**EPA REGION 8 CERCLA OPTIMIZED UFP-QAPP CROSSWALK**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **UFP-QAPP, FSP, SAP for:**  *(check appropriate box)* | | **Entity:**  Click here and type Entity | | **Regulatory Authority**  **and/or**  **Funding Mechanism** | **2 CFR 1500 Grantee/Cooperative Agreements**  **Contracts CFR 48 and 46**  **Interagency Agreement (FFA/CERCLA)**  **EPA Program**  **Court Order/Administrative Settlement/ Order on Consent** |
|  | **Grantee** |
|  | **EPA Contractor** |
|  | **Interagency** |
|  | **EPA Program** |
|  | **Responsible Party** |
| **Document Title**  ***[Note: Title will be repeated in Header]*** | | Click here and type Title | | **EPA QA\_ID #:** | **Review Type/Status:**  **New or Revised**  **Annual Review of Approved** |
| **UFP-QAPP/FSP/SAP Preparer** | |  | | **EPA Technical Reviewer** |  |
| **Period of Applicability**  *(of UFP-QAPP/FSP/SAP)* | |  | | **Date Submitted for Review** | Click or tap to enter a date. |
| **EPA Project Officer**  **EPA Project Manager** | |  | | **PO Phone #**  **PM Phone #** |  |
| **QA Program Reviewer or**  **Approving Official** | |  | | **Date of Review** |  |
| ***Documents Submitted for UFP-QAPP Review***  **(QA Reviewer must complete)*:***  **1. QA Document(s) submitted for review:**   |  |  |  |  | | --- | --- | --- | --- | | **QA Document** | **Document Date** | **Document Stand-alone** | **Document with UFP-QAPP** | | UFP-QAPP |  | Click here and select |  | | SOP(s) |  |  | Click here and select | | FSP |  | Click here and select | Click here and select | | SAP |  | Click here and select | Click here and select |   **2.** Click here and select **Date:** Click or tap to enter a date.      **3. QA document consistent with the:**  WP/SOW/PP? Click here and select  SOW/TO for contracts? Click here and select  **4. QARF signed by R8 QAM:** Click here and select  **Funding Mechanism:** Click here and select  **Amount $ \_\_\_\_\_\_\_\_\_\_\_\_\_** | | | **Instructions for Document Submitter:**   1. A UFP-QAPP written by a Grantee, Interagency Partner, or EPA must submit for QA review: Work Plan (WP), Statement of Work (SOW), Performance Work Statement (PWS), Research Proposal (RP), or Agency Agreement. 2. A UFP-QAPP written by an EPA Contractor must include for review:    1. Task Order Work Assignment/SOW    2. Reference to the contractor’s approved QMP    3. Contract SOW (if QMP has not been approved) 3. The QA Review must determine (with the EPA CO or PO) if a QARF was completed for the environmental data activity described in the UFP-QAPP. 4. A UFP-QAPP written by the Responsible Party must include for review: Court Order/Administrative Settlement    1. Oversight of Responsible Party may utilize the EPA Region 9 Superfund Streamlined Oversight UFP-QAPP. 5. The Field Sampling Plan (FSP) or Sampling & Analyses Plan (SAP) must be submitted with theProject UFP-QAPP or must be a stand-alone document that meets all required UFP-QAPP elements. 6. The UFP-QAPP must be submitted as a complete document that includes all tables, figures, attachments, and appendices. | | | |
| **Crosswalk Instructions:**   1. Within the Comments column of this crosswalk, “**EPA Notes**” are notes, recommendations, or observations that may improve the UFP-QAPP; they are not directives and do not require compliance. “**EPA Comments**” require the UFP-QAPP author to address for compliance with the Intergovernmental Data Quality Task Force, Uniform Federal Policy for Quality Assurance Project Plans Manual, dated March 2012 (UFP-QAPP Manual) and the Intergovernmental Data Quality Task Force, Uniform Federal Policy for Quality Assurance Project Plans, Optimized UFP-QAPP Worksheets, dated March 2012. 2. In addition to addressing concerns in the “**Summary of EPA Comments”** (below), the organization must also respond to the issues identified in the Comments column under “**Organization Response (date)**.” An authorized EPA QA reviewer will respond to the revision(s) under “**EPA Resolved (date)**.”   **Summary of EPA Comments** *(highlight significant concerns/issues)***:** | | | | | | |

| **Element** | **Acceptable**  Yes*/*No*/*NA | **Comments** |
| --- | --- | --- |
| **Worksheets #1 & #2: Title and Approval Page** | | |
| 1. Document title contains identifying information: Site/project name, Site location, Operational Unit (OU), project stage, and CERCLA phase. | Click here and select |  |
| 1. Includes Lead Organization (Federal Facility or PRP), Lead Organization Project Manager (name/title/signature/date), Lead Organization Quality Manager (name/title/signature/date). | Click here and select |  |
| 1. Includes Investigative Organization/Prime Contractor (organization performing EIO activities), Investigative Organization Project Manager (name/title/signature/date), Investigative Organization Quality Officer (name/title/signature/date). | Click here and select |  |
| 1. Includes the names/signatures/dates of the EPA Region 8 Remedial Project Manager and Regional QA Manager (Mary Goldade) **-or-** Remedial Project Manager and Delegated Approving Official. | Click here and select |  |
