

# QUALITY ASSURANCE PROJECT PLAN (QAPP) TEMPLATE



U.S. Environmental Protection Agency  
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## Instructions:

This QAPP template was prepared based on *EPA Requirements for Quality Assurance Project Plans* (EPA QA/R-5), EPA/240/B-01/003, March 2001 (<http://www.epa.gov/quality/qs-docs/r5-final.pdf>). It contains an outline of the QAPP elements based on the EPA QA/R-5, with an abridged description of the discussion that should be included within each section (included in redline text). This template was created as a tool to assist in development of QAPPs. Users of this QAPP template must consult the EPA QA/R-5 or the more general *Guidance for Quality Assurance Project Plans* (EPA QA/G-5), EPA/240/R-02/009, December 2002 (<http://www.epa.gov/quality/qs-docs/g5-final.pdf>) as appropriate to obtain additional details and guidance for development of a QAPP.

## Acknowledgements:

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*DRAFT*

QUALITY ASSURANCE PROJECT PLAN

Title of Project (or portion of project addressed by this QAPP)

Prepared for:

<Enter the contact information including affiliation and physical address>

Contract/WA/Grant No./Project Identifier <Enter specific identifier>

Prepared by:

<Enter the contact information including affiliation and physical address>

<Enter date>

SECTION A – PROJECT MANAGEMENT

A.1 Title of Plan and Approval

Quality Assurance Project Plan

<Enter Title of Project>

Prepared by:

<Enter Affiliation>

\_\_\_\_\_ Date: \_\_\_\_\_  
<Enter name, Organization>, Project Manager / Principal Investigator

\_\_\_\_\_ Date: \_\_\_\_\_  
<Enter name, Organization>, Quality Assurance Manager (or equivalent)

\_\_\_\_\_ Date: \_\_\_\_\_  
<Enter additional contacts, as needed>

\_\_\_\_\_ Date: \_\_\_\_\_  
<Enter additional contacts, as needed>

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### A.3 Distribution List

List the individuals and their organizations who need copies of the approved QA Project Plan and any subsequent revisions, including all persons responsible for implementation (e.g., project managers), the QA managers, and representatives of all groups involved.

*<insert text>*

*Name, Agency/Company, Title, other contact information as needed*

### A.4 Project/Task Organization

Identify the individuals or organizations participating in the project and discuss their specific roles and responsibilities. Include the principal data users, the decision makers, the project QA manager, and all persons responsible for implementation. Project QA manager position must indicate independence from unit collecting/using data.

Table A.1 Roles & Responsibilities

<b>Individual(s) Assigned</b>	<b>Responsible for:</b>	<b>Authorized to:</b>
Name	<ul style="list-style-type: none"><li>• Responsibility</li><li>• Responsibility</li><li>•</li></ul>	<ul style="list-style-type: none"><li>• Action</li><li>• Action</li><li>•</li></ul>

Provide a concise organization chart showing the relationships and the lines of communication among all project participants. The organization chart must also identify any subcontractor relationships relevant to environmental data operations, including laboratories providing analytical services.

Figure A.1 Organization Chart

*<insert org chart>*

### A.5 Problem Definition/Background

State the specific problem to be solved, decision to be made, or outcome to be achieved. Include sufficient background information to provide a historical, scientific, and regulatory perspective for this particular project.

- Clearly state problem to be resolved, decision to be made, or hypothesis to be tested
- Historical & background information

- Cite applicable technical, regulatory, or program-specific quality standards, criteria, or objectives

*<insert text>*

## A.6 Project/Task Description

Provide a summary of all work to be performed, products to be produced, and the schedule for implementation. Provide maps or tables that show or state the geographic locations of field tasks. This discussion need not be lengthy or overly detailed, but should give an overall picture of how the project will resolve the problem or question described in A.5.

- List measurements to be made/data to obtain
- Note special personnel or equipment requirements
- Provide work schedule

*<insert text>*

## A.7 Quality Objectives & Criteria

Discuss the quality objectives for the project and the performance criteria to achieve those objectives. EPA requires the use of a systematic planning process to define these quality objectives and performance criteria.

- State project objectives and limits, both qualitatively & quantitatively
- State & characterize measurement quality objectives as to applicable action levels or criteria

*<insert text>*

## A.8 Special Training/Certification

Identify and describe any specialized training or certifications needed by personnel in order to successfully complete the project or task. Discuss how such training will be provided and how the necessary skills will be assured and documented.

*<insert text>*

## A.9 Documents and Records

Describe the process and responsibilities for ensuring the appropriate project personnel have the most current approved version of the QA Project Plan, including version control, updates, distribution, and disposition.

Itemize the information and records which must be included in the data report package and specify the reporting format for hard copy and any electronic forms. Records can include raw data, data from other sources such as data bases or literature, field logs, sample preparation and analysis logs, instrument printouts, model input and output files, and results of calibration and QC checks.

Identify any other records and documents applicable to the project that will be produced, such as audit reports, interim progress reports, and final reports. Specify the level of detail of the field sampling, laboratory analysis, literature or data base data collection, or modeling documents or records needed to provide a complete description of any difficulties encountered.

Specify or reference all applicable requirements for the final disposition of records and documents, including location and length of retention period.

