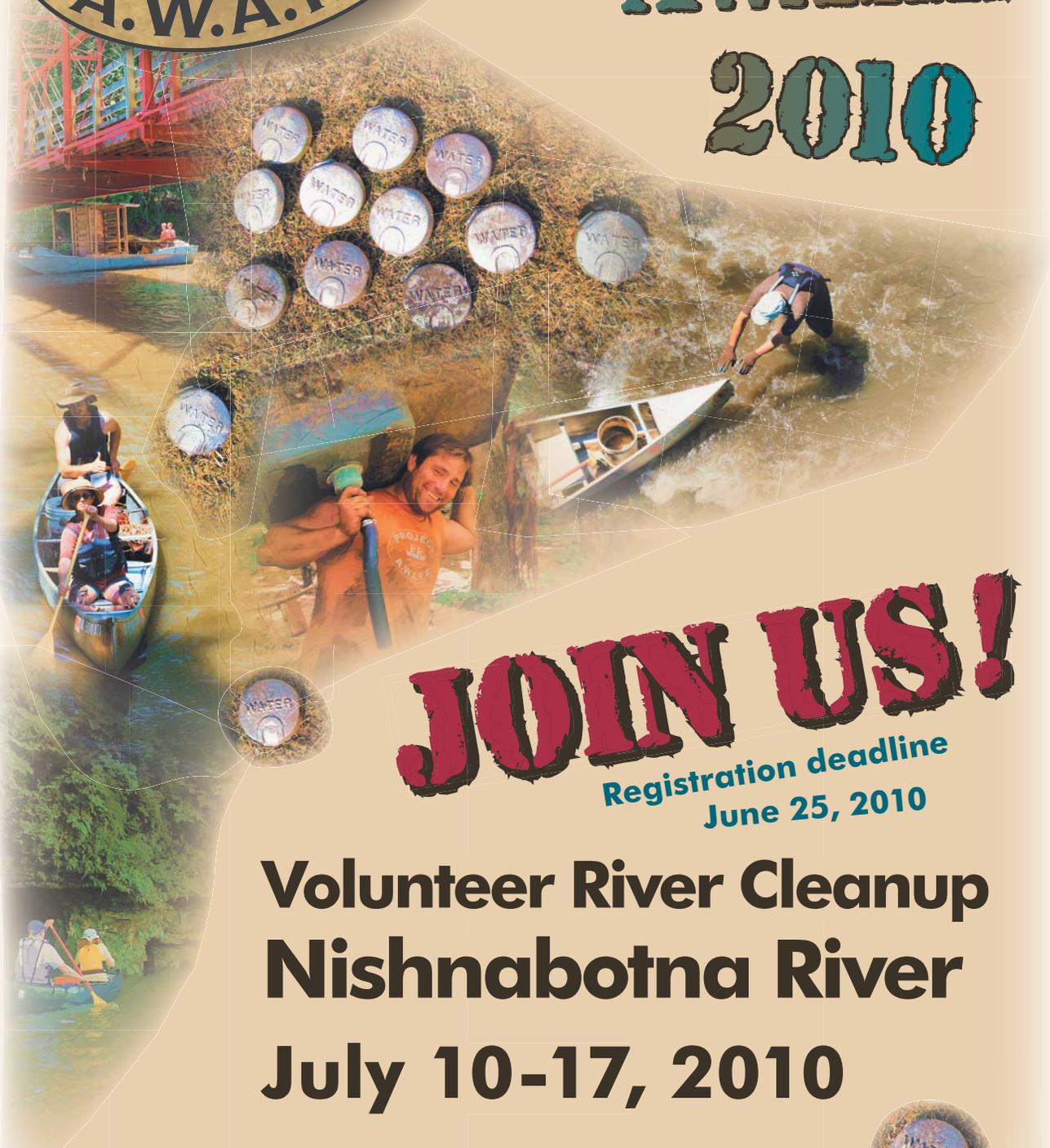




PROJECT AWARE 2010



JOIN US!
Registration deadline
June 25, 2010

**Volunteer River Cleanup
Nishnabotna River
July 10-17, 2010**

www.iowaprojectaware.com



IOWATER

Volunteer Water Quality Monitoring

IOWATER ReDesign

Has it been 10 years already?! The IOWATER program is celebrating its 10-year anniversary this year. This occasion prompted the IOWATER staff to spend this past winter reflecting on the program. We had questions about the past, future, and direction of the program. We asked ourselves, "Are we meeting your needs? Can we improve how we communicate with you? What data are submitted to the IOWATER program on a regular basis and why?"

The IOWATER staff recommended several updates to the program. We unveiled our thoughts at the recent 10-year Water Monitoring Conference and IOWATER Open Forum in Ames, Iowa. Based on the feedback received there, the IOWATER program has decided to pilot the redesign this summer. If all goes well, the fully redesigned program will be rolled out in 2011. But, first and foremost, IOWATER is your program. We welcome your feedback.



Redesign Feature #1: New Workshops

The Level 1 Workshop will now be split into two workshops. IOWATER will now offer incoming volunteers an eight-hour "Introductory" Workshop. This will feature a discussion of the chemical, physical, and habitat of Iowa's streams and lakes along with the testing of these three aspects of water quality. The Level 1 tests have not changed for the Introductory Workshop. Following completion of the Introductory Workshop, volunteers will have the option of taking an eight-hour Biological Workshop. Based on feedback from you, more time was needed to identify and understand the biological aspects of the former Level 1 Workshop. The new Biological Workshop features an improved biological identification key, more information about the critters (where they live, etc.), and new sieves for collecting the benthic macroinvertebrates. While the previous Level 1 Biological Monitoring included only presence/absence of benthic macroinvertebrates, the new workshop has volunteers counting the critters so that an Index of Biological Integrity can be computed.