| 1. State Regulatory Agency, if applicable (name/title/signature/date). | Click here and select |  |
| 1. Other stakeholders, if applicable. | Click here and select |  |
| 1. Plans and reports from previous investigations relevant to this project. | Click here and select |  |
| 1. Identifies guidance used to prepare the UFP-QAPP. | Click here and select |  |
| 1. List dates and titles of QAPP documents written for previous site work, if applicable. | Click here and select |  |
| 1. Identifies any required UFP-QAPP elements or worksheets that are not applicable to the project and provides an explanation for their exclusion. | Click here and select |  |
| 1. Indicates whether the UFP-QAPP is programmatic/generic or project-specific. | Click here and select |  |
| 1. Indicates that the UFP-QAPP will be kept current (i.e., reviewed annually) and will be revised, as necessary, when directed by the approval authority or at least every 5 years. | Click here and select |  |
| **Worksheets #3 & #5: Project Organization and QAPP Distribution** | | |
| * 1. A project organization chart is provided that depicts key personnel, lines of authority, and lines of communication among the regulatory agencies, lead agency, investigative organization/prime contractor, and subcontractors. | Click here and select |  |
| 1. Identifies recipients of controlled copies of the UFP-QAPP. | Click here and select |  |
| 1. Identify reporting relationships between all organizations involved in the project, including the lead organization and all contractor and subcontractor organizations. Identify the organizations providing field sampling, on-site and off-site analysis, and data review services, including the names and telephone numbers of all project managers, project team members, and/or project contacts for each organization. | Click here and select |  |
| 1. Includes a reference to the corresponding EPA-approved Quality Management Plan (QMP), including the QMP title and date. | Click here and select |  |
| **Worksheets #4, #7 & #8: Personnel Qualifications and Sign-off Sheet** | | |
| 1. This worksheet lists key individuals’ project titles or roles; qualifications; and any specialized/non-routine training, certifications, or clearances required by the project, e.g., explosives and ordnance disposal (EOD) technician, Professional Engineer, Certified Professional Geologist, etc. | Click here and select |  |
| 1. Includes space for individuals to sign and date that they have read the UFP-QAPP and will implement it as it is written. | Click here and select |  |
| **Worksheet #6: Communication Pathways** | | |
| 1. The communication pathways must include each step of the project (planning, sampling, analysis, and data decision).   Describes specific issues (communication drivers) that will trigger the need to communicate with other project personnel or stakeholders, including those involving regulatory interfaces, unexpected events, emergencies, non-conformances, and stop-work orders. | Click here and select |  |
| 1. Communication drivers are those activities that necessitate communication between different responsible entities. These drivers can include, but are not limited to:    * + Approval of amendments to the UFP-QAPP      + Initiation, notification and/or approval of real-time modifications      + Notification of delays or changes to field work      + Recommendations to stop work and initiate corrective action      + Reporting of issues related to analytical data quality, including, but not limited to, ability to meet reporting limits | Click here and select |  |
| 1. For each communication driver, includes both the pathway for communication (e.g., email, phone) and timeframe for notification (e.g., within 24 hours, 1 week, etc.). | Click here and select |  |
| 1. The UFP-QAPP includes the necessary contract information (i.e., phone numbers or email addresses) for each communication driver. | Click here and select |  |
| **Worksheet #9: Project Planning Session Summary** | | |
| 1. Provides a worksheet for each internal and external project planning session (including phone, web-conferencing, and/or face-to-face). | Click here and select |  |
| 1. Identifies all scoping session participants (project managers, information generators, information reviewers, QA personnel, data users, and all other stakeholders). | Click here and select |  |
| 1. Identifies all electronic data deliverables (EDDs) that will be submitted for the project and the required fields for each EDD, using the Region 8 Program Specific Format (e.g., SCRIBE for SEMD as described in the DMP). | Click here and select |  |
| 1. Includes a description of the project’s scoping decisions and action items. | Click here and select |  |
| 1. Additional worksheets were used during a scoping session and are attached to the UFP-QAPP (see UFP-QAPP Manual Section 2.5.1, Figures 9, 10, and 11, for examples of additional worksheets). | Click here and select |  |
| 1. The UFP-QAPP documents the environmental decisions to be made and the level of data quality needed to ensure that those decisions are based on sound scientific data. | Click here and select |  |
