

# DIVISION OF SOIL CONSERVATION SOIL & WATER QUALITY REVIEW 2009



Iowa Department of Agriculture & Land Stewardship

JANUARY 2010

## Special Points of Interest:

- The Division of Soil Conservation celebrated its 70th anniversary July 1, 2009. The Iowa Soil Conservation Laws were enacted in 1939 creating the state soil conservation agency and governing committee and providing for the creation of Iowa's 100 soil and water conservation districts.
- The Mines & Minerals Bureau, through the federal Abandoned Mine Land (AML) Program, worked with various watershed groups to again secure an additional \$1 million dollars in funding for the construction on projects in Marion, Mahaska and Monroe Counties.
- Iowa hosted the Mississippi River/Gulf of Mexico Hypoxia Task Force tour and meeting in September 2009.



## HEALTHY LAND, HEALTHY ECONOMIES, HEALTHY IOWA

"Healthy Land, Healthy Economies, Healthy Iowa" was the theme of the 2010 Iowa Conservation Partnership Day, held January 27th in the Capitol Rotunda.

Individuals from across the state, representing Iowa's 500 locally-elected soil and water conservation district (SWCD) commissioners, gathered for this event. Commissioners and their state and federal conser-

vation partners focused on the importance of protecting Iowa's natural resources as a means to support Iowa's economy and our quality of life.

As a result of Iowa's high quality soil and abundant water resources, agriculture continues to be a key economic driver in Iowa. One recent analysis showed agriculture and ag-related industries directly and indirectly employ one of every six Iowans, or 17 percent of the state's workforce. It also showed that agriculture is responsible for adding \$72.1 billion to

the state's economy, or 27 percent of the state's total.

In addition, to the agriculture's benefits, installing conservation practices in watersheds throughout the state provides economic returns through clean water, outdoor recreation and wildlife abundance.

As part of the event, leadership of Conservation Districts of Iowa and the State Soil Conservation Committee appeared before the standing Senate and House Agriculture Committees.

**The DSC is responsible for state leadership in the protection and management of soil, water and mineral resources, assisting soil and water conservation districts and private landowners to meet their agricultural and environmental protection needs.**

## IOWA CONSERVATION RESERVE ENHANCEMENT PROGRAM (CREP)

Iowa CREP, which is implemented in cooperation with the USDA Farm Service Agency (FSA), has constructed 48 wetlands to date. These wetlands are strategically located using advanced computer technology and designed to remove the tile-drainage water from cropland areas.

The Iowa CREP team in cooperation with local SWCD and FSA county staff hosted eight summer construction site ceremonies in the 37-county CREP area of north central Iowa. These groundbreaking events showcased the latest wetland sites to be built and recognized the lead-

ership of landowners and local conservationists.

Water quality monitoring completed by researchers at Iowa State University has confirmed that CREP wetlands remove 40-90% of the nitrate and 90+% of the herbicide in tile drainage water from upper-lying croplands.



*CREP site groundbreaking in Kossuth County  
(for more detail go to the IDALS-DSC website)*

## I-JOBS FUNDING

I-JOBS was initiated to create jobs, strengthen our economy and allow us to build a safer, stronger, greener and smarter Iowa. Funding to IDALS-DSC provides over \$3 million for the repair of damage caused to conservation practices in 2008 and 2009 flood events. About one-half will be cost-shared with private landowners through SWCDs. \$3.5 million and the remainder of the repair funds will be used for assessment and flood reduction in the targeted watershed program. \$4

million will be matched with landowner dollars for construction of integrated drainage and wetland landscape systems, providing water quality improvement, increased wetland function, wildlife habitat creation and increased agricultural activity. \$500,000 will be paired with federal AML, conservation partner and landowner dollars for reclamation of abandoned coal mine land which presents numerous environmental hazards. \$500,000 will be used for partnering with Resource

Conservation and Development (RC&Ds) to create high quality wetlands.

I-JOBS will provide for over \$25 million in wetland mitigation and construction, conservation practices repair and flood prevention and reduction practices.



*I-JOBS creates jobs in Iowa addressing water quality and flooding problems.*

## AG DRAINAGE WELL CLOSURE

The Agricultural Drainage Well (ADW) Closure Assistance Program protects drinking water aquifers by cost-sharing with landowners to close high-priority agricultural drainage wells and develop alternative drainage outlets to surface streams.

A total of 296 ADWs have been registered with the State. Some of these

wells were closed by landowners, closed using other funds, or were deemed to be non-functioning.

To date 122 ADWs have been closed using this program with another 23 closures are in planning and design. Currently, an additional 62 ADWs are operating under continued

## REAP SOIL & WATER ENHANCEMENT

Resource Enhancement and Protection (REAP) provides opportunities for Iowa landowners to improve water quality through the Soil and Water Enhancement Account. Each year 20% of the REAP funds are deposited in this IDALS-DSC account and divided equally between Practices and Projects.

In FY-09, 552 cooperators used "Practice" funds to cost-share on tree planting, native vegetation, permanent vegetative cover, livestock waste management and erosion control.

"Projects" commonly use the watershed approach to address quality. In FY-09, 45 projects were underway in Iowa.



*Practices target sediment and nutrient runoff.*

## CONSERVATION LOANS PROVIDE TAX ADVANTAGES

The State Revolving Fund (SRF) provides low-cost loans to farmer and livestock producers, landowners, watershed organizations and others to address nonpoint source pollution of Iowa stream and lakes. Since its inception in January 2005, 1326 loan projects have been completed.

The No-Interest Loan Program was established in 1983 and provides no interest loans up to \$10,000 for the construction of permanent soil conservation practices. There are 317 active loans.

