## NFWF QUALITY ASSURANCE PROJECT PLAN (QAPP) DEVELOPMENT GUIDE

For EPA funded projects, NFWF uses the EPA "graded approach" in the documentation of the application of quality assurance and quality control activities to an activity-specific effort (Quality Assurance Project Plan, also known as a QAPP). The level of detail of the QAPP is based on this graded approach; therefore, it varies according to the nature of the work being performed and the intended use of the data. As a result, an acceptable plan for some environmental data operations may require a qualitative discussion of the experimental process and its objectives while others may require extensive documentation to adequately describe a complex environmental program.

A QAPP is a written document that describes the quality assurance procedures, quality control specifications, and other technical activities that must be implemented to ensure that the results of the project or task to be performed will meet project specifications. Primary data collection, secondary data usage, and data processing project activities funded by EPA are described and documented in QAPPs. For a list of EPA QAPP "Example Activities", please see page 2.

EPA funded projects require approved QAPPs (or equivalent documents) for all applicable projects and tasks involving environmental data to ensure the project and task is documented and reviewed before the work is started. The need to write a QAPP applies as defined at <a href="https://www.epa.gov/quality">https://www.epa.gov/quality</a> when EPA is funding the project under a grant, contract, or other agreement. A NFWF review has determined that your project requires a QAPP.

Development of a QAPP should be a multi-step process involving a number of people, but you may apply your specific organizational processes according to your preferences. The following is a brief summary of the process:

- 1. Assemble a project team to develop your data quality objectives and what needs to be done. Reference the EPA QAPP Preparation Checklist to assist you with this process.
- 2. Develop the QAPP by means of the NFWF QAPP template to help ensure all QAPP required elements have been addressed.
  - a. If needed, reference EPA's QAPP Requirements (EPA QA R-5) and Guidance (EPA QA G-5) documents for information on data-specific quality assurance activities.
  - b. Review your NFWF proposal for relevant language suitable for transfer (cut and paste) directly into the QAPP sections. Supplement each section with supporting text, as needed.
  - c. The NFWF QAPP template is easily adaptable for use with any project.
    - i. Insert the appropriate information where you see these "<<text>>" guides.
    - ii. "Notes" have been inserted into the QAPP template to guide you through each step. Additionally, you may wish to review the "Tables" templates at the end of the QAPP to assist with formulating some of the QAPP language.
    - iii. If your project does not contain some of the elements requested in the template, you may insert the following language, "This activity does not apply to this project", in each applicable QAPP section. Utilize as much of the proposal language as possible. At the final development stages, you will want to remove all of the italicized notes and unused "Tables", etc., prior to submittal.
- 3. Submit the draft QAPP for review by Cardno via the ShareFile link provided to you or email to Erin Lewis at Erin.Lewis@NFWF.org.
  - a. Plan to submit this draft QAPP to NFWF at least three months in advance of starting data driven activity for review and comment about draft QAPP. Please also note review and comment is

- dependent upon the quality of the QAPP submission and thus may involve several iterations prior to submission by NFWF to EPA.
- b. The QAPP should be submitted as a single document including appendices in a WORD format.
- c. The QAPP is then submitted to the EPA by NFWF: Please note EPA review and comment of the draft QAPP is a minimum of 60 days. Please also note review and comment is dependent upon the quality of the QAPP submission and thus may involve several iterations after submission by NFWF to EPA and prior to EPA approval.
- 4. Once approved, you sign the QAPP (along with any applicable partners) and send Erin Lewis the original copy. She will then gather necessary NFWF and EPA signatures and send a copyback to you. Then you should distribute copies of the signed QAPP to all pertinent project partners and field staff.
- 5. Begin work, but remember to:
  - a. Document any changes in the QAPP; and if necessary, get re-approval (if changes were made to methods or other data applications) and distribute the updated version to all persons, and
  - b. Review the QAPP on a systematic basis to ensure that it remains up-to-date.

## **EPA QAPP Example Activities**

Environmental data are any measurements or information that describe environmental processes, location, or conditions; ecological or health effects and consequences; or the performance of environmental technology. For EPA, environmental data include both primary data (i.e., information collected directly from measurements) and secondary/existing data (i.e., data that were collected for other purposes or obtained from other sources, including literature, industry surveys, models, data bases, and information systems). Example activities covered by the EPA Quality System that involve environmental data include, but are not limited to:

- Characterize and/or evaluate the states and/or conditions of environmental or ecological systems and the health of human populations;
- Characterize and/or evaluate chemical, biological, physical, or radioactive constituents in environmental and ecological systems, and their behavior and associated interfaces in those systems, including exposure assessment, transport, and fate;
- Establish the ambient conditions in air, water, sediments, soil, etc. in terms of physical, chemical, radiological, or biological characteristics;
- Determine and/or categorize radioactive, hazardous, toxic, and mixed wastes in the environment and to establish their relationships with and/or impact on human health and ecological systems;
- Quantify and/or monitor the waste and effluent discharges to the environment from processes and operations (e.g., energy generation, metallurgical processes, chemicals production), during either normal or upset conditions (i.e., operating conditions that cause pollutant or contaminant discharges);
- Develop and/or evaluate environmental technology for waste treatment, storage, remediation, and disposal; pollution prevention; and pollution control and the use of the technology to generate and/or collect data (e.g., treatability and pilot studies);
- Map environmental processes and conditions, and/or human health risk data, etc. (e.g., geographic information system);
- Support enforcement and/or compliance monitoring efforts;

- Develop or evaluate methods for use in the collection, analysis, and use of environmental data;
- Develop and/or evaluate models of environmental processes and conditions and use models to characterize environmental processes or conditions;
- Develop, revise, or use information technology and management system operations that impact the quality of the results of environmental programs (e.g., electronic databases with environmental information including data entry, handling, transmission and analysis and laboratory information management systems).