| **Worksheet #10: Conceptual Site Model** | | |
| 1. Background information/site history is provided. | Click here and select |  |
| 1. Sources of known or suspected hazardous waste. | Click here and select |  |
| 1. Known or suspected contaminants or classes of contaminants. | Click here and select |  |
| 1. Primary release mechanism, secondary contaminant migration, and fate and transport considerations. | Click here and select |  |
| 1. Potential receptors and exposure pathways. | Click here and select |  |
| 1. Land use considerations. | Click here and select |  |
| 1. Key physical aspects of the site (e.g., site geology, hydrology, topography, climate). | Click here and select |  |
| 1. Current interpretation of nature and extent of contamination to the extent that it will influence project-specific decision-making, data gaps, and uncertainties associated with the Conceptual Site Model. | Click here and select |  |
| **Worksheet #11: Project/Data Quality Objectives** | | |
| 1. Provides the project quality objectives (DQOs) or data quality objectives (PQOs) using a systematic planning process, such as EPA’s Data Quality Objectives Process (EPA-QA/G-4, February 2006) or the U.S. Army Corps of Engineers’ Technical Project Planning Process (USACE EM 200-1-2, 29 February 2016) document. | Click here and select |  |
| 1. **States the problem:** The problem statement should be consistent with information contained in UFP-QAPP Worksheet #10. | Click here and select |  |
| 1. **Identifies the goals of the study:** Identifies specific study questions and defines alternative outcomes; explains how the data will be used to answer questions and choose among the stated alternatives (must be more specific than “nature and extent of contamination”). | Click here and select |  |
| 1. **Identifies information inputs:** Specifies the types of data that are required to fill gaps in the Conceptual Site Model; explains in specific terms how all data will be used; identifies information inputs consistent with decisions made during project scoping consistent with UFP-QAPP Worksheet #9. Examples of information inputs include historic analytical data and published information on geology, climate, population distributions, endangered species, etc. | Click here and select |  |
| 1. **Define the boundaries of the study:** Specifies the target (statistical) populations and characteristics of interest; defines spatial/temporal limits and the scale of inference (i.e., which populations will be represented by which data); and develops the focused list of target analytes. | Click here and select |  |
| 1. **Develop the analytic approach:** Defines the parameter(s) of interest, specify the types of inference and which sample results will be used to support which decisions. Uses “If…, then…” statements for decision problems and/or the estimator and estimation procedure for estimation problems. | Click here and select |  |
| 1. **Specify performance or acceptance criteria:** Specifies probability limits for decision errors for projects that involve hypothesis testing and/or specifies performance (new data) or acceptance (existing data) criteria for estimations or other analytic approaches. | Click here and select |  |
| 1. **Specify performance or acceptance criteria:** Data quality indicators (DQIs) (e.g., precision, accuracy/bias, representativeness, comparability, completeness, and sensitivity) are defined for each sample matrix and analytical group/method. | Click here and select |  |
| 1. **Develop the detailed plan for obtaining data:** Briefly explains the rationale for the sampling design; refers to subsequent worksheets for sampling design details (i.e., Worksheet #17) and analysis design requirements (i.e., Worksheets #19/30, #20, and #24-28). | Click here and select |  |
| 1. Assesses what analytical resources will meet the analytical needs (Regional laboratory, CLP, direct contract, subcontract), including any special requests or modified analysis for the Regional laboratory or CLP. | Click here and select |  |
| **Worksheet #12: Measurement Performance Criteria** | | |
| 1. Provides a worksheet for each type of field or laboratory measurement. For analytical methods, criteria are determined for each matrix, analytical group or method, and concentration level. | Click here and select |  |
| 1. Each worksheet provides quantitative measurement performance criteria in terms of precision, accuracy/bias, and sensitivity. | Click here and select |  |
| **Worksheet #13: Secondary Data Uses and Limitations** | | |
| 1. Identifies sources of secondary data (sampling and testing data collected during previous investigations, historical data, background information, interviews, modeling data, photographs, aerial photographs, topographic maps, and published literature). | Click here and select |  |
| 1. Discusses the rationale for using this data and explains its relevance to the project. | Click here and select |  |
| 1. Identifies factors affecting the reliability of data and limitations on data use, including how limitations will be communicated to all end data users and stakeholders. | Click here and select |  |
