

Clean Water Starts With Us

WATERSHED IMPROVEMENT IN IOWA

DNR • DSC • NRCS

SPRING 2014

IN THIS ISSUE:

2
Water Rocks!
music videos
aim to entertain,
educate kids

3
Cover crop
calculator helps
farmers make
decisions

Cedar Falls
conservationist
Paul Meyermann
passes away

4
Conservation in
farm leases: no
“one size fits all”

5
PondBuilder
software aids with
pond, structure
design

6
Apply for a
Governor’s Iowa
Environmental
Excellence Award

Small Feedlot
Education and
Outreach Program
offers resources

Watershed management authority brings area together

Elkader, sitting at the bottom of the Turkey River watershed and reeling from the historic 2008 flood, contemplated its

doing that, water quality would also benefit. Those are the goals of the Turkey River Watershed Management Authority,

basin coordinator with the DNR.

“The only way to truly address these issues is to take a comprehensive watershed approach, which depends upon cooperation between urban and rural areas as well as neighboring cities and counties,” Stevenson adds.

The Turkey River WMA, one of 10 WMAs now underway in Iowa, grew out of the Turkey River Alliance, which had been meeting informally for about three years to address water quality issues.

The alliance continues on as the technical expertise arm, while the authority focuses on decision-making, policy and involving watershed residents in the effort.

“In a state where flooding has created havoc, it’s work together to solve this. You’ll never fix flooding by putting on more sandbags and levees,” says Lora Friest with Northeast Iowa RC&D.

“We’re trying to reach everybody to get every-

continued on page 2



Paddlers enjoy the Turkey River. Courtesy Jessica Rilling.

next move. Raise levees? Flood walls?

“You can only go so high and you have to look at other ways to affect the amount of water going through our town,” says city administrator Jennifer Cowsert.

That meant talking to other groups and people upstream, helping people realize that what they do on the land has effects downstream.

Water needed to slow down and the soil needed to hold more water to reduce flooding – and in

a recently formed group of 23 communities, five counties and seven soil and water conservation districts that represents the million-acre watershed in northeast Iowa.

Watershed management authorities, or WMAs, allow political entities to come together across city limits and county lines.

“Watershed issues such as flooding and water quality transcend our artificial political boundaries,” says Mary Beth Stevenson, Iowa-Cedar

New cover crop video available for farmers

A new video from Iowa Learning Farms features seven Iowa farmers offering their perspectives on why they grow cover crops, how to get started, seeding methods and management, growing cover crops for seed, and grazing cover crops. View it at www.youtube.com/user/IowaLearningFarm

Turkey River region rallies around river

continued from page 1

one to do something. The only way to get it to work is to have everyone working together," Friest says.

County engineers scout rural areas where conservation practices can slow water and urban communities look for better ways to manage stormwater and runoff as the WMA works on putting together a comprehensive watershed management plan.

That plan will detail the problems in the Turkey River watershed and propose solutions. Response from farmers and residents has been positive, says Rod Marlatt, WMA chair.

"Now we're able to do prac-

tices that landowners wanted but couldn't get cost-share for before," Marlatt says. "They've responded pretty well."

Coming together as a WMA also drew the attention of the Iowa Flood Center at the University of Iowa, which selected Otter Creek, a tributary of the Turkey, for a demonstration project that will put \$1.5 million worth of conservation practices on the ground.

The Iowa Flood Center will place 11 water sensors in the Otter Creek watershed and use the sensor data to track results of the conservation practices, which will slow water, and test the accuracy of the cen-

ter's flood modeling.

Watershed management authorities benefit from pooled resources, shared technical knowledge and expertise.

Cowsert, who also represents Elkader on the WMA board, says her city staff are now talking with farmers and the SWCD. "Our work never really overlapped before, and it should have," she says.

