PERFORMANCE WORK STATEMENT
For
Multiple Award Task Order Contract Indefinite Delivery Indefinite Quantity for Environmental Remediation Services to support the Formerly Used Defense Site within California, Nevada, and Utah – United States Army Corps of Engineers, Sacramento District

March 2021

Part 1

General Information

1.0 Introduction:

This is a non-personal services regional Multiple Award Task Order Contract (MATOC) acquisition utilizing performance-based task orders to provide Environmental Remediation Services (ERS). The task orders under this solicitation will be Indefinite Delivery Indefinite Quantity (IDIQ) contracts for ERS in support of the U. S. Army Corps of Engineers (USACE) South Pacific Division and their customers. Projects will primarily be in California, Nevada, and Utah. The contracts awarded will include performance based, firm-fixed price features for a wide range of environmental services at various known or suspected Military Munitions Response Program (MMRP) sites and Hazardous, Toxic, and Radioactive Waste (HTRW) sites. The Contractor shall provide all personnel, equipment, supplies, facilities, transportation, tools, materials, supervision, and other items and non-personal services necessary to perform ERS as defined in this Performance Work Statement (PWS) except for those items specified as Government furnished property and services. The Contractor shall perform to the standards in this contract.

In order to be eligible to bid on a task order under this IDIQ, the Contractor, or Subcontractor in charge of performing any geophysical work, must be accredited in accordance with the Department of Defense (DoD) Advanced Geophysical Classification Accreditation Program (DAGCAP). DAGCAP accreditation and AGC requirements shall be in compliance with the Office of the Secretary of Defense (OSD) Policy Memo dated 11 April 2016 and the Formerly Used Defense Sites (FUDS) AGC Policy Memo dated 6 January 2017.

The Contractor shall comply with sections 5.2 and 7.1.1 of the DOD Quality System Requirements where Quality Control Geophysicist is responsible for implementing and overseeing the project-specific quality systems. A direct line of communication between the QC geophysicist and USACE will be established and documented in the QAPP.

Work may be executed under performance-based task orders using PWS. A PWS structures all aspects of the task order around the purpose of the work to be performed and does not dictate how the work is to be accomplished. It is written to ensure that Contractors are given the freedom to determine how to meet the Government's performance objectives. It maximizes Contractor control of work processes and allows for innovation in approaching various work requirements. A PWS will emphasize performance that can be contractually defined so that the results of the Contractor's effort can be measured in terms of technical and quality achievement, schedule progress, or cost performance.

1.1 Description of Services:

Task orders under this contract will be in support of the United States Army Corps of Engineers (USACE), Sacramento District (SPK) Formerly Used Defense Site (FUDS) Program primarily

throughout California, Nevada, and Utah. Task orders will be issued as firm-fixed price based on the requirements of the PWS at various known or suspected MMRP or HTRW sites. The exact locations of specific projects will be designated under each Task Order PWS. Services to be performed for USACE SPK are defined by North American Industry Classification System (NAICS) code 562910, Environmental Remediation Services.

1.2 Task Order Objective and Scope:

The task orders issued under this MATOC will be to provide services in accordance with the Resource Conservation and Recovery Act (RCRA); the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA); the National Oil and Hazardous Substances Pollution Contingency Plan (NCP); National Pollutant Discharge Elimination System (NPDES); MMRP; and other related Federal Programs in addition to State and local regulations. Services that may be required in an ERS task order include, but are not limited to:

- Military Munitions Response
- Advanced Geophysical Classification (AGC)
- Preliminary Assessments (PA)
- Site Inspections (SI)
- Site Investigations
- Remedial Investigations (RI)
- Feasibility Studies (FS)
- Proposed Plan (PP)
- Decision Documents (DD)
- Record of Decision (ROD)
- Remedial Designs
- Remedial Actions
- Monitoring Well Installation and Sampling
- Short- and Long-Term Monitoring/Long Term Operations (LTM/LTO)
- Long Term Response Action (LTRA)
- Engineering
- Removal Actions
- Hazardous Materials Surveys
- Risk Assessments
- Pollution Prevention
- Solid Waste Management
- Environmental Compliance
- Natural Resources and Wildlife Management
- Cultural and Historic Resources Management
- Restoration Advisory Board Assessments
- Community Relations
- Records Management
- Environmental Data Management
- Other Environmental Consulting Services

1.3 Period of Performance:

The MATOC period of performance shall be for a five-year base period. Total length of the contract will not exceed five (5) years from date of contract award.

1.4 Contract Capacity:

The shared contract capacity for this MATOC, including all subsequent task orders issued, shall not exceed $50,000.000. The minimum guarantee amount for each task order is $2,500.00.

1.4.1 Place of Performance: The work to be performed under this contract will be performed at Formerly Used Defense Sites that are in California, Nevada, and Utah.

1.4.2 Type of Contract: This MATOC is Firm Fixed-Price (FFP). FFP project specific task orders will be issued under the basic contract.

1.4.3 Work Week: For each task order of this MATOC, the Contractor shall propose a workweek schedule, detailing the number of days and hours/day per work week, for each phase of field activities. The proposed schedule will be submitted either as part of the Project Management Plan (PMP) and updated as needed by letter through the USACE Project Manager (PM) for approval by the Contracting Officer's Representative (COR) prior to mobilization. If the workweek schedule is rejected, the Contractor will propose a new schedule and the same process will be repeated until an acceptable schedule is approved. Once the schedule is set, any changes such as increase in daily hours or additional workdays must be requested through the USACE PM for Approval.

1.4.4 Recognized Holidays: The following holidays are recognized as Federal holidays and Government offices will not be open.

New Year's Day	Labor Day
Martin Luther King Jr.'s Birthday	Columbus Day
President's Day	Veteran's Day
Memorial Day	Thanksgiving Day
Independence Day	Christmas Day

1.5 General:

The Contractor, operating as an independent Contractor and not as an agent of the Government, shall provide all labor, materials, facilities, transportation and equipment to perform all work identified in each individual task order. The Contractor may be required to perform work under multiple task orders at different sites simultaneously. The Contractor shall be cognizant of all appropriate laws, regulations, and guidance. The Contractor shall ensure that all work activities performed by his personnel, subcontractors and suppliers are executed as required by these laws and regulations. Any incident of noncompliance noted by the Contractor shall immediately be brought to the attention of the Contracting Officer (KO) and/or the COR by written notice. Nothing in this contract shall relieve the Contractor of the responsibility to comply with these laws and regulations. Any conflicts between laws/regulations and contract/task order requirements shall be brought to the attention of the KO and/or COR.

1.6 Performance-Based Task Orders/Contracts:

Performance-based service tasks orders/contracts:

- Describe the requirements in terms of results required rather than methods of performing the work;
- Use measurable performance standards (e.g., terms of quality, timeliness, quantity, etc.);
- Specify procedures for reductions in fee and/or price for deficient services; and
- Include performance incentives/disincentives where appropriate.

Performance-based contract methods are intended to ensure that required performance quality levels are achieved and that the Government's total payment is commensurate with the quantity and quality of

services received. Performance-based task orders with a task order specific Quality Assurance Surveillance Plan (QASP) will be issued in accordance with (IAW) Federal Acquisition Regulation (FAR) 37.102.

1.7 Prosecution of the Work:

The Contractor shall furnish sufficient technical supervisory and administrative personnel at all times to ensure prosecution of the work in accordance with the contract and task orders issued under the basic contract. The Contractor shall ensure that the work is executed in a professional manner and is prosecuted vigorously. The Contractor shall be responsible for checking all data, notes, and other work products to verify the work intent and scope of work have been met. The description of work stated herein provides a general understanding of the Contractor functions to be performed. Individual task orders will contain the specific performance-based requirements. Technical requirements described herein in no way limit the activities that may be required under the terms of this contract.

1.8 Work Authorizations:

Any work done without being directed to do so, in writing, by the KO will be done at the Contractor's own risk. Work beyond the original scope shall be accomplished only at the direction of the KO. The Contractor shall not proceed or initiate any successor level of work prior to receipt of approval of the preceding level.

1.9 Permits:

The Contractor shall obtain all permits and licenses necessary to conduct the work required by this Contract including, but not necessarily limited to, environmental permits, building permits, discharge, Nuclear Regulatory Commission or state license for radiation activities, Department of Transportation (DOT) permits for transport of HTRW on public highways and any permit, license or compliance document necessary to meet all Federal, State, and local laws, regulations, or ordinances. Rights of Entry (ROE) on and off private, State and Federal property may be required. All permit acquisition and requirements shall be coordinated with the Government personnel, unless specifically necessary for the operations of the Contractor.

1.10 Accreditation Requirements:

The Contractor, or Subcontractor in charge of performing any geophysical work for MMRP projects, must be accredited in accordance with the Department of Defense (DoD) Advanced Geophysical Classification Accreditation Program (DAGCAP). DAGCAP accreditation and AGC requirements shall be in compliance with the Office of the Secretary of Defense (OSD) Policy Memo dated 11 April 2016 and the Formerly Used Defense Sites (FUDS) AGC Policy Memo dated 6 January 2017. The DAGCAP accreditation must be current at the time of signing the final QAPP and throughout all fieldwork, analysis, data usability assessment, and reporting. The DAGCAP quality control geophysicist will review and accept all data collected to support AGC, including detection surveys and intrusive investigation.

Laboratories providing services to the Department of Defense, including USACE, must be accredited for the DoD Environmental Laboratory Accreditation Program (DoD ELAP) by a DoD approved Accrediting Body (AB). The DoD QSM v 5.3 is ISO/IEC 17025:2005(E) ISO/IEC 17025:2017(E) and The NELAC Institute (TNI) Standards, Volume 1, September 2009. As an element of the DoD ELAP, all laboratories must demonstrate the ability to generate acceptable results from the analysis of proficiency-testing (PT) sample(s), subject to availability, using each applicable method in the specified matrix. DoD ELAP accreditation establishes that laboratories have an established and documented laboratory quality system that conforms to ISO/IEC 17025:2005(E) ISO/IEC 17025:2017(E) and The NELAC Institute (TNI) Standards as implemented by the most recent version of the *DoD Quality Systems Manual for Environmental Laboratories*.

In addition to DoD ELAP accreditation the laboratory shall hold current accreditation for all appropriate fields-of-testing in the State holding regulatory over-sight for the project. This is usually accomplished by the laboratory holding a current National Environmental Laboratory Accreditation Program (NELAP) accreditation for all appropriate fields-of-testing. However, for projects in States that have certification requirements under a State specific laboratory program, certification under that program is required. Proof of current accreditation / certification for the applicable fields of testing is required prior to the laboratory acceptance of any samples for the project.

A search function for DoD ELAP accredited labs can be located at the following link: https://www.denix.osd.mil/edqw/accreditation/accreditedlabs/

A list of labs certified under NELAP can be located at the following sites: http://www.nelac-institute.org/content/abdb.php

An environmental laboratory either anticipating, or engaged in support, of USACE contracts shall notify the prime Contractor and COR immediately of change in status of laboratory operations that may affect on-going compliance with these requirements. The COR may, at any time, conduct audits (including requests for pertinent data or information) that support an environmental laboratory's certifications including compliance with the DoD QSM. If the COR finds the laboratory non-compliant, alternate compliant laboratory services will be utilized, until such time as compliance is again demonstrated.

Before performing environmental testing, the laboratory shall have access to the approved UFP-Quality Assurance Project Plan (UFP-QAPP). If a site specific UFP-QAPP is not available, the default data quality indicators (DQIs) are per the most current version of the DoD QSM.

1.11 Quality Management:

1.11.1 The Contractor is responsible for the control of product quality and for offering to the Government for acceptance only those products/services that conform to contractual requirements. QC and QA shall be developed within the Remedial Action work plan that will be prepared in accordance with the Uniform Federal Policy for Quality Assurance Project Plans (UFP-QAPP) and EM 200-1-15.

1.11.2 Task Orders having AGC will be managed in accordance with the quality management system of the accredited geophysical classification organization (GCO). All work performed in relation to AGC shall be managed under the GCO's quality system, including surface clearance activities, geophysical mapping and source identification and selection activities, and intrusive investigations.

1.12 Quality Control (QC):

The Contractor shall develop and maintain an effective quality control program (QCP) to ensure services are performed in accordance with this Base PWS and specific Task Order PWSs. The Contractor shall develop and implement procedures to identify, prevent, and ensure non-recurrence of defective services. The Contractor's QCP is the means by which they ensure that their work complies with the requirement of the contract. The Contractor shall provide the Government a copy of the QC plan when requested.

Contractor Quality Control (CQC) is the means by which the Contractor ensures that the work, to include that of subcontractors and suppliers, complies with the requirements of the contract. The control shall be adequate to cover all operations, including both on- and off-site activities. Operations will be permitted to begin only after acceptance of the QC Plan or acceptance of an interim plan applicable to the particular feature of work to be started. The Contractor is responsible for quality control and shall establish and

maintain an effective quality control system. The quality control system shall consist of plans, procedures, and organization necessary to produce an end product that complies with governing regulations and contract task order requirements. The Contractor's quality control program shall include inspections and tests as described in task orders. The Contractor shall maintain current records providing factual evidence that required quality control activities and/or tests have been performed. These records shall include the work of subcontractors and suppliers. The Contractor shall notify the Contracting Officer of any detected noncompliance of work performed with established quality control criteria. The nonconformance report shall include the cause of the nonconformance, proposed corrective action(s), and effect on the nonconformance

1.13 Quality Assurance (QA):

The Government shall evaluate the Contractor's performance under this contract in accordance with the Quality Assurance Surveillance Plan (QASP) included with each task order. This plan is primarily focused on what the Government must do to ensure that the Contractor has performed in accordance with the performance standards. It defines how the performance standards will be applied, the frequency of surveillance, and the minimum satisfactory performance threshold. The QASP highlights key quality control activities, tasks or events that the COR will use to determine when Army inspections will be conducted to assess progress toward and/or completion of milestones. Failure to adequately complete any service or submittal to at least a satisfactory level of quality or timeliness may result in a repeat of the work at the Contractor's expense, or a poor performance evaluation, or both.

1.14 Safety and Security:

The Contractor shall provide site security (e.g. fencing or guard service) as required by each individual task order. However, at a minimum, the Contractor shall maintain the site and all other Contractor controlled areas in such a manner as to minimize the risk of injury or accident to site personnel or others who may be in the area. Work on or near roadways shall be carefully marked with lights and barricades meeting State and local regulations or, where such regulations are not applicable, deemed adequate to minimize the risk of an accident. Open excavations that pose a danger to site personnel or others shall be fenced to prevent accidental entry. Side slopes of excavations shall be shored or left at a safe angle of repose as defined by OSHA 1926.650-652 and EM 385-1-1, Section 25. All equipment, when not in operation, shall be left in a safe manner (e.g., wheels blocked and buckets on the ground). Near residential areas where there may be children, special consideration shall be given to site security/safety needs.

The Contractor shall pre-screen candidates using E-verify Program. The contractor must pre-screen candidates using the E-verify Program http://www.dhs.gov/E-verify website to meet the established employment eligibility requirements. The vendor must ensure the correct information is entered into the E-verify system. An initial list of verified/eligible candidates must be provided to the COR no later than 3 business days after the initial contract award. Update list as candidates are added to the team.

1.15 Post Award Conference/Periodic Progress Meetings:

The Contractor agrees to attend any post award conference convened by the contracting activity or contract administration office in accordance with Federal Acquisition Regulation (FAR) Subpart 42.5. The KO, COR, and other Government personnel, as appropriate, may meet periodically with the Contractor to review the Contractor's performance. At these meetings the KO will apprise the Contractor of how the Government views the Contractor's performance and the Contractor will apprise the Government of problems, if any, being experienced. Appropriate action shall be taken to resolve outstanding issues. These meetings shall be at no additional cost to the Government.

1.16 Contracting Officer Representative (COR):

The COR will be identified by separate letter for each task order. The COR monitors all technical aspects of the contract and assists in contract administration. The COR is authorized to perform the following

functions: assure that the Contractor performs the technical requirements of the contract; perform inspections necessary in connection with contract performance; maintain written and oral communications with the Contractor concerning technical aspects of the contract; issue written interpretations of technical requirements, including Government drawings, designs, specifications; monitor Contractor's performance and notifies both the KO and Contractor of any deficiencies; coordinate availability of Government Furnished Property (GFP); and provide site entry of Contractor personnel. A letter of designation issued to the COR, a copy of which is sent to the Contractor, states the responsibilities and limitations of the COR, especially regarding changes in cost or price, estimates or changes in delivery dates. The COR is not authorized to change any of the terms and conditions of the resulting order.

1.17 Contractor Travel:
The Contractor will be required to travel within the Continental U.S. (CONUS) during the performance of this contract to attend site visits, meetings, et cetera. Contractor will be authorized travel expenses consistent with the substantive provisions of the Joint Travel Regulation (JTR).

1.18 Data Rights:
The Government has unlimited rights to all documents/material produced under this contract. The information and materials collected or produced by the Contractor, subcontractor(s), or associates during the performance of services under this contract shall become the property of the Government with all rights and privileges of ownership/copyright belonging exclusively to the Government. The information, documents and materials shall not be used or sold by the Contractor, subcontractor, or associates without written permission from the KO. All materials supplied to the Government shall be the sole property of the Government and may not be used for any other purpose. This right does not abrogate any other Government rights.

1.19 Ordering:
To clarify the contract clause "Ordering" the following shall apply.

1.19.1 Services for each task order may be requested either verbally or in writing, including requests made via email or telecommunication. Inquiries for expressions of interest regarding Task Order Requests for Proposals will be issued by the KO or authorized representative(s). Any type of request for proposal **shall not** be interpreted as a Notice to Proceed with the work.

1.19.2 The Government's Request for Proposals for individual task orders will delineate (1) general scope work; (2) location of work; (3) character and extent of services; (4) technical requirements which supplement or complement those contained in this section of this basic contract; and (5) time period(s) within which the work must be performed.

1.19.3 The Contractor will be requested to simply respond "yes" or "no" regarding potential interest in proposing on the Task Order Request for Proposal. If more than one Contractor responds "yes" to performing the requirement, a determination of whether and how to compete the Task Order between the responding Contactors will be made by the KO, as further detailed in the following subparagraphs. If all Contractors respond "no," the KO may select a Contractor based on price and non-price related factors.

1.19.4 The KO may make his/her determination regarding which Contractors are best suited for task order award based on the complexity, Contractors' skills base, past performance, and necessity and flexibility for fulfillment of guaranteed minimum amounts and ability to meet scheduled fieldwork timeframe. The KO need not contact each Contractor before selecting an awardee for an individual task order if the KO has sufficient information available to ensure fair consideration and best value to the Government. Accordingly, the KO may make a task order award to a particular

Contractor without further competition. Notwithstanding the foregoing, all Contractors will be given a fair opportunity to be considered for each task order in excess of $3,000.00 (per FAR 16.5.05).

