

IOWATER

Iowa Dept. of Natural Resources
109 Trowbridge Hall
Iowa City, IA 52242-1319

8th Annual **Water Monitoring Conference**

MONITORING
for the next generation

**Benton Auditorium,
Scheman Building
Iowa State University
Ames, Iowa**

February 25-27, 2008

For more information, visit:
wqm.igsb.uiowa.edu
or call 319-335-1576

MARK YOUR CALENDAR NOW!



IOWATER

Volunteer Water Quality Monitoring

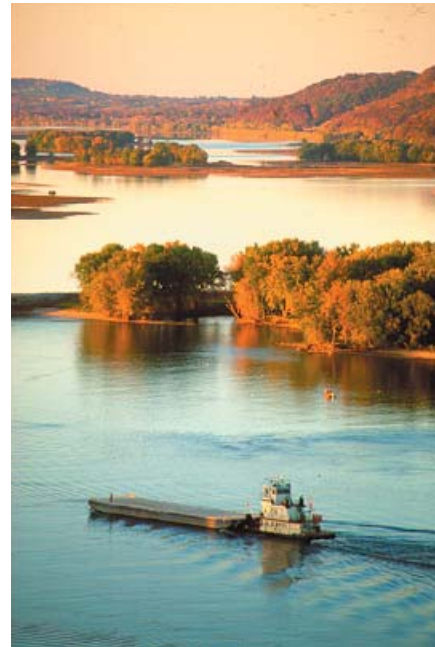
A Plan for Iowa's Waters

The issue of water quantity – how much water is available – has come to light in Iowa and across the nation due to climatic changes and recent increases in major industries that use water in their operations. While Iowa is not facing an immediate statewide water shortage, there have been localized shortages causing concern for sustainability and potential economic growth. How Iowa manages its water resources for both quality and quantity has the potential to impact the state's economic growth for years to come.

In Iowa, the Department of Natural Resources (DNR) is responsible for regulating water allocation and use through the issuance of water use permits, but improvements are necessary in this process to assure sustainable supplies into the future. In recent years, there has not been funding dedicated at the state level to properly track and assess water quantity issues. Resources for water use and water quantity monitoring (groundwater level and surface gages) have continued to decline and have resulted in data becoming outdated and difficult to analyze in order to make good decisions. Estimates on how much water is pulled from streams, lakes, ponds, and aquifers are 10 years old. The last updates on sustainability of aquifers are more than 20 years old. To meet the water needs of Iowans both today and into the future, we need to know how much water we have available in both surface and groundwater supplies. Each of these resources have unique management challenges. While surface water systems and shallow alluvial aquifers are more responsive to short term climate changes (drought and flood), deep aquifers are not easily or quickly replenished and are impacted more by long term climate changes. In addition, water resources are not evenly distributed throughout the state.

In the 2007 Legislative Session of the Iowa General Assembly, an effort was initiated to address this data shortfall by appropriating \$480,000 to the Iowa DNR "For regulating water quantity from surface and subsurface sources by providing for the allocation and management of water resources, and the preclusion of conflicts among users of water resources...". Ultimately, as the agency charged with managing Iowa's natural resources, the DNR must be proactive and make responsible decisions regarding use of Iowa's water resources. *For details see www.iowadnr.com/water/quantity.html*

Excerpted from: "Strategy For the Management of Iowa's Water Resources," 2007 Iowa Dept. of Natural Resources.



Mississippi River, Jackson County.

Clay Smith

Staff Comments...

How are we gonna split it 400 ways? That was the question running through the minds of Project AWARE staff when they recently received the Governor's Golden Dome Team of the Year and the Iowa Recycling Association's Best Public Education Program. It is a bit embarrassing to accept these awards on behalf of Project AWARE when you know that the people critical to the success (YOU, the many volunteers) are not there beside us to accept these honors. We hope we represented you well and made you proud. Brian even wore a suit - quite a change from the normal AWARE attire!

Project AWARE staff continue to be humbled by your tireless commitment to improving Iowa's natural resources and your willingness to jump into our sometimes crazy, usually exhausting, but always rewarding projects. Who would have imagined that five years ago, a few brave souls huddled under a hastily hung tarp in a driving rainstorm, eating ribs on the final day of our 1st Project AWARE, would turn into 400 plus volunteers cruisin' down the Raccoon River this year. A big rainstorm occurred again this year, but this time we had shelter! We look forward to our next adventure together and are always on the lookout for your new ideas and suggestions.

