

Getting Started

Finding Resources in the Guide for Growing Extension Volunteer Monitoring Programs

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Why This Guide Was Created

Volunteer monitoring can be a tremendous asset to water quality protection efforts¹. While volunteers contribute their monitoring time and skills for 'free,' these cost-effective monitoring programs require a great deal of effort and usually some expense to operate. In addition, for a program to work well a significant amount of planning, implementation and ongoing management must occur. Fortunately there are many resources available to assist in developing new programs or expanding existing ones.

The Cooperative State Research Education Extension Service, now the National Institute of Food and Agriculture (NIFA), Volunteer Water Quality Monitoring National Facilitation Project is developing this guide to direct you to some of those resources and help you start asking questions that you'll need to answer in order to create an effective program that meets the needs of your community.

Input from NIFA State Water Quality Coordinators and NIFA-associated volunteer water quality monitoring program coordinators was a critical element of the development of the **Guide for Growing Extension Volunteer Monitoring Programs**. Most of the modules reflect their responses to a set of inquiries conducted to assess the current status of volunteer monitoring within Extension¹. This Guide represents the diversity of experiences and expertise found within Extension that can and will support the expansion of volunteer monitoring efforts.

Elizabeth Herron, Kris Stepenuck, and Kelly Addy

Structure and Contents of the Guide

The **Guide for Growing Extension Volunteer Monitoring Programs** has been designed in a modular form, with a series of 'chapters' or modules that can be used alone or in conjunction with other sections depending upon the needs of your program. The purpose of this guide is bring together some of the excellent resources produced by a wide variety of monitoring programs or agencies into a comprehensive document to help support Extension-affiliated volunteer monitoring efforts. Thus you will find frequent references and links to a wide variety of materials from Cooperative Extension and other programs.

The modular structure was selected not only to facilitate the use of selected materials, but to also allow for easy updates. We are anxious to receive feedback, suggestions and especially leads on additional material or topics that should be included in this guide. Our goal is to highlight the excellent work of our volunteer monitoring colleagues, both those within and outside Cooperative Extension to help develop a strong national support system for volunteer monitoring within Extension.



¹ The impact of volunteer water quality monitoring was assessed in two USDA CSREES projects. The first project, *Assessing the Scope of Cooperative Extension Volunteer Water Quality Monitoring Programs*, took place during 1995-96 and encompassed written and/or oral interviews with CE State Water Quality Coordinators and individual CE-sponsored program coordinators. The second project, *National Facilitation of Cooperative State Research Education Extension Service Volunteer Monitoring Efforts* included written inquiries and follow-up email correspondence during 2001-02 to CE State Water Quality Coordinators and individual CE-sponsored program coordinators.

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See <http://volunteermonitoring.org> to view and download these modules. We are interested in comments about these modules, which we will be updating regularly, as well as learning about additional modules that might be needed. Your suggestions and ideas are always welcome.

Guide Modules:

- **Why Volunteer Water Quality Monitoring Makes Sense** focuses on the many benefits of volunteer monitoring to local communities and in support of organizations such as Cooperative Extension. It features the experiences of active Extension-based monitoring program coordinators to highlight the myriad ways that volunteer monitoring engages citizens in active watershed protection and enhancement efforts.
- **Designing Your Monitoring Strategy: Basic Questions and Resources to Help Guide You** does not contain a complete list of monitoring methods, but rather provides information needed to help choose monitoring methods most appropriate for meeting specific monitoring objectives with available resources. There are links to a variety of monitoring procedures manuals and quality assurance project plans.
- **Training Volunteer Water Quality Monitors Effectively** provides an overview of the basics of training and suggestions for tailoring training methods to meet your needs. It also provides extensive information for developing safe and effective classroom and field training sessions, as well as numerous links for additional information on learning styles and other educational issues.
- **Building Credibility: Quality Assurance and Quality Control for Volunteer Monitoring Programs.** Quality assurance is a critical issue with all monitoring programs, including volunteer programs. This section provides information to help focus on meeting your own program's objectives and associated QA standards – not necessarily on having your program follow the most stringent methods.
- **Sharing Information Through Internet Data Exchanges** lists topics and contact information for archived internet exchanges of particular relevance to volunteer monitoring program coordinators.
- **Volunteer Management and Support Tools** (<http://www.usawaterquality.org/volunteer/Outreach/VolunteerManagementVIII.pdf>) emphasizes the need for comprehensive program coordination. Tools and techniques used with success by Extension monitoring programs are shared.
- **Considerations for Planning Your Program's Data Management System** answers common questions, and provides tips, anecdotes, and resources about data management, and database planning and development.
- **From the Trenches—Tips and Tools for Better Presentations** How to present complex information in an effective manner is the focus of this module. Tools and techniques used with success by Extension monitoring programs will be highlighted in this section.
- **Tools for Effective Outreach** Reaching out to audiences is more than just presentations. This module introduces some unique ideas and advice for more effective outreach plans.
- **Fundraising for Volunteer Monitoring** Effective ecological monitoring is a long-term commitment, often requiring support from a variety of sources to ensure financial stability. This section explores ways to develop funding partnerships, unique fundraisers, links to grants and ideas for conserving resources.
- **Bacteria Monitoring** This three module set guides development of bacteria monitoring from method selection to presenting data effectively.
- **Evaluating Your Volunteer Monitoring Program** Knowing whether you are meeting your goals is essential for program success. This module gives you the tools to determine that.

Resources to Get You Started

Each section of the **Guide to Growing Extension Volunteer Monitoring Programs** will contain numerous links to available resources. Listed here are a number of manuals that provide a framework for developing programs that should be part a monitoring coordinator's basic library.

Volunteer monitoring resources available from United States Environmental Protection Agency (USEPA):

- Starting Out in Volunteer Water Monitoring, EPA 941-F002-004, September 2012
- Volunteer Water Monitoring: A Guide for State Managers. EPA 440-4-090-010, August 1990.
- Volunteer Lake Monitoring: A Methods Manual. EPA 440/4-91-002, December 1991. <https://www.epa.gov/quality/methods-manual-volunteer-lake-monitoring>
- Volunteer Estuary Monitoring: A Methods Manual. EPA 842-B-06-003, March 2006. <https://www.epa.gov/nep/volunteer-estuary-monitoring-methods-manual>
- Volunteer Stream Monitoring: A Methods Manual. EPA 841-B-97-003, November 1997. <https://www.epa.gov/sites/production/files/2015-06/documents/stream.pdf>
- Volunteer Wetland Monitoring: An Introduction and Resource Guide. EPA 843-B-00-001, December 2001. <https://nepis.epa.gov/Exe/ZyPURL.cgi?Dockey=2000535D.TXT>
- Volunteer Monitor's Guide to Quality Assurance Project Plans. EPA 841-B-96-003, September 1996. <https://www.epa.gov/quality/volunteer-monitors-guide-quality-assurance-project-plans>
- Quality Assurance Project Plan Development Tool <https://www.epa.gov/quality/quality-assurance-project-plan-development-tool>
- The Volunteer Monitor*, was published twice yearly, as the national newsletter of volunteer water monitoring. The newsletter facilitated the exchange of ideas, monitoring methods, and practical advice among volunteer monitoring groups across the country. Issues were timely and timeless in terms of information and worth investigating <https://web.archive.org/web/20090826214442/http://www.epa.gov/owow/monitoring/volunteer/issues.htm>

Regional and state programs guides:

- Volunteer Stream Monitoring Training Manual Hoosier Riverwatch* includes links to pdfs on a variety of topics <https://www.in.gov/idem/riverwatch/2332.htm>
- Field Manual for Global Low-Coast Water Quality Monitoring*, 12th edition (2000) Stapp, William B., Mitchell, Mark K. To obtain a copy contact: Kendall/Hunt Publishing Company, 4050 Westmark Drive, PO Box 1840, Dubuque, Iowa 52004-1840. 1-800-228-0810.
- Senior Environment Corps Volunteer Water Quality Monitoring Field Manual*. <https://water-research.net/Waterlibrary/watermanual/wqfieldmanual.pdf>
- Pennsylvania Citizens' Volunteer Monitoring Program *Designing Your Monitoring Program: A Technical Handbook for Community-Based Monitoring In Pennsylvania*. (2001) Dates, Geoff. Contact chesnyder@state.pa.us for a copy.
- Stream and River Monitoring* Fondriest Environmental Learning Center <https://www.fondriest.com/environmental-measurements/environmental-monitoring-applications/stream-and-river-monitoring/>
- River Monitoring Study Design Workbook* River Network <https://www.rivernetwork.org/resource/river-monitoring-study-design-workbook/> require Flash to view
- UMass Massachusetts Water Watch Partnership* – Publications directory includes links to many relevant resources including data presentation and much more <https://www.umass.edu/mwwp/resources/publications.html>
- Volunteer Monitoring Resources—Dickinson College* https://www.dickinson.edu/info/20173/alliance_for_aquatic_resource_monitoring_allarm/2911/volunteer_monitoring/2
- Volunteer Monitoring: Questions to Guide Volunteer Management Professionals* MSU Extension https://www.canr.msu.edu/resources/volunteer_monitoring_questions_to_guide_volunteer_management_professionals

A search of the World Wide Web will result in many more similar references; but these will get you started!

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Next Steps

Our hope is that you will use this guide as a jumping off point for your own program development. Except where noted, the materials are available for reprinting and modification to meet your program needs. We do ask that you credit the original source or this guide as appropriate.

Facilitation project staff are also happy to assist you in identifying opportunities or to help you locate information. Our contact information is included at the end of each section, and we encourage the use of E-mail for initial contact.

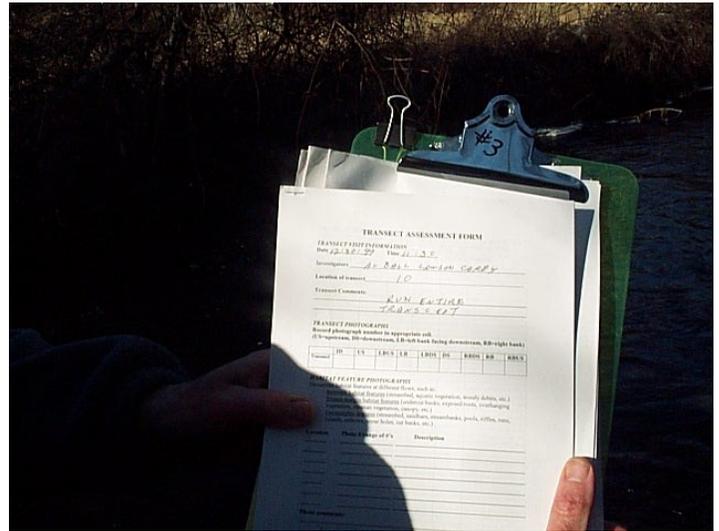


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We also suggest that you consider joining the Extension Volunteer Monitoring list serve. This purpose of this list serve is to encourage networking among the various Extension associated monitoring programs to promote sharing of experiences and materials, and to strengthen all of our programs. This moderated list is open to individuals with an interest in, or affiliation with Extension-associated volunteer water quality monitoring programs. Messages are only allowed to be posted to the list by subscribers and replies are sent to the sender of the message only.

To join the Extension Volunteer Monitoring list serve send an email to Kris Stepenuck with your request to do so (kstepenu@uvm.edu). She will reply shortly with additional information.



Summary

Developing a Cooperative Extension volunteer water quality monitoring program is an effective means of reaching diverse audiences and raising awareness of water resource issues. The Volunteer Water Quality Monitoring National Facilitation Project is working with Extension-associated volunteer monitoring programs to develop additional resources to assist in program development, and to serve as valuable models.

You are welcome to reproduce or borrow any portions of this document, but please contact us to let us know you are doing so. Please visit our website or contact us for more information on growing volunteer water quality monitoring programs: <http://www.volunteermonitoring.org>

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