Plan. The draft ROD will include a Responsiveness Summary, in accordance with applicable EPA Guidance. Pursuant to CERCLA Section 120(e)(4)(A), 42 U.S.C. Section 9620(e)(4)(A), the EPA and VA, in consultation with the State, shall make the final selection of the remedial action(s).

9.4.5 The selection of a remedy that does not attain a legally applicable or relevant and appropriate standard, requirement, criteria or limitation is one basis on which the State may determine not to concur with a final remedial action plan. In accordance with CERCLA Section 121(f)(3)(A), 42 U.S.C. Section 9621(f)(3)(A), at least thirty (30) days prior to the publication of VA's final remedial action plan, if VA proposes to select a remedial action that does not attain a legally applicable or relevant and appropriate standard, requirement, criteria or limitation, VA shall provide an opportunity for the State to concur or not concur in the selection of such plan. If the State concurs or does not act within thirty (30) days of receipt of notification by VA of pending publication of the final remedial action plan, the remedial action may proceed. If the State does not concur, it may act pursuant to Section 121(f)(3)(B) of CERCLA, 42 U.S.C. Section 9621(f)(3)(B).

9.4.6 If EPA and VA are unable to reach agreement on the selection of the remedy, after exhausting the Dispute Resolution process set forth in Section XIX – DISPUTE RESOLUTION, then the EPA Administrator shall select the remedy in accordance with all applicable laws and procedures.

9.4.7 Notice of the final ROD shall be published by the Party preparing it and shall be made available to the public prior to commencement of the remedial action, in accordance with Section 117(b) of CERCLA, 42 U.S.C. Section 9617(b). The final ROD shall include a statement that the State has concurred or not concurred with the selection of the remedy.

9.5 Remedial Design and Remedial Action

9.5.1 The Site Management Plan shall include a Target Date for submission of a preliminary/conceptual Remedial Design (RD) (30 percent design report); a Target Date for submission of the 90 percent or pre-final Remedial Design; and a Deadline for the final Remedial Design. All design documents shall be prepared in accordance with this Agreement and applicable Guidance issued by EPA including *Principles and Procedures for Specifying Monitoring and Enforcement of Land Use Controls and Other Post-ROD Actions (as amended)*.

9.5.1.1 The RD shall provide the appropriate plans and specifications describing the intended remedial construction and shall include provisions necessary to ensure that the remedial action will achieve ARARs and performance standards identified in the ROD.

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9.5.1.2 The RD shall describe short and long-term implementation actions, and responsibilities for the actions, to ensure long-term viability of the remedy, which may include both Land Use Controls and an engineered portion (e.g., landfill caps, treatment systems) of the remedy. The term “implementation actions” includes all actions to implement, operate, maintain, and enforce the remedy.

9.5.2 The Remedial Action (RA) Work Plan(s) shall at a minimum contain a Schedule for the completion of the Remedial Action, a Health and Safety Plan, a Sampling and Analysis Plan, and a Quality Assurance Project Plan, Remedial Action Specifications, Erosion Control and Sedimentation Plan, Decontamination Plan, Remedial Action Contingency Plan, and provisions for operation and maintenance, if necessary. The Schedule contained in the final RA Work Plan(s) will be immediately incorporated in the Site Management Plan.

9.5.3 After the final design document is approved, pursuant to Section X – CONSULTATION, VA shall begin performance of the Remedial Action in accordance with the ROD, final Remedial Design and the RA Work Plan. The Remedial Action shall be completed in accordance with the ROD, approved final Remedial Design and RA Work Plan and all applicable EPA and State Guidance.

9.5.4 Following completion of remedial action at each Operable Unit (OU) and in accordance with the Schedule in the Site Management Plan, VA shall prepare and submit to the EPA and UDEQ a Remedial Action Completion Report (RACR) to show that remedial action objectives for an OU have been achieved. The RACR shall provide an explanation for any activities that were not conducted in accordance with the final Remedial Design and/or RA Work Plan(s). In addition, for long-term remedies where it is anticipated that remedial action objectives will be achieved over a long period, VA shall submit to the EPA and UDEQ, according to the Schedule in the Site Management Plan, a RACR which shall document that physical construction is complete and the unit is operating as designed.

9.6 Accelerated Operable Unit

9.6.1 Accelerated Operable Units (AOUs), as defined in Section II – DEFINITIONS, will follow a streamlined remedial process as set forth below. Any Party may propose in writing that an Operable Unit (OU) be conducted as an AOU. The Party proposing an AOU shall be responsible for drafting an AOU proposal, which shall clearly define the purpose, scope and goals of the AOU. VA shall evaluate all proposed AOUs.

9.6.2 Within thirty (30) days of notification, any Party may request a meeting of the Parties to assist in expediting selection of an AOU. If dispute resolution is not invoked within thirty (30) days following receipt of a proposal for an AOU by the Parties, or thirty (30) days after the meeting, or if the need for an AOU is established through Section XIX – DISPUTE RESOLUTION, the proposed AOU shall be incorporated into the Site Management Plan as an AOU. VA agrees to pursue additional funding within ten (10) days of establishment of the AOU in order to initiate the AOU.

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9.6.3 Within fifteen (15) days after the determination that an AOU is required under this Agreement, VA shall submit to EPA and the UDEQ proposed Deadlines for the submission of Work Plan(s) for the performance of an AOU Focused Feasibility Study (FFS) for the identified AOU(s). Each AOU FFS Work Plan shall contain a proposed Deadline for submittal of the AOU FFS and Proposed Plan, which will be incorporated in the next Site Management Plan. VA shall develop, implement and report upon each AOU FFS in accordance with the requirements set forth in the final AOU FFS Work Plan. VA shall follow the steps outlined in Subsections 9.4.2 through 9.5.4.

9.7 Supplemental Response Action

9.7.1 The Parties recognize that subsequent to finalization of a ROD, a need may arise for one or more supplemental response actions to remedy continuing or additional releases or threats of releases of hazardous substances, pollutants, or contaminants at or from the Site. If such release or threat of release may present an immediate threat to public health or welfare or the environment, it shall be addressed pursuant to Section XVII – REMOVAL AND EMERGENCY ACTIONS. If such release or threat of release does not present an immediate threat to public health or welfare or the environment, it shall be addressed pursuant to Subsections 9.7.2 through 9.8.2.

9.7.2 A supplemental response action shall be undertaken only when:

9.7.2.1 A determination is made that:

9.7.2.1.1 As a result of the release or threat of release of a hazardous substance, pollutant, or contaminant at or from the Site, an additional response action is necessary and appropriate to ensure the protection of human health or the environment; or,

9.7.2.1.2 There is or has been a release of hazardous waste or hazardous constituents into the environment and corrective response action is necessary to protect human health or the environment; and,

9.7.2.2 Either of the following conditions is met for any determination made pursuant to Subsection 9.7.2.1, above:

9.7.2.2.1 For supplemental response actions proposed after finalization of the ROD, but prior to EPA Certification, the determination must be based upon conditions at the Site that were unknown at the time of finalization of the ROD or based upon new information received in whole or in part by EPA following finalization of the ROD; or

9.7.2.2.2 For supplemental response actions proposed after EPA Certification, the determination must be based upon conditions at the Site that were unknown at the time of EPA Certification or based upon new information received in whole or in part by EPA or the UDEQ following EPA Certification.

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9.7.3 If, subsequent to ROD signature, any Party concludes that a supplemental response action is necessary, based on the criteria set forth in Subsection 9.7.2, such Party shall promptly notify the others of its conclusion in writing. The notification shall specify the nature of the modification needed and the new information on which it is based. The Project Managers shall confer and attempt to reach consensus on the need for such an action within thirty (30) days of receiving such notification. If the Project Managers fail to reach consensus, any Party may notify the other Parties in writing within ten (10) days thereafter that it intends to invoke dispute resolution. If the Project Managers are still unable to reach consensus within fourteen (14) days of the issuance of notice invoking dispute resolution, the question of the need for the supplemental response action shall be resolved through dispute resolution.

9.7.4 If the Project Managers agree, or if it is determined through dispute resolution, that a supplemental response action is needed based on the criteria set forth in Subsection 9.7.2, VA shall propose a Deadline for submittal of the Supplemental Work Plan(s) and a Schedule for performance of the Work there under to EPA and the UDEQ in the next draft amended SMP.

9.7.5 After finalization of a Supplemental Work Plan, VA shall conduct a Supplemental Response Action RI/FS. Following finalization of the Supplemental Response Action RI/FS, the procedures described in Subsections 9.4 and 9.5 shall be followed.

9.8 Construction Completion and Site Completion.

9.8.1 Construction Completion. VA agrees that it shall provide written notice to EPA and the UDEQ when physical construction of all remedial actions for all Operable Units is complete and will incorporate in the notice reference to the supporting RACRs.

9.8.2 Site Completion. Following completion of remedial action at the last Operable Unit and in accordance with the Schedule in the Site Management Plan, VA shall prepare and submit to EPA and UDEQ a Remedial Action Completion Report (RACR) to show that remedial action objectives for all OUs have been achieved. The RACR shall provide an explanation for any activities that were not conducted in accordance with the final Remedial Design and/or RA Work Plan(s). The information provided therein shall document compliance with statutory requirements and provide a consolidated record of all remedial activities for all OUs at the Site. In order for a Site to be eligible for completion, the following criteria must be met:

9.8.2.1 Remedial Action Objectives specified in all RODs have been met, and all cleanup actions and other measures identified in the RODs have been successfully implemented;

9.8.2.2 The constructed remedies are operational and performing according to engineering specifications;

9.8.2.3 The Site is protective of human health and the environment;

9.8.2.4 Land use controls are in place as appropriate; and

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9.8.2.5 The only remaining activities, if any, at the site are long term management activities (which may include long-term monitoring).

9.8.3. Information provided for remedial action completion shall be signed by VA's signatory authority or designee, certifying that remedial activities have been completed in full satisfaction of the requirements of this Agreement, and shall include a request for EPA certification of remedial action completion at the Site. Within ninety (90) days of EPA's receipt of VA's request for certification of Site completion, EPA, in consultation with the UDEQ, shall:

9.8.3.1 Certify that all response actions have been completed at the Site in accordance with CERCLA, the NCP and this Agreement, based on conditions known at the time of certification; or

9.8.3.2 Deny VA's request for certification of Site completion, stating the basis of its denial from the standards identified in 9.8.2 and detailing the additional Work needed for completion and certification.

9.8.3.3 If EPA, in consultation with the UDEQ, denies VA's request for certification for Site completion in accordance with this Agreement, VA may invoke dispute resolution in accordance with Section XIX – DISPUTE RESOLUTION of this Agreement within twenty (20) days of receipt of the written denial of certification or determination that additional Work is necessary. If the denial of certification is upheld through the dispute resolution process, VA will perform the requested additional Work.

9.8.3.4 If dispute resolution is not invoked, or if a denial of certification is upheld through dispute resolution, VA shall, in the next draft amended Site Management Plan submitted after receipt of the written denial of certification or dispute resolution finding, propose a Deadline for the submittal of a draft Supplemental Work Plan. The draft Supplemental Work Plan shall contain a Schedule for completion of the additional Work required. This Schedule, once approved, will be incorporated in the Site Management Plan. After performing the additional Work, VA may resubmit a request for certification to EPA as outlined in this Subsection 9.8.3. EPA, in consultation with the UDEQ, shall then grant or deny certification pursuant to the process set forth in this Subsection 9.8.3.

X. CONSULTATION

10.1 Review and Comment Process for Draft and Final Documents, Applicability

10.1.1 The provisions of this Section establish the procedures that shall be used by the Parties to provide each other with appropriate notice, review, comment, and response to comments regarding RI/FS and RD/RA documents, specified herein as either Primary or Secondary Documents. In accordance with CERCLA Section 120 and 10 U.S.C. 2705, VA will normally be responsible for issuing Primary and Secondary Documents to EPA and the UDEQ. As of the Effective Date of this Agreement, all draft and final reports for any deliverable document identified herein shall be prepared, distributed and subject to dispute in accordance with Subsections 10.2 through 10.10 below.

10.1.2. The designation of a document as “draft” or “final” is solely for purposes of consultation with EPA and the UDEQ in accordance with this Section. Such designation does not affect the obligation of the Parties to issue documents, which may be referred to herein as “final,” to the public for review and comment as appropriate and as required by law.

10.2 General Process for RI/FS and RD/RA Documents

10.2.1 Primary Documents include those documents that are major, discrete portions of RI/FS or RD/RA activities. Primary Documents are initially issued by VA in draft subject to review and comment by EPA and the UDEQ. Following receipt of comments on a particular draft Primary Document, VA will respond to the comments received and issue a draft final Primary Document subject to dispute resolution. The draft final Primary Document will become the final Primary Document upon the earlier of (i) issuance of a “no additional comment letter” by EPA and the UDEQ, (ii) thirty days after the period established for review of a draft final primary document if dispute resolution is not invoked, or (iii) modification by decision of the dispute resolution process. “No additional comment” letters shall state the document is ready for inclusion in the Administrative Record.

10.2.2 Secondary Documents include those reports that are discrete portions of the Primary Documents and are typically input or feeder documents. Secondary Documents are issued by VA in draft, subject to review and comment by EPA and the UDEQ. Although VA will respond to comments received, the draft Secondary Documents may be finalized in the context of the corresponding Primary Documents. A Secondary Document may be disputed at the time the corresponding draft final Primary Document is issued.

10.3 Primary Documents

10.3.1 VA shall complete and transmit draft reports for the following Primary Documents to EPA and the UDEQ for review and comment in accordance with the provisions of this Section, except that the Site Management Plan shall be reviewed and commented on in accordance with Sections XI – DEADLINES AND CONTENTS OF SITE MANAGEMENT PLAN and XII – BUDGET DEVELOPMENT AND AMENDMENT OF SITE MANAGEMENT PLAN:

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- (1) the Site Management Plan and each annual amendment
- (2) RI/FS and FFS Work Plans including Sampling and Analysis Plan and Quality Assurance Project Plan (QAPP)
- (3) Remedial Investigation Reports (including Risk Assessments for human health and the environment)
- (4) FS and FFS Reports
- (5) Proposed Plans
- (6) Records of Decision
- (7) Final Remedial Designs
- (8) Remedial Action or Emergency Removal Action Work Plans
- (9) Remedial Action Completion Reports
- (10) Community Involvement Plan

10.3.2 Only the draft final Primary Documents identified above (and their amendments) shall be subject to dispute resolution. VA shall complete and transmit draft Primary Documents in accordance with the Schedule and Deadlines established in Section XI – DEADLINES AND CONTENTS OF SITE MANAGEMENT PLAN.

10.4 Secondary Documents

10.4.1 All Secondary Documents shall be prepared in accordance with the NCP and applicable EPA Guidance. VA shall complete and transmit drafts of the following Secondary Documents to EPA and the UDEQ for review and comment in accordance with the provisions of this Section:

- (1) Initial Remedial Action / Data Quality Objectives
- (2) Non-Time-Critical Removal Action Plans (40 C.F.R. Section 300.415(b)(4)(ii))
- (3) Pilot/Treatability Study Work Plans
- (4) Pilot/Treatability Study Reports
- (5) Engineering Evaluation/Cost Analysis Reports

- (6) Preliminary/Conceptual Remedial Designs
- (7) Prefinal Remedial Designs
- (8) Well Closure Methods and Procedures
- (9) Removal Action Memoranda
- (10) Operation and Maintenance Plan

10.4.2 Although EPA and the UDEQ may comment on the draft reports for the Secondary Documents listed above, such documents shall not be subject to dispute resolution except as provided by Subsection 10.2 hereof. Target Dates shall be established for the completion and transmission of draft Secondary Documents pursuant to Section XI – DEADLINES AND CONTENTS OF SITE MANAGEMENT PLAN.

10.5 Meetings of the Project Managers on Development of Documents

10.5.1 The Project Managers shall meet approximately every ninety (90) days, except as otherwise agreed by the Parties, to review and discuss the progress of work being performed at the site and on the Primary and Secondary Documents. Prior to preparing any draft report specified in Subsections 10.3 and 10.4 above, the Project Managers shall meet or confer by telephone to discuss the report results in an effort to reach a common understanding, to the maximum extent practicable, with respect to the results to be presented in the draft report.

10.6 Identification and Determination of Potential ARARs

10.6.1 For those Primary Documents or Secondary Documents that consist of or include ARAR determinations, the Project Managers shall meet prior to the issuance of a draft report, to identify and propose, to the best of their ability, all potential ARARs pertinent to the document being addressed. The UDEQ shall identify all potential State ARARs as early in the remedial process as possible consistent with the requirements of CERCLA Section 121 and the NCP.

10.6.2 VA shall consider any written interpretations of ARARs provided by the UDEQ. Draft ARAR determinations shall be prepared by VA in accordance with CERCLA Section 121(d)(2), the NCP, and pertinent Guidance issued by EPA, that is not inconsistent with CERCLA and the NCP.

10.6.3 In identifying potential ARARs, the Parties recognize that actual ARARs can be identified only on a site-specific basis and that ARARs depend on the specific hazardous substances, pollutants and contaminants at a site, the particular actions proposed as a remedy and the characteristics of a site. The Parties recognize that ARAR identification is necessarily an iterative process and that potential ARARs must be reexamined throughout the RI/FS process until a ROD is issued.

10.7 Review and Comment on Draft Documents

10.7.1 VA shall complete and transmit each draft Primary Document to EPA and the UDEQ on or before the corresponding Deadline established for the issuance of the document. VA shall complete and transmit the draft Secondary Document in accordance with the Target Dates established for the issuance of such reports established pursuant to Section XI – DEADLINES AND CONTENTS OF SITE MANAGEMENT PLAN of this Agreement.

10.7.2 Unless the Parties mutually agree to another time period, all draft documents, except the Site Management Plan amendments, the prefinal Remedial Design and the final Remedial Design, shall be subject to a sixty (60) day period for review and comment. The Site Management Plan amendments shall be reviewed and commented on in accordance with Section XII – BUDGET DEVELOPMENT AND AMENDMENT OF SITE MANAGEMENT PLAN or as agreed to by the Parties. The Parties recognize that time periods for review and comment on the draft Remedial Design and Remedial Action Work Plans may need to be expedited in order for VA to satisfy the requirement of Section 120(e)(2) of CERCLA, 42 U.S.C. Section 9620(e)(2). The prefinal Remedial Design shall be subject to a forty-five (45) day period for review and comment. The final Remedial Design will be subject to a two (2) week period for review and comment by the Parties. If the final Remedial Design differs substantially from the prefinal Remedial Design, EPA or the UDEQ may extend the two (2) week review and comment period for an additional two (2) weeks by providing written notice to VA prior to the end of the initial two (2) week comment period. Review of any document by EPA and the UDEQ may concern all aspects of the document (including completeness) and should include, but is not limited to, technical evaluation of any aspect of the document, and consistency with CERCLA, the NCP, and any pertinent Guidance or policy promulgated by EPA, and with applicable State law. Comments by EPA and the UDEQ shall be provided with adequate specificity so that VA may respond to the comment and, if appropriate, make changes to the draft document. Comments shall refer to any pertinent sources of authority or references upon which the comments are based, and, upon request of VA, EPA or the State shall provide a copy of the cited authority or reference. In cases involving complex or unusually lengthy reports, EPA or the UDEQ may extend the sixty (60) day comment period for an additional twenty (20) days by written notice to VA prior to the end of the sixty (60) day period. On or before the close of any comment period, EPA and the UDEQ shall transmit their written comments to VA.

10.7.3 The review period for documents shall not begin until the submission date specified in the Site Management Plan.

10.7.4 Representatives of VA shall make themselves readily available to EPA and the State during the comment period for purposes of informally responding to questions and comments on draft documents. Oral comments made during such discussions need not be the subject of a written response by VA at the close of the comment period.

10.7.5 In commenting on a draft document that contains a proposed ARAR determination, EPA or the UDEQ shall include a reasoned statement of whether they object to any portion of the

proposed ARAR determination. To the extent that EPA or the UDEQ objects, it shall explain the basis for its objection in detail and shall identify any ARARs which it believes were not properly addressed in the proposed ARAR determination.

10.7.6 Following the close of the comment period for a draft document, VA shall give full consideration to all written comments on the draft document submitted during the comment period. Within sixty (60) days of the close of the comment period on a draft Secondary Document, VA shall transmit to EPA and the UDEQ its written response to comments received within the comment period. Within sixty (60) days of the close of the comment period on a Draft Primary Document, VA shall transmit to EPA and the UDEQ a Draft Final Primary Document, which shall include VA's response to all written comments received within the comment period. While the resulting draft final document shall be the responsibility of VA, it shall be the product of consensus to the maximum extent possible.

10.7.7 VA may extend the 60-day period for either responding to comments on a draft document or for issuing the draft final Primary Document for an additional twenty (20) days by providing timely notice to EPA and the UDEQ. In appropriate circumstances, this time period may be further extended in accordance with Section XIII – EXTENSIONS.

10.8 Availability of Dispute Resolution for draft final Primary Documents:

10.8.1 Dispute resolution shall be available to the Parties for draft final Primary Documents as set forth in Section XIX – DISPUTE RESOLUTION.

10.8.2 When dispute resolution is invoked on a draft final Primary Document, Work may be stopped in accordance with the procedures set forth in Section XIX – DISPUTE RESOLUTION.

10.9 Finalization of Documents. The draft final Primary Document shall serve as the final Primary Document if no Party invokes dispute resolution regarding the document or, if invoked, at the completion of the dispute resolution process should VA's position be sustained. If VA's determination is not sustained in the dispute resolution process, VA shall prepare, within not more than thirty-five (35) days, a revision of the draft final document, which conforms to the results of dispute resolution. In appropriate circumstances, the time period for this revision period may be extended in accordance with Section XIII – EXTENSIONS.

10.10 Subsequent Modification of Final Document

10.10.1 Following finalization of any Primary Document pursuant to Subsection 10.9 above, any Party to this Agreement may seek to modify the document, including seeking additional field work, pilot studies, computer modeling or other supporting technical work, only as provided in Subsections 10.10.2 and 10.10.3 below.

10.10.2 A Party may seek to modify a document after finalization if it determines, based on new information (i.e., information that became available, or conditions that became known, after the document was finalized) that the requested modification is necessary. A Party may seek such a modification by submitting a concise written request to the Project Managers of the other

Parties. The request shall specify the nature of the requested modification and how the request is based on new information.

10.10.3 In the event that a consensus is not reached by the Project Managers on the need for a modification, any Party may invoke dispute resolution to determine if such modification shall be conducted. Modification of a document shall be required only upon a showing that:

10.10.3.1 The requested modification is based on significant new information; and

10.10.3.2 The requested modification could be of significant assistance in evaluating impacts on the public health or the environment, in evaluating the selection of remedial alternatives, or in protecting human health and the environment.

10.10.4 Nothing in this Subsection 10.10 shall alter EPA's or the UDEQ's ability to request the performance of additional work that was not contemplated by this Agreement. VA's obligation to perform such work must be established by either a modification of a report or document or by amendment to this Agreement.

XI. DEADLINES AND CONTENTS OF SITE MANAGEMENT PLAN

11.1 This Agreement establishes a process for creating and amending the Site Management Plan (SMP). A draft final SMP will be submitted to EPA and UDEQ for review and approval by September 15, 2016 and the final SMP will be attached as Appendix A to this Agreement. The SMP and each annual amendment to the SMP shall be Primary Documents. Milestones established in a SMP or established in a final amendment to a SMP remain unchanged unless otherwise agreed to by the Parties or unless directed to be changed pursuant to the agreed dispute resolution process set out in Subsections 12.5 or 12.6. In addition, if an activity is fully funded in the current Fiscal Year, Milestones associated with the performance of Work and submittal of Primary Documents associated with such activity (even if they extend beyond the current Fiscal Year) shall be enforceable.

