USEPA
REGION 4 SUPERFUND & EMERGENCY MANAGEMENT DIVISON
QAPP CHECKLIST/ FUND-LEAD UNIFORM FEDERAL POLICY (UFP) PROJECT

QAPP Title:
Project Location:
Originating Organization:
QAPP Date:
Receipt Date:
Review Date:
Reviewer:
EPA Regional Project Manager:
EPA Project Officer/Contracting Officer's Representative:

Topic covered in accordance with requirements: □ Yes □ No

□ Yes - Indicates that the topic/element was covered in sufficient detail to meet EPA's requirements as specified in this checklist.

□ No - Indicates that the topic/element covered in the QAPP does not provide sufficient detail to meet EPA's requirements or the topic is entirely missing from the document.

Element	Meets Requirements □ Yes □ No
QAPP Worksheet #1 & 2: Title and Approval Page	
Project Identifying Information: Site name/project name, Site location/number, Contract/Work assignment number	□ Yes □ No
Lead Organization (Federal department, agency, or program; usually the entity that owns the facility or installation), Lead Organization Project Manager (name/title/signature/date), Lead Organization Quality Manager (name/title/signature/date).	□ Yes □ No
Federal Regulatory Agency (name/title/signature/date) – USEPA Region 4 Remedial Project Manager/Designated Approving Official -or- Remedial Project Manager and Quality Assurance Manager	□ Yes □ No
State Regulatory Agency (name/title/signature/date)	□ Yes □ No
Other stakeholders as needed, including the	□ Yes □ No

organization preparing the QAPP	
Plans and reports from previous investigations relevant to this project	□ Yes □ No
QAPP Worksheet #3 & 5: Project Organization and QAPP Distribution	
Organization chart provided: Depicts key personnel, lines of authority, and lines of communication among the lead agency, prime contractor, subcontractors, and regulatory agencies	□ Yes □ No
Documents recipients of controlled copies of the QAPP (use asterisks on chart to designate QAPP recipients)	□ Yes □ No
QAPP Worksheet #4, 7, and 8: Personnel Qualifications and Sign-off Sheet	
Identifies key project personnel for organizations performing tasks (such as prime contractor and subcontractors): individuals' project titles or roles, qualifications, and any specialized/non-routine training, certifications or clearances required by the project, signatures/dates (signatures indicate personnel have read and agree to implement the QAPP as written)	□ Yes □ No
QAPP Worksheet #6: Communication Pathways	
Documents specific issues (communication drivers) that will trigger the need to communicate with other project personnel or stakeholders; ensures procedures are in place for providing the appropriate notifications and generating the appropriate documentation when handling important communications	□ Yes □ No
QAPP Worksheet #9: Project Planning Session Summary	
Provides a worksheet for each internal and external project planning session (including phone, web-conferencing, and/or face-to-face)	□ Yes □ No
Each worksheet provides record of participants, key decisions or agreements reached, and action items (may attach meeting minutes)	□ Yes □ No
Identifies all electronic data deliverables (EDDs) that will be submitted for the project	□ Yes □ No

and the required fields for each EDD, using the Region 4 Format for EQuIS Data Processor (EDP)	
QAPP Worksheet #10: Conceptual Site Model	
Background information/site history (may already have been presented in Executive Summary)	□ Yes □ No
Sources of known or suspected hazardous waste	□ Yes □ No
Known or suspected contaminants or classes of contaminants	□ Yes □ No
Primary release mechanism, secondary contaminant migration, and fate and transport considerations	□ Yes □ No
Potential receptors and exposure pathways, land use considerations	□ Yes □ No
Key physical aspects of the site (e.g. site geology, hydrology, topography, climate)	□ Yes □ No
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	□ Yes □ No
QAPP Worksheet #11: Project/Data Quality Objectives	
Provides the project quality objectives or data quality objectives 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 Planning Process (USACE EM 200-1-2, August 1998) document	□ Yes □ No
States the problem consistent with information contained in QAPP Worksheet #10	□ Yes □ No
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")	□ Yes □ No
Specifies the types of data that are required to fill gaps in the Conceptual Site Model;	□ Yes □ No

explains in specific terms how all data will be used; identifies information inputs consistent with decisions made during project scoping consistent with QAPP Worksheet #9	
Specifies the target (statistical) populations and characteristics of interest; defines spatial/temporal limits and the scale of inference - which (statistical) populations will be represented by which data; develops focused list of target analytes	□ Yes □ No
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	□ Yes □ No
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	□ Yes □ No
Briefly explains the rationale for the sampling design; refers to subsequent worksheets for sampling design details and analysis design requirements	□ Yes □ No
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.	□ Yes □ No
QAPP Worksheet #12: Measurement Performance Criteria	
Provides a worksheet for each type of field or laboratory measurement; for analytical methods, criteria are determined for each matrix, analyte, and concentration level -or- **If using Regional laboratory/Contract Laboratory Program (CLP), cites the current Laboratory Services Branch Laboratory Operations and Quality Assurance Manual and/or relevant CLP Statements of Work.**	□ Yes □ No
Each worksheet provides quantitative measurement performance criteria in terms of	□ Yes □ No

precision, bias, and sensitivity -or- **If using Regional laboratory/Contract Laboratory Program (CLP), cites the current Laboratory Services Branch Laboratory Operations and Quality Assurance Manual and/or relevant CLP Statements of Work.**	
QAPP Worksheet #13: Secondary Data Uses and Limitations	
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)	□ Yes □ No
Discusses the rationale for using this data and explains its relevance to the project	□ Yes □ No
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	□ Yes □ No
QAPP Worksheet #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 table or Gantt Chart)	□ Yes □ No
QAPP Worksheet #15: Project Action Limits and Laboratory-Specific Detection/Quantitation Limits	
Provides a worksheet for each type of field or laboratory measurement; criteria are determined for each matrix, analyte, analytical method and concentration level	□ Yes □ No
Identifies Project Action Limit (actual numerical criteria) for each analyte and the reference upon which it is based (such as MCLs or other ARARs, risk assessment screening levels, etc.); identifies Project Quantitation Limit Goal below the Project Action Limit; highlights the critical contaminants/analytes for project decision-making	□ Yes □ No
Provides laboratory-specific detection and	□ Yes □ No

quantitation limits for comparison to Project Quantitation Limit Goal. Laboratory provides documentation that demonstrates precision and bias at the laboratory-specific quantitation limit (at lowest calibration standard) -or- **If using Regional laboratory/Contract Laboratory Program (CLP), cites the current Laboratory Services Branch Laboratory Operations and Quality Assurance Manual and/or relevant CLP Statements of Work for quantitation limit. (The laboratory-specific detection limit will not be available during planning.)**	
QAPP Worksheet #17: Sampling Design and Rationale	
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	□ Yes □ No
Provides a discussion regarding the basis for selection of probability-based designs vs. judgmental designs	□ Yes □ No
QAPP Worksheet #18: Sampling Locations and Methods	
Provides a table with type and number of samples required for collection such as surface soil, subsurface soil, or groundwater, preferably by individual Sample ID and collection frequency (if applicable), though sample groups may be listed in a single row	□ Yes □ No
Identifies each sample type using matrix codes and descriptions found in the Region 4 Reference Values for EQuIS.	□ Yes □ No
Uses existing Station IDs where available in EQuIS for the planned location (matched by latitude/longitude).	□ Yes □ No
Provides the sample collection method for each sample or sample group and references the applicable sampling SOP	□ Yes □ No
Referenced sampling SOPs are attached to the	□ Yes □ No

