Checklist for Review of a QAPP

This example checklist, based on the elements in *EPA Requirements for QA Project Plans (QA/R-5)* (EPA, 2001a), may be used either to prepare or review a QAPP, especially those involving field sampling and laboratory analyses.

PROJECT TITLE:____

Prepared by: ______________________________ **Date Submitted for Review:** ___________________
Reviewed by: _____________________________ **Date of Review:** __________________

Element	**Acceptable (Yes/No)**	**Page/ Section**	**Comments**
A1. Title and Approval Sheet			
Indicates project title			
Indicates revision number, if applicable			
Indicates organization’s name			
Date signed by organization’s project manager			
Dated signed by organization’s QA manager			
Other signatures, as needed			
A2. Table of Contents			
Lists QAPP information sections			
Lists Document control information			
A3. Distribution List			
Includes all individuals, and their organizations, who are to receive a copy of the QAPP			
A4. Project/Task Organization			
Identifies key individuals involved in all major aspects of the project, including contractors			
Discusses responsibilities of key individuals and any contractors			
Indicates Project QA Manager is independent from unit generating data			
Identifies individual responsible for maintaining the official, approved QAPP			
Organizational chart indicating the chain of command and reporting responsibilities			
A5. Problem Definition/Background			
States decision(s) to be made, actions to be taken, or outcomes expected from the project			
Clearly explains the reason for initiating the project; includes site background or historical information			
Identifies applicable regulatory criteria			
A6. Project/Task Description			
Summarizes work to be performed, for example, measurements to be made,			

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data files to be obtained, etc., that support the project's goals			
Provides work schedule indicating critical project milestones, e.g., start and completion dates for activities such as sampling, analysis, data or file reviews, and assessments			
Details geographical locations to be studied, including maps where possible			
Discusses resource and time constraints, if applicable			
A7. Quality Objectives and Criteria			
Identifies performance, measurement, and acceptance criteria for all data to be collected and for data obtained from previous studies. Includes project action limits and laboratory method detection limits and range of anticipated concentrations of each parameter of interest			
Discusses precision			
Addresses bias			
Discusses representativeness			
Identifies the need for completeness			
Describes the need for comparability			
Discusses desired method sensitivity			
A8. Special Training/Certifications			
Identifies any needed specialized training or certifications for project personnel			
identifies how this training will be provided			
Indicates personnel responsible for assuring training requirements are met			
Identifies where this information is documented			
A.9 Documentation and Records			
Identifies report format			
Lists all project documents, records, and electronic files that will be produced			
Identifies where project information should be kept and for how long			
Discusses back-up plans for records stored electronically			
States how individuals identified in A3 will receive the most current copy of the approved QAPP, identifies the individual responsible for QAPP distribution			
B1. Sampling Process Design (Experimental Design)			
Identifies type and number of samples required. Provides justification for MDL rationale, background samples if applicable			
Identifies sample matrix and analytical methods			
Indicates where sampling locations, how locations will be identified			
Discusses contingencies if sampling sites are inaccessible			
Identifies project schedules including sampling events, sample custody, etc.			
Specifies what information is critical and what is for informational purposes only			

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Identifies sources of variability and how variability should be reconciled			
B2. Sampling Methods			
Identifies methods, sample collection procedures, sampling SOPs			
Indicates how instruments should be deployed and operated for in situ monitoring to avoid contamination and to ensure collection of appropriate data			
For continuous monitoring, indicates averaging time and how instruments should store and maintain raw data, or data averages			
Indicates how samples are to be homogenized, composited, split, or filtered, if needed			
Indicates what sample containers and sample volumes should be used			
Identifies applicable sample preservatives and methods			
Indicates applicable decontamination procedures for sampling equipment and how to properly dispose of any rinsate			
Identifies needed equipment and support facilities			
Addresses corrective actions if problems occur, identifies individual(s) responsible and appropriate documentation			
B3. Sample Handling and Custody			
Stipulates maximum holding times for each sample type from sample collection to extraction and/or analysis, for in-situ or continuous monitoring, the maximum time before retrieval of information			
Identifies how samples should be physically handled, transported, and received and held by the laboratory or office (including temperature upon receipt)			
Indicates how sample or information handling and custody information should be documented, such as field notebooks or forms, identifies individual responsible for sample custody procedures			
Discusses system for identifying samples, for example, numbering system, sample tags and labels, and attaches forms to the plan			
Identifies chain-of-custody procedures and includes form to track custody			
B4. Analytical Methods			
Identifies all analytical SOPs (field, laboratory and/or office) that should be followed by number, date, and regulatory citation, indicating options or modifications to be taken, such as sub-sampling and extraction procedures			
Identifies equipment or instrumentation needed			
Specifies any specific method performance criteria			
Identifies procedures to follow when failures occur, identifying individual responsible for corrective action and appropriate documentation			
Identifies sample disposal procedures			
Specifies required laboratory turnaround time			
Provides method validation information and SOPs for nonstandard methods			
B5. Quality Control			