11.2 The SMP includes proposed actions for both CERCLA responses and actions that would otherwise be handled pursuant to RCRA corrective actions per Section VIII – STATUTORY COMPLIANCE/RCRA-CERCLA INTEGRATION, and outlines all response activities and associated documentation to be undertaken at the Site. The SMP incorporates all existing Milestones contained in approved Work Plans, and all Milestones approved in future Work Plans immediately become incorporated into the SMP.

11.3 Milestones in the SMP reflect the priorities agreed to by the Parties through a process of "risk, plus other factors" priority setting. Site activities have been prioritized by weighing and balancing a variety of factors including, but not limited to: (i) the risk at the Site; (ii) current, planned, or potential uses of the Site; (iii) ecological impacts; (iv) impacts on human health; (v) intrinsic and future value of affected resources; (vi) cost effectiveness of the proposed activities; (vii) environmental justice considerations; (viii) regulatory requirements; and, (ix) actual and

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anticipated funding levels. While Milestones should not be driven by budget targets, such targets should be considered when setting Milestones. Furthermore, in setting and modifying Milestones, the Parties agree to make good faith efforts to accommodate Federal Fiscal constraints, which include budget targets established by VA.

The SMP and its annual amendments include:

11.4.1 A description of actions necessary to mitigate any immediate threat to human health or the environment;

11.4.2 A listing of all currently identified Operable Units (including Accelerated Operable Units (AOUs)), Interim Remedial Actions, Supplemental Response Actions, and Time-Critical and Non-Time-Critical Removal Actions covered or identified pursuant to this Agreement;

11.4.3 Activities and Schedules for response actions covered by the SMP, including at a minimum:

11.4.3.1 Identification of any Primary Actions;

11.4.3.2 All Deadlines;

11.4.3.3 All Near Term Milestones;

11.4.3.4 All Out Year Milestones;

11.4.3.5 All Target dates;

11.4.3.6 Schedule for initiation of Remedial Designs, Interim Response Actions, Non-Time-Critical Removal Actions, AOUs, and any initiation of other planned response action(s) covered by this Agreement; and

11.4.3.7 All Project End Dates.

11.5 VA shall submit amendments to the SMP on an annual basis as provided in Section XII – BUDGET DEVELOPMENT AND AMENDMENT OF SITE MANAGEMENT PLAN. All amendments to the SMP shall meet all of the requirements set forth in this Section.

11.6 The Milestones established in accordance with this Section and Section XII – BUDGET DEVELOPMENT AND AMENDMENT OF SITE MANAGEMENT PLAN remain the same unless otherwise agreed by the Parties, or unless changed in accordance with the dispute resolution procedures set out in Subsections 12.5 and 12.6. The Parties recognize that possible bases for requests for changes or extensions of the Milestones include but are not limited to: (i) the identification of significant new Site conditions; (ii) reprioritization of activities under this Agreement caused by changing priorities or new Site conditions; (iii) reprioritization of activities under this Agreement caused by budget adjustments (e.g., rescissions, inflation adjustments, and reduced Congressional appropriations); (iv) an event of Force Majeure; (v) a delay caused by

another Party's failure to meet any requirement of this Agreement; (vi) a delay caused by the good faith invocation of dispute resolution or the initiation of judicial action; (vii) a delay caused, or that is likely to be caused, by the grant of an extension in regard to another timetable and Deadline or Schedule; and (viii) any other event or series of events mutually agreed to by the Parties as constituting good cause.

11.7 The Deadlines established in the SMP and its amendments shall be published by EPA and the UDEQ.

XII. BUDGET DEVELOPMENT AND AMENDMENT OF SITE MANAGEMENT PLAN

12.1 VA, as a Federal agency, is subject to fiscal controls. The Parties agree that each Party should consider the factors listed in Subsection 11.3, including Federal fiscal constraints as well as each of the other factors, in their priority-setting decisions. Initial efforts to close any gap between cleanup needs and funding availability shall be focused on the identification and implementation of cost savings.

12.2 In order to promote effective involvement by the Parties in the budget process, the Parties will meet at the Project Manager level for the purpose of developing a list of requirements/work to be performed at the Site and associated costs for inclusion in the VA budget process for the year currently under consideration. Unless the Parties agree a meeting is not necessary, the budget consultation must occur at least ten (10) days prior to the VA Project Manager's initial budget submission to VISN Leadership. In the event that the Project Managers cannot agree on funding levels required to perform all Work outlined in the SMP, the Parties agree to make reasonable efforts to informally resolve these disagreements, either at the immediate or secondary supervisor level; this would also include discussions, as necessary, with the VISN Leadership. If all Parties do not concur in the resolution, the VA Project Manager will forward through VISN Leadership its budget request with the views of the Parties not in agreement and also inform VISN Leadership of the possibility of future enforcement action should the funding requested not be sufficient to perform the Work subject to disagreement. In addition, if the VA Medical Center's budget submission to VISN Leadership relating to the terms and conditions of this Agreement does not include sufficient funds to complete all Work in the existing SMP, such budget submission shall include supplemental reports that fully disclose the Work required by the existing SMP, but which are not included in the budget request.

VA Budget for Clean Up Activities

12.3 The VA Project Manager shall forward to the other Parties documentation of the budget requests (and any supplemental reports) for the Site, as submitted by the VA Project Manager to VISN Leadership, within 14 days after the submittal of such documentation. The VA Project Manager shall submit an annual budget request which shall be for one year. The one year request shall be submitted to VISN Leadership by June 30 of each year. VA Project Manager shall provide final approved budget information to the Parties within 14 days of receipt from VISN Leadership.

Amended SMP

12.4 No later than June 15 of each year after the initial adoption of the SMP, VA shall submit to the other Parties a draft amendment to the SMP. When formulating the draft amendment to the SMP, VA shall consider funding circumstances (including OMB targets/guidance) and “risk plus other factors” outlined in Subsection 11.3 to evaluate whether the previously agreed upon Milestones should change. Prior to proposing changes to Milestones in its annual amendment to the SMP, VA will first offer to meet with the other Parties to discuss the proposed changes. The Parties will attempt to agree on Milestones before VA submits its annual amendment by June 15, but failure to agree on such proposed changes does not modify the June 15 date, unless agreed on by all the Parties. Any proposed extensions or other changes to Milestones must be explained in a cover letter to the draft amendment to the SMP. The draft amendment to the SMP should reflect any agreements made by the Parties during the budget process outlined in this Section. Resolution of any disagreement over adjustment of Milestones pursuant to this Subsection shall be resolved pursuant to Subsection 12.5.

12.5.1 The Parties shall meet as necessary to discuss the draft amendment to the SMP. The Parties shall use the consultation process contained in Section X – CONSULTATION, except that none of the Parties will have the right to use the extension provisions provided therein and comments on the draft amendment will be due to VA no later than 30 days after receipt by EPA and the State of the draft amendment. If either EPA or the State provide comments and are not satisfied with the draft amendment during this comment period, the Parties shall meet to discuss the comments within 15 days of VA’s receipt of comments on the draft amendment. The draft final amendment to the SMP will be due from VA no later than 30 days after the end of the EPA and State comment period. During this second 30-day time period, VA will, as appropriate, make revisions and re-issue a revised draft herein referred to as the draft final amendment. To the extent that Section X – CONSULTATION contains time periods differing from these 30 day periods, this provision will control for consultation on the amendment to the SMP.

12.5.2.1 If VA proposes, in the draft final amendment to the SMP, modifications of Milestones to which either EPA or the State have not agreed, those proposed modifications shall be treated as a request by VA for an extension. Milestones may be extended during the SMP review process by following Subsections 12.4 through 12.7. All other extensions will be governed by Section XIII – EXTENSIONS. The time period for EPA to respond to the request for extension will begin on the date EPA receives the draft final amendment to the SMP, and EPA and the State shall advise VA in writing of their respective positions on the request within thirty days. If EPA and the State approve of VA’s draft final amendment, the document shall then await finalization in accordance with Subsections 12.5.3 and 12.6. If EPA denies the request for extension, then VA may amend the SMP in conformance with EPA and State comments or seek and obtain a determination through the dispute resolution process established in Section XIX – DISPUTE RESOLUTION within 21 days of receipt of notice of denial. Within 21 days of the conclusion of the dispute resolution process, VA shall revise and reissue, as necessary, the draft final amendment to the SMP. If EPA or the State initiates a formal request for a modification to the SMP to which VA does not agree, EPA or the State may initiate dispute resolution as provided in Section XIX – DISPUTE RESOLUTION with respect to such proposed

modification. In resolving a dispute, the persons or person resolving the dispute shall give full consideration to the bases for changes or extensions of the Milestones referred to in Subsection 11.6 asserted to be present, and the facts and arguments of each of the Parties.

12.5.2.2 Notwithstanding Subsection 12.5.2.1, if VA proposes, in the draft final amendment to the SMP, modifications of Project End Dates which are intended to reflect the time needed for implementing the remedy selected in the Record of Decision but to which either EPA or the State have not agreed, those proposed modifications shall not be treated as a request by VA for an extension, but consistent with Section XIX – DISPUTE RESOLUTION, EPA or the State may initiate dispute resolution with respect to such Project End Date.

12.5.2.3 In any dispute under this Section, the time periods for the standard dispute resolution process contained in Subsections 19.2, 19.5, and 19.6 of Section XIX – DISPUTE RESOLUTION shall be reduced by half in regard to such dispute, unless the Parties agree to dispute directly to the Senior Executive Committee level.

12.5.3 VA shall finalize the draft final amendment as a final amendment to the SMP consistent with the mutual consent of the Parties, or in the absence of mutual consent, in accordance with the final decision of the dispute resolution process. The draft final amendment to the SMP shall not become final until 21 days after VA receives official notification of Congress's authorization and appropriation of funds if funding is sufficient to complete Work in the draft final SMP or, in the event of a funding shortfall, following the procedures in Subsection 12.6. However, upon approval of the draft final amendment or conclusion of the dispute resolution process, the Parties shall implement the SMP while awaiting official notification of Congress's authorization and appropriation.

Resolving Appropriations Shortfalls

12.6 After authorization and appropriation of funds by Congress and within 21 days after VA has received official notification of VA's allocation, VA shall determine if planned Work (as outlined in the draft final amendment to the SMP) can be accomplished with the allocated funds. (1) If the allocated funds are sufficient to complete all planned Work for that fiscal year and there are no changes required to the draft final amendment to the SMP, VA shall immediately forward a letter to the other Parties indicating that the draft final amendment to the SMP has become the final amendment to the SMP. (2) If VA determines within the 21-day period specified above that the allocated funds are not sufficient to accomplish the planned Work for the Site (an appropriations shortfall), VA shall immediately notify the Parties. The Project Managers shall meet within thirty (30) days to determine if planned Work (as outlined in the draft final amendment to the SMP) can be accomplished through: 1) rescoping or rescheduling activities in a manner that does not cause previously agreed upon Near Term Milestones and Out Year Milestones to be missed; or 2) developing and implementing new cost-saving measures. If, during this thirty (30) day discussion period, the Parties determine that rescoping or implementing cost-saving measures are not sufficient to offset the appropriations shortfall such that Near Term Milestones, Out Year Milestones, and Project End Dates should be modified, the Parties shall discuss these changes and develop modified Milestones. Such modifications shall be based on the "Risk Plus Other Factors" prioritization process discussed in Subsection 11.3,

and shall be specifically identified by VA. VA shall submit a new draft final amendment to the SMP to the other Parties within 30 days of the end of the 30 day discussion period. In preparing the revised draft final amendment to the SMP, VA shall give full consideration to EPA and State input during the 30-day discussion period. If the EPA and State concur with the modifications made to the draft final amendment to the SMP, EPA and the State shall notify VA and the revised draft final amendment shall become the final amendment. In the case of modifications of Milestones due to appropriations shortfalls, those proposed modifications shall, for purposes of dispute resolution, be treated as a request by VA for an extension, which request is treated as having been made on the date that EPA and the State receive the new draft final SMP or draft final amendment to the SMP. EPA and the State shall advise VA in writing of their respective positions on the request within 21 days. VA may seek and obtain a determination through the dispute resolution process established in Section XIX – DISPUTE RESOLUTION. VA may invoke dispute resolution within fourteen days of receipt of a statement of nonconcurrence with the requested extension. In any dispute concerning modifications under this Section, the Parties will submit the dispute directly to the SEC level, unless the Parties agree to utilize the standard dispute resolution process, in which case the time periods for the dispute resolution process contained in Subsections 19.2, 19.5, and 19.6 of Section XIX – DISPUTE RESOLUTION shall be reduced by half in regard to such dispute. Within 21 days after the conclusion of the dispute resolution process, VA shall revise and reissue, as necessary, the final amendment to the SMP.

12.7 It is understood by all Parties that VA will work with representatives of the other Parties to reach consensus on the reprioritization of Work made necessary by any annual appropriations shortfalls or other circumstances as described in Section 12.6. This may also include discussions with other EPA Regions and states with installations affected by the reprioritization; the Parties may participate in any such discussions with other states.

Public Participation

12.8 In addition to any other provision for public participation contained in this Agreement, the development of the SMP, including its annual amendments, shall include participation by members of the public interested in this action. VA must ensure that the opportunity for such public participation is timely; but this Subsection 12.8 shall not be subject to Section XX – STIPULATED PENALTIES.

12.8.1 The Parties will meet, after seeking the views of the general public, and determine the most effective means to provide for participation by members of the public interested in this action in the budget process and the development of the SMP and its annual amendments. The “members of the public interested in this action” may be represented by inclusion of a restoration advisory board or technical review committee, if they exist for the VA Medical Center, or by other appropriate means.

12.8.2 VA shall provide opportunity for discussion under Sections 12.2, 12.5, 12.6, and 12.7 to the members of the public interested in this action.

12.8.3 VA shall ensure that public participation provided for in this Subsection 12.8 complies

with Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*.

XIII. EXTENSIONS

13.1 A Schedule, Deadline or Milestone shall be extended upon receipt of a timely request for extension and when good cause exists for the requested extension. Any request for extension by VA shall be submitted in writing and shall specify:

13.1.1 The Deadline or Milestone that is sought to be extended;

13.1.2 The length of the extension sought;

13.1.3 The good cause(s) for the extension; and

13.1.4 Any related Deadline or Milestone that would be affected if the extension were granted.

13.2 Good cause exists for an extension when sought in regard to:

13.2.1 An event of Force Majeure;

13.2.2 A delay caused by another Party's failure to meet any requirement of this Agreement;

13.2.3 A delay caused by the good faith invocation of dispute resolution or the initiation of judicial action;

13.2.4 A delay caused, or which is likely to be caused, by the grant of an extension in regard to another Deadline or Milestone; and

13.2.5 Any other event or series of events mutually agreed to by the Parties as constituting good cause.

13.3 Absent agreement of the Parties with respect to the existence of good cause, VA may seek and obtain a determination through the dispute resolution process that good cause exists.

13.4 Within seven (7) days of receipt of a request for an extension of a Deadline or a Milestone, the other Parties shall advise the requesting Party in writing of their positions on the request. Any failure by the other Parties to respond within the seven (7) day period shall be deemed to constitute concurrence in the request for extension. If a Party does not concur in the requested extension, it shall include in its statement of non-concurrence an explanation of the basis for its position.

13.5 If there is consensus among the Parties that the requested extension is warranted, VA shall extend the affected Deadline or Milestone accordingly. If there is no consensus among the Parties as to whether all or part of the requested extension is warranted, the Deadline or

Milestone shall not be extended except in accordance with a determination resulting from the dispute resolution process.

13.6 Within seven (7) days of receipt of a statement of non-concurrence with the requested extension, VA may invoke dispute resolution.

13.7 A timely and good faith request for an extension shall toll any assessment of stipulated penalties or application for judicial enforcement of the affected Deadline or Milestone until a decision is reached on whether the requested extension will be approved. If dispute resolution is invoked and the requested extension is denied, stipulated penalties may be assessed and may accrue from the date of the original Deadline or Milestone. Following the grant of an extension, an assessment of stipulated penalties or an application for judicial enforcement may be sought only to compel compliance with the Deadline or Milestone as most recently extended.

XIV. PROJECT MANAGERS

14.1 On or before the Effective Date of this Agreement, EPA, the UDEQ and VA, shall each designate a Project Manager and notify the other Parties of the name and address of its Project Manager. The Project Managers shall be responsible for assuring proper implementation of all Work performed under the terms of the Agreement. To the maximum extent practicable, communications between VA, EPA and the UDEQ on all documents, including reports, comments and other correspondence concerning the activities performed pursuant to this Agreement, shall be directed through the Project Managers. The Parties may designate an Alternate Project Manager to exercise the authority of the Project Manager in his or her absence.

14.2 The Parties may change their respective Project Managers. Such change shall be accomplished by notifying the other Parties, in writing, within five (5) days of the change and prior to the new Project Manager exercising his or her delegated authority.

14.3 The Parties' Project Managers shall meet or confer informally as necessary as provided in Section X – CONSULTATION. Although VA has ultimate responsibility for meeting its respective Deadlines, EPA and the UDEQ Project Managers shall endeavor to assist in this effort by scheduling meetings to review documents and reports, overseeing the performance of environmental monitoring at the Site, reviewing RI/FS or RD/RA progress, and attempting to resolve disputes informally. At least seven (7) days prior to each scheduled ninety (90) day meeting, VA will provide to EPA and the UDEQ Project Managers a draft agenda and summary of the status of the Work.

14.3.1 These status reports shall include, when applicable:

14.3.1.1 Identification of all data received and not previously provided by VA during the reporting period consistent with the limitations of Subsection 31.1;

14.3.1.2 All activities completed pursuant to this Agreement since the last Project Manager meeting as well as such actions and plans that are scheduled for the upcoming ninety (90) days; and

14.3.1.3 A description of any delays, the reasons for such delays, anticipated delays, concerns over possible timetable implementation or problems that arise in the execution of a Work Plan during the quarter and any steps that were or will be taken to alleviate the delays or problems.

14.3.2 The minutes of each Project Manager meeting will be prepared by VA and will be sent to all Project Managers within twenty-one (21) days after the meeting. Any documents requested during the meeting will be provided in a timely manner, except for those documents for which express notification is required.

14.4 Necessary and appropriate adjustments to a Deadline, Target Date or Milestone may be proposed by any Party. The Party that requested the modification shall prepare a written memorandum detailing the modification and the reasons therefore and shall provide a transmittal in a timely manner prior to the Deadline, Target Date or Milestone to the other Parties for signature and return.

14.5 A Project Manager may also recommend and request minor field modifications to the Work performed pursuant to this Agreement, or in techniques, procedures or designs used in carrying out this Agreement. The minor field modifications proposed under this Part must be approved orally by all the Parties' Project Managers to be effective. No such Work modifications can be so implemented if an increase in contract cost will result without the authorization of VA Contracting Officer. If agreement cannot be reached on the proposed additional work or modification to Work, dispute resolution as set forth in Section XIX – DISPUTE RESOLUTION, shall be invoked by VA, by submitting a written statement to the other Parties in accordance with Section XIX – DISPUTE RESOLUTION. If all Parties agree to the modification, within five (5) business days following a modification made pursuant to this Section, the Project Manager who requested the modification shall prepare a written transmittal detailing the modification and the reasons therefore and shall provide the transmittal to the Project Managers of the other Parties for signature and return.

14.6 Modifications of Work not provided for in Subsections 14.4 and 14.5 of this Section must be approved orally by all the Parties' Project Managers to be effective. No such Work modifications can be so implemented if an increase in contract cost will result without the authorization of the VA Contracting Officer. If agreement cannot be reached on the proposed modification to Work, dispute resolution as set forth in Section XIX – DISPUTE RESOLUTION, shall be used. If the Parties agree to the modification, within five (5) business days following a modification made pursuant to this Section, the Project Manager who requested the modification shall prepare a transmittal detailing the modification and the reasons therefore and shall provide the transmittal to the Project Managers of the other Parties for signature and return.

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14.7 Each Party's Project Manager shall be responsible for ensuring that all communications received from the other Project Managers are appropriately disseminated to and processed by the Party that each represents.

14.8 The Parties shall transmit Primary and Secondary Documents and all notices required herein by next day mail, hand delivery, electronic transmittal or certified letter to the persons specified in Subsection 14.9 below by the Deadline established under Section XI – DEADLINES AND CONTENTS OF SITE MANAGEMENT PLAN. Time limitations shall commence upon receipt. VA shall provide to EPA a maximum of two (2) hard-copies and to the UDEQ a maximum of two (2) copies of each Primary and Secondary Document, in addition to a CD-ROM disk version of each document for all Parties.

14.9 Notice to the individual Parties shall be provided under this Agreement to the following addresses:

14.9.1 For VA:

George E. Wahlen
Department of Veterans Affairs Medical Center
Attention: SLCHCS NPL Project Manager
500 Foothill Drive
Salt Lake City, UT 84148

14.9.2 For EPA:

U. S. Environmental Protection Agency
Attn: VA Medical Center Project Manager
1595 Wynkoop Street
Denver, CO 80202

14.9.3 For the UDEQ:

Utah Department of Environmental Quality
Division of Environmental Response and Remediation
Attn: 700 So. 1600 E. PCE Plume Site Project Manager
P.O. Box 144840
Salt Lake City, Utah 84114-4840

14.10 Nothing in this Section shall be construed to interfere with or alter the internal organization or procedures of a Party, including, without limitation, signature authority.

14.11 The VA Project Manager shall represent VA with regard to the day-to-day field activities at the Site. The VA Project Manager or other designated representative shall be physically present at the Site or available to observe Work during implementation of all the Work performed at the Site pursuant to this Agreement. The absence of EPA or the UDEQ Project Managers from the Site shall not be cause for Work stoppage or delay, unless the Project Managers agree otherwise in writing.

14.12 The authority of the Project Managers shall include, but not be limited to:

14.12.1 Taking samples and ensuring that sampling and other field work is performed in accordance with the terms of any final Work Plans, and Quality Assurance / Quality Control (QA/QC) Plan;

14.12.2 Observing, taking photographs, and making such other reports on the progress of the Work as the Project Managers deem appropriate, subject to the limitations set forth in Section XV – ACCESS hereof;

14.12.3 Reviewing sampling data, records, files, and documents relevant to the Agreement, subject to the limitations set forth in Section XXX - RECORD PRESERVATION; and

14.12.4 Determining the form and specific content of the Project Manager meetings.

14.13 If any event occurs or has occurred that may delay or prevent the performance of any obligation under this Agreement, whether or not caused by a Force Majeure event, any Party shall notify by telephone the other Parties' Project Manager within three (3) business days of when the Party first became aware that the event might cause a delay. If the Party intends to seek an extension of a Deadline or Schedule because of the event, the procedures of Section XIII – EXTENSIONS, shall apply.

XV. ACCESS

15.1 EPA and the UDEQ and/or their representatives shall have the authority to enter the Site at all reasonable times for the purposes consistent with provisions of this Agreement. Such authority shall include, but not be limited to: inspecting records, logs, contracts, and other documents relevant to implementation of this Agreement; reviewing and monitoring the progress of VA, and its contractors, in carrying out the activities under this Agreement; conducting, with prior notice to VA, tests that EPA or the UDEQ deem necessary; assessing the need for planning additional remedial response actions at the Site; and verifying data or information submitted to EPA and the UDEQ. VA shall honor all reasonable requests for access to the Site made by EPA or the UDEQ, upon presentation of credentials showing the bearer's identification and that he/she is an employee or agent of EPA or the UDEQ. VA Project Manager or his/her designee will provide briefing information, coordinate access and escort to restricted or controlled-access areas, arrange for installation passes, and coordinate any other access requests, which arise. VA shall use its best efforts to ensure that conformance with the requirements of this Subsection 15.1 do not delay access.

15.2 The rights granted in Subsections 15.1 and 15.4 to EPA and the UDEQ regarding access shall be subject to regulations and statutes, including VA security regulations, as may be necessary to protect national security information ("classified information") as defined in Executive Order 12958, as amended, and comply with VA health and safety requirements. Such requirements shall not be applied so as to unreasonably hinder EPA or the UDEQ from carrying out their responsibilities and authority pursuant to this Agreement.

15.3 VA shall provide an escort whenever EPA or the UDEQ requires access for purposes consistent with the provisions of this Agreement to restricted areas of VA Medical Center or areas that interfere with patient care or privacy. EPA and the UDEQ shall provide reasonable notice to the VA Project Manager, or his or her designee, to request any necessary escorts for such restricted areas. VA shall not require an escort to any area of the Facility, unless it is a restricted, controlled-access area or unless it interferes with patient care or privacy. Upon request of EPA or the UDEQ, VA shall promptly provide a written list of current restricted or controlled-access areas.

15.4 EPA and the UDEQ shall have the right to enter all areas of the Site that are entered by contractors performing Work under this Agreement.

15.5 Upon a denial of any aspect of access, VA shall provide an immediate explanation of the reason for the denial, including reference to the applicable regulations, and upon request, a copy of such regulations. Within forty-eight (48) hours, VA shall provide a written explanation for the denial. To the extent possible, VA shall expeditiously provide a recommendation for accommodating the requested access in an alternate manner.

15.6 VA shall ensure that all response measures, ground water rehabilitation measures and remedial actions of any kind that are undertaken pursuant to this Agreement on any areas that: a) are presently owned by the United States and which are occupied by VA or leased by VA to any other entity; or b) are in any manner under the control of VA (absent an access agreement) or any lessees or agents of VA, shall not be impeded or impaired in any manner by any transfer of title or change in occupancy or any other change in circumstances of such areas.

15.7 To the extent the activities pursuant to this Agreement must be carried out on non-VA property, VA shall use its best efforts to obtain access agreements from the owners that shall provide reasonable access for the EPA, the State, and their representatives. In the event that VA is unable to obtain such access agreements, VA shall notify other Parties within five (5) days after it has determined that it is unable to obtain access agreements. VA shall use its 104(e) access authority and request assistance from the United States Department of Justice to obtain access. The VA may also request assistance of the State in obtaining such access. VA's determination that it is unable to obtain access agreements shall be considered good cause for an extension in accordance with Section XIII—Extensions.

15.8 Nothing herein shall be construed as limiting EPA's or the UDEQ's statutory authority for access or information gathering.

XVI. PERMITS

16.1 VA shall be responsible for obtaining all Federal, State and local permits, which are necessary for the performance of all Work under this Agreement.

16.2 The Parties recognize that under Sections 121(d) and 121(e)(1) of CERCLA, 42 U.S.C. Sections 9621(d) and 9621(e)(1), and the NCP, portions of the response actions called for by this

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Agreement and conducted entirely onsite, where such response actions are selected and carried out in accordance with CERCLA, are exempt from the procedural requirement to obtain Federal, State, or local permits. All activities must, however, comply with all the applicable or relevant and appropriate Federal and State standards, requirements, criteria, or limitations, which would have been included in any such permit.

16.3 When VA proposes a response action, other than an emergency removal action, to be conducted entirely onsite, which in the absence of Section 121(e)(1) of CERCLA, 42 U.S.C. Section 9621(e)(1), and the NCP would require a Federal, State or local permit, VA shall include in its Draft ROD or removal memorandum:

16.3.1 Identification of each permit that would otherwise be required;

16.3.2 Identification of the standards, requirements, criteria, or limitations that would need to be met to obtain each such permit; and

16.3.3 An explanation of how the response action proposed will meet the standards, requirements, criteria or limitations identified immediately above.

16.4 Subsection 16.2 above is not intended to relieve VA from the requirement(s) of obtaining a permit whenever it proposes a response action involving the shipment or movement of a hazardous substance, pollutant, or contaminant or hazardous waste off the Site or in any other circumstances where the exemption provided for at Section 121(e)(1) of CERCLA, 42 U.S.C. Section 9621(e)(1), does not apply.

16.5 VA shall notify EPA and the UDEQ in writing of any permits required for any off-site activities it plans to undertake as soon as it becomes aware of the requirement. VA shall apply for all such permits and provide EPA and the UDEQ with copies of all such permits, applications, and other documents related to the permit process and final permits.

16.6 VA agrees to notify EPA and the UDEQ of its intention to propose modifications to this Agreement to obtain conformance with the permit, or lack thereof if a permit or other authorization that is necessary for implementation of this Agreement is not issued, or is issued or renewed in a manner that is materially inconsistent with the requirements of this Agreement. Notification by VA of its intent to propose modifications shall be submitted within sixty (60) days of receipt by VA of notification that: (1) a permit will not be issued; (2) a permit has been issued or reissued; or (3) a final determination with respect to any appeal related to the issuance of a permit has been entered. Within sixty (60) days from the date it submits its notice of intention to propose modifications to this Agreement, VA shall submit to EPA and the UDEQ its proposed modifications to this Agreement with an explanation of its reasons in support thereof.

16.7 EPA and the UDEQ shall review VA's proposed modifications to this Agreement in accordance with Section XXXVI – AMENDMENT OF AGREEMENT. If VA submits proposed modifications prior to a final determination of any appeal taken on a permit needed to implement this Agreement, EPA and the UDEQ may elect to delay review of the proposed modifications until after such final determination is entered.

16.8 During any appeal by any Party of any permit required to implement this Agreement or during review of any proposed modification(s) to the permit, VA shall continue to implement those portions of this Agreement, which can be reasonably implemented independent of final resolution of the permit issue(s) under appeal. However, as to Work that cannot be so implemented, any corresponding Deadline, timetable, or Schedule shall be subject to Section XIII – EXTENSIONS.

16.9 Nothing in this Agreement shall be construed to affect VA's obligation to comply with any RCRA permit(s) that the Facility may already have or will be issued in the future.

XVII. REMOVAL AND EMERGENCY ACTIONS

17.1 VA shall provide EPA and the UDEQ with timely notice of any proposed removal action.

17.2 Nothing in this Agreement shall alter VA's, the UDEQ's or EPA's authority with respect to removal actions conducted pursuant to Section 104 of CERCLA, 42 U.S.C. Section 9604.

17.3 If during the course of performing the activities required under this Agreement, any Party identifies an actual or a substantial threat of a release of any hazardous substance, pollutant, or contaminant at or from the Site, that Party may propose that VA undertake removal actions to abate the danger and threat that may be posed by such actual or threatened release. All removal actions conducted at the Site shall be conducted in a manner consistent with this Agreement, CERCLA, Executive Order 12580, and the NCP and shall, to the extent practicable, contribute to the efficient performance of any long-term remedial action with respect to the release(s) or threatened release(s) concerned. Prior to determining to undertake such actions, VA shall submit to EPA and the UDEQ:

17.3.1 Documentation of the actual or threatened release at or from the Site;

17.3.2 Documentation that the actions proposed will abate the danger and threat that may be posed by release of hazardous substances, pollutants, or contaminants at or from the Site;

17.3.3 Documentation that the action is consistent with the NCP, applicable State regulations, and, to the extent practicable, contributes to the efficient performance of any long-term remedial action with respect to the release or threatened release concerned;

17.3.4 Prepare an Engineering Evaluation/Cost Analysis (EE/CA), or its equivalent for a removal action whenever a planning period of at least six months exists before on-site activities must be initiated (Non-Time Critical Removal Action). The EE/CA shall contain an analysis of removal alternatives for a site. The screening of alternatives shall be based on criteria as provided in CERCLA and the NCP, such as cost, feasibility, and effectiveness.

17.3.5 A Non-Time-Critical Removal Action Plan and Target Date for the proposed action; and

17.3.6 EPA and the UDEQ shall expedite all reviews of these proposals to the maximum extent practicable.

17.4 **Emergency Removals.** If VA determines that an emergency removal action is necessary, VA shall provide EPA and the UDEQ with oral notice as soon as possible. EPA will decide whether to conduct the emergency removal action or require VA's performance of the removal action. VA shall transmit a written notice to all the Parties within forty-eight (48) hours after the oral notice recommending that an emergency removal is necessary, which will include any deviations from the oral notice. If EPA requires VA to perform the emergency removal action, VA shall develop a Work Plan and submit it to EPA and UDEQ as directed by EPA. As part of that Work Plan, VA shall develop and submit to EPA and UDEQ a Removal Action Memorandum consistent with CERCLA, the NCP, and EPA guidance. After the Work Plan is approved by EPA, in consultation with UDEQ, VA shall implement the Work Plan. Such actions may be conducted at anytime, either before or after the issuance of a ROD.

17.5 If an imminent health hazard or an activity conducted pursuant to this Agreement that is creating a danger to the public health or welfare or the environment is discovered by any Party, the discovering Party will notify the other Parties and VA will take immediate action to promptly notify all appropriate State and local agencies, and potentially affected persons.

17.6 All activities pursuant to this Agreement will be performed in accordance with the Health and Safety Plan and will be conducted so as to minimize the threat to the surrounding public.

XVIII. PERIODIC REVIEW

18.1 Consistent with Section 121(c) of CERCLA, 42 U.S.C. Section 9621(c), Section 300.430(f)(4)(ii) of the NCP, and in accordance with this Agreement, if the selected remedial action results in any hazardous substance, pollutants or contaminants remaining at the Site at levels above that allowing for unlimited use and unrestricted exposure, the Parties shall review the remedial action for each Operable Unit at least every five (5) years after the initiation of the remedial action to assure that human health and the environment are being protected by the remedial action being implemented. As part of this review, VA shall report the findings of the review to EPA and the UDEQ upon its completion. This report, the Periodic Review Assessment Report, shall be submitted to EPA and the UDEQ for review and comment. Target Dates shall be established for the completion and transmission of the Periodic Review Assessment Report pursuant to Section XI – DEADLINES AND CONTENTS OF SITE MANAGEMENT PLAN.

18.2 If upon such review it is the conclusion of any of the Parties that additional action or modification of remedial action is appropriate at the Site in accordance with Sections 104 or 106 of CERCLA, 42 U.S.C. Sections 9604 or 9606, VA shall implement such additional or modified action in accordance with Section IX – WORK TO BE PERFORMED.

18.3 Any dispute by the Parties regarding the need for or the scope of additional action or modification to a remedial action shall be resolved under Section XIX – DISPUTE RESOLUTION, enforceable hereunder.

18.4 Any additional action or modification agreed upon pursuant to this Section shall be made a part of this Agreement.

18.5 EPA reserves the right to exercise any available authority to seek the performance of additional work that arises from a Periodic Review, pursuant to applicable law.

18.6 The UDEQ reserves the right to exercise any authority under State law to seek the performance of additional Work when it is determined that such additional Work is necessary.

18.7 The assessment and selection of any additional response actions determined necessary as a result of a Periodic Review shall be in accordance with Subsection 9.7. Except for emergency response actions, which shall be governed by Section XVII – REMOVAL AND EMERGENCY ACTIONS, such response actions shall be implemented as a supplemental response action in accordance with Subsections 9.7.4 and 9.7.5.

XIX. DISPUTE RESOLUTION

19.1 Except as specifically set forth elsewhere in this Agreement, if a dispute arises under this Agreement, the procedures of this Section shall apply. All Parties to this Agreement shall make reasonable efforts to resolve disputes informally at the Project Manager or immediate supervisor level. If resolution cannot be achieved informally, the procedures of this Section shall be implemented to resolve a dispute.

19.2 Within thirty (30) days after: (1) issuance of a draft final Primary Document pursuant to Section X – CONSULTATION; or (2) any action that leads to or generates a dispute, the disputing Party shall submit to the DRC a written statement of dispute setting forth the nature of the dispute, the Work affected by the dispute, the disputing Party's position with respect to the dispute and the technical, legal or factual information the disputing Party is relying upon to support its position.

19.3 Prior to any Party's issuance of a written statement of dispute, the disputing Party shall engage the other Parties in informal dispute resolution among the Project Managers and/or their immediate supervisors. During this informal dispute resolution period, the Parties shall meet as many times as are necessary to discuss and attempt resolution of the dispute.

19.4 The Dispute Resolution Committee (DRC) will serve as a forum for resolution of disputes for which agreement has not been reached through informal dispute resolution. The Parties shall each designate one individual and an alternate to serve on the DRC. The individuals designated to serve on the DRC shall be employed at the policy level (Senior Executive Service (SES) or equivalent) or be delegated the authority to participate on the DRC for the purposes of dispute resolution under this Agreement. EPA's representative on the DRC is the Assistant

Regional Administrator for the Office of Ecosystems Protection and Remediation. The UDEQ representative on the DRC is the Director of the Division of Environmental Response and Remediation. VA's designated member is the Director, VA Salt Lake City Healthcare System. Written notice of any delegation of authority from the Party's designated representative on the DRC shall be provided to the all other Parties pursuant to the procedures of Section XIV – PROJECT MANAGERS.

19.5 Following elevation of a dispute to the DRC, the DRC shall have twenty-one (21) days to resolve unanimously the dispute and issue a written decision signed by all Parties. If the DRC is unable to resolve unanimously the dispute within this twenty-one (21) day period, the written statement of dispute shall be forwarded to the Senior Executive Committee (SEC) for resolution within seven (7) days after the close of the 21-day resolution process.

19.6 The SEC will serve as the forum for resolution of disputes for which agreement has not been reached by the DRC. EPA's representative on the SEC is the Regional Administrator of EPA Region 8. The UDEQ's representative on the SEC is the Executive Director of the UDEQ. VA's representative on the SEC is the VISN 19 Network Director. The SEC members shall, as appropriate, confer, meet and exert their best efforts to resolve the dispute and issue a written decision signed by all Parties. If unanimous resolution of the dispute is not reached within twenty-one (21) days, the EPA Regional Administrator shall issue a written position on the dispute. The Secretary of VA and the Executive Director of the UDEQ may, within fourteen (14) days of the Regional Administrator's issuance of EPA's position, issue a written notice elevating the dispute to the Administrator of EPA for resolution in accordance with all applicable laws and procedures. In the event that VA or the Executive Director of the UDEQ elect not to elevate the dispute to the Administrator within the designated fourteen (14) day escalation period, the party shall be deemed to have agreed with the Regional Administrator's written position with respect to the dispute.

19.7 Upon elevation of a dispute to the Administrator of EPA pursuant to Subsection 19.6, the Administrator will review and resolve the dispute within twenty-one (21) days. Upon request, and prior to resolving the dispute, the EPA Administrator shall meet and confer with the Secretary of VA and Executive Director of the UDEQ to discuss the issue(s) under dispute. Upon resolution, the Administrator shall provide the other Parties with a written final decision setting forth resolution of the dispute. The duties of the Administrator set forth in this Section shall not be delegated.

19.8 The pendency of any dispute under this Section shall not affect VA's responsibility for timely performance of the Work required by this Agreement, except that the time period for completion of Work affected by such dispute shall be extended for a period of time usually not to exceed the actual time taken to resolve any good faith dispute in accordance with the procedures specified herein. All elements of the Work required by this Agreement that are not affected by the dispute shall continue to be completed in accordance with the applicable Schedule.

19.9 When dispute resolution is in progress, Work affected by the dispute will immediately be discontinued if the EPA requests, in writing, that Work related to the dispute be stopped because, in EPA's opinion, such Work is inadequate or defective, and such inadequacy or defect is likely

to yield an adverse effect on human health or the environment, or is likely to have a substantial adverse effect on the remedy selection or implementation process. The UDEQ may request the EPA to order Work stopped for the reasons set out above. To the extent possible, the Party seeking a Work stoppage shall consult with the other Parties prior to initiating a Work stoppage request. After stoppage of Work, if a Party believes that the Work stoppage is inappropriate or may have potential significant adverse impacts, the Party may meet with the Party ordering a Work stoppage to discuss the Work stoppage. Following this meeting, and further consideration of the issues, the EPA will issue, in writing, a final decision with respect to the Work stoppage. The final written decision of the EPA may immediately be subjected to formal dispute resolution. Such dispute may be brought directly to either the DRC or the SEC, at the discretion of the Party requesting dispute resolution.

19.10 Within twenty-one (21) days of resolution of a dispute pursuant to the procedures specified in this Section, VA shall incorporate the resolution and final determination into the appropriate plan, Schedule or procedures and proceed to implement this Agreement according to the amended plan, Schedule or procedures.

19.11 Resolution of a dispute pursuant to this Section constitutes a final resolution of any dispute arising under this Agreement. All Parties shall abide by all terms and conditions of any final resolution of dispute obtained pursuant to this Section of this Agreement.

19.12 The State reserves the right to maintain an action under CERCLA Section 121(f)(3)(B), 42 U.S.C. Section 9621(f)(3)(B), to challenge the selection of a remedial action that does not attain a legally applicable or relevant and appropriate standard, requirement, criteria or limitation.

XX. STIPULATED PENALTIES

20.1 In the event that VA fails to submit a Primary Document, as listed in Section X – CONSULTATION, to EPA and the UDEQ pursuant to the appropriate timetable or Deadlines in accordance with the requirements of this Agreement, or fails to comply with a term or condition of this Agreement that relates to an interim or final remedial action, EPA may assess a stipulated penalty against VA. A stipulated penalty may be assessed in an amount not to exceed \$5,000 for the first week (or part thereof), and \$10,000 for each additional week (or part thereof) for which a failure set forth in this Subsection occurs. The UDEQ and EPA agree that all stipulated penalties shall be shared equally.

20.2 Upon determining that VA has failed in a manner set forth in Subsection 20.1, EPA or the UDEQ shall so notify VA in writing. If the failure in question is not already subject to dispute resolution at the time such notice is received, VA shall have fifteen (15) days after receipt of the notice to invoke dispute resolution on the question of whether the failure did in fact occur. VA shall not be liable for the stipulated penalty assessed by EPA if the failure is determined, through the dispute resolution process, not to have occurred. No assessment of a stipulated penalty shall

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be final until the conclusion of dispute resolution procedures related to the assessment of the stipulated penalty.

20.3 The annual reports required by CERCLA Section 120(e)(5) shall include, with respect to each final assessment of a stipulated penalty against VA under this Agreement, each of the following:

20.3.1 The facility responsible for the failure;

20.3.2 A statement of the facts and circumstances giving rise to the failure;

20.3.3 A statement of any administrative or other corrective action taken, or a statement of why such measures were determined to be inappropriate;

20.3.4 A statement of any additional action taken by or at the facility to prevent recurrence of the same type of failure; and

20.3.5 The total dollar amount of the stipulated penalty assessed for the particular failure.

20.4 In the event that stipulated penalties become payable by VA under this Agreement, VA will seek Congressional approval and authorization to pay such stipulated penalties in equal amounts to the Federal Hazardous Substances Superfund and to the Utah Hazardous Substance Mitigation Fund. Stipulated penalties assessed pursuant to this Section shall be payable only in the manner and to the extent expressly provided for in Acts authorizing funds for, and appropriations to, VA. Any requirement for the payment of stipulated penalties under this Agreement shall be subject to the availability of funds, and no provision herein shall be interpreted to require the obligation or payment of funds in violation of the Anti-Deficiency Act, 31 U.S.C. Section 1341.

20.5 In no event shall this Section give rise to a stipulated penalty in excess of the amount set forth in CERCLA Section 109.

20.6 This Section shall not affect VA's ability to obtain an extension of a timetable, Deadline or Schedule pursuant to Section XIII – EXTENSIONS.

20.7 Nothing in this Agreement shall be construed to render any officer or employee of VA personally liable for the payment of any stipulated penalty assessed pursuant to this Section.

XXI. FORCE MAJEURE

21.1 A Force Majeure shall mean any event arising from causes beyond the control of the Party that causes a delay in or prevents the performance of any obligation under this Agreement, including but not limited to:

21.1.1 Acts of God;

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21.1.2 Fire;

21.1.3 War;

21.1.4 Insurrection;

21.1.5 Civil disturbance;

21.1.6 Explosion;

21.1.7 Unanticipated breakage or accident to machinery, equipment or lines of pipe despite reasonably diligent maintenance;

21.1.8 Adverse weather conditions that could not be reasonably anticipated;

21.1.9 Unusual delay in transportation;

21.1.10 Restraint by court order or order of public authority;

21.1.11 Inability to obtain, at reasonable cost and after exercise of reasonable diligence, any necessary authorizations, approvals, permits or licenses due to action or inaction of any governmental agency or authority other than VA;

21.1.12 Delays caused by compliance with applicable statutes or regulations governing contracting, procurement or acquisition procedures, despite the exercise of reasonable diligence; and

21.1.13 Insufficient availability of appropriated funds, if VA shall have made a timely request for such funds as a part of the budgetary process as set forth in Section XXVII – FUNDING.

21.2 A Force Majeure shall also include any strike or other labor dispute, whether or not within control of the Parties affected thereby. Force Majeure shall not include increased costs or expenses of response actions, whether or not anticipated at the time such response actions were initiated.

XXII. ENFORCEABILITY

22.1 The Parties agree that:

22.1.1 Upon the Effective Date of this Agreement, any standard, regulation, condition, requirement or order that has become effective under CERCLA and is incorporated into this Agreement is enforceable by any person pursuant to CERCLA Section 310, and any violation of such standard, regulation, condition, requirement or order will be subject to civil penalties under CERCLA Sections 310(c) and 109;

22.1.2 All timetables and Deadlines associated with the RI/FS shall be enforceable by any person pursuant to CERCLA Section 310, and any violation of such timetables or Deadlines will be subject to civil penalties under CERCLA Sections 310(c) and 109;

22.1.3 All terms and conditions of this Agreement which relate to interim or final remedial actions, including corresponding timetables, Deadlines or Schedules, and all Work associated with the interim or final remedial actions, shall be enforceable by any person pursuant to CERCLA Section 310(c), and any violation of such terms or conditions will be subject to civil penalties under CERCLA Sections 310(c) and 109; and

22.1.4 Any final resolution of a dispute pursuant to Section XIX – DISPUTE RESOLUTION that establishes a term, condition, timetable, Deadline or Schedule shall be enforceable by any person pursuant to CERCLA Section 310(c), and any violation of such term, condition, timetable, Deadline or Schedule will be subject to civil penalties under CERCLA Sections 310(c) and 109.

22.2 Nothing in this Agreement shall be construed as authorizing any person to seek judicial review of any action or Work where review is barred by any provision of CERCLA, including CERCLA Section 113(h).

22.3 Nothing in this Agreement shall be construed as a restriction or waiver of any rights EPA or the State may have under CERCLA, including but not limited to any rights under Sections 113, 120, 121 and 310, 42 U.S.C. Sections 9613, 9620, 9621 and 9659, or any rights, or defenses, including sovereign immunity, the UDEQ may have under Federal or State law. VA does not waive any rights it may have under CERCLA Section 120, SARA Section 211 and Executive Order 12580.

22.4 The Parties agree to exhaust their rights under Section XIX – DISPUTE RESOLUTION, prior to exercising any rights to judicial review that they may have.

22.5 The Parties agree that all Parties shall have the right to enforce the terms of this Agreement.

XXIII. OTHER CLAIMS

23.1 Subject to Section VIII – STATUTORY COMPLIANCE/RCRA-CERCLA INTEGRATION, nothing in this Agreement shall restrict the Parties from taking any action under CERCLA, RCRA, State law, or other environmental statutes for any matter not specifically part of the Work performed under CERCLA, which is the subject matter of this Agreement.

23.2 Nothing in this Agreement shall constitute or be construed as a bar, or a discharge, or a release, from any claim, cause of action or demand in law or equity by or against any person, firm, partnership, or corporation not a signatory to this Agreement for any liability it may have arising out of, or relating in any way to the generation, storage, treatment, handling,

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transportation, release, or disposal of any hazardous substances, hazardous waste, pollutants, or contaminants found at, taken to, or taken from the Site.

