



## *Iowa Department of Agriculture and Land Stewardship*

*Bill Northey - Secretary of Agriculture*

January 31, 2007

John P. Kibbie  
President of the Senate  
State Capitol  
LOCAL

Pat Murphy  
Speaker of the House  
State Capitol  
LOCAL

Dear Senator Kibbie and Representative Murphy:

Pursuant to Section 3, Item 3e, Chapter 466A Iowa Code, the Watershed Improvement Review Board is submitting its annual report. This Board, codified in Chapter 466A, is an independent, self-governing body directed to improve the quality of water in the state. The Board is authorized to request water quality improvement applications from soil and water conservation districts and local watershed improvement committees and award grants to these entities. These grants are issued from the Watershed Improvement Fund.

During 2006, the Fund was allocated \$5 million for state fiscal year 2007 for water quality improvements from the tobacco settlement trust fund. On September 20, 2006, the Board awarded grants to sixteen applicants. Total amount allocated to these projects was \$4,915,066.

The Board extends its gratitude to the Governor and the General Assembly for supporting this visionary effort to improve water quality and is looking forward to continuing and expanding upon this initiative.

A copy of the report is being provided to the Governor. An electronic copy of the report is also being provided to the Governor and your offices per the requirements of Chapter 466A.

Sincerely,

Kevin Jacobson, Chairman  
Watershed Improvement Review Board

Cc: Bill Northey  
Karey Claghorn  
Kenneth Tow  
Members, Watershed Improvement Review Board



## *Iowa Department of Agriculture and Land Stewardship*

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Governor Chester Culver  
State Capitol  
LOCAL

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Copies of the report are being provided to the President of the Senate and the Speaker of the House. An electronic copy of the report is also being provided to your office and the President of the Senate and Speaker of the House per the requirements of Chapter 466A.

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Kevin Jacobson, Chairman  
Watershed Improvement Review Board

Cc: Bill Northey  
Karey Claghorn  
Kenneth Tow  
Members, Watershed Improvement Review Board

## **Watershed Improvement Review Board Calendar Year 2006 Annual Report**

**Submitted January 31, 2007**

The Iowa Watershed Improvement Review Board (WIRB) was created by the Iowa Legislature and signed into law by the Governor in 2005 as Senate File 200. This statute is now codified in Iowa Code Chapter 466A.

The fifteen-member Board conducted eight meetings throughout the year in-person or via teleconference. Meetings were held January 24, February 27, March 13, May 15, August 7, September 20, October 6, and December 18. Attachment 3 lists the board members and their organization affiliation.

The Board appointed a five-member subcommittee to review and revise the Request For Applications (RFA) documents and submit recommendations to the full Board. The RFA documents were approved as modified at the May 15, 2006 Board meeting.

The Board announced the second RFA for the Watershed Improvement Fund on May 24, 2006 and accepted applications until August 2, 2006.

The Board received 38 applications in response to the RFA. These applications requested \$12.1 million in Watershed Improvement Funds and leveraged an additional \$20.4 million for a total of \$32.5 million of watershed project activity proposed.

On September 20, after reviewing and ranking the applications individually, the Board met and selected sixteen applications for funding. The sixteen projects were approved for \$4,915,066 of Watershed Improvement Funds. Data on the sixteen selected projects in 2006 include the following:

- These projects included portions of 24 counties
- The \$4.9 million requested of Watershed Improvement Funds leveraged an additional \$13.1 million for a total of \$18.0 million.
- Selected individual projects ranged from \$48,850 to \$500,000.

Attachment 1 lists the Fiscal Year 2007 approved projects name, applicant name, the water quality impairment(s) being addressed, county or counties where located, and funding amount.

Attachment 2 showing the locations of applications received during the RFAs in 2005 and 2006 and the applications selected for funding. After two RFAs, 33 projects have been funded of 86 applications.

Attachment 4 contains the annual progress reports from the seventeen projects approved in Fiscal Year 2006.

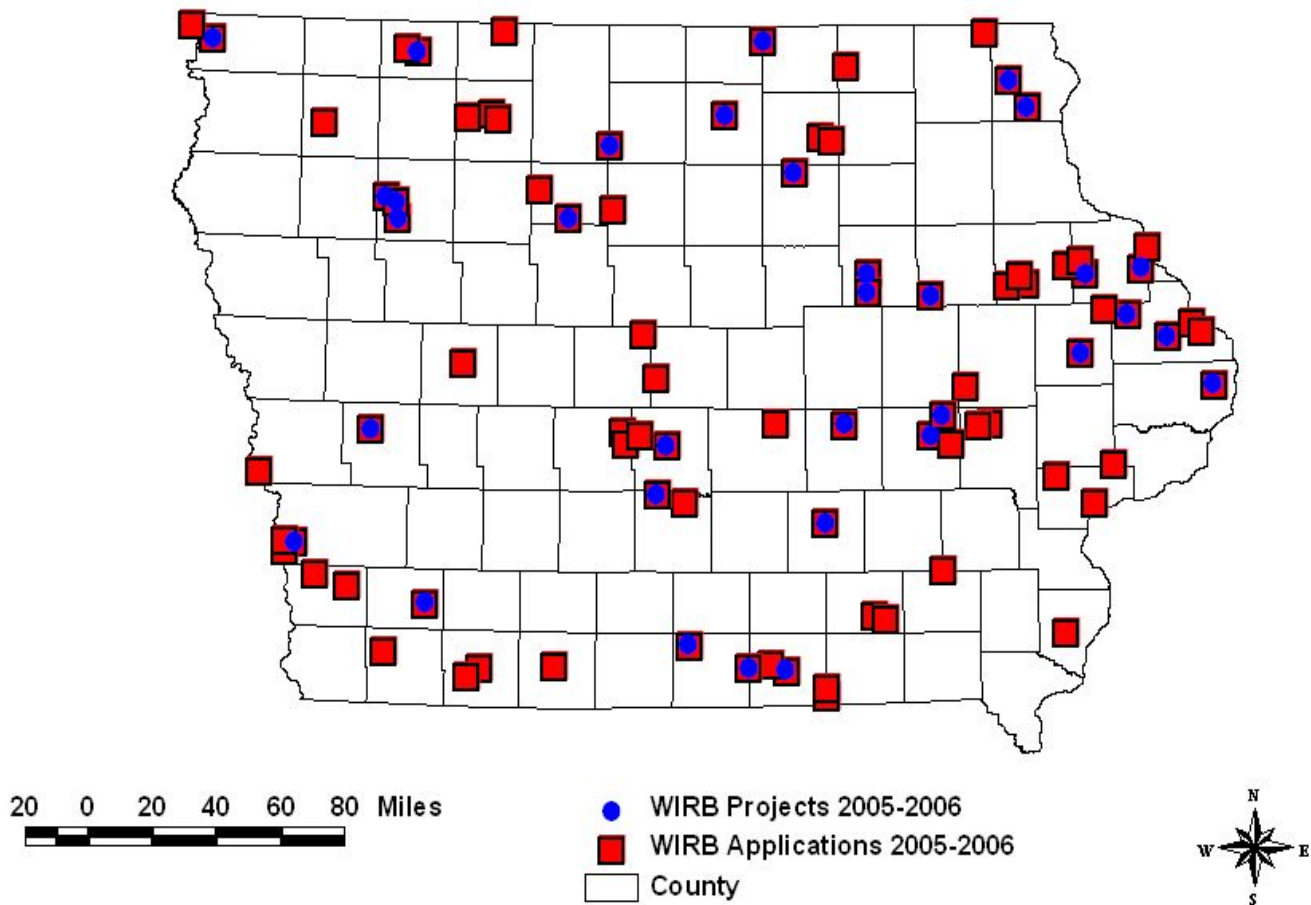
**Attachment 1. Watershed Improvement Fund Grants Fiscal Year 2007**