*<insert text>*

## SECTION B – DATA GENERATION & ACQUISITION

### B.1 Sampling Process Design (Experimental Design)

Describe the experimental data generation or data collection design for the project, including as appropriate:

- Types and number of samples required
- Sampling network design & rationale for design
- Sampling locations & frequency of sampling
- Sample matrices
- Classification of each measurement parameter as either critical or needed for information only
- Validation study information, for non-standard situations

*<insert text>*

### B.2 Sampling Methods

Describe the sampling procedures:

- Identify sample collection procedures.
- Identify sampling methods and equipment
  - Sampling methods by number, date, and regulatory citation, where appropriate
  - Implementation requirements
  - Sample preservation requirements
  - Decontamination procedures
  - Any support facilities needed
- Describe specific performance requirements for the method.
  - Address what to do when a failure in the sampling or measurement system occurs
  - Who is responsible for corrective action
  - How the effectiveness of the corrective action will be determined and documented

*<insert text>*

### B.3 Sampling Handling & Custody

Describe the requirements for sample handling and custody in the field, laboratory, and transport. Examples of sample labels, custody forms, and sample custody logs should be included.

*<insert text>*

### B.4 Analytical Methods

Identify analytical methods to be followed (with all options) & required equipment.

- Specify any specific method performance criteria
- State requested lab turnaround time

- Provide validation information for non-standard methods
- Identify procedures to follow when failures occur
  - Identify individuals responsible for corrective action and appropriate documentation

*<insert text>*

## B.5 Quality Control

Identify QC activities needed for each sampling, analysis, or measurement technique. For each required QC activity, list the associated method or procedure, acceptance criteria, and corrective action. State or reference the required control limits for each QC activity and corrective action required when control limits are exceeded and how the effectiveness of the corrective action shall be determined and documented.

Describe or reference the procedures to be used to calculate applicable statistics (e.g., precision, bias, accuracy).

*<insert text>*

## B.6 Instrument/Equipment Testing, Inspection, and Maintenance

Describe how inspections and acceptance testing of instruments, equipment, and their components affecting quality will be performed and documented to assure their intended use as specified.

Describe how deficiencies are to be resolved, when re-inspection will be performed, and how the effectiveness of the corrective action shall be determined and documented.

Identify the equipment and/or systems requiring periodic maintenance and/or calibration. Describe how periodic preventative maintenance will be performed, including frequency, to ensure availability and satisfactory performance of the systems. Note availability & location of spare parts.

*<insert text>*

## B.7 Instrument/Equipment Calibration and Frequency

Identify all tools, gauges, instruments, and other sampling, measuring, and test equipment used for data generation or collection activities affecting quality that must be controlled and calibrated.

Describe or reference how calibration will be conducted using certified equipment and/or standards with known valid relationships to nationally recognized performance standards. If no such nationally recognized standards exist, document the basis for the calibration.

Indicate how records of calibration will be maintained and be traceable to the equipment.

*<insert text>*

## B.8 Inspection/Acceptance of Supplies & Consumables

State acceptance criteria for supplies and consumables and describe how they will be inspected for use in the project. Note responsible individuals.

*<insert text>*

## B.9 Data Acquisition Requirements for Non-Direct Measurements

Identify type of data needed from non-measurement sources (e.g., computer data bases and literature files), along with acceptance criteria for their use. Define intended use and describe any limitations of such data.

*<insert text>*

## B.10 Data Management

Describe data management process from generation to final use or storage. Describe standard record keeping & data storage and retrieval requirements. Provide examples of any forms or checklists to be used.

Describe data handling equipment & procedures used to process, compile and analyze data (e.g., required computer hardware & software). Describe the process for assuring that applicable information resource management requirements, including EPA specific requirements, are satisfied.

*<insert text>*

## SECTION C – ASSESSMENT AND OVERSIGHT

### C.1 Assessments and Response Actions

Describe each assessment to be used in the project including the frequency and type (e.g., surveillance, management systems reviews, readiness reviews, technical systems audits, performance evaluations, data quality).

- What is expected information from assessment?
- What is assessment success criteria?
- What is assessment schedule?

Describe response actions to each assessment.

- How will corrective actions be addressed?
- Who is responsible for corrective actions?
- How will corrective actions be verified and documented?

*<insert text>*

### C.2 Reports to Management

Identify frequency and distribution of reports to inform management of project status:

- Results of performance evaluations & audits
- Results of periodic data quality assessments
- Any significant QA problems

Identify the preparer and recipients of reports, and describe any actions the recipient should take as a result of the report.

*<insert text>*

## SECTION D – DATA VALIDATION AND USABILITY

### D.1 Data Review, Verification, and Validation

State criteria for accepting, rejecting, or qualifying data; include project-specific calculations or algorithms.

*<insert text>*

### D.2 Verification and Validation Methods

Describe the process for data validation and verification. Identify issue resolution procedure and responsible individuals. Identify the method for conveying results to data users. Provide examples of any forms or checklists to be used.

*<insert text>*

### D.3 Reconciliation with User Requirements

Describe how the project results will be reconciled with the requirements defined by the data user or decision maker. Outline the proposed methods to analyze the data and determine departures from assumptions established in the planning phase of data collection. Describe how reconciliation with user requirements will be documented, issues will be resolved, and how limitations on the use of the data will be reported to decision makers.

*<insert text>*