1.19.5 In making selection of the awardee to receive a specific Task Order, the KO will consider both 1) price; and 2) at least one non-price related factor which will be specific in the Task Order Request for Proposal. It is expected on many task orders, the ability to meet tight scheduling windows will emphasize above all other factors. The KO may request additional information, including technical and price proposals, to assist in making the determination of the awardee. The exception to this procedure will be for task orders issued under $3,000.00.

1.19.6 If necessary, discussions regarding task order requirements may be held between the prospective task order awardee and the KO's representatives to develop a mutual understanding of:

1. Type and scope of work to be accomplished, including accuracy criteria.
2. End product required by the PWS.
3. Existing site conditions, survey control, and other available data.
4. Schedule expectations in regards to field work.
5. A fair and reasonable estimated cost to perform the work.

1.19.7 Time periods within which required work must be accomplished will be defined in each task order placed against the basic contract. Each task order will contain the agreed to scope of work / performance work statement, type(s) of services(s) to be performed, specific deliverable items, and the negotiated fixed price cost for performing the work.

1.19.8 To change task order requirements, a modification may be issued at any time prior to final payment of the task order by the Government. No changes or corrections to a Task Order will be affected, or accepted by the Government, without the KO's issuance of a written modification to the Task Order. The Contractor is not to assume any adjustments to the Task Order in any form, until or unless a modification is issued.

1.19.9 Per FAR 16-505(b)(2) All awardees need not be given an opportunity to be considered for a particular order if the Contracting Officer determines that (1) the agency need for the supplies or services is so urgent that providing a fair opportunity would result in unacceptable delays; (2) only one awardee is capable of providing the supplies or services required at the level of quality required because the supplies or services ordered are unique or highly specialized; (3) the order must be issued on a sole-source basis in the interest of economy and efficiency as a logical follow-on to an order already issued under the contract, provided that all awardees were given a fair opportunity to be considered for the original order; (4) there is a conflict of interest with the existing remediation contract on a specific site or installation; (5) an awardee loses their accreditation during the period of performance; or (6) it is necessary to place an order to satisfy a minimum guarantee.

1.19.10 Per FAR 16.505(a)(10)(i), no protest under FAR 33.1 is authorized in connection with the issuance or proposed issuance of an order under a task order contract except for 1) a protest on the grounds that the order increases the scope, period, or maximum value of the contract or 2) a protest of an order valued in excess of $10 million.

1.19.11 Per FAR 16.505(b)(8) A Task Order and Delivery Order Contract Ombudsman is responsible for review of complaints to ensure that all Contractors are afforded a fair opportunity to be considered, consistent with the procedures set forth in the contract. The ombudsman for Task Orders awarded under this contract is the Principal Assistant Responsible for Contracting – Dallas (PARC-Dallas) and may be reached at the following address:

U.S. Army Corps of Engineers, Headquarters
National Contracting Organization
Attention: CECT-DAL (USACE Dallas Ombudsman)
1100 Commerce Street, Suite 840
Dallas, Texas 75242-0216

1.20 Safety:

1.20.1 U.S. Army Corps of Engineers' Safety and Health Requirements Manual, EM 385-1-1 and OSHA Requirements: The Contractor will be required to comply with all pertinent provisions of the latest version of the U.S. Army Corps of Engineers Safety and Health Requirements Manual, EM 385-1-1, in effect on the date of the contract award. EM 385-1-1 and its changes are available on Army websites by selecting Engineer Manuals, EM 385-1-1 "Safety and Occupational Health". The Contractor must also comply with Occupational Safety and Health Act (OSHA) standards and all OSHA State approved plans, such as, but not limited to California OSHA. OSHA standards are subject to change. It is the Contractor's responsibility to maintain familiarity with current OSHA standards.

1.20.2 Zero Accident Program: The Corps of Engineers, in its continual pursuit of excellence in safety has established a goal of zero contractor injuries. To attain this goal it will be necessary for the Contractor management personnel to communicate to the workers an expectation of zero injuries; that it is no longer acceptable to take chances; that shortcuts taken because of laziness or even while trying to do an efficient job are no longer welcomed; that praise for shortcuts or chance-taking will not exist. It is imperative that contractor management clearly sets forth the expectation for zero injuries so that the workers can begin to believe that the company is truly serious about safety. From the standpoint of worker psychology, zero is the only supportable goal. In attaining zero-injury performance, there is no substitute for the concept of setting and communicating safety performance expectations to the workers.

1.20.3 Safety and Health Program (SHP): The Contractor performing task order requirements is required by regulation to develop and maintain a written safety and health program in compliance with the requirements of Occupational Safety and Health Administration (OSHA) standard 29 CFR 1920.120 (b), 29 CFR 1926.65(b). Existing written safety and health programs are acceptable if they are modified to cover the criteria found in EM 385-1-1.

1.20.4 Site Safety and Health Plan (SSHP): The SSHP shall describe the safety and health procedures, practices, and equipment to be implemented and utilized in order to protect affected personnel from the potential hazards associated with the site-specific tasks to be performed. The level of detail provided in the SSHP shall be tailored to the type of work, complexity of operations to be accomplished, and the hazards anticipated. In all cases, however, all topics required by OSHA Standard, 29 CFR 1910.120 (b)(4), 29 CFR 1926.65(b)(4), and those elements listed and described in ER 385-1-92 shall be addressed in the SSHP on a site-specific basis. The SSHP must be approved by the Government before work begins.

1.20.5 Munitions and Explosives of Concern (MEC) Safety Program: The Contractor performing MMRP and MEC work may be required by regulation to develop, staff for approval, and maintain a written Explosives Safety Submission (ESS) or Explosives Site Plan (ESP) in compliance with guidance provided by USACE, the U.S. Army Technical Center for Explosives Safety (USATCES) and/or the DoD Explosives Safety Board (DDESB). This document will be prepared and accepted by USATCES prior to beginning any fieldwork; with the understanding that the DDESB may have additional requirements and/or changes necessary for safety of fieldwork.

1.20.6 Unplanned and MEC Emergency Response Actions, Removals, and Operations: Response actions may or may not be performed depending on the individual task order. The requirements related to response actions will be described in detail in individual task orders. The successful Contractor shall perform all necessary planning, fieldwork, and implementation of MEC emergency response action requirements. The Contractor selected for this work shall have the capability and experience to perform a wide range of investigations to perform/manage work on MEC sites. Types of projects include, but are not limited to:

- On-Site source control and containment using a variety of technologies
- Problem solving during response with unexpected conditions or execution problems at the site
- MEC, Unexploded Ordnance (UXO), Munitions Debris (MD), and Munitions Constituents (MC) where visible staining is occurring
- Other remedial/response actions determined on a case-by-case basis with Government consultation

PART 2

DEFINITIONS & ACRONYMS

2.0 Definitions and Acronyms:

2.1 Definitions: The following definitions and descriptions apply wherever the term, phrase, or acronym is used in this Performance Work Statement.

2.1.1 Acquisition: The acquiring by contract with appropriated funds of supplies or services (including construction) by and for the use of the Federal Government through purchase or lease, whether the supplies or services are already in existence or must be created, developed, demonstrated, and evaluated.

2.1.2 Additional Work: Any service or task that is over and beyond that which is specifically listed in the PWS but is still covered within the contract's scope of work.

2.1.3 Contractor: A supplier or vendor awarded a contract to provide specific supplies or service to the Government. The term used in this contract refers to the prime Contractor.

2.1.4 Contracting Officer (KO): A person with authority to enter into, administer, and or terminate contracts and make related determinations and findings on behalf of the Government. **NOTE: This is the only individual who can legally bind the Government.**

2.1.5 Contracting Officer's Representative (COR): A person designated and authorized by the Contracting Officer to administer the contract. This individual has authority to provide technical direction to the Contractor as long as that direction is within the scope of the contract, does not constitute a change, and has no funding implications. This individual does NOT have authority to change the terms and conditions of the contract.

2.1.6 Defective Service: A service output that does not meet the standard of performance associated with the Performance Work Statement.

2.1.7 Discrepancy/Deficiency: A service output that does not meet the standard of performance associated with the Performance Work Statement.

2.1.8 Deliverable: Anything that can be physically delivered but may include non-manufactured things such as meeting minutes or reports.

2.1.9 Equipment: A tangible asset that is functionally complete for its intended purpose, durable, nonexpendable, and needed for the performance of a contract. Equipment is not intended for sale and does not ordinarily lose its identity or become a component part of another article when put into use.

2.1.10 Government: United States of America

2.1.11 Indefinite-Quantity Contract: An indefinite-quantity contract provides for an indefinite quantity, within stated limits, of supplies or services during a fixed period. The Government places orders for individual requirements.

2.1.12 Key Personnel: Contractor personnel that may be evaluated in a source selection process and that may be required to be used in the performance of a contract by the Key Personnel listed in the PWS. When key personnel are used as an evaluation factor in best value procurement, an offer can be rejected if it does not have a firm commitment from the persons that are listed in the proposal.

2.1.13 Performance-based Acquisition (PBA): An acquisition structured around the results to be achieved as opposed to the manner by which the work is to be performed.

2.1.14 Performance Requirements Summary (PRS): A summary of the performance objectives that relate directly to mission essential items. Shows contract requirements, performance standard, and performance thresholds in order to receive a satisfactory rating and the Government's method of surveillance for each work requirement.

2.1.15 Performance Work Statement (PWS): A statement of work for performance-based acquisitions that describes the required results in clear, specific and objective terms with measurable outcomes.

2.1.16 Point of Contact (POC): Government personnel designated to inspect work performed under the contract and make daily contact with Contractor employee(s). The Government POC will conduct and maintain Quality Assurance Evaluations. A Point of Contact has no authority to enter into, administer, modify or terminate contracts.

2.1.17 Project: Specific project names and sites for this Multiple Award Task Order Contract (MATOC) for Environmental Consulting Services will be defined at the Task Order level.

2.1.18 Project Manager (PM): A PM is either a Government employee or Contractor employee responsible for overall operations of the project and assigned to act as a liaison between the Government and the Contractor on technical issues. A Project Manager has no authority to enter into, administer, modify or terminate contracts.

2.1.19 Quality Assurance (QA): The Government procedures to verify that services being performed by the Contractor are performed according to acceptable standards.

2.1.20 Quality Assurance Monitoring Form (QASF): Form completed by COR and used as documentation of the surveillance of the Contractor's performance.

2.1.21 Quality Assurance Surveillance Plan (QASP): A written plan specifying the surveillance method(s) to be used for surveillance of Contractor performance.

2.1.22 Quality Control (QC): All necessary measures taken by the Contractor to ensure that the quality of an end product or service shall meet contract requirements.

2.1.23 Regulations: Albuquerque District Regulations (ADR), Sacramento District Regulations (SDR), South Pacific Division (SPD), Corps of Engineers Regulations (ER), or any other Government (Federal, State or local) regulation applicable to the Project.

2.1.24 Security: Actions that prevent the loss or damage of Government property.

2.1.25 Services: Any duties or work performed by the Contractor for the Government.

2.1.26 Shall: Imperative.

2.1.27 Subcontractor: One that enters into a contract with a Prime Contractor. The Government does not have privities of contract with the subcontractor.

2.1.28 Task Order Contract: A contract for services that does not procure or specify a firm quantity of services (other than a minimum or maximum quantity) and that provides for the issuance of orders for the performance of tasks during the period of the contract.

2.2 Acronyms:

AAPP	Abbreviated Accident Prevention Plan
AAR	After Action Report
AB	Accreditation BodyACOR Alternate Contracting Officer's Representative
ADR	Automated Data Review
AEC	Army Environmental Command
AFARS	Army Federal Acquisition Regulation Supplement
AGC	Advanced Geophysical Classification
AHA	Activity Hazard Analysis
AHERA	Asbestos Hazard Emergency Response Act
ANSI	American National Standards Institute
APP	Accident Prevention Plan
AR	Army Regulation
ARPA	Archaeological Resources Protection Act
ASQ	American Society for Quality
ASTM D	American Society for Testing and Materials-Draft
CACM	Chemical Agent Contaminated Media
CAD	Computer Aided Design
CERCLA	Comprehensive, Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
CHMM	Certified Hazardous Materials Manager
CHP	Certified Health Physicist
CIH	Certified Industrial Hygienist
CONUS	Continental United States (excludes Alaska and Hawaii)
COPC	Contaminants of Potential Concern
COR	Contracting Officer Representative
COTR	Contracting Officer's Technical Representative
COTS	Commercial-Off-the-Shelf
CQCM	Contractor Quality Control Manager
CSM	Conceptual Site Model
CSP	Certified Safety Professional
CWA	Clean Water Act
DA	Department of the Army
DAGCAP	DOD Advanced Geophysical Classification Accreditation Program
DD250	Department of Defense Form 250 (Receiving Report)
DD254	Department of Defense Contract Security Requirement List
DDESB	Department of Defense Explosives Safety Board
DERP	Defense Environmental Restoration Program

DFARS	Defense Federal Acquisition Regulation Supplement
DGM	Digital Geophysical Mapping
DMM	Discarded Military Munition
DMDC	Defense Manpower Data Center
DNAPLs	Dense Non-Aqueous Phase Liquids
DOD	Department of Defense
DOD ELAP	Department of Defense- Environmental Laboratory Accreditation Program
DOD QSM	Department of Defense - Quality Systems Manual
DOT	Department of Transportation
DQCR	Daily Quality Control Report
DQO	Data Quality Objectives
DQI	Data Quality Indicator
DV	Data Validation
DTM	Digital Terrain Model
ECS	Environmental Consulting Services
EDD	Electronic Data Deliverable
EECA	Engineering Evaluation Cost Analysis
ELAP	Environmental Laboratory Accreditation Program
EM	Engineering Manual
EM-CX	Environmental and Munitions Center of Expertise
ENG	Engineering
EPA	Environmental Protection Agency
EP	Engineering Pamphlet
eQAPP	Electronic Quality Assurance Project Plan
ER	Engineering Regulation
ERIS	Environmental Restoration Information System
ERS	Environmental Remediation Services
ESFO	Environmental Support for Others
ESRI	Environmental Systems Research Institute
FAR	Federal Acquisition Regulation
FFP	Firm Fixed Price
FGDC	Federal Geographic Data Committee
FID	Flame Ionization Detector
FS	Feasibility Study
FSC	Federal Service Codes
FSP	Field Sampling Plan
FTR	Federal Travel Regulations
FUDS	Formerly Used Defense Site
GCO	Geophysical Classification Organization
GDA	Government Designated Authority
GFE	Government Furnished Equipment
GFI	Government Furnished Information
GFP	Government Furnished Property
GIS	Geographic Information System
GSV	Geophysical Systems Verification
HIPAA	Health Insurance Portability and Accountability Act of 1996
HQUSACE	Headquarters USACE
HTRW	Hazardous, Toxic and Radioactive Waste
HTW	Hazardous Toxic Waste
IAW	In Accordance With

IDQTF	Inter-Governmental Data Quality Task Force
IDW	Investigative Derived Waste
IEC	International Electrotechnical Commission
ISM	Incremental Sampling Methodology
ISO	International Organization for Standardization
IVS	Instrument Verification Strip
JFTR	Joint Federal Travel Regulation
KO	Contracting Officer
LiDAR	Light Detection and Ranging
LOD	Limit of Detection
LOQ	Limit of Quantitation
LTM/LTO	Long Term Monitoring/Long Term Operations
LTRA	Long Term Response Action
MARSSIM	Multi-Agency Radiation Site Survey and Investigation Manual
MATOC	Multiple Award Task Order Contract
MCX	Mandatory Center of Expertise
MEC	Munitions and Explosives of Concern
MEGA	Multiple Environmental Government Acquisition
MFR	Memorandum for Record
MHP	Material Handling Plan
MI&E	Meals, Incidentals & Expenses
MIS	Management Information System
MM	MetalMapper
MM CX	Military Munitions Center for Expertise
MMRP	Military Munitions Response Program
MPV	Man Portable Vector
MQO	Method Quality Objectives
MR	Munitions Response
MRA	Munitions Response Area
MR-QAPP	Munitions Response - Quality Assurance Project Plan
MRS	Munitions Response Site
MRSPP	Munitions Response Site Prioritization Protocol
NAICS	North American Industry Classification System
NCP	National Contingency Plan
NAPLs	Non-Aqueous Phase Liquids
NESHAP	National Emission Standards for Hazardous Air Pollutants
NIOSH	National Institute for Occupational Safety and Health
NPDES	National Pollutant Discharge Elimination System
NRC	Nuclear Regulatory Commission
NSDI	National Spatial Data Infrastructure
NTUs	Nephelometric Turbidity Units
O&M	Operations and Management
OCI	Organizational Conflict of Interest
OCONUS	Outside Continental United States (includes Alaska and Hawaii)
ODC	Other Direct Costs
OSD	Office of Secretary of Defense
OSHA	Occupational Safety and Health Administration
PA	Preliminary Assessment
PCBs	Polychlorinated Biphenyls
PDT	Project Delivery Team

PID	Photoionization Detector
PIPO	Phase In/Phase Out
PM	Project Manager
POC	Point of Contact
PRP	Potentially Responsible Party
PRS	Performance Requirements Summary
PT	Proficiency Testing (sample)
PVC	Polyvinyl Chloride
PWS	Performance Work Statement
QA	Quality Assurance
QAM	Quality Assurance Manual
QAMF	Quality Assurance Monitoring Form
QAP	Quality Assurance Program
QAPP	Quality Assurance Project Plan
QASP	Quality Assurance Surveillance Plan
QC	Quality Control
QCP	Quality Control Program
QCSR	Quality Control Summary Report
QSM	Quality System Manual
RAO	Remedial Action Objective
RCRA	Resource Conservation and Recovery Act
RCWM	Recovered Chemical Warfare Material
RFI	RCRA Facility Investigation
RI	Remedial Investigation
RL	Reporting Limit
RQD	Rock Quality Designation
SAP	Sampling and Analysis Plan
SARA	Superfund Amendments & Reauthorization Act
SCR	Service Contract Reporting
SEDD	Staged Electronic Data Deliverable
SHM	Safety and Health Manager
SHP	Safety and Health Program
SHPO	State Historical Preservation Officer
SI	Site Investigation
SM	Standard Methods for the Examination of Water and Wastewater
SOO	Statement of Objectives
SOP	Standard Operating Procedures
SOS	Scope of Service
SOW	Scope of Work
SPA	South Pacific Albuquerque District
SPCC	Spill Prevention, Control and Countermeasure Plan
SPD	South Pacific Division
SPK	South Pacific Sacramento District
SPP	Systematic Project Planning
SSHO	Site Safety and Health Officer
SSHP	Site Safety Health Plan
SUXOS	Senior UXO Supervisor
SVOCs	Semi-Volatile Organic Compounds
SWD	Southwestern Division
TCLP	Toxicity Characteristic Leaching Procedure

TO	Task Order
TOI	Target of Interest
TP	Technical Paper
TSCA	Toxic Substances Control Act
TPP	Technical Project Planning
UFP-QAPP	Uniform Federal Policy for Quality Assurance Project Plans
UIC	Unit Identification Code
USACE	U.S. Army Corps of Engineers
USATECS	U.S. Army Technical Center for Explosive Safety
USC	U.S. Code
USCS	Unified Soil Classification System
USCG	U.S. Coast Guard
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
UTS	Underground Storage Tank
UXO	Unexploded Ordnance
UXOQCS	UXO Quality Control Specialist
UXOSO	UXO Safety Officer
VOCs	Volatile Organic Compounds
WP	Work Plan

PART 3

GOVERNMENT FURNISHED PROPERTY, EQUIPMENT, AND SERVICES

3.0 Government Furnished Property, Equipment, and Services:

3.1 Government Support: In general, each individual Task Order will require that the Contractor provide all services, facilities, materials, and equipment. However, in some cases a task order will provide for Government Furnished Equipment (GFE). Under the Task Order, GFE shall be provided to the Contractor in accordance with Federal Acquisition Regulation (FAR) 52.245-1 and 52.245-2, Defense FAR Supplement (DFARS) 252.211-7007, 252.245-7001, 252.245-7002, 252.245-7003 and 252.245-7004, and Army FAR Supplement (AFARS) Part 5145, and all provisions and requirements stated in the requiring Task Order.