Redesign Feature #2: Watershed Focus

Increasingly, watershed groups want to use IOWATER data to track success and demonstrate the quality of their waters. It has been a long standing goal of IOWATER to focus on watersheds, but implementation of IOWATER at a watershed scale has been left up to the volunteer. Now, the IOWATER program is working with local watershed coordinators (through local county conservation boards, soil and water conservation districts, and others) to start the Introductory Workshop with

this watershed focus. This will feature time to look at local watershed maps and pick sites for "adoption" right away. Local watershed coordinators will be able to talk with new volunteers at the workshop to help them become part of the monitoring community in their local area.

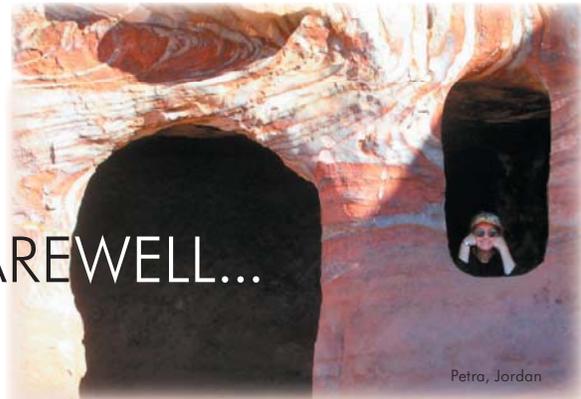
Redesign Feature #3: Recertification

To help volunteers accomplish their goals regarding the use of IOWATER data, IOWATER will be recertifying volunteers on an annual basis. This is intended to help IOWATER identify areas posing challenges for volunteers and provide on-going assurances that the methods described in our quality assurance plans are being met and to increase communication with volunteers. Our goal is not to see volunteers leave the program because of the recertification process, but for volunteers to feel more connected and committed to the program during the recertification process. IOWATER envisions the recertification process as a short on-line seminar (or webinar), phone call, or short refresher workshop. We will be piloting the recertification process over the next year and using volunteer feedback to make the process as simple as possible. Look for updates regarding recertification in future newsletters.

