

IOWATER

Volunteer Water Quality Monitoring

Development of a Wetland Monitoring Program is *Underway* by Vince Evelsizer, Wetland Monitoring Biologist

It's estimated that at least 11 percent of Iowa's surface was covered with wetlands prior to European settlement in the early to mid-1800s. In those days, wetlands were viewed as simply "good-for-nothing wastelands" that were obstacles to progress. By the end of the 1980s, only about 1 percent of Iowa's wetland resources still remained. Today, scientific research has helped to change society's views of wetlands by increasing our understanding of the value of wetlands to plant, wildlife, and fish species. Research has shown that wetlands actually provide many benefits. These benefits include better flood storage capacity, critical wildlife, plant and fish habitat, and many types of recreational opportunities such as hunting, hiking, and birdwatching. Perhaps one of their most important functions to humans is their ability to filter water. When the sun shines into these shallow water systems, they become very busy places, both chemically and biologically. These dynamic processes cleanse the water as it moves through the wetland. This filtering improves groundwater and surface water quality. Therefore, wetlands should really be viewed as the kidneys of our watersheds.



Wetland monitoring at Union Hills Waterfowl Production Area in Cerro Gordo County.

For these reasons, efforts are now under way in the Water Monitoring Section of the Iowa DNR's Geological Survey & Land Quality Bureau to initiate a wetland monitoring program as part of our overall surface water monitoring program in Iowa. The ultimate goal for this wetland monitoring program is to provide quality data and information for the effective management and protection of all of Iowa's wetland resources. This monitoring will be useful for both water quality and conservation purposes.

Water quality data will be used in the following ways:

- determining the ecological integrity of our wetlands
- assessing the role of wetlands in improving water quality
- identifying optimal wetland placement within watersheds for maximum flood control and filtration
- setting appropriate water quality standards
- assessing wetlands for the state's integrated surface water assessment report

...from IOWATER's Coordinator

The Watershed Improvement Review Board (WIRB), which was established as part of Senate File 200 during the 2005 legislative session, oversees a five million dollar legislative appropriation that is designated for watershed improvement projects targeting specific impairments. These funds, which will be disbursed by the board in the form of grants, are available to local nonprofit watershed improvement committees and Soil and Water Conservation Districts.

As part of the assessment process, these grants promote water quality monitoring as a means of evaluating the effectiveness of watershed improvement programs. And because they are impairment based, the state's 303(d) list of impaired water bodies becomes that much more important. Perhaps even more important is getting monitoring data for all the water bodies that should be on the list, but aren't because of the lack or absence of quality data.

As Iowa continues to move water quality up on its list of priorities, IOWATER will strive to work with professionals and volunteers alike to produce quality, credible, and usable data the state can use to assess, protect, and improve Iowa's water quality.

From the home office in Sioux City, where the Big Sioux meets the Big Muddy, happy monitoring!

Brian Soenen

**Iowa Watershed Improvement
Review Board**
"Helping Iowans Protect Iowa Water Quality"
For more information:
<http://www.agriculture.state.ia.us/IWIRB.htm>

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To sign up, e-mail Jackie with the subject line reading "E-Copy Me Please!"



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The results from our monitoring may also be used as a basis for assistance in decision making for wetland wildlife habitat enhancement, restoration prioritization, wetland placement within watersheds, and new federal/state wetland conservation projects. Our initial wetland monitoring started this past summer and focused on permanent and semi-permanent wetlands (permanent wetlands hold water nearly year-round, while semi-permanent wetlands tend to go dry mid to late summer). Wetland field sampling for the 2005 season included two adjacent areas in north-central Iowa; the Winnebago River watershed and the northern portion of the Des Moines Lobe (Algona Advance) Region. We sampled 60 randomly chosen wetlands throughout these two areas for heavy metals, pesticides, and nutrients. Approximately 20 of these same wetlands were surveyed for fish, plants, and invertebrates to get an idea of their biological condition as well. This wetland monitoring will be linked to several other projects in order to provide a monitoring program for all of Iowa's wetlands.

get involved? get involved? Want to get involved?

IOWATER is currently looking for volunteers interested in helping with the development of the **Volunteer Wetland Monitoring Program**. Monitoring methods will be similar to the current IOWATER stream and lake monitoring programs, but will include Habitat and Biological observations that are specific to wetlands. If you are a trained IOWATER volunteer and are interested in helping out, please contact Jackie for details.

Currently, only 16 other states have wetland monitoring programs so this is a relatively new thing. Nearly all of the programs started in other states are less than 10 years old. Iowa is getting started at a good time because we have learned a lot already from these existing programs. Funding for Iowa's wetland project has been secured through grants with the U.S. Environmental Protection Agency in a cooperative effort to improve our state's ability to report on the condition of its wetland resources.

Future plans for wetland work include continued monitoring throughout other regions of Iowa and also for monitoring different types of wetlands. Because much of this work is new, many monitoring methods are still being explored and developed along the way. As we learn which methods work best, we hope to adapt them for volunteer use.

If you have any questions or comments please feel free to contact me (Vince Evelsizer) at vevelsizer@igsb.uiowa.edu or 319-335-1574.

Each year on October 18, citizens of the global community join in **World Water Monitoring Day** (WWMD), a worldwide opportunity to positively impact the health of rivers, lakes, estuaries and other waterbodies. **In 2003, Iowa led the world** in the number of sites monitored as part of WWMD (643), and **in 2004, Iowa once again led the world** with monitoring sites (890). Iowa also ranked second in the world for the number of people involved in the monitoring with 2,179 participants representing IOWATER, Iowa State University, CH2M Hill, Glenwood High School, Farmland Foods, Smithfield Foods, Take the Road Less Traveled, and Natural Resources Conservation Service volunteers.

"Congratulations" and "Thanks" to all who participated in WWMD!

For more information on World Water Monitoring Day, visit: www.worldwatermonitoringday.org



Volunteer viewpoints ... in their own words.



What's in the Water? 4-H project addresses real-life community issues

Barb, Dan, and Chris Harre



Working exhibit showing water testing and the role of community stakeholders in protecting water quality. Farmer (Rhett Schaefer), fisherman/hunter (Dan Harre), engineer (Chris Harre), and doctor (Garrett Riley).

Dan Harre participated in an IOWATER workshop in Muscatine last October (2004). Here he learned about the history of interest in water quality in Iowa and about the passage of the Clean Water Act in 1972. Dan learned about point and nonpoint sources of pollution. Up to now the activity to clean up water supplies focused on point sources such as sewage treatment plants, factory discharge outlets, and tile outlets. This has helped a lot but now the contribution from nonpoint sources such as runoff from lawns, streets, parking lots, construction sites, and gutters needs to be studied. This is actually what the City of Davenport has been trying to address over the past year, setting up storm runoff fees to cover the cost of developing systems to collect or filter this water so pollutants wouldn't get into the streams and rivers.

The IOWATER organization set up Dan and his mom, Barb, with the materials needed to do the testing in their stream. Mr. McAndrew (local watershed coordinator) met the Harres at their stream and helped them locate two sites. One site was selected where the stream enters their riparian buffer system. The second site is near where the stream leaves the riparian system. Data collected monthly from these sites will be entered into the IOWATER database. Over the next few years, patterns in the data will be studied.

Over the summer of 2005 Dan and his mom came up with the idea to do a working exhibit with the chemical tests he had learned. Dan approached his brother, Chris, and two other friends, Garrett Riley and Rhett Schaefer, about working with him on the project. They were all interested and agreed that the idea sounded like fun. The boys created a working exhibit for their local 4-H county communication judging event in Scott County. Samples of water were collected from the Mississippi River, West Lake Park, a backyard creek, and home tap water. Each boy learned about one or two different chemical tests. They were able to demonstrate how the tests were done, teach others how to do them, and explain to fairgoers what the results indicated. The boys received an "Excellence" rating with the compliment from the judge that their exhibit was one of the best two she had ever evaluated!

This was a terrific experience for the boys and their parents. It is cool that they understand the storm water issues that adults are debating in their community!

2005 Project AWARE Trip

Hannah Filkins, age 14



Hannah and Vanessa still smiling on Day 4 of Project AWARE.

Last summer, I went on Project AWARE with my dad, brother, and my best friend, Vanessa. Vanessa and I couldn't wait to go, and we did everything together to get ready. After the first day when I saw everything we pulled out of the Little Sioux River, I felt bad because so many people littered in the river. So I worked hard and helped out the rest of the week. My dad and I collected a lot of garbage. One thing I remember that we picked up was a huge railroad trestle, which almost capsized our canoe! At the end of the week, over 200 volunteers pulled a record 124 cubic yards (enough to fill 23.5

ten-wheel dump trucks) of trash from the Little Sioux River. We also pulled 5,600 lbs. (3 tons) of scrap metal from the river, televisions, an erector set, 50 tires (all different sizes, even tractor sized tires with some having rims on them), a lawnmower, a hubcap and much, much more. Only 600 lbs. of the collected trash could not be recycled.

Once I got home, the O'Brien County Fair was in a few weeks, and I had to make a 4-H project. That's when it hit me – I thought I should make a display showing what I did and how much trash was picked up from the river. The day my project got judged, I was in Minnesota, so my dad called to tell me that my Project AWARE project had been selected to go to the state fair! I was really happy because people at the State Fair might look at it and see the amounts of garbage pulled out by volunteers.

I hope to make a difference in my community, and maybe even Iowa. But the only way we can is by working together and volunteering to help make Iowa a better place to live.

Congratulations to all on a job well done!

Above: For her Project AWARE display, Hannah Filkins received blue ribbons at both the O'Brien County Fair and the Iowa State Fair.

Left: For their working exhibit on water quality, the "What's in the Water?" boys received a Grand Champion ribbon at the Mississippi Valley Fair, and the Excellence Award of Merit, the highest honor for 4-H working exhibits, at the Iowa State Fair.

We'd like to hear from you, so **send us a note...** about your IOWATER activities, thoughts, and ideas **...in your own words.**

Upcoming events

... snapshot sampling & more.



Feb. 16-17, 2006 (Thu-Fri); Water Monitoring Conference, Ames; Contact: Mary Skopec at (319)335-1575; mskopec@igsb.uiowa.edu

Mar. 7-8 (Tues-Wed); Agriculture and the Environment Conference, Ames; Contact: Agri-business Education Program at (515)294-6429; aep@iastate.edu

Apr. 29 (Sat); Beaver Creek Watershed Snapshot (Boone and Polk counties)
Contact: Steve Witmer (515)727-7765
switmer@ci.johnston.ia.us

May 13 (Sat); IOWATER Spring Statewide Snapshot
Contact: Darren Fife (515)281-6640
darren.fife@dnr.state.ia.us

May 13 (Sat); Johnson & Iowa County Snapshot
Contact: Dave Ratliff (319)354-1397 (day); (319)337-4445 (evening)
oldmancreek@qwest.net

May 16 (Tue); Muscatine County Snapshot
Contact: Ellen Myers (563)263-2752
emyers@ci.muscatine.ia.us

May 24 (Wed); Polk County Snapshot
Contact: Susan Heathcote (515)244-1194
heathcote@earthweshare.org

June 3 (Sat); Whitebreast Watershed Snapshot
Contact: Anne Hildebrand (515)961-5264
Anne.Hildebrand@ia.nacdn.net

June 10 (Sat); Cedar River Watershed Snapshot
Contact: Roy Hesemann (319)286-5976
royh@cedar-rapids.org

June 17-24 (Sat - Sat); Project AWARE (A Watershed Awareness River Expedition) – Iowa River; Contact: Brandon Harland at (515)281-3150 or Brandon.Harland@dnr.state.ia.us

July 15 (Sat); IOWATER Spring Statewide Snapshot
Contact: Darren Fife (515)281-6640
darren.fife@dnr.state.ia.us

July 15 (Sat); Johnson & Iowa County Snapshot
Contact: Dave Ratliff (319)354-1397 (day); (319)337-4445 (evening)
oldmancreek@qwest.net

Oct. 14 (Sat); IOWATER Fall Statewide Snapshot
Contact: Darren Fife (515)281-6640
darren.fife@dnr.state.ia.us

Oct. 14 (Sat); Johnson & Iowa County Snapshot
Contact: Dave Ratliff (319)354-1397 (day); (319)337-4445 (evening)
oldmancreek@qwest.net

Clear as Mud? Mud? Mud?

The phosphate test kits can be difficult to read if excessive sediment or algae are present in the sample. If your ampoules look more brown or green than blue, you should consider filtering your samples. For a filtering kit and instructions, please contact Lynette Seigley at lseigley@igsb.uiowa.edu or 319-335-1598.