23.3 This Agreement does not constitute any decision or pre-authorization by EPA of funds under Section 111(a)(2) of CERCLA, 42 U.S.C. Section 9611(a)(2) for any person, agent, contractor or consultant acting for VA.

23.4 EPA and the UDEQ shall not be held as a party to any contract entered into by VA to implement the requirements of this Agreement.

23.5 VA shall notify the appropriate Federal and State Natural Resource Trustees of potential damages to natural resources resulting from releases or threatened releases under investigation, as required by Section 104(b)(2) of CERCLA, 42 U.S.C. Section 9604(b)(2), and Section 2(e)(2) of Executive Order 12580. Except as provided herein, VA is not released from any liability that it may have pursuant to any provisions of State and Federal law, including any claim for damages for destruction of, or loss of, natural resources.

23.6 This Agreement does not bar any claim for:

23.6.1 Natural resources damage assessments, or for damage to natural resources; or

23.6.2 Liability for disposal of any hazardous substances or waste material taken from the VA Medical Center.

XXIV. EPA's RESERVATION OF RIGHTS

24.1 Notwithstanding anything in this Agreement, EPA may initiate any administrative, legal or equitable remedies available to them, including requiring additional response actions by VA in the event that: (a) conditions previously unknown or undetected by EPA arise or are discovered at the Site; or (b) EPA receives additional information not previously available concerning the premises that they employed in reaching this Agreement; or (c) the implementation of the requirements of this Agreement are no longer protective of public health and the environment; or (d) EPA discovers the presence of conditions on the Site that may constitute an imminent and substantial danger to the public health, welfare, or the environment; or (e) VA fails to meet any of its obligations under this Agreement; or (f) VA fails or refuses to comply with any applicable requirements of CERCLA or RCRA or State laws or regulations; or (g) VA, its officers, employees, contractors, or agents falsify information, reports, or data, or make a false representation or statement in a record, report, or document relating to the release of hazardous materials at the Site, and this information affects the determination of whether a remedial action is protective of human health and the environment. For purposes of this Subsection, conditions at the Site and information known to EPA shall include only those conditions and information known as of the date of the relevant response action decision document.

24.2 The EPA agrees to exhaust its rights under Section XIX – DISPUTE RESOLUTION, prior to exercising any rights to judicial review that it may have.

24.3 The EPA, after exhausting its remedies under this Agreement, reserves any and all rights, including the right to raise or assert any defense it may have under CERCLA, or any other law, where those rights are not inconsistent with the provisions of this Agreement, CERCLA, or the NCP. This Section does not create any right that EPA does not already have under applicable law.

XXV. PROPERTY TRANSFER

25.1 No change or transfer of any interest in the Facility or any part thereof shall in any way alter the status or responsibility of the Parties under this Agreement. VA agrees to give EPA and the UDEQ sixty (60) days notice prior to the sale or transfer by the United States of any title, easement, or other interest in the real property affected by this Agreement. VA agrees to comply with Section 120(h) of CERCLA, 42 U.S.C. Section 9620(h), including the Community Environmental Response Facilitation Act (CERFA), and any additional amendments thereof, and with 40 C.F.R. Part 373, if applicable.

25.2 In accordance with Section 120(h) of CERCLA, 42 U.S.C. Section 9620(h), and 40 C.F.R. Part 373, VA shall include notice of this Agreement in any Host/Tenant Agreement or Memorandum of Understanding that permits any non-VA activity to function as an operator on any portion of the Facility.

XXVI. FUNDING

26.1 It is the expectation of the Parties to this Agreement that all obligations of VA arising under this Agreement will be fully funded. VA agrees to seek sufficient funding through its budgetary process to fulfill its obligations under this Agreement.

26.2 In accordance with CERCLA Section 120(e)(5)(B), 42 U.S.C. Section 9620(e)(5)(B), VA shall submit to OMB for inclusion in its annual report to Congress the specific cost estimates and budgetary proposals associated with the implementation of this Agreement.

26.3 Any requirement for the payment or obligation of funds, including stipulated penalties, by VA established by the terms of this Agreement shall be subject to the availability of appropriated funds, and no provision herein shall be interpreted to require obligation or payment of funds in violation of the Anti-Deficiency Act, 31 U.S.C. Section 1341. In cases where payment or obligation of funds would constitute a violation of the Anti-Deficiency Act, the dates established requiring the payment or obligation of such funds shall be appropriately adjusted.

26.4 If appropriated funds are not available to fulfill VA's obligations under this Agreement, EPA and the State reserve the right to initiate an action against any other person, or to take any response action, which would be appropriate absent this Agreement.

26.5 Funds authorized and appropriated annually by Congress under the VA Medical Facilities appropriation will be the source of funds for activities required by this Agreement. However, should the appropriation be inadequate in any year to meet VA's total implementation

requirements under this Agreement, VA will, after consulting with the other Parties and discussing the inadequacy with the members of the public interested in the action in accordance with Section XII – BUDGET DEVELOPMENT AND AMENDMENT OF SITE MANAGEMENT PLAN, prioritize and allocate that year's appropriation.

XXVII. REIMBURSEMENT OF STATE SERVICES

27.1 VA agrees to reimburse the State for all costs incurred by the State specifically related to the implementation of this Agreement at the 700 S 1600 E PCE Plume Site and not inconsistent with the NCP.

27.2 A separate funding agreement between VA and the State will be executed within 90 days after the Parties execute this Agreement, which shall be the specific mechanism for the transfer of funds (e.g. a Grant) between VA and the State for payment of the costs referred to in paragraph 27.1.

27.3 For the purposes of budget planning only, the State shall annually provide VA before the beginning of the fiscal year a written estimate of the State's projected costs to be incurred in implementing this Agreement in the upcoming fiscal year.

27.4 The State reserves all rights it has to recover any other past and future costs incurred by the State in connection with CERCLA activities conducted at the Site.

XXVIII. RECOVERY OF EPA EXPENSES

28.1 The Parties agree to amend this Agreement at a later date in accordance with any subsequent national resolution of the issue of EPA cost reimbursement for CERCLA response costs incurred by EPA. Pending such resolution, EPA reserves the rights it may have with respect to cost reimbursement.

XXIX. QUALITY ASSURANCE

29.1 VA shall use quality assurance, quality control, and chain of custody procedures throughout all field investigation, sample collection and laboratory analysis activities. VA has developed, in accordance with EPA Guidance, and EPA and the UDEQ have approved, a Generic Quality Assurance Project Plan (GQAPP) that shall be used as a component of each RI, FS, RD, and RA Work Plan(s), as appropriate. If additional detail is required, VA shall develop a site-specific Quality Assurance Project Plan. These work plans will be reviewed as Primary Documents pursuant to Section X – CONSULTATION. QA/QC Plans shall be prepared in

accordance with applicable EPA Guidance, including the Uniform Federal Policy for Quality Assurance Project Plans (March 2005).

29.2 In order to provide for quality assurance and maintain quality control regarding all fieldwork and samples collected pursuant to this Agreement, VA shall include in each QA/QC Plan submitted to EPA and the UDEQ all protocols to be used for sampling and analysis. VA shall also ensure that any laboratory used for analysis is a participant in a QA/QC program that is consistent with EPA Guidance.

29.3 VA shall ensure that lab audits are conducted as appropriate and are made available to EPA and the UDEQ upon request. VA shall ensure that EPA and/or the UDEQ and/or their authorized representatives shall have access to all laboratories performing analyses on behalf of VA pursuant to this Agreement.

XXX. RECORD PRESERVATION

30.1 Despite any document retention policy to the contrary, EPA and VA shall preserve, during the pendency of this Agreement and for a minimum of ten (10) years after its termination or for a minimum of ten (10) years after implementation of any additional action taken pursuant to Section XVIII – PERIODIC REVIEW, all records and documents in their possession that relate to actions taken pursuant to this Agreement. The UDEQ shall preserve all records and documents in its possession that relate to actions taken pursuant to this Agreement in accordance with State law and policy. After the ten (10) year period, or for the UDEQ at the expiration of its document retention period, each Party shall notify the other Parties at least forty-five (45) days prior to the proposed destruction or disposal of any such documents or records. Upon the request by any Party, the requested Party shall make available such records or copies of any such records unless withholding is authorized and determined appropriate by law. The Party withholding such records shall identify any documents withheld and the legal basis for withholding such records. No records withheld shall be destroyed until forty-five (45) days after the final decision by the highest court or administrative body requested to review the matter.

30.2 All such records and documents shall be preserved for a period of ten (10) years following the termination of any judicial action regarding the Work performed under CERCLA, which is the subject of this Agreement.

XXXI. SAMPLING AND DATA/DOCUMENT AVAILABILITY

31.1 Each Party shall make available to the other Parties all the results of sampling, tests, or other data generated through the implementation of this Agreement as needed in a timely manner.

31.2 At the request of any Party, a Party shall allow the other Parties or their authorized representatives to observe fieldwork and to take split or duplicate samples of any samples collected pursuant to this Agreement. Each Party shall notify the other Parties by telephone not less than fourteen (14) days in advance of any scheduled sample collection activity unless otherwise agreed upon by the Parties. The Party shall provide written confirmation within three (3) days of the telephone notification.

31.3 If preliminary analysis indicates that an imminent or substantial endangerment to human health or the environment may exist, all other Project Managers shall be immediately notified.

XXXII. PROTECTED INFORMATION

32.1 VA shall not withhold any physical, sampling, monitoring, or analytical data.

32.2 National Security Information:

32.2.1 Any dispute concerning EPA and/or the UDEQ access to national security information ("classified information"), as defined in Executive Order 12958, as amended, shall be resolved in accordance with Executive Order 12958, as amended, and other applicable law, including the opportunity to demonstrate that EPA and/or the UDEQ representatives have proper clearances and a need to know, appeal to the Information Security Oversight Office, and final appeal to the National Security Council.

32.2.2 Upon receipt from EPA and/or the UDEQ of a request to meet with the classifying officer regarding access to classified information, VA shall, within ten (10) days of such request, notify the requesting Party of the identity of the classifying officer and the level of classification of the information sought. If the document was classified by VA, the classifying officer and the representative of the requesting Party shall meet within twenty-one (21) days following receipt of the request. The purpose of the meeting shall be to seek a means to accommodate the requesting Party's request for access to information without compromising national security or violating security regulations. If no resolution is reached at the meeting, VA shall notify the requesting Party of the classifying officer's decision within fourteen (14) days following the meeting. Failure to render a timely decision shall be construed as a denial. Failure to respond is subject to dispute resolution under this Agreement.

32.2.3 Nothing in this Subsection 32.2 is intended to, or should be construed as, superseding any law, regulation, or promulgated VA directive regarding access to, release of, or protection of national security information.

XXXIII. COMMUNITY RELATIONS

33.1 VA has developed and is implementing a Community Relations Plan. This plan responds to the need for an interactive relationship with all interested community elements regarding

environmental response activities conducted pursuant to this Agreement by VA. Any revision or amendment to the Community Relations Plan shall be submitted to EPA and the UDEQ for review and comment.

33.2 Except in case of an emergency requiring the release of necessary information, and except in the case of an enforcement action, any Party issuing a press release with reference to any of the Work required by this Agreement shall use its best efforts to advise the other Parties of such press release and the contents thereof upon issuance of such release.

33.3 The Parties agree to comply with all relevant EPA policy and Guidance on community relations programs and the public participation requirements of CERCLA, the NCP and other applicable laws and regulations.

33.4 The Parties agree that Work conducted under this Agreement and any subsequent proposed remedial action alternatives and subsequent plans for remedial action at the Site arising out of this Agreement shall comply with all the Administrative Record and public participation requirements of CERCLA, including Sections 113(k) and 117, 42 U.S.C. Sections 9613(k) and 9617, the NCP, and all applicable Guidance developed and provided by EPA. This shall be achieved through implementation of the Community Relations Plan.

33.5 VA shall establish and maintain an Administrative Record at or near the VA Medical Center, in accordance with CERCLA Section 113(k), 42 U.S.C. § 9613(k), Subpart I of the NCP, and applicable EPA Guidance. The Administrative Record developed by VA shall be periodically updated and a copy of the Index will be provided to EPA and the UDEQ. VA will provide to EPA on request any document in the Administrative Record.

XXXIV. PUBLIC COMMENT ON THIS AGREEMENT

34.1 Within fifteen (15) days after the execution of this Agreement (the date by which all Parties have signed the Agreement), EPA shall announce the availability of this Agreement to the public for their review and comment. Such public notices shall include information advising the public as to availability and location of the Administrative Record as discussed in Subsection 33.5. EPA shall accept comments from the public for forty-five (45) days after such announcement. Within twenty-one (21) days of completion of the public comment period, EPA shall transmit copies of all comments received within the comment period to the other Parties. Within thirty (30) days after the transmittal, the Parties shall review the comments and shall decide that either:

34.1.1 The Agreement shall be made effective without any modifications; or

34.1.2 The Agreement shall be modified prior to being made effective.

34.2 If the Parties agree that the Agreement shall be made effective without any modifications, and if the Parties agree on the Responsiveness Summary, EPA shall transmit a copy of the signed

Agreement to the other Parties and shall notify the other Parties in writing that the Agreement is effective. The Effective Date of the Agreement shall be the date of receipt by VA of the signed Agreement from EPA.

34.3 If the Parties agree that modifications are needed and agree upon the modifications and amend the Agreement by mutual consent within sixty (60) days after the expiration of the public comment period, EPA and the UDEQ, in consultation with VA, will determine whether the modified Agreement requires additional public notice and comment pursuant to any provision of CERCLA. If EPA and the UDEQ determine that no additional notice and comment are required, and the Parties agree on the Responsiveness Summary, EPA shall transmit a copy of the modified Agreement to VA and the UDEQ and shall notify them in writing that the modified Agreement is effective as of the date of the notification. If the Parties amend the Agreement within the sixty (60) days and EPA and the UDEQ determine that additional notice and comment are required, such additional notice and comment shall be provided consistent with the provisions stated in Subsection 34.1 above. If the Parties agree, after such additional notice and comment has been provided, that the modified Agreement does not require any further modification and if the Parties agree on the Responsiveness Summary, EPA shall send a copy of the mutually agreed upon modified Agreement to VA and the UDEQ and shall notify them that the modified Agreement is effective. In either case, the Effective Date of the modified Agreement shall be the date of receipt by VA from EPA of notification that the modified Agreement is effective.

34.4 In the event that the Parties cannot agree on the modifications or on the Responsiveness Summary within thirty (30) days after the EPA's transmittal of the public comments, the Parties agree to negotiate in good faith for an additional fifteen (15) days before invoking dispute resolution. The Parties agree to have at least one meeting during that 15-day period to attempt to reach agreement.

34.5 If, after the times provided in Subsection 34.4, the Parties have not reached agreement on:

34.5.1 Whether modifications to the Agreement are needed; or

34.5.2 What modifications to the Agreement should be made; or

34.5.3 Any language, any provisions, any Deadlines, any Work to be performed or any content of the Agreement or any Appendices to the Agreement; or

34.5.4 Whether additional public notice and comments are required; or

34.5.5 The contents of the responsiveness summary,

then the matters that are in dispute shall be resolved by the dispute resolution procedures of Section XIX – DISPUTE RESOLUTION. For the purposes of this Section, the Agreement shall not be effective while the dispute resolution proceedings are underway. After these proceedings are completed, the Final Written Decision shall be provided to the Parties indicating the results

of the dispute resolution proceedings. Each Party reserves the right to withdraw from the Agreement by providing written notice to the other Parties within twenty (20) days after receiving from EPA the Final Written Decision of the resolution of the matters in dispute. If the UDEQ withdraws, and EPA and VA agree to proceed, the Agreement shall be effective as to EPA and VA. Failure by a Party to provide such a written notice of withdrawal to EPA within this twenty (20) day period shall act as a waiver of the right of that Party to withdraw from the Agreement, and EPA shall thereafter send a copy of the final Agreement to each Party and shall notify each Party that the Agreement is effective. The Effective Date of the Agreement shall be the date of receipt of that letter from EPA to VA.

34.6 At the start of the public comment period, VA will transmit copies of this Agreement to the appropriate Federal, State, and local Natural Resource Trustees for review and comment within the time limits set forth in this Section.

34.7 Existing records maintained by VA that will be included in the Administrative Record such as reports, plans, and Schedules shall be made available by VA for public review during the public comment period.

XXXV. EFFECTIVE DATE

This Agreement shall be effective in its entirety among the Parties in accordance with Section XXXV – PUBLIC COMMENT ON THIS AGREEMENT.

XXXVI. AMENDMENT OF AGREEMENT

36.1 Except as provided in Section XIV – PROJECT MANAGERS, this Agreement can be amended or modified solely upon written consent of all the Parties. Such amendments or modifications shall be in writing, and shall become effective on the third business day following the date on which EPA signs the amendments or modifications. The Parties may agree on a different Effective Date. As the last signing Party, EPA will provide notice to each signatory pursuant to Section XIV – PROJECT MANAGERS, of the Effective Date.

36.2 The Party initiating the amendment of this Agreement shall propose in writing the amendment for distribution and signature by the other Parties.

36.3 During the course of activities under this Agreement, the Parties anticipate that statutes, regulations, Guidance, and other rules will change. Those changed statutes, regulations, Guidance, and other rules shall be applied to the activities under this Agreement in the following manner:

36.3.1 Applicable statutes and regulations shall be applied in accordance with the statutory or regulatory language on applicability, and if applied to ongoing activities, shall be applied on the effective date provided. However, the Parties shall, to the extent practicable, apply them in such a way as to avoid as much as possible the need for repeating Work already accomplished;

36.3.2 Applicable policy or Guidance shall be applied as it exists at the time of initiation of the Work in issue; and

36.3.3 Applicable policy or Guidance that is changed after the initiation of the Work in issue or after its completion shall be applied subject to Section XIX – DISPUTE RESOLUTION. The Party proposing application of such changed policy or Guidance shall have the burden of proving the appropriateness of its application. In any case, the Parties shall, to the extent practicable, apply any changed policy or Guidance in such a way as to avoid, as much as possible, the need for repeating Work already accomplished.

36.3.4 Changes in ARARs are governed by Section 300.430(f)(1)(ii)(B)(1) of the NCP.

XXXVII. STATE RESERVATION OF RIGHTS

37.1 By entering into this Agreement, and notwithstanding any other Section of this Agreement, UDEQ does not waive any right, authority, or claim it may have under law, but expressly reserves all of the rights, authorities and claims it may have thereunder, except that the State expressly agrees to exhaust any applicable remedies as provided under Section X – CONSULTATION and Section XIX – DISPUTE RESOLUTION, as provided in Section XXII - ENFORCEABILITY, prior to exercising any such rights. UDEQ also agrees to exercise any such rights within a reasonable period of time.

37.2 Specifically, and without limitation, UDEQ reserves any rights and authority it may have to require corrective action in accordance with the Utah Solid and Hazardous Waste Act, Section 19-6-101 et seq. Utah Code Annotated, its rights and authorities under Section XXII – ENFORCEABILITY, and any claim the Utah Natural Resource Trustees may have for natural resource damage assessments for damages to natural resources.

37.3 Unless expressly waived by law, Utah does not waive its Sovereign Immunity by entering into this Agreement.

37.4 This reservation shall not apply with respect to claims for costs reimbursed by VA pursuant to Section XXVII – REIMBURSEMENT OF STATE SERVICES.

37.5 Nothing in this Agreement, including execution-hereof, shall be deemed to constitute an authorization by the President pursuant to Section 122(e)(6) of CERCLA, 42 U.S.C. § 9622(e)(6), and the Parties explicitly reserve all rights and authorities they may have pursuant to Section 122(e)(6) of CERCLA, 42 U.S.C. § 9622(e)(6).

37.6 This Agreement shall not be construed to restrict EPA or UDEQ from taking any appropriate action under pertinent statute, law, regulation, or other authority relative to matters which are not within the scope of this Agreement.

XXXVIII. SEVERABILITY

If any provision of this Agreement is ruled invalid, illegal, or unconstitutional, the remainder of the Agreement shall not be affected by such a ruling.

XXXIX. TERMINATION AND SATISFACTION

39.1 The provisions of this Agreement shall be deemed satisfied upon a consensus of the Parties that VA has completed its obligations under the terms of this Agreement. Following EPA Certification of all the response actions at the Site pursuant to Subsection 9.8 of Section IX – WORK TO BE PERFORMED, any Party may propose in writing the termination of this Agreement upon a showing that the requirements of this Agreement have been satisfied. The obligations and objectives of this Agreement shall be deemed satisfied and terminated upon receipt by VA of written notice from EPA, with concurrence of the UDEQ that VA has demonstrated that all the requirements of this Agreement have been satisfied. A Party opposing termination of this Agreement shall provide a written statement of the basis for its denial and describe the actions necessary to grant a termination notice to the proposing Party within ninety (90) days of receipt of the proposal.

39.2 Any disputes arising from this Termination and Satisfaction process shall be resolved pursuant to the provisions of Section XIX – DISPUTE RESOLUTION, of this Agreement.

39.3 Upon termination of this Agreement, VA shall place a public notice announcing termination in two (2) local newspapers of general circulation.

39.4 This Section shall not affect the Parties' obligations pursuant to Section XX – PERIODIC REVIEW or Section XXX – RECORD PRESERVATION of this Agreement. In no event will this Agreement terminate prior to VA's completion of the Work required by this Agreement.

VA Medical Center Federal Facility Agreement

AUTHORIZED SIGNATURES

The undersigned representative certifies that he or she is fully authorized by the Party he or she represents to enter into the terms and conditions of this Agreement and to legally bind such Party to this Agreement.

IT IS SO AGREED:

By

  Date

David J. Shulkin, M.D.
Under Secretary for Health
Department of Veterans Affairs

VA Medical Center Federal Facility Agreement

AUTHORIZED SIGNATURES

The undersigned representative certifies that he or she is fully authorized by the Party he or she represents to enter into the terms and conditions of this Agreement and to legally bind such Party to this Agreement.

IT IS SO AGREED:

By

A handwritten signature in dark ink, appearing to read "Alan Matheson", is written over a horizontal line.

Alan Matheson
Executive Director
Utah Department of Environmental Quality

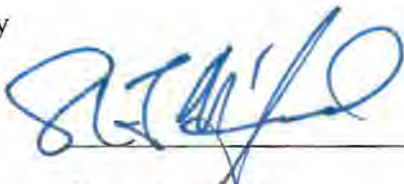
Date 29 Sept. 2016

AUTHORIZED SIGNATURES

The undersigned representative certifies that he or she is fully authorized by the Party he or she represents to enter into the terms and conditions of this Agreement and to legally bind such Party to this Agreement.

