



Building a Culture of Conservation

Farmer to Farmer: Iowan to Iowan



Iowa Watersheds



Iowa DNR



Algae bloom in an Iowa pond.

USDA-NRCS



Sediment deposits in an Iowa river.

NE Iowa RC&D

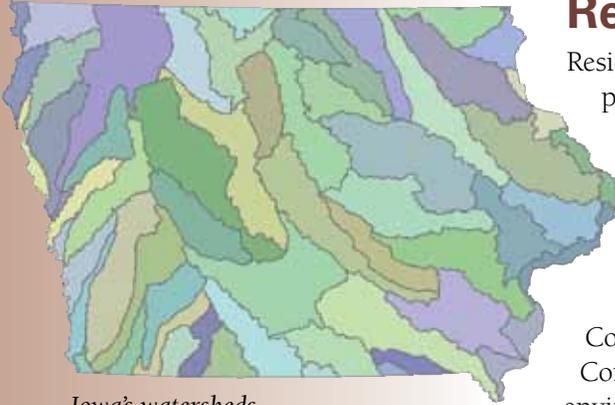
Water quality: It begins with you

Water quality is important to everyone. Can you answer 'yes' to any of these questions regarding your area water bodies?

- Are visitors to your local stream or lake declining because the water smells bad?
- Is your local beach closed due to high bacteria levels?
- Are there algae blooms in your lake or pond, making it difficult to swim, fish or boat?
- Is the water cloudy? For example, you used to be able to see your feet when standing in the water, now you struggle to see your hand below the surface.
- Are you catching less fish? Or are you catching a greater number of rough fish such as carp, buffalo or drum?
- Have you noticed more trash in the water and along the shoreline or streambank?
- Have there been reported fish kills in your area? Do you see an increase in dead fish?
- Has a state or federal agency placed your local water body on a list of impaired waters?

If you have noticed one or more of these indicators, the water quality in your local stream or lake may be declining.

If you would like to protect and improve the water quality in your stream, lake or pond, there is a lot you can do!



Iowa's watersheds

Resident-led watershed groups

Resident-led watershed management groups offer the opportunity for people to get involved in their watershed to make a difference. These groups consist of people drawn together by common streams, rivers or lakes and who are willing to work together to develop local goals and implement practices that improve and protect their water. Watershed groups work with organizations including: Iowa Department of Natural Resources (IDNR), Iowa Department of Agriculture and Land Stewardship (IDALS), Soil and Water Conservation District (SWCD) commissioners, the Natural Resources Conservation Service (NRCS), Iowa State University Extension (ISUE), environmental groups, farmers and businesses.

What is a watershed?

A watershed is an area of land that drains into a water body. A watershed can be as small as an area that drains into your local creek, or as large as the area that drains into the Mississippi or Missouri rivers. Within the watershed, many living and nonliving components function together to provide habitat and food for animals, and filtration and purification of water. These natural processes are important in maintaining a healthy watershed.

Resident-led watershed groups can:

- Offer innovative solutions for controlling potential water pollution
- Set local water quality goals and plan strategies for achieving goals
- Motivate others to get involved
- Initiate demonstrations and field trials to showcase urban and rural conservation practices, and
- Collect local water quality data.

Getting started

To help your community take part in watershed management, you can:

- Learn more about water quality issues
- Talk about the importance of water quality and encourage neighbors to talk to each other about problems and solutions, and
- Share your ideas with existing groups that are concerned about water quality and ask them for support.



Find your watershed at these web sites:

EPA Surf Your Watershed
<http://cfpub.epa.gov/surf/locate/index.cfm>

Iowa Department of Natural Resources Watershed Atlas
www.iowadnr.gov/mapping/maps/watershed_atlas.html

Watershed assessment and funding

- **Watershed assessment:** IDALS and IDNR provide grants in watershed planning and development, which allow districts and their partners to complete a comprehensive watershed assessment. The assessment includes a watershed plan that addresses identified problems, lists local partners and determines landowner support for implementation. IDALS and IDNR have the personnel and tools to help with this assessment.
- **Watershed implementation:** When you have completed the assessment and have a plan, implementation grants are available from IDALS and IDNR. The Watershed Improvement Review Board (WIRB) also awards grants to SWCDs, watershed improvement groups, county conservation boards, public water supplies utilities and cities. Contact your local SWCD or IDNR office to learn more.
- **IOWATER volunteer water quality monitoring program:** This program can help assess baseline water quality conditions and can be a great way to increase water quality awareness in your community. Data such as stream or lake water pH, turbidity (water clarity), temperature, nitrate-nitrogen, phosphate-phosphorus and E.coli are sampled.