3.2 Contract Administration: The USACE Sacramento District shall provide contract management and administration for this MATOC.

PART 4

CONTRACTOR FURNISHED ITEMS AND SERVICES

4.0 Contractor Furnished Items and Responsibilities:

4.1 General:
The Contractor shall provide all personnel, equipment, supplies, facilities, transportation, tools, materials, supervision, and other items and non-personal services necessary to perform ERS as defined in this PWS except for those items under Part 3 of this PWS or as identified in individual task order(s).

4.2 Contractor Responsibility:
The Contractor shall be responsible for acquiring the latest version of applicable regulatory or agency guidance, including but not limited to, the referenced documents cited in this PWS and/or task orders issued, unless otherwise specified.

4.3 Government Safety Requirements:
The Contractor shall submit their written Accident Prevention Program to the KO for evaluation and acceptance. The plan must be submitted and approved before any on-site work begins.

4.4 Service Contract Reporting (SCR): The contractor shall report annually ALL contractor labor hours (including subcontractor labor hours) required for performance of services provided under this contract for USACE via a secure data collection site. See clause 52.204-14. The contractor is required to completely fill in all required data fields using the following web address https://www.sam.gov/SAM/

Users are required to input and submit the following SCR data elements:

- Amount invoiced for services on that contract in the preceding government fiscal year (in dollars).
- Number of contractor direct labor hours expended under the contract. This value will be converted to Full Time Employee's (FTE) using a 2080-hour work year.
- Tier 1 Subcontract number, including DUNS and name (if applicable).
    - Number of subcontractor direct labor hours expended under the contract (if applicable). This value will be converted to FTE's using a 2080-hour work year.

Reporting inputs will be for the labor executed during the period of performance during each Government fiscal year (FY), which runs October 1 through September 30. While inputs may be reported any time during the FY, all data shall be reported no later than October 31 of each calendar year.

Help with the SAM system:
https://sam.gov/SAM/pages/public/help/samUserGuides.jsf

Federal Service Desk Contact Information:
Website: www.fsd.gov
Hours of Operation: 8am - 8pm (Eastern Time)
U.S. Toll Free: 866-606-8220

- Contractors may direct questions to the help desk at: www.fsd.gov
- Contractor User Guide is available at www.sam.gov, Click on the "Help" tab

PART 5

CONTRACTOR PROFESSIONAL PERSONNEL AND QUALIFICATIONS

5.0 Professional Personnel:
The Contractor shall employ, either directly or through subcontract**,** personnel adequate in numbers, skill, and qualifications to accomplish the work required in conformance with the PWS and the schedule of each task order. Any changes to the personnel listed in the proposal shall be submitted in writing for approval by the KO/COR. .

Multi-Disciplined Technical Staff
The Contractor shall utilize only personnel that meet or exceed industry standards for qualifications and experience and IAW DOD regulations. Note: Resumes of other personnel (i.e., ground water modeling specialist, geotechnical engineers, field staff, etc.) may be required as part of task order proposals to verify that they meet the qualifications of the solicitation. The KO may request the resumes of any of these personnel to verify that they meet the requirements before task order award.

MMRP Specific
The Contractor, or subcontractor in charge of AGC, shall be accredited in accordance with DAGCAP. If, for any reason, the DAGCAP accredited geophysical classification organization (GCO) responsible for the AGC has their accreditation suspended or revoked, the Contractor shall identify an alternate DAGCAP accredited GCO to complete the contract at no extra cost to the Government.

5.1 Key Personnel
The Contractor shall have experienced personnel to perform or provide a wide range of services required for ERS including, but not limited to, all disciplines necessary to address services outlined in Part 1 of this PWS. The Contractor and its subcontractor team jointly shall have all necessary qualifications and experience. The Contractor shall provide the Government with a list of the key personnel assigned to the contract by name, position, name of the firm (if other than the prime Contractor), and address of the firm. The Contractor shall maintain a current list of this information and provide it to the Government if changes are made. The Contractor shall also provide current organization chart of the key personnel and the organization they below to. Resumes shall be provided for all key personnel identified in the section within 5 days of request by the USACE KO. **Prior to award, all resumes will be evaluated against the requirements in this part to determine whether the individuals meet the desired qualifications and experience necessary to perform their roles and responsibilities under this contract.**

5.1.1 Exclusive of the project management functions (Program Manager, Senior Contracts Manager, Project Manager, and Contractor Quality Control Manager,), the Contractor may utilize subcontractors or consultants identified in the accepted proposal with approval from the USACE KO. Additional Project Managers can be from teaming relationships. Resumes of these individuals may be required as part of task order proposals or whenever a change in personnel is to occur.

5.1.2 A change or replacement of any key personnel must gain approval from the USACE KO. The USACE KO will consider the reason for the change, the history of key personnel changes and verify that the proposed replacement meets or exceeds the qualifications of the contract.

5.1.3 Additional key personnel may be required on a task order specific basis. If further key personnel are required to perform any work under this contract, the Contractor will be required to submit their resumes for approval by the KO. Resumes of these individuals may be required as part of task order proposals.

5.1.4 Each task order can have a list of key personnel that differs from this base contract if identified in the TO PWS. No key personnel position may be "dual hat" (i.e. one person serving two key personnel positions) on the same TO unless waived by the USACE KO.

5.2 Program Manager

The Contractor shall designate one (1) individual as the Program Manager that serves as a single point of contact for coordination of program issues with USACE. The Program Manager shall be responsible for the overall management of the contract including cost, schedule, and technical quality. The Program Manager shall be competent, experienced and knowledgeable in the full range of environmental remediation activities identified in this contract. The Program Manager shall take immediate corrective action when performance is not acceptable to USACE. The Program Manager shall oversee the development and implementation of record keeping, administrative, safety and quality control programs. The Program Manager will provide an annual report to the Contracting Officer that shall include details on subcontracting executed under awarded task orders.

- The individual proposed as the Program Manager should have a college degree in an environmental related engineering or science field from an accredited institution.
- The individual proposed as the Program Manager should have five (5) years' experience in Program Management for other contracts/programs with a minimum of three (3) years working experience in ERS.
- The individual proposed as the Program Manager should document certification and/or professional registration, in their respective field, where applicable or available.
- The Program Manager must be an employee of the Prime Contractor.

5.3 Project Manager(s)

For each task order, the Contractor shall designate a Project Manager (PM). The Program Manager may act as the PM, with approval from the USACE KO. The Offeror shall identify the PM before issuance of the task order and the PM qualifications, experience and performance history shall be satisfactory to the Contracting Officer or COR. The PM shall be the single point of contact for the task order and shall be responsible for the management and execution of the task order in accordance with the approved performance work statement, approved work plans, and all Federal, State, and local laws and regulations. The PM shall ensure coordination between the Safety and Health Manager (SHM) and the Site Safety and Health Officer (SSHO) to ensure that all site activities are performed in a safe manner. The Contractor shall also maintain close communication and coordination with USACE for the duration of the project, including weekly and/or monthly progress.

- Individuals proposed as Project Managers shall have a college degree in engineering, construction management, geology, chemistry, or related field from an accredited institution.
- Individuals proposed as Project Managers should have five (5) years' experience in Project Management for other contracts/programs with a minimum of five (5) years working in ERS.
- Individuals proposed as Project Managers should report professional registration, in their respective field, where applicable or available.
- If the project involves advanced classification, the PM shall have either at least one (1) advanced classification project to include management at the field operational level or five (5) years' experience managing environmental or munitions projects at the field operational level.
- The Project Manager shall have experience with Firm Fixed Price contracts.

5.4 Contractor Quality Control Manager (CQCM)

The Contractor shall designate one (1) individual who is trained within its organization to be responsible for overall management of Contractor Quality Control (CQC) and have the authority to act in all CQC matters. The CQCM should have appropriate education and experience in environmental consulting services. The CQCM is responsible to ensure compliance with the requirements identified in the PWS and the Contractor Quality Control Plan. The need for an on-site QCM will be defined in the PWS for the project specific task order, if required.

- The individual proposed as the CQCM should have a minimum of three (3) years working experience in quality assurance and quality control (QA/QC) of environmental consulting services.
- The individual proposed as the CQCM shall have formal education or training in field sampling related to environmental consulting services.
- The CQCM must be an employee of the Prime Contractor.

5.5 Safety and Health Manager

In accordance with the USACE Safety and Health Requirements Manual (EM385-1-1, current version dated 30 November 2014) the Contractor shall designate one (1) individual as a Safety and Health Manager (SHM) for any consulting work involving hazardous waste. The SHM shall be a Certified Industrial Hygienist (CIH), Certified Safety Professional (CSP) or Certified Health Physicist (CHP). If the project involves radioactive material, then the Contractor shall have a CHP assigned to the project, accessible to the field crew; but not necessarily required to be on-site. The SHM shall demonstrate the authority to shut down the site work if/when Health and Safety becomes an issue. The SHM shall enlist the support of safety and occupational health professionals with appropriate education and experience when working on sites with multiple (chemical, safety, ionizing radiation) hazards. The SHM shall be responsible for the following actions:

- Developing, maintaining, and overseeing implementation of the Site Safety and Health Plan (SSHP);
- Visiting the project as needed to audit the effectiveness of the SSHP;
- Remaining available for project emergencies;
- Developing modifications to the SSHP as needed;
- Evaluating occupational exposure monitoring/air sampling data and adjusting SSHP requirements as necessary;
- Serving as a QC staff member;
- Approving the SSHP by signature.

5.6 Site Safety and Health Officer (SSHO)

The SSHO is required at all operations. The SSHO shall demonstrate the authority to shut down the site work if/when health and safety becomes an issue. The SSHO shall have the authority and is responsible for the following actions:

- Being present anytime cleanup operations are being performed to implement the SSHP;
- Inspecting site activities to identify safety and occupational health deficiencies and correct them;
- Coordinating changes/modifications to the SSHP with the SHM, site superintendent, and contracting officer; and Conducting project specific training.

The SSHO shall have a minimum of one (1) year of experience implementing safety and occupational health procedures at cleanup operations.

The SSHO shall have training and experience to conduct exposure monitoring/air sampling and select/adjust protective equipment use.

5.7 Senior Project Chemist

The Contractor shall utilize a Project Chemist who shall ensure that all chemistry related goals of the program are attained. The Project Chemist shall be available for consultation with the Contractor's personnel and Government personnel. The Project Chemist should have general knowledge of remedial process chemistry, fate and transport of organics and inorganics, knowledge of chemical quality control, experience with validation software (e.g., FUDSCHEM) and staged electronic data deliverables (SEDD). The Project Chemist shall be experienced in the sampling and analysis of toxic/hazardous chemicals in environmental matrices.

The Project Chemist will be required to have advanced expertise (senior level) in chemical data quality management of environmental analytical data and demonstrate an understanding and application of the UFP-QAPP. The chemist must demonstrate knowledge and understanding of the DoD QSM and its application during laboratory selection and data validation to ensure defensible data are delivered meeting DoD and project specific requirements. Knowledge and understanding of database systems, is considered to be beneficial.

- The individual proposed at the Project Chemist shall have a college degree in chemistry from an accredited 4-year program, supplemented by course work in mathematics through differential and integral calculus, at least 6 semester hours of physics, and at least 5 years of demonstrable experience in areas of environmental sampling and analytical testing relevant to the project. An advanced degree in one of the above disciplines may be substituted for equivalent experience. A Task Order from this contract may specify additional qualifications for the Project Chemist as necessary.

Specifically for MMRP, the Senior Project Chemist shall be responsible for the development of the Uniform Federal Policy-Quality Assurance Project Plan (UFP-QAPP) MC Worksheets, development of an electronic QAPP (eQAPP) in FUDSChem, along with the PDT, help establish the project Data Quality Objectives (DQO) following the Environmental Protection Agency's (EPA) seven step DQO process.

The Senior Project Chemist must meet provisions of section 7.2 of the DoD Policy and Guidelines for Acquisitions Involving Environmental Sampling or Testing, November 2007 by performing the following minimum functions:

- Provides coordination and quality assurance surveillance of laboratory services;
- Approves project-specific Method Quality Objectives (MQO's) and Data Quality Indicators (DQI's) that will meet the project-specific performance standards;
- Verifies appropriateness of sampling and analytical methods and laboratory quality systems;
- Verifies laboratory qualifications and makes recommendations for laboratory selection;
- Coordinates with the laboratory during contract execution;
- Notifies the Government QAM of any problems or nonconformance issues;
- Directs the performance of data review and validation, per contract specifications; and
- Monitors corrective action, as needed;
- Ensures the project chemistry QC meets the requirements for FUDS Chemistry as listed in Attachment C of this PWS.

5.8 Civil/Project Engineer

The Civil/Project Engineer is responsible for assuring that all civil and geotechnical engineering support goals specified in the Task Order are attained.

- The individual proposed as the Civil/Project Engineer shall have a college degree in civil engineering (soil mechanics, materials or related specialty), geological engineering, or related field from an accredited college or university.
- The individual proposed as the Civil/Project Engineer should have demonstrable education and experience in civil, environmental, or geotechnical engineering.
- The individual proposed as the Civil/Project Engineer should have five (5) years' experience related to investigation, design, and construction of geotechnical features with a minimum of 3 years' experience being related to remedial investigations, feasibility studies, and design and construction of geotechnical features in HTRW sites.

5.9 Senior Project Geophysicist

At a minimum, the Senior Project Geophysicist shall be responsible for geophysical survey design, dynamic data collection, cued data collection, development of a validation plan, and all other plans and reports supporting the AGC process. The Senior Project Geophysicist shall have, at a minimum, the following qualifications:

- A degree in geophysics, engineering geophysics, or closely related field or equivalent demonstrated proficiency with advanced geophysical methods (if part of the Contractor's technical approach) and concepts related to munitions response and possess five (5) years of directly related UXO geophysical experience.
- Experience with requirements IAW DoD Quality System Requirements (DoD QSR) for Advanced Geophysical Classification.
- Shall be a member(s) of the Project Geophysical personnel cited in the Contractor's or subcontractor's DAGCAP accreditation.

5.10 Quality Control Geophysicist

At a minimum, the QC Geophysicist shall be responsible for the quality of all aspects of quality control except those relating to UXO operations an which fall under the responsibility of the UXOQCS. The Geophysicist shall have at a minimum the following qualifications:

- A degree in geophysics, engineering geophysics, or closely related field or equivalent demonstrated proficiency with advanced geophysical methods (if part of the Contractor's technical approach) and concepts related to munitions response and possess five (5) years of directly related UXO geophysical experience.
- Experience with requirements IAW DoD Quality Systems Requirements for Advanced Geophysical Classification (DoD QSR).
- Shall be a member of the QC personnel cited in the Contractor's or subcontractor's DAGCAP accreditation.

5.11 Regulatory Specialist

The Regulatory Specialist is responsible for assuring regulatory compliance is achieved for all environmental related activities in the task order. The project Regulatory Specialist must have professional knowledge of, thorough understanding of and applied practical experience of environmental

regulations with respect to, but not limited to, RCRA, CERCLA, the Hazardous Materials Conservation Act, the Superfund Amendments & Reauthorization Act (SARA), the Toxic Substances Control Act (TSCA), the Clean Air Act, the Clean Water Act, and implementing federal, state and local regulations and their application to the projects.

- The individual proposed as the Regulatory Specialist shall have a college degree in physical, natural or environmental sciences/engineering from an accredited 4-year program
- The individual proposed as the Regulatory Specialist shall document professional registration in their respective field of expertise (e.g. Certified Hazardous Materials Manager (CHMM); Registered Environmental Manager (REM))
- The individual proposed as the Regulatory Specialist should have a minimum of five (5) years of professional experience related to ERS
- The individual proposed as the Regulatory Specialist should have a minimum of three (3) years specialized experience in the accumulation, manifesting and shipment of wastes
- The Regulatory Specialist shall demonstrate the completion of the following training and will be required to maintain/refresh training during the life of the contract in accordance with the regulations:
- Training and current certification under 49 CFR 172, Subpart H. If a DOT security plan is required, the Contractor shall be in full compliance with DOT regulation, 49 CFR, Subchapter C, Subpart I
- Hazardous waste operations and emergency response initial training, and annual 8-hour refresher training under OSHA 29 CFR 1910.120. On the job training for Large Quantity Generators (LQG) under 40 CFR 262.17(a)(7), training for permitted Treatment Storage and Disposal Facility (TSDF) under 40 CFR 264.16, and interim status TSDFs under 40 CFR 265.16; and contingency plan requirements under Part 262 Subpart M for LQGs, and Part 264 Subpart D, and Part 265 Subpart D for TDSFs.
- Recurrent training to meet requirements of 49 CFR 172.704(c)(2) as required by various Federal regulations (e.g. Department of Transportation 49 CFR 172.700, Subpart H, etc.)

5.12 Hazardous Materials Inspector

The Hazardous Materials Inspector shall be an EPA-certified lead-based paint (LBP) and AHERA-certified building inspector and/or a Certified Industrial Hygienist (CIH). This may be the same individual as the Safety and Health Manager if he/she meets all requirements. The project inspector shall have at least 5 years' experience in performing asbestos surveys of a large, complex scope. The survey lead shall be knowledgeable in these areas: NIOSH and EPA sampling methods for asbestos; EPA and OSHA sampling methods for LBP; applicable occupational safety and health regulations; AHERA asbestos inspection requirements; Quality Assurance (QA) techniques for performing asbestos and LBP sampling and subsequent laboratory testing; and the regulations and guidance as specified in this PWS.

