IOWA DEPARTMENT OF AGRICULTURE AND LAND STEWARDSHIP

Bill Northey, Secretary of Agriculture

January 31, 2012

Governor Terry Branstad
State Capitol
LOCAL

Dear Governor Branstad:

Pursuant to Iowa Code Chapter 466A Section 3, Item 3e, the Watershed Improvement Review Board is pleased to provide you its annual report. Copies of this report are also being provided to the President of the Senate and the Speaker of the House. Per the requirements of Chapter 466A, an electronic version of the report is also being provided to your office, the President of the Senate and the Speaker of the House.

The Board, codified in Chapter 466A, is an independent, self-governing body directed to award grants for water quality improvement and flood prevention in the state. The Board is authorized to request applications from soil and water conservation districts, local watershed improvement committees, public water supply utilities, counties, county conservation boards and cities and award grants to these entities. These grants are funded by the Watershed Improvement Fund.

Although no appropriation was received in FY2012, returned funds from some prior years' grants plus interest earned on the Watershed Improvement Fund allowed the Board to issue one Request For Applications in 2011. On September 9, the Board awarded grants to eight applicants for a total of $1,506,309. In addition to providing environmental benefits, these implementation projects stimulate economic recovery, empower local groups to improve water quality and create jobs through the purchase of local goods and services.

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

Sincerely,

Mark Rosenbury, Chair
Watershed Improvement Review Board

Cc: Bill Northey
Jay A. Johnson
Members, Watershed Improvement Review Board

MR:JN

IOWA DEPARTMENT OF AGRICULTURE AND LAND STEWARDSHIP

Bill Northey, Secretary of Agriculture

January 31, 2012

John P. Kibbie
President of the Senate
State Capitol
LOCAL

Kraig Paulsen
Speaker of the House
State Capitol
LOCAL

Dear Senator Kibbie and Representative Paulsen:

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Mark Rosenbury, Chair
Watershed Improvement Review Board

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Members, Watershed Improvement Review Board

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Watershed Improvement Review Board
Calendar Year 2011 Annual Report

Submitted January 31, 2012

The Watershed Improvement Fund and the Iowa Watershed Improvement Review Board (WIRB) were created in 2005. 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 28, March 11, May 13, June 16, August 12, September 9, November 4 and December 2. Attachment 2 lists the board members and their organization affiliation.

The Board completed one Request For Applications (RFAs) for the Watershed Improvement Fund. The RFA was announced June 20, 2011 and closed August 5, 2011.

August 5, 2011 Closing Date Request For Applications: The Board received nineteen applications in response to this RFA. These applications requested $4.26 million in Watershed Improvement Funds and leveraged an additional $7.2 million for a total of $11.52 million of watershed project activity proposed.

On September 9, after reviewing and ranking the applications individually from this RFA, the Board met and selected eight applications for funding. The eight projects were approved for $1,506,390 of Watershed Improvement Funds. Data on the eight selected projects in this RFA include the following:

- These projects included portions of 15 counties.
- The $1.5 million requested of Watershed Improvement Funds leveraged an additional $3.4 million for a total of $4.9 million in watershed improvements.
- Selected individual projects were approved for funding between $61,760 to $335,600

Attachment 1 lists the approved projects name, applicant name, county or counties where located, and funding amount for the August 5, 2011 closing date RFA.

In 2011, changes were made in the authorizing legislation to allow the WIRB to fund a nutrient mass balance study to be conducted by the Iowa Department of Agriculture and Land Stewardship in cooperation with Iowa State University College of Agriculture and Life Sciences. The WIRB approved $50,000 at their September 9 meeting to complete the study.

In cooperation with the Treasurer of State, submitted the 2011 year-end report for the Rebuild Iowa Infrastructure Fund and the Revenue Bonds Capitals II Fund to the Legislative Services Agency and the Department of Management.

Attachment 3 contains the annual progress reports from the 52 active projects and projects finished in 2011.

Attachment 1. Watershed Improvement Fund Grants Awarded From the RFA Ending August 5, 2011.

Watershed Name	Organization	Project Length	Counties	Grant Amount
Coe Creek Watershed	City of Elliot	2 years	Montgomery	$166,460
Duck Creek Watershed	City of Davenport	6 months	Scott	$300,000
Lake Hendricks Watershed	Howard SWCD	1 year	Howard	$61,760
Lake Icaria Watershed	Adams SWCD	2 years	Adams	$244,650
Price Creek Watershed	Iowa SWCD	3 years	Iowa, Benton	$102,695
Rathbun Lake Watershed	Rathbun Land and Water Alliance	5 years	Appanoose, Clarke, Decatur, Lucas, Monroe, Wayne	$125,300
Twelve Mile Lake Watershed	Creston City Water Works	2 years	Union, Adair	$169,925
Walnut Creek Watershed	Montgomery and East Pottawattamie SWCDs	2 years	Montgomery, Pottawattamie	$335,600
Funding Approved by the Watershed Improvement Review Board				**$1,506,390**

Attachment 2. Appointed Members of the Watershed Improvement Review Board
January 1 - December 31, 2011, Iowa Code Chapter 466A

Name	City	Term Ending	Sponsoring Organization
Mark Rosenbury	West Des Moines	2012	Agribusiness Assn of Iowa
Jolee Belzung	Ankeny	2013	Iowa Assn of Water Agencies
Tom Hadden	Altoona	2012	Iowa Environmental Council
Vicki Allen (January-March)	Diagonal	2012	Iowa Farm Bureau
Larry Alliger (April-December)	Gowrie	2014	Iowa Farm Bureau
Debra Karwal	Elliott	2011	Iowa Pork Producers
Lisa Walters	West Des Moines	2013	Iowa Rural Water Assn
Robert Ballou	Monticello	2013	Iowa Soybean Assn
Jane Weber	Bettendorf	2012	Soil and Water Conservation Districts of Iowa
Keri Van Zante	Newton	2012	Iowa Assn of County Conservation Boards
Jim Gillespie	Earlham	2011	Representative of IDALS
Steve Hopkins	Des Moines	2011	Representative of DNR
Dennis Black	Grinnell	2013	State Senator
David Johnson	Ocheyedan	2013	State Senator
Jarad Klein	Keota	2013	State Representative
Roger Thomas	Elkader	2013	State Representative

Attachment 3. 2011 Annual Project Reports Table of Contents

Project ID	Watershed Name	Organization	Counties Where Located	Page Number
7042	Kettle Creek Watershed (report not received at time of filing)	City of Ottumwa	Wapello	
8012	Lake Morris Watershed	Lucas SWCD	Lucas	24
7017	Little Clear Lake	Pocahontas SWCD	Pocahontas	25
9012	Little River Lake	Decatur SWCD	Decatur	26
9009	Lost Creek Watershed	Lee SWCD	Lee	27
1009	Lost Island Lake Watershed (report not received at time of filing)	Palo Alto County Conservation Board	Palo Alto, Clay	
8011	Ludlow Creek Watershed	Allamakee	Allamakee, Winneshiek	28
9014	Lytle Creek Watershed	Limestone Bluffs RC&D Area, Inