



# *Merrimack River Initiative*

## *Watershed Connections*

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### **VEMN Standard Format For Reporting Monitoring Data**

Final Report

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Prepared by:

**The Volunteer Environmental Monitoring Network**

with assistance from River Watch Network

C/O Merrimack River Watershed Council

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## **THE MERRIMACK RIVER INITIATIVE**

The Merrimack River Initiative began in 1988 as an agreement between the U.S. Environmental Protection Agency, the State of New Hampshire, the Commonwealth of Massachusetts, and the New England Interstate Water Pollution Control Commission to collaborate on water quality issues. This initiated a dialogue to examine issues and problems in the watershed, thereby resulting in a proposal for funding and further work toward expanding the watershed approach. The watershed approach is different from other water resource planning efforts in several ways. First, the approach is "resource based" using the watershed as the management unit rather than looking at a specific portion of a river, as is usually the case. This allows planners to examine the cumulative impact of all activity in the watershed. Second, it strives to be a holistic approach. It considers issues of surface and groundwater quality and quantity along with human use and natural functions in the watershed. Lastly, it builds partnerships. The **Initiative** brings together public and private groups, state and federal agencies, industry and environmental groups all with a common goal.

### **For more information contact:**

NEIWPC, 255 Ballardvale Street, 2nd Floor, Wilmington, MA 01887  
U.S. EPA Library, One Congress Street, Boston, MA 02114  
Riverways Program, MA DFWELE, 1 00 Cambridge Street, Room 1901, Boston, MA 02202  
NH DES, P.O. Box 95, Hazen Drive, Concord, NH 03301  
NH OSP, 2 1/2 Beacon Street, Concord, NH 03301  
MRWC, 56 Island Street, P. O. Box 1377, Lawrence, MA 01840  
Lakes Region Planning Commission, 103 Main Street, Rte. 3, Meredith, NH 03253  
Central NH Regional Planning Commission, 329 Daniel Webster Hwy., Boscawen, NH 03303  
Southern NH Planning Commission, University Center, 400 Commercial St., Manchester, NH 03101  
Nashua Regional Planning Commission, 115 Main St., P.O. Box 847, Nashua, NH 03061  
Northern Middlesex Council of Governments, Gallagher Terminal, Floor 3B, 11 5 Thorndike St., Lowell, MA 01852  
Merrimack Valley Planning Commission, 160 Main Street, Haverhill, MA 01830

# **VEMN Standard Format For Reporting Monitoring Data**

Principal Author: Geoff Dates, River Watch Network.

This format was adapted from a paper prepared by Geoff Dates in March, 1995 entitled "Turning Monitoring Data Into Useful Information".

## Introduction

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The **Merrimack River Initiative** was started in 1988 to promote holistic management of natural resources throughout the Merrimack watershed. Participants recognize the dual benefits of developing a watershed-wide base of information and of building a strong watershed constituency by supporting citizen groups who want to conduct their own surveys. To meet these objectives, the **Volunteer Environmental Monitoring Network (VEMN)** was organized.

The VEMN provides services to volunteer environmental monitoring groups in the Merrimack River Watershed. These services include guidance in the form of documents and manuals, training, consulting, and connecting volunteers groups to resources in their communities. The purpose of the VEMN is to coordinate all the volunteer monitoring efforts and to develop a complete picture of water quality throughout the watershed.

The VEMN is developing an array of organizational and training services for new and existing groups. One major aim of the VEMN is to more closely integrate volunteer monitoring programs into environmental management decisions that are made in the Merrimack Watershed every day at every level of human activity.

The guidelines laid out in this and in other VEMN handbooks, will help citizen groups build effective local programs that also contribute to a watershed-wide view of the health of the Merrimack watershed.

This particular document provides an outline of what to include in a monitoring report. Monitoring Reports should:

- summarize the group's activity
- report findings and conclusions
- make recommendations for actions to address problems or for modifications to the program if needed

Some programs produce an annual "state of the waters" report that summarizes and analyzes the results of the preceding year, and all previous years, highlighting trends, clean-up progress, new trouble spots, etc.

Remember that the style, length, and content of your report should be geared to the audience you expect to read it. However, we recommend the following generic report format that can be adapted to different audiences.

## Presenting Your Results:

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### *Suggested Report Format*

**Executive Summary:** Briefly describes the project and major findings, conclusions, and recommendations.

**I. Introduction: brief description of the area and your program**

**II. Project Description: briefly describe your study design.**

- A. Why are we studying our river, lake and/or tributaries?
- B. Questions you tried to answer/hypotheses you tried to prove
- C. Water Quality Indicators Monitored
- D. How were the water quality indicators studied (sampling and analysis procedures and methods)
- E. Where Samples Were Collected and Analyzed
- F. When Samples Were Collected and Analyzed
- G. Quality Assurance Procedures

**III. Results: In this section display graphs and charts that show your analysis.**

- A. How Were the Data Analyzed?
- B. Findings
- C. Conclusions
- D. Recommendations

**Acknowledgments**

**References**

**Appendices**

- Map of Study Area
- Sampling Site List
- Data Tables
- Graphs
- Quality Assurance Data

Keep your volunteers informed of the results, as often as possible. Some groups produce monthly summaries for volunteer participants or send out periodic newsletters. In any case, they need some feedback as to how they are doing and what their work is showing.