5.13 Senior Archaeologist/ Historian/Architectural Historian

The Senior Archaeologist/Historian/Architectural Historian must (1) Meet the Secretary of the Interior's Professional Qualification Standards for their discipline, 36 CFR Part 61; (2) Have at minimum 5 years supervisory experience performing cultural resources work in the states of California, Nevada, and/or Utah depending on location of the TO; and (3) Have direct experience working with prevailing research

aims in the in those states, demonstrated by a post-graduate dissertation or thesis, peer-reviewed publications, or agency-reviewed National Historic Preservation Act (NHPA) compliance documents.

- Experience in working with federal and/or state laws, regulations and guidelines.

5.14 Senior Biologist/Botanist

The Biologist/Botanist is responsible for assuring regulatory compliance is achieved for all environmental resource related issues in a task order. This individual will provide technical and planning assistance to project staff in early project planning, endangered/threatened flora/fauna efforts and environmental public meetings. The proposed team member must have the following experience and knowledge:

- The Biological Resources Lead must have: (1) Master's degree in biology, zoology, wildlife biology, natural resources, ecology, conservation biology, or environmental biology, or a related field; (2) Five years supervisory experience performing biological surveys; and (3) Must have previously conducted peer reviewed independent fieldwork and reporting, and demonstrated the following:
    - Knowledge of biological principles, policies, and techniques as they apply to project sites across California, Nevada, and Utah.
    - Experience in working with federal and/or state Resource Management laws, regulations and guidelines.

5.15 Project Risk Assessor/ Toxicologist

As part of the project organization, the Contractor shall appoint a Risk Assessor. The project Risk Assessor should have professional knowledge of and applied practical experience in toxicological principles, concepts, regulations, and established methodologies sufficient to perform the full range of duties in hazardous and toxic waste human health and ecological risk assessments; have professional knowledge of and applied practical experience in MMRP explosive hazard assessment principles, practices regulations and methodologies; knowledge of related physical and natural sciences, such as toxicology, chemistry, physics, geology, geophysics, biology, mathematics and statistics; knowledge of standard practices in soil, air, water, and sediment quality and chemical testing procedures; knowledge of site investigative techniques for HTW/MMRP; knowledge of the Technical Planning Process and DQO process; knowledge of applicable Federal and State regulations and guidance related to HTW/MMRP investigations, human health and ecological risk assessments and MMRP hazard assessments. The Project Risk Assessor shall be responsible for data analysis, developing all risk assessments, and all aspects of risk assessment quality control. The Project Risk Assessor shall have, at a minimum, the following qualifications:

- The individual proposed as the Risk Assessor shall have a four-year college degree in toxicology, biochemistry, chemistry, environmental science/engineering, or related field from an accredited institution.
- A minimum of five (5) years of directly related risk assessment experience, including both HTRW and MMRP environmental risk assessment experience.

5.16 Senior UXO Supervisor (SUXOS)

Must be UXO-qualified per the standards identified in DoD Explosives Safety Board (DDESB) Technical Paper 18 (TP-18).

5.17 UXO Safety Officer (UXOSO)

Must be UXO-qualified per the standards identified in DDESB TP-18.

- A minimum of eight years' experience supervising both demolition operations and remedial response actions for UXO activities
- The UXOSO shall require additional training and/or certification for designing and managing project safety requirements, conducting training, performing field safety audits, and documenting findings or results

5.18 UXO Quality Control Specialist (UXOQCS)

The UXOQCS shall be responsible for ensuring high quality in the field without compromising safety and will not perform any removal or investigation tasks. The UXOQCS will report directly within the corporate quality changes, not to site operations personnel. As detailed in DDESB TP-18, dated 1 September 2016, and EM 385-1-97 paragraph I.1.C.01.02 the UXOQCS must have the following qualifications:

- Must be a graduate of the U.S. Military Explosive Ordnance Disposal (EOD) School.
- A minimum of eight years' experience supervising both demolition operations and remedial response actions for UXO activities.
- The UXOQCS shall require additional training and/or certification for designing and managing QC systems or plans, performing QC field audits, and documenting findings or results.

5.19 Optional Services

Exercise of options is at the Government's discretion. If the Government elects to exercise these options, it will provide the Contractor 30 days advance notice of its intent to exercise the options. The Contractor shall not perform these optional services unless the Contracting Officer has executed a contract modification exercising the option and issued a notice to proceed.

PART 6

CONTRACT PERFORMANCE REQUIREMENTS

6.0 Performance Requirements:

Services. The types of environmental remediation services to be provided include, but are not limited to, the following:

Preparation of work plans; studies with associated reports; multiple phases of field investigations; preliminary assessments (PA); site investigations (SI); remedial investigations (RI); feasibility studies (FS); monitoring well installation and sampling; short and long term monitoring/long term operations (LTM/LTO) or Long Term Response Action (LTRA); data management; data interpretation; engineering evaluation and corrective actions; optimization studies; groundwater modeling; geophysical surveys; remediation cost estimates; management of non-hazardous and hazardous investigative derived waste (IDW); environmental and human health risk assessments; risk based remediation; air emission issues including vapor intrusion; surface water discharge, applying for environmental permits, environmental and cultural resource management (including records research, coordination, surveys and reports, and monitoring), remedial design; well abandonment; meetings; public meeting participation; preparation of presentation material both written and visual; hydrological, sediment and soil studies; project reports; engineering support and/or design; value engineering studies; operations and maintenance (O&M) for HTRW sites; energy evaluations for remediation systems; remedial action plans; remedial actions; removal action plans; removal actions; construction support; site closeout/decision documents;

Remedial action activities could include, but are not limited to the following: air sparging; soil vapor extraction; bioremediation including explosive media; landfill capping and collection systems; building remediation and demolition; sediment remediation; air discharge systems; groundwater extraction and injection systems; air stripping; carbon absorption; groundwater treatment systems; incineration of soils; low temperature thermal desorption; mixed waste disposal; solidification of contaminated matter; soil washing; Incidental construction is also included; however, construction activities must be incidental to the ERS work as in many cases, service and construction activities are not severable on environmental remediation projects. Remedial actions may address both regulated and non-regulated toxic substances.

This acquisition includes detection and removal of MEC, sampling and analytical testing of environmental media for munitions constituents (MC), disposal and management of MEC and/or MC. Per FUDS Guidance Memo (April 2017) advanced geophysical classification (AGC) methods must be utilized to the maximum extent practical. Per the DoD information Quality Guidelines (February 10, 2003) the level of quality necessary for influential scientific data requires that such information be capable of being substantially reproduced. This means all geophysical mapping shall be acquired using digital methods that record geophysical measurements and their geodetic locations, unless specially approved otherwise by the Contracting Officer. Analog methods shall not be used in any areas of an MRA or MRS unless approved by the Government or identified in individual Task Order requests for proposals. The Contractor shall perform this work in compliance with all applicable laws and requirements included, but not limited to, those in Section 5 of this PWS.

6.1 Contractor Methods Specific to MMRP

Munitions and Explosives of Concern (MEC) is a term, which distinguishes specific categories of military munitions that may pose unique explosives safety risks and includes: (A) Unexploded ordnance (UXO),

as defined in 10 USC 101(e)(5); (B) Discarded military munitions (DMM), as defined in 10 USC 2710(e)(2); or (C) Munition constituents (MC) (e.g., TNT, RDX) as defined in 10 USC 2710(e)(3), present in high enough concentrations to pose an explosive hazard (10 USC 2710(e)(2)).

Task orders for this contract will require the Contractor to have the resources (personnel and equipment) available to perform Military Munitions Remedial Response and support activities at various project sites during the same period of time. Task Orders may demand field teams to be available for work during declared emergency situations, work outside of normal work hours (e.g. weekends), and major holiday's time frame.

The Contractor shall, depending upon the particular PWS contained in any individual task order, conduct appropriate field surveys, site visits, interviews with knowledgeable persons, prepare required work plans, safety and health plans, land use controls implementation plans, execute remedial actions, support evacuations (if necessary), innovative technology applications, remote sensing to include LiDAR and photogrammetry, chemical laboratory analysis, treatment and disposal of MEC, and long-term management. The Contractor will conduct such work with a primary emphasis on assisting the Corps in compliance with environmental laws and regulations. The work may involve working with other contractors during hazardous/toxic waste remediation projects, archaeological studies, ecological resource studies, public involvement coordination, and other environmental and/or engineering studies. The work may involve but not be limited to disciplines in the following areas: explosive safety, geophysics, chemistry, hazardous/toxic wastes management, occupational and public health and safety, and public affairs specialist.

Contaminants at Military Munitions Response Sites. During MMRP activities, the Contractor may encounter Hazardous, Toxic and Radiological Waste (HTRW) material or non-stockpile Chemical Warfare Materiel (CWM). In such situations, the following shall apply:

HTRW material may be in munitions, containers, landfills, Open Burning/Open Detonation (OB/OD) areas, ground spills, surface water or groundwater. If suspected HTRW of unknown origin and nature is encountered the Contractor shall immediately notify the Contracting Officer and Project Manager. The Contractor shall take necessary actions to protect the safety of his workforce, the public, and environment, and will be expected to comply with ARARs to the maximum extent practicable, considering the exigencies of the circumstances.

During conventional MEC operations, if the Contractor identifies or suspects CWM, the Contractor shall immediately withdraw upwind from the work area and notify the appropriate personnel as identified in each Task Order. The Contractor shall secure the area and provide two Unexploded Ordnance (UXO) Technicians II or above located upwind of the CWM to secure the site until relieved by Explosive Ordnance Disposal (EOD) personnel.

6.1.1 Munitions Constituents (MC) Data Requirements: The Contractor shall propose and conduct MC sampling in accordance with requirements in EM 200-1-15, Technical Guidance for Military Munitions Response Actions. Sampling shall include but not be limited to: environmental media containing MC contaminants of concern, post-detonation sampling is required, or if a localized potential source of MC is discovered during the MEC remedial action (e.g. remnants of a low-order detonation or a dud round that may have been breached).

The work plan will include details and procedures to be used for sample collection and analysis. The Contractor shall be compliant with the UFP-QAPP format as specified by DoD 4715.RR-M-3 (as published as EPA 505-04-900A). Chemical Quality Control (CQC) shall be provided whenever sampling or analysis for chemical constituents is required in order to achieve milestones. The

Contractor shall propose their primary laboratory to include QC and a secondary laboratory (backup) for additional analytical and QA. The laboratory selected by the Contractor shall perform IAW the most recent version of the DoD Quality Systems Manual (QSM), and to also include accreditation per the office of Secretary of Defense Memorandum; DoD Environmental Laboratory Accreditation Program (DoD ELAP), December 2008.

The Contractor shall submit the analytical results to the USACE in a summary table in the Final Report. The results of the data assessment including data qualifiers applied by the validation process shall be summarized in a Quality Control Summary Report (QCSR). The laboratory analytical data reports, with all CQC results, will be in an appendix in the reports. Upon request, preliminary data may be submitted to USACE prior to reports for discussion purposes.

All data shall be submitted as an electronic data deliverable (EDD). The USACE has adopted the SEDD Version 5.2 (Staged Electronic Data Deliverable) (definition) minimum of Stage 2a (content) for FUDS. A SEDD Version 5.2 or higher, compliant with FUDSChem, is the required EDD for all FUDS projects. Contractors shall coordinate data submission requirements with the USACE chemist and the FUDSChem Contractor to ensure all required data are captured and submitted to the FUDSChem website (www.FUDSChem.com). Other DoD components or non-DoD customers may require unique EDD formats. Specific EDD requirements shall be developed for each specific contract or task order. Hard copy (PDF) reports must be Stage IV reports with summary forms for all method quality objectives, required by DoD QSM (most recent), as well as results, chromatographs, and manual integrations completed during analysis that might need to be referenced when additional issues are discovered regarding data quality.

6.1.2 Perform MMRP response services at the project sites: The Contractor shall supply all personnel, tools, equipment, communications, transportation, materials and supervision to integrate, manage, and safely execute military munitions response services at the project site. USACE will provide Right-of-Entry (ROE) for each task order. Military Munitions response services may include, but not be limited to: conducting MEC identification, Munitions Response Site Prioritization Protocol (MRSPP) (on non-military lands), Geophysical mapping, removal of MEC, MC Sampling, suitable clean-up activities, site monitoring, inspection and certification of MDAS and disposal of MEC; perform site remediation (including cleanup of the environment) implementing innovative technology methods. The Contractor shall be responsible for implementing and adhering to all archaeological and/or biological requirements during fieldwork (*e.g.,* monitoring, best management practices, avoidance and minimization measures) to assist USACE in achieving compliance with federal, state, and local environmental laws and regulations.

The following sections provide further clarification for certain services to be provided:

Remedial Action Activities. The Contractor will be expected to perform all planning and field execution detailed in specific task orders. In general, the work may include, but not be limited to, reconnaissance surveys, MEC identification, or environmental media excavation/monitoring.

Health and Safety Support. Contractor shall furnish UXO qualified personnel in order to maintain the health and safety of individuals in areas with potential MEC.

Perform Remedial Action. The Contractor shall be able to provide adequate qualified personnel as specified by each task order to plan and execute remedial response actions for any MEC. Work may include, but not be limited to removal of MEC and associated clean up, packaging MEC for transport, transportation of MEC, disposal of MEC. The Contractor shall support the implementation of on-site remediation. In performing MMRP removal/remedial actions, the Contractor shall adhere to

established procedures and/or guidelines as depicted per Decision Document/Record of Decision and in the PWS of each task order.

Innovative Technology. The Contractor shall innovate their field methods, evaluate and implement work processes, engineering controls, and standard operating procedures (SOPs) to perform in areas that present a challenging work environment, e.g., areas having dense vegetation, and industrial and residential areas (value engineering).

Contractor's Responsibilities. The Contractor shall use adequate personnel with appropriate expertise/discipline to conduct the MEC survey or monitoring as efficiently and economically as possible. Unless otherwise specified, the Contractor shall provide his/her transportation, lodging, and meals while conducting activities under each Task Order.

6.2 Planning Documentation Deliverables; UFP-Quality Assurance Project Plan (QAPP)

The UFP-QAPP (EPA-505-B-04-900A/B) is required for all investigative work. The UFP-QAPP also replaces the Sampling and Analysis Plan (SAP) mandated by the CERCLA, 40 CFR Part 300 Subpart E-Hazardous Substance Response. In addition, the UFP-QAPP template has been required for use by several Government environmental cleanup programs including Formerly Used Defense Site (FUDS) and Military Munition Response Programs (MMRP). For munitions work, the MR-QAPP Toolkit Module 1 and Module 2 as well as the AGC-QAPP templates are applicable. In order to obtain data of sufficient quality to satisfy data quality objectives for legally defensible data, the EPA, and/or state regulators require the preparation of appropriate planning documents for all environmental measurements that will be used for environmental regulatory compliance. The Contractor is responsible for preparing the appropriate planning document (referred herein as UFP-QAPP) that complies with the EPA or other lead regulatory agency regulations, USACE and DoD guidance, the Department of Defense Quality Systems Manual (DOD QSM). All procedures and activities required for the acquisition of data shall be presented in the UFP-QAPP for approval by the USACE technical team, state and EPA authorities, as necessary, prior to the initiation of any fieldwork. In limited circumstances, USACE may grant conditional approval to the UFP-QAPP to permit some work to begin while non-critical deficiencies are being resolved. But for this exception, it is the responsibility of the Contractor performing the work to assure that no environmental data are acquired before the document is approved and received by project personnel.

6.2.1 The UFP-QAPP describes how environmental data collection operations are planned, carried out, and assessed. Accordingly, the purpose of the UFP-QAPP is to document in detail all aspects of the project's field and laboratory activities, including quality assurance (QA) and quality control (QC) activities executed to evaluate them. The UFP-QAPP must provide information in sufficient detail regarding sample design, sample types, sample locations, interpretation scenarios, any field contingencies, sampling methodologies, and other sample handling techniques to collect data that meets the project objectives. Specifics on detection and reporting limits of analytics used to support decisions, analytical methods, sample collection methods, field decision logic, data handling, and application to the Conceptual Site Model (CSM), QC practices, data submittals, and CSM updating activities must also be addressed. Data management strategies must be established within the UFP-QAPP, and appropriately handled during fieldwork to ensure that all data generated is made available to any stakeholders, decision-makers and personnel involved in the work or near real-time decision-making. The UFP-QPP also describes the organization and QA objectives for field sampling and laboratory efforts, and any evaluation and interpretation of the data before its use. The UFP-QAPP serves as a mechanism to formalize the results of planning activities and allows review and approval of all activities conducted as outlined within those planning documents amongst all project stakeholders.

6.2.2 The final decision to modify or revise the UFP-QAPP shall be initiated by USACE with input from any of the project stakeholders. If it is determined that conditions exist such that the technical or data quality objectives of the project cannot be obtained with the original UFP-QAPP, a decision will be made to update the UFP-QAPP. The originator (or designee) shall modify the document and then shall submit the revised version to the same approval authorities that approved the original UFP-QAPP. As with the original UFP-QAPP implementation and approval process, no revisions shall be implemented until project personnel have received the approved UFP-QAPP revisions.

6.2.3 As part of the UFP-QAPP, a Material Handling Plan (MHP) shall be submitted. This plan consists of procedures outlining the safe handling of contaminated material, drummed material, and contaminated liquids in addition to procedures for offsite transportation and disposal of materials. Manifesting, DOT shipping papers, and chain-of-custody procedures should also be included. The plan may also cover importation of clean fill materials for large, grading projects. If the project involves radioactive waste, Low-level radioactive waste, or mixed (comingled) waste, the Contractor shall follow the requirements in EM 1110-35-1, as well as all federal, state, and local regulations.