IT IS SO AGREED:

By



11/7/16

Date

Shaun McGrath
Regional Administrator, EPA Region VIII

Appendix A – Initial Site Management Plan (to be added when finalized)

DRAFT FINAL



**Veteran's Health
Administration**

700 South 1600 East

PCE Plume

Salt Lake City, UT

Site Management Plan

Update Revision 2

September 16, 2016

**Revised by: VA Salt Lake City Health Care
System**

**500 Foothill Drive
Salt Lake City, Utah 84148**

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Appendices

APPENDIX A - SMP Schedule

Acronyms and Abbreviations

AOU	Accelerated Operable Unit
AR	Administrative Record
BHHRA	Baseline Human Health Risk Assessment
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act, commonly called Superfund
CIC	Community Involvement Coordinator
CIP	Community Involvement Plan
CLP	EPA Contract Laboratory Program
CO	Contract Officer
COR	Contract Officer's Representative
CSM	Conceptual Site Model
DQO	Data Quality Objective
EECA	Engineering Evaluation/Cost Analysis
EPA	United States Environmental Protection Agency
ESS	East Side Springs
FFA	Federal Facilities Agreement
FFS	Focused Feasibility Study
GEMS	Green Environmental Management Systems
GIS	Geographic Information System
HASP	Health and Safety Plan
MCL	Maximum Contaminant Level
NCP	National Contingency Plan
NPL	National Priorities List
OMM	Operation, Monitoring and Maintenance
OMS-5	Organizational Maintenance Shop 5
OU	Operable Unit
PCE	Perchloroethylene, Tetrachloroethylene or Perc
PCP	Project Communications Plan
PID	Photo Ionization Detector
PM	Project Manager

PCOC	Potential Contaminants of Concern
PP	Proposed Plan
PRP	Potentially Responsible Party
QAPP	Quality Assurance Project Plan with Field Operations Plan
QA/QC	Quality Assurance/Quality Control
RAO	Remedial Action Objective
RAWP	Risk Assessment Work Plan
ROD	Record of Decision
RIWP	Remedial Investigation Work Plan
RD/RA	Remedial Design/Remedial Action
RI/FS	Remedial Investigation/Feasibility Study
RPM	Remedial Project Manager
SAP	Sampling and Analysis Plan
SMP	Site Management Plan
START	Superfund Technical Assessment and Response Team
TCRA	Time Critical Removal Action
UANG	Utah Air National Guard
UDEQ	Utah Department of Environmental Quality
µg/L	Micrograms per Liter
UNG	Utah National Guard
USACE	United States Army Corps of Engineers
USGS	United States Geological Survey
VA	United States Department of Veterans Affairs
VAMC	VA Medical Center
VISN	Veterans Integrated Service Network

1.0 Introduction

This Site Management Plan (SMP) provides a summary of Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) activities, schedules, and associated documentation for the 700 South 1600 East PCE Plume Superfund Site (the “Site” or “Plume”) located in Salt Lake City, Utah.

Tetrachloroethylene (PCE) contamination was first detected at the Site in the 1990s during routine sampling of the Mount Olivet Cemetery irrigation well. The U.S. Environmental Protection Agency (EPA) and Utah Department of Environmental Quality (UDEQ) conducted several assessments but did not determine the source of the contamination.

In July 2005, EPA sent a CERCLA Section 104(e) Information Request to the Salt Lake City George E. Wahlen Medical Center (VAMC) inquiring about their use of PCE. The Department of Veterans Affairs (VA) responded to the EPA and detailed the use of PCE in an on-site closed-loop dry cleaning system that discharged condensate from the distillation process to the sanitary sewer. The regulatory agencies worked towards listing the Site on the National Priorities List (NPL). However, EPA notified VA that it would defer listing the Site on the NPL while State and local officials sought money from Congress to address the contamination.

In 2010, PCE was discovered in several residential springs located down gradient from the Site in an area known as the East Side Springs (ESS). An assessment by Salt Lake City Public Utilities and UDEQ confirmed the presence of PCE in the springs and shallow groundwater and concluded that the contamination was likely connected to the Plume. EPA placed the Site on the Superfund program’s National Priorities List (NPL) in May 2013. The Department of Veteran’s Affairs (VA) has been designated by EPA as the potentially responsible party (PRP) for the cleanup of the PCE Plume (Plume or Site).

1.1 CERCLA Cleanup and Federal Agency Role

Executive Order 12580 delegates the authority to conduct certain cleanups and removal actions under CERCLA to Federal agencies. CERCLA § 120 states that a federal agency must comply with the substantive and procedural requirements of cleanups to the same extent as private entities must. EPA provides advice and consent on the federal agency’s response actions for the Site’s cleanup to ensure that CERCLA and National Contingency Plan (NCP) requirements are

met and that a Remedial Investigation/Feasibility Study (RI/FS), to determine the nature and extent of contamination, is begun within 6 months of listing. Immediately after listing confirmation occurred, VA began efforts to hire a CERCLA Program Manager and contract with an environmental remediation firm to develop an investigational strategy and plan for the field work efforts.

After the remedial investigation and feasibility study (RI/FS) is completed, the federal lead agency is required to enter into an inter-agency Federal Facilities Agreement (FFA). The FFA is a legal agreement which defines the requirements for performance of Site response activities and how cleanup will proceed, as well as, penalties for non-compliance. The parties' signatory to the FFA includes VA, EPA Region 8, and UDEQ. The FFA between these parties was finalized in February, 2016 and is awaiting final signatures of UDEQ and EPA.

The FFA requires that a Site Management Plan (SMP) be developed for the Site and be accepted by EPA and UDEQ. This SMP will be an appendix of the FFA under CERCLA Section 120 (Docket Number No. EPA-HQ-SFUND-2012-0647) and describes the work and process VA intends to use to address the Site's contamination and a schedule for the work. The SMP is amended annually to update any changes in the proposed schedule. Milestone changes agreed to by the Remedial Project Managers (RPMs) are included in the next annual amendment to the SMP. Near-term milestones, deadlines, are enforceable to the extent allowed under CERCLA and the FFA.

2.0 Administrative Record Repositories

CERCLA requires the establishment of an Administrative Record (AR), which makes investigative plans, reports and cleanup decision documents available to the public. A public information repository for the Administrative Record has been established for the Site to provide convenient access to cleanup decision documents and other site-related information.

The local repository containing copies of the Administrative Record is located at the:

Salt Lake City Public Library
Anderson-Foothill Branch
1135 South 2100 East
Salt Lake City, UT 84108
(801) 594-8611

In addition, VA and EPA maintain project websites that allow the public to access information about the Site and the progress of both the investigation and remediation activities. The URLs to these websites are:

<http://www2.epa.gov/region8/700-south-1600-east-pce-plume>

<http://www.pceplume-700s1600e.net>

3.0 Goals, Objectives and Strategy

The overriding goals for VA's cleanup of the Site are to: 1) determine if immediate threats to human health and the environment exist at the ESS, and if so, mitigate them; and 2) evaluate and mitigate, to the extent feasible, any long-term threats originating from the Plume to human health and environment in accordance with CERCLA, the NCP and the FFA.

3.1 General

The SMP includes the following general objectives to meet VA's goals:

- Plan and implement remedial investigations and feasibility studies and any necessary remedial and removal actions at the ESS area and the Site; to mitigate immediate and/or long-term threats to human health and the environment of PCE and its degradation products consistent with the range of acceptable risks outlined in USEPA guidance. This could include risks of exposure to indoor air, groundwater, soil and surface water.
- Provide physical and geographical descriptions of all Operable Units (OUs) for the Site including those currently identified, planned, or being considered pursuant to the FFA.
- Develop a Conceptual Site Model and Numerical Groundwater Model to evaluate past and present movement of the contamination.
- Determine the nature and extent of the Site contamination.
- Plan and schedule all necessary and appropriate CERCLA activities identified in the FFA to include, at a minimum:
 - identification of primary actions;
 - all milestones (near-term milestones and out-year);
 - all target dates;
 - other remedial actions; and
 - all Project End Dates.

3.1.1 Primary Actions for Work to be Performed and Schedules

CERCLA-required primary actions are identified in the FFA in Section IX. Planning and implementation documentation for the primary response actions are outlined in Section 5.2.1.

Primary Documents include:

- RI/FS and FSS work plans
- Remedial Investigation Reports
- FS and FFS Reports

- Proposed Plans
- Records of Decision
- Final Remedial Designs
- Remedial Action or Emergency Removal Action work plans
- Remedial Action Completion Reports
- Community Involvement Plan

The schedule to plan and implement the response actions is discussed in Section 8. The project schedule is presented in Appendix 1.

4.0 Site Description, History, and Current Status

The investigation of PCE-contaminated groundwater in the vicinity of the VAMC has been ongoing since the early 1990s and has included the investigation of several sites. These sites include the Utah Army National Guard; Mt. Olivet Cemetery; and the ESS, all of which are potentially impacted by the Plume.

4.1 Location and Description

The VAMC is located in a mixed commercial and residential area near the University of Utah in Salt Lake City, Utah (Figure 1). The physical address is 500 South Foothill Drive, Salt Lake City, Utah 84148. VA operated a part-time dry-cleaning service utilizing PCE from approximately 1976 through 1984 (EPA, 2012).

Landmarks in the general vicinity of the Site include the University of Utah to the north; the University Research Park to the East; the Salt Lake City Sports Complex to the west along Guardsman Way; Mount Olivet Cemetery located to the west; and, to the south, Sunnyside Park and Red Butte Creek, a perennial creek that flows in a southwesterly direction from Red Butte Canyon.

PCE has been detected in neighborhoods adjacent to 700 South and 1600 East in Salt Lake City, Utah. The approximate center of the groundwater plume has been described by the following coordinates: Latitude: 40.753938° North Longitude: -111.848022° West (EPA, 2012). PCE has been detected at part per billion (ppb) levels in one of Salt Lake City's secondary drinking water wells, which was closed in 2004. PCE has also been detected at ppb levels in samples collected from shallow and deep groundwater monitoring wells installed by EPA in 1998, and surface water springs and shallow groundwater sampled by UDEQ in 1998 and 2011. Recent investigations by VA have also identified PCE and some of its degradation products in indoor air and in soil gas in the ESS neighborhood.

4.2 Background and History

PCE contamination was first found in the groundwater in 1990 at the nearby Mount Olivet Cemetery irrigation well during routine monitoring by the Salt Lake City Department of Public Utilities. This led to the EPA's involvement at the Site and EPA's preliminary determination that the source of the contamination was the historic dry-cleaning facility located at the VAMC.

4.2.1 Site Characterization

Groundwater samples collected from the Mt. Olivet Cemetery irrigation well from 1990 to 1999 by UDEQ and the Salt Lake Department of Public Utilities exceeded the federal drinking water standard for PCE although no one was using the water for that purpose. PCE levels ranged from 11 to 184 micrograms per liter ($\mu\text{g/L}$) during this period of time. The irrigation well is approximately 470 feet deep and is screened the majority of its length through both unconfined and deeper confined aquifers (UDEQ 2000).

In 1997, PCE was also detected in Salt Lake City municipal supply well No. 18 (SLC Well 18) at $0.6 \mu\text{g/L}$, which is below the National Drinking Water Standards Maximum Contaminant Level (MCL) of $5 \mu\text{g/L}$. In 1998, EPA conducted investigations in the area which included the installation of six groundwater monitoring wells; one on VAMC property (MW-05) and five to the west-southwest (MW-01s, MW-01d, MW-02, MW-03 and MW-04). In September 1999, EPA MW- 03 was abandoned and an additional monitoring well (MW-06) was installed in the southeast corner of Sunnyside Park (UDEQ, 2000). All EPA monitoring wells are located southeast of SLC Well 18. Analytical results for groundwater samples collected from these wells ranged from below laboratory reporting limits to $320 \mu\text{g/L}$. Groundwater modeling representative of 1999 conditions was also conducted for SLC Well 18. The study indicated that local groundwater flow direction was to the northwest due to localized mounding. The data suggested a possible correlation between prolonged pumping and detection of PCE in SLC Well No. 18 (Bowen and Collins 2004).

A Site Inspection (SI) was conducted at the Site in October 2004 jointly by the UDEQ and EPA Federal Facilities Program. During this sampling activity, PCE was detected in SLC Well 18 at a concentration of $2.23 \mu\text{g/L}$. The highest detection of PCE ($128 \mu\text{g/L}$) was found in a sample collected from Mount Olivet Cemetery irrigation well. A duplicate of this sample contained $92 \mu\text{g/L}$ of PCE. A Hazard Ranking System (HRS) package was prepared to determine if the Site was eligible for inclusion on the National Priorities List (NPL). The HRS site score was 50.00 based on the groundwater migration pathway. Any site scoring of 28.50 or greater is eligible for the NPL. EPA may propose adding sites scoring greater than 28.50 to the NPL through proposed rulemaking in the *Federal Register* following a QA review and public comment (EPA 1992).

In June 2010, a Chevron pipeline near the mouth of Red Butte Canyon ruptured and

subsequent sampling and analysis revealed the presence of PCE in 6 of the 11 springs sampled and in a sample collected from the storm drain manhole located at 900 South and 1071 East. Salt Lake City Public Utilities maintains an inventory of springs in the area. In July and August of 2010, the Salt Lake City Department of Public Utilities sampled several more springs. Elevated levels of PCE were detected in the springs at concentrations ranging from 2.5 µg/L to 40.4 µg/L. These springs are the result of the shallow groundwater aquifer surfacing along the Wasatch Fault. A likely source for the PCE contamination is the upgradient 700 South 1600 East PCE Plume Site (UDEQ, 2012).

Pump tests were conducted in SLC Well 18 in the fall of 2011 and a number of wells were used to evaluate hydrogeological conditions during the pump tests: the Mt. Olivet Well, the University of Utah “Fountain of Ute” well, and the six EPA groundwater monitoring wells. Geophysical, hydro-physical, and video logging of SLC Well 18 were also conducted. Groundwater modeling was used to predict arrival of PCE contamination in Well No. 18 after pumping at different rates, as well as the capture zone induced by pumping (MWH 2012).

4.2.2 Nature and Extent of Contamination

To date, contaminants detected in groundwater include PCE and its degradation-related chlorinated volatile organic compounds. The full nature and extent of Site contaminants has not yet been characterized and a definite physical source location has not been identified. The investigations undertaken to date include: indoor air, near-slab soil gas, groundwater, surface (spring) water, soil sampling, pump tests and groundwater modeling to establish the potential hydrogeological connection of SLC Well 18 to the Plume and to surmise that the Plume likely extends as far west as 1100 East. Plume dimensions are roughly estimated at 5,300 feet in length and 2,200 feet in width based on this interpretation (UDEQ, 2012) as shown in Figure 2. The remedial investigation (RI) at ESS and future RIs will attempt to better define the Plume, its historic and present location and the risk it poses to Salt Lake City and its residents.

4.3 Operable Units

Contaminated groundwater and vapor intrusion from contaminated groundwater are the primary public health concerns at the present time for the Site. Determining the fate and transport of the PCE Plume will be the focus of the second, groundwater, Remedial Investigation (RI) for Operable Unit – 2 (OU-2). Ecological concerns will also be considered during all Site RIs.

Based on the public health concerns related to indoor air inhalation exposure to PCE and its

breakdown products, VA chose to address this concern first and has implemented an accelerated operable unit (AOU - 1) for the ESS. PCE contamination in shallow groundwater may lead to vapor intrusion by PCE and its degradation products, trichloroethene, cis-1,2 dichloroethene, trans- 1,2 dichloroethene, and vinyl chloride, into nearby homes, schools and businesses where contaminated groundwater is within 50 feet of the ground surface if: 1) a viable vapor pathway exists in the soils and/or groundwater underlying the Site; and 2) nearby buildings are vulnerable to vapor intrusion. Sampling has shown that several springs and seeps in the ESS are contaminated with PCE and/or one of its degradation products. Exposure to PCE in air over a prolonged period of time can cause both acute and chronic health problems. Indoor air screening levels have been established based on EPA's Regional Screening Levels for PCE and its degradation products.

The other primary health risk concern is Salt Lake City's drinking water. In 2004 SLC Well 18, located on 500 South Street, near the intersection with Guardsman Way, was sampled and laboratory results showed contamination by PCE. While the level was below the National Drinking Water Act Maximum Contaminant Level (MCL) for PCE, the well was shut down as a precaution to ensure a safe water supply. Samples from the nearby Mt. Olivet irrigation well, which is near SLC Well 18 continue to exceed the federal drinking water standards. Although PCE has been detected in the springs, the drinking water for this area is supplied by the SLC municipal water system and the water is safe to drink. VA will investigate and attempt to locate the sources(s) of PCE contamination, its effect on groundwater, the extent of the groundwater contamination and remedial options in a second operable unit (OU-2). VA will evaluate the need for additional OUs based on the results of AOU-1 and OU-2 and may, at a later date, establish them to further address the impacts to the Site.

4.3.1 Accelerated Operable Unit 1 (AOU-1)

AOU-1 contains the ESS located within the East Bench area of Salt Lake City. The springs and seeps are an expression of groundwater that surfaces along the Wasatch Fault (Figure 2). The investigation and remedial approach to AOU-1 has focused on defining and mitigating vapor intrusion arising from shallow groundwater contamination in this area to ensure that public health risks are minimized while the long-term planning and investigation process for the site are ongoing.

AOU - 1 is within Sections 4, 5, 8, and 9, Township 1 South, Range 1 East, of the Salt Lake

Base Meridian. The area is located in the residential East Central, East Liberty Park, Yalecrest and Gilmer Park neighborhoods on the East Bench of Salt Lake City, UT (see Fig. 3). AOU - 1 boundary is tentatively defined between 800 South and Michigan Avenue and 1100 East and 1300 East. The general topography slopes to the west with an average elevation of 4,520 feet above mean sea level (USGS, 1975). A portion of the Wasatch Fault is located in AOU - 1; it is a normal fault because the displacement is mostly vertical with the mountain block (Wasatch Range) moving upward relative to the adjacent downward-moving valley block (UOS, 1996). Red Butte Creek is located to the south of AOU-1 and runs to the west towards Liberty Park Pond.

The goal of AOU - 1 remedial investigation (RI) is to identify the potential for, and if necessary, mitigate vapor intrusion, early in the Site's remedial investigation process using removal action authority to address individual locations, if necessary. The AOU - 1 Remedial Investigation Work Plan (RIWP) focuses on indoor air; groundwater and surface water characterization within and adjacent to the ESS and providing data for assessment of the human health risk posed by exposure to the contaminated groundwater and vapors that originate from the contaminated groundwater. An environmental risk screening is also done at any habitat location sampled during the RI. The RIWP includes all required plans (Health and Safety Plan, Sampling Analysis Plan, Quality Assurance Project Plan, Risk Assessment Work Plan, etc.) needed to support evaluation of the potential for vapor intrusion in residences, businesses, and schools.

AOU - 1 field work commenced in late Fall 2014/Early Winter 2015 with interviews of property owners who volunteered during the March and September 2014 public meetings. The initial phase of indoor air and soil gas sampling commenced in early January 2015 and was substantially completed by April 2015. Vapor intrusion (VI) results for the 2015 investigation identified 21 locations at which PCE was detected in indoor air. Three of these indoor air sampling locations contained PCE above the regional screening level (RSL) established for the Site (0003-H, 0011-H and 0018-H) and two exceeded the SL for TCE (0019-B and 0022-S) under ambient conditions. None of the locations surveyed during 2015 exceed the action levels for PCE or its degradation products, potential contaminants of concern (PCOCs).

The second phase of AOU - 1 field investigation commenced in February 2016 and was

completed in May 2016. Indoor air and soil gas sampling were conducted at 10 additional properties in the AOU-1 area. The five (5) properties identified in 2015 with exceedances of the RSL were also resampled in 2016. Shallow groundwater sampling was conducted at 44 temporary sampling points, and surface water sampling was conducted at 50 springs, seeps and storm drain access points. Ten (10) temporary sampling points were left in place (temporary piezometers) to enable additional groundwater monitoring in 2016.

Direct push (Geoprobe) sampling was used to install groundwater sampling points and temporary piezometers. Surface water, including springs, seeps and storm water conveyances, were sampled using a peristaltic pump. PCE and/or its degradation products were detected in 25 of the 44 groundwater sampling locations. Ten temporary piezometers were left in place to enable additional groundwater monitoring in 2016.

Surface water samples were collected from seeps, springs, and Red Butte Creek to help assess the lateral extent of PCE contamination in AOU - 1. Several of the springs discharge to the municipal stormwater system. Therefore water samples were collected from selected Salt Lake City stormwater sewer manholes, located in and downgradient of AOU - 1, to determine if groundwater seepage and discharge from foundation drains is impacting stormwater lines. Surface water and stormwater were collected from February 26 to May 11, 2016.

A total of 3 surface soil samples were collected from the 0 to 0.5 foot interval at locations adjacent to seeps or springs (surface water locations). Two soil samples, SS-09 (adjacent to SW-09) and SS-26 (adjacent to SW-26), were collected at locations where groundwater exhibited the highest PCE concentrations along Sunnyside Avenue. One soil sample, SS-01 (adjacent to SW-01), was collected at a location where PCE is not detected in the groundwater. Soil sampling locations are presented on Figure 3-1 and Table 4-1.

The results of field work performed in 2015 and 2016 have necessitated that VA conduct additional activities not anticipated by the RIWP. These additional activities are described in Sections 4.3.2 and 4.3.3 below. Their impact to the overall project schedule is discussed in Section 4.3.4.

4.3.2 Third Party Review of Vapor Intrusion Survey Data

The results of the January 2015 through April 2015 AOU - 1 vapor intrusion sampling were

reported to VA in the Vapor Intrusion Data Collection Report (FE, 2015b) and the Indoor Air Quality Data Collection Report (FE, 2015c). Although the analytical data quality associated with these documents has been initially validated (EA, 2016c), a review of the field documentation by VA indicated deviations from the SAP and also raised questions regarding sample traceability and data usability. As a result, VA contracted with a third party quality assurance contractor, Element Consulting Services, to review the reports and field documentation; evaluate the data; and make a determination regarding the data usability (2015 data QA review). The results of the third party data review are expected to be available by mid-to-late October 2016. Additional sampling to support the AOU - 1 RI is anticipated and preparation of Minor Field Modifications (MFM) to the RIWP and/or additional vapor intrusion sampling could delay the SMP schedule by four to five months.

4.3.3 AOU-1 Time-Critical Removal Action

VI data collected in 2015 suggested that, within a certain area of AOU - 1, there is a greater potential for indoor air concentrations above the RSLs presented in an appendix of the AOU-1 RIWP for potential contaminants of concern (PCOCs). These data helped VA to delineate a 'focus area' for the 2016 VI sampling. Additional VI, exterior soil gas, surface and groundwater sampling was conducted from structures within this focus area during the period of February 2016 through May 2016.

One location was identified by VA as having the potential of being adversely affected by the PCE plume through the groundwater to indoor air pathway (vapor intrusion or VI). Indoor air sampling was conducted in March 2016 within the location identified as 0040-H. Time-weighted TO-15 indoor air samples were taken in the basement and kitchen of the structure to verify the portable gas chromatograph/mass spectrometer results. Analytical results indicated that PCE and TCE exceeded the Tier I RALs (removal action level) of 41 $\mu\text{g}/\text{m}^3$ and 2.1 $\mu\text{g}/\text{m}^3$, respectively. Evaluation of multiple lines of evidence suggested that vapor intrusion from PCE impacted shallow groundwater is the likely cause of the PCE and TCE detected in the indoor air at location 0040-H.

VA has proposed to mitigate the risk posed by the infiltration of PCE and TCE vapor into the structure implementing a Time-Critical Removal Action (TCRA). Several mitigation alternatives were identified and will be evaluated by an Army Corps of Engineers contractor.

The TCRA planned for 0040-H will necessitate preparing an Action Memorandum (AM); Removal

Action Work Plan, performing a streamlined screening, evaluation, and selection of an indoor air mitigation system followed by design and implementation of the selected alternative. VA anticipates that these planning activities will be completed by November 2016 and the actual implementation and startup of the selected mitigation system will be completed before the end of 2016. These activities will be documented in a Removal Action Pollution Report (POLREP) that will become an appendix to the AOU - 1 RI Report. VA is contracting for these activities so that they are conducted concurrently with the 2015 data QA review of the 2015 VI survey data and anticipated additional VI sampling activities. The additional monitoring will include one year of seasonal sampling (one sampling event in each of the four seasons) for the first year after installation reducing to semiannually for the subsequent two (2) years, and may eventually be reduced to annual sampling.

4.3.4 Impact to SMP Schedule

Two challenges will affect the SMP Schedule: 1) the 2015 data QA review; and 2) the Removal Action at 040-H.

Review of the 2015 TO-15 and TO-13 data resulted in concern with its adequacy for conducting a risk assessment and inclusion in the RI. An independent third party review contractor was engaged to review the 2015 field and laboratory data and provide an opinion of its usability in the RI. Depending on the outcome of the review, additional VI sampling may be required. This will likely necessitate the preparation of a MFM of the RIWP to conduct additional sampling; obtaining consent and access permissions from property owners; conduct the additional VI sampling activities; obtain laboratory results and validate the data before the RI report can be completed.

