

Stream Monitoring: How to get started as a Volunteer

Get Involved and Monitor Water Quality!

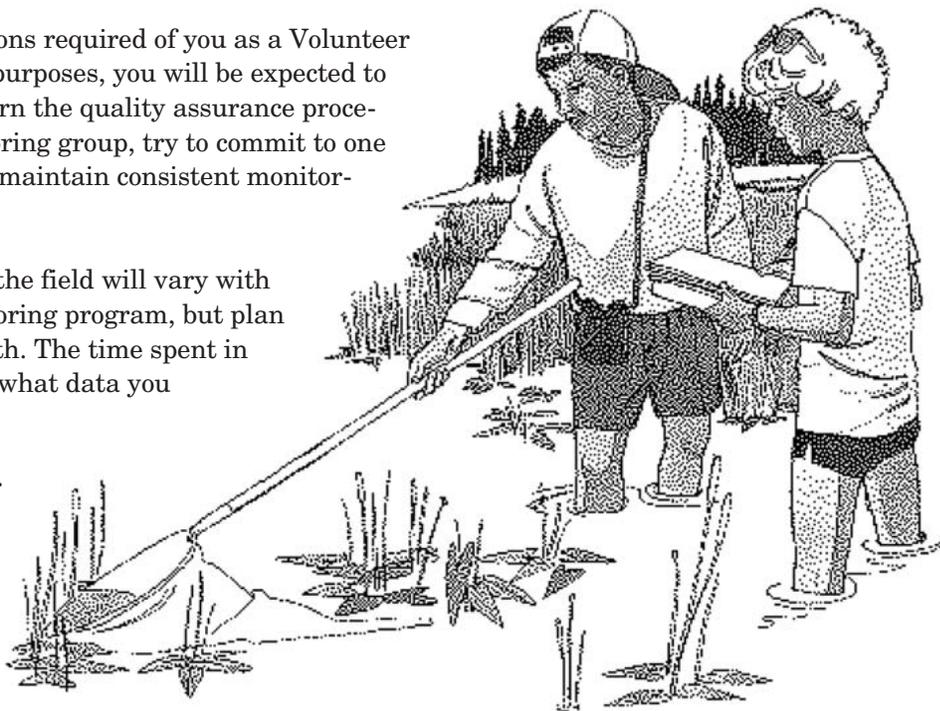
Monitoring the health of your local stream or river is an excellent way to work proactively for the natural world. Not only are you doing something positive for the environment, you also get to spend time enjoying the outdoors.

There are a number of expectations required of you as a Volunteer Monitor. For quality assurance purposes, you will be expected to attend a training program to learn the quality assurance procedures. When you join the monitoring group, try to commit to one year of collecting. This will help maintain consistent monitoring practices.

The number of times you are in the field will vary with the the goals of your local monitoring program, but plan to collect data about once a month. The time spent in the field will vary depending on what data you collect.

The strength of a good stream or river monitoring program is based on its volunteers. As a volunteer, you may be asked to help recruit others for the program. You can form teams with others to share the responsibility of data collection from one site. If

you are not interested in data collection, there are other ways to help the program. Ask your Monitoring Coordinator to suggest some related projects that need volunteers.



DEFINITION OF TERMS

Accuracy: A measure of confidence that the data closely match their true values.

Parameter: The stream characteristic to be measured.

Quality Assurance: Assurance that data are reliable because they are collected systematically by all volunteers.

Quality Control: Assurance that data are accurate by using a series of check points to review procedures before the information is entered into a database.

Your Safety: Our concern for your well being and enjoyment while collecting data in the field.

Your Monitoring Site

In some cases your monitoring site will be selected for you. For instance, it may be associated with a special project, or may be a site of interest to county agencies. You can also choose a site of interest to you or work with your Monitoring Coordinator to choose a site.

When choosing a site please keep the following points in mind:

- Easy access to site year 'round
- Legal access to site year 'round
- Preferably wadable
- No road drainage influence (so sample upstream of bridges whenever possible)
- At least 300 foot-long stretch that can be marked
- Good representation of the entire stream (not channeled, backwater or too close to a tributary that may influence your data results)



The Monitoring Coordinator will help you find the GPS coordinates for your site, find the actual name of your stream, and obtain the Waterbody Identification Code assigned to your stream by the Wisconsin Department of Natural Resources. All of this information will make it easy to map your monitoring site for cross-referencing and spatial distribution mapping.

Parameters

Temperature: Measures the water temperature to detect fluctuations during the year.

Transparency: Measures the clarity of the water.

Dissolved Oxygen: Measures the amount of dissolved oxygen available to stream and river organisms.

Macroinvertebrates: Aquatic animals visible to the human eye used as indicator species for general water quality measurements.

Habitat Assessment: Measures how land use impacts the health of the stream or river.

Stream Flow: Measures the amount of water flowing past a point in one second.

The Data: Generating a Future for Water Quality?