QAPP	
Provides the analytes or analyte groups for each sample or sample group	□ Yes □ No
QAPP Worksheet #19 and 30: Sample Containers, Preservation, and Hold Times	
Provides a worksheet for each laboratory used and lists any required accreditations/certifications for the laboratory; attaches accreditations/certifications to the QAPP	□ Yes □ No □ Not Applicable – using **only** Regional laboratory/CLP
For each analyte/analyte group and matrix pair, provides the analytical method reference, accreditation expiration date for the laboratory for that analyte/matrix/method combination (if global expiration date, this may be in the header	□ Yes □ No □ Not Applicable – using **only** Regional laboratory/CLP
For each analyte/analyte group, matrix, and analytical method, provides container(s) (Number, size, and type per sample), preservation requirements, preparation holding time, analytical holding time, and data package turnaround	□ Yes □ No
QAPP Worksheet #20: Field Quality Control Summary	
For each matrix and analyte/analytical group pair, provides a summary of the number of field samples, the number and types of field QC samples to be collected, and the total number of analyses (field and field QC samples combined).	□ Yes □ No
QAPP 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 cleaning and decontamination, equipment testing, maintenance, and inspection, and sampling handling and custody and notes any project-specific options or modifications, if applicable	□ Yes □ No
Referenced field SOPs are attached to the QAPP	□ Yes □ No
QAPP Worksheet #22: Field Equipment Calibration, Maintenance, Testing and	

Inspection	
Provides a list of all in-situ testing instruments and field equipment	□ Yes □ No
Documents the procedures for calibrating, maintaining, testing, and/or inspecting all field equipment	□ Yes □ No
Identifies the individual(s) responsible for field equipment	□ Yes □ No
Includes frequency, acceptance criteria, and corrective action or references and attaches the relevant SOP or manufacturer's instructions	□ Yes □ No
QAPP Worksheet #23: Analytical SOPs	
List 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; indicate whether the procedure produces screening or definitive data; note any project-specific options or modifications, if applicable -or- **If using Regional laboratory/Contract Laboratory Program (CLP), cites the current Laboratory Services Branch Laboratory Operations and Quality Assurance Manual and/or relevant CLP Statements of Work**	□ Yes □ No
Referenced analytical SOPs are attached to the QAPP	□ Yes □ No □ Not Applicable – using **only** Regional laboratory/CLP
QAPP Worksheet #24: Analytical Instrument Calibration	
Identifies all analytical instruments, whether used in the field or the laboratory -or- **If using Regional laboratory/Contract Laboratory Program (CLP), cites the current Laboratory Services Branch Laboratory Operations and Quality Assurance Manual and/or relevant CLP Statements of Work**	□ Yes □ No
For each instrument, identifies the calibration procedure and title/position responsible for corrective action; references and attaches the SOP or identifies the calibration range,	□ Yes □ No

frequency, and acceptance criteria, and corrective action in the table; calibration process should link the calibration to a specific instrument identification number -or- **If using Regional laboratory/Contract Laboratory Program (CLP), cites the current Laboratory Services Branch Laboratory Operations and Quality Assurance Manual and/or relevant CLP Statements of Work**	
QAPP Worksheet #25: Analytical Instrument and Equipment Maintenance, Testing, and Inspection	
For a laboratory with a quality system that conforms to ISO 17025:2005, the laboratory's quality manual may be referenced for this work sheet; otherwise or if project-specific modifications apply, lists each analytical instrument/equipment that requires maintenance, testing, and inspection activities, list those activities, and provides the frequency, acceptance criteria, corrective action, title/position responsible for corrective action, and reference for those activities -or- **If using Regional laboratory/Contract Laboratory Program (CLP), cites the current Laboratory Services Branch Laboratory Operations and Quality Assurance Manual and/or relevant CLP Statements of Work**	□ Yes □ No
QAPP Worksheet #26 & 27: Sample Handling, Custody, and Disposal	
Lists all activities from sample labeling through sample disposal, indicating the organization and title/position responsible for each activity and the SOP reference -or- **If using Regional laboratory/Contract Laboratory Program (CLP), lists all field activities and cites the current Laboratory Services Branch Laboratory Operations and Quality Assurance Manual and/or relevant CLP Statements of Work for all laboratory activities**	□ Yes □ No
Referenced SOPs are attached to the QAPP -	□ Yes □ No

