

Clean Water Act §106 Water Pollution Control Program Monitoring Strategy Requirement (FY 2008)



Collecting samples at a site with Owens Valley Indian Water Commission.

A monitoring strategy is an implementation plan that describes how a monitoring program will serve tribal water quality management needs and address tribal waters over time. It should be comprehensive in scope and identify the issues and needs that are currently impediments to an adequate monitoring program.

Understanding existing water quality is a key step in protecting and improving the waters within the tribal boundaries. Developing a comprehensive Monitoring Strategy helps tribes understand existing water quality conditions. Monitoring Strategies should vary among tribes due to the varying tribal program goals and objectives, the level of CWA §106 program sophistication, and the resources available to the grant recipient. A Monitoring Strategy does not need to be submitted annually, just updated as needed by the grantee.

Components of a Monitoring Strategy:

- **Monitoring Objectives:** The grant recipient should use existing information about the water bodies within tribal boundaries to determine how they will implement their monitoring program. This should be a narrative describing the major goal(s) and measurable objectives of the monitoring program. This may include identifying water quality problem areas, tracking trends over time, identifying Non Point Source impacts, and identifying problem areas needing protection.
- **Monitoring Design:** Establishes the frequency of monitoring, the water bodies that will be monitored, the locations that will be monitored within the water body, the parameters/water quality indicators that will be sampled, and how the information will be used or displayed to answer the grant recipient's monitoring objectives.
- **Core Water Quality Indicators (WQI):** The strategy should define the core set of WQI/parameters that will be monitored within the program. It is expected that tribal programs monitor for the nine required parameters (temperature, pH, dissolved oxygen, turbidity, total nitrogen, total phosphorus, pathogen indicators, macroinvertebrates, and basic habitat information) based on the relevancy to their water quality program.
- **Quality Assurance:** A Quality Assurance Project Plan (QAPP) must be developed and approved by EPA to ensure the validity of monitoring and laboratory activities. The QAPP should reflect the level of quality that is appropriate for the specific uses of the data.
- **Data Management:** The strategy should describe how the grant recipient will store data in an electronic data system that can be used to manage tribal data and is in a format that will allow data sharing with EPA. Data collected on the required parameters and metadata should be managed electronically.
- **Data Analysis and Assessment:** The strategy should describe the grant recipient's assessment methodology – how data collected will be compiled and analyzed to make assessment decisions. Assessments should address whether water quality is meeting established goals and objectives.
- **Reporting:** The strategy should describe the tribal water program's procedures and protocol for preparing and submitting its annual tribal assessment report, which includes a description of the monitoring strategy, a water quality assessment, and electronic copies of the data collected. Any other reporting requirements (quarterly reports, picture documentation, etc.) should be described as well.
- **Programmatic Evaluation and Needs Planning:** The strategy should describe the process for conducting regular reviews of the tribal water quality monitoring program with the Regional EPA office. These reviews will help determine how well the program is serving water quality decision needs. The tribe should also identify any current and future monitoring resources needed to fully implement a comprehensive program.



Monitoring Site at Salt River Pima-Maricopa Indian Community

Available Resources to use while developing a Monitoring Strategy:

- **The Grant Recipient's Approved Quality Assurance Program Plan (QAPP):** Much of the information required for the completion of an effective Monitoring Strategy should be found within the tribe's approved QAPP. It would be beneficial to look for the required components within the tribe's QAPP to reduce time spent on creating an entirely new and separate document to complete this reporting requirement. It should be noted that both a QAPP and a Monitoring Strategy are liquid documents – meaning that they should be reviewed and changed if necessary depending on the constantly developing water quality program.
- **Final Guidance on Awards of Grants to Indian Tribes under Section 106 of the Clean Water Act:**
 - o **Appendix A:** Includes an suggested format for developing a Monitoring Strategy divided into Fundamental, Intermediate, and Mature programs, along with descriptions of each required component.
 - o **Chapter 4:** Includes more detailed information regarding monitoring objectives, monitoring design, the required WQI/parameters, data analysis and data assessment.
 - o **Chapter 8:** Describes EPA's reporting requirements in detail for the awards of CWA Section 106 grants to Indian Tribes.
- **EPA Region 9 Office / CWA §106 Assigned Project Officer**

Water Division Tribal Contacts

Danielle Angeles (415) 972-3441	Tiffany Eastman* (415) 972-3404	Jenée Gavette (415) 972-3439	Janis Gomes (415) 972-3517	AudreyL Johnson (415) 972-3431
Vijay Limaye (415) 972-3442	Wendell Smith (415) 972-3421	Loretta Vanegas (415) 972-3433	Stephanie Wilson (775) 885-6190	

Kristin Gullatt, Manager
(415) 972-3432

Our email follows this convention: lastname.firstname@epa.gov

*To contact this person, you must dial 711 for an operator to assist you with your call.