In the WAV Stream Monitoring program all citizen monitors will collect the same data in the same fashion. This process is called Quality Assurance. It is very important for you to attend all of the training sessions and follow all of the procedures very carefully. This will ensure accurate and reliable data. After you enter your data, they will be checked one more time before they are stored in the online database. This process is called Quality Control. In this process, your



Monitoring Coordinator will look for unusual data results that are higher or lower than expected and make sure all steps were completed during data collection. ***However, it's still very important to follow directions carefully. Accuracy is a must for valid data comparisons.***

Partnerships: What to Expect

When you join a monitoring team, expect to work closely with your county agencies or local advocacy groups that will help coordinate the local volunteer monitoring program. If you choose to be a part of this team, you should expect the following from your local Monitoring Coordinator:

- Development and maintenance of a Steering Committee
- Funding for your local effort
- Coordination of local training programs
- Quality Control Checking, then submission of data
- Filing and storage of paper copy data
- Promotion and care of your local program

The impact of data collection may not be immediately apparent to you, but know that your efforts and those of many other volunteers could capture crucial information needed for comprehensive water quality assessments. Keep in mind that you are an essential part of a huge organization that spans the country.

Be Safe, Not Sorry!

Your safety is very important to us! Each monitoring fact sheet explains the why and how of each measurement parameter and includes safety precautions where appropriate. It is also important to keep general safety tips in mind when you head for your monitoring sites, especially if there are younger volunteers:

- Always tell someone where you are going and when you plan to return.
- If possible, take a friend with you in the field.
- Use **EXTREME** caution when wading or entering the stream—deep holes are common in fast-moving streams and rivers; rocks can also be very slippery.
- If a streambank is too steep, don't attempt it.
- Consider wearing a Personal Flotation Device (life

Grooming for Monitoring Coordinator

If you have aspirations of being a monitoring coordinator, you should first consider some general characteristics required of successful coordinators. Probably the most important characteristic is *commitment*. Ultimately, you will be responsible for the tasks that go along with facilitating a diverse group of people to accomplish a mutual goal. This does not mean that you will be doing every task; in fact, you should be good at delegating.

To make your program successful, you will need **group facilitation skills** to accomplish the following: coordinate a steering committee, discuss program goals and objectives, and recruit and care for volunteers. **Organizational skills** will be necessary to select monitoring sites, manage financial issues, manage mailing lists, manage equipment and plan volunteer training events. Being **detail-oriented** is very important, too. Data management is essential to ensure the credibility of your program. Data will need to be checked and rechecked, and volunteers need to be motivated to be as careful and accurate as possible when collecting data.

preserver) at sites with deeper water.

- Know what poison ivy and wild parsnip look like.
- Wear goggles or rubber gloves when recommended on fact sheets.
- **Wash your hands** after you return from the field; do not touch your face until you do!

Monitoring the health of a stream or river is a very enjoyable adventure when you are safe. Please keep these safety tips in mind when out in the field.

WAV PROJECT LIABILITY WAIVER

Also available on-line at: <http://watermonitoring.uwex.edu/wav/monitoring/coordinator/plan-waiver.html>

I, the undersigned, being the volunteer involved in the Water Action Volunteers Stream Monitoring Project and the _____ [add your local program name here] hereinafter referred to as the Project, or being the parent or legal guardian of such a volunteer in the Project, in consideration of my or another's participation in the Project, I hereby, for myself and any volunteer for whom I am a parent or legal guardian, release, discharge, hold harmless, and forever acquit the State of Wisconsin, the County, the City, the University of Wisconsin Extension-Cooperative Extension, Wisconsin Department of Natural Resources, Water Action Volunteers program, _____ [add local program name here], or other local sponsors, and their officers, agents, representatives and employees from any and all actions, causes of action, claims or any liabilities whatsoever, known or unknown now existing or which may arise in the future, on account of or in any way related to or arising out of participation in the Project. Further, I assume all liability of any non-participants who accompany me. I understand that I am a volunteer for all purposes, including worker's compensation, and am not an employee of the State of Wisconsin, the County, the City, the University of Wisconsin Extension-Cooperative Extension, the Wisconsin Department of Natural Resources, Water Action Volunteers Program, _____ [add local program name here], or other local sponsors, and their officers, agents, representatives and employees, and as such they are not responsible for injury or death of myself and any volunteer for whom I am a parent or legal guardian which may occur while acting as a volunteer.

Participant's signature:

**Participant's name
(please print):**

**Participant's age
(if under 18):**

**Signature of participant's parent
or legal guardian:**

Date:

PHOTO RELEASE

I agree that any photos or video taken of me while participating in a volunteer monitoring activity may be used by UW-Extension, the Wisconsin Department of Natural Resources, or local program sponsors in brochures, presentations, news articles, websites, and other media sources.

Signature of participant:

Date:

**Signature of parent or guardian:
(if participant is under 18 yrs old)**

Date:

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Water Action Volunteers is a cooperative program between the University of Wisconsin-Extension and the Wisconsin Department of Natural Resources. For more information, contact the Water Action Volunteers Program at 608/264-8948.