<b>Watershed Name</b>	<b>Organization</b>	<b>Water Quality Impairment(s) Addressed</b>	<b>Counties Where Located</b>	<b>Funding Amount</b>
Big Bear Creek	Jones SWCD	Agricultural runoff and drainage, streambank erosion, livestock runoff	Jones	\$455,313
Big Sioux River	Lyon County SWCD	Livestock runoff	Lyon	\$267,800
City of Carpenter Sewage Treatment System Project -- Cedar River	Mitchell SWCD	Unsewered communities	Mitchell	\$500,000
Fox River	Fox River Ecosystem Development Board	Agricultural runoff and drainage, streambank erosion, livestock runoff	Appanoose, Davis	\$414,376
Holiday Lake Watershed	Poweshiek County SWCD	Agricultural runoff and drainage, livestock runoff	Poweshiek	\$64,447
Joint Drainage District No. 93 & 100	LuVerne Magor Drainage Conservation Association Inc	Agricultural runoff and drainage	Hancock, Kossuth	\$322,850
Lake Colchester/Middle Creek	Lakewood Village Association	Other-- in-lake management	Warren	\$247,500
Leisure Lake Watershed	Limestone Bluffs RC&D Inc	Unsewered communities	Jackson	\$500,000
Lime Creek NPS Project	Lime Creek Watershed Improvement Association Inc	Agricultural runoff and drainage, livestock runoff	Benton, Buchanan	\$290,011
Lower Coldwater-Palmer Creek Watershed	Coldwater-Palmer Watershed Improvement Association Inc	Agricultural runoff and drainage, livestock runoff	Butler, Floyd	\$311,594
Norfolk Creek Subwatershed	Allamakee SWCD	Agricultural runoff and drainage, streambank erosion, livestock runoff	Allamakee	\$351,150
Price Creek Watershed	Benton & Iowa County SWCD	Agricultural runoff and drainage, streambank erosion, livestock runoff	Benton, Iowa	\$71,075
Rathbun Lake Watershed	Rathbun Land and Water Alliance	Agricultural runoff and drainage, streambank erosion, livestock runoff	Appanoose, Clark, Decatur, Lucas, Monroe, Wayne	\$497,100
Saylor Creek	Iowa Heartland RC&D	Agricultural runoff and drainage, streambank erosion, stormwater runoff	Polk	\$500,000
Storm Lake Watershed	Buena Vista SWCD	Stormwater runoff	Buena Vista	\$73,000
Upper Catfish Creek Watershed	Dubuque SWCD	Stormwater runoff	Dubuque	\$48,850

**Total Funding Approved by Watershed Improvement Review Board**

**\$4,915,066**

## Location of applications received and projects funded by WIRB, 2005-2006



Thirty-eight percent (33 of 86) of all applications received are funded.

**Attachment 3. Appointed Members of the Watershed Improvement Review Board  
January 1 - December 31, 2006, Iowa Code Chapter 466A**

<b>Name</b>	<b>City</b>	<b>Term Ending</b>	<b>Sponsoring Organization</b>
Mark Rosenbury	Sioux City	2009	Agribusiness Assn of Iowa
Jolee Belzung	Ankeny	2007	Iowa Assn of Water Agencies
Susan Heathcote	Des Moines	2009	Iowa Environmental Council
Leah Maass	Ellsworth	2009	Iowa Farm Bureau
Marcia Dudden	Reinbeck	2008	Iowa Pork Producers
Kevin Jacobson	Story City	2007	Iowa Rural Water Assn
John Hoffman (January-August)	Waterloo	2007	Iowa Soybean Assn
Robert Ballou (September-December)	Monticello	2007	Iowa Soybean Assn
Deb Ryun	Chariton	2009	Soil and Water Conservation Districts of Iowa
Jeff Bergman	Burlington	2009	Iowa Assn of County Conservation Board
Jim Gillespie	Earlham	2008	Representative of IDALS
Bernie Hoyer	Des Moines	2008	Representative of DNR
Dennis Black	Grinnell	2008	State Senator
David Johnson	Ocheyedan	2007	State Senator
Sandra Greiner (January-August)	Keota	2008	State Representative
Dolores Mertz	Ottosen	2007	State Representative

**Attachment 4. 2006 Annual Project Reports of Applications Funded in Fiscal Year 2006**

<b>Watershed Name</b>	<b>Organization</b>	<b>Counties Where Located</b>	<b>Page Number</b>
Clear Lake	Hancock Soil and Water Conservation District	Hancock, Cerro Gordo	6
Conroy Waste Water System Project (Clear Creek)	Iowa Soil and Water Conservation District	Iowa	7
Dry Run Creek	Black Hawk Soil and Water Conservation District	Black Hawk	8
Elk River	Clinton Soil and Water Conservation District	Clinton, Jackson	9
Farmers Creek	Jackson Soil and Water Conservation District	Jackson	10
Hewitt Creek	Hewitt Creek Watershed Improvement Association, Inc.	Dubuque	11
Joint Drainage District	Humboldt Soil and Water Conservation District	Humboldt	12
Lake Storm Lake	Lake Preservation Association	Buena Vista	13
Little Pony Creek	West Pottawattamie Soil and Water Conservation District	Pottawattamie	14
Mill-Picayune	Shelby Soil and Water Conservation District	Shelby	15
Muchakinock Creek	Mahaska Soil and Water Conservation District	Mahaska	16
Rathbun Lake	Rathbun Land and Water Alliance	Appanoose, Clarke, Decatur, Lucas, Monroe, Wayne	17
Storm Lake	Buena Vista Soil and Water Conservation District	Buena Vista	18
Upper Miller Creek	Black Hawk Soil and Water Conservation District	Black Hawk	19
Urban Watershed of Dickinson Lakes	Dickinson Soil and Water Conservation District	Dickinson	20
Viking Lake	Page 1 Rural Water District	Montgomery	21
Yellow River	Allamakee Soil and Water Conservation District	Allamakee, Clayton, Winneshiek	22

**Clear Lake Storm Water Improvement Project  
Hancock Soil & Water Conservation District  
Length of Project: March 1, 2006 to December 31, 2007**

**Counties included in the project area:** Cerro Gordo and Hancock

<b>Total Watershed Improvement Funds awarded for this project:</b>	<b>\$ 225,000</b>
<b>Total Watershed Improvement Funds spent:</b>	<b>\$ 35,000</b>
<b>Total Watershed Improvement Funds obligated:</b>	<b>\$ 7,000</b>
<b>Watershed Improvement Fund unobligated balance as of 12/31/2006:</b>	<b>\$ 183,000</b>

**Project objectives:**

- Perform information and education activities to increase public awareness about storm water improvements.
- Investigate 10 storm water outlets in the Clear Lake watershed to determine most cost effective Best Management Practice (BMP) to reduce storm water contaminants.
- Install storm water BMPs at 5 of the outlets investigated to reduce storm water contaminants.
- Evaluate the effectiveness of any new type of BMP that is installed for which no local data currently exists.

**Summary of activities and accomplishments for calendar year 2006**

A 28E agreement was entered into by the Hancock SWCD and the City of Clear Lake to perform the ten storm water outlet investigations. In June the City of Clear Lake awarded a contract to Veenstra & Kimm, Inc. from Mason City, IA to perform the storm water investigations, who had submitted the low bid proposal of \$35,000.

In July a kickoff meeting was held with all the project stakeholders. At the meeting the ten storm water outlet sites to be investigated were selected. The investigation field work began in August and a summary of the initial findings was prepared in October. The initial field work determined that two of the sites being investigated had too small of a drainage area to warrant a BMP installation. A request was then made and approved by the WIRB board to investigate two additional sites. The total number of sites being investigated is now 12.

The investigation phase of the project is on schedule should be completed in February, 2007. The construction phase will then begin in the spring of 2007 with the installation of the most cost effective BMPs at 5 of the outlets that were investigated. As the investigative phase of the project nears completion, project partners such as the City of Clear Lake, Cerro Gordo County, and City of Ventura are preparing for the upcoming construction phase.

Several information and education activities were conducted to explain the importance of storm water quality improvements as part of the overall Clear Lake restoration project. These activities included: two articles in the Association for the Preservation of Clear Lake newsletter (which is sent to over 200 people), a radio interview, a Des Moines Register newspaper article, and 11 PowerPoint presentations to local community groups and schools.



**Conroy Waste Water System Project**  
**Iowa SWCD**  
**Length of Project March 1, 2006 to December 31, 2008**

**Counties included in the project area:** Iowa County

<b>Total Watershed Improvement Funds awarded for this project:</b>	<b>\$500,000.00</b>
<b>Total Watershed Improvement Funds spent:</b>	<b>\$ 27,687.05</b>
<b>Total Watershed Improvement Funds obligated:</b>	<b>\$58,700.00</b>
<b>Watershed Improvement Fund unobligated balance as of 12/31/2006:</b>	<b>\$441,300.00</b>

**Project Objectives:**

- Provide residents of Conroy and the surrounding area with environmentally sound, affordable treatment of waste water.
- Improve the water quality of the Clear Creek Watershed by eliminating the discharge of waste water from septic systems.
- Improve the water quality of the Clear Creek Watershed by treating collected waste water prior to discharge into the watershed.

**Summary of activities and accomplishments for calendar year 2006**

1. Wastewater System Design and Permits
  - Survey work and design for the sewage collection system completed.
  - Aerial photography for system design work completed.
  - 2 lagoon location/system options developed, #1 option selected.
  - Preliminary plan submitted for review to DNR.
  - Easement acquisition completed for pipeline and collection system.
2. Complete Legal and Administrative Requirements for the Project.
  - Public meetings and reviews held to develop a local ordinance.
  - Ordinance #30 Conroy Sewer Service adopted by Iowa County Board of Supervisors on 8/1//2006.
  - SWCD and Poweshiek Rural Water formalized a Sub-recipient agreement for the project on 12/4/2006 after a review with the Iowa Attorney General office.

**Dry Run Creek Watershed Improvement Project**  
**Black Hawk SWCD**  
**Length of Project: March 1, 2006 to January 31, 2009**

**Counties included in the project area:** Black Hawk

<b>Total Watershed Improvement Funds awarded for this project:</b>	<b>\$500,000.00</b>
<b>Total Watershed Improvement Funds spent:</b>	<b>\$ 29,621.36</b>
<b>Total Watershed Improvement Funds obligated:</b>	<b>\$ 44,467.00</b>
<b>Watershed Improvement Fund unobligated balance as of 12/31/2006:</b>	<b>\$425,911.64</b>

**Project objectives:**

Demonstrate water quality protection in a comprehensive stormwater management system through a variety of practices

- Construction site erosion and sediment control
- Stream corridor stabilization
- Bioretention/Bioinfiltration
- Permeable Transportation Surfaces

**Summary of activities and accomplishments for calendar year 2006**

**Practices Update:** Structural BMPs were in planning stages during most of 2006, with major implementation planned in 2007. Practices to be installed in 2007 include the urban erosion control & rock chute at Prairie Lakes Church, the bioretention cell at Prairie Lakes Church, the varied grading and pool & riffle structures as part of the UNI wetland demonstration park; the UNI streambank stabilization, and the Kwik Star permeable parking surface. Wild Horse Ridge is also planning to break ground in early 2006. This development will include bioretention and bioconveyance as a stormwater management practice, thus reducing the need for traditional storm sewer systems.

**Other developments** - Awareness of the project continues to grow among the local community. Area developers, engineering firms, other university programs and concerned citizens are contacting us for information on how they might also implement infiltration based practices as part of urban stormwater management and water quality efforts.

Also, we are actively sharing information with other urban watershed projects. Specifically, project coordinators in Scott and Dubuque counties have shown interest in learning more about processes, procedures and practices we are implementing as part of the Dry Run Creek project. I met with both coordinators and also am working with Jeff Tisl to arrange for a regional urban project coordinator meeting. This event will likely occur over the winter months.

While few projects were physically implemented in 2006, the plans for 2007 will be implemented quite expeditiously. Projects involving UNI and the City of Cedar Falls are among several capital improvement projects that follow a specific timeline, and move at a pace allowed by the processes they require. One important result is a clear implementation plan for 2007. At the same time, all parties involved as stakeholders and decision makers related to each project now have universal expectations and anticipated outcomes.

**Elk River Water Quality Project  
Clinton County Soil & Water Conservation District  
Length of Project: March 1, 2006 to December 31, 2008**

**Counties included in the project area:** Clinton, Jackson

<b>Total Watershed Improvement Funds awarded for this project:</b>	<b>\$ 292,045.00</b>
<b>Total Watershed Improvement Funds spent:</b>	<b>\$ 25,109.82</b>
<b>Total Watershed Improvement Funds obligated:</b>	<b>\$ 47,689.01</b>
<b>Watershed Improvement Fund unobligated balance as of 12/31/2006:</b>	<b>\$ 219,246.17</b>

**Project objectives:**

- Eliminate toxic ammonia peaks in Elk River by reducing agriculture waste runoff and implementing proper nutrient utilization on 50% of the small and medium livestock operations in the priority sub-watersheds.
- Achieve a 30% sediment delivery reduction in the watershed.

**Summary of activities and accomplishments for calendar year 2006**

In cooperation with the 319/WSPF Elk River Water Quality Project contacts were made to open feedlot producers within Elk River Watershed and nine farm visits took place. Following the initial visits further assistance was received by three producers utilizing Natural Resources Conservation Service (NRCS) Area Engineering Staff out of West Union. Preliminary designs and cost estimates for ag waste sediment basins and filter strips were developed at three different open feedlot locations and presented to those producers. These efforts resulted in two signed applications for two different ag waste sediment basins and filter strips as secondary treatment.

Watershed Improvement Review Board (WIRB) funding was utilized to construct 6.2 acres of grass waterways in the watershed. Five other applications are currently approved for grass waterways totaling 3.3 acres. One grade stabilization structure was constructed utilizing WIRB funding. The total sediment delivery reduction for the projects completed in calendar year 2007 which include a waterway and grade stabilization project is estimated at 416 tons/acre/year.

**Farmers Creek Watershed Project  
Jackson Soil and Water Conservation District  
March 1, 2006 to December 31, 2007**

**Counties included in the project area:** Jackson

<b>Total Watershed Improvement Funds awarded for this project:</b>	<b>\$28,738.00</b>
<b>Total Watershed Improvement Funds spent:</b>	<b>\$ 633.95</b>
<b>Total Watershed Improvement Funds obligated:</b>	<b>\$ 4,106.00</b>
<b>Watershed Improvement Fund unobligated balance as of 12/31/2006:</b>	<b>\$23,998.05</b>

**Project objectives:**

- Reduce streambank erosion by excluding or limiting livestock access to the stream by implementing fencing, cattle approaches, and alternative watering sources.
- Install at least three acres of filter strips or riparian tree plantings to reduce sediment delivery and streambank erosion.
- Stabilize eroding streambanks by constructing 500 feet of cedar revetments and at least one in-stream structure to protect 500 feet of bank.

**Summary of activities and accomplishments for calendar year 2006**

The WIRB project for Farmers Creek was launched with a public relations campaign designed to inform all watershed residents of the project goals and objectives. An informational article was published in the Maquoketa Sentinel Press and Herald-Leader. KMAQ broadcast several informational ads and provided the project with a 30 minute interview segment. Project displays were exhibited at the Maquoketa Farm and Home Show and the Jackson County Fair. The display was also put in the Hurstville Interpretive and Visitor Center for two months. WIRB project updates and practice guidelines were placed in the four quarterly newsletters that went out to all 150 residents. A special packet describing cedar revetments, nose pumps, in-stream deflection devices and other alternative watering systems were sent to the 25 landowners that own stream-front property.

The first obstacle faced by the project was finding specifications for the cedar revetments, since innovative practices were still required to be built to NRCS standards. Specifications were collected from over half a dozen other states and forwarded to our own state engineer. Based on these standards, Jackson County was given permission to pilot these projects. Surveys and designs will be required to be sent to the area engineer. This minor roadblock prevented any revetments from being installed in this first year. Two landowners, however, are interested in installing these practices.

A nose pump was purchased to be used as a demonstration model until spring, when it could be installed by a local producer. It has been demonstrated to producers in the NRCS office, as well as the 500 people who attended the Cattlemen's Association Banquet.

Projects completed this year include 1700 feet of fencing, which will exclude cattle from the creek, and two cattle approaches which will limiting animal access to the creek.

## **Hewitt Creek Watershed Incentive Program for Performance-based Environmental Management**

**Project Sponsor:** Hewitt Creek Watershed Improvement Association, Inc.

**Length of Project:** March 1, 2006 through December 31, 2008

**Counties Included in Project Area:** Dubuque County

<b>Total Watershed Improvement Funds Awarded to this project:</b>	<b>\$159,294</b>
<b>Total Watershed Improvement Funds Spent:</b>	<b>\$ 52,769</b>
<b>Total Watershed Improvement Funds Obligated:</b>	<b>\$ 0</b>
<b>Watershed Improvement Fund unobligated balance as of 12/31/2006</b>	<b>\$106,525</b>

### **Project Objectives:**

- Implement a program of performance-based incentives for agricultural pollution control that connect farm management decisions with environmental outcomes and .
- Assist cooperators to calculate science-based environmental performance indexes and develop effective management responses to improve their scores.
- Document lessons learned and determine critical success factors.
- Provide information, education and outreach to develop water quality awareness and knowledge in the Hewitt Creek Watershed community.

The project intent is to stimulate development and adoption of innovative and appropriate conservation approaches. This project will endeavor to demonstrate the ability of performance-based incentives to increase farmer flexibility and improve the effectiveness of nonpoint source pollution control. The goal is to achieve a critical mass of conservation action and environmental improvements and spur innovation by creating new incentive mechanisms for producers to connect agricultural production and environmental management.

### **Summary of activities and accomplishments for 2006**

The Hewitt Creek watershed council met monthly except May and October. Average attendance at council meetings was 19 and often included official visitors interested in their innovative program. Using \$60,000 provided by the Iowa Farm Bureau, and partnering with WIRB the council implemented one year of an incentive program for improved performance (reduced environmental impact) of priority pollutants P, N and sediment according to the original project plan. Thirty seven farm operators with 42% of watershed cropland were recruited into the program by efforts of council members, their neighbors and a local ag-supplier.

The council hosted visits by the EPA Region 7, 319 Program Specialist for Iowa, Winrock Intl. program officer and WIRB members. Farm Bureau and Iowa Farmer Today reporters and the extension information specialist highlighted project accomplishments in four articles in state and local publications. The extension coordinator and crop specialist made presentations at the USDA CSREES National Water Conference, the ISU ICM Conference, Mississippi River Hypoxia meeting, FB Environmental Issues Conference and the Heartland Regional Water Quality Conference to inform others about the project. Project cooperators are participating in two nationally-funded research projects that will help document critical success factors for community watershed involvement and performance-based incentives.

**Joint Drainage District 1-10  
Humboldt County Soil and Water Conservation District  
Length of Project: March 1, 2006 to January 31, 2008**

**Counties included in the project area:** Humboldt

<b>Total Watershed Improvement Funds awarded for this project:</b>	<b>\$500,000</b>
<b>Total Watershed Improvement Funds spent:</b>	<b>\$15,433.68</b>
<b>Total Watershed Improvement Funds obligated:</b>	<b>\$0</b>
<b>Watershed Improvement Fund unobligated balance as of 12/31/2006:</b>	<b>\$484,566.32</b>

**Project objectives:**

- Eliminate approximately 20 Agriculture Drainage Wells by providing an alternate drainage outlet.

**Summary of activities and accomplishments for calendar year 2006**

The preliminary engineering report for the project is dated August 2, 2006. The formal hearing on the report was held on September 18, 2006.

Plans and specifications were prepared and a bid letting was held on October 23, 2006.

The contract to supply the materials for the project was awarded to Cretex Concrete Products Midwest of West Des Moines, Iowa. The agreement with Cretex is dated November 6, 2006.

The contract for the installation of improvements was awarded to Schany Construction of Graettinger, Iowa. The agreement with Schany is also dated November 6, 2006.

The installation contractor has installed pipe on the main from the outlet at the open ditch (STA 0+00) to a point west of Hawaii Avenue. This includes approximately 3200 lineal feet of 42" R.C.P. and the apron at the outlet. This put them within 600 feet of the first junction box on the project. At this junction box Lateral No. 1 will connect to the main.

The supplier of the pipe will be hauling pipe through the winter and will be spreading them along the route of the improvement. This is being done while the ground is frozen since it will be impossible to get trucks into these areas in the spring. Construction equipment will be able to work long before trucks can drive along the route.

We anticipate the construction being complete in mid to late September. Pay requests will be submitted regularly as work progresses.

We would estimate the first pay request for the contractor installing the pipe to be approximately \$23,000. The pay request for materials will be approximately \$116,600.

**Lake Storm Lake  
Lake Preservation Association  
Length of Project: March 1, 2006 through December 31, 2007**

**Counties included in the project area:** Buena Vista

<b>Total Watershed Improvement Funds awarded for this project:</b>	<b>\$477,000.00</b>
<b>Total Watershed Improvement Funds spent:</b>	<b>\$230,186.73</b>
<b>Total Watershed Improvement Funds obligated:</b>	<b>\$262,880.22</b>
<b>Watershed Improvement Fund unobligated balance as of 12/31/2006:</b>	<b>\$214,119.78</b>

**Project objectives:**

- Administer Project and Implement all activities and objectives in the Lake Storm Lake Watershed – Lake Preservation Association Project
- Construct the desired elements by the end of the calendar year 2006

**Summary of activities and accomplishments for calendar year 2006**

The project has proceeded throughout the year with most of the sponsorship matching components completed including new storm water outlets and storm water piping placement underground.

Components of the overall storm water enhancement project that are funded by the Watershed Improvement Board funds the mini rain gardens have been constructed, the plantings for these gardens will be purchased and planted in the spring of 2007 by staff from the City of Storm Lake. The cost of the plantings will be applied to the grant. The storm water detention ponds have been installed with about 30% of that project yet to be completed including the plantings and rock placement. The major structures for this part of the overall project have been completed. Work should be finished up on this project in the spring of 2007.

The final component that was funded through the WIRB program is the installation of two commercial size rain gardens on the north side of two curved parking areas. The plans for this component have been completed and the project is out for bid with bids to be accepted on January 23, 2007. This project will be constructed in the spring and early summer of 2007.

**Little Pony Creek Watershed Improvement Project**  
**Project Sponsor: West Pottawattamie County Soil & Water Conservation District**  
**Length of Project March 1, 2006 – January 31, 2009**

**Counties included in the project area:** West Pottawattamie

<b>Total Watershed Improvement Funds awarded for this project:</b>	<b>\$ 215,673.00</b>
<b>Total Watershed Improvement Funds spent:</b>	<b>\$ 10,684.90</b>
<b>Total Watershed Improvement Funds obligated:</b>	<b>\$ 42,900.00</b>
<b>Watershed Improvement Fund unobligated balance as of 12/31/2006:</b>	<b>\$ 162,088.00</b>

**Project objectives:**

- Improve & Monitor water quality in the Little Pony Creek Watershed.
- Create public awareness of the Project & Water Quality Issues.
- Develop an educational program with Iowa School for the Deaf & ISU.

**Summary of activities and accomplishments for calendar year 2006**

The Little Pony Creek Watershed Improvement Project began even before the districts award of a WIRB Grant. Partner agencies, Officials from the City of Council Bluffs and Pottawattamie County were in support, working together on the planning and application process. A Leadership Team has been formed and the Project Coordinator hired. Field office staff immediately started getting the word out about the watershed project and the Best Management Practices being promoted. A link on the district website [www.pottswcd.org](http://www.pottswcd.org) was created promoting the Little Pony Creek Watershed Improvement Project

IOWATER monitoring sites have been established and baseline data collected to assess water quality. Water testing is done monthly using IOWATER techniques by the Project Coordinator and Iowa School for the Deaf staff and students. All data is recorded on the Iowa Department of Natural Resources IOWATER website. A U. S. Geological Survey monitoring station was installed in the creek on the Iowa School for the Deaf Campus with data uploaded every 15 minutes in near real time to their website. A COOP agreement with the U. S. Geological Survey to monitor the station for 3 years has brought an additional \$29,400 of in-kind contribution to the grant. Regular monitoring is vital to measure the success of the project thru monitoring water quality as development increases and conservation practices are implemented in the watershed.

