Wisconsin’s Citizen-Based Stream Monitoring Program

enter your local program information here
• The Citizen Stream Monitoring Program is part of a larger volunteer water monitoring network with opportunities to monitor:
  – Lakes
  – Streams
  – Wetlands
• 3 levels of involvement, linked with data uses

• Network data used:
  – Educationally
  – For status and trend assessments
  – To address research questions

• http://watermonitoring.uwex.edu/
Partners

- University of Wisconsin – Extension
- Department of Natural Resources
- River Alliance of Wisconsin
- Many local partners
- Add your local partners here…
Level 1 (WAV)

- Introduce the basics of monitoring - hands-on
- Understand connection between land use & water quality
- Led by statewide coordinator & 45 local coordinators
- 1600 citizens
Level 2

- More intensive monitoring
- Specific schedule
- 17 groups (160 citizens)
- Led by statewide coordinator & DNR staff liaisons
Level 3

• Special Projects
  – Can address specific water quality issue
  – Defined annually
  – Wide range of complexity, expense, & time
  – Monitoring experience required

• Examples
  – Ephemeral pond monitoring
  – *E. coli* screening
and Now for More Details About Level 2…

- Piloted in 2006
- UWEX/DNR/River Alliance of WI partnership
- Same equipment & methods as DNR
- Monitor monthly, May-September
Level 2 Volunteers Monitor…

<table>
<thead>
<tr>
<th>Variable</th>
<th>Method</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temperature</td>
<td>Temperature Loggers</td>
<td>Continuous</td>
</tr>
<tr>
<td>Water clarity or Transparency</td>
<td>Transparency tube</td>
<td>Monthly</td>
</tr>
<tr>
<td>Dissolved oxygen</td>
<td>Meter</td>
<td>Monthly</td>
</tr>
<tr>
<td>pH levels</td>
<td>Meter</td>
<td>Monthly</td>
</tr>
</tbody>
</table>
Impacts on life in the stream

Temperature change affects all aquatic life.

Warmer water holds less dissolved oxygen than cold water.

Turbid or cloudy water heats up faster.

Dissolved Oxygen is necessary for all plants and animals. Lower levels can cause death or distress to animals.

Turbid or cloudy water hinders light penetration necessary for plant growth and production of dissolved oxygen.

Transparency or Water Clarity can be a useful indicator of runoff from construction sites, industrial discharges, and other sources.

Source: Gatzke/Shaw
Volunteer Qualifications

Level 1
1. Interest in monitoring
2. Able to walk along stream banks & enter water
3. Enjoy the outdoors!

Additional Level 2
1. Previous monitoring experience
Volunteer Requirements

- Attend annual training in spring
  - Field & classroom
- Monthly data collection
- Enter data online
- Share equipment with others
- Collect & return temperature loggers in fall
Media Coverage

- Fond-Du-Lac Reporter
- 89.9 WORT-FM (Madison)
- Cambridge News
- Wisconsin Outdoor News
- Marshfield News-Herald
- Courier Press, Prairie du Chien
- Phillips Bee
Continuing Education

- Symposium
  - Networking
  - Education about streams
  - Community outreach tools
  - Political action
- Educators Workshop
  - Middle/High School curriculum
- Stream Leaders Workshop
  - Special focus on specific issues to empower volunteers to be local leaders
New Initiatives

- Citizen monitors’ assistance with schools’ stream monitoring field trips
- Community Outreach resources on the web: http://watermonitoring.uwex.edu/outreach
Data Use Examples

- Characterize a stream or region
- Assess long-term water quality trends
- More data on streams for state and federal reporting
- Assess potential of streams to support trout
- Restoration
Local Findings

- Insert charts, descriptions, etc. of data from your site(s) here
Our Ongoing Needs

• New volunteers
• Funding for:
  – Equipment
  – Training sessions
  – Data sharing sessions
• Add other needs your group has here
Level 2 Equipment Costs

• $1500 per set:
  – Dissolved oxygen meter
  – pH meter
  – Transparency tube
  – Thermistor
Equipment Cost Breakdown

- Transparency Tube costs $55
- Oakton Acorn pH Meter costs $250
- Dissolved Oxygen Meter costs $850
Cost Breakdown cont.

• Each temperature logger costs about $130
• They are useful to have at numerous sites to characterize temperatures across the watershed
How You Can Help

- Sponsor our local group with a financial donation
- Volunteer your time to be a monitor
- Help spread the word to your network that help is needed
How You Can Help

• Combat polluted runoff

• Feeling ambitious?
  – Build a rain garden
  – Use a rain barrel or two

• And don’t forget…you could become a monitor!

Photo from Lake Superior Basin website
How to Help: Everyday

- Aim downspouts away from concrete & into yard
- Dispose of pet waste properly – not in sewer drains
- Drop hazard chemicals & oil off at proper disposal locations

Photo from dailyhomerenotips.com
How to Help: Prevent Erosion

• Erosion leads to sediment in the water
• What you can do?
  – Leave natural plants on the shoreline or create a buffer zone
  – Encourage construction sites to have buffer zones

*Photo from Brown Co. WI*
Thank you!

For more information please visit:
http://watermonitoring.uwex.edu/level2/stream.html
http://watermonitoring.uwex.edu/wav/

or contact add your local contact here

or Kris Stepenuck at 608-265-3887 or kfstepenuck@wisc.edu