To read about other 2013 watershed successes in Iowa, visit www.iowadnr.gov/Environment/WaterQuality/WatershedImprovement/WatershedSuccesses.aspx

Water Rocks! music videos aim to entertain, educate kids

A romance between hydrogen and oxygen, a modern classical ode to prairies, and dogs asking us not to pollute: Water Rocks! music videos are as varied as the uses of water.

A statewide youth water education campaign, Water Rocks! uses music as a primary component.

"We use music, science, math, art, videos and technology as the means of reminding students of the fact that water is elemental to life," says Jacqueline Comito with Water Rocks!. "Music is also elemental to our lives.

Something sung is more powerful and easier to remember than spoken word. It triggers our imagination and touches our heart."

Original songs for the campaign are written, composed and performed by Smiling Stone Soup.

Many of the songs have been

made into music videos; others can be heard through the music player on the Water Rocks! website.

The music videos are appealing to a variety of ages, incorporating a diverse blend of musical genres

request at no cost, and offer age-appropriate learning activities for kindergarten through high school. A visit request form is on the Water Rocks! website.

All the music videos can be seen on the Water Rocks! website, YouTube and TeacherTube. Audio recordings of other original water-related songs can be found on the website, too, including "Climate Change Remix," "The Drinking Song" and "Itsy Bitsy Spider Rap."

Partners of Water Rocks! are Iowa State University Extension and Outreach, Iowa Department of Natural Resources, Leopold Center for Sustainable Agriculture, Iowa Water Center and Iowa Learning Farms.

Visit the website to learn more or to request a classroom visit: www.waterrocks.org.

Article courtesy of Water Rocks!



and artistic styles.

The Water Rocks! team teaches songs to elementary classrooms in Iowa during classroom visits. Many songs include hand and body motions to get the kids up and active.

The team visits schools by

Cedar Falls Conservationist Paul Meyermann passes away

Recently, the Iowa watershed coordinator community lost long-time conservationist Paul Meyermann.

Meyermann, as assistant director of operations and planning for the University of Northern Iowa's physical plant, was involved in the Dry Run Creek watershed project and other conservation efforts on campus.

A member of the Dry Run Creek Advisory Board from the beginning, Meyermann oversaw the installation of many conservation practices on the Cedar Falls campus, including a green roof, permeable paving, streambank restoration, bioretention cells and more.

"During his 28 years at UNI, Paul was able to share his keen insight into landscaping and nature. The physical look of campus is a result of his vision and dedication," says Ashley Kittle, a USDA-



Paul Meyermann. Photo courtesy Laura Jackson.

NRCS watershed conservationist in Waterloo. "He says the stream corridor offers an ideal opportunity to connect people with the land and water in a way that shows the value of the campus's natural resources. Instead of making an effort to avoid the creek, now you see people leaving the sidewalk and heading toward the water."

Meyermann also worked with the Tallgrass Prairie Center at UNI to restore more than 100 acres of

native vegetation to campus.

"One of my favorite Paul creations is the berm surrounding the soccer fields across from the Tallgrass Prairie Center, and around the McLeod Center parking lot. No player, parent or tailgating alum could fail to appreciate the brilliant fall flowers and grasses right at eye level," says Laura Jackson, director of the Tallgrass Prairie Center. "Paul paved

the way for future landscape architects to continue his bold vision — a seamless blend of traditional and naturalized spaces that gently invite us to expand our notions of beauty. All this while providing functional spaces that help to keep the water clean."

Meyermann's obituary is available at http://dahlfuneralhome.com/memsol.cgi?user_id=1194229.

Cover crop calculator helps farmers make decisions

To help farmers in decision-making on cover crops, Iowa Learning Farms (ILF) has launched a new tool to help calculate and compare the costs of using cover crops including seed, application and chemical termination.

Modeled after the popular Ag Decision Maker tools developed by Iowa State University Extension and Outreach, the calculator can be used for a single cover crop species or up to six species to a mixture.

The tool calculates the cost of drilling and aerial application for easy comparison. It is available as an Excel file on the ILF website.