6.3 Investigation and Field Studies

The Contractor shall perform all planning, fieldwork, analysis, and preparation of any reports as specified in the task order. The investigative services to be provided generally consist of, but are not limited to, performing investigations to determine the contaminant(s) source(s), geology and groundwater conditions, contaminant concentration, contaminant migration, and geotechnical characteristics, as well as any other related tasks. The data collection requirements shall be established in the task orders and be usable for preparation of a remedial investigation, feasibility study, remedy selection and/or development of a remedial design and/or implementation of the response action(s), evaluation, and response including final disposal. Investigation may or may not be performed in conjunction with the remedial/response action, depending on the individual task order. Work may include risk assessments, fate and transport, groundwater modeling, or other techniques to determine the potential risks to human health and the environment. The Contractor shall prepare associated reports as described in each individual task order. The Contractor shall have the capability and experience to provide a wide range of investigative and remedial/response services required for remediation/responses at MMRP and HTRW sites, including, but not limited to:

- Site characterization and evaluation;
- Identification of action levels for regulated hazardous wastes or substances resulting from review of Federal, state and local laws, regulation, guidance, or developed through risk assessments. This shall also include coordination with appropriate regulatory agencies;
- Public Health Evaluations documentation as required for proposed site remediation techniques and alternatives;
- Survey and Mapping, GIS, remote sensing;
- Boring for soil sampling, testing (field and/or laboratory) or other chemical or geotechnical analysis;
- Drilling, installation and development of ground-water monitoring wells, production wells, extraction and injection wells, piezometers or other instrumentation;
- Conducting surface or down hole geophysical surveys;
- Conducting hydrogeological field testing and performing analyses and data interpretation;
- Sampling and sample handling techniques for chemical and geotechnical characteristics;
- Short- and Long-Term Monitoring;
- Evaluation of available response actions, and recommendations of the most environmentally sound and cost-effective alternatives;

- Multi-Agency Radiation Site Survey and Investigation Manual (MARSSIM) for radioactive materials sites
- Preparing and submitting plans (e.g. closure plans, waste analysis plans, Spill Prevention, Control and Countermeasure (SPCC) plans, Underground Storage Tank (UST) Site Assessment plans, Contingency Plans)
- Expert Testimony
- Participation in community education, public involvement, or public affairs activities;
- Chemical analysis of all media for a wide variety of organic and inorganic parameters;
- Non-hazardous, hazardous, mixed and radioactive wastes
- Other chemical, physical, and composite testing
- Characterization and screening for waste-bulking compatibility
- Transportation and disposal of hazardous substances and radioactive materials
- Conventional water and wastewater quality parameters
- Reviewing work products for technical adequacy
- Potentially Responsible Party (PRP) Activities
- Recordkeeping
- Training and documentation required by Federal, state, and local laws and regulations of the most environmentally sound and cost-effective alternatives
- Multi-Agency Radiation Site Survey and Investigation Manual (MARSSIM) for radioactive materials sites
- Endangered species management plans (ESMP);
- Section 106 assessments, impact analyses and recommendations for Determinations of Eligibility and Effect;
- Anthropological and archeological related studies, surveys, monitoring plans, and monitoring; and
- Pre-construction/work cultural resources awareness briefings.

6.4 Remedial Design and Remedial Action

Remedial or removal actions may or may not be performed in conjunction with investigation and engineering support depending on the individual task order. The requirements related to remedial or removal actions will be described in detail in individual task orders. The successful Contractor shall perform all necessary planning, fieldwork, and implementation of the response actions requirements identified. The Contractor selected for this work shall have the capability and experience to perform remedial or removal actions for munitions work, including but not limited to:

- On-Site source control and containment using a variety of technologies
- On-Site treatment using a variety of technologies
- Preparation of Manifest for Signature
- Transportation to and/or storage, treatment, and/or disposal of waste in an off-site facility
- Survey, removal, transportation and disposal of asbestos-containing materials Installation of all support facilities

6.5 Analytical Testing

The Government requires the Contractor to be compliant with the UFP-QAPP format for all work plans prepared under this contract. The Government requires the Contractor to use the most recent version of the Department of Defense Quality Systems Manual for Environmental Laboratories (DoD QSM) for all definitive environmental data. The DoD QSM is available at www.denix.osd.mil under announcements. The laboratory to be used shall hold current accreditation under the DoD Environmental Laboratory Accreditation Program (ELAP). All proposals shall identify the prime laboratory and secondary laboratory(ies) to be used for this type of contract work. The recommendation for acceptability of the laboratory will be at the

discretion of the USACE Project Chemist. If the laboratory fails to meet the project specific requirements at any time, the USACE Project Chemist may request use of the laboratory be discontinued and analytical services be procured from a laboratory which can meet the project specific requirements.

6.6 Engineering and Scientific Technical Support

The Contractor may be required to provide a wide variety of engineering and scientific technical services to support ERS actions. The extent of these services will be described in detail in each individual task order and may include but are not limited to general engineering analysis, environmental engineering, biology, chemistry, physics, geology, geomorphology, history, historic architecture, anthropology, archeology, soil science, forestry, oceanography, cartography, and surveying. The successful Contractor shall perform all necessary planning, fieldwork, and prepare all engineering and scientific documents identified in the task order. These documents shall be representative of industry or Government standards for reports, models, graphic information, maps, Computer Aided Design (CAD) generated drawings produced in accordance with http://www.buildingsmartalliance.org/index.php/ncs, and performance specifications. All required documents produced by the Contractor shall be submitted to the Project Manager for approval.

6.7 Corrective and Preventative Actions, Mitigation, Restoration, and Operations and Maintenance

Corrective and preventative actions, mitigation and restoration may or may not be performed in conjunction with investigation and technical support depending on the individual task order. The requirements related to corrective actions will be described in detail in individual task orders. The successful Contractor shall perform all necessary planning, fieldwork, and implementation of the corrective and preventative action requirements identified. The Contractor selected for this work shall have the capability and experience to perform a wide range of investigations, corrective and preventative actions including, but not limited to:

- On-Site source control and containment using a variety of compliance system technologies;
- Preparation of manifests for customer signature;
- Transportation to and/or storage, treatment, and/or disposal of waste in an off-site facility;
- Installation of compliance equipment and systems (does not include engineering design and major construction);
- Preparation of all applicable Operation and Maintenance (O&M) Manuals and associated training of facility personnel for installed compliance equipment and systems;
- Short- and Long-Term Operation and Maintenance of compliance equipment and systems installed under this Contract for the period specified (inclusive of facilities constructed through other contracts or under other task orders issued under this contract); and
- Problem solving during regulatory compliance response with unexpected conditions or execution problems at the site.

6.8 Compliance with Federal, State, Local and USACE Regulations

Most USACE environmental work falls under USEPA environmental regulations or one of the other resource regulatory agencies such as the National Marine Fisheries Service (NMFS), or other state-level program. As such, each project's lead regulatory agency must be identified, and any unique requirements accommodated. In general, all programs mandate the preparation of planning documents to assure the fieldwork and chemical data quality are supportive of the intended use of the data and final decisions being made.

6.9 Reviews

All deliverables will be reviewed by various levels of the USACE, customers, local, State and Federal regulatory agencies, and other project stakeholders, as appropriate. The Contractor shall respond to all comments on deliverables.

6.10 Project Schedule

The Contractor shall prepare a project schedule for each individual task order. The schedule will be approved by the USACE KO or COR. The status of activities in the schedule will be updated to reflect the actual status. The schedule status will be included with Progress Reports as specified in the Task Order(s). The Progress Report shall discuss target and actual completion dates for each element of activity including project completion and provide an explanation of any deviation from the milestones in the work plan schedule. Where applicable, the Contractor shall establish and prepare a payment milestone schedule for each individual task order. This milestone schedule shall be approved by the Project Manager/COR.

6.11 Travel and Meetings

The Contractor shall perform all travel and attend all meetings necessary for completion of the work required by the task orders. Per Diem (lodging, meals, incidentals and expenses) shall be paid at the current Government rates in accordance with the Joint Federal Travel Regulation (JFTR) per person per calendar day spent in travel status. No per diem will be paid for travel of less than the number of hours stated in the current JFTR. Per diem rate information may be obtained at:
http://www.defensetravel.dod.mil/site/perdiem.cfm
Actual cost of transportation by public conveyance (plane, limited to coach class) shall be paid. Air travel shall (if possible) be planned in advance in order to acquire the best prices available. Privately owned vehicles shall be paid at the current Government mileage rate in accordance with the JFTR.

6.12 Submittals

6.12.1 Meeting Notes: The Contractor shall be responsible for taking notes and preparing the reports of all meetings. Meeting notes shall be prepared in typed form and the original furnished to the Government (within seven (7) workdays after date of meeting) for concurrence and distribution to all attendees. This report shall include the following items as a minimum:

- The date and place the meeting was held with a list of attendees;
- The roster of attendees shall include name, organization, and telephone number;
- Comments made during the meeting and decisions affecting criteria changes shall be recorded in the basic meeting notes; and
- Meeting notes should document any augmentation of written comments.

6.12.2 Technical and Regulatory Reports: Technical and regulatory reports shall be prepared and submitted by the Contractor to the Contracting Officer for each project. All reports shall have a title page/header identifying the Contract and Task Order number; project name; location of project; report type; and date of submittal. The task order statement of work will further specify the submittals for each project. The submittal requirements may vary with the project or site. The Contractor shall provide CD ROM files for all submittals in original editable form (i.e. Microsoft Word or Excel). All native files including graphics, photographs, data acquisition, and files for geophysical quality assurance shall be included in addition to Word and Excel files. All final documents shall be provided as a bookmarked PDF file.

6.12.3 Partial Submittals: Partial submittals will not be accepted without prior approval from the USACE Project Manager.

6.12.4 Revisions and Addenda: Prior to Government approval, review comments shall be incorporated by revising and reissuing affected pages. If major revisions are necessary, the entire document shall be resubmitted. Addenda sheets may be used to make minor changes affecting only a few pages. The affected pages shall have the revision number and date of correction on the bottom right corner of the page. Any changes to the work plan or QAPP shall be submitted under a cover sheet with a list of pages that have been revised. The revised pages the Contractor issues shall cover any additions or changes to the plans or reports. The addendum for the project plan shall be issued prior to the commencement of work for that phase.

6.12.5 Review of Progress and Technical Adequacy: At any appropriate time, representatives of the Contracting Officer may review the progress and technical adequacy of the Contractor's work. Such review shall not relieve the Contractor from performing all contract requirements, except as may be waived by written instructions.

6.12.6 Distribution: The Contractor is responsible for reproduction and distribution of all documents. Documents shall be mailed via regular mail, a carrier service that will provide overnight service (if necessary), or they will be emailed, as specified in the task order. The Contractor shall provide a CD ROM for all documents included in the submittal register. All work products are considered to be products of the Government and distribution will be in accordance with the Request for Services.

6.13 Safety and Health for Field Work Requirements

The Contractor shall review all available site information and develop the necessary documents containing health and safety criteria, procedures, and work practices sufficient to protect on-site personnel, the environment, and potential off-site receptors from hazards particular to each site. The Contractor shall utilize the services of qualified personnel to oversee the development and implementation of required safety and health documents.

6.13.1 Regulatory Requirements: All site investigation, construction, monitoring, operations and maintenance activities and health and safety documents required by this scope of work shall comply with pertinent sections of the following regulations and reflect the following guidance publications:

- Federal Acquisition Regulation, F.A.R. Clause 52.236-13: Accident Prevention;
- U.S. Army Corps of Engineers (USACE), Safety and Health Requirements Manual, EM 385-1-1 (latest revision);
- USACE ER 385-1-95 Safety and Health Requirements for Munitions and Explosives of Concern (MEC) Operations, 31 December 2014;
- Nuclear Regulatory Commission Standards, 10 CFR 20;
- Occupational Safety and Health Administration (OSHA) Construction Industry Standards, 29 CFR 1926, especially 29 CFR 1926.65, and General Industry Standards, 29 CFR 1910; especially 29 CFR 1910.120 - "Hazardous Waste Site Operations and Emergency Response";
- NIOSH/OSHA/USCG/EPA, "Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities", October 1985; and
- Other applicable Federal, State, and local safety and health requirements

6.13.2 Environmental Protection Requirements: The Contractor shall perform all work in a manner that minimizes the pollution of air, water or land and develop contingency measures for cleanup of any spills that may occur during the performance of this Contract. The allowability of spill correction costs incurred by the Contractor shall be determined by the contract clauses. The Contractor shall control noise and dust within reasonable limits or limits established by applicable Federal, state, and local laws and regulations. A site survey may be required to identify any wetlands, endangered species, special habitat or other protected areas such as cultural resource sites. Task Orders may include specific environmental protection requirements.

6.13.2.1 Regulatory Requirements: All site investigation, construction, monitoring, operations and maintenance activities, permits, and other environmental documents required by this scope of work shall comply with pertinent sections of the following regulations and reflect the following guidance publications:

- USACE EM 1110-35-1, "Engineering and Design – Management Guidelines for Working with Radioactive and Mixed Waste" (most current version)
- Department of Transportation Regulations, 49 CFR Subchapters A, B, and C
- Environmental Protection Agency (EPA) Regulations, 40 CFR Subchapter I – Solid Wastes
- USACE EP 415-1-266, "Construction – Resident Engineer Management Guide (REMG) for Hazardous, Toxic, and Radioactive Waste (HTRW) Projects" (most current version)
- Department of Homeland Security, 6 CFR Part 27
- EPA Regulations, 40 CFR Subchapter J – Superfund, Emergency Planning, and Community Right-To-Know Programs
- EPA Regulations, 40 CFR 300 – National Oil and Hazardous Substances Pollution Contingency Plan
- CERCLA, 42 USC 9601 *et seq*.
- RCRA 42 USC 6901 *et seq*.
- Clean Air Act (CAA) 42 USC 7401 *et seq*.
- Safe Drinking Water Act 42 USC 300f *et seq*.
- Clean Water Act 33 USC 1251 *et seq*.
- National Environmental Policy Act 42 USC 4321 *et seq*.
- Endangered Species Act (ESA)
- Marine Mammal Protection Act (MMPA)
- Migratory Bird Treaty Act (MBTA)
- National Historic Preservation Act (NHPA)
- Toxic Substances Control Act 15 USC 2601 *et seq*.
- Atomic Energy Act of 1954, as amended, 42 USC 2011 *et seq*.
- Other applicable Federal, State, and local environmental requirements, as well as laws and regulation

6.13.3 Waste Disposal Requirements: The Contractor shall be in compliance with all federal, state, and local regulations with any waste stream generated at the project sites. Additionally, the Contractor shall follow EM 1110-35-1 and EP 415-1-266 with respect to waste disposal and transportation. The Contractor shall review and/or develop information and implement the necessary manifesting, transportation, and disposal criteria, procedures, and practices sufficient to protect personnel, the environment, and potential receptors from the chemical, physical, and/or biological hazards. All information necessary to file the Annual and/or Biennial reports for each project shall be prepared and submitted by the Contractor. The Contractor is responsible for certification of all manifests and total management of their transportation and disposal procedures including scheduling,

control, and reporting. The task order(s) may include additional manifesting, transportation, and disposal requirements.

6.13.3.1Certificates of Disposal/Destruction/or Placement: USACE requires the Contractor to receive a Certificate of Disposal/Destruction/or Placement for all hazardous wastes, CERCLA remediation wastes, FUSRAP wastes, asbestos, PCBs, or any other regulated waste from the ultimate disposal facility. The certificate must correlate to each shipment of waste to the facility. The Contractor shall submit the certificates to USACE for placement in the project/site file.

6.13.3.2Training: The Contractor's on-site person responsible for certification shall be trained as per the following:

- Hazardous waste operations and emergency response initial training, and annual 8-hour refresher training under OSHA 29 CFR 1910.120. On the job training for Large Quantity Generators (LQG) under 40 CFR 262.17(a)(7), training for permitted Treatment Storage and Disposal Facility (TSDF) under 40 CFR 264.16, and interim status TSDFs under 40 CFR 265.16; and contingency plan requirements under Part 262 Subpart M for LQGs, and Part 264 Subpart D, and Part 265 Subpart D for TDSFs;
- Department of Transportation (DOT) 49 CFR 172.400, Subpart H requires an initial training and recurrent training every three years. DOT training must cover three areas: (1) General awareness/familiarization training; (2) Function-specific training; (3) Safety Training. If a DOT security plan is required, the Contractor shall be in full compliance with DOT regulation, 49 CFR, Subchapter C, Subpart I and this will be a requirement of the contract;
- Asbestos Abatement Training Requirements. The Contractor shall meet the requirements in EP 415-1-266, Section 5-4; and
- Lead Hazard Control (Abatement) Training Requirements. The Contractor shall meet the requirements in EP 415-1-266, Section 5-5

6.13.4 Public Relations: The Contractor shall have personnel qualified to provide public relations support, if required. In the event of the need to provide such support, the task order will be modified to compensate the Contractor for the additional services required. All public relations shall be coordinated through the Government's Project Manager.

6.13.5 Security: In accordance with Engineering Regulation, ER 380-1-18, Section 4, foreign nationals who work on USACE contracts or task orders shall be approved by the HQUSACE Foreign Disclosure Officer or higher before beginning work on the contract/task order. This regulation includes subcontractor employees. The Contractor shall submit to the Sacramento District Contracting Office, the names of all foreign nationals proposed for performance under this contract/task order, along with documentation to verify that he/she was legally admitted into the United States and has authority to work in the U.S.

7.0 Authorities/Technical Direction

The Contractor will take no direction that changes the price, schedule or other terms and conditions of this contract from any government employee other than the Contracting Officer. Changes authorized by the Contracting Officer will be in the form of a written modification, signed by the Contracting Officer, and received by the Contractor prior to acting upon those changes. The Contractor will comply with the changes clause of this contract by notifying the Contracting Officer when the Contractor believes the direction has been given from persons other than the Contracting Officer. Any direction given by any Government employee outside their authority must be reported to the Contracting Officer. CORs are limited to the authorities stated in the COR appointment letters.

8.0 Attachments

The Contractor shall review, utilize and adhere to the attachments below.

Attachment A: Additional Requirements
Attachment B: Transportation and Disposal of Hazardous Materials
Attachment C: FUDSCHEM Requirements
Attachment D: Crosswalk for Optimized UFP-QAPP and MR-QAPP Worksheets
Attachment E: Performance Metrics
Attachment F: Draft Sample QASP
Attachment G: Applicable Regulations and Data Item Descriptions (DIDs)

Attachment A
Additional Requirements

The Contractor shall identify applicable federal, state and local laws and regulations; applicable orders, agreements, or rules; and perform its work in accordance with said authorities. The Contractor shall ensure that all activities performed by its personnel, subcontractors and suppliers are executed in accordance with said authorities. Any incident of noncompliance noted by the Contractor shall immediately be brought to the attention of the COR telephonically and then by written notice. Nothing in this contract shall relieve the Contractor of its responsibility to comply with applicable laws and regulations. The Contractor shall obtain all permits, licenses, approvals, and/or certificates required or necessary to accomplish the work. When the work to be performed requires clearances, such as digging or drilling permits, the Contractor shall obtain such clearances and/or permits prior to any drilling or excavating operations. The Contractor shall comply with all site-specific time and procedural requirements (federal, state, and local) described in the permits obtained. The Army technical experts will also independently review Contractor work to ensure compliance with all applicable requirements.

Specific Requirements for GeoSpatial Data.
Under this IDIQ, each task order will specify the need for geospatial data and system considerations, including surveying and mapping. When specified under a task order, the products shall adhere to, but not be limited to, the basic requirements set forth in the following subsections.