| **Worksheets #14 & #16: Project Tasks & Schedule** | | |
| Provides a summary of key on-site and off-site activities, the person or group responsible for each activity, planned start and end dates, deliverables to be produced, and deliverable due dates (may be presented in a table or Gantt Chart). | Click here and select |  |
| **Worksheet #15: Project Action Limits and Laboratory-Specific Detection/Quantitation Limits** | | |
| 1. Provides a worksheet for each type of field or laboratory measurement; criteria are determined for each matrix, analytical group or method, and concentration level. | Click here and select |  |
| 1. For each critical contaminant/analyte of concern, lists the Project Action Limit (actual numerical criteria) and the reference upon which it is based (such as EPA RSL, MCLs, or other ARARs, risk assessment screening levels, etc.). If critical contaminants/analytes of concern have not yet been identified, provides target analytes and their screening levels for each analyte group and the reference upon which they are based. | Click here and select |  |
| 1. Provides laboratory-specific detection and quantitation limits for comparison to Project Action Limit. Laboratory provides documentation that demonstrates precision and bias at the laboratory-specific quantitation limit (at lowest calibration standard). | Click here and select |  |
| 1. In cases where a Project Action Limit is less than the laboratory quantitation limit, the analyte is identified and the UFP-QAPP includes an explanation of how the analyte results will be evaluated | Click here and select |  |
| **Worksheet #17: Sampling Design and Rationale** | | |
| 1. Provides design of the sampling/collection network, including physical and temporal boundaries, basis for dividing the site into decision units, basis for number and placement of samples, sample location maps or diagrams, alternate locations, process for determining sample locations in the field (if applicable), and field condition contingencies. | Click here and select |  |
| 1. Provides a discussion regarding the basis for selection of probability-based designs vs. judgmental designs. | Click here and select |  |
| **Worksheet #18: Sampling Locations and Methods** | | |
| 1. Provides a table with the type and number of samples required for collection (e.g., surface soil, subsurface soil, or groundwater), preferably by individual Sample ID and collection frequency (if applicable). Sample groups may be listed in a single row. | Click here and select |  |
| 1. Identifies each sample type using matrix codes and descriptions consistent with Refence Values or Valid Values defined for the project (e.g., SCRIBE). | Click here and select |  |
| 1. Uses existing Station IDs where available for the planned location (matched by latitude/longitude). | Click here and select |  |
| 1. Provides the sample collection method for each sample or sample group and references the applicable sampling SOP. | Click here and select |  |
| 1. Referenced sampling SOPs are attached to the UFP-QAPP. | Click here and select |  |
| 1. Provides the analytes or analyte groups for each sample or sample group. | Click here and select |  |
| **Worksheets #19 & #30: Sample Containers, Preservation, Hold Times and Analytical Services** | | |
| 1. Provides a separate worksheet for each laboratory used. Includes the laboratory name, sample receipt address, point of contact, phone number, and email address. | Click here and select |  |
| 1. Lists the required accreditation certificates for each laboratory. Laboratory accreditation certificates are attached to the UFP-QAPP. | Click here and select |  |
| 1. For each analyte/analyte group, identifies the sample matrix, method/SOP number, and accreditation expiration date. | Click here and select |  |
| 1. For each analyte/analyte group, identifies the required container(s) (number, size, and type per sample), preservation, preparation holding time, analytical holding time, and data package turnaround. | Click here and select |  |
| 1. If applicable, identifies a backup laboratory that will be used if the primary laboratory cannot be used. Note that if a backup laboratory is identified, all applicable UFP-QAPP worksheets (e.g., Worksheets #15, #23, #24, #25, #28, etc.) must include the required information for the backup laboratory. | Click here and select |  |
| **Worksheet #20: Field QC Summary** | | |
| For each matrix and analyte/analytical group pair, lists the number of primary field samples to be collected, the type and number of field QC samples to be collected, and the total number of analyses (field and field QC samples combined) that will be sent to the analytical laboratory. | Click here and select |  |
| **Worksheet #21: Field SOPs** | | |
| Lists SOPs (including title, revision, date, and originating organization) containing detailed procedures for all field activities, including sample collection; sample preservation; equipment use; equipment cleaning and decontamination; equipment testing, maintenance, and inspection; and sampling handling and custody. Also notes any project-specific options or modifications to an SOP, if applicable. | Click here and select |  |