Redesign Feature #4: Communication

The IOWATER program will be expanding the amount of communication you receive (blogs, webinars, more emails!). Based on feedback we received at the conference in April, you want to hear more from us – more often, more encouragement, more about how the data are used and how they help protect your waters. Communication is also a two-way street, so we want to hear from you. What do you need from IOWATER? What do you like? What don't you like? The IOWATER program will be sending surveys out later this summer to continue the dialogue. . .

FAREWELL...



...to Pat Lohmann, an artist and publication designer with the Iowa DNR for 31 years. Most of you may not know Pat, but if you are reading this newsletter, you have enjoyed the talent and creative design she has brought to the newsletter since the summer of 2003. Pat has also worked on Project AWARE promotional materials and fact sheets for the water monitoring program. Since 2003, she has designed handouts for Iowa's statewide River of Words® (ROW) competition, which promotes environmental poetry and art among Iowa's youth, and has served as Iowa's ROW Coordinator since 2007.

Please join us in thanking Pat for the artistic design, creative talents, and high standard of excellence that she has brought to all of our publications. We wish her well in her retirement and travels.



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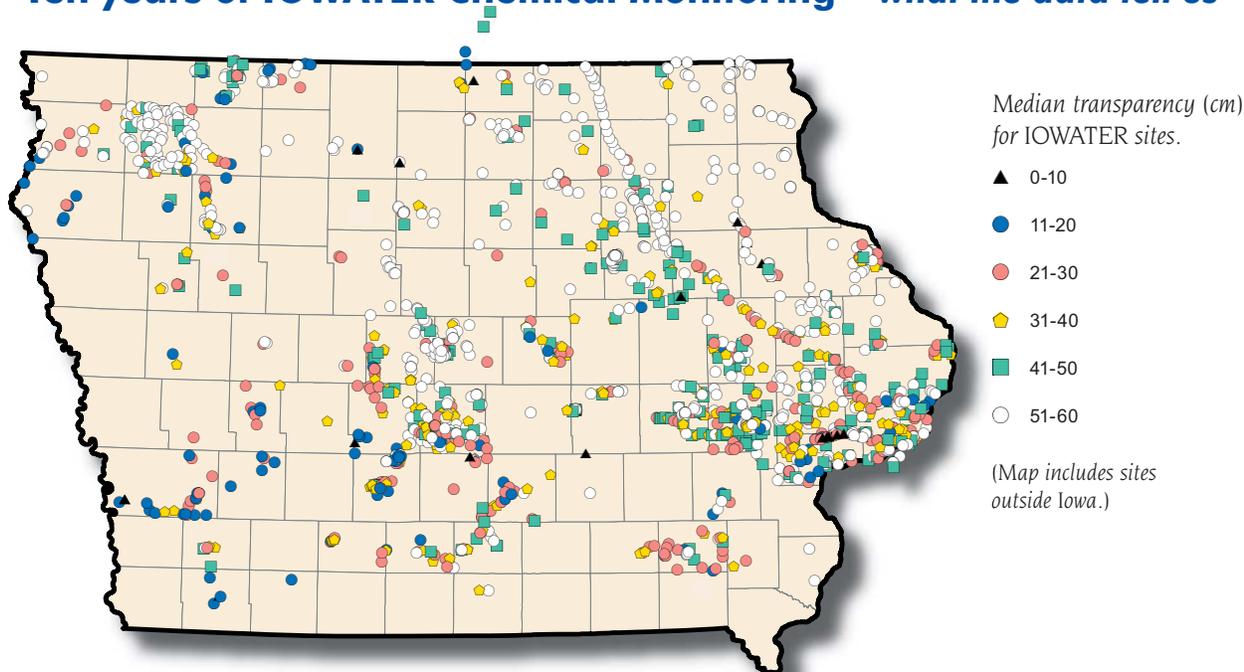
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IOWATER Web Site: www.iowater.net