The Government will provide existing Geographic Information System (GIS) data for projects. The Contractor shall utilize the existing GIS data and maintain and manage all new project and geospatial data in GIS IAW ER 1110-1-8156, EM 1110-1-2909, EM 200-1-15, and DID HNC-006 and most recent versions of applicable guidance NOTE: Federal Acquisition Regulations 52.227-17 are applicable to all data the Contractor collects under this PWS. Accordingly, archeological data may not be used for purposes outside the scope of work and may not be released to anyone outside the Contractor's organization without the Contracting Officer's prior written approval.

The GeoDatabase shall be a living repository that is refined throughout the life of the project.

The GeoSpatial data shall include:
- Pre and post-project response action geospatial data analysis using a GIS, including project specific layers to produce figures and maps. All available existing data that is applicable to the project shall be consolidated into the GeoDatabase and analyzed to relay pertinent information to the PDT.

- Analysis of data from the GIS supporting all discussions and conclusions in the Remedial Action Report.

- Management of data from the remedial action that would detail the fieldwork strategies, areas of concern, survey requirements, environmental concerns, milestones and/or other factors that affect product delivery and future action planning.

- Incorporation of layers over maps of the site that identify physical features, material potentially presenting an explosive hazard (MPPEH) and munitions debris (MD) found during the removal. The list of required layers includes, but is not limited to: TOI anomalies, Non-TOI anomalies, TOI-QC Seed, TOI-Validation Seed, MEC positively identified, the source of excavated MD if identifiable, MD that is physically indistinguishable from MEC, purpose of anomaly excavation (as either: TOI, Non-TOI Verification, Non-TOI Validation), mapping method coverages, data-gap areas, cultural resources, and environmental, biological, and socio-economic information identifiable MD.

- Archaeological site location(s), not to be released to the public. Please contact USACE – Sacramento for guidance.

- GIS information collected from other non-governmental sources, incorporated into the Government provided GIS information as is practical in defining the project's existing conditions. Further information on geospatial products, including available data, imagery, GPS data dictionaries, and metadata templates from the Corps of Engineers, shall be defined by USACE.

The Contractor shall provide electronic versions of all geospatial data and report figures for each site in conformance to the most recent versions of the following specifications: ESRI ArcGIS geodatabase in v. 10.x using Spatial Data Standards for Facilities, Infrastructure, and Environment, (SDSFIE) v. 2.6 accompanied by Federal Geographic Data Committee (FGDC) compliant metadata. Data must be delivered in SDSFIE (most current version). For GIS information that is collected from other sources, the Contractor shall incorporate the Government provided GIS information as is practical in defining the project's existing conditions. Further information on geospatial products, including available data, coordinate system, imagery, GPS data dictionaries, and metadata templates from the Corps of Engineers, shall be defined by USACE. All geospatial products shall comply with EM 1110-1-2909. The GIS data and submittals shall be coordinated with the Sacramento District Technical GIS Specialist or contact at the specific District that a task order is applicable to.

When conducting MEC related work, the Contractor shall conduct land surveys utilizing certified land surveyors to ensure the boundary of the MRS is correctly laid out onsite. The survey data points shall be submitted to the Sacramento District Technical GIS Specialist.

In addition, the Contractor may be tasked to assist the government in obtaining property Rights-of-Entry (ROEs) as needed using the Government provided spreadsheet of landowner(s), and ROE documents. Under a task order, the Contractor shall submit all relevant GIS data to the Sacramento District (or contact at the specific District that a task order is applicable to), Technical GIS Specialist, including but not limited to Draft, Draft Final, Final, and any submittals required for back check. The final GIS Project deliverable shall include but is not limited to all documentation, reports, meeting minutes, databases, figures, etc. created, developed or modified under this task order in original/native file and PDF format. This deliverable shall meet QA acceptance prior to payment of final invoice. At completion of the project, all GIS data shall be submitted to the Sacramento District, Technical GIS Specialist (or contact at the specific District that a task order is applicable to).

MEC-Related Guidance

MEC-related guidance includes, but may not be limited to, the following:

- MEC includes UXO, as defined in 10 U.S.C. 101(e)(5); DMM, as defined in 10 U.S.C. 2710(e)(2); or MC, as defined in 10 U.S.C. 2710(e)(3), present in high enough concentrations to pose an explosive hazard.
- MEC distinguishes specific categories of military munitions that may pose unique explosives safety risks. Because MEC being actively managed may be determined to be hazardous waste, 29 Code of Federal Regulations (CFR), Hazardous Waste Operations and Emergency Response, Section 1910.120, may apply.
- Per the guidelines set forth in DoDI 4140.62 Change 1 and DDESB Technical Paper 18, UXO qualified personnel will be responsible for determining the explosive safety status of any material recovered that may pose an explosive hazard (i.e., MPPEH).
- Should MEC be encountered during this response, UXO-qualified personnel will evaluate the explosive hazard and remove it, including by open detonation in place. This response will be

conducted per the CERCLA and the NCP, applicable state and federal regulation, and applicable DoD, U.S. Army policies and procedures.

- Note that radiological screening of all wastes and munition debris is required and an appropriate plan (SOP) shall be submitted for review and approval.
- Removal of all range related and munitions related surface debris larger than two by two inches to be processed as MPPEH for proper disposal.
- Any Certification of Risk Acceptance (CORA) deemed necessary due to discovery of ICM or sub-munitions shall be prepared following Department of the Army (DA) Pamphlet 385-30.
- Adhere to EM 200-1-15.

Attachment B

Transportation and Disposal of Hazardous Materials

Transportation, Storage, Treatment and/or Disposal of Hazardous Materials. The Contractor shall ensure that the transportation, storage, treatment, and disposal of all hazardous material complies with all federal, state, and local laws and regulations. The Contractor shall identify and perform any additional analyses necessary to ensure compliance with transportation, storage, treatment, and disposal requirements. Selection of the approved Treatment, Storage, or Disposal Facility (TSDF) shall be based upon cost-effectiveness, compliance status, regulatory agency input and Contracting Officer approval. If the waste is sent for off-site storage or disposal, the Contractor shall provide to the Contracting Officer at a minimum what is listed below.

Transportation. Transportation to an approved TSDF shall comply with all appropriate Department of Transportation (DOT) regulations. The Contractor shall coordinate the transportation of waste so that transporters arrive on schedule. With each task order proposal, the Contractor shall provide the name, location, point-of-contact, EPA identification, and verification that the transporter is a licensed Hazardous Waste Transporter in accordance with DOT regulations, and Notice of Violation (NOV) status.

Identification of the Disposal Facility. The Contractor shall characterize the waste stream to determine the most cost-effective TSDF facility, which is in compliance with federal, state and local laws and regulations.

Shipment Tracking. The Contractor shall notify the PM/COR if shipments to the TSDF are within the required timeframes and provide all required reports if receipt has been delayed (i.e. discrepancy reports or exception reports).

Tracking of Hazardous and/or Solid Wastes. Hazardous and/or solid wastes shall be removed from the site by the Contractor, within 90 days of generation, and disposed of at a facility approved by the PM/COR.

Certification. An integral part of the certification procedure is proper identification of listed waste streams. The Contractor is responsible for reviewing generator supplied site documentation and submitting as part of the manifest package the logic and/or telecopy relied upon in making the determination. If records or waste history are unavailable, the Contractor shall interview the generator or any available past site workers present when the waste was disposed of in order to ascertain the origin of the waste. If requested by the PM/COR, the Contractor shall draft, for generator signature, a letter to the TSDF certifying that the information listed is based on available historical data.

Manifest Package. The "Manifest Package" shall consist of, at a minimum, all hazardous waste manifests, hazardous material shipping papers, waste profile sheets, the land disposal restriction notification and certification forms, and all other supporting documentation. Supporting documentation shall include waste disposal history, all analytical results, and any other information received in identifying the proper waste code. The Contractor shall also include as part of the supporting documentation, the specific type of inner and outer packaging, markings, labeling, and placards offered to the transporter. The Contractor shall also comply with the requirements below.

Preparation. The Contractor shall have a Regulatory Specialist review the complete manifest package and shipping documentation. The Regulatory Specialist shall certify as correct the Hazardous Waste Manifest,

Waste Profile Sheets, and Land Disposal Restriction Notification and Certification forms and supporting documentation. Once the review is completed, the Contractor shall submit these documents to the KO for approval. The Contractor, as specified in each individual task order, may be required to sign Hazardous Waste Manifests, Waste Profile sheets, Land Disposal Restrictions, and supporting documentation on behalf of the Government.

Submittal. The Regulatory Specialist shall submit to the COR and USACE clients a reproducible copy of the Manifest Package for each particular waste stream. The Contractor shall hold the original "Manifest Package" and make corrections based on COR approval prior to submittal to the generator's representative for signature. Submittals that are disapproved will be returned to the Contractor to be revised. The Contractor shall not transport or ship any wastes prior to PM/COR approval of the Manifest Package. The Government will make every effort to conduct the approval process within five (5) working days after receipt of the Manifest Package.

Designation of Generator. The PM/COR shall identify the generator and signer of Hazardous Waste Manifests, Waste Profile Sheets and Land Disposal Restriction Notifications and Certifications as soon as possible. The Contractor shall submit a fully executed and Complete Manifest Package, including final disposition information, covering all solid and hazardous waste disposal under this contract as an appendix in the Closure Report covering the field activities, as well as the above information and quantities shipped.

Transportation of the Manifested waste. The Contractor's on-site personnel overseeing the Transporter prior to shipment of the hazardous waste shall certify that the packaging, marking, labeling, handling, and placarding of waste complies with federal, state, and local laws and regulations, and it correlates with the waste classification and quantities designated on the manifest prior to the signature of the Transporter. The certification shall be submitted to the PM/COR prior to transport and included as part of the Final Report. The Contractor's on-site person responsible for certification shall be trained as per DOT Regulations.

Tabulated Waste Handling Information. The Contractor shall list all waste materials going off-site including the description, quantity, destination, purpose, the hazardous waste classification, when the waste was manifested, samples taken, results, transportation plans, disposal facility, etc.; if applicable.

On-Site Personnel. The Contractor shall utilize the services of trained and experienced on-site personnel as necessary to ensure that all on-site procedures for transportation and disposal (T&D) of hazardous wastes are implemented and enforced on-site. The Contractor's on-site personnel overseeing the Transporter prior to shipment of the hazardous waste shall ensure that the packaging, marking, labeling, handling, and placarding of waste complies with federal, state, and local laws and regulations and it correlates with the waste classification and quantities designated on the manifest prior to the signature of the Transporter. The on-site person responsible for certification shall be trained as per DOT regulations. The COR shall approve the on-site person’s qualifications. The Contractor, as specified in each individual task order, may be required to sign the Hazardous Waste Manifest on behalf of the Government.

Contractor Responsibilities. The Contractor is responsible for total management of their T&D procedures including scheduling, control, and certification of all manifest submittal. An integral part of the certification procedure is proper identification of listed waste streams. The Contractor is responsible for reviewing generator supplied site documentation and submitting as part of the manifest package the logic and/or telecopy relied upon in making the determination. If records or waste history are unavailable, the Contractor shall interview the generator or any available past site workers present when the waste was disposed of, in order to ascertain the origin of the waste. If requested by the PM/COR, the Contractor

shall draft, for generator signature, a letter to the TSDF certifying that the information listed is based on available historical data.

Government Responsibilities. The Government will review submittals designated for Government approval and approve those that conform to contract requirements. Approval will not relieve the Contractor of the responsibility for any error which may exist, as the Contractor under the requirements of this contract is responsible for ensuring that the quantities, waste characterizations and classifications, and all other details of the waste matches what is on the manifest prior to signature of the manifest.

Subcontractor Coordination. If the subcontractor, consultant, or agent is retained by the Contractor to perform any of the work required by this section of the contract, the subcontract shall include all of this section, with appropriate adjustments for the subcontract, and include the Regulatory Specialist or other authorized employee of the Contractor as the point of contact for the submittal and communications between the subcontractor and the Government. The Contractor shall remain responsible for compliance with this section and all other portions of the Contract and shall sign all certifications required by the contract.

Attachment C

FUDS Chemistry Requirements

Applicable References

Environmental Protection Agency (EPA)

EPA SW-846 *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods*, Third Edition, as updated by Updates I, II, IIA, IIB, III, IIIA, IIIB, IVA, IVB, V, July 2014; https://www.epa.gov/hw-sw846

EPA QA/G-4 *Guidance on Systematic Planning Using the Data Quality Objectives Process,* EPA/240/B-06/001, February 2006 https://www.epa.gov/quality/agency-wide-quality-system-documents#spec

OSWER DIRECTIVE 9272.0-17 Implementation of the Uniform Federal Policy for Quality Assurance Project Plans (UFP-QAPP) at Federal Facility Hazardous Waste Sites https://www.epa.gov/fedfac/directive-92720-17-implementation-uniform-federal-policy-quality-assurance-project-plans-ufp

OSWER GUIDANCE 9272.0-20 Applicability of the Uniform Federal Policy for Quality Assurance Project Plans (EPA505-04-900A) https://www.epa.gov/sites/production/files/documents/oswer_9272.0_20.pdf

Department of Defense (DoD)

DoD UFP-QAPP

DoD: DTIC ADA 427785, EPA-505-B-04-900A

Uniform Federal Policy for Quality Assurance Project Plans, Part 1: UFP-QAPP Manual, Evaluating, Assessing, and Documenting Environmental Data Collection and Use Programs; https://www.epa.gov/fedfac/assuring-quality-federal-cleanups

Uniform Federal Policy for Quality Assurance Project Plans, Part 2A (revised): Optimized UFP-QAPP Worksheets, March 2012 https://www.epa.gov/fedfac/assuring-quality-federal-cleanups

DoD: DTIC ADA 426957, EPA-505-B-04-900B

Uniform Federal Policy for Quality Assurance Project Plans, Part 2B, Quality Assurance/Quality Control Compendium: Minimum QA/QC Activities, Final, Version 1, March 2005;

https://www.epa.gov/fedfac/uniform-federal-policy-quality-assurance-project-plans-training-materials

DoD QSM *Department of Defense Quality Systems Manual For Environmental Laboratories*; Final, Version 5.3, 2019. https://denix.osd.mil/edqw/documents/manuals/qsm-version-5-3-final/

DoD EDQW *General Data Validation Guidelines;* Final rev 1, September 2019. https://denix.osd.mil/edqw/documents/documents/general-data-validation-guidelines-revision-1/

Data Validation Guidelines Module 1: Data Validation Procedure for Organic Analysis by GC/MS, Final rev 1, May 2020. https://www.denix.osd.mil/edqw/home/
Data Validation Guidelines Module 2: Data Validation Procedure for Metals by ICP-OES, Final rev 1, May 2020. https://www.denix.osd.mil/edqw/home/

Data Validation Guidelines Module 3: Data Validation Procedure for Per- and Polyfluoroalkyl Substances Analysis by QSM Table B-15, Final, May 2020. https://www.denix.osd.mil/edqw/home/

U.S. Army Corps of Engineers (USACE)

ER 200-1-7 Environmental Quality, *Chemical Data Quality Management for Environmental Restoration Activities,* Regulation No. 200-1-7, 28 November 2014 https://www.publications.usace.army.mil/Portals/76/Publications/EngineerRegulations/ER_200-1-7.pdf?ver=2014-12-04-161005-340

Laboratory

Laboratories providing services to the Department of Defense, including USACE, must be accredited for the DoD Environmental Laboratory Accreditation Program (DoD ELAP) by a DoD approved Accrediting Body (AB). The DoD QSM v 5.3 is based on ISO/IEC 17025:2005(E), ISO/IEC 17025:2017(E) and The NELAC Institute (TNI) Standards, Volume 1, September 2009. As an element of the DoD ELAP, all laboratories must demonstrate the ability to generate acceptable results from the analysis of proficiency-testing (PT) sample(s), subject to availability, using each applicable method in the specified matrix. DoD ELAP accreditation establishes that laboratories have an established and documented laboratory quality system that conforms to ISO/IEC 17025:2005(E), ISO/IEC 17025:2017(E) and The NELAC Institute (TNI) Standards as implemented by the most recent version of the *DoD Quality Systems Manual for Environmental Laboratories*.

In addition to DoD ELAP accreditation, the laboratory shall hold current accreditation for all appropriate fields-of-testing in the State holding regulatory over-sight for the project. This is usually accomplished by the laboratory holding a current National Environmental Laboratory Accreditation Program (NELAP) accreditation for all appropriate fields-of-testing. However, for projects in States that have certification requirements under a State specific laboratory program, certification under that program is required unless

it contradicts with the DoD ELAP requirements. DoD ELAP shall prevail. Proof of current accreditation / certification for the applicable fields of testing is required prior to the laboratory acceptance of any samples for the project.

A search function for DoD ELAP accredited labs can be located at the following link: https://www.denix.osd.mil/edqw/accreditation/accreditedlabs/

A list of labs certified under NELAP can be located at the following sites: http://www.nelac-institute.org/content/abdb.php

An environmental laboratory either anticipating, or engaged in support, of USACE Sacramento contracts shall notify the prime Contractor and COR immediately of change in status of laboratory operations that may affect on-going compliance with these requirements. The COR may, at any time, conduct audits (including requests for pertinent data or information) that support an environmental laboratory's certifications including compliance with the DoD QSM. If the COR finds the laboratory non-compliant, alternate compliant laboratory services will be utilized, until such time as compliance is again demonstrated.

Before performing environmental testing for USACE Sacramento, the laboratory shall have access to the approved UFP-Quality Assurance Project Plan (UFP-QAPP). If a site specific UFP-QAPP is not available the default data quality indicators (DQIs) are per the most current version of the DoD QSM.

UFP-QAPP

The Uniform Federal Policy for preparation of QAPPs shall be reviewed and used to prepare the site specific UFP-QAPP, to include all applicable information from this guidance as appropriate. The optimized UFP worksheets should be used (EPA, 2012). The web site to download the UFP-Guidance document, an example UFP-QAPP, and the most current worksheets are located at this link https://www.epa.gov/fedfac/assuring-quality-federal-cleanups

Chemistry Electronic Data Deliverables

For all analytical services procured through the Contractor's laboratory or through a subcontracted laboratory under this contract, the laboratory shall report data using the Staged Electronic Data Deliverables (SEDD) format in accordance with the most recently published version (SEDD Specification Document 5.2, Revision 1.1, October 2019). The minimum requirement for the laboratory is the delivery of a SEDD Stage 2a deliverable and a .pdf document file of the laboratory's final data report that includes supporting documentation such as chromatograms and instrument calibrations.
The contract laboratory will upload the SEDD file directly into Formerly Used Defense Site Chemical (FUDSChem) Database, located at www.FUDSChem.com . All SEDD errors relating to laboratory input will be corrected by the contract laboratory. The Contractor shall electronically review the files to check project data quality requirements have been met using the Synectics Automated Data Review (ADR) software program which will accept SEDD files. Information on SEDD and the most current SEDD specification can be obtained by going to the following EPA web site: https://www.epa.gov/clp/sedd-specification-document-52. The following site provides a hierarchal representation of the EDD components for the various SEDD stages: https://www.epa.gov/clp/staged-electronic-data-deliverable-sedd. The EDD stage needed for the project will be determined by the project team based on the phase of the project and any project decisions the data will need to support.