or- **If using Regional laboratory/Contract Laboratory Program (CLP), attaches referenced SOPs for field activities and cites the current Laboratory Services Branch Laboratory Operations and Quality Assurance Manual and/or relevant CLP Statements of Work for all laboratory activities**	
Example forms, sample labels, and chain-of-custody documentation are attached to the QAPP	□ Yes □ No
QAPP Worksheet #28: Analytical Quality Control and Corrective Action	
Provides a separate worksheet for each analytical method/SOP, matrix, and analytical -or- **If using Regional laboratory/Contract Laboratory Program (CLP), cites the current Laboratory Services Branch Laboratory Operations and Quality Assurance Manual and/or relevant CLP Statements of Work**	□ Yes □ No
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; includes corrective action and title/position responsible for corrective action-or- **If using Regional laboratory/Contract Laboratory Program (CLP), provides this information for QC sample collection (field) and cites the current Laboratory Services Branch Laboratory Operations and Quality Assurance Manual and/or relevant CLP Statements of Work for this information for QC sample analysis procedure (laboratory)**	□ Yes □ No
QAPP Worksheet #29: Project Documents and Records	
Provides a comprehensive list of the documents and records required for this project	□ Yes □ No
Describes the generation, verification, and storage location/archival of hard-copy and	□ Yes □ No

electronic information produced during the course of the project for sample collection and field records	
Describes the generation, verification, and storage location/archival of hard-copy and electronic information produced during the course of the project for project assessments; attaches assessment checklists or other standardized forms to the QAPP	□ Yes □ No
Describes the generation, verification, and storage location/archival of hard-copy and electronic information produced during the course of the project for laboratory records- **or- If using Regional laboratory/Contract Laboratory Program (CLP), cites the current Laboratory Services Branch Laboratory Operations and Quality Assurance Manual and/or relevant CLP Statements of Work plus discusses SEMS/Federal Records and EQuIS**	□ Yes □ No
Provides requirements for laboratory data deliverable contents consistent with the expected stages selected for data validation (see EPA 540-R-08-005) -or- **If using Regional laboratory/Contract Laboratory Program (CLP), cites the current Laboratory Services Branch Laboratory Operations and Quality Assurance Manual and/or relevant CLP Statements of Work**	□ Yes □ No
Describes data handling equipment and procedures used to process, compile and analyze data; provides a complete list of computer hardware and software needs; specifies requirements such as information security controls for ensuring quality of electronic information (utility, objectivity, and integrity**) If using Regional laboratory/Contract Laboratory Program (CLP), includes discussion of the current Laboratory Services Branch Laboratory Operations and Quality Assurance Manual and/or relevant CLP Statements of Work plus relevant Region 4 Data Validation Standard Operating Procedures for Contract Laboratory Program data**	□ Yes □ No

Provides electronic data deliverable requirements for analytical deliverables and field documentation according to the Region 4 Format for EQuIS Data Processor (EDP); describes process for assuring that Region 4 Format for EQuIS Data Processor (EDP) electronic data deliverables (EDDs) are provided to EPA Region 4 and identifies individual(s) responsible for EDD submittals	□ Yes □ No
QAPP Worksheet #31, 32, & 33: Assessments and Corrective Action	
Lists the required number, frequency and type of assessments with approximate dates and title/position and organization of each individual(s) responsible for performing these assessments. **Note: If using Regional laboratory and/or CLP, laboratory assessments will be conducted at the program level**	□ Yes □ No
Discusses one or more of the following types of assessments: peer reviews, technical audits, surveillance, management system reviews, readiness reviews, quality system audits, performance evaluations, data quality assessments.	□ Yes □ No
Discusses the authority and independence of the individual(s) performing the assessments in relation to those being assessed.	□ Yes □ No
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 and the deliverable due dates.	□ Yes □ No
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	□ Yes □ No
For each assessment listed, provides the title/position and organization of the individual(s) responsible for implementing the corrective action and for monitoring corrective action implementation	□ Yes □ No
QAPP Worksheet #34: Data Verification	

