

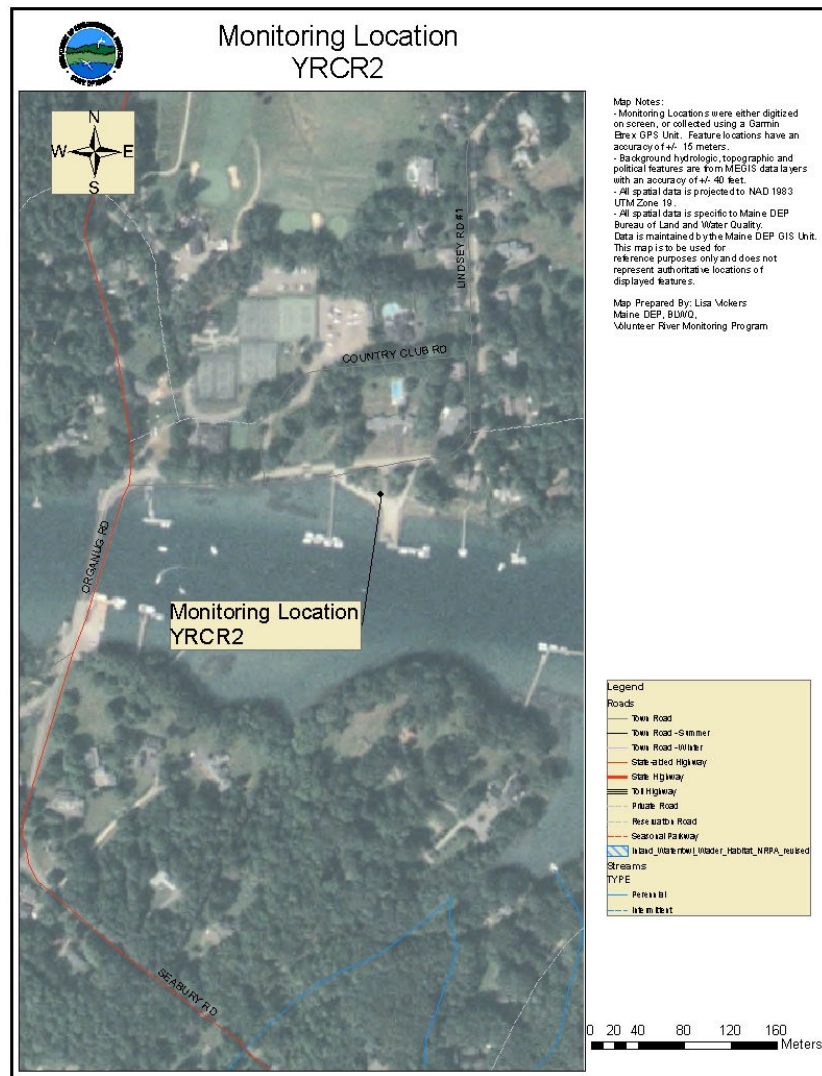


## STANDARD OPERATING PROCEDURES

### MAINE VOLUNTEER RIVER MONITORING PROGRAM (VRMP)



### METHODS FOR SELECTING AND DOCUMENTING SITE LOCATIONS FOR VOLUNTEERS IN THE MAINE VOLUNTEER RIVER MONITORING PROGRAM



**Note:** The mention of brand names does not constitute recommendation of a specific company.



**Volunteer River Monitoring Program (VRMP)**  
**Standard Operating Procedure**  
**Methods for selecting and documenting site locations**  
**for volunteers in the Volunteer River Monitoring Program**

Prepared by:  
Lisa Vickers and Jeff Varricchione  
Maine Department of Environmental Protection  
Bureau of Land and Water Quality  
Division of Watershed Management  
312 Canco Road, Portland, ME 04103

**1. Applicability.** This standard operating procedure (SOP) is used by the Volunteer River Monitoring Program (VRMP) of the Maine Department of Environmental Protection's Division of Watershed Management. It applies to locating and documenting monitoring locations as part of the VRMP.

**2. Purpose.** The purpose of this SOP is to provide standardized methods for volunteer groups to locate and document site locations that will be monitored as part of the Volunteer River Monitoring Program.

**3. Definitions.**

**A. GPS.** Global Positioning System; A satellite-based navigation system made up of a network of 24 satellites placed into orbit by the U.S. Department of Defense.