Ten years of IOWATER Chemical Monitoring – what the data tell us



For the past 10 years, IOWATER volunteers have been monitoring streams statewide to assess the chemical and physical quality of those sites. In general, most IOWATER sites were not sampled very frequently, as 75% of the sites have 10 or less data records submitted to the IOWATER database. A total of 38% of the sites were sampled for <1 year while 45% of sites were sampled for 1-5 years. The water color "clear" correlated to high transparency (transparency measures water clarity), as sites which had "clear" water generally had transparency of 51-60 centimeters (cm). Transparency associated with other water color categories tended to be less than 50 cm and more variable. Overall, the average transparency for all sites was 50 cm and the water color most frequently reported was clear.

Chloride is a component of salt and a measure of human or animal waste inputs to a stream. The majority of chloride concentrations were <50 milligrams per liter (mg/L) (81% of the samples). For chloride concentrations >100 mg/L, most occurred during the month of October, a low-flow time of year when point source inputs are most apparent. For nearly 25 IOWATER sites, elevated chloride concentrations were frequently reported. Many of these sites were either located in urban areas, located downstream of community wastewater facilities, or affected by the storage or application of road salt. Phosphorus, an essential nutrient for plants and animals, was present at relatively low concentrations. Eighty-five percent of the samples were at or below 0.2 mg/L. As phosphate levels increased from 0 to 1 mg/L, so did chloride. For phosphate concentrations from 1 to 10 mg/L, chloride levels were generally high. The sites with elevated phosphate and chloride may be affected by inputs from human or animal waste or may be sites located downstream of a wastewater treatment facility.

Nitrate and nitrite nitrogen, also nutrients, were variable. Nitrate-N was 0 mg/L for 17% of the data and 2 or 5 mg/L for 63% of the results. Nitrite-N was low, as 70% of the data reported 0 mg/L and 25% were 0.15 mg/L. For 70% of the IOWATER data reported, dissolved oxygen concentrations were 8 mg/L or greater, while only 4% were <5 mg/L. For sites with dissolved oxygen of <5 mg/L, low dissolved oxygen tended to be a rare occurrence. Low dissolved oxygen (<5 mg/L) occurred most frequently from July through October when stream flow was low and water temperatures were at their highest.

To see the full Chemical/Physical Report please visit: www.iowater.net/Publications/StatusReports.htm

IOWATER 2009 Award Recipients

Watershed Group of the Year
Iowa River Cleanup Partnership



Shown here:
Carol Sweeting

Professional of the Year
Jeff Tisl



Volunteer of the Year
Erwin "Erv" Klaas



Event of the Year
River Run Garbage Grab



Shown here (left to right):
Joanne Mendenhall & Kevin Kostelecky

Classroom of the Year
Grant Wood Area Education Agency



Shown here:
Christopher Soldat

For more information on the
2009 IOWATER Award Recipients
and a description of their achievements,
visit www.iowater.net/activities/awards.htm

Volunteer viewpoints

... in their own words.



AHS Environmental Science Students Monitor Local Streams

article by Karen Hobson

On September 24, 2009, thirty environmental science students and their instructors Steve Baier and Kathy Hobson from Atlantic High School (AHS) spent the morning monitoring local stream quality. Water quality observations and evaluations were made at the Turkey Creek Educational Area near Lewis, Iowa, and along Bull Creek in front of the middle school.

Students assisted Lora Schwendinger, Cass County Naturalist, with water quality testing as part of IOWATER. Assessments that students made included observing the physical characteristics of the site and determining stream velocity; checking many chemical qualities such as pH, dissolved oxygen and nitrates; and, looking at stream life. A great time was had by all. "It was fun and a different kind of learning opportunity for the students." stated Kathy Hobson.



Above: Zach Smith with Lora Schwendinger doing physical assessment.

Left: Austin Eblen and Nicole Laurito doing biological observation.