The contractor must submit the approved Final version of the UFP-QAPP to Synectics and develop the project eQAPP for all of the methods/matrices to be analyzed for the project using the FUDSChem eQAPP tools. Support information for FUDSChem database processes is located in the current

FUDSChem User Manual, version 3.0, September 2020.
https://fudschem.com/public/fudschem_user_guide_v3_0.pdf.

The FUDS eQAPP must be consistent with the approved project UFP-QAPP. The eQAPP must accurately reflect all of the analytical criteria in the DoD QSM v. 5.3 and the project laboratory's DoD ELAP accredited method SOPs. All chemistry requirements will pertain to any subcontracted laboratory providing data for this project. The eQAPP shall be approved by the USACE Project Chemist.

PDF Data Package Deliverable

Full data packages shall be supplied by the laboratory in .pdf format (with sections bookmarked for easy searching). The final data submittals shall include documentation to match the laboratory samples with the associated field samples. Minimum reporting requirements shall be as defined in the most recent DoD QSM, (version 5.3). The final .pdf data reports must contain full calibrations. The complete .pdf files shall be included with the final report (on CD/DVD) and shall be searchable for easy retrieval of sample, QC, and calibration data.

Chemistry Data Approval

The contractor will ensure that a qualified chemist reviews the ADR output against the laboratory PDF report, supplementing with manual review where necessary, and will generate a written report summarizing the findings. This report can be generated electronically from FUDSChem with use of the FUDSChem ADR system.

All electronic data submitted by the contract laboratory is required to be error-free, and consistent with the hardcopy data such that a manual data validation of the .pdf laboratory report will be consistent with the automated data review. The contract laboratory, and/or the Contractor, at their cost, will correct any errors identified by the Contractor or USACE.

Support for SEDD file compliance, use of ADR, or FUDSChem log-in questions, please contact Synectics at fuds.support@synectics.net or 916-737-4010 between the hours of 6AM and 6PM Pacific Time. You can also contact the USACE, Sacramento District PDT Chemist.

Verification/Validation Documentation

The required activities per each stage of validation are as follows:

Stage 1 Validation (IDW data)

- A verification and validation conducted only on completeness and compliance of sample specific information and field QC: field sample IDs and target analytes verified against the chain of custody for completeness; sample conditions upon arrival at laboratory noted; sample preservation was appropriate and verified by the laboratory; holding times were met; concentrations and units for limits of detection and quantitation were appropriate; trip blanks, field blanks, equipment blanks, and field duplicates met project requirements for frequency and field quality control.

Stage 2a Validation is based on Sample-Related Quality Control results (100%)

- Stage 1 validation plus evaluation of preparatory batch QC results: method blanks, laboratory control samples, matrix spikes, laboratory duplicates (LCSD, MSD, DUP), surrogates (organics), serial dilutions, post digestion spikes (as appropriate to the method), and any preparatory batch

cleanup QC to assure project requirements for analyte spike list, frequency, and quality control limits are met.

Stage 2b Validation is based on Sample-Related Quality Control and Instrument-Related Quality Control results (100%)

- Stage 2A validation plus evaluation of instrument-related QC results including Instrument Performance Samples: Tunes, breakdown standard check results, peak tailing factors (if applicable), instrument initial calibration summaries (including response factors, standard concentrations and any regression summaries), initial calibration verification and continuing calibration verification summaries, internal standards, initial and continuing calibration blank summaries, confirmation of positive results for second column or detector including percent difference between the two analytical concentrations that are greater than the detection limit, and interference check samples to assure project requirements for frequency and quality control criteria are met.

Stage 3 Validation (minimum of 10%)

- Stage 2B validation plus re-quantification and recalculation of selected samples (i.e., target analytes quantitated from appropriate internal standards) and instrument QC: Appropriate selection of curve fit type, weighting factors, and with or without forcing through zero, continuing calibration verifications and blanks, and percent ratios of tunes and performance checks including calculation of DDT/Endrin breakdown and column peak tailing, and preparatory batch QC results (such as spike percent recoveries and serial dilution percent differences) from instrument response. Instrument response data are required to perform re-quantification and recalculation.

Stage 4 Validation (minimum of 10%)

- Stage 3 validation plus qualitative review of non-detected, detected, and tentatively identified compounds (TICs) from instrument outputs: Chromatograms are checked for peak integration (10% of automated integration and 100% of manual integrations (MI) where chromatograms from before and after MI are examined for cause and justification), baseline, and interferences; mass spectra are checked for minimum signal to noise, qualitative ion mass presence, ion abundances; retention times or relative retention times are within method requirements for analyte identification. Raw data quantitation reports, chromatograms, mass spectra, instrument background corrections, and interference corrections are required to perform review of the instrument outputs.

The contractor shall use an EDD field for the validation flagging so that the code remains with each analyte when transferred into the project data base. The code will be applied to all analytes reported within the reviewed SDG. The available codes are listed below:

Codes for Analytical Data Verification/Validation

Label	CODE
Stage_1_Validation_Electronic_Only[1]	S1VE
Stage_1_Validation_Manual[2]	S1VM
Stage_1_Validation_Electronic_and_Manual[3]	S1VEM
Stage_2a_Validation_Electronic_Only	S2AVE
Stage_2a_Validation_Manual	S2AVM
Stage_2a_Validation_Electronic_and_Manual	S2AVEM

Label	CODE
Stage_2b_Validation_Electronic_Only	S2BVE
Stage_2b_Validation_Manual	S2BVM
Stage_2b_Validation_Electronic_and_Manual	S2BVEM
Stage_3_Validation_Electronic_Only	S3VE
Stage_3_Validation_Manual	S3VM
Stage_3_Validation_Electronic_and_Manual	S3VEM
Stage_4_Validation_Electronic_Only	S4VE
Stage_4_Validation_Manual	S4VM
Stage_4_Validation_Electronic_and_ Manual	S4VEM
Not Validated	NV

Notes:
1. Electronic Only - done on electronic deliverable using automated tools
2. Manual - done on hardcopy by experienced personnel using professional judgment.
3. Manual and Electronic - done on hardcopy and electronic deliverable by experienced personnel using professional judgment.

Other Types of Electronic Non-Laboratory Chemistry Data Deliverables

The intent of FUDSChem is to make all project data available to the project teams for planning and report purposes. To that extent, the following is a list of the types of data that each contractor will be expected to upload directly into FUDSChem. This is not an all-inclusive list but provides a good starting point for the most likely forms of data that will be expected to be uploaded. Other types of data in addition to the analytical chemistry samples, tests and results include the following: spatial information pertaining to sample locations (northing, easting, and elevation), hydrogeological information and physical parameters (groundwater samples - pH, temperature, conductivity, turbidity), monitoring well construction information such as monitoring point elevations, screen intervals, depth to water and other aspects of well construction (sand pack, bentonite seal, etc.), including soil lithology, logged geologic stratigraphy, environmental monitoring data, and unexploded ordnance (UXO) data are to be loaded into FUDSChem using on-line templates or uploaded directly to FUDSChem using comma separated variable (csv) files. Other non-chemical data collected as part of the field efforts such as pressure transducer data used as part of aquifer pump tests/slug tests/oil transmissivity tests, borehole geophysical data, surface geophysical data, and LiDAR, CADD, and ARCGIS Map packages are to be zipped and uploaded to the FUDSChem Library for archival retrieval. Similarly, hard-copy boring, monitoring well construction forms, grain size distribution curves are to be imported into the FUDSChem Library for ready retrieval.

Attachment D
Crosswalk for Optimized UFP-QAPP and MR-QAPP Worksheets

WS#	Optimized UFP-QAPP Worksheets	MR-QAPP Module 1: RI/FS*
1 & 2	Title and Approval Page	Included
3 & 5	Project Organization and QAPP Distribution	Included
4, 7 & 8	Personnel Qualifications and Sign-off Sheet	Included
6	Communication Pathways and Procedures	Included
9	Project Planning Session Summary	Included
10	Conceptual Site Model	Included
11	Project/Data Quality Objectives	Included
12	Measurement Performance Criteria	Included
13	Secondary Data Uses and Limitations	Included
14 & 16	Project Tasks & Schedule	Included
15	Project Action Limits and Laboratory-Specific Detection/Quantitation Limits	Not applicable for MEC – include for MC chemical methods being performed
17	Sampling Design and Rationale	Included – Title changed to "Survey Design and Project Workflow" for MEC; include with no title change for MC
18	Sampling Locations and Methods	Not applicable for MEC – include for MC samples collected
19 & 30	Sample Containers, Preservation, and Hold Times	Not applicable for MEC – include for MC samples collected
20	Field Quality Control (QC)	Worksheet not included for MEC – Field QC procedures included on Worksheet #22; include for MC
21	Field Standard Operating Procedures (SOPs)	Worksheet not included for MEC – SOPs are referenced on Worksheet #22; include for MC
22	Field Equipment Calibration, Maintenance, Testing and Inspection	Included – Title changed to "Equipment Testing, Testing, and Inspection and Quality Control for MEC; no title changes for MC
23	Analytical SOPs	Not applicable for MEC - include for MC
24	Analytical Instrument Calibration	Not applicable for MEC - include for MC
25	Analytical Instrument and Equipment Maintenance, Testing, and Inspection	Not applicable for MEC - include for MC
26 & 27	Sample Handling, Custody, and Disposal	Not applicable for MEC - include for MC

WS#	Optimized UFP-QAPP Worksheets	MR-QAPP Module 1: RI/FS*
28	Analytical Quality Control and Corrective Action	Not applicable for MEC - include for MC
29	Project Documents and Records	Included – Title changed to "Data Management, Project Documents and Records" for MEC; no title changes for MC
31, 32 & 33	Assessments and Corrective Action	Included
34	Data Verification and Validation Inputs	Included – Title changed to "Data Verification, Validation, and Usability Inputs" for MEC; no title changes for MC
35	Data Verification Procedures	Included – Title changed to "Data Verification and Validation Procedures" for MEC; no title changes for MC
36	Data Validation Procedures	Included – Data validation is addressed in Worksheet #35; include for MC
37	Data Usability Assessment	Included

Note: * original table from MR-QAPP Module 1: RI/FS, final, December 2018

Attachment E
Performance Metrics

The performance and subsequently the evaluation of the Contractor shall be based on certain performance metrics. The metrics include safety, quality, schedule, cost, and customer (USACE) satisfaction. Evaluations of the Contractor's performance may be done at any time during the course of this task order. The Contractor will be allowed to provide input to specific performance metrics on this Task Order; however, the Government will make the final determination of specific performance metrics. Performance metrics include but are not limited to the following.

1. Quality:
1.1 Conformance with PWS with minimal Contractor's rework.
1.2 Government reviewers do not find it necessary to make extensive and/or repetitive comments, correspondence or other communication regarding issues of which the Contractor should have thorough knowledge.

1.3 Meeting DQOs/MPCs and providing all appropriate documentation, as per the final UFP-QAPP.
1.4 Corrective Actions implemented as needed to support data quality.
1.5 Identification and recovery of all Validation Seeds that the Government has proven can be identified and recovered.
1.6 Meeting QA requirements as designated in the QASP as necessary to meet the objectives of the UFP-QAPP.

2 Schedule:
2.1 Adherence to the Period of Performance as set forth in each task order.
2.2 Regular tracking, update and reporting of the schedule to meet task requirements.
2.3 Factors that may result in changed schedule are identified to the COR and USACE project manager, in writing, in a timely manner.

3 Controls:
3.1 No unauthorized work. This fixed price contract requires the Contractor to perform the work described in the contract, at the awarded price.
3.2 Monthly progress reports accurate and submitted IAW PWS.
3.3 Factors that may result in the need for a modification to the contract, are identified to the COR and USACE project manager, in writing, in a timely manner.
3.4 All designated interim reporting as per WS 29, necessary to support QC of the data through the life of the project.

4 Business Relations:
4.1 Met contractual obligations.
4.2 The customer (e.g. PDT, including the PM, MM DC Technical Lead, Government OESS, QA geophysicist, OC, and other appropriate PDT members) has overall satisfaction with the work performed.

5 Management of Key Personnel:
5.1 Key personnel were highly qualified, responsive and cooperative.
5.2 Key personnel were able to manage their resources efficiently.
5.3 Key Personnel were knowledgeable and effective in their areas of responsibility.

6 Safety:
6.1 No Class A Accidents.

6.2 No major safety violations.
6.3 No Explosive Safety Violations
6.4 Minor safety violations uncommon.
6.5 No pattern of non-compliance with project safety standards.

Monitoring of the Contractor will be accomplished by file reviews, periodic inspections, random observations, customer/ regulator reviews and complaints. The following table is an example of the government's QA plan when monitoring Contractor's performance:

Table-Performance Metrics for Performance Assessment Record (PAR)

	E	VG	S	M	U
PAR Category: QUALITY OF PRODUCT OR SERVICE (1)					
Performance indicator: Document reviews					
Draft **Plans, Reports, documents and electronic submittals [Plans, documents and reports are considered draft until accepted as final by the Gov**	**All contract-milestone documents accepted as submitted with no significant comments (comments which identify deviations from the PWS rules/regulations, or guidance documents).**	**One or more documents or subplans were accepted as submitted, but exceptions were noted. No significant cmts and resubmissions were not required.**	**One or more documents or subplans required revisions to be resubmitted for acceptance prior to proceeding. Resubmission of an entire document or subplan was not required.**	**One or more documents or subplans required revisions to be resubmitted for approval prior to proceeding. Two backchecks were required on one or more documents before original comments were resolved satisfactorily. Resubmission of an entire document or subplan was required.**	**One or more documents or subplans did not comply with contract requirements, or one or more documents required more than two backchecks before original comments were resolved satisfactorily, or more than one document was rejected.**
Performance indicator: Project Execution					
Process Compliance with UFP QAPP	**Zero Corrective Action Requests (CAR) = NO noncompliance with QAPP requirements**	**Failure to identify and report a failed MQO (no more than 1 CAR, and no impact to overall cost and schedule resulting from the non-compliance)**	**Failure to identify and report up to 2 failed MQO (up to 2 CARs with no impact to overall cost and schedule resulting from the non-compliance) AND no critical noncompliance with QAPP requirements**	**Up to two CARs are issued for critical MPC failures associated with the Contractors performance of work (and not associated with something beyond their control such as variable geology)**	**Three or more CARs are issued for critical MPC failures associated with the Contractors performance of work (and not associated with something beyond their control such as variable geology) OR Repeated noncompliance with QAPP requirements resulted in cost overruns or repeated schedule extensions.**

	E	VG	S	M	U	E
PAR Category: SCHEDULE (2)						
Performance indicator: Timely completion of tasks						
***Final* Plans and Reports, project milestones, T.O. invoices**	**All document submittals and task order milestones and invoices complete and accepted by T.O date, project closed out/final invoice approved ahead of schedule**	**Project closed out/final invoice accepted ahead of schedule**	**Project closed out/final invoice accepted on T.O. date**	**Project closed out/final invoice approved within 30 calendar days after T.O. completion date**	**Project closed out/final invoice approved more than 30 calendar days after T.O. completion date.**	
Project status reports accurate and complete.			**Yes**		**No**	
Performance indicator: Impacts to schedule						
Impacts caused by Contractor or other causes identified, in writing to SPK KO/ PM, in a timely manner to apply acceptable corrective actions.	**Impacts and corrective actions clearly communicated within 24 hours of detection**	**Impacts and corrective actions clearly communicated within 48 hours of detection**	**Impacts and corrective actions clearly communicated within a week**	**Impacts are identified via issuance of CAR for critical MPC failures associated with the Contractor's performance of work, OR Impacts and corrective actions communicated within 1- 2 weeks of detection.**	**Impacts are identified via issuance of CAR for critical MPC failures associated with the Contractor's performance of work, OR Impacts and corrective actions communicated after 2 weeks of detection.**	

	E	VG	S	M	U
PAR Category: COST CONTROL (3)					
Performance indicator: No unauthorized cost overruns					
Unauthorized cost overruns			**No**		**Yes**
Performance indicator: Monthly Reports					
Monthly cost reports accurate	**Submitted on time and accurately describes work and reflects % complete.**	**Submitted late on fewer than 3 occasions but always accurately describes work and reflects % complete.**	**Submitted late 3 or more occasions but always accurately describes work and reflects % complete.**	**Submitted late 3 or more occasions and fewer than 3 reports inaccurately describe work and reflects % complete.**	**Submitted late 3 or more occasions and 3 or more reports inaccurately describes work and reflects % complete.**
Monthly Manhour Exposure Report	**Provided on the first of each month and includes all requested information**	**Provided by the third day of each month and includes all requested information**	**Provided by the fourth day of each month and includes all requested information**	**Provided by the fifth day of a month, for 2 months or less, and includes all requested information.**	**Provided after the fifth day of a month, for more than 2 months, and includes all requested information.**
Performance indicator: Impacts to cost					
Impacts caused by Contractor or other causes identified, in writing to SPK KO/PM, in a timely manner to apply acceptable corrective actions.			**Yes**		**No**

	E	VG	S	M	U
Category: Business Relations (4)					
Performance indicator: Met contractual obligations					
Corrective Actions taken were timely and effective (Refer to CARs issued to Contractor)			**Yes**		**No**
Performance indicator: Professional and Ethical Conduct					
Meetings and correspondences with project delivery team and other stakeholders	**Zero letters of reprimand, grievances, or formal complaints AND one or more unsolicited letters of commendation**		**Zero letters of reprimand, grievances, or formal complaints**	**One letter of reprimand, grievances, or formal complaints that was resolved through negotiation.**	**More than one letter of reprimand, grievance, or formal complaint that was resolved through negotiation or removal of one or more project personnel as a result of a letter of reprimand, grievance, or formal complaint**
Performance indicator: Customer has overall satisfaction with work performed					
Customer survey results for rating period	**4.0-5.0**	**3.0-3.9**	**2.0-2.9**	**1.0-1.9**	**<1.0**
Performance indicator: Personnel competent, responsive and cooperative					
Key personnel competently answer inquiries, responsive, and cooperative	**Always**		**Most Times**	**Contractor makes a statement to the public, a stakeholder, or a regulator that is false, misleading, or is non-compliant with DoD, Army, or USACE policy and which the Government must correct either verbally or in writing.**	**Sometimes. Meaning <50% of the time.**

	E	VG	S	M	U
Category: MANAGEMENT OF KEY PERSONNEL AND RESOURCES (5)					
Performance indicator: Personnel knowledgeable and effective in their areas of responsibility					
Personnel assigned to tasks	**All personnel proposed by Contractor were assigned to project, some personnel were substituted by higher qualified individuals.**		**All personnel proposed by Contractor were assigned to project, OR some personnel were substituted by equally qualified individuals.**		**Not all personnel proposed by the Contractor were assigned to this project, and some personnel were substituted by lesser qualified individuals. Or Government requested, in writing, removal of assigned personnel for poor performance.**
Performance indicator: Personnel able to manage resources efficiently					
Instances when resource management had negative impact on project execution	**0**	**1-2**	**3-4**	5-6	>6

	E	VG	S	M	U
Category: Safety (6)					
Performance indicator: Accidents and Violations					
Accidents, Contractor at fault	**No Class A, B, C or D accidents. Contractor's Safety Program and Plan goes above and beyond the requirement of PAM 385-40.**	**No Class A, B, C or D accidents. Contractor's Safety Program and Plan meets the requirements of PAM 385-40**	**No Class A, B, C accidents and not more than 1 non-explosive related Class D accidents. Contractor's Safety Program and Plan meets the requirements of PAM 385-40**	**No Class A and B accidents. Plus, not more than 1 non-explosive related Class C accident and not more than 1 non-explosive related Class D accidents, or not more than 2 non-explosive related Class D accidents. Contractor's Safety Program and Plan meets the requirements of PAM 385-40**	**Any of the following will result in an "Unsatisfactory" rating: -Any Class A or B accidents. -Any Explosives related accidents -1 non-explosive related Class C and 2 non-explosive related Class D accidents -2 non-explosive related Class C accidents -3 non-explosive related Class D accidents -Contractor's Safety Program and Plan does not meet the requirements of PAM 385-40.**
Major safety violations	**No safety violations**	**No explosive safety violations and no major Non-Explosive related safety violations**	**No explosive safety violations and no major Non-Explosive related safety violations**	**1 explosive safety violation/major Non-Explosive related safety violation**	**2 or more explosive safety violation/major Non-Explosive related safety violations**
Minor safety violations	**No safety violations**	**No explosive safety violations, not more than minor 1 Non-Explosive related safety violation**	**Not more than 2 minors Non-Explosive related safety violations**	**Not more than 3 minors Non-Explosive related safety violations**	**4 or more minor Non-Explosive related safety violations**

The following guidelines are provided for issuing ratings that are subjective in nature, these ratings will be supported by the weight of evidence documented during the government's surveillance efforts:

Exceptional (E): Performance *meets* contractual requirements and *exceeds many* to the Government's benefit. The contractual performance of the element or sub-element being assessed was accomplished with *few minor problems* for which corrective actions taken by the Contractor were *highly effective*.