**B. GIS.** Geographic Information System; GIS is a computer system capable of capturing, storing, analyzing, and displaying geographically referenced information.

**C. SAP.** Sampling and Analysis Plan; used by volunteer groups as part of the VRMP quality assurance program plan. It details the sampling methods and QA procedures that are to be used by the volunteer group.

**4. Responsibilities**

**A. Volunteer Monitors & Volunteer Groups**

- **Certification.** It is the responsibility of the individual collecting this data to maintain current certification if they wish their data to be entered into the VRMP database. Training will be provided to volunteers on an annual basis by VRMP/DEP staff. Certification for certain tasks (e.g., water monitoring or sample collection) will last for one year from the date of training, while certification for other tasks (e.g., site



documentation, GPS use, data management) will only need to occur on an as needed basis (as determined by VRMP staff).

- **Data Recording.** It is the responsibility of the individual obtaining this data to record the results and additional qualifying information on the current VRMP Site Description Form obtained from their affiliated watershed association or through the VRMP program of the DEP.
- **Data Quality Checks and Data Submission.** The data manager for the volunteer group will collect and enter the information from the VRMP Site Description Form into the appropriate computer file, perform quality assurance checks (Refer to Section 5.10 of the Quality Assurance Program Plan), and submit data to the VRMP following protocols outlined in the volunteer group's latest sampling and analysis plan (SAP) that has been approved by the VRMP.

#### **B. Volunteer River Monitoring Program (VRMP) Staff**

- **Oversight of Volunteer Groups and Volunteers.** VRMP staff will oversee volunteer groups and volunteers through a variety of ways including maintaining an up-to-date VRMP quality assurance program plan (QAPP); reviewing sampling and analysis plans (SAPs) of the volunteer groups; providing an annual training/certification sessions for volunteers; conducting quality assurance checks on data submitted by volunteer groups and laboratories; and uploading data into the DEP's EGAD database. These tasks are described in greater detail in the VRMP's latest QAPP.

### **5. Guidelines and Procedures.**

- A. Safety.** Safety hazards exist when working in the field and in or around water. Volunteers participating in the VRMP should exercise common sense and be aware of potential hazards in the field that include but are not limited to: poison ivy, ticks, mosquitoes, sun/heat, and stream dangers (e.g., slippery stream banks or stream bottoms, fast or deep flows).

#### **B. Site Location Selection.**

- **Purpose of monitoring.** Site selection should be guided by the purpose of the monitoring plan and objectives/goals. The monitoring plan and objectives/goals shall be detailed in the specific sampling and analysis plan (SAP) of the volunteer group.
- **Representativeness.** The site selection of the monitoring location should reflect the representativeness or environmental conditions (e.g., dominant river habitat type) of the river/stream being monitored as best as possible (though volunteer safety remains the highest priority). Try to avoid very slow moving or "backwater" type habitats.



- **Landowner permission.** If the site is located on private land, ownership of the property shall be determined and permission for access shall be obtained prior to final selection of the site as a monitoring location.
- **Access.** Volunteer groups shall ensure there is safe access to the monitoring location as well as a safe way to measure parameter(s). Sampling from a (safe) edge of the river or from a bridge (using a VRMP approved water sampling device) should be considered if local conditions are generally hazardous.
- **Final selection of sites.** Site locations should be physically surveyed to verify the aforementioned criteria and to select specific stream reaches for sampling. Volunteers are encouraged to bring along another member of their group, or VRMP staff, to assist them with appropriate site selection.

### ***C. Documentation of Site Location.***

- **VRMP Site Description Form.** Volunteer groups should complete a VRMP Site Description Form for each site selected to document physical and geographic characteristics of the sample area and the horizontal and vertical position of the sample collection.
- **Geographic Documentation.** Volunteer groups shall document site locations using GPS unit. If a GPS is unavailable, volunteer groups may document the monitoring location through other methods that include but are not limited to digitizing location on a computer or indicating location on a USGS topographical map such as the Gazetteer. VRMP staff will provide assistance with GPS geographic coordinate data collection and GIS map-making to volunteer groups as needed and as time permits.
- **Physical Documentation.** Groups should document monitoring site characteristics on the Site Location Form by providing a site sketch in the space provided. In addition, any photographs taken and submitted with the Site Location Form shall be recorded on the site sketch.