



United States Department of the Interior
NATIONAL PARK SERVICE
Natural Resource Stewardship and Science
Inventory and Monitoring Division
1201 Oakridge Dr. Ste. 150
Fort Collins, CO 80525



11 January 2018

To: Inventory and Monitoring Network Program Managers

From: Chief, Inventory and Monitoring Division *[Signature]*
Chief, Water Resources Division *[Signature]*

Subject: Requirements for Inventory and Monitoring Division Water Quality Sampling

Effective: 11 January 2018

As a part of the Inventory and Monitoring Division's IMD long-term data quality management efforts, we are implementing two requirements to improve consistency in how we collect and analyze water quality data when implementing approved monitoring protocols: 1) *training requirements* to ensure consistent collection of high-quality data, and 2) *water quality laboratory accreditation requirements* for networks procuring laboratory analyses.

The requirements will help ensure our data meet the highest water quality monitoring standards while helping to standardize water quality collection protocols to facilitate sharing staff and data. These requirements apply to all water quality monitoring conducted using funds from the IMD or the Water Resources Division (WRD).

Training Requirements

Requirement: At least one staff member per network that has implemented a water quality monitoring protocol (including the actual collection of water quality samples) must complete an approved water quality field methods training class. Training must be kept current with at least one staff member having completed approved training within the last three years. Employees who have taken the USGS field techniques class prior to issuance of this memo are considered to have met this requirement if the training has been completed in the last three years.

Timeline: Networks have three years from issuance of this memo to meet these training requirements.

Training Course(s): To satisfy this requirement, the IMD has developed a course in collaboration with USGS covering methods for discrete and continuous water quality monitoring techniques, which is designed to promote basic knowledge and core competencies in skills required to implement water quality monitoring protocols across the Division, as well as foster IMD-wide consistency in field methods among networks. A complete list of approved training courses is available on the IMD SharePoint site at:

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<https://nrss.sharepoint.nps.gov/div/imd/co/planning/Science/Science%20Policies/RequiredTrainingIMD.xlsx>

Alternate Training: USGS and other partners may offer other courses that are tailored more specifically to networks' monitoring protocols. These courses may be substituted for the IMD-designed class after consultation with your network's Regional Program Manager and the IMD Deputy Chief for Science. Approval of alternative training will be based on the training provider, alignment of coursework with the network's protocol(s), and inclusion topics such as equipment maintenance and methods for quality assurance and quality control.

Water Quality Laboratory Accreditation Requirements

Requirement: All laboratory analyses that measure nutrients, chlorophyll, organic compounds, or metals must be performed by an accredited laboratory. The mandatory use of accredited labs applies in all cases where networks use IMD or WRD funds conduct analyses through a contract, cooperative agreement, purchase card, or other for-payment type of arrangement. If monitoring objectives in approved protocols do not require laboratory analysis (e.g., when conducting rapid assessments), this policy does not require networks to change methods from non-lab- to lab-based methods.

Accredited Lab Selection: When choosing an accredited laboratory, please refer to the [Irwin \(2004\) "Part B" guidance](#) for considerations when determining accreditation standards or developing quality assurance plans (see pages 86-90). Options in selecting laboratories in order of decreasing preference:

- **National Environmental Laboratory Accreditation Program (NELAP)**-accredited laboratories. Labs that have passed round-robin or inter-laboratory comparison proficiency tests are preferred.
- Laboratories that have been approved for use by one or more other federal agencies based on performance on National Environmental Laboratory Accreditation Conference (NELAC) proficiency tests, on-site inspections, and an evaluation of the laboratories' QA/QC programs.
- Laboratories that are on the national NELAP-approved lab lists for specific regulatory programs of interest.

Selection of labs and the accreditation standards used should be driven by the monitoring objectives and the analyses being performed as documented in the protocol, quality assurance plan, data quality standards document, or project study plan.

Timeline: Effective immediately, networks are directed are to meet these accreditation requirements.

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Definitions

Accreditation. The formal recognition of a laboratory's competence wherein specific tests or types of tests can be accurately and successfully performed in compliance with established minimum requirements.

Commercial Laboratory. Any laboratory, wherever located, that performs analyses or tests for third parties for a fee or other compensation and provides chemical analyses, analytical results, or other test data to IMD, by contract or agreement.

NELAC. National Environmental Laboratory Accreditation Conference; established in 1995, with the mission to develop laboratory accreditation standards and implement a certification program - the National Environmental Accreditation Program (NELAP)

NELAP. National Environmental Accreditation Program, targeted at environmental laboratories, with laboratory and accreditation body standards for the program modeled after sections of ISO/IEC 17025 and ISO/IEC 17011.

Proficiency Testing. A means of evaluating a laboratory or testing an organization's performance under controlled conditions relative to a given set of criteria through analysis of unknown samples provided by an external source.

Round Robin Testing. A method of proficiency testing, whereby a blind sample is split and sent to other laboratories for analysis. Laboratories participating in round robin testing must not pass test samples from one laboratory to another.

References

Irwin, R.J. (2004). Draft Part B of Aquatic Habitat Park Service guidance for Park Service Vital Signs Monitoring. Planning Process Steps: Issues To Consider And Then to Document In A Detailed Study Plan That Includes A Quality Assurance Project Plan (QAPP) And Monitoring "Protocols" (Standard Operating Procedures), Available at <https://www.nature.nps.gov/water/vitalsigns/assets/docs/wqPartB.pdf>