The impact to the SMP schedule will be to delay the development of the RI Report, originally scheduled for the end of August 2016 to June of 2017. FFA required review timeframes and revisions to the Draft RI Report, VA anticipates that the RI Report will be finalized by the end of December 2017. The impact of the Removal Action will not affect the SMP schedule for AOU - 1 beyond the impact of the 2015 data QA Review and the possible additional sampling which may be required. An updated SMP Schedule (Appendix A) has been prepared as an attachment to this SMP and outlines the timelines for these activities.

4.3.5 Operable Unit 2 (OU-2)

The focus of OU - 2 will be the evaluation of the entire PCE plume including additional

contaminated groundwater delineation work in the ESS (AOU - 1) in order to further define the groundwater flow and extent of contaminant migration. OU - 2 remedial investigation work plan (OU - 2 RIWP) will be developed and implemented to delineate the nature and extent (determine chemical characteristics and identify horizontal and vertical extent) on the VAMC and in surrounding areas including a determination of the farthest western extent of the Plume. Because only five (5) monitoring wells were installed previously, VA's initial activities in OU - 2 will focus on defining the deep groundwater flow regimes and tracing the PCE plume between the ESS, the VAMC and SLC Well 18. Data will be collected to help define the complex stratigraphy and aquifer interaction with SLC Well 18, the Wasatch Mountains, Mt. Olivet; University of Utah irrigation wells, the two identified fault traces and the ESS bench depositional area. The OU – 2 RI will also evaluate other potential groundwater contamination sources to determine their impact on the Site.

4.3.5.1 Overlapping Operable Unit Activities

There will be a gap of time between completing the AOU-1 RI and implementation of the AOU-1 Remedial Action Work Plan (RAWP) estimated to be from 12/20/2017 to 5/20/2021). During this time period, regular vapor intrusion sampling activities will not occur but periodic groundwater sampling activities will be conducted as part of the OU - 2 RI. The groundwater sampling are anticipated to be a component of the AOU – 1 response action and document any changes in groundwater concentrations for the ESS and will help VA monitor the stability of the groundwater contamination and any additional VI concerns.

4.3.6 Operable Unit 3 (OU-3)

VA will decide if establishing a groundwater operable unit (OU-3) is warranted after OU-2 remedial actions are completed. It is shown as a placeholder in the SMP schedule.

4.3.7 Additional Informational Needs

VA has identified additional areas where more data needs to be collected to verify past assumptions in contaminant fate and transport during the OU - 2 RI. They are as follows:

- Determine if upgrades have been undertaken for the Sunnyside Avenue sewer and how they might affect PCE migration along the city sewer pathway around Red Butte Creek.
- Determine the pathway of the Red Butte Creek diversion from the Creek to the reservoir at Mt. Olivet, its changes over time and its influences on groundwater movement and possibly the Plume.

- Gather additional background information on historic land uses around the VAMC that might affect groundwater quality.
- Gather additional information on the background groundwater composition and influence of the Wasatch Front recharge on groundwater flow paths.
- Evaluate flow paths developed prior to the Salt Lake City-Public Supply Well No. 18 shut down in 2004 and its impact on the PCE contaminated groundwater distribution.
- Evaluate the potential influence on contaminated groundwater distribution due to past and future pumping from University of Utah and Mt. Olivet irrigation wells.
- Conduct additional assessment of VAMC Building 7 and the sewer line through Sunnyside Park to locate the source area of PCE disposal or releases.
- Determine the influence of faults on groundwater flow and groundwater quality in the vicinity of Public Supply Well No. 18 and the East Side Springs neighborhood.
- Quantify irrigation inputs to the aquifer in the Plume area.

These areas of investigation will be included in the OU - 2 RI work. VA plans to conduct OU - 2 RI in phases and scoping for phase 2 will be based on the results of phase 1.

Tasks for the initial phase include:

1. Two monitoring well transects in the ESS area to access the groundwater table and determine flow gradients across the two projected fault traces.
2. Six deep wells in the area surrounding the VAMC.
3. Slug tests on all new and existing MWs.
4. Perform a 72-hr. pump test on SLC-18, at a minimum.
5. Geophysical and geotechnical logging of the new monitoring wells.
6. Historical records search.
7. OU-2 RIWP with SAP/QAPP and HSP per the NCP and EPA guidance.
8. Revise the CSM (Conceptual Site Model).
9. Conduct GIS analyses to supplement GWM parameters development.
10. Prepare a GWM QAPP
11. Develop and maintain a Project Database to VA specifications.
12. Conduct Public Meetings as needed.

5.0 Project Organization and Responsibilities

This section defines key roles and responsibilities of the VA project team. The document review process is summarized and primary and secondary documents are identified, consistent with the FFA.

5.1 Key Personnel Roles and Responsibilities

Ms. D. Lynne Welsh serves as the VA Remedial Manager/CERCLA RPM and is assisted by a Deputy Remedial Manager, Ms. Susanne Kayser. Ms. Kayser also acts as the Contract Officer's Representative (COR). Ms. Welsh works with the VA Contract Officer (CO), Mr. Leo Rogers, and is advised by Mr. George Setlock, VISN 19 GEMS Manager and Mr. Warren Hill, the SLCHCS Associate Director.

VA is assisted by several contractors; they include Avalon Business Engineering Services, EA Engineering, Science and Technology (EA), CH2M Hill, Inc, Element Consulting Services and CTI and Associates, Inc. EPA is assisted by US Geological Survey (USGS) and their START Contractor, Weston Solutions.

Mr. Rolf Lange and Nic Kirkham of Avalon Business Engineering Services provide on-site technical and community involvement support to VA. A contract team headed by EA supports VA remedial investigation activities; their Project Manager is Ms. Pam Moss. She is assisted by Ms. Sandy Staigerwald, of EA, and Mr. David Waite of CH2M HILL. VA is working with the U.S. Army Corps of Engineers (USACE) to obtain additional contracting resources to better address the required Site response actions.

Regulatory oversight for the project is provided by EPA Region 8 and UDEQ. Oversight is provided by two EPA officials, Ms. Vera Moritz and Mr. Mark Aguilar. Mr. Tom Daniels provides oversight for UDEQ Division of Environmental Repose and Remediation.

Community Involvement coordination is provided by Ms. Jasmine Guerra of EPA Region 8, Mr. David Allison of UDEQ, and Mr. Jeremy Laird, the VA Public Affairs Specialist and is supported by Ms. Lorraine Jameson of CH2M HILL.

Table 1 presents a list of key personnel for the project, their roles, and contact information.

TABLE 1 - List of Key Contacts

Organization	Name and Role	E-mail	Telephone Number
Department of Veterans Affairs	D. Lynne Welsh, VHA CERCLA Program Manager and RPM	dlynne.welsh@va.gov	(801) 582-1565 x2021
	Susanne Kayser, VHA Deputy CERCLA Program Manager	susanne.kayser@va.gov	(801) 582-1565 X1952
	George Setlock, VHA GEMS Manager	george.setlock@va.gov	(307) 675-3676
	Jeremy Laird, VHA Public Affairs Specialist	jeremy.laird@va.gov	(801) 582-1565 X1955
	Leo Rogers III, VHA NCO19 CO	leo.rogers@va.gov	(303) 202 8296
Avalon BES	Rolf Lange, Technical Support	rolf.lange@va.gov	(801) 582-1565 x2143
	Nic Kirkham, Community Involvement	nicholas.kirkham@va.gov	(801) 582-1565 x2110
EPA Region 8	Mark Aguilar, RPM	aguilar.mark@epa.gov	(303) 312-6251
	Vera Moritz, RPM	moritz.vera@epa.gov	(303) 312-6981
	Jasmine Guerra, CIC	guerra.jasmin@epa.gov	(303) 312-6508
UDEQ	Tom Daniels, PM	tdaniels@utah.gov	(801) 536-4090
	Dave Allison, CIC	dallison@utah.gov	(801) 536-4479
EA Engineering, Science and Technology	Pam Moss, PM	pmoss@eaest.com	(303) 590-9143
	Sandra Staigerwald, PrgM	sstaigerwald@eaest.com	(385) 393-4982
CH2M HILL	David Waite, DPM	david.waite@CH2M.com	(385) 474-8560
	Lorraine Jameson, Community Involvement	lorraine.jamison@CH2M.com	(972) 663-2234

5.2 Document Review

In accordance with the FFA, work products are defined as either primary or secondary documents. Primary documents pertain to remedial actions, listed above in Section 3.1.1. They document major remedial activities, such as Remedial Investigations, Feasibility Studies, Proposed Plans, etc. Secondary documents are discrete portions of a primary document's activity or research for a remedial action and feed into a primary document. Primary and secondary documents are identified in the FFA and are identified below in Section 5.2.1.

The FFA defines the time periods for review and comment to primary and secondary documents and is reflected in the SMP Schedule. Generally, the FFA allows 60 days for the review of a draft primary document by EPA and UDEQ, 60 days for VA to respond to those comments and produce a draft final primary document, and 30 days for the EPA and UDEQ to determine if a draft final primary document addressed their comments. If the regulators have no additional comments or concerns, the draft final becomes final. If issues remain, the process outlined in Section XX, Dispute Resolution detailed in the FFA will be followed. At the completion of the dispute resolution process, the document would be revised or become final based on the outcome of the disputed issue(s).

Milestones established in this SMP are subject to the requirements of an executed FFA, unless otherwise agreed to by the Parties or unless directed to be changed pursuant to processes set out in the FFA. The SMP schedules will be re-evaluated and updated on an annual basis.

5.2.1 Primary Documents

Primary Documents include those documents that are major, discrete portions of RI/FS or RD/RA activities and will be finalized pursuant to the schedule provided in Section 7. Primary documents, as listed in the draft FFA, include the following:

- The Site Management Plan (SMP) w/annual amendments and out year milestones;
- RI/FS (AOU/FFS) Work Plans including Sampling and Analysis Plan and Quality Assurance Project Plan (QAPP);
- Remedial Investigation Reports (including risk assessments for human health and the environment);
- FS and FFS Reports;
- Proposed Plans (PP);
- Records of Decision (ROD);
- Final Remedial Designs;
- Remedial Action or (Emergency) Removal Action Work Plans;
- Remedial Action Completion Reports; and
- Community Involvement Plan.

5.2.2 Secondary Documents

Secondary documents include those reports that are discrete portions of the primary documents

that typically inform or provide input to primary documents. Secondary documents are issued by VA in draft, subject to review and comment by the EPA and the UDEQ. Although VA will respond to comments received, the draft secondary documents may be finalized in the context of the corresponding primary documents. All secondary documents shall be prepared in accordance with target dates established for the completion and transmission of draft secondary documents. Secondary documents listed in the draft FFA include the following:

- Initial Remedial Action / Data Quality Objectives;
- Non-Time-Critical Removal Action Plans (40 C.F.R. Section 300.415(b)(4)(ii));
- Pilot/Treatability Study Work Plans;
- Pilot/Treatability Study Reports;
- Engineering Evaluation/Cost Analysis (EECA) Reports;
- Preliminary/Conceptual Remedial Designs;
- Pre-final Remedial Designs;
- Well Closure Methods and Procedures;
- Removal Action Memoranda;
- Operation and Maintenance Plan (OMM);

In addition, VA may develop other documents, as needed, to improve the quality of the remedial actions and will include them in the secondary document list.

6.0 Federal Facilities Agreement Considerations

During the tri-party Federal Facilities Agreement (FFA) negotiations in February 2014, VA, EPA and UDEQ agreed to address several issues regarding execution of the RI/FS: minor field modifications; property access; data availability; advance notice of field work; and community involvement. It was agreed that it would be appropriate to address these issues in the SMP. The FFA was signed by VA in March 2016 and is awaiting signatures from UDEQ and finally EPA. Each of these issues is described in the following subsections.

6.1 Minor Field Modifications

Minor field modifications are those actions which do not add to contractor cost, do not change the Remedial Action Objectives (RAOs) or Data Quality Objectives (DQOs) and are necessitated by conditions or opportunities encountered in the field. VA will obtain agreement, either verbally or by written documentation, from EPA and UDEQ before implementing minor field modifications unless all parties cannot be reached. Minor field modification agreements will be documented in meeting or teleconference notes and will be included in the appendices to the RIWP for the appropriate OU. Examples of minor field modifications include a change in location of a sampling point, change in sequence of implementing sampling protocol, number of samples collected at a location, setting a well casing at a different depth than in the plan and/or the collection of an additional sample that will be held for analysis or any changes in sample methodology.

To date, seventeen (17) minor field modifications have been made to AOU-1 RIWP and the SAP (Table 2). Two were necessary prior to the QAPP Update 2016 and the rest were the result of the QAPP Update 2016. They are outlined in the table below and are included as Appendix A of the AOU-1 RIWP.

In addition to minor field modifications, the QAPP Update 2016 required errata sheets and are provided in the appendices of the RIWP and the SAP. In general, only inconsistencies considered to be minor, such as updates to document text and tables are included as errata.

Modifications that require added contractor cost or changes in work plans are covered in FFA Section 14.510.10. To date Modifications have not been necessary.

TABLE 2 - Summary of Minor Field Modifications

Minor Field Modification	Comment
RIWP MFM #1 – Protocol for Performing Indoor Air and Near-slab Soil Gas Assessments	Prepared prior to QAPP Update Rev. 1*
RIWP MFM #2 – Clarification of QAPP Amendment Number 1	
RIWP MFM #3 – Change of Analytical Method for Analysis of 1,4-Dioxane	Prepared in response to QAPP Update Rev.1*
RIWP MFM #4 – Updates to analytical methods, parameters, sample media, number of samples, sample locations, depth and collection methodology. Change in use of HAPSITE for field screening of surface water and groundwater	
RIWP MFM #5 – Update of Health and Safety Plan	Prepared due to change of contractor
RIWP MFM #6 – Inclusion of Stable Isotope Analysis for Surface Water Samples	Prepared in response to QAPP Update Rev.1*
SAP MFM #7 – Change of Analytical Method for Analysis of 1,4-Dioxane	
SAP MFM #8 – Updates to analytical methods, parameters, sample media, number of samples, sample locations, depth and collection methodology. Change in use of HAPSITE for field screening of surface water and groundwater	
SAP MFM #9 - Inclusion of Stable Isotope Analysis for Surface Water Samples	
SAP MFM #10 – Excludes installation of pressure transducers in temporary monitoring points for the 2016 field event	
SAP MFM #11 – Clarifies the term “definitive data”	
SAP MFM #12 - Updates to sample containers, preservatives, hold times and sample methods	
SAP MFM #13 – Removes the requirement for field screening of SVOCs	Independent of QAPP Update Rev. 1*
RIWP MFM #14 – Additional rounds of groundwater monitoring	
SAP MFM #15 - Additional rounds of groundwater monitoring	Prepared after QAPP Update Rev. 1*
RIWP MFM #16 – Provides options for the types of water quality meters to be used in the field and allows use of a peristaltic pump for collecting samples from seeps, springs, surface water, and storm water	
SAP MFM #17 - Provides options for the types of water quality meters to be used in the field and allows use of a peristaltic pump for collecting samples from seeps, springs, surface water, and storm water	

6.2 Access to VA and Non-VA Property

Section 15.1 of the FFA indicates EPA and UDEQ shall have the right to enter all areas of the Site owned, leased or under VA control and entered by contractors performing work associated with the site clean-up. In compliance with VAMC policy, contractors, EPA and UDEQ personnel working onsite will be required to check-in with the VA RPM or her designee. When the RIWP requires work to be conducted off VA property, VA will obtain either permission or an access agreement, when permanent sampling equipment is installed, for contractors, EPA and UDEQ to enter the property. Documentation of property owners' agreement of access will be retained in the project files and provided to EPA and UDEQ, if requested. VA access agreements will require notice of the dates, times, purpose and will give details of the activities anticipated for the requested access.

If VA has attempted to secure permission to sample or an access agreement with a particular property owner but has been unsuccessful, VA will propose an alternative location for sampling.

6.3 Data Availability

Section 31.1 of the FFA covers the availability of data. EPA agreed to have VA's water and soil samples for AOU-1 analyzed through the CLP Program Laboratories per the QAPP requirements. Laboratory data will be validated by VA contractors before it is provided to EPA and UDEQ. VA will share field data with EPA or UDEQ as it becomes available. These include air and water readings, HAPSITE, pH, temperature, photo-ionizing detector (PID) readings and other instrument readings that require quality assurance and control (QA/QC) reviews, but are not validated results. Generally, VA will provide field data to property owners after it's been reviewed and verified it was collected in accordance with the QAPP and SAP. Laboratory data will be provided after it's been validated. If documentation challenges are discovered during data verification or validation reviews VA and its contractors will take appropriate steps to remedy those issues and may propose to collect additional or substitute samples.

6.4 Field Work Notice

Section 31.2 of the FFA states that VA will give at least 14-days' notice to the other FFA Parties in order to arrange for fieldwork observation and to collect splits or duplicates of any samples. Each party will be notified by telephone unless otherwise agreed upon.

7.0 Community Involvement

Section 9.4.2 of the FFA identifies interactive community involvement in the development and selection of remedial action(s) as one of its key purposes. A Community Involvement Plan (CIP) provides the framework to facilitate communication among community members, VA and regulatory agencies, and to encourage community involvement in Site activities. VA uses community involvement activities outlined in the CIP to ensure that residents are informed, continuously updated and provided ample opportunities to be involved. Specific project communication plans (PCP) will be developed as part of an operable unit's RIWP to outline specific communication issues and provide additional community involvement activities.

Methods of communication include:

- Notices printed in the Salt Lake City Tribune and Deseret News.
- An information repository established for the Administrative Record at the Salt Lake City Anderson-Foothill Branch Library.
- Public agency briefings (Mayor's office, City Council Officials, Salt Lake County Health Department, Utah Department of Public Health, University of Utah and Salt Lake City Public Utilities).
- Public meetings with Q & A opportunities, fact sheets and flyers.
- Community Council briefings (East Central Community Council, East Liberty Park Community Organization, Yalecrest Neighborhood Council and Gilmer Park Neighborhood Association). See Figure 3 for a reference map.
- Support of a newly formed Citizens Advisory Group (CAG), the Advocates for VA Groundwater Plume Resolution.
- Written correspondence to property owners where investigations are conducted.
- Two web sites, one hosted by VA and the other by EPA:

<http://www.pceplume-700s1600e.net>

<http://www2.epa.gov/region8/700-south-1600-east-pce-plume>

8.0 Timeline and Schedule

Milestones are provided for all activities through the Close-out stage of activities, but out years (beyond 2018) are presented as placeholders until more detailed information can be developed.

The SMP schedule will be amended annually and planned work will reflect new information from previous assessments and work activities but additional changes in schedule may be discussed and agreed to during the regularly scheduled RPM meetings required under FFA Section 10.5.1. Changes will be noted in RPM meeting notes provided per FFA Section 14.3.2. While schedules and milestones will not be driven by budget targets, such targets and funding constraints should be considered when setting schedules, milestones, and target dates.

8.1 Field Work for Fiscal Years 2016 and 2017

VA's previous CERCLA efforts (Fiscal Year 2015 and 2016) centered on completing the AOU - 1 RIWP and the SAP/QAPP field work (October 1, 2014 – September 30, 2016). In the next two (2) years VA plans on installing and monitoring a VI mitigation system in one structure; completing the RI and FFS; and proposing a remedial action.

More specifically, VA plans to implement the following actions at AOU-1:

1. Evaluate 2015 VI sampling documentation for usability in AOU-1 RI and conduct additional VI sampling, if required;
2. Periodically monitor the groundwater to ensure plume stability in conjunction with OU-2 groundwater investigations;
3. Prepare an Action Memorandum for 040-H because the indoor air contamination was linked to PCE groundwater contamination and the action level for PCE was exceeded;
4. Complete the time-critical removal action documentation in a Pollution Report; and
5. Prepare a RI, FFS and Proposed Plan (PP).

Portable air purifiers were offered to five (5) property owners where testing results were below the action level but above the PCE regional screening level and accepted by four (4) owners.

OU-2 RI will commence in early FY 2017 and will include at least two (2) phases of monitoring well installations in order to more accurately define the PCE Plume. The first phase of monitoring wells will include two (2) east-west trending transects in the ESS crossing the two fault projections

and six (6) deeper monitoring well locations around the VAMC to supplement the present EPA monitoring wells. The RIWP and its supporting documents, including, the SAP and QAPP will be prepared to encompass these two phases of the remedial investigation. VA will propose additional monitoring well locations after the results of these initial phases, if necessary. See Figure 4 for approximate locations of proposed monitoring wells.

The following activities are anticipated for OU-2 during Fiscal years 2016-2017:

1. Conduct additional land use records search
2. Prepare RIWP and related documents:
 - a. QAPP
 - b. SAP
 - c. RAWP
 - d. HSP
3. Install shallow permanent groundwater monitoring wells <60 ft. in ESS
4. Install deep permanent groundwater monitoring wells 200 – 500 ft. near VAMC
5. Conduct groundwater sampling and analysis
6. Perform aquifer pump test
7. Conduct geophysical testing in monitoring wells
8. Conduct initial groundwater fate and transport modeling
9. Conduct additional soil gas surveys at VAMC and Sunnyside Park to evaluate PCE suspected sources

8.2 Project Implementation Schedule

Appendix 1 includes a detailed schedule for the project, including deadlines, milestones, out-year milestones, target dates, primary meetings, etc.

8.2.1 Deadlines

No deadlines have been established for the Site. The AOU-1 TCRA is required to be completed within six (6) months of knowledge of the exceedance of established risk limits and should be completed by the end of November 2016 but implementation of the removal action is dependent on the owner's consent.

8.2.2 Milestones

Milestones are dates established by agreement between VA, EPA and UDEQ for the initiation or completion of primary actions; submission of primary documents and project end dates. See Attachment 1 for a complete listing of Milestones and Target Dates.

The following major milestones for FY 2017 through FY 2018 have been developed for AOU-1:

- a. Decision on use of 2015 data TO-15 data – 11/23/2016
- b. AOU-1 QAPP Update – 2/17/2017
- c. Draft AOU-1 RI Report – 12/18/2017
- d. Draft AOU-1 FFS – 7/14/2018
- e. Draft AOU-1 Proposed Plan – 3/23/19
- f. VA proposal for AOU-1 draft ROD – 9/19/2019

The following major milestones for FY 2017 through FY 2018 have been developed for OU-2:

- a. Draft OU-2 RIWP – 4/24/17
- b. OU-2 QAPP/SAP – 4/24/17
- c. Draft OU-2 RI Report Phase 1 – 11/30/2018

8.2.3 Out-Year Milestones (*Beyond 2018*)

Out-year milestones are the broadly estimated dates for the initiation or completion of primary actions and the submission of primary documents and project end dates that have anticipated dates of three years or greater from the current published SMP. These include key decision points or project reports anticipated to be completed over the life of a CERCLA site remediation. In accordance with the CERCLA requirements, the out-year milestones are essentially placeholders and will be refined as the project proceeds.

8.2.4 Target Dates

Target dates apply to secondary documents identified in the FFA. Secondary documents include discrete portions of primary documents and are typically input or feeder documents (FFA Section 10.2.2). Target dates are established to provide completeness to the project schedule, though they are non-enforceable and are not subject to the Dispute Resolution process of the FFA.

9.0 SMP Updates

VA signed the FFA in March 2016 and is awaiting signatures from UDEQ and EPA. When it is fully executed, the FFAs' deadlines and milestones will be enforceable. The FFA requires a Draft

Final SMP be submitted to EPA and UDEQ by September 16, 2016 but VA received an extension from EPA till October 6, 2016. VA is submitting this document to meet that requirement even though it is not required to do so until the all parties have signed the FFA.