| **Worksheet #22: Field Equipment Calibration, Maintenance, Testing, and Inspection** | | |
| 1. Provides a list of all in-situ testing instruments and field equipment. | Click here and select |  |
| 1. Documents the procedures for calibrating, maintaining, testing, and/or inspecting all field equipment. | Click here and select |  |
| 1. Identifies the individual(s) responsible for field equipment. | Click here and select |  |
| 1. Includes frequency, acceptance criteria, and corrective action or references and attaches the relevant SOP or manufacturer’s instructions. | Click here and select |  |
| **Worksheet #23: Analytical SOPs** | | |
| 1. Lists SOPs (including title, revision, and date) containing the specific sample preparation and analytical procedures to be used to perform on-site or fixed laboratory analysis for each matrix/analytical group and indicates whether the procedure produces screening or definitive data. Also notes any project-specific options or modifications to an SOP, if applicable. | Click here and select |  |
| 1. Referenced analytical SOPs are attached to the UFP-QAPP. | Click here and select |  |
| **Worksheet #24: Analytical Instrument Calibration** | | |
| 1. Identifies all analytical instruments, whether used in the field or the laboratory. | Click here and select |  |
| 1. For each instrument, identifies the calibration procedure, calibration range, frequency, acceptance criteria, corrective action, title/position responsible for corrective action, and SOP reference. | Click here and select |  |
| **Worksheet #25: Analytical Instrument and Equipment Maintenance, Testing, and Inspection** | | |
| Lists each analytical instrument/equipment that requires maintenance, testing, and inspection activities; lists the specific maintenance, testing, and inspection activity; frequency; acceptance criteria; corrective action; title/position responsible for corrective action; and reference for those activities (e.g., SOP, laboratory quality manual). | Click here and select |  |
| **Worksheets #26 & #27: Sample Handling, Custody, and Disposal** | | |
| 1. Lists all activities from sample labeling through sample disposal, indicating the organization and title/position responsible for each activity and the SOP reference. | Click here and select |  |
| 1. Referenced SOPs are attached to the UFP-QAPP. | Click here and select |  |
| 1. Example forms, sample labels, and chain-of-custody documentation are attached to the UFP-QAPP. | Click here and select |  |
| **Worksheet #28: Analytical Quality Control and Corrective Action** | | |
| 1. Provides a separate worksheet for each sample matrix, analytical method, and concentration level. | Click here and select |  |
| 1. Identifies the type, number and frequency of QC sample collection (field) or QC sample analysis procedure (laboratory), along with the required QC statistically derived limits/acceptance criteria for each analyte, corrective action, and title/position responsible for corrective action. | Click here and select |  |
| 1. Information that is duplicated in Worksheets #12, #15, and #28 is consistent. | Click here and select |  |
| **Worksheet #29: Project Documents and Records** | | |
| 1. The UFP-QAPP acknowledges that projects records will meet the CERCLA records requirements. | Click here and select |  |
| 1. Provides a comprehensive list of the documents and records required for this project. | Click here and select |  |
| 1. Describes the generation, verification, and storage location/archival of hard-copy and electronic information produced during the project for sample collection and field records. | Click here and select |  |
| 1. Describes the generation, verification, and storage location/archival of hard-copy and electronic information produced during the project for project assessments; attaches assessment checklists or other standardized forms to the UFP-QAPP. | Click here and select |  |
| 1. Describes the generation, verification, and storage location/archival of hard-copy and electronic information produced during the project for laboratory records. | Click here and select |  |
| 1. Provides requirements for laboratory data deliverable contents consistent with the expected stages selected for data validation (see EPA 540-R-08-005). | Click here and select |  |
| 1. Describes data handling equipment and procedures used to process, compile, and analyze data; provides a complete list of computer hardware and software needs; and specifies requirements such as information security controls for ensuring quality of electronic information (utility, objectivity, and integrity). | Click here and select |  |
| 1. Provides electronic data deliverable (EDD) requirements for analytical deliverables and field documentation consistent with project-specific requirements (e.g., SCRIBE-compatible EDDs, as described in the DMP for SEMD); describes the process for ensuring that EDDs are provided to EPA Region 8 and identifies individual(s) responsible for EDD submittals. | Click here and select |  |
| **Worksheets #31, #32 & #33: Assessments and Corrective Action** | | |