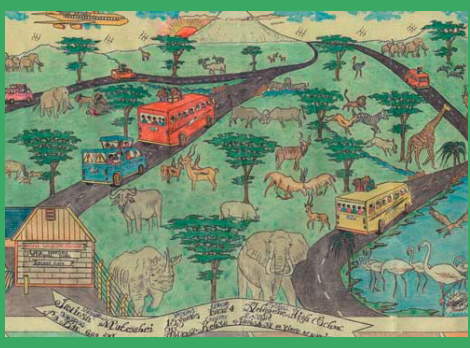
It is also the time of year to submit nominations for IOWATER awards (see p. 6). Please take a few moments to send us your thoughts on that teacher, neighbor, colleague, or friend who inspires you. Chances are, if they inspire you, their stories need to be told and we can't wait to hear them. Until then, thanks for being part of IOWATER and for inspiring all of us.

Mary Skopec
IOWATER Program

STUDENTS
ages 5-19 in grades K-12

IOWATER
announces

RIVER of WORDS 2008
Environmental Poetry & Art
International Competition




2007
INTERNATIONAL
GRAND PRIZE

Lake Nakuru
National Park

Javish Mutembei
age 19
Nairobi, Kenya

Deadline for entries: Feb. 15, 2008



For more information and entry forms, contact:
Pat Lohmann, Iowa DNR, 109 Trowbridge Hall, Iowa City, IA 52242-1319
Phone: (319) 335-1575 Email: Pat.Lohmann@dnr.iowa.gov
www.iowater.net (click on the River of Words logo)

IOWATER
Volunteer Water Quality Monitoring

Iowa Department of Natural Resources
109 Trowbridge Hall
Iowa City, IA 52242-1319

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**Five Years, Seven Rivers, 863 Participants,
1,000 yd³ of trash, 252 sponsors...
...and two incredible awards!**



Bill Graham

On October 9, 2007, Project AWARE had to be in two places at once. For on that day, the tireless efforts of the volunteers, sponsors, organizers, and supporters of AWARE were honored as the event received awards from the Iowa Governor's Office (Golden Dome Team of the Year) and the Iowa Recycling Association (Best Public Education Program).

Who's responsible for these honors? If you are reading

this article, the answer is "you, that's who." Even if you haven't ever been formally involved in Project AWARE, the fact that you found this article indicates that you have an interest in Iowa's natural resources...before people get involved, they first have to be interested.

Without IOWATER, Project AWARE would not exist. Without interested citizens who want to help protect and improve Iowa's water quality, IOWATER would not exist. It is to everyone out there who is interested in protecting and improving Iowa's natural resources for generations to come, we'd like to say, **"Thanks and congratulations – it couldn't have been done without you!"**



Kathy Ockentfels

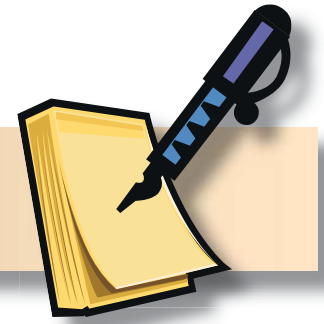
Left to right: Teresa Kurtz, Executive Director of the Iowa Recycling Association (IRA). Merry Rankin, Project AWARE staff. Erin Novak, with Mid-America Recycling and President of the Iowa Recycling Association Board of Directors. Both IRA and Mid-America Recycling have been multi-year sponsors of Project AWARE.



Steve O'Brien

Left to right: Governor Culver, Project AWARE staff members Luke Wright, Brian Soenen, Tricia Rummer, Mary Skopec, Nate Hoogeveen, and Iowa DNR Director Rich Leopold.

Volunteer viewpoints ... in their own words.



Do You Live in a Watershed?

Betty Kobe and her first grade class at West Hancock Elementary School, Hancock County

It is this question that begins our study of water in Iowa. A series of activities follow to answer this question.

Jason Lackore, Hancock County Conservation Board Educational Naturalist, launches the Iowa Department of Natural Resources Jr. Naturalist Badge with a hands-on environment experience explaining water conservation and the watershed environment.

He brings samples of Iowa water from wetlands. We put it on an overhead in a bowl and discover the living organisms.

Jason explains the water cycle. He brings wild birds and animals so the students can touch and observe what lives in Iowa wetlands.



He brings the Enviroscape to demonstrate the water issues in Iowa. The Enviroscape is a model of an Iowa landscape. Jason asked my students, the J.C. Bears, if they lived in a watershed? My students didn't think so, but by the time Jason had finished his program they were sure they did! Jason explained the way water is polluted with chemicals and sedimentation and soil is eroded. Jason demonstrated the effects of chemicals, pollution, and soil erosion on the land and stream model with colored water. He suggested ways to prevent these problems.



The J.C. Bears were given an opportunity to correct the problems by placing model trees, grassy buffers, and by developing a plan for contoured or terraced farmland. When each group completed a sectioned area of the model, the whole group discussed if their plan would work. Each J.C. Bear has a better understanding of how he/she can help conserve water and soil following this experience.

A visit to a local wetland, Eagle Lake, helped the students discover our Iowa problem of sedimentation. Thirty years ago there was water running under the spot where the children observed the tiny bit of water in the middle of the lake.

A local farmer and Hancock County Water and Soil Conservation District Commissioner Gary Steenblock conducted experiments with water and soil. He explains how water is filtered in Iowa wetlands.

The experiments are part of the first grade benchmarks in science.

Another farmer, Jay Burgardt, brings earthworms for students to understand the living soil. We set up a wormery. It helps the learners understand recycling.

Another farmer and 4-H leader, Phil Sweers, explained how being careful with chemicals helps to protect water. Many chemicals in our home and garden products that when not used properly harm the water.

The Hancock County Farm Bureau helps students understand how products are made with water as part of the industry. The J.C. Bears made paper!

Posters about water were made to help the students understand water and soil conservation. The posters go to the Hancock County Fair and compete at different levels, both state and nationally, with the Hancock County Soil and Water Conservation District. Our first place winner has a theme of protecting Iowa water with buffer zones.

A weather person from KIMT TV comes to explain weather. Another science benchmark is weather in first grade. The effects of weather on the water cycle are explained also.

Finally, Robin Sweers, the Talented and Gifted teacher uses a language frame to begin writing about water. She uses facts the J.C. Bears know to fill in the blanks. This is how the water poem (right) was researched and developed.

WATER

Water,
Water,
Water.
Splishy water,
Splashy water.
Plippy, ploppy, puddly water,
Drippy, droppy, dirty water.
Those are just a few.

Ground water,
Creek water,
Pond, lake, stream water,
Waterfall, river, sea water.
Melting water,
Erosion water,
Evaporating water.
Don't forget clear water.
Last of all, best of all,
We like CLEAN water!

CLEAN water did you say?
We know how it gets that way.
Buffer strips make water clean.
Cattails and reeds do too.
Tree roots help make water clean.
Contoured land does too.
Read the labels on chemicals
Before putting them in the ground.
These are all conservation ways,
That keep our water sound!

Kids, here's an IOWATER QUIZ to bug you...

- Which of the following uses "jet propulsion" to move around in the water?
a. Crawdad b. Dragonfly larva c. Leech d. Mosquito larva
- Which bug larva often has "hairy armpits?" a. Caddisfly b. Blackfly c. Stonefly
- Which two bugs have breathing tubes extending above the water surface to take in oxygen?
a. Water Scorpion b. Sowbug c. Rat-tailed Maggot d. Water Penny Beetle
- What is a *habitat*? a. food source b. type of bug c. home d. good habit
- Pollution intolerant* means an animal or plant can tolerate how much pollution?
a. a lot b. very little c. moderate amount

Answers at the bottom of page 7.



Leech



Water Scorpion

Dragonfly larva

Blackfly larva

Water Penny Beetle



Rat-tailed maggot

Stonefly

2007 IOWATER Awards –
NOMINATE

*your projects, groups,
peers, & yourselves.*



Award recipients will be invited to attend the 8th Annual Water Monitoring Conference in Ames on February 25-27, 2008.

This is your opportunity to recognize those working to improve Iowa's water quality.

Award Categories:

- **Volunteer of the Year**
- **Professional of the Year**
- **Classroom of the Year**
- **Watershed Group of the Year**
- **Event of the Year**

Deadline: January 7, 2008. Visit www.iowater.net for a nomination form.



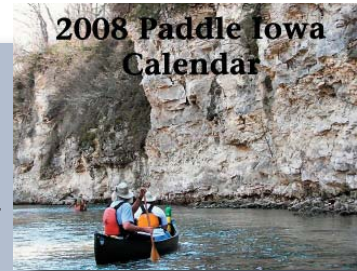
Apply for

MINI-GRANTS

*to help you protect & improve
your community's water quality.*

IOWATER is once again seeking proposals for the mini-grants program to help IOWATER volunteers fulfill the mission of protecting and improving Iowa's water quality. One-time grants of up to \$1,000 are available to individual volunteers and watershed groups who meet applicable criteria and submit an IOWATER grant application form. The deadline for application is December 31, 2007. For more information and application forms, please contact Jackie at jackie.gautsch@dnr.iowa.gov or visit the Mini-Grant section of the IOWATER website at www.iowater.net/Mini-Grant/MiniGrant.htm.

**2008 Paddle Iowa
Calendar**



The **2008 Paddle Iowa Calendar** lists over 150 paddling-related events and contains

photos of favorite Iowa paddling destinations. It is available at JAX Outdoor Gear in Ames, at CanoeSport Outfitters in Indianola, or by sending a check for \$12 (payable to Paddle Iowa Calendar) to Paddle Iowa Calendar, 2510 Pierce Ave, Ames, IA 50010. Proceeds support river-related recreation and conservation projects.

**Iowa
Weatherguide
Environment™
Calendar**

2008



Rainfall and runoff – you can't have one without the other. That's why a new partnership between Linn Soil and Water Conservation District and KCRG-TV9 has produced the Iowa Weatherguide Environment Calendar, published in cooperation with The Freshwater Society. This comprehensive, almanac-type calendar is a perfect gift for the recreational meteorologist and astronomer in your family, as well as the concerned conservationist and active environmentalist. All proceeds support water quality protection in Iowa. To order your Weatherguide (\$15.95 each), visit www.iowaweatherguide.org or call Stacie Johnson at 319-377-5960, Ext. 3.

Upcoming events

... cleanups, snapshots, & more.



Feb. 22, 2008 (Fri); Watershed Improvement Review Board request for applications deadline
www.agriculture.state.ia.us/IWIRB/IWIRBrfa.htm

Feb. 25-27, 2008 (Mon-Wed); 8th Annual Water Monitoring Conference, Scheman Building, ISU, Ames, IA
Contact: Mary Skopec (319)335-1575
Mary.Skopec@dnr.iowa.gov OR
Mary Pat Heitman (319)335-1576
marypat.heitman@dnr.iowa.gov

May 10 (Sat); **July 12** (Sat); **Oct. 11** (Sat)
IOWATER Statewide Snapshots
Contact: Lynette Seigley (319)335-1598
Lynette.Seigley@dnr.iowa.gov

Deadlines for the Watershed Development and Planning Assistance Grant program are January, April, July, and October 2008. These development grants for watershed background assessment and planning are available through the Iowa Dept. of Agriculture & Land Stewardship. For more information, contact regional coordinators Jeff Tisl (northeast IA), Vince Sitzmann (southeast IA), or Bob Waters (western IA). Go to www.iowadnr.gov/water/watershed/devgrants.html for Jeff, Vince, or Bob's contact information and more on monies available for watershed projects.

IOWATER action!

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



- **Boone County** – Keep Boone Co. Beautiful was recently awarded the most "Outstanding Beautification Program" by the Iowa Society of Solid Waste Operations (ISOSWO) for the CLEAR-Funded September 2006 Dagoon River Romp.
- **Bremer County** – Bremer County Conservation Board Naturalist Tammy Turner and Mrs. Bailey's Washington Irving Elementary 6th grade class conducted water testing of Baskins Run with the assistance of The Izaak Walton League of America, Three Rivers Chapter.
- **Butler County** – Dike-New Hartford Junior High School students along with teachers Kathy Sundstedt and Julie Rokes monitored water in the Dike and New Hartford area.
- **Jones County** – IOWATER volunteer and Monticello teacher Molly Pisarik received the Conservation Teacher Award from the Jones County Soil and Water Conservation District. She also received the Friend of Jones County Conservation Award from the Jones County Conservation Board.
- **Kossuth County** – The Bishop Garrigan High School ecology class (also known as the Bishop Garrigan River Rats) and Kossuth County Conservation Board conducted water quality tests of the East Fork of the Des Moines River and its tributaries on their annual canoe trip.
- **Polk County** – Congratulations to the following for being named "River Lovers" in a Des Moines Register series: Don Propst, John Wenck, James Martin, Brian Emerson, Gerry Rowland, Mike Delaney, and Brian Soenen.
- **Polk County** – Congratulations to the following for being named "River Keeper" in a Des Moines Register series: Chad Pregracke, Nate Hoogeveen, Robin Fortney, and Jon Stravers.
- **Polk County** – IOWATER volunteer and Raccoon River Watershed Association President Mike Delaney received the Iowa Chapter of the Sierra Club's "Grass Roots Activist" Award.

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

Answers to IOWATER QUIZ on page 5
1. b Dragonflies draw water into their abdomen and then expel it as a means of propulsion.
2. c Many stoneflies have visible gill tufts behind their legs.
3. a, c A breathing tube allows this organism to survive in low oxygen aquatic environments.
4. c Habitat is a place that provides all the living requirements (food, rest, reproduction) for an organism to complete its life cycle.
5. b Intolerant organisms are usually the first to disappear when water quality becomes worse.