Very Good (VG): Performance *meets* contractual requirements and *exceeds some* to the Government's benefit. The contractual performance of the element or sub-element being assessed was accomplished with *some minor problems* for which corrective actions taken by the Contractor were *effective*.

Satisfactory (S): Performance *meets* contractual requirements. The contractual performance of the element or sub-element contains *some minor problems* for which corrective actions taken by the Contractor *appear or were satisfactory*.

Marginal (M): Performance *does not meet all* contractual requirements. The contractual performance of the element or sub-element being assessed reflects a *serious problem* for which the Contractor has *not yet identified corrective actions*. The Contractor's proposed actions appear only *marginally effective or were not fully implemented*.

Unsatisfactory (U): Performance *does not meet most* contractual requirements and *recovery is not likely* in a timely manner. The contractual performance of the element or sub-element contains *serious problems* for which the Contractor's corrective actions *appear or were ineffective*.
Classes of Accidents:

- Class A: Fatality or permanent total disability (Government Civilian, Military Personnel, and/or Contractor), or >$2,000,000 property damage.

- Class B: Permanent partial disability or impatient hospitalization of 3 or more persons (Government Civilian, Military Personnel, and/or Contractor), $500,000< $2,000,000 property damage.

- Class C: Lost Workday (Contractor) or Lost Time (Government Civilians), $50,000< $500,000 property damage.

- Class D: $2000 < $50,000 property damage.

Attachment F
Draft QASP Template

1. INTRODUCTION

This Performance-Based Quality Assurance Surveillance Plan (QASP) has been developed pursuant to the requirements of the Performance Work Statement (PWS) for the RI/FS at [[PROJECT NAME]]. This plan sets forth procedures and guidelines that the USACE will use in evaluating the technical and safety performance of the Contractor. A copy of the Performance Metrics is furnished in the PWS so that the Contractor will be aware of the methods that the Government will employ in evaluating their performance on this contract.

2. PURPOSE OF THE QASP

The QASP is intended to accomplish the following:

a. Define the roles and responsibilities of participating Government officials;

b. Define the types of work to be performed with required end results;

c. Document the evaluation methods that will be employed by the Government in assessing the Contractor's performance;

d. Provide the Surveillance Activity Checklists and Corrective Action Request (CAR) forms that will be used by the Government in documenting and evaluating the Contractor's performance; and

e. Describe the process of performance documentation.

f. Outline quality assurance procedures to be employed by the Government during performance of this contract to confirm that the area characterization is conducted utilizing proper procedures and in accordance with the accepted work and safety plans.

3. ROLES AND RESPONSIBILITIES OF PARTICIPATING GOVERNMENT OFFICIALS

The USACE Project Manager:

- Responsible for overall project direction, including technical, contracting and customer-related issues.
- Reviews vouchers and make recommendations to the Contracting Officer for payment action based on completion of designated milestones.
- Reports problems or discrepancies to the Contracting Officer as soon as possible.
- Oversees the implementation of the QASP.
- Reviews Contractor submittals.

- Schedules and provides labor codes and funding for all surveillance activities with the appropriate USACE Supervisor.
- Initiates periodic Contractor evaluations in the Contractor Performance Assessment Reporting System (CPARS).

The USACE Technical Manager:

- Participates in preparation of SOW/PWS to ensure that Technical requirements are adequately addressed.
- Participates in proposal review.
- Coordinates reviews of Contractor submittals for compliance with contract requirements.
- Coordinates reviews of Contractor submittals for compliance with DOD, DA and USACE explosives and safety requirements.
- Coordinates Periodic Inspections of Contractor compliance with DOD, DA, and USACE explosives safety requirements and explosives related procedures described in the UFP-QAPP.
- Conducts or Supports other surveillance activities as required by the project team.
- Supports all on-site QA activities.
- Develops the final Quality Assurance Report.

The USACE Contract Specialist:

- Monitors contract performance.
- Maintains central repository for all QA tasks required for payment.
- Issues all acceptance/rejection statements.

The USACE Ordnance and Explosive Safety Specialist:

- Participates in preparation of SOW/PWS to ensure that Safety requirements are adequately addressed.
- Conducts reviews of Contractor submittals for compliance with DOD, DA and USACE explosives safety requirements.
- Performs periodic inspections of Contractor compliance with DOD, DA, and USACE explosives safety requirements and explosives-related procedures described in the UFP-QAPP.
- Makes unscheduled, periodic site visits as part of the Government surveillance.
- Conducts or Supports other surveillance activities as required by the project team.

- Supports all on-site QA activities.

The USACE Geophysicist (As Assigned)

- Participates in preparation of SOW/PWS to ensure that Geophysical Investigation requirements are adequately addressed.
- Participates in proposal review to evaluate geophysical tasks.
- Reviews Contractor submittals (documents and data) for compliance with contract requirements.
- Coordinates with USACE team members to perform periodic inspections of Contractor's compliance with accepted plans and performance requirements.
- Reviews Contractor's QC documentation to ensure accuracy and final Government acceptance.
- Verification of anomaly selection criteria and /or existing area condition assumptions.

The USACE AGC/SME (As Assigned)

- Participates in preparation of SOW/PWS to ensure the geophysical investigation requirements for AGC are adequately addressed.
- Participates in proposal review to evaluate AGC activities.
- Reviews Contractor submittals (documents and data) for compliance with contract requirements, including but not limited to the dig list, classification results, verification and validation digs.

The USACE Chemist (As Assigned)

- Participates in preparation of SOW/PWS to ensure that MC requirements are adequately addressed.
- Participates in proposal review to evaluate Environmental Sampling and Chemical Analysis tasks.
- Reviews the UFP-QAPP for compliance with standard protocols for Environmental Sampling and Chemical Analysis.
- Conducts reviews of Environmental Sampling and Chemical Analysis Data.
- Conducts random area inspections of Contractor compliance with environmental sampling requirements of the UFP-QAPP. This includes ensuring that the Contractor is utilizing appropriate sampling techniques, collecting the quantity of primary and QA/QC samples as stated in the UFP-QAPP and completing the COC correctly with the accepted analytical methodology.
- Reviews QCP reporting requirements and accepts reported QC measures.

The USACE GIS team member (As Assigned)

- Participates in preparation of SOW/PWS to ensure that GIS requirements are adequately addressed.
- Reviews Contractor's Geospatial Information and Electronic submittals.
- Reviews QCP reporting requirements and accepts reported QC measures

The USACE MM-CX (As Assigned)

- Reviews Explosives Safety Submission (ESS).
- Provides DRU acceptance for the ESP.
- Submits ESP to US Army Technical Center for Explosives Safety (USATCES) for review, Department of the Army acceptance, and submission to the DoD Explosives Safety Board (DDESB) for their review and acceptance.
- Coordinates resolution of USATCES and DDESB comments on ESP.

The USACE Risk Assessor team member (As Assigned)

- Participates in preparation of SOW/PWS to ensure that risk assessment requirements are adequately addressed.
- Participates in proposal review to evaluate risk assessment-related tasks.
- Participates in meetings, as appropriate.
- Evaluates screening levels for environmental media
- Reviews the UFP-QAPP to ensure that planned effort will support the level of risk assessment intended.
- Conducts reviews of human health and ecological risk assessments.
- Reviews QCP reporting requirements and accepts reported QC measures/standards.
- Reviews reports containing risk assessments, to include decision-making regarding results of risk assessments

4. METHODOLOGIES TO BE USED TO MONITOR THE CONTRACTOR'S PERFORMANCE

Even though the Government, through the COR, will be monitoring the Contractor's performance on a continuing basis, the volume of tasks performed by the Contractor makes technical inspections of every task and step impractical. The Contractor's performance will be evaluated by the Contracting Officer using the Performance Metrics for CPARS provided as in this PWS.

Quality Assurance Surveillance Activities

In general, the work will be evaluated in terms of how well the requirements of the contract are satisfied, including the clarity of documentation, and timeliness of scheduled task accomplishment. At the discretion of the COR or the Contracting Officer or Specialist, other Government officials accepted by the Contracting Officer or Specialist may be asked to evaluate a particular deliverable or set of deliverables. Quality Assurance included but is not limited to the following:

Quality Assurance for Geophysics

The Quality Assurance Surveillance Activities for Geophysics are based on the following:

1) Data packages, including all associated QC documentation, are submitted to the Government in lots and IAW EM 200-1-15. The Contractor shall propose the lot size and criteria for designation (i.e. woods vs. open, GPS vs RTS vs line and fiducial, array vs man-portable, etc.) for Government concurrence.

2) QC documentation must be generated IAW a documented QCP and the Performance Requirements Tables, as specified in the PWS. All such documentation will be reviewed as part of this QASP.

3) In the event a requirement is not met, and the Contractor submits the data to the Government, the Contractor shall provide rationales for accepting them. All such rationales will be reviewed as part of this QASP. If the rationales are either insufficient or technically unfeasible or are attempts to justify non-conformances that should be corrected to meet project needs, the submittal(s) will be rejected. Non-conformances identified as part of this QASP will result in the entire lot being returned to the Contractor and require all necessary correction(s) be performed to meet requirements. The Government will issue a CAR to the Contractor to document this action.

4) The USACE Geophysicist shall work with OESS to blind seed the survey area. If the Government resources are lacking, a third-party shall be contracted to emplace verification seeds.

Quality Assurance for Geospatial Data

The Quality Assurance Surveillance Activities for Geospatial Data are based on the following:

1) Data packages, including all associated QC documentation, are submitted to the Government in lots and IAW DID MR-005-07.01.

Quality Assurance for Chemistry

The Quality Assurance Surveillance Activities for Chemistry are based on the following:

1) Data packages, including all associated QC documentation, are submitted to the Government in lots and IAW DID MR-005-10.01.

Quality Assurance for On-Site Ordnance and Explosive Safety/Operations QA

The Quality Assurance Surveillance Activities for On-Site Safety/Operations QA are based on the following:

1) Occupational and explosive safety guidance

2) On-Site Safety Inspections

3) Review of QC documents retained on site during field activities

4) On-Site operations inspections.

5) Working with USACE Geophysicist to blind see the survey area.

5. QUALITY ASSURANCE REPORTING FORMS

The forms used to document surveillance activities include Daily Quality Assurance Report, ENG Form 6048, Form 7, Technical Review Comments, and Memorandums for Record, Nonconformance will be documented on a Corrective Action Request (CAR), see Attachment 1.2. Non-conformances are documented at the discretion of the person conducting the surveillance activity but should be fair and reasonable. Each CAR will be annotated as a Critical nonconformance, Major nonconformance, or Minor nonconformance. CARs will be provided to the Contracting Officer for distribution to the Contractor. The Contractor will be required to correct explosives safety issues immediately. All other CARs will provide a reasonable suspense date for the Contractor to review and take appropriate action, usually 15 calendar days. The Contractor is required to provide written responses to all CARs.

Completed forms will be consolidated and provided to the Contracting Officer at the end of each month for that month's surveillance activities. These forms, when completed, will document the Contractor's compliance with contract requirements and completion of milestone activities. The Contracting Officer will evaluate Contractor performance using the definitions contained in the CPARS and the metrics identified in this PWS.

Attachment 1.1 **Quality Assurance Monitoring Form**
Attachment 1.2 **Corrective Action Request**
Attachment 1.3 **Munitions Response Daily QA Report, ENG Form 6048**

Attachment 1.1

QUALITY ASSURANCE MONITORING FORM

Date: ___/____/_____

Work Task (Milestone/Activity): _____

Survey Period: ___/____/_____ through ___/____/_____
Method of Surveillance: COR Review

Evaluation of Contractor's Performance: _____

Evaluation

Corrective Action Required: ☐ Yes ☐ No

Narrative Discussion of Contractor's Performance During Survey Period:

Discussion

Attachment 1.2

CORRECTIVE ACTION FORM FOR QASP

1) Work Task (Milestone/Activity): _____

2) Survey Period: ___/____/_____ through ___/____/_____

3) Description of the Failure/Deficiency that Precipitated the Corrective Action:

Description

4) Description of the Criterion that the Failure/Deficiency was evaluated against:

Description

5) Personnel Involved in the Identification of the Failure/Deficiency, Determination of the Appropriate Corrective Action, Acceptance of the Corrective Action, and Implementation of the Corrective Action:

Description

6) Description of the Corrective Action that was required:

Description

7) Date/Time of Implementation of the Corrective Action: ___/____/_____

Description

8) Follow-Up Information to Prevent Recurrence of Failure/Deficiency (i.e., Need for Revision of Procedures or Specifications):

Description

9) Personnel Responsible for Follow-Up Work:

Description

10) Planned Date for Follow-Up Surveillance: ___/____/_____

11) Other

Attachment 1.3
Munitions Response Daily QA Report
ENG Form 6048

Form available electronically

ATTACHMENT G

Applicable Regulations and Data Item Descriptions (DIDs)

The Contractor must abide by all applicable regulations, publications, manuals, and local policies and procedures. The most current version of the guidance will apply at all times during project execution. Including, but not limited to:

- DA PAM 385 40 with USACE Supplements, Accident Investigation and Reporting Records.
- ER 200-3-1 Formerly Used Defense Sites (FUDS) Program Policy
- ER 385-1-95 Safety and Health Requirements for Operations and Activities Involving MEC.
- ER 385-1-99, USACE Accident Investigation and Reporting
- EM 200-1-15, Technical Guidance for Military Munitions Response Actions, 30 October 2018
- EM 200-1-4, Risk Assessment Handbook Volumes I and II
- EM 385-1-1 USACE Safety and Health Requirement Manual.
- EM 385-1-97 USACE Explosives Safety and Health Requirements Manual
- Department of Defense Explosives Safety Board (DDESB) Technical Paper 16
- Department of Defense Explosives Safety Board (DDESB) Technical Paper 18
- DOD Manual 6055.09 DOD Ammunition and Explosive Safety Standards.
- DA Pam 385-64 Ammunition and Explosive Standards.
- DOD 4160.21-M Defense Reutilization and Marketing Manual.
- DOD 4160.21-M-1 Defense Demilitarization Manual.
- DOD-EPA Memorandum of Understanding, "Management Principles for Implementing Response Actions at Closed, Transferring, and Transferred (CTT) Ranges", 7 March 2000
- DoD Manual 4715.20, Defense Environmental Restoration Program (DERP) Management
- DoD Instruction 4140.62, Material Potentially Presenting an Explosive Hazard (MPPEH)
- EM CX IGD 06-04 (EP 1110-1-18, Military Munitions Response Process, 3 April 2006)
- 29 CFR 1910.120 Hazardous Waste Operations and Emergency Response – Occupational Safety and Health Administration
- CEMP-CED Memorandum-Trial Period for Risk Management Methodology at Formerly Used Defense Sites (FUDS) Military Munitions Response Program (MMRP) Projects. 18 Mar 2020.
- CEMP-CED Memorandum-Advanced Geophysical Classification (AGC) Implementation at Formerly Used Defense Sites (FUDS) Military Munitions Response Program (MMRP) Projects. 24 Apr 2017.
- DoD Information Quality Guidelines (February 10, 2003)
- Geophysical System Verification: A Physics-Based Alternative to Geophysical Prove Outs for Munitions Response, Environmental Security Technology Certification Program (ESTCP), July 2009, Addendum September 24, 2015
- Uniform Federal Policy for Quality Assurance Project Plans, Munitions Response QAPP Toolkit, Module 1: Remedial Investigation (RI)/ Feasibility Study (FS), update 1, April 2020
- Interim Guidance Document (IGD)-06-04, 3 April 2006
- EPA 540-R-98-03 A Guide to Preparing Superfund Proposed Plans, Records of Decisions, and Other Remedy Selection Decision Documents
- Final User's Manual for the FUDS Record Management Database Revision 1, dated August 2012
- Interstate Technology Regulatory Council (ITRC), Quality Considerations for Multiple Aspects of Munitions Response (QCMR-1), April 2018
- FUDS Docs Quick Start Guide, v1.0, December 2018

In the event of conflict in timelines from the DID and the Table for Period of Contract Schedule in each task order, the Contractor shall notify the COR, PM and the MM DC technical lead for resolution and directed path forward. Regulations and DIDs regularly undergo changes, revisions, upgrading and, on occasions, are superseded by newer regulations and DIDs. It is the responsibility of the Contractor to be current, familiar, and cognizant of any changes, revisions, etc., to any regulations and DIDs during the life of this contract.