In cooperation with Iowa State University Pottawattamie County Extension Presentations were given to the Master Gardeners and the Council Bluffs Building Trades Association. Information booths, classes and demonstrations have been held with outreach to approximately 115 people. We were well received and found a great interest among attendees. A newly created brochure being distributed gives information about Little Pony Creek Watershed, the project and its partners, explanations of the Best management practices being promoted and contact information for Cost Share and Low Interest Loan opportunities.

We are working with several landowners and developers planning practices for installation in the spring of 2007. It looks to be a busy and successful year.



**Mill-Picayune (Manteno Lake)**  
**Shelby County Soil & Water Conservation District**  
**Length of Project: March 1, 2006 to December 31, 2008**

**Counties included in the project area:** Shelby County

<b>Total Watershed Improvement Funds awarded for this project:</b>	<b>\$56,250.00</b>
<b>Total Watershed Improvement Funds spent:</b>	<b>\$51,802.00</b>
<b>Total Watershed Improvement Funds obligated:</b>	<b>\$-0-</b>
<b>Watershed Improvement Fund unobligated balance as of 12/31/2006:</b>	<b>\$ 4,448.00</b>

**Project objectives:**

- Construct two grade stabilization structures to reduce silt and nutrient load to the lake.
- Reduce siltation and nutrient overload to Manteno Lake

**Summary of activities and accomplishments for calendar year 2006**

The staff located three potential structure sites north of the lake along the feeder creeks on the landowner's property that would trap sediment before it enters the lake. After a field visit, the third site was deemed unnecessary. Estimates were prepared by NRCS Engineering Staff and a Public Bidding was held with bids opened on September 11, 2006. The notice to proceed was issued on October 12, 2006 to the low bidder. The project was certified as complete by the NRCS engineer on December 7, 2006.

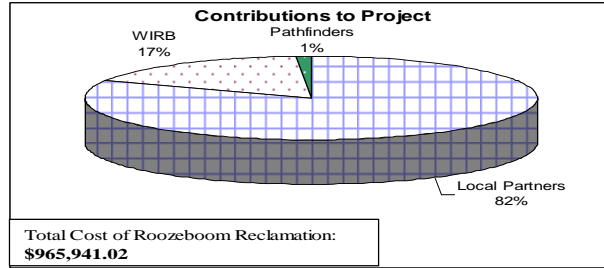
In addition to the construction of the two structures, the landowner chose to bid the ground into CRP again. In July of 2006, the ground was enrolled into CRP for ten years further reducing potential sediment and nutrient load to the lake.

One news article appeared in fall issue of the 2006 of the Shelby County Soil & Water Conservation District Newsletter informing the public about the project, highlighting the end result of reducing sediment and nutrients that would normally reach the lake.

2006 Watershed Improvement Fund Annual Project Progress Report  
**Muchakinock Creek Watershed Project**  
**Mahaska County Soil & Water Conservation District**  
**Length of Project: March 1, 2006 – December 31, 2008**

**Counties included in the project area:** Mahaska

<b>Total Watershed Improvement Funds awarded for this project:</b>	<b>\$500,000.00</b>
<b>Total Watershed Improvement Funds spent:</b>	<b>\$166,000.00</b>
<b>Total Watershed Improvement Funds obligated:</b>	<b>\$0</b>
<b>Watershed Improvement Fund unobligated balance as of 12/31/2006:</b>	<b>\$334,000.00</b>



**Project objectives:**

- Implement mine reclamation practices to reduce sediment, chemical and nutrient delivery to Muchakinock Creek
- Conduct information and education activities toward landowners/producers, school groups, local units of government and the community
- Identify quantifiable measures of success including a numerical value of stakeholders reached by Info & Ed activities as well as applicable sediment load reductions

**Summary of activities and accomplishments for calendar year 2006**

The Mines & Minerals Bureau of the Division of Soil Conservation (DSC) had already bid and contracted the Roozeboom mine reclamation site when WIRB funds were granted. There were approximately 19.8 acres involved on the DSC's Contract #1 for Roozeboom. All of the originally estimated structures, including 950 feet of terrace and 1250 feet of toe drain, were installed along with one wetland and one grade stabilization structure. The structures were built using Abandoned Mine Land specifications, the governing entity of the DSC's mine reclamation efforts. Nearly 18 acres were permanently seeded. Mulch, lime and fertilizers were used to amend the soil and allow for the growth of the seeding.

Press releases detailing the project and funding sources were run in the Mahaska County Soil & Water Conservation District Newsletter, Oskaloosa Herald and What Cheer Paper in March; the Iowa Farm Bureau Spokesman in April and June; and the New Sharon Sun in August. The project was also mentioned in a Des Moines Register editorial on water cleanup on March 15th. Two public meetings were held in August to inform the public and local community leaders about the mine reclamation project and funding sources. The project took advantage of the IOWATER citizen water quality monitoring program already in place at the Oskaloosa Alternative High School. The students continue biannual data collection days at 3 sites along the Muchakinock Creek, including one site downstream from a reclaimed site. These activities reached approximately 11,000 stakeholders in the local community and beyond.

Since the mine site was not considered a "soil" it was difficult to quantify the sediment loading. Project staff calculated the sediment load reduction to the Muchakinock Creek at 195 tons/year using the expertise of the NRCS Area Soil Scientist.

**Rathbun Lake Special Project:  
Strategic Placement of BMPs for Water Quality Protection  
Rathbun Land and Water Alliance  
Length of Project: March 1, 2006 to December 31, 2008**

**Counties included the project area:** Appanoose, Clarke, Decatur, Lucas, Monroe, and Wayne

<b>Total Watershed Improvement Funds awarded for this project:</b>	<b>\$500,000</b>
<b>Total Watershed Improvement Funds spent:</b>	<b>\$0</b>
<b>Total Watershed Improvement Funds obligated:</b>	<b>\$250,000</b>
<b>Watershed Improvement Funds unobligated balance as of 12/31/2006:</b>	<b>\$250,000</b>

**Project objectives:**

- Develop and perform geographic information system analysis to identify and evaluate potential locations for the placement of debris basins to protect water quality
- Construct at least ten debris basins in the Rathbun Lake watershed that will reduce annual sediment and phosphorus delivery by close to 3,000 tons and 12,000 pounds respectively
- Perform all administrative requirements as per grant agreement and approved application

**Summary of activities and accomplishments for calendar year 2006**

Rathbun Land and Water Alliance members and partners developed a geographic information system (GIS)-based methodology to identify and evaluate potential locations in the Rathbun Lake watershed to place large debris basins for water quality protection. Alliance members and partners used this GIS-based methodology to identify, evaluate, and prioritize close to 30 potential sites for the construction of these basins. Potential basin sites were located below areas of priority land in the watershed on which in-field best management practices will not be applied. The principal criterion used to rank potential sites for basin construction was the estimated average annual cost per ton of reduced sediment delivery to Rathbun Lake. Use of this methodology confirmed the relative cost effectiveness of constructing debris basins at strategic locations to reduce water quality impairment caused by sediment and associated phosphorus.