Water quality makes economic sense

Did you know...?

- \$2.63 billion dollars are generated from Iowa lakes, trails, state and county parks.
- 62 percent of Iowans visited an Iowa lake in 2002.
- People are willing to bypass a local lake and travel to a distant lake if water quality is better.
- Water quality (such as water transparency, safety from bacteria, lack of smell) is more important to Iowans than how many fish they catch.
- For every dollar spent on stream restoration, an additional \$24.50 is returned to the regional economy each year.



Hewitt Creek watershed

In 2005, a group of concerned landowners in the Hewitt Creek watershed in northeast Iowa met after the creek was placed on the Iowa DNR's impaired waters list. They formed a watershed council and established goals.

ISU Extension specialists provided technical guidance in how to use environmental performance measures such as the Phosphorus Index, the Soil Conditioning Index, and the Late Season Cornstalk Nitrate test to evaluate current management practices. Where performance measures needed improvement, the specialists suggested alternative management plans to improve water and soil quality.

Resident-led and performance-based watershed projects like Hewitt Creek can:

- encourage neighbor-to-neighbor sharing of educational information
- give residents flexibility, selecting from several alternatives for improved performance.

For more information visit:

<http://extension.agron.iastate.edu/waterquality/performance.html>

and

<http://www.soc.iastate.edu/extension/watershed.html>



What can urban residents do to improve water quality?

If you live in a city or small town, there are many ways that you can improve water quality and reduce runoff coming from your property, as well as improve soil quality of your lawn.

Some common Best Management Practices (BMPs) that can be used in residential areas include:

- Rain gardens
- Soil quality restoration
- Bioretention cells
- Native landscaping
- Bioswales
- Permeable pavement

For more information about urban conservation, visit the Iowa Department of Agriculture and Land Stewardship Urban Conservation Program Web site: www.iowaagriculture.gov/FieldServices/urbanConservation.asp

References

- Otto, Daniel. Dan Monchuk, Kanlaya Jintanakul and Catherine Kling. 2007. The Economic Value of Iowa's Natural Resources. www.iowadnr.gov/sustainablefunding/files/econ_study.pdf
- Center for Agricultural and Rural Development and the Limnology Laboratory at Iowa State University survey.
- Performance-based Environmental Management ISU Extension PM 2013. <http://www.extension.iastate.edu/Publications/PM2013.pdf>
- Trout Unlimited Driftless Area Restoration Effort (TUDARE) http://www.tu.org/site/c.kkLRJ7MSKtH/b.3302703/k.65F5/Driftless_WI_MN_IA_IL.htm

It begins with you

A big part of the solution is to get everyone involved in caring about water quality—and be willing to do something about it. Watershed management is a process that needs the cooperation, expertise and commitment of many people and organizations. The payoff is clean, clear waters that we can enjoy today and our children can enjoy in the future.

Resources

Iowa has a number of public and private programs and services designed to protect water quality and other natural resources. For information about other water quality programs and projects, check these resources:

- Iowa Department of Agriculture and Land Stewardship: www.agriculture.state.ia.us
- Iowa Department of Natural Resources-Watershed Improvement: www.iowadnr.gov/water/watershed/index.html
- USDA Natural Resources Conservation Services: www.ia.nrcs.usda.gov/nrcs.html
- IOWATER: www.iowater.net
- Herriges, Joseph. Catherine Kling. 2003. Iowa Lakes Valuation Project, www.card.iastate.edu/lakes
- Performance-based Environmental Policies for Agriculture: www.uvm.edu/~pepa/
- Iowa Water Center: www.water.iastate.edu

For more information

For assistance in starting a local watershed group, contact Jamie Benning, Performance-Based Watershed Management project coordinator, 515-294-6038, email: benning@iastate.edu.

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