



A Quality Environment

DICKINSON SOIL & WATER CONSERVATION DISTRICT

SPIRIT LAKE, IOWA 51360 712-336-3782, EXT. 3

2011 ANNUAL REPORT

Natural Resources Conservation Service Reports

Environmental Quality Incentives Program (EQIP)

EQIP is a voluntary conservation program that promotes agricultural production and environmental quality. This program is available to farmers, and offers financial and technical assistance to install or implement structural and management practices on eligible agricultural land.

Environmental Quality Incentives Program (EQIP) FY09 funding was used to provide \$115,000 of incentive payments for five (5) new contracts on 617 acres. Conservation practices in these contracts included:

- Animal Waste Facility
- Diversion
- Two solids settling basins
- Animal Mortality Facility
- Manure Transfer System.

Wetland Reserve Program (WRP)

The Wetland Reserve Program (WRP) is a USDA program administered by NRCS. This voluntary program offers landowners an opportunity to restore wetland basins and upland buffer areas with up to 100% cost share and up to full agricultural value to place the land in an easement with NRCS. Easements may be either for 30 years or permanent. Ten year cost share agreements are also available to landowners who wish to restore wetlands on their land, with financial and technical assistance from NRCS.

Two (2) options to purchase were offered and signed with funds obligated, two (2) easements are still awaiting closing, and restorations were completed on two (2) easements.

Conservation Security Program (CSP)

Through CSP, NRCS will provide financial and technical assistance to eligible producers to conserve and enhance soil, water, air, and related natural resources on their land. Eligible lands include cropland, grassland, prairie land, improved pastureland, rangeland, non-industrial private forest lands, agricultural land under the jurisdiction of an Indian tribe, and other private agricultural land (including cropped woodland, marshes, and agricultural land used for the production of livestock) on which resource concerns related to agricultural production could be addressed. Participation in the program is voluntary.

We had one Conservation Security Program (CSP) program sign up in 2009. Two (2) applications for 533 acres were received. Pre-approval selections for CSP applications are pending.

Conservation Reserve Program (CRP)

The Conservation Reserve Program (CRP) provides technical and financial assistance to eligible farmers and ranchers to address soil, water, and related natural resource concerns on their lands in an environmentally beneficial and cost-effective manner. It encourages farmers to convert highly erodible cropland or other environmentally sensitive acreage to vegetative cover, wildlife plantings, trees, filter strips, or riparian buffers. Farmers receive an annual rental payment for the term of the multi-year contract. CRP is managed by the Farm Service Agency.

The Dickinson County Soil and Water District Commissioners approved new and re-enrolled practice plans for fiscal year 2009 consisting of:

- CP5A Field Windbreak Establishment

District Commissioners

Mark Ingwersen — Chair Chris Hoffman — Vice Chair
Scott Mitchell — Secretary, Treasurer
Curt Smith John Myhre

Assistant Commissioners

Orville Berg Earl Muilenburg Phyllis Nielsen
Keith Van Kleeck

District Mission Statement

The Dickinson SWCD will serve its customers and the needs of the District's natural resources through education, promotion, and demonstration.

- CP8A Grass Waterway
- CP9 Shallow Water Areas for Wildlife
- CP15A Contour Grass Strips
- CP21 Filter Strips
- CP27 Farmable Wetlands
- CP4D Permanent Wildlife Habitat Corridors & Habitat re-enrollments.

2010 Annual Report

By Carroll Oskvig, District Conservationist

2010 was a very productive year for the District. Seven Conservation Stewardship (CSP) contracts were accepted for over 3,126 acres. Nine Environmental Quality Incentive Programs contracts were accepted for 6,681 acres. Four Wetland Reserve Program (WRP) contracts were closed for 494 acres.

Betty Romero NRCS- SCT 2010 Annual Report

- Assisted with 2010 CRP Mid-Contract Burn Workshop.
- Revised 11 CRP Mid-Contract Management conservation plans.
- Completed 2 applied and 5 planned windbreaks.
- Completed 3 Re-enrollments for CRP.
- Completed 9 CRP and 2 General CRP Conservation Plans.
- Completed 6 CRP Status Reviews.
- Completed 10 field checks of Residue and Tillage Management, No-Till and Strip Till Pilot Program.

Conservation District Employee Reports

Urban Conservation

By Steve Anderson
Urban Conservationist

The Urban Conservationist program has continued to work with the urban community on conservation practices within the city or developed areas. This last year saw more practices being installed around the area. Several rain gardens and bio-retention cells that will clean urban run-off before getting to the lakes were installed throughout the Iowa Great Lakes Watershed. Several more are planned for the 2011 season. Many of these practices are getting some cost share through funds such as REAP and special funds from the Dickinson County Water Quality Commission and the State IJOBS funds.

On project in particular that was finished this year was the East Okoboji Street Project. The East Okoboji Beach sub-division home owners wanted hard surfaced roads through the sub-division. The County Supervisors were aware of the impacts that this could have on water quality in East Okoboji Lake and decided to implement a infiltration based storm water management

system for run-off treatment and management. As this project progressed from gravel roads to pavement to pavement with bio-swales and rain gardens the water monitoring showed improvements. The final stages of the project were completed late fall of 2010. Final inspections and review will take place in the spring of 2011 to close out the project. Water monitoring of the site will continue through 2011. This project was funded through the Dickinson County Water Quality Commission, the Iowa Watershed Improvement Review Board funds and assisted with a non-point source State Revolving Fund (SRF) Loan. The foresight of the County Supervisors, the technical assistance from the Dickinson County SWCD staff, and the help from many other groups and organizations has made this project a success.

Erosion and sediment control from construction sites still needs to be addressed and will become a big discussion point during the upcoming year. All the cities and the county have a silt fence ordinance in place. Silt fence is still a viable tool for sediment control but so many more products have been introduced that work to prevent construction site soil from getting into waterways. In some situations silt fence can actually compound an erosion problem and cause banks to saturate and collapse. There are state standards available for what to use for erosion on construction sites and that is what needs to be set up for policy to protect water quality from erosion and sedimentation. Many will argue that farmland has more erosion than a construction site. An EPA nationwide average study has shown an improperly protected construction site will lose 35 to 45 tons per acre per year where row crop will lose on average of 4.5 tons per acre per year.

The Urban Conservationist is contracted to the district through the Iowa Department of Agriculture and Land Stewardship, Division of Soil Conservation. The position covers northwest Iowa and has been visiting surrounding counties as the program grows. Work is currently planned for the new Spencer Industrial park east of town. The urban conservationist has assisted with the urban portions of the Black Hawk lake watershed assessment. Communities in Cherokee, Palo Alto and Osceola have also received assistance from the Urban Conservationist. The program will continue to work a lot within Dickinson County but support request from other communities within Northwest Iowa.

Iowa Great Lakes Watershed Annual Report

By Derek Namanny,
CWA Watershed Coordinator Assistant

The Clean Water Alliance (CWA) has had another busy year in 2010. We kicked off our summer season by continuing the ongoing water sampling the CWA has been conducting at the Maritime Museum, Arthur Heights, and East Okoboji Beach (EOB) sites. With the major construction project of paving the roads, updating the storm sewer system, and installing numerous bio-retention cells and rain gardens in the EOB development we have been able to collect water samples throughout the processes of the project. Using the Arthur Heights residential district as our control, the total suspended solids counts go from a high of 46,000 parts per million during the peak of the construction to 160 parts per million once the construction was in the final stages, mirroring the results from Arthur Heights. Using this data we have been able to show that with the installation of bio-retention cells and rain gardens is has substantially decreased the amount of water volume and pollutants entering the lake from storm water running off from EOB before any construction began.

Using the I-JOBS grant, we were able to install nine different low impact development (LID) structures in various sites in the IGL watershed. The City of Orleans installed two bio-retention cells by the Reeds Run Creek that flows into Spirit Lake, The City of Arnolds Park is going to install three bio-retention cells around the Abbie Gardner Cabin, and The City of Spirit Lake is going to install a bio-retention cell at the East end of 9th street. The Pearson Lakes Art Center, The Presbyterian Church Camp, and two private land owners also got funding for bio-retention cells. The Acorn Ridge development was able to complete a soil quality restoration to help absorb storm water. The Arthur Heights development received funding to install modular paving on a drainage ditch to capture runoff.

The CWA also wrapped up our annual easement inspections this fall. During each easement inspection we document the condition of the easement, take pictures of the boundaries and the interior of the easement, and make sure there are no violations of the original contract. The Iowa Natural Heritage Foundation (INHF) sent two representatives from Des Moines to join us on inspecting the six easements that are co-held between the Dickinson SWCD and the INHF. From there we were able to go out and inspect the other twelve easements we hold.

Due to the success of last year's Lakeshore Restoration Project, we undertook a scaled back restoration this summer. We took thirteen coconut logs and plugged them with different aquatic plant species and let them grow in a controlled environment until the plugs were well rooted into the logs. We then installed logs and plant plugs on

some of the previous sites we restored last year and some new sites on the Turtle Lake shoreline in Wahpeton. With this new method we think we will have a better amount of plants and coconut logs that will carry over into next spring with less ice damage to the logs.

Iowa Great Lakes Targeted Watershed Project Annual Report

By Laramie Hjelm
IGL Targeted Watershed Coordinator

Much has been accomplished since I was brought on in late March of this year. Most of the first few months were spent training with local staff and in workshops and meetings trying to familiarize myself with the project and the goals of the local community. Throughout the summer we collected storm water samples for testing on another project in the watershed and spent countless hours editing the Management Plan into a final version for the IDNR and EPA to approve.

The office was contacted mid-summer by the Iowa Soybean Association to do some fall spot sampling of corn stalks to test for nitrogen content. We in turn contacted some of our watershed farmers to gauge interest in participating. We are now awaiting the results of the tests and plan to have a meeting to discuss the results shortly after the first of the year. Hopefully next year we will be afforded a similar opportunity to involve more producers.

In late summer, we began another wave of restoring shoreline vegetation in areas around the lakes. Much of last year's work with vegetation that was reintroduced on the shores was a success, but the in-lake plants had not taken off as hoped. We are hoping for a better success rate than was had last year with the in-lake vegetation.

The end of September brought great news – the Management Plan submitted for our 319 grant was finally approved after multiple drafts and submissions! This means we are now able to really get our hands dirty and spend some money on conservation. November followed with similar news – WIRB had approved more money for our use on the watershed project.

This winter, our office will be working with producers on their conservation needs and concerns and will be planning practices that can be incorporated in the farming plans for this coming spring for years of benefits. We have a few projects we are planning now that will be a huge benefit for the water quality of the watershed.

Silver Lake Watershed Project Annual Report

By Ryan Ransom
Silver Lake Watershed Coordinator

The Silver Lake Watershed Project and coordinator Ryan Ransom moved into their second year of operation in 2010. Utilizing grant funding from the State of Iowa Wa-

tershed Improvement Review Board (WIRB), landowners in the Silver Lake Watershed are being offered special incentive payments if they choose to enroll eligible acres in the Wetland Reserve Program (WRP) or a wetland-based Conservation Reserve Program (CRP). These incentives are being used to counteract wetland drainage in this area, wetlands which once provided a large storage and filtering capacity for water entering Silver Lake.

In November of 2010, work was completed on the first wetland restoration project as a part of the Silver Lake Watershed Project! Located in the northwest portion of the watershed, this project involved the enrollment of over 150 acres in the Farmable Wetlands Program (FWP). Included in the restoration were 4 separate wetland basins, which will result in nearly 40 acres of permanent wetland. The remaining acres were seeded to native vegetation, which will provide further erosion protect, and act as a buffer to the restored wetland areas. To further assist with erosion control, an additional 15 acres of CRP field borders were seeded along hillsides adjacent to the FWP boundary.

Between the months of April and October, water monitoring was conducted every two weeks at 7 strategic points in the watershed. Site-specific data was recorded in the field, and fresh samples sent to Iowa Lakeside Laboratories for certified analysis of suspended solids, phosphorus, nitrates, and E. coli bacteria. Data from the 2010 field season has been analyzed, and will be used to supplement data from previous years in an effort to draw a more complete picture of water quality concerns stemming from the watershed, and how they might affect the water quality impairments facing Silver Lake. Watershed monitoring expenses in 2010 were funded by the Silver Lake Park Improvement Association (SLPIA) and the Dickinson County Water Quality Commission (WQC). Staff, transportation, and monitoring equipment were provided by the Dickinson Soil & Water Conservation District, and the Natural Resources Conservation Service (NRCS).

In October of 2010, the Silver Lake Park Improvement Association received \$3,000 in grant funding from the Dickinson County Water Quality Commission to assist with watershed monitoring again in 2011. SLPIA and the Dickinson County WQC have both been major contributors to the Silver Lake Watershed Project in the past, and this funding will be used for further monitoring efforts in 2011.

In compliance with future grant funding requirements, a comprehensive management plan for the Silver Lake Watershed Project is being written, and is in the final stages of development. This management plan will open the

doors for joint funding through the United States EPA 319 Program and the Iowa Department of Ag & Land Stewardship (IDALS) Watershed Protection Funds. Grant funding from this program will be geared toward providing landowners and farm operators cost-share and incentive payment options for a wide variety of conservation. The focus of this funding will include two categories: ag-based practices such as grassed waterways, filter strips, sediment basins, rock tile intakes, and conservation tillage; as well as urban conservation including rain gardens, pervious paving, and shoreline restoration. This second phase of the Silver Lake Project will provide water quality improvements in key areas that may not have been impacted by wetland restoration efforts. Ransom stated that "He is excited to offer producers a variety of incentives for conservation practices that might be able to better match the goals of their operation, while at the same time improve the quality of water reaching Silver Lake."