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Identifies QC requirements, including frequency, for each type of sampling, analysis, or measurement technique, e.g., blanks, spikes, duplicates, etc.			
Details what should be done when control limits are exceeded, and how effectiveness of control actions will be determined and documented			
Identifies procedures and formulas for calculating applicable QC statistics, e.g., for precision, bias, outliers and missing data			
B6. Instrument/Equipment Testing, Inspection, and Maintenance			
Identifies the maintenance schedule for field and laboratory equipment			
Identifies testing criteria			
Notes availability and location of spare parts			
Indicates procedures in place for inspecting equipment before usage			
Identifies individual(s) responsible for testing, inspection and maintenance of equipment			
Indicates how deficiencies should be resolved, re-inspections performed, and effectiveness of corrective action is determined and documented			
B7. Instrument/Equipment Calibration and Frequency			
Identifies the frequency of calibration for equipment, tools, and instruments			
Describes how calibrations should be performed and documented, indicating test criteria and standards			
Identifies how deficiencies should be resolved and documented			
B8. Inspection/Acceptance for Supplies and Consumables			
Identifies critical supplies and consumables for field and laboratory, noting supply source, acceptance criteria, and procedures for tracking, storing and retrieving these materials			
Identifies the responsible individual(s) for supplies and consumables			
B9. Non-direct Measurements			
Identifies appropriate data sources, e.g., computer databases or literature files, or models			
Describes the intended use of this information and the rationale for their selection, i.e., relevance to project			
Indicates the acceptance criteria for these data sources and/or models			
Identifies needed key resources and support facilities			
Describes how limits to validity and operating conditions should be determined, for example, internal checks of the program and Beta testing			
B10. Data Management			
Describes data management scheme from field to final use and storage			
Discusses standard record-keeping and tracking procedures, and document control system. May also cite other written documentation such as SOPs			
Identifies data handling equipment/procedures that should be used to process, compile, analyze, and transmit data reliably and accurately			

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Identifies individual(s) responsible for data management			
Describes the process for data archival and retrieval			
Describes procedures to demonstrate acceptability of hardware and software configurations			
Attaches checklists and forms that should be used			
C1. Assessments and Response Actions			
Lists the number, frequency, and type of assessment activities that should be conducted, with the approximate dates			
Identifies individual(s) responsible for conducting assessments, indicating their authority to issue stop work orders, and any other possible participants in the assessment process			
Describes how and to whom assessment information should be reported			
Identifies how corrective actions should be addressed and by whom, and how they should be verified and documented			
C2. Reports to Management			
Identifies what project QA status reports are needed and their frequency			
Identifies who should prepare and receive the reports			
D1. Data Review, Verification, and Validation			
Describes criteria that should be used for accepting, rejecting, or qualifying project data			
D2. Verification and Validation Methods			
Describes process for data verification and validation, providing SOPs and indicating what data validation software should be used, if any			
Identifies who is responsible for verifying and validating different components of the project data/information, for example, chain-of-custody forms, receipt logs, calibration information, etc.			
Identifies issue resolution process, the method and individual responsible for conveying these results to data users			
Attaches checklists, forms, and calculations			
D3. Reconciliation with User Requirements			
Describes procedures to evaluate the uncertainty of the validated data			
Describes how limitations on data use should be reported to the data users			