| 1. Lists the required number, frequency, and type of assessments with approximate dates and title/position and organization of everyone responsible for performing these assessments. | Click here and select |  |
| 1. Discusses one or more of the following types of assessments: peer reviews, field assessments, technical audits, surveillance, management system reviews, readiness reviews, quality system audits, performance evaluations, and data quality assessments. | Click here and select |  |
| 1. Discusses the authority and independence of the individual(s) performing each assessment in relation to those being assessed. | Click here and select |  |
| 1. Discusses where assessment findings will be documented and how the assessment findings will be communicated to all key project staff, state, and EPA personnel responsible for the study oversight. Includes deliverable due dates. | Click here and select |  |
| 1. For each assessment listed, provides the title/position and organization of the individual(s) responsible for responding to assessment findings, assessment response documentation, and timeframe for response. | Click here and select |  |
| 1. For each assessment listed, identifies the responsibility for implementing the corrective action. | Click here and select |  |
| 1. For each assessment listed, identifies the responsibility for monitoring corrective action implementation. | Click here and select |  |
| **Worksheet #34: Data Verification and Validation Inputs** | | |
| Identifies the planning documents (e.g., UFP-QAPP, contract, field SOPs, laboratory SOPs), field records, and laboratory records that will be used during data verification and validation; indicates whether each item will be used for verification (completeness), validation (conformance to specifications), or both. | Click here and select |  |
| **Worksheet #35: Data Verification Procedures** | | |
| 1. Lists all records that will be used for data verification (e.g., field records, laboratory records, assessment reports, corrective action reports, etc.). | Click here and select |  |
| 1. For each record reviewed, references the document containing the requirements, process description, and responsible person/organization. | Click here and select |  |
| **Worksheet #36: Data Validation Procedures** | | |
| 1. Summarized the procedures that will be used to validate project data, including specific SOP references, if applicable. | Click here and select |  |
| 1. Referenced data validation SOPs are attached to the UFP-QAPP, if applicable. | Click here and select |  |
| 1. Validation procedures define the validation stage code and validation approach (e.g., percent of data packages to be validated, percent of raw data to be reviewed, percent of results to be recalculated, and any differences by matrix). | Click here and select |  |
| 1. Data qualifiers that will be applied during data validation are listed and defined (e.g., U, UJ, J +/-, X, R). Note that data qualifiers applied during data validation are different than laboratory qualifiers that appear in the laboratory data package (i.e., laboratory qualifiers should not be considered final or absolute). | Click here and select |  |
| 1. Validation checklists that will be used by the data validator are attached to the UFP-QAPP. | Click here and select |  |
| **Worksheet #37: Data Usability Assessment** | | |
| 1. Describes the procedures for performing the data usability assessment, including interim steps and statistics, equations, and computer algorithms to be used to assess the data. | Click here and select |  |
| 1. Describes the documentation that will be generated during the usability assessment (e.g., data usability report). | Click here and select |  |
| 1. Identifies the individual(s) responsible for reconciling the data to the project DQOs and preparing the data usability report. | Click here and select |  |
| 1. Describes how usability assessment results will be presented so they identify trends, relationships (correlations), deviations, and anomalies. | Click here and select |  |
| 1. Describes how each data quality indicator (DQI) (i.e., precision, accuracy/bias, representativeness, completeness, comparability, and sensitivity) will be calculated and evaluated, including the QC activity that will be used to assess each DQI and any applicable formulas and methods. | Click here and select |  |
| 1. Provides a completeness goal for the project. | Click here and select |  |
| 1. Describes the circumstances under which data would be rejected (i.e., data that do not meet measurement performance criteria and project DQOs) and removed from the final data set. Discusses resolution of potential data gaps. | Click here and select |  |
| 1. Discusses how limitations in the final data set will be documented and communicated to all end data users and stakeholders. | Click here and select |  |
| 1. Indicates that the data usability report will discuss whether DQOs have been met and whether data is of sufficient quality and quantity to be used for its intended purpose and to make decisions about the site. | Click here and select |  |