Alliance members and partners contacted twelve landowners regarding the construction of debris basins at the highest ranked potential sites in the watershed. As a result, five landowners agreed to construct basins at six of these sites. The Alliance estimates that these six basins will reduce annual sediment and phosphorus delivery to Rathbun Lake by 4,000 tons and 16,000 pounds respectively. Engineering related planning and design activities are well underway for these six basins. The Alliance anticipates that all six basins will be constructed in 2007. Alliance members and partners also continue to work with other landowners regarding the construction of additional debris basins at highly ranked potential sites in the watershed.

Rathbun Land and Water Alliance members and partners assembled a team of experts to plan, carry out, and assess project activities. The Alliance's board of directors and team members regularly reviewed progress in project implementation. The project's annual plan of work, narrative reports, and financial ledgers were submitted as required.

**Storm Lake Watershed Project  
Buena Vista Soil and Water Conservation District  
March 1, 2006 to December 31, 2007**

**Counties included in the project area:** Buena Vista

<b>Total Watershed Improvement Funds awarded for this project:</b>	<b>\$ 23,000.00</b>
<b>Total Watershed Improvement Funds spent:</b>	<b>\$ 6,968.23</b>
<b>Total Watershed Improvement Funds obligated:</b>	<b>\$ 5,000.00</b>
<b>Watershed Improvement Fund unobligated balance as of 12/31/2006:</b>	<b>\$ 11,031.77</b>

**Project objectives:**

- Monitor the water quality of various locations in the watershed utilizing IOWATER monitoring program.
- Develop a variety of information and education programs and correspondence.
- Install demonstration and conservation practices in the watershed.

**Summary of activities and accomplishments for calendar year 2006**

Seven Iowater sites were sampled monthly by the Iowater Coordinator. Five additional sites are also monitored by citizen monitors. Along with sampling monthly, Josh also took a couple samples during rain events, and bacteria monitoring. Josh was responsible for keeping records of the sampling in a database at the office and on-line for other interested visitors.

Much of our press coverage was during the time of our boulder weir construction and field day. The local papers covered the story involving the Earth Day Tree Planting, the boulder weir field day and the Garden Club Rain Garden Tour. I gave a presentation to the local Kiwanis group about urban practices such as rain gardens and porous pavement like the one installed at Graham Tire. I also sent a newsletter to the watershed that described the new program for tile buffer intakes being offered through the WIRB grant.

Four tile intakes were buffered. They are associated with terraces, so there was no question as to whether it could have been a wetland restoration. Other landowners have shown interest, but selling a conservation program with the corn market and ethanol as it is, is very difficult. I foresee a lot of critical land not being put into conservation because of this.

One bio-retention cell was installed in the watershed that filters the stormwater from Graham Tire, a lube and tire express business. They replaced an area that held water for days after a light rain because it was full of construction waste clay and gravel with a bio-retention cell. The area was 94ft by 23ft, excavated and filled in with 50% sand, 25% compost, 25% topsoil, and a layer of pea gravel. The bio-retention cell was also seeded with buffalo grass to reduce maintenance in the future.

Three boulder weirs were installed in Powell Creek. The weirs are designed to reduce down cutting of the channel, slow the progress of a head cut into the adjacent field, and prevent more nick-points from moving up the creek. Monitoring of the channel will be completed every year.

**Upper Miller Creek Watershed Improvement Project**  
**Black Hawk SWCD**  
**Length of Project: March 1, 2006 to January 31, 2009**

**Counties included in the project area:** Black Hawk

<b>Total Watershed Improvement Funds awarded for this project:</b>	<b>\$ 68,900.00</b>
<b>Total Watershed Improvement Funds spent:</b>	<b>\$ 2077.40</b>
<b>Total Watershed Improvement Funds obligated:</b>	<b>\$ 0.00</b>
<b>Watershed Improvement Fund unobligated balance as of 12/31/2006:</b>	<b>\$ 66,822.60</b>

**Project objectives:**

- Reduce soil erosion.
- Improve water quality.
- Reduce county road infrastructure cost by implementing conservation practices.
- Reduce nutrient and pesticide use and improving wildlife habitat.

**Summary of activities and accomplishments for calendar year 2006**

Yield results from the first cover crop installation were significantly lower than anticipated. Corn planted in the fields had an *allelopathic* response to the rye seeded in two fields. This caused the corn to literally be “poisoned” by the rye, resulting in extremely low yields. Due to the negative yield impact, along with complications with aerial seeding, cover crops may not be considered a priority for 2007 or 2008.

The helicopter pilot hired in 2005 for the cover crop application was severely injured in a crash that also totaled his helicopter and seeding equipment. After extensive research, a fixed wing (airplane) pilot was located in Grinnell to apply the 2006 cover crop. An airplane generates a downdraft, whereas a helicopter does not. Also, the high rate of speed for airplanes versus helicopters may have caused the rye and oat seeds to distribute less uniformly than the helicopter seeding. Also, standing corn may have shaded the seeds more than mature beans, which may have been detrimental to seed germination. Because of this combination of events, it is recommended to the District and also the WIRB board to refrain from further cover crop applications, particularly when corn is the existing primary crop. Instead, roadside buffers with native vegetation may become the top priority for the project.

Various events such as quarterly meetings, test plot field days and random visits to the SWCD office have allowed me to get to know those producers already involved in the watershed project. Plans are to engage on more of a one-on-one basis with these individuals as a way to promote the project and encourage further participation from neighboring producers also within the watershed.

An estimated 17 producers are eligible to participate in the watershed project and cost share incentives. In 2006, six producers were actively involved, with four of the six installing both roadside buffers and secondary cover crops. With an ultimate goal of 100 percent participation at the end of the project, a goal for 2007 is to double the existing number of producers as participants, and also include absentee land owners.

