

Standard Operating Procedure #14:

Post-Season Procedures

Version 1.0

In Monitoring Protocol for Wadeable Streams of the Great Lakes Network

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Revision History Log

The following table lists all edits and amendments to this document since the original publication date. Information entered in the log must be complete and concise. Users of this standard operating procedure will promptly notify the project manager and/or the Great Lakes Network (GLKN) data manager about recommended and required changes. The project manager must review and incorporate all changes, complete the revision history log, and change the date and version number on the title page and in the header of the document file. For complete instructions, please refer to Procedure for Revising the Protocol, SOP #16.

Previous Version #	Revision Date	Author (with title and affiliation)	Location in Document and Concise Description of Revision	Reason for Change	New Version #

Add rows as needed for each change or set of changes tied to an updated version number

14.0 Introduction

The proper maintenance and storage of field and laboratory equipment will prolong the life of the gear as well as simplify start-up procedures for the next field sampling season.

14.1 Equipment and Supplies

14.1.1 Field Equipment

When multiprobes are to be stored for extended periods of time, make the following preparations:

- Thoroughly clean the sensors.
- Remove installed batteries.
- Be sure the storage cup contains adequate tap water to keep sensors moist; check manufacturer's guidelines for the proper amount. If the sensors might be exposed to freezing temperatures, use a solution of one-half tap water and one-half methanol.
- Store away from direct sunlight. Although the instrument should be able to be reliably reactivated for field use with a minimum of effort before field use, it should be checked out well in advance of scheduled surveys to allow time for repair or replacement.

Refer to equipment manuals for more detailed instructions regarding maintenance of multiprobe sondes.

End-of-season care of other equipment includes the following:

- Inspect and clean all equipment following the procedures detailed in SOP #5, Decontamination of Equipment to Remove Exotic Species. This effort minimizes the potential for transferring nuisance species from contaminated streams to uncontaminated streams.
- Lay out all measuring tapes, lines, nets, and waders to dry completely. When dry, coil lines, fold nets, and hang waders for long-term storage.
- Ensure that all equipment is clearly marked (e.g., GLKN WQ).
- Store field equipment in protective storage cases to avoid damage.
- Scrub transparency tube with mild detergent and a soft bottle brush.

Return all of the equipment and supplies to the proper storage area. Keep them organized so they can be inventoried using the equipment and supply checklists, and for annual property inventories for equipment assigned a GLKN or NPS property number.

14.1.2 Laboratory Equipment

- Clean all sample bottles and labware in a 0.1N HCl acid bath followed by deionized water rinses.
- Store calibration standards and electrolyte solutions in a temperature-controlled environment.
- Properly dispose of all chemical waste material.
- Inventory all supplies and replace if necessary as soon as possible.
- Ensure that safety data sheets (formerly known as material safety data sheets) are up-to-date, complete, and readily accessible.

14.2 Data Management

There is no substitute for complete and accurate record keeping of field-derived data. Field technicians, crew leaders, and project leaders share responsibility for collecting, verifying, and documenting data according to the guidelines in this monitoring protocol and all applicable standard operating procedures. Refer to the GLKN Data and Information Management Plan (Hart and Gafvert 2005) for overall guidance and follow SOP #11, Data Entry and Management and SOP #13, Reporting, for additional details.

14.3 Quality Assurance/Quality Control

Taking proper care of all field and lab instrumentation and sampling gear is a fundamental part of any QA/QC program. For example, sensors that are properly cared for will likely be less variable and equilibrate more quickly in the field, and nets that are properly cleaned and stored are less likely to get torn.

14.4 Literature Cited

Hart, M., and U. Gafvert (editors). 2006. Data management plan: Great Lakes Inventory and Monitoring Network. Great Lakes Inventory and Monitoring Network Report GLKN/2006/20. National Park Service, Ashland, Wisconsin. Available at: https://science.nature.nps.gov/im/units/glkn/assets/docs/GLKN_SD8_Data_Management_Plan.pdf.