## Citizen Science Quality Assurance Toolkit

# ESSENTIAL ELEMENTS OF A CITIZEN SCIENCE PROJECT

Community members can use citizen science to explore environmental protection and public health questions that matter to them. Use the path outlined below in combination with the "Make Your Data Count" video series to fully develop and integrate data quality into your citizen science project.

The US Environmental Protection Agency (EPA) created the *Quality Assurance Handbook and Guidance Documents for Citizen Science Projects* (EPA QA Handbook) to help citizen science groups develop a Quality Assurance Project Plan (known as a QAPP or Project Plan) to plan and document their project.

## FOLLOW THIS PATHWAY TO CITIZEN SCIENCE SUCCESS:

**PLAN**
Generate Ideas
Plan Data Use
Find Partners
Create Project Plan

**DO**
Train Volunteers
Collect Data

**CHECK**
Evaluate
Analyze

**ACT**
Enable Data Use

## 1 PLAN

**Generate Ideas**

Form a research question.

Research similar federally-supported and other citizen science projects looking for volunteers.

**Determine Intended Data Use**

Determine how you want your data to be used. Use this to identify the project's scope.

Contact your state or local laboratory, environmental agency or your region's citizen science coordinator to see who might be interested in using your data.

**Find Partners**

Connect with local or state agencies or a science expert to refine research questions and project goals.

Build a diverse team of professionals and volunteers and create a chart of tasks and responsibilities.

See **Template #17** from the EPA QA Handbook, Template and Example Documents.

Identify community groups that could amplify your project's impact through volunteers, communications or other forms of support.

Integrate a communication plan into the team responsibilities chart.

**Create a Project Plan**

Use the EPA QA Handbook and Guidance Documents to develop your project plan.

Develop a project timeline and communicate it clearly with volunteers.

Determine how funding will be sustained.

## 2 DO

**Train Volunteers**

Train volunteers to ensure a standard data collection process.

**Collect Data**

Use the appropriate equipment, sample plans and methods to answer your research question.

See **Template #9** from the EPA QA Handbook, Template and Example Documents.

## 3 CHECK

**Evaluate**

Evaluate your project early and often to ensure it is following the proper steps to achieve your goals.

**Analyze**

Work with scientists on your team to analyze the volunteer-collected samples and/or results.

## 4 ACT

**Enable Data Use**

Make your data accessible and clearly represent the project's quality procedures to ensure your data can be used confidently and easily by others.

# MAKE YOUR DATA COUNT!

Learn more about maximizing your Citizen Science project (and find links to the documents referenced here) at:
**epa.gov/citizen-science or aphl.org/citsci**