and Validation Inputs	
Identifies the planning documents (such as 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 **If using Regional laboratory/Contract Laboratory Program (CLP), includes discussion of the current Laboratory Services Branch Laboratory Operations and Quality Assurance Manual and/or relevant CLP Statements of Work plus relevant Region 4 Data Validation Standard Operating Procedures for Contract Laboratory Program data**	□ Yes □ No
QAPP Worksheet #35: Data Verification Procedures	
Data verification is a completeness check to confirm that all required activities were conducted, all specific records are present, and the contents of the records are complete. Documents procedures that will be used to verify project data. For each field record, references the document containing the requirements, process description, and responsible person/organization.	□ Yes □ No
For each laboratory record, references the document containing the requirements, process description, and responsible person/organization. **If using Regional laboratory/Contract Laboratory Program (CLP), includes discussion of the current Laboratory Services Branch Laboratory Operations and Quality Assurance Manual and/or relevant CLP Statements of Work plus relevant Region 4 Data Validation Standard Operating Procedures for Contract Laboratory Program data**	□ Yes □ No
For each audit and corrective action record, references the document containing the requirements, process description, and responsible person and organization.	□ Yes □ No

QAPP Worksheet #36: Data Validation Procedures	
Documents procedures that will be used to validate project data. Data validation is an analyte and sample-specific process for evaluating compliance with contract requirements, methods/SOPs, and measurement performance criteria. Procedures should be summarized in the worksheet, including specific SOP references, if applicable. **If using Regional laboratory/Contract Laboratory Program (CLP), includes discussion of the current Laboratory Services Branch Laboratory Operations and Quality Assurance Manual and/or relevant Region 4 Data Validation Standard Operating Procedures for Contract Laboratory Program data**	□ Yes □ No
Referenced data validation SOPs are attached to the QAPP, if applicable. -or- **If using Regional laboratory/Contract Laboratory Program (CLP), cites the current Laboratory Services Branch Laboratory Operations and Quality Assurance Manual and/or relevant Region 4 Data Validation Standard Operating Procedures for Contract Laboratory Program data**	□ Yes □ No
Validation procedures define validation stage code and define any data qualifiers to be applied by the data **validator – or – If using Regional laboratory, external validation is Not Applicable; if using CLP, cites the relevant Region 4 Data Validation Standard Operating Procedures**	□ Yes □ No
Validation procedures include checklists to be used by the data validator. -or- **If using Regional laboratory/Contract Laboratory Program (CLP), cites the current Laboratory Services Branch Laboratory Operations and Quality Assurance Manual and/or relevant Region 4 Data Validation Standard Operating Procedures for Contract Laboratory Program data**	□ Yes □ No
QAPP Worksheet #37: Data Usability	

Assessment	
Identifies the individual(s) responsible for reconciling the data to the project-specific requirements	□ Yes □ No
Describes data usability assessment process including statistics, equations, and computer algorithms to be used to analyze the data and reconcile it to project-specific requirements	□ Yes □ No
Discusses how limitations in the final data set will be documented and communicated to all end data users and stakeholders	□ Yes □ No
Describes the circumstances under which data would be rejected and removed from the final data set and addresses resolution of potential data gaps	□ Yes □ No
Describes the data usability assessment process to confirm that the useable data are adequate to make the site decision	□ Yes □ No

Final QAPP Disposition:

____ *Approved, no comments*

Signature of Designated Approval Official (DAO) _____

Signature of Section Chief of the DAO _____

____ *Not Approved,* ***Address Comments, Submit Revised QAPP to the EPA Designated Approval Official***