This Draft Final SMP incorporates the projected schedule for the next two (2) years. Thereafter, per Section 12.4 of the FFA, draft amendments to the SMP will be submitted annually to EPA and UDEQ, by June 15th as part of budget discussions. The amendments will reflect changes, include updates to milestones that have been previously agreed to by the parties and will provide any new milestones that are proposed by VA. The approved SMP and subsequent updates will be made available to the public following concurrence by the regulatory agencies.

10.0 References

- EPA 1992. Hazard Ranking System Guidance Manual, Publication 9345.1-07, PB92-963377, EPA 540-R-92-026, November 1992.
- EPA 2012. HRS Documentation Record, 700 South 1600 East PCE Plume, UTD981548985, September 2012.
- UDEQ 2000. Analytical Results Report, Mount Olivet Cemetery Plume, Salt Lake County, Utah. UTD981548985. Prepared By Neil B. Taylor Utah Department of Environmental Quality, Division of Environmental Response and Remediation, November 16, 2000.
- Bowen and Collins, 2004. Technical Memorandum: PCE Well Contamination Evaluation. Presented to Florence Reynolds, Salt Lake City Public Utilities, June 14, 2004.
- MWH, 2012. Final Hydrogeological and Groundwater Model Summary Report for: Culinary Water Supply Protection.
- UDEQ, 2011. Preliminary Assessment (PA), East Side Springs, Salt Lake County, Utah,
- UDEQ 2012. Site Investigation Analytical Results Report, East Side Springs, Salt Lake County, Utah UTD981548985, prepared by Craig Barnitz, Utah Department of Environmental Quality, Division of Environmental Response and Remediation, May 10, 2012.
- UOS, 1996. URS Operating Services, Field Activities and Analytical Results for Soil Gas Sampling, Mount Olivet Cemetery Plume, Salt Lake City, Utah November 1996.
- USGS, 1975. United States Geological Survey, Fort Douglas, Salt Lake City – South, Sugarhouse; Utah 7.5 Minute Topographic Quadrangles, photo revised 1975.

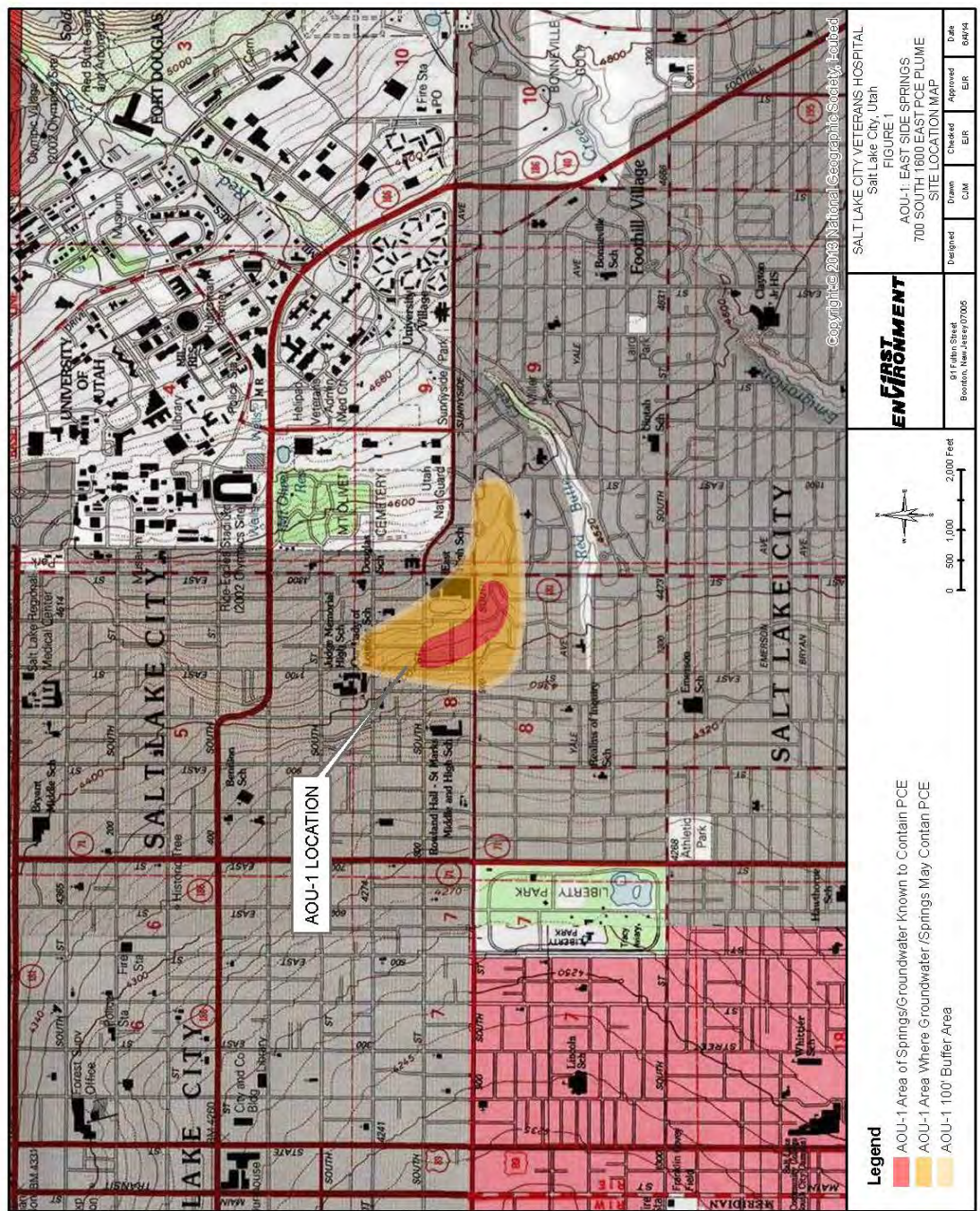


Figure 1 - Site Location Map

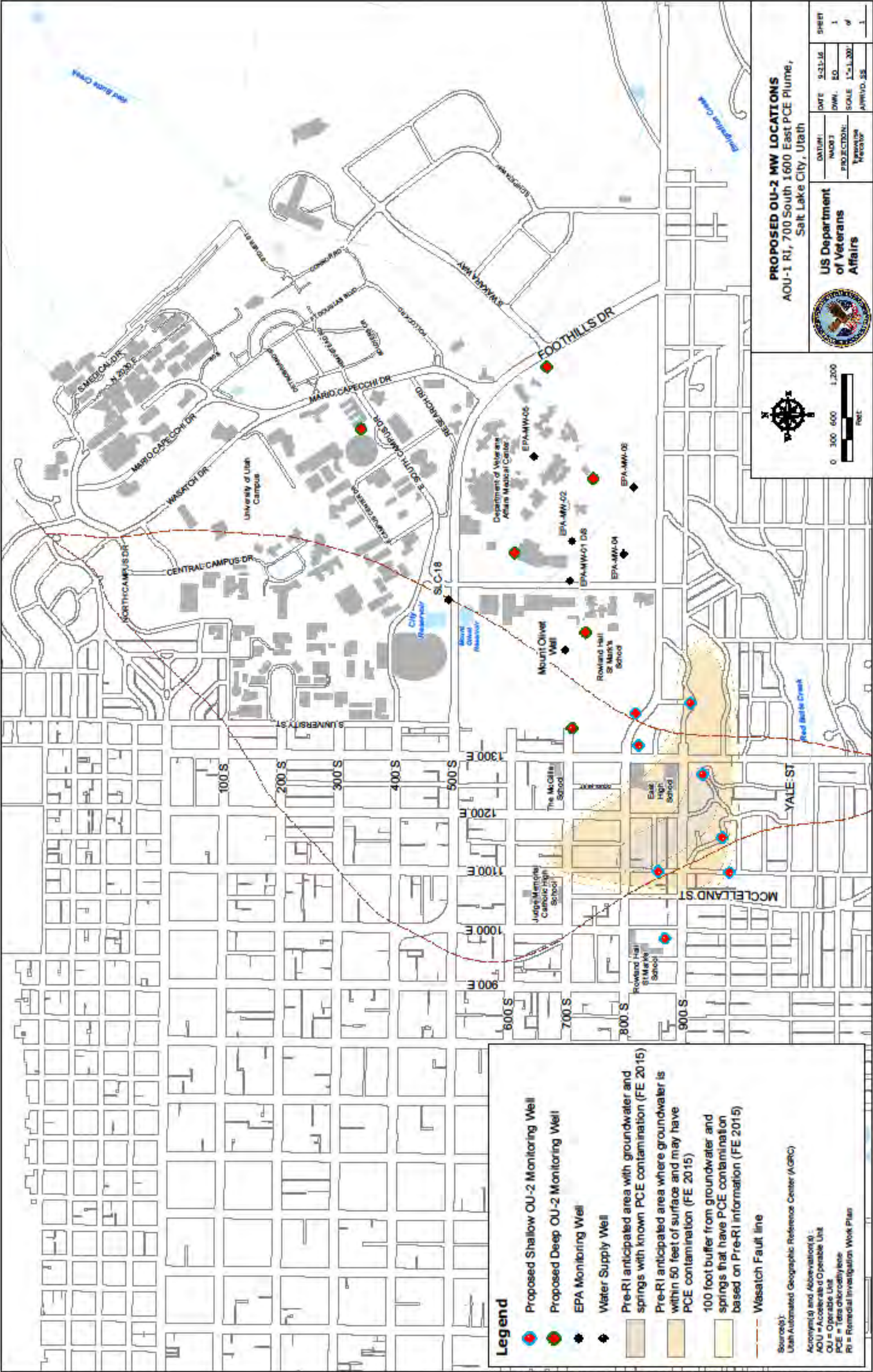


Figure 2 - AOU-1

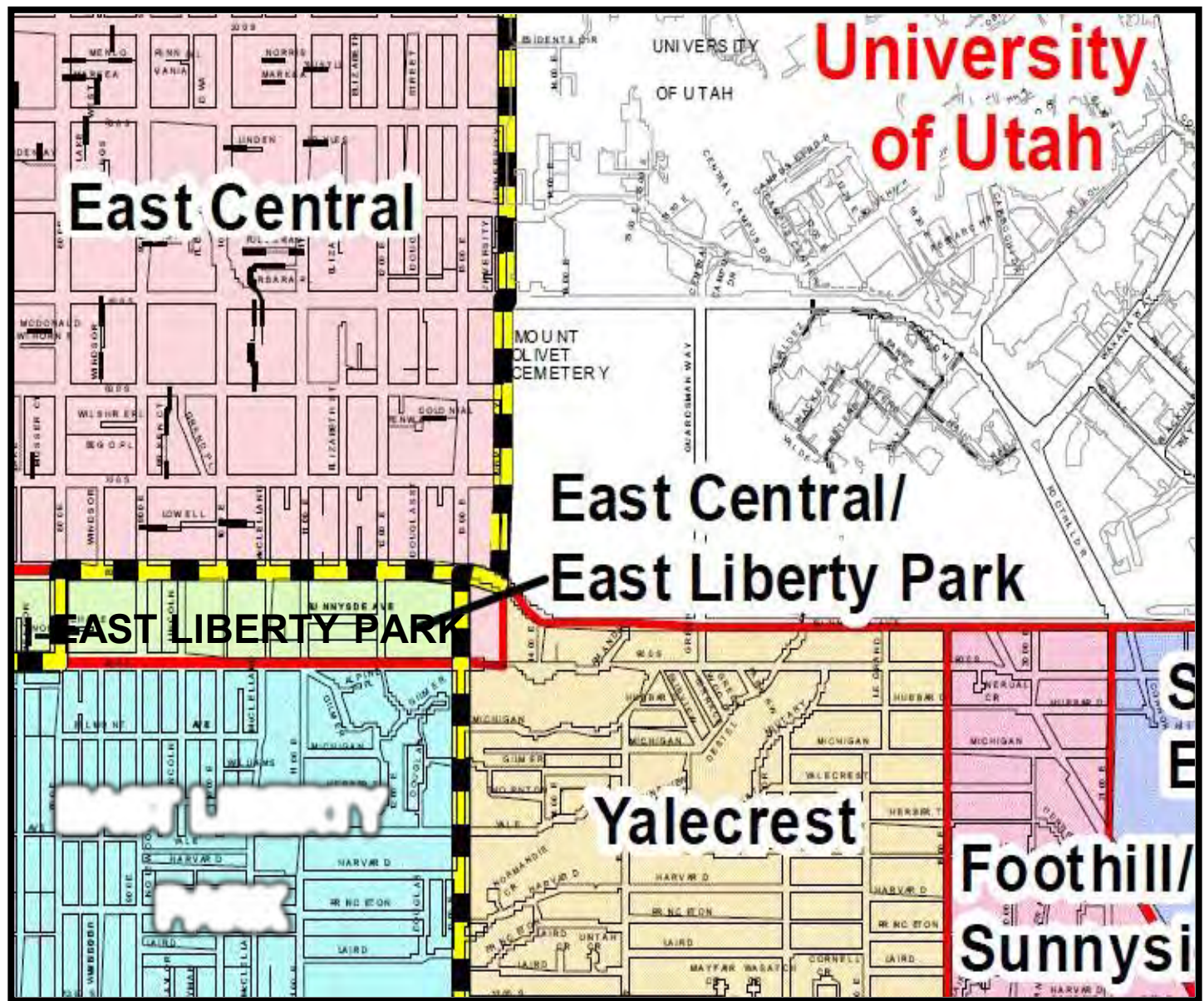


Figure 3- Community Councils

Appendix 1

SMP Schedule

SMP Schedule - 10 October 2016

Name	Start	Finish/ Submittal	Duration
1 SMP - Site Management Plan	6/15/15	11/14/16	519 days
1.1 Submit Draft SMP	6/15/15	6/15/15	1 day
1.2 VA Signed FFA	2/25/16	2/25/16	1 day
1.3 Review of Draft-Final SMP	9/15/16	10/14/16	30 days
1.4 Congressional Appropriation of Funds - NA	NA	NA	
1.5 Final SMP	10/15/16	11/14/16	31 days
1.6 SMP Annual Amendments			
1.6.1 Submit Draft SMP Annual Amendment		6/15/YY	Annually
1.6.2 Submit Draft-Final SMP Annual Amendment	6/16/YY	8/13/YY	
1.6.3 Congressional Appropriation of Funds - NA	NA	NA	
1.6.4 Final SMP Annual Amendment			Annually
2 Annual Project Budget Projections			
2.1 Budget Consultation with EPA/UDEQ		6/20/YY	Annually
2.2 Submit Budget to VISN		6/30/YY	Annually
2.3 Submit Budget to EPA/UDEQ		7/14/YY	Annually
3 Resolving Shortfalls	As Needed	As Needed	
3.1 21-day review of shortfalls			21 days
3.2 Notify EPA if underfunded			2 days
3.3 RPM Discussion			30 days
3.4 Rescoping			
4 Dispute Resolution Process (whenever necessary) lasting 0-19 weeks	As Needed	As Needed	
4.1 Informal dispute resolution			30 days
4.2 Elevate to DRC - Dispute Resolution Committee			1 day
4.3 DRC Decision			21 days
4.4 Resolution Implementation			21 days
4.5 Continued Resolution if not resolved at DRC level			63 days
5 CIP - Community Involvement Plan			
5.1 Submit Draft CIP	6/24/13	4/11/14	292 days
5.2 Final CIP	4/12/14	6/20/14	70 days
5.3 CIP Updates			
5.3.1 AOU-1 Update	7/21/15	12/2/15	135 days
5.3.2 OU-2 Update	As Needed	As Needed	
5.3.3 OU-3 Update	As Needed	As Needed	
6 AOU-1	6/24/13	FY2030 Q3	6129 days
6.1 SAP - Sampling and Analysis Plan	3/3/14	12/19/14	292 days
6.1.1 Submit Draft SAP	3/3/14	6/19/14	109 days
6.1.2 Submit Draft-Final SAP	6/20/14	10/2/14	105 days
6.1.3 Final SAP	10/3/14	12/19/14	78 days
6.2 QAPP - Quality Assurance Project Plan	8/15/14	2/17/17	918 days
6.2.1 Submit Draft QAPP	8/15/14	9/26/14	43 days
6.2.2 Submit Draft-Final QAPP	9/27/14	10/8/14	12 days
6.2.3 Final QAPP	10/9/14	12/19/14	72 days
6.2.4 QAPP Amendment 1	1/26/15	4/2/15	67 days
6.2.4.1 Submit Draft QAPP Amendment 1	1/26/15	2/16/15	22 days
6.2.4.2 Submit Draft-Final QAPP Amendment 1	2/17/15	3/19/15	31 days
6.2.4.3 Final QAPP Amendment 1	3/20/15	4/2/15	14 days
6.2.5 Annual QAPP Updates	7/21/15	2/17/17	578 days

SMP Schedule - 10 October 2016

Name	Start	Finish/ Submittal	Duration
6.2.5.1 QAPP Update Revision 1	7/21/15	2/16/16	211 days
6.2.5.1.1 Submit Draft QAPP Update Revision 1	7/21/15	9/13/15	55 days
6.2.5.1.2 Submit Draft Final QAPP Update Revision 1	9/14/15	1/22/16	131 days
6.2.5.1.3 Final QAPP Update Revision 1	1/23/16	2/16/16	25 days
6.2.5.2 QAPP Update Revision 2	8/24/16	2/17/17	178 days
6.2.5.2.1 Prepare Draft QAPP Update Revision 2	8/24/16	11/1/16	70 days
6.2.5.2.2 Regulatory Review of Draft QAPP Update Revision 2	11/2/16	12/1/16	30 days
6.2.5.2.3 Prepare Draft Final QAPP Update Revision 2	12/2/16	12/31/16	30 days
6.2.5.2.4 Regulatory Review of Draft Final QAPP Update Revision 2	1/1/17	1/14/17	14 days
6.2.5.2.5 Final QAPP Update Revision 2	1/15/17	2/17/17	34 days
6.2.5.3 Annual QAPP Updates	<i>Annually</i>	<i>Annually</i>	
6.3 RIWP - Remedial Investigation Work Plan	6/24/13	3/16/17	1362 days
6.3.1 Submit Draft RIWP	6/24/13	1/15/15	571 days
6.3.2 Submit Draft-Final RIWP	1/16/15	6/3/15	139 days
6.3.3 Final RIWP	6/4/15	7/29/15	56 days
6.3.4 Minor Field Modification 1 - Modification of VI Protocol	2/20/15	6/30/15	131 days
6.3.4.1 Submit Draft MFM-01	2/20/15	3/13/15	22 days
6.3.4.2 Submit Draft-Final MFM-01	3/14/15	3/16/15	3 days
6.3.4.3 Final MFM-01	3/17/15	6/30/15	106 days
6.3.5 Minor Field Modification 2 - Clarification of QAPP Amendment 1	3/12/15	6/30/15	111 days
6.3.5.1 Submit Draft MFM-02	3/12/15	3/27/15	16 days
6.3.5.2 Submit Draft-Final MFM-02	3/28/15	5/29/15	63 days
6.3.5.3 Final MFM-02	5/30/15	6/30/15	32 days
6.3.6 Minor Field Modification #3-#7 - Updates for Consistency with QAPP Upda	12/9/15	5/4/16	148 days
6.3.6.1 Submit Draft MFM #3-#7	12/9/15	3/4/16	87 days
6.3.6.2 Regulatory Review of MFM #3-#7	3/5/16	5/3/16	60 days
6.3.6.3 Final MFM #3-#7	5/4/16	5/4/16	1 day
6.3.7 Minor Field Modification #14 for Additional Groundwater Sampling	3/30/16	6/7/16	70 days
6.3.7.1 Submit Draft MFM #14	3/30/16	4/5/16	7 days
6.3.7.2 Regulatory Review of MFM #14	4/6/16	6/6/16	62 days
6.3.7.3 Final MFM #14	6/7/16	6/7/16	1 day
6.3.8 Minor Field Modification #16 for Sampling of Surface Water, Stormwater,	4/13/16	6/27/16	76 days
6.3.8.1 Submit Draft MFM #16	4/13/16	4/26/16	14 days
6.3.8.2 Regulatory Review of MFM #16	4/27/16	6/25/16	60 days
6.3.8.3 Final MFM #16	6/26/16	6/27/16	2 days
6.3.9 Minor Field Modification #17 for Additional VI Sampling	1/15/17	3/16/17	61 days
6.3.9.1 Submit Draft MFM #17	1/15/17	2/13/17	30 days
6.3.9.2 Regulatory Review of MFM #17	2/14/17	3/15/17	30 days
6.3.9.3 Final MFM #17	3/16/17	3/16/17	1 day
6.4 Field Work	11/14/14	10/17/16	704 days
6.4.1 Phase 1 Work	11/14/14	4/22/15	160 days
6.4.1.1 VI Characterization	1/13/15	4/17/15	95 days
6.4.1.2 Phase 1 Communications	11/14/14	4/22/15	160 days
6.4.1.2.1 Phase 1 Volunteer Solicitation Letters with Questionnaire	11/14/14	2/20/15	99 days
6.4.1.2.2 Phase 1 Field Results Letters	4/1/15	4/22/15	22 days
6.4.1.2.3 Update PCP	<i>As Needed</i>	<i>As Needed</i>	
6.4.2 Phase 2 Work	7/21/15	10/17/16	455 days
6.4.2.1 Phase 2 VI Characterization	2/25/16	6/3/16	100 days

SMP Schedule - 10 October 2016

Name	Start	Finish/ Submittal	Duration
6.4.2.2 GeoProbes	2/21/16	3/8/16	17 days
6.4.2.3 Surface Water Sampling	5/1/16	5/11/16	11 days
6.4.2.4 Data Review, Verification	6/4/16	6/17/16	14 days
6.4.2.5 Phase 2 Communications	7/21/15	10/17/16	455 days
6.4.2.5.1 Phase 2 Volunteer Solicitation Letters with Questionnaire	12/18/15	5/10/16	145 days
6.4.2.5.2 Phase 2 Field Results Letters	7/19/16	10/17/16	91 days
6.4.2.5.3 Update PCP	7/21/15	11/20/15	123 days
6.4.3 Additional VI Characterization	<i>As Needed</i>	<i>As Needed</i>	
6.5 RI - Remedial Investigation Report	8/30/16	6/15/18	655 days
6.5.1 Third Party Quality Assurance (QA) Review	8/30/16	11/28/16	91 days
6.5.1.1 Prepare Third Party Quality Assurance (QA) Review	8/30/16	10/28/16	60 days
6.5.1.2 Consultation with Regulators on Third Party Quality Assurance (QA) Re	10/29/16	11/28/16	31 days
6.5.2 Review Draft RI Report	12/18/17	2/15/18	60 days
6.5.3 Revise Draft/Prepare Draft-Final RI Report	2/16/18	4/16/18	60 days
6.5.4 Review Draft-Final RI Report	4/17/18	5/16/18	30 days
6.5.5 Final RI Report	5/17/18	6/15/18	30 days
6.6 Supplemental RIWP	<i>As Needed</i>	<i>As Needed</i>	
6.6.1 Review Draft Supplemental RIWP			60 days
6.6.2 Revise Draft/Prepare Draft-Final Supplemental RIWP			60 days
6.6.3 Review Draft-Final Supplemental RIWP			30 days
6.6.4 Final Supplemental RIWP			30 days
6.7 Supplemental RI Implementation	<i>As Needed</i>	<i>As Needed</i>	
6.8 Supplemental RI	<i>As Needed</i>	<i>As Needed</i>	
6.9 FFS - Focused Feasibility Study	7/14/18	12/27/18	167 days
6.9.1 Pilot/Treatability Work Plans	<i>As Needed</i>	<i>As Needed</i>	
6.9.2 Pilot/Treatability Study Reports	<i>As Needed</i>	<i>As Needed</i>	
6.9.3 Review Draft FFS	7/14/18	9/11/18	60 days
6.9.4 Revise Draft/Prepare Draft-Final FFS	9/12/18	11/12/18	62 days
6.9.5 Review Draft-Final FFS	11/13/18	12/12/18	30 days
6.9.6 Final FFS	12/13/18	12/27/18	15 days
6.10 PP - Proposed Plan	3/23/19	12/17/19	270 days
6.10.1 Review Draft PP	3/23/19	5/21/19	60 days
6.10.2 Revise Draft/Prepare Draft-Final PP	5/22/19	7/20/19	60 days
6.10.3 Review Draft-Final PP	7/21/19	8/19/19	30 days
6.10.4 Incorporate comments and publish for review	8/20/19	10/3/19	45 days
6.10.5 Public Review of PP	10/4/19	11/2/19	30 days
6.10.6 Prepare and Submit Responsiveness Summary to Regulators	11/3/19	12/17/19	45 days
6.11 ROD - Record of Decision	3/16/20	FY2020 Q4	194 days
6.11.1 Review Draft ROD	3/16/20	FY2020 Q3	60 days
6.11.2 Revise Draft/Prepare Draft-Final ROD	5/15/20	FY2020 Q4	60 days
6.11.3 Review Draft-Final ROD	7/14/20	FY2020 Q4	30 days
6.11.4 Final ROD (receipt of signature pages)	8/13/20	FY2020 Q4	44 days
6.12 Interim Remedial Actions	<i>As Needed</i>	<i>As Needed</i>	
6.13 Remedial Action Work Plan	6/16/21	FY2022 Q1	183 days
6.13.1 SAP (included in RAWP)			
6.13.2 QAPP (included in RAWP)			
6.13.3 Operation and Maintenance Plans (included in RAWP)			
6.13.4 Review Draft RAWP	6/16/21	FY2021 Q4	62 days