## FISHKILL RESTITUTION

SWCDs worked with landowners in seven projects in FY-09 to restore streams and make watershed improvements in streams where fishkills resulted from pollutant releases. Funding is derived from the Department of Natural Resources' penalties assessed against those responsible for the pollution.

## STATE COST SHARE FOR EROSION CONTROL

IDALS-DSC implements the "first-in-the-nation" conservation Cost Share program in cooperation with Iowa's 100 SWCDs. SWCD commissioners set local priorities for the use of these funds, and field office staff are available for conservation planning and practice design.

Practices installed are subject to maintenance agreements to assure their long-term, successful performance.

Funds are matched by landowners, spent locally to hire private construction contractors, and reinvested into the economies of local communities. In addition to soil conservation and water quality protection, local jobs and businesses benefit from these financial incentives.

"Cost Share" is the cornerstone of soil conservation and water quality practice application in Iowa. In FY-09, nearly

1,567 landowners installed practices such as terraces, waterways, and water and sediment basins, protecting more than 22,290 acres in Iowa.

It is estimated that there is a \$15,373,000 unmet demand in the current fiscal year, resulting in lost opportunities to protect our soil and water resources.



*Practices prevent erosion and protect productivity.*



*Reclaimed sites are used for pasture, hayland, wildlife habitat, wetlands and recreation.*

## ABANDONED MINE LAND RECLAMATION

IDALS-DSC staff develop potential projects by preparing a site inventory, an environmental assessment, and a reclamation design prior to seeking grant funds for construction. Construction solutions eliminate dangerous highwalls, acid mine drainage, clogged streams, and hazardous water bodies. Ridges of acid-forming shale are also graded and vege-

tated. Priority is given to eliminating health and safety hazards, restoring impacted land and water resources, and eliminating off-site environmental impacts. Completed projects provide improved water and air quality and reduce sediment deposition and clogging of streams off-site. The AML program works with landowners in the design and development of a reclamation

plan that will provide a suitable land use following completion of the project. While the sites remain fragile, landowners see their property returned to a manageable condition that allows an economic return or some productive or beneficial use. Potential liability from attractive nuisances and unwanted trespass is also reduced

## WATERSHED PROTECTION

The Iowa Watershed Protection Program projects reduce soil erosion, protect water quality, provide flood control and protect natural resources. The Program has made financial assistance available provided available to SWCDs for the development and implementation of local watershed initiatives since 1999.

Watershed development funds are for that first im-

portant step of identifying problems in the watershed and creating a sound plan for improvement. 14 development grants were awarded to in FY-09.

Implementation projects bring together the community, both rural and urban, to target resources to reduce soil erosion, protect water quality, provide flood reduction, and protect natural resources in their watershed. In FY-

09, 50 watershed projects protected 3,181 acres reducing sediment delivery to the state's water bodies by 10,183 tons/year. These projects will accelerate protection efforts with cooperation from the Conservation Partnership. State funds are leveraged against approximately \$2,700,000 of federal DNR Section 319 funds.



*Projects improve water quality and provide flood protection.*

## DISTRICT INITIATIVES

District Initiatives allow local SWCD commissioners to prioritize and target sensitive areas by providing funds and resources to protect soil and water resources. With the added emphasis provided through District Initiatives, the following program enhancements have resulted:

- Iowa leads the nation with 544,855 acres enrolled in Continuous CRP
- 116 acres enrolled in Iowa buffers
- 473 acres of trees planted on CRP land
- 117 acres of grazing planned on CRP land
- With EQIP, landowners invested over \$8,500,000 along with \$21,000,000 federal funds



*The Buffer Initiative is an example of the success of this program. 116 acres were enrolled in Iowa buffers.*

## IOWA LEARNING FARM

The Iowa Learning Farm (ILF) vision is to “Build a Culture of Conservation” starts with a grassroots approach by working directly with approximately 50 farmer cooperators and conservationists in Iowa’s five geographic regions based on unique soil formations. Improved tillage and residue management field demonstrations allow farmers to evaluate agronomic and economic information and to share wisdom that local landusers alone can provide.

This exchange among scientists, agribusinesses and agencies transitions into outreach in the community and statewide reaching thousands each year to promote increased



awareness and adoption of conservation systems.

ILF is funded by the Iowa Department of Agriculture and Land Stewardship through the Integrated Farm and Livestock Management (IFLM) Demonstration Program in partnership with the Iowa Department of Natural Resources and the USDA Natural Resources Conservation Service in cooperation with Conservation Districts of Iowa and the Iowa Farm Bureau Federation.

## IOWA’S URBAN CONSERVATION PROGRAM

Since its launch in late 2007, IDALS’s urban conservation program has had great success. Four Urban Conservationists are strategically stationed in SWCD field offices through a cooperative arrangement with the USDA Natural Resources Conservation Service, and an Urban Program Coordinator is located in the IDALS-DSC central office in Des Moines.

Urban Conservationists have reached an estimated 15,000 people through presentations, workshops and field days. Thousands more have been reached through television and radio coverage. As public awareness increases, so does the interest in urban conservation.

By leveraging REAP, Watershed Improvement Review Board and SRF funding, approximately 400 practices were installed, treating an estimated 83 million gallons of stormwater runoff. Practices include bio-retention cells, rain gardens, bio-swales, soil quality restoration, pervious pavement and other infiltration practices.

Many Iowa communities were hit hard by the extreme flood events of 2008. This flooding has intensified the interest in addressing stormwater runoff and demonstrated the need for all citizens, both rural and urban, to engage in watershed planning and implementation.



*Urban Conservationists work with private and public partners to slow runoff and provide opportunities for water infiltration.*

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