**Urban Watersheds of Dickinson County Lakes and 303 (d) Waters  
Dickinson County Soil and Water Conservation District  
Length of Project: March 1, 2006 to February 28, 2009**

**Counties included in the project area:** Dickinson County

<b>Total Watershed Improvement Funds awarded for this project:</b>	<b>\$486,800.00</b>
<b>Total Watershed Improvement Funds spent:</b>	<b>\$ 17,750.70</b>
<b>Total Watershed Improvement Funds obligated:</b>	<b>\$ 15,000.00</b>
<b>Watershed Improvement Fund unobligated balance as of 12/31/2006:</b>	<b>\$454,049.30</b>

**Project objectives:**

- Prioritize urban watersheds using GIS
- Cost share on at least 100 Low Impact Development projects
- Increase public awareness and education of Low Impact Development and this program and alternative urban drainage practices

**Summary of activities and accomplishments for calendar year 2006**

The Low Impact Development (LID) Task Force was established to help direct the program's educational and promotional ideas. This group meets monthly for updates and discusses options public events, promotions and education. This group has been a guide for this project and assists the coordinator and the Dickinson County SWCD.

The GIS work was held up due to several projects not coming together as planned. The LiDAR data that was due the early summer was not fully delivered until November. Some initial work has started but now with new photography, prior work was inaccurate and is being redone. This work is to be completed over the winter and be ready with prioritization this spring. Current projects are using non-priority area funds until prioritization is completed.

A graduate student was hired in August of 2006. This engineering graduate student started work in September but was stopped due licensing issues. The licensing concern took about two months between Iowa State University, Dickinson County SWCD and Natural Resources Conservation Service to resolve. The intern reconvened designing in December and is currently working on list of current requests.

Currently we have 25 people that are interested this program. There are 20 people that would like to have rain gardens and 5 that would like to have a pervious pavement system. We have also approved the use of \$2,000 to each of the municipalities within the scope of this project to created demonstration site in public areas. Currently the cities of Spirit Lake, Wahpeton, Arnolds Park, and Okoboji are looking for projects and the Dickinson County Supervisors are also looking at a project.

The only practice we currently have completed is in the city of Arnolds Park. This rain garden was completed in November 2006 and treats a 0.25 acre area that is 97% impervious. This rain garden is 150 feet from the south shore of Minnewashta Lake. Funds have been obligated for ar a pervious pavement project in Milford. This will treat water that goes to Milford Creek that currently is an impaired water way on the 303 (d) list.

**Viking Lake Village Wastewater Project**  
**Page I Regional Water District**  
**Length of Project: March 1, 2006 to March 31, 2007**

**Counties included in the project area:** Montgomery County

<b>Total Watershed Improvement Funds awarded for this project:</b>	<b>\$ 58,500.00</b>
<b>Total Watershed Improvement Funds spent:</b>	<b>\$ 55,575.00</b>
<b>Total Watershed Improvement Funds obligated:</b>	<b>\$ 0</b>
<b>Watershed Improvement Fund unobligated balance as of 12/31/2006:</b>	<b>\$ 2,925.00</b>

**Project objectives:**

- Construct two independent wastewater sand filter treatment systems for the 10 homes located at Viking Lake Village
- Coordinate this project with the Viking Lake Watershed wetlands development project
- Provide filtration treatment of the wastewater effluent to reduce the pollutant level within DNR wastewater discharge environmental standards prior to entering the watershed wetlands
- Monitor discharge of treated effluent and provide future maintenance of the wastewater facility

**Summary of activities and accomplishments for calendar year 2006**

The Page I Regional Water District secured funding for the project in February 2006. The project budget was \$117,000.00. The District entered into a 28E Joint Agreement with the Montgomery County Board of Supervisors for construction, maintenance, and operation of the project and secured all right of way easement acquisition by May 1<sup>st</sup>. The project engineer then completed the final design phase of the project and advertised for bids on May 24<sup>th</sup>.

A bid letting was held on June 29<sup>th</sup>. Bids received exceeded the engineer's estimate and plans were revised to reduce the cost of the construction phase of the project. The District also met with Rural Development and secured additional funding to meet a revised project budget of \$138,000.00.

A construction contract was awarded on August 15<sup>th</sup>. Construction work begun on September 9<sup>th</sup>. A newsletter publication was mailed to the residents advising them of the staking of control points and the proposed schedule for construction. A progress meeting was held on October 10<sup>th</sup> with the project at 50% completion. The project was completed and placed into full operation on November 4<sup>th</sup>. Contract change orders based on quantities installed reduced the contract by [\$1,092.00] providing for an adjusted construction contract of \$97,567.00. As of December 31 the District had not received the loan or grant funding from Rural Development for the project.

This project will greatly improve the water quality of Viking Lake. Once the lake is refilled and placed into public use, water quality testing can be conducted at the public beach to document the improvement of the water quality.

**Yellow River Watershed Improvement Project**  
**Allamakee SWCD**  
**Length of Project - March 1, 2006 to December 31, 2008**

**Counties included in the project area:** Allamakee, Winneshiek, Clayton

<b>Total Watershed Improvement Funds awarded for this project:</b>	<b>\$ 229,000</b>
<b>Total Watershed Improvement Funds spent:</b>	<b>\$ 63,006</b>
<b>Total Watershed Improvement Funds obligated:</b>	<b>\$ 0</b>
<b>Watershed Improvement Fund unobligated balance as of 12/31/2006:</b>	<b>\$ 165,994</b>

**Project objectives:**

- This project is part of an overall effort to improve the quality of the Yellow River in Northeast Iowa by reducing sediment and bacteria from entering the stream. This project will improve the stream quality to the level of supporting game fish such as smallmouth bass and trout.
- This project will construct 9000ft.(36 sites) of bank stabilization including fish habitat structures and seeding
- This project will construct 5 livestock waste manure systems.

**Summary of activities and accomplishments for calendar year 2006**

The staff identified top priority streambank stabilization sites for treatment. To date 2270' of streambank has been stabilized and 256' of fish hides have been installed on 9 sites on 3 landowners. Twenty sites have been identified, had site visits, and are waiting for funding.

The staff identified top priority livestock systems based on head numbers and proximity to the stream. Two manure storage systems have been installed. One for a 100 head dairy and was immediately adjacent to a trout stream tributary and the other was a 200 head dairy that is located in the Hickory Creek subwatershed. One beef feedlot for 120 head of fat cattle was completed. Five more sites have been surveyed and the design is in progress.

Grazing practices implemented include one livestock watering well, eliminating a stream access, 64.5 acres of prescribed grazing including 8 paddocks, brush management, 2,000 ft. of fencing and 2 watering facilities. These practices were implemented on 3 grazing operations. Land treatment practices included 12,325 ft. of terraces on 7 landowners.

A newsarticle appeared in the Waukon Standard newspaper covering WIRB opportunities and accomplishments. Weekly water sampling was conducted through October, with monthly sampling continuing until April when weekly sampling will begin again. Sampling is conducted at 12 sites and includes 10 parameters.

Additional funding has been received from the EPA, federal WHIP funds and from the Citizens for Clean Water.