SMP Schedule - 10 October 2016

Name	Start	Finish/ Submittal	Duration
6.13.5 Revise Draft/Prepare Draft-Final RAWP	8/17/21	FY2022 Q1	60 days
6.13.6 Review Draft-Final RAWP	10/16/21	FY2022 Q1	31 days
6.13.7 Final RAWP	11/16/21	FY2022 Q1	30 days
6.14 Supplemental Response Actions	<i>As Needed</i>	<i>As Needed</i>	
6.15 Remedial Design			
6.15.1 Review Basis of Design Memo	4/26/22	FY2022 Q3	30 days
6.15.2 Prepare RD 30% Report (preliminary/conceptual)	5/26/22	FY2022 Q4	60 days
6.15.3 Review RD 30% Report (preliminary/conceptual)	7/25/22	FY2022 Q4	60 days
6.15.4 Prepare RD 90% Report (prefinal)	9/23/22	FY2023 Q1	60 days
6.15.5 Review RD 90% Report (prefinal)	11/22/22	FY2023 Q2	45 days
6.15.6 Prepare Final RD Report	1/6/23	FY2023 Q2	60 days
6.15.7 Review Final RD Report	3/7/23	FY2023 Q2	15 days
6.15.8 Final RD acceptance	3/22/23	FY2023 Q3	30 days
6.16 Remedial Action/Construction			
6.16.1 Remedial Action/Construction	<i>As Needed</i>	<i>As Needed</i>	
6.16.2 Remedial Action Completion Report (included in OU-2 RACR)			
6.16.2.1 Operation and Maintenance Plans	9/7/29	FY2030 Q1	60 days
6.16.2.2 Well Closure Methods and Procedures	9/7/29	FY2030 Q1	60 days
6.16.2.3 Long Term Monitoring Plan	9/7/29	FY2030 Q1	60 days
6.16.2.4 Review Preliminary Remedial Action Completion Report	9/7/29	FY2030 Q1	60 days
6.16.2.5 Revise Preliminary/Prepare Draft-Final Remedial Action Completion	11/6/29	FY2030 Q2	60 days
6.16.2.6 Review Draft-Final Remedial Action Completion Report	1/5/30	FY2030 Q2	30 days
6.16.2.7 Final RACR	2/4/30	FY2030 Q3	60 days
6.17 Removal Actions	<i>As Needed</i>	<i>As Needed</i>	
6.17.1 Time-Critical (Emergency) Removal Actions	<i>As Needed</i>	<i>As Needed</i>	
6.17.2 Removal Action Memorandum	9/19/16	11/15/16	58 days
6.17.2.1 Review Draft Removal Action Memorandum	9/19/16	10/4/16	16 days
6.17.2.2 Revise Draft/Prepare Draft-Final Removal Action Memorandum	10/5/16	10/18/16	14 days
6.17.2.3 Review Draft-Final Removal Action Memorandum	10/19/16	11/1/16	14 days
6.17.2.4 Final Removal Action Memorandum	11/2/16	11/15/16	14 days
6.17.3 Removal Action Construction	11/9/16	4/4/17	147 days
6.17.3.1 Removal Action Work Plan	12/20/16	1/2/17	14 days
6.17.3.1.1 Submit Removal Action Work Plan to Regulators	11/9/16	11/22/16	14 days
6.17.3.2 Removal Action Construction	1/9/17	2/14/17	37 days
6.17.3.2.1 Mitigation System Installation	1/9/17	1/15/17	7 days
6.17.3.2.2 Shakeout Period	1/16/17	2/14/17	30 days
6.17.3.3 Operation and Maintenance Plan	3/22/17	4/4/17	14 days
6.17.3.3.1 Submit O&M Plan to Regulators	3/22/17	4/4/17	14 days
6.17.4 Removal Action Pollution Report	6/13/17	8/11/17	60 days
6.17.4.1 Review Draft Removal Action Pollution Report	6/13/17	7/12/17	30 days
6.17.4.2 Final Removal Action Pollution Report	7/13/17	8/11/17	30 days
6.17.5 Monitoring and VI Recovery System Inspections	1/3/17	FY2020 Q2	1095 days
6.17.5.1 Quarterly Sampling and Inspections - Year 1	5/16/17	2/13/18	274 days
6.17.5.1.1 Submit Quarterly Sampling and Inspection Report #1	5/16/17	5/16/17	1 day
6.17.5.1.2 Submit Quarterly Sampling and Inspection Report #2	8/16/17	8/16/17	1 day
6.17.5.1.3 Submit Quarterly Sampling and Inspection Report #3	11/14/17	11/14/17	1 day
6.17.5.1.4 Submit Quarterly Sampling and Inspection Report #4	2/13/18	2/13/18	1 day

SMP Schedule - 10 October 2016

Name	Start	Finish/ Submittal	Duration
6.17.5.2 Semi-annual Sampling and Inspections - Years 2 and 3	8/13/18	FY2020 Q2	541 days
6.17.5.2.1 Submit Semi-annual Sampling and Inspection Report #1	8/13/18	8/13/18	1 day
6.17.5.2.2 Submit Semi-annual Sampling and Inspection Report #2	2/8/19	2/8/19	1 day
6.17.5.2.3 Submit Semi-annual Sampling and Inspection Report #3	8/7/19	8/7/19	1 day
6.17.5.2.4 Submit Semi-annual Sampling and Inspection Report #4	2/4/20	FY2020 Q2	1 day
6.17.5.3 Annual Sampling and Inspections	<i>As Needed</i>	<i>As Needed</i>	
6.18 Project Reviews	<i>As Needed</i>	<i>As Needed</i>	
6.18.1 Annual Project Reviews			
6.18.2 Five-Year Project Reviews			
7 OU-2	2/23/17	FY2030 Q3	4789 days
7.1 SAP/QAPP for Phase I Activities (included in Phase I RIWP)	2/23/17	4/24/17	61 days
7.1.1 Annual QAPP Update	<i>Annually</i>	<i>Annually</i>	
7.2 RIWP - Remedial Investigation Work Plan for Phase I Activities			
7.2.1 Review Draft RIWP	2/23/17	4/24/17	61 days
7.2.2 Revise Draft/Prepare Draft-Final RIWP	4/25/17	6/23/17	60 days
7.2.3 Review Draft-Final RIWP	6/24/17	7/23/17	30 days
7.2.4 Final RIWP	7/24/17	8/22/17	30 days
7.3 Phase I Field Work			
7.3.1 Phase I Field Activities			
7.3.1.1 Piezometers	8/24/17	3/16/18	205 days
7.3.1.2 Shallow Wells	8/24/17	3/16/18	205 days
7.3.1.3 Deep Wells	8/24/17	3/16/18	205 days
7.3.1.4 Geophysics - Slug tests/Pump tests	8/24/17	12/29/17	128 days
7.3.1.5 Surface Water Sampling	8/24/17	1/15/18	145 days
7.3.2 Phase I Public Communications	8/24/17	8/17/18	359 days
7.4 Phase I RI - Remedial Investigation Report			
7.4.1 Review Draft Phase I RI Report	10/2/18	11/30/18	60 days
7.4.2 Revise Draft/Prepare Draft-Final Phase I RI Report	12/1/18	1/29/19	60 days
7.4.3 Review Draft-Final Phase I RI Report	1/30/19	2/28/19	30 days
7.4.4 Final Phase I RI Report	3/1/19	4/1/19	32 days
7.5 SAP/QAPP Update for Phase II Activities (included in Phase II RIWP Amendment)	7/16/19	9/13/19	60 days
7.5.1 Annual QAPP Update	<i>Annually</i>	<i>Annually</i>	
7.6 RIWP Amendment - Remedial Investigation Work Plan Amendment for Phase II Activities			
7.6.1 Review Draft RIWP Amendment	7/16/19	9/13/19	60 days
7.6.2 Revise Draft/Prepare Draft-Final RIWP Amendment	9/14/19	11/12/19	60 days
7.6.3 Review Draft-Final RIWP Amendment	11/13/19	12/12/19	30 days
7.6.4 Final RIWP Amendment	12/13/19	FY2020 Q2	32 days
7.7 Phase II Field Work			
7.7.1 Phase II Field Activities			
7.7.1.1 Piezometers	2/11/20	FY2020 Q4	205 days
7.7.1.2 Shallow Wells	2/11/20	FY2020 Q4	205 days
7.7.1.3 Deep Wells	2/11/20	FY2020 Q4	205 days
7.7.1.4 Geophysics - Slug tests/Pump tests	2/11/20	FY2020 Q3	130 days
7.7.1.5 Surface Water Sampling	2/11/20	FY2020 Q4	144 days
7.7.2 Phase II Public Communications	2/11/20	FY2021 Q1	325 days
7.8 Phase II RI - Remedial Investigation Report			

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Name	Start	Finish/ Submittal	Duration
7.8.1 Review Draft Phase II RI Report	2/13/21	FY2021 Q3	60 days
7.8.2 Revise Draft/Prepare Draft-Final Phase II RI Report	4/14/21	FY2021 Q3	60 days
7.8.3 Review Draft-Final Phase II RI Report	6/13/21	FY2021 Q4	31 days
7.8.4 Final Phase II RI Report	7/14/21	FY2021 Q4	30 days
7.9 FS - Feasibility Study			
7.9.1 Pilot/Treatability Work Plans	<i>As Needed</i>	<i>As Needed</i>	
7.9.2 Pilot/Treatability Study Reports	<i>As Needed</i>	<i>As Needed</i>	
7.9.3 Review Draft FS	1/4/22	FY2022 Q2	60 days
7.9.4 Revise Draft/Prepare Draft-Final FS	3/5/22	FY2022 Q3	60 days
7.9.5 Review Draft-Final FS	5/4/22	FY2022 Q3	30 days
7.9.6 Final FS	6/3/22	FY2022 Q4	32 days
7.10 PP - Proposed Plan			
7.10.1 Review Draft PP	11/17/22	FY2023 Q2	61 days
7.10.2 Revise Draft/Prepare Draft-Final PP	1/17/23	FY2023 Q2	60 days
7.10.3 Review Draft-Final PP	3/18/23	FY2023 Q3	31 days
7.10.4 Incorporate comments and publish for review	4/18/23	FY2023 Q3	45 days
7.10.5 Public Review of PP	6/2/23	FY2023 Q4	30 days
7.10.6 Prepare and Submit Responsiveness Summary to Regulators	7/2/23	FY2023 Q4	60 days
7.11 ROD - Record of Decision			
7.11.1 Review Draft ROD	12/9/23	FY2024 Q2	60 days
7.11.2 Revise Draft/Prepare Draft-Final ROD	2/7/24	FY2024 Q3	62 days
7.11.3 Review Draft-Final ROD	4/9/24	FY2024 Q3	30 days
7.11.4 Final ROD (receipt of signature pages)	5/9/24	FY2024 Q4	62 days
7.12 Interim Remedial Actions	<i>As Needed</i>	<i>As Needed</i>	
7.13 Remedial Action Work Plan			
7.13.1 Remedial Action SAP (included in RAWP)	1/11/25	FY2025 Q2	60 days
7.13.2 Remedial Action QAPP (included in RAWP)	1/11/25	FY2025 Q2	60 days
7.13.3 Operation and Maintenance Plans (included in RAWP)	1/11/25	FY2025 Q2	60 days
7.13.4 Review Draft RAWP	1/11/25	FY2025 Q2	60 days
7.13.5 Revise Draft/Prepare Draft-Final RAWP	3/12/25	FY2025 Q3	62 days
7.13.6 Review Draft-Final RAWP	5/13/25	FY2025 Q3	30 days
7.13.7 Final RAWP	6/12/25	FY2025 Q4	61 days
7.14 Supplemental Response Actions	<i>As Needed</i>	<i>As Needed</i>	
7.15 Remedial Design			
7.15.1 Review Basis of Design Memo	12/6/25	FY2026 Q2	31 days
7.15.2 Prepare RD 30% Report (preliminary/conceptual)	1/6/26	FY2026 Q2	60 days
7.15.3 Review RD 30% Report (preliminary/conceptual)	1/6/26	FY2026 Q2	60 days
7.15.4 Prepare RD 90% Report (prefinal)	3/7/26	FY2026 Q3	90 days
7.15.5 Review RD 90% Report (prefinal)	6/5/26	FY2026 Q4	46 days
7.15.6 Prepare Final RD Report	7/21/26	FY2026 Q4	60 days
7.15.7 Review Final RD Report	9/19/26	FY2027 Q1	17 days
7.15.8 Final RD acceptance	10/6/26	FY2027 Q1	1 day
7.16 Remedial Action/Construction			
7.16.1 Remedial Action/Construction	10/5/26	FY2029 Q2	880 days
7.16.2 Remedial Action Completion Report			
7.16.2.1 Well Closure Methods and Procedures (included in RACR)	9/7/29	FY2030 Q1	60 days
7.16.2.2 Operation and Maintenance Plans (included in RACR)	9/7/29	FY2030 Q1	60 days

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Name	Start	Finish/ Submittal	Duration
7.16.2.3 Long Term Monitoring Plan (included in RACR)	9/7/29	FY2030 Q1	60 days
7.16.2.4 Review Preliminary Remedial Action Completion Report	9/7/29	FY2030 Q1	60 days
7.16.2.5 Revise Preliminary/Prepare Draft-Final Remedial Action Completion	11/6/29	FY2030 Q2	60 days
7.16.2.6 Review Draft-Final Remedial Action Completion Report	1/5/30	FY2030 Q2	30 days
7.16.2.7 Final RACR	2/4/30	FY2030 Q3	60 days
7.17 Removal Actions	<i>As Needed</i>	<i>As Needed</i>	
7.17.1 Time-Critical (Emergency) Removal Actions	<i>As Needed</i>	<i>As Needed</i>	
7.17.2 Non-Time-Critical Removal Actions	<i>As Needed</i>	<i>As Needed</i>	
7.17.2.1 Engineering Evaluation/Cost Analysis Reports	<i>As Needed</i>	<i>As Needed</i>	
7.17.2.1.1 Review Draft Engineering Evaluation/Cost Analysis Report			
7.17.2.1.2 Revise Draft/Prepare Draft-Final Engineering Evaluation/Cost Analysis Report			
7.17.2.1.3 Review Draft-Final Engineering Evaluation/Cost Analysis Report			
7.17.2.1.4 Final Engineering Evaluation/Cost Analysis Report			
7.17.2.2 Removal Action Construction			
7.17.3 Removal Action Memorandum	<i>As Needed</i>	<i>As Needed</i>	
7.17.3.1 Review Draft Removal Action Memorandum			
7.17.3.2 Revise Draft/Prepare Draft-Final Removal Action Memorandum			
7.17.3.3 Review Draft-Final Removal Action Memorandum			
7.17.3.4 Final Removal Action Memorandum			
7.17.4 Removal Action Closeout Report	<i>As Needed</i>	<i>As Needed</i>	
7.17.4.1 Review Draft Removal Action Closeout Report			
7.17.4.2 Revise Draft/Prepare Draft-Final Removal Action Closeout Report			
7.17.4.3 Review Draft-Final Removal Action Closeout Report			
7.17.4.4 Final Removal Action Closeout Report			
7.18 Project Reviews			
7.18.1 Annual Project Reviews (starting in 2030)	<i>Draft 12/3/YY</i>	<i>Finals 3/3/YY</i>	<i>Annually</i>
7.18.2 Five-Year Project Reviews (starting in 2034)	<i>Draft 12/3/YY</i>	<i>Finals 3/3/YY</i>	<i>Every 5yrs</i>
8 OU-3			
9 Status Meetings			
9.1 Regulator Briefings			
9.1.1 Weekly during field work			
9.1.2 Bi-weekly when not in field			
9.2 Catch-up Calls			
9.2.1 Catch-up Call	4/22/14	4/22/14	1 day
9.2.2 Catch-up Call	8/6/14	8/6/14	1 day
9.2.3 Catch-up Call	12/18/14	12/18/14	1 day
9.2.4 Catch-up Call	4/9/15	4/9/15	1 day
9.2.5 Catch-up Call	7/23/15	7/23/15	1 day
9.2.6 Catch-up Call	10/22/15	10/22/15	1 day
9.2.7 Catch-up Call	12/17/15	12/17/15	1 day
9.2.8 Catch-up Call	7/21/16	7/21/16	1 day

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Name	Start	Finish/ Submittal	Duration
9.2.9 Catch-up Call	10/27/16	10/27/16	1 day
9.2.10 Recurring Catch-up Calls	<i>As Needed</i>	<i>As Needed</i>	
9.3 RPM Meetings & SMP Updates			
9.3.1 RPM Meeting	2/6/14	2/6/14	1 day
9.3.2 RPM Meeting	3/14/14	3/14/14	1 day
9.3.3 RPM Meeting	6/12/14	6/12/14	1 day
9.3.4 RPM Meeting	9/9/14	9/9/14	1 day
9.3.5 RPM Meeting	11/6/14	11/6/14	1 day
9.3.6 RPM Meeting	2/26/15	2/26/15	1 day
9.3.7 RPM Meeting	6/11/15	6/11/15	1 day
9.3.8 RPM Meeting & SMP Update	8/20/15	8/20/15	1 day
9.3.9 RPM Meeting & SMP Update	11/12/15	11/12/15	1 day
9.3.10 RPM Meeting & SMP Update	3/10/16	3/10/16	1 day
9.3.11 RPM Meeting & SMP Update	6/23/16	6/23/16	1 day
9.3.12 RPM Meeting & SMP Update	9/8/16	9/8/16	1 day
9.3.13 RPM Meeting & SMP Update	12/8/16	12/8/16	1 day
9.3.14 Recurring RPM Mtgs & SMP Updates	<i>Mar, Jun, Sep, Dec</i>	<i>Mar, Jun, Sep, Dec</i>	
9.4 Salt Lake Public Agencies Briefings	<i>As Needed</i>	<i>As Needed</i>	
10 Public Meetings			
10.1 Informational Meetings			
10.1.1 March 2014 Meeting	3/13/14	3/13/14	1 day
10.1.2 AOU-1 Field Work Launch	9/4/14	9/4/14	1 day
10.1.3 Status Update on AOU-1 Phase 1 Field Work	9/17/15	9/17/15	1 day
10.1.4 Status Updates	<i>As Needed</i>	<i>As Needed</i>	
10.2 Public Meetings for Proposed Plans			
10.2.1 AOU-1 Proposed Plan Presentation	10/14/19	10/14/19	1 day
10.2.2 OU-2 Proposed Plan Presentation	6/12/23	FY2023 Q3	1 day
10.2.3 OU-3 Proposed Plan Presentation	<i>As Needed</i>	<i>As Needed</i>	
10.3 Community Advisory Group (CAG) Meetings			
10.3.1 CAG Meetings - 2016	<i>Monthly</i>	<i>Monthly</i>	
10.3.1.1 CAG Meeting - January 2016	1/21/16	1/21/16	1 day
10.3.1.2 CAG Meeting - February 2016	2/18/16	2/18/16	1 day
10.3.1.3 CAG Meeting - March 2016	3/31/16	3/31/16	1 day
10.3.1.4 CAG Meeting - April 2016	4/28/16	4/28/16	1 day
10.3.1.5 CAG Meeting - May 2016	5/26/16	5/26/16	1 day
10.3.1.6 CAG Meeting - June 2016	6/23/16	6/23/16	1 day
10.3.1.7 CAG Meeting - July 2016	7/27/16	7/27/16	1 day
10.3.1.8 CAG Meeting - August 2016	8/24/16	8/24/16	1 day
10.3.1.9 CAG Meeting - September 2016	9/21/16	9/21/16	1 day
10.3.1.10 CAG Meeting - October 2016	10/19/16	10/19/16	1 day
10.3.1.11 CAG Meeting - November 2016	11/30/16	11/30/16	1 day
10.3.1.12 CAG Meeting - December 2016	12/29/16	12/29/16	1 day
10.3.2 CAG Meetings - 2018	<i>Monthly</i>	<i>Monthly</i>	
10.3.2.1 CAG Meeting - January 2017	1/26/17	1/26/17	1 day
10.3.2.2 CAG Meeting - February 2017	2/23/17	2/23/17	1 day
10.3.2.3 CAG Meeting - March 2017	3/23/17	3/23/17	1 day
10.3.2.4 CAG Meeting - April 2017	4/20/17	4/20/17	1 day

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Name	Start	Finish/ Submittal	Duration
10.3.2.5 CAG Meeting - May 2017	5/18/17	5/18/17	1 day
10.3.2.6 CAG Meeting - June 2017	6/22/17	6/22/17	1 day
10.3.2.7 CAG Meeting - July 2017	7/20/17	7/20/17	1 day
10.3.2.8 CAG Meeting - August 2017	8/17/17	8/17/17	1 day
10.3.2.9 CAG Meeting - September 2017	9/21/17	9/21/17	1 day
10.3.2.10 CAG Meeting - October 2017	10/19/17	10/19/17	1 day
10.3.2.11 CAG Meeting - November 2017	11/23/17	11/23/17	1 day
10.3.2.12 CAG Meeting - December 2017	12/22/17	12/22/17	1 day
10.3.3 CAG Meetings - 2018	<i>Monthly</i>	<i>Monthly</i>	
10.3.4 CAG Meetings - 2019	<i>Monthly</i>	<i>Monthly</i>	
10.3.5 CAG Meetings - 2020	<i>Monthly</i>	<i>Monthly</i>	
10.3.6 CAG Meetings - 2021	<i>Monthly</i>	<i>Monthly</i>	
10.3.7 CAG Meetings - 2022	<i>Monthly</i>	<i>Monthly</i>	
10.3.8 CAG Meetings - 2023	<i>Monthly</i>	<i>Monthly</i>	
10.3.9 CAG Meetings - 2024	<i>Monthly</i>	<i>Monthly</i>	
10.3.10 CAG Meetings - 2025	<i>Monthly</i>	<i>Monthly</i>	
10.3.11 CAG Meetings - 2026	<i>Monthly</i>	<i>Monthly</i>	
10.3.12 CAG Meetings - 2027	<i>Monthly</i>	<i>Monthly</i>	
10.3.13 CAG Meetings - 2028	<i>Monthly</i>	<i>Monthly</i>	
10.3.14 CAG Meetings - 2029	<i>Monthly</i>	<i>Monthly</i>	