Lora Schwendinger and Kathy Hobson are both registered IOWATER volunteers. Students were able to participate in this activity thanks to the local School-To-Work committee.

"It was fun and a different kind of learning opportunity for the students." – Kathy Hobson

FASCINATING FLOOD FACTS

QUIZ



1. A 100-year flood is defined as:
 - a. occurring once every 100 years
 - b. has a 100% chance of occurring every year
 - c. having a 1 in 100 chance that a flood this size will happen during any year
 - d. the elevation that has a 50% chance of being equaled or exceeded each year
2. How many Iowans are estimated to have been displaced by tornadoes and flooding in 2008? (Source: Iowa Homeland Security and Emergency Management Division, "Iowa Disaster 2008: Responding, Recovering, Rebuilding")
 - a. 10,000
 - b. 38,000
 - c. 57,000
 - d. 100,000
3. How many Iowa counties were Governor-declared disaster counties during the Floods of 2008? (Source: Iowa Homeland Security and Emergency Management Division)
 - a. 23
 - b. 50
 - c. 78
 - d. 86
4. How many sandbags were distributed in Iowa during the Floods of 2008?
 - a. 1 million
 - b. 4 million
 - c. 6 million
 - d. 15 million
5. The 15-day period from May 29 to June 12, 2008, was the wettest in Iowa history. **True or False**
6. As little as six inches of moving water can knock you off your feet. **True or False**
7. Two feet of floodwater can float your car. **True or False**
8. Water moving at 2 mph is capable of sweeping a car off a road or bridge. **True or False**



IOWATER 2010 Workshop Schedule

INTRODUCTORY WORKSHOPS – *To register for a workshop, contact the appropriate person listed below.*

Date & Time	Location	Contact	Phone	E-mail
June 2 (4-9 PM) June 3 (4-9 PM) @ Don Williams Lake	Boone Co.	Lisa Anderson Keep Boone Co. Beautiful 1264-224th Ln. Boone, IA 50036	(515) 433-0591	lisaa@boonecounty.iowa.gov
June 26 (8:30 AM- 4:30 PM) @ Webster City Fire Station	Hamilton Co.	Eileen Bader The Nature Conservancy 1921 Superior St. Webster City, IA 50595	(515) 832-2916	ebader@tnc.org
July 24 (8:30 AM- 4:30 PM) @ Lake Manawa Fish & Game Club	Pottawattamie Co.	Kevin Seevers W. Pottawattamie SWCD 305 McKenzie Ave. Council Bluffs, IA 51503	(712) 328-2489 ext. 308	kevin.seevers@pottswcd.org
Aug 21 (8:30 AM- 4:30 PM) @ Bellevue State Park South Bluff Nature Center	Jackson Co.	Jackie Gautsch Iowa DNR 109 Trowbridge Hall Iowa City, IA 52242-1319	(319) 335-1761	jackie.gautsch@dnr.iowa.gov
Aug 28 (8:30 AM- 4:30 PM) @ Tama County Nature Center	Tama Co.	Bob Etzel Tama CCB 2283 Park Rd. Toledo, IA 52342	(641) 484-2231	betzel@tamacounty.org

BIOLOGICAL WORKSHOPS – *You must be a certified IOWATER monitor. Go to iowater.net for information and to register.*

Aug 31 (5:30 PM-9:30 PM) Sep 1 (5:30 PM-9:30 PM)	Hamilton Co.	Briggs Woods Shelter #3		
Sep 25 (8:30 AM-4:30 PM)	Buchanan Co.	Fontana Interpretive Center		
Oct 16 (8:30 AM-4:30 PM)	Johnson Co.	Kent Park Conservation Education Center		

IOWATER action!

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



- **Polk County** – Congratulations to Robin Fortney for receiving the Metro Waste Authority Environmental Stewardship Award on April 21, 2010. The Award is designed to honor those who work tirelessly to take care of central Iowa's environment. Robin is a long-time IOWATER and AWARE volunteer.

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

