# **Project Management**

## Title and Approval

**[TITLE]**

**Prepared by:**

**[Organization]**

**[Date]**

**Version [number]**

**EPA Grant Numbers: {fill in}**

Approved by:­­­­­­­­­­\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 Nora Conlon, EPA Quality Assurance Officer, EPA Region 1 date

Approved by:­­­­­­­­­­\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 Caitlyn Whittle, EPA Project Officer, EPA Region 1 date

Approved by:­­­­­­­­­­\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 Dr. Courtney Schmidt, Staff Scientist, NBEP date

Approved by:­­­­­­­­­­\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 {writer’s organizational approval - add more lines if necessary} date

Approved by:­­­­­­­­­­\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 {writer’s organizational approval - add more lines if necessary} date

## Abstract and Table of Contents

**Abstract**

{include short abstract for project and what the deliverables will be}

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## QAPP Distribution List

**QAPP distribution list**

Signed copies of this Quality Assurance Project Plan (QAPP) and all subsequent revisions will be sent to the following individuals by electronic mail:

{add list of people to receive the QAPP, including those on the approval page. Need name, title, organization, and email}

## Project Organization and Responsibilities

{identifies key individuals involved in all major aspects of the project, including contractors; discusses responsibilities; project QA manager position indicates independence from unit generating data; organizational chart shows lines of authority and reporting responsibilities}

NBEP

Program Director: Mike Gerel

Staff Scientist: Courtney Schmidt

SUBAWARDEE

Roger Williams University

Peter Wong

EPA Project Officer

Caitlyn Whittle

SUBAWARDEE CONTRACTOR or TEAM MEMBERS

Figure 1. Organizational Chart. Update with people responsible for the project. These names may change depending on the project

## Problem Definition/Background

{states decision(s) to be made, actions to be taken, or outcomes expected from the information to be obtained; clearly explains the reason (site background or historical context) for collecting secondary data and how that data will be used to meet project goals; identifies regulatory information, applicable criteria, action limits, etc. necessary to the project}

## Project/Task Description

***Deliverable***

{what is the main deliverable(s) for this project}

***Description***

{summarized work to be performed, for example measurements to be made, data files to be obtained, etc. that support the project’s goals (and deliverables)}

***Schedule***

The tentative schedule for the project is provided in the following table. Update for specific project

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Task** | **Anticipated****Start Date** | **Anticipated** **End Date** |
| QAPP | Preparation |  |  |
| Acceptance |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

***Geographical Locations***

{what is the geographic location of the project; include map}

Figure 2. Map of geographic location of project, or site layout, etc..

***Resources and Time Constraints***

Resource and time constraints are (not) applicable to this project. {if they are applicable, please describe}

## Quality Objectives and Criteria

{identifies performance/measurement criteria for all information to be collected and acceptance criteria for information obtained from previous studies, including project action limits and laboratory 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}

## Special Training/Certification

{identifies any project personnel specialized training or certifications, discusses how this training will be provided, indicates personnel responsible for assuring these are satisfied, identifies where this information is documented}

## Documentation and Records

{identifies report format and summarizes all data report package information; lists all other 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 Section 1.3 will receive the most current copy of the approved QAPP, identifies individuals responsible for this}

# **Data Generation and Acquisition**

## Sampling Process Designing (Experimental Design)

{describes and justifies design strategy, indicating size of the area, volume, or time period to be represented by a sampled; details the type and total number of sample types/matric or test runs/trials expected and needed; indicates where samples should be taken, how sites will be identified/located; discusses what to do if sampling sites become inaccessible; identifies project activity schedules such as each sampling event, times samples should be sent to the laboratory, etc.; specifies what information is critical and what is for informational purposes only; identifies sources of variability and how this variability should be reconciled with project information}

## Sampling Methods

{identifies all sampling SOPs by number, date, and regulatory citation, indicating sampling options or modifications to be taken; indicates how each sample/matric type should be collected; if *in situ* monitoring, indicates how instruments should eb deployed and operated to avoid contamination and ensure maintenance of proper data; if 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 whether sampling equipment and samplers should be cleaned and/or decontaminated, identifying how this should be done and by-products disposed of; identifies any equipment and support facilities needed; addresses actions to be taken when problems occur, identifying individual(s) responsible for corrective action and how this should be documented}

