

Tribal Water Quality Monitoring And Assessment Workshop

Quality Assurance Project Plan
Development Workshop

Quality Assurance Project Planning

In this Exercise, you will work together to develop a Quality Assurance Project Plan for a water monitoring project



Pick a Project

Each group will Pick a Monitoring Project to do one of the following Objectives:

- Determine Baseline Conditions
- Measure Changes over time
- Identify Problem areas
- Measuring effectiveness of an Improvement Project

What Kind of Plans do You Need?

- QAPP – Quality Assurance Project Plan
- SAP – Sampling & Analysis Plan
- Health & Safety Plan
- A Plan is not Needed

What if the Major Decision?

- Determine Baseline Conditions
- Is the Water Safe to Swim in?
- Is the Water Safe for Fish?
- Are there adverse impacts to Water Quality?
- Are there measureable improvements to Water Quality?

Measurement Parameters

Pick the type of Data Needed:

- Dissolved Oxygen
- Temperature
- Conductivity
- pH
- Turbidity
- Nutrients
- Pathogens (fecal coliform)

Sampling Methods

Determine the Frequency & Types Sampling

- Continuous Water Monitoring (15 minutes)
- Monthly, Quarterly
- Grab Samples for Lab Analysis
- Composites

Sampling Methods

Determine the type of Sampling Location:

- Random Locations
- Intensive Number of Targeted Locations
- Targeted Upstream / Downstream Locations
- Limited Number of Judgmental Locations

Analytical Methods

Determine the appropriate Measurement Techniques:

- Fixed Network of Field Stations
- Field Measurements by technical staff
- Laboratory Analysis of collected samples

Quality Control

Determine the necessary Data Quality Indicators

- Blanks (contamination, false positives)
- Duplicates (sampling/measurement precision)
- Blank Spikes (accuracy / bias)
- Calibration Verification (pre- & post use drift checks)
- Laboratory QC Reporting / Evaluation