To use the calculator, download and open the Excel file (Microsoft Excel software must be installed on your computer): www.extension.iastate.edu/ilf/content/cover-crops-0.

and some farmers are using mixes such as rye, oats, tillage radish or turnips.

Cover crops are planted in the fall and stay on fields over the winter, covering the ground with foliage and holding soil in place with their roots. These assets help to slow soil erosion and reduce nitrate leaching, thereby improving water quality.

They also improve soil health and productivity and suppress weeds. Many farmers are seeking management advice about implementing cover crops into their corn-soybean rotations.

Cover crop acres are increasing as more farmers see their short- and long-term benefits.

In Iowa, winter rye is most commonly planted as a single species

Some cover crops are also being used for grazing livestock or as an extra rotation to produce small grain cover crop seed.

To learn more about cover crops, visit the ILF website for resources and videos on planting and terminating: www.extension.iastate.edu/ilf/.

Iowa Learning Farms is a partnership between IDALS, Iowa State University Extension and Outreach, Leopold Center for Sustainable Agriculture, USDA-NRCS and DNR; in cooperation with Conservation Districts of Iowa, the Iowa Farm Bureau and the Iowa Water Center.

Article courtesy of Iowa Learning Farms

Conservation in farm leases: no “one size fits all”

By Ed Cox,

Drake Agricultural Law Center Fellow

In 2009 the Leopold Center and Drake University Agricultural Law Center launched the Sustainable Agricultural Land Tenure (SALT) Initiative to examine the legal arrangements that govern management authority of Iowa’s agricultural land. Its purpose is to determine both the effects of current tenure arrangements on sustainability and resilience, and the potential for such arrangements to leverage sustainability.

The name of the project itself reveals its ambitious scope. The initiative addresses the diverse elements of sustainability including conservation of the state’s soil, water and biodiversity; the well-being and success of landowners and farmers; and the promotion of healthy rural communities.

This necessarily entails land tenure arrangements that promote conservation while ensuring adequate income, healthy products and a place for beginning farmers. It also tackles the ever-increasing diversity and changing nature of land tenure arrangements including leases, easements, trusts, corporate bylaws, production contracts and land sale contracts to name just a few options.

Since I joined this project in 2010, I have met hundreds of people and worked with countless landowners and farmers, as well as those new to both sides of the farm business. By far the most popular questions

deal with conservation—how landowners can make sure it’s carried out on their land, and how tenants protect themselves when they use conservation practices.



Ed Cox

It is most important is to acknowledge that there is no one sustainable way to farm, and therefore, no “perfect” sustainable farm lease or other tenure arrangement exists. Legal arrangements must take all of the landowner’s and farmer’s concerns into account.

Likewise, Iowa’s landscape is simply too diverse, requiring different practices and provisions within each lease. A one-size-fits-all model farm lease is simply not workable for Iowa agriculture.

We are in the process of prepar-

ing case studies to assist in the process of creating sustainable land tenure arrangements. We encourage people to identify their priorities and communicate them to qualified advisors, such as attorneys and accountants, and then negotiate contracts that benefit both parties and the land.

Different approaches may be necessary based on a tenure arrangement’s duration—the longer the arrangement, the more general and flexible the provisions.

A year-to-year lease may have very specific conservation provisions requiring no-till or the use of cover crops, while a trust may generally state that its purpose includes conservation goals, such as maintaining soil productivity and enhancing water quality. The following ideas may help landowners and farmers adopt sustainable arrangements.

Know thyself

Determine your priorities, including short- and long-term income goals, succession desires, land ethics, sentiment, community concerns, and specific conservation concerns, is critical to adopting a sustainable land use arrangement.

Know your legal role

This includes the legal obligations of landowners relating to conservation, but also the landowner’s ultimate control of the

continued on page 5

DATES TO REMEMBER

March and April: Iowa Cover Crops Working Group workshops
www.leopold.iastate.edu/iowa-cover-crops-working-group

April 25: Governor’s Iowa Environmental Excellence Award applications due
www.iowadnr.gov/eeawards

April 29-May 1: Great Connections 2014 stormwater and water quality conference
www.greatconnections2014.com/

Ongoing: USDA-NRCS soil health webinars
Schedule at: www.conservationwebinars.net/documents/planned-conservation-webinars

Conservation in farm leases: no “one size fits all”

continued from page 1

land and the power to contract. The parties to a contract may enter into any agreements they wish as long as they are for a legal purpose.

Communication is critical

Communicating needs and priorities while negotiating contracts can result in creative arrangements that address the needs of both parties and the land.

A few of the key considerations that can incentivize farmers to enter leases with conservation requirements include sharing in the costs of conservation, sharing the risks that may be derived or simply perceived as arising from certain conservation practices, and providing longer term tenure or reimbursement for practices that enhance a farm’s soil.

Communication should not stop with negotiations. Mandatory communication can be part of a contract, such as establishing annual

or bi-annual meetings between a landowner, tenant, and NRCS or other conservation service providers or requiring conservation reports with soil tests on a periodic basis.

Address it in writing

Put specific conservation issues in the contract. Written leases are becoming more common but in relation to conservation there seems to be a prevailing, “Oh, my tenant takes care of things,” system. The details of “taking care of things” need to be in writing.

Don’t rely on provisions that require compliance with existing regulations. These provisions should be in the lease to protect the landowner but reliance on them may be misplaced. Regulations may not address the party’s conservation concerns or may not go far enough to protect the land or other resources.

Pass it on

Encourage people to share information about current farm operations and land tenure arrangements with the next generation of landowners.

As ownership of Iowa farmland is passed on, often to out-of-state or other non-farming landowners, it’s important for them to understand the importance of conservation and how to legally ensure continued sustainability of the land.

There are an infinite number of variations of land tenure arrangements that result in a sustainable farm operation. Figuring out the right arrangement will take hard work, careful examination of personal and financial priorities, and frank communications.

- See more at: www.leopold.iastate.edu/news/leopold-letter/2013/winter/land-tenure#sthash.cpe4s-cum.dpuf

Article and photo courtesy of the Leopold Center for Sustainable Agriculture and the Leopold Letter

PondBuilder software aids with pond, structure design

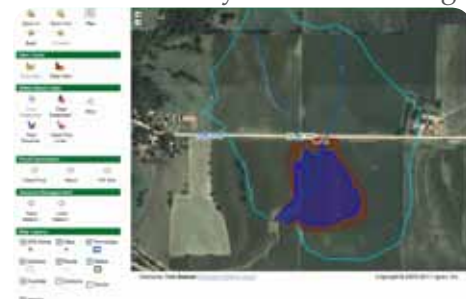
A new computer program can help engineers and watershed professionals design ponds in a matter of hours from their desk. PondBuilder, from Agren, uses LiDAR (light detection and ranging) elevation data for design and layout.

“It’s taken up to three hours to design a structure using LiDAR and PondBuilder, compared to probably a couple of days with the older methods to survey and design a structure,” says Dave Rohlf with the DNR.

Rohlf has designed between 15 and 20 of the structures to protect Red Haw Lake near Chariton in Lucas County and Hawthorne Lake in Mahaska County. Three of the structures have been built

around Hawthorne and six are under construction around Red Haw.

“These structures are in some really steep, nasty gullies that are difficult and very time-consuming



to survey,” he explains.

“The DNR identifies the drainage area and gully where each pond will be built,” Rohlf says. “I look at the aerial photos and pick the best centerline I see in Pond-

Builder. I’m looking for a structure that will store the optimum sediment for 100 years, considering cost of construction. If the first site works for storage and costs, that’s great. But if it doesn’t, it’s very easy and fast to move the centerline up or down the gully slope and consider an alternative. It doesn’t take long to do that with PondBuilder. It’s so fast, you haven’t lost much time when you start over. But it would take a long time if you were starting over and surveying it like we used to do.”

Of course, on-site work to check soils, current conditions, cultural and wildlife resources and other issues remains important.

Article courtesy Agren and Lynn Betts

Apply for a Governor's Iowa Environmental Excellence Award

Iowa businesses, organizations and citizens are invited to apply for the Governor's Iowa Environmental Excellence Awards. To download an application, go to www.iowadnr.gov/eeawards; applications are due April 25, 2014.

These awards are the premier environmental honors in Iowa, recognizing leadership and innovation in the protection of Iowa's water, land and air. Winners will be recognized by Gov. Terry Branstad at a reception in late spring.

Organizations are encouraged to

submit their applications electronically to reduce paper waste. Complete instructions are included in the application packet.

Awards will be given for Overall Environmental Excellence, along with Special Project Awards in:

- Air Quality
- Energy Efficiency/Renewable Energy
- Habitat Restoration
- Waste Management
- Water Quality
- Environmental Education

The awards program is coordinated

by the Iowa Governor's Office, the Department of Natural Resources, the Iowa Department of Agriculture and Land Stewardship, the Iowa Department of Economic Development, the Iowa Department of Education, the Iowa Department of Public Health and the Iowa Waste Reduction Center.

For more information and to download an application, go to www.iowadnr.gov/eeawards or contact Emily Bainter at 515-242-5955 or Emily.Bainter@dnr.iowa.gov.

Small Feedlot Education and Outreach Program offers resources

A set of free publications and resources aims to help livestock producers, watershed coordinators, agency staff and agribusiness address runoff from small beef and dairy open feed lots.

The publications complemented 11 field days and tours held at farms across Iowa that demonstrated management or structural practices that small farms could easily and cost-effectively implement to reduce or eliminate runoff from their open lots.

These resources resulted from a

partnership between the DNR and Iowa State University Extension and Outreach to develop an education and outreach program to assist small open lot beef and dairy livestock producers in addressing runoff. The program aimed to:

- educate producers to better understand the pollution potential of open feedlots
- train producers to accurately assess the water pollution potential of their feedlots
- assist producers to identify and evaluate appropriate runoff

control alternatives

- provide technical assistance to producers to implement solutions that improve the environmental performance of their feedlots.

The publications are available online at www.agronext.iastate.edu/immag/smallfeedlotsdairy.html.

You can also order large quantities of printed materials at no cost by contacting ISU Extension Publication Distribution at 515-294-5247.

CLEAN WATER STARTS WITH US

WATERSHED IMPROVEMENT IN IOWA

Published quarterly by the Iowa Department of Natural Resources, Iowa Department of Agriculture and Land Stewardship - Division of Soil Conservation, and USDA Natural Resources Conservation Service.

Editor: Jessie Brown, DNR: 515-281-5131 or Jessie.Brown@dnr.iowa.gov

Contributors: Kyle Ament, Allen Bonini, Bill Ehm, Rachel Glaza, Steve Hopkins, Mary Beth Stevenson (DNR); Mike Franklin, Jim Gillespie, James Martin, Jerry Neppel, Jeff Tisl, Bob Waters (DSC); Marty Adkins and Laura Crowell (NRCS)

The publication of this document has been funded by the Iowa Department of Natural Resources through a grant from the U.S. Environmental Protection Agency under the Federal Nonpoint Source Management Program (Section 319 of the Clean Water Act). Federal and State laws prohibit employment and/or public accommodation (such as access to services or physical facilities) discrimination on the basis of age, color, creed, disability (mental and/or physical), gender identity, national origin, pregnancy, race, religion, sex, or sexual orientation. If you believe you have been discriminated against in any program, activity or facility as described above, or if you desire further information, contact the Iowa Civil Rights Commission, 1-800-457-4416, or write to Iowa DNR, Wallace State Office Building, 502 E. Ninth St., Des Moines, Iowa, 50319.