**Group looks upstream for ideas to improve Iowa water quality**

**Trading program would offer pollution reduction credits**

Chad Ingles of the Iowa State University Extension explains how a denitrification bioreactor works during a field day last fall on a Black Hawk County farm that drains into Miller Creek, a tributary of the Cedar River. The City of Cedar Rapids, which is collaborating with farmers in the $4.3 million Middle Cedar Partnership Project, could qualify for credits under a water quality trading program being developed in Iowa. (Sy Bean/The Gazette)

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Water quality trading, in its infancy in Iowa, holds promise for helping to reduce nutrient pollution of state waters.

“Trading by itself won’t heal the waters, but it can be one of several effective tools to take us closer to that goal,” said Dustin Miller, general counsel of the Iowa League of Cities, a leader in the effort to establish an Iowa program.

Water quality trading operates on the premise that it costs less to keep nutrients out of the water than to remove them at drinking water and wastewater treatment plants, Miller said.

The ratio can be striking, according to Patricia Sinicropi, director of legislative affairs for the National Association of Clean Water Agencies, an organization formed by publicly owned water treatment facilities.

The cost of removing nitrate at the farm level ranges from about $1.50 to $5 a pound, she said, while the comparable cost at a water treatment plant ranges from $15 to $50 a pound.

“We support water quality trading. We think it’s a good tool.” Sinicropi said.

Water quality trading is an exchange of pollution reduction credits. If a water treatment facility facing a high cost of complying with water standards can partner with farmers upstream, for instance, to reduce pollution at a lower cost before water reaches the plant, the facility would get credit for that from regulations.

The Iowa League of Cities on Sept. 15 was awarded a $700,000 Conservation Innovation Grant over three years to fund development of a water quality offset program.

Miller said the grant will help assess whether cities can meet some of their nutrient reduction permit goals by investing in upstream conservation practices, much as Cedar Rapids is doing with its participation in the Middle Cedar Partnership Project.

Led by the City of Cedar Rapids, the $4.3 million project involves farmers, landowners and conservation groups in implementing best management practices such as wetlands, cover crops, bioreactors and saturated buffers to reduce both nutrients entering the river and peak flood levels.

Cedar Rapids Utilities Director Steve Hershner said it’s too soon to tell if the city would realize any water quality credits for its work.

That will depend on how the rules are written, he said.

“Conceptually, it’s a great tool to have,” Hershner said.

Iowa Agriculture Secretary Bill Northey said he, too, sees “real possibilities” in an Iowa water quality trading program.

“It will be important to pick the right practices like wetlands — something that can be measured to make sure you are achieving gains,” he said.

Northey said water quality trading also holds great potential for bringing together rural and urban watershed residents.

Much of the Iowa Nutrient Reduction Strategy’s focus has been on nonpoint agricultural sources — such as runoff from the land — that account for 93 percent of the nitrogen pollution load and 79 percent of the phosphorous load in the state’s surface waters.

While the recommended measures for reducing nonpoint source pollution remain voluntary, point source polluters such as municipal wastewater treatment plants are regulated and required to meet standards prescribed in their discharge permits.

The estimated cost of doing so, according to the state’s nutrient reduction strategy, is $1.5 billion for implementing required upgrades, plus $114 million per year.

Reducing nitrates and phosphates to acceptable levels is just part of the pollution-reduction challenge facing Iowa municipalities, according to Miller.

Achieving total compliance, with its $10 billion price tag, “is a looming crisis,” he said.

The nutrient trading program, he said, holds the potential to replace some of the expensive capital investment needed at water and wastewater treatment plants with less expensive upstream conservation practices.