## Sample Handling and Custody

{states maximum holding times allowed from sample collection to extraction and/or analysis for each sample type and, for *in situ* or continuous monitoring, the maximum time before retrieval of information; identifies how samples or information should be physically handled, transported, and then received and held in the laboratory or office (including temperature upon receipt); indicates how sample or information handling and custody information should be documented, such as in field notebooks and forms, identifying individual(s) responsible; 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}

## Analytical Methods

{identifies all analytical SOPs (field, laboratory and/or office) that should be followed by number, date, and regulatory citation, indicator 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 correct action and appropriate documentation; identifies sample disposal procedures; specifies laboratory turn around times needed; provides method validation information and SOPs for nonstandard methods}

## Quality Control

{for each type of sampling, analysis, or measurement technique, identifies QC activities which should be used, for example, blanks, spikes, duplicates, etc., and at what frequency; 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, for example, for precision, bias, outliers, and missing data}

## Instrument/Equipment Testing, Inspection and Maintenance

{identifies field and laboratory equipment needing periodic maintenance and the schedule for this; identifies testing criteria; indicates procedures in pace for inspecting equipment before usage; identifies individual(s) responsible for testing, inspection, and maintenance; indicates how deficiencies found should be resolved, re-inspections performed, and effectiveness of correct action determined and documented}

## Instrument/Equipment Calibration and Frequency

{identifies equipment, tools, and instruments that should be calibrated and the frequency for this calibration; describes how calibrations should be performed and documented, indicating test criteria and standards or certified equipment; identifies how deficiencies should be resolved and documented}

## 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 individual(s) responsible for this}

## Non-Direct Measurements

{identifies data sources, for example, computer databases or literature files or models that should be accessed and used; describes the intended use of this information and the rationale for their selection, i.e., its relevance to the project; indicates the acceptance criteria for these data sources and/or models; identifies key resources/support facilities needed; describes how limits to validity and operating conditions should be determined, for example, internal checks of the program and Beta testing}

## Data Management

{describes data management scheme from field to final use and storage; discusses standard record-keeping and tracking practices, and the document control system or cites other written documentations such as SOPs; identifies data handling equipment/procedures that should be used to process, compile, analyze and transmit data reliability and accurately; identifies individual(s) responsible for this; 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}

{Subawardee} has read Roger Williams University’s [Data Storage Policy](https://www.rwu.edu/sites/default/files/downloads/it/Data%20Storage%20Policy_3_12_19.pdf). A signed agreement to follow the stipulations in the Policy is included in Appendix A.

# **Assessment and Oversight**

## 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}

NBEP may implement, at their discretion, various reviews of this project to assess conformance and compliance to the quality assurance project plan. NBEP may issue a stop work order and require corrective action(s) if nonconformance or noncompliance to the Quality Assurance Project Plan is found.

## Reports to Management

{identifies what project QA status reports are needed and how frequently; identifies who should write these reports and who should receive this information}

{subawardee} will file quarterly reports as a mechanism to keep NBEP and EPA project managers apprised of progress and communicate any QA-related findings associated with the project’s secondary data.

# **Data Validation and Usability**

## Data Review, Verification and Validation

{describes criteria that should be used for accepting, rejecting or qualifying project data}

## 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, and method and individual responsible for conveying these results to data users; attaches checklists, forms, and calculations}

## Reconciliation with User Requirements

{describes procedures to evaluate the uncertainty of the validated data; describes how limitations on data use should be reported to data users}

# **References**

List references in alphabetical order

# **Appendix A. Data Storage Policy Agreement**





**DATA STORAGE POLICY AGREEMENT**

I, **[name]** of **[organization]**, have read Roger Williams University’s [Data Storage Policy](https://www.rwu.edu/sites/default/files/downloads/it/Data%20Storage%20Policy_3_12_19.pdf) and agree to all its stipulations for the NBEP-funded project entitled **[project]**.

Signed,

Signature

Date

# **Appendix B. {Appendix title}**

Attached appendices. Each Appendix receives its own heading (7, 8, etc.) so that it appears in the table of contents at the beginning (copy “7. Appendix” above and paste when you need another appendix). Each appendix should have its own title as well. Please start all additional appendices on a new page.