Exercise Your Data . . . Data . . . Data . . .

Data entry, like exercise, is often an activity that we all plan to do, we just always plan to do it on that ever-elusive day we call "tomorrow." If you'd like to shed some excess paperweight, please take a moment this holiday season to transfer your data from the datasheets to the database. Data submission is quick, easy, and it sure beats exercise!

Send Help! Help! Help!

Has data entry or site registration left you feeling a little confused? If you'd like help registering sites or submitting data, please don't hesitate to contact us at iowater@iowater.net. No computer? No problem! If you'd like some technical assistance, please contact any of the staff, whose phone numbers are on Page 2.

IOWATER 2006 Level I Workshop Schedule

Date & Time	Location	Contact	Phone	E-mail
Mar. 31 (5-9 PM) Apr. 1 (9 AM - 3 PM) @ Pammel Park Nature Center	Madison County	Nicole Cannon 2273 Clarke Tower Rd. Winterset, IA 50271	(515) 462-3536	ncannon@madisoncountyparks.org
Apr. 21, (5-9 PM) Apr. 22, (9 AM - 3 PM) @ Annett Nature Center	Warren County	Beth Waage 15565 118th Ave. Indianola, IA 50125	(515) 961-6169	bethwaage@mindspring.com
Apr 28, (5-9 PM) Apr. 29, (9 AM- 3 PM) @ McFarland Park Conservation Center	Story County	Jerry Keys 56461 180th St. Ames, IA 50010	(515) 232-2516	jkeys@storycounty.com
Apr. 21 (5-9 PM) Apr. 22 (9 AM - 3 PM) @ Sleep Inn & Suites Meeting Room	Emmet County	Bill Moreau 1820 Central Ave. Estherville, IA 51334	(712) 260-2507	DOnline@myclearwave.net
July 7, (5-9 PM) July 8, (9 AM - 3 PM) @ Location to be determined	Woodbury County	Brian Soenen 3625 Nebraska St. Sioux City, IA 51104	(515) 205-8587	brian.soenen@dnr.state.ia.us
July 17, (5-9 PM) July 18, (5-9 PM) @ Jester Park Lodge	Polk County	Heidi Anderson 11407 NW Jester Park Dr. Granger, IA 50109	(515) 961-6169	handers@co.polk.ia.us

To register for a particular workshop, get in touch with the contact person listed.

IOWATER action!

Press releases, events, & news articles involving IOWATER monitors – Many thanks to all of you for your continued efforts.

- **Black Hawk County** – Carol Boyce, Orange Elementary teacher, was named the recipient of the Black Hawk County Soil and Water Conservation District's 2005 Teacher of the Year.
- **Boone County** – Lloyd and Gaylan Crim were named the recipients of the 2005 Lawrence and Eula Hagie Heritage Award sponsored by the Iowa Natural Heritage Foundation.
- **Iowa & Johnson County** – Special thanks to Dave Ratliff and the Johnson and Iowa County Watershed Coalition for their continued efforts to monitor and improve the conditions on Clear Creek.
- **Jackson County** – Thanks to the Farmers Creek Watershed Project and Watershed Coordinator Michelle Turner for monitoring throughout the Farmers Creek Watershed.
- **Pottawattamie County** – Thanks to East Pottawattamie Soil and Water Conservation District for including IOWATER testing in their third annual Water Day with the Riverside 8th grade class.
- **Scott County** – Thanks to all the volunteers who participated in the Xstream Cleanup.
- **Statewide** – Congratulations to Iowa Farm Bureau Federation members who were named recipients of a prestigious merit award from the National Soil and Water Conservation Society.
- **Tama County** – Thanks to Mike Skopec and the North Tama Advanced Biology students for monitoring Wolf Creek.

If we missed your happenings, please call or email Jackie Gautsch with an update.



IOWATER

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IOWATER
2005
Award
Recipients

Volunteers of the Year
Lloyd & Gaylan Crim



Professional of the Year
Tammy Turner



Event of the Year
Grant Wood Area Education Agency
Enhancing Education Through
Technology (E²T²) Initiative
**Erica Larson, Bruce Frana, &
Christopher Soldat** (not pictured).



Classroom of the Year
Mike Skopec & his North Tama High
School Advanced Biology Class
**Mike Skopec, David Morrison,
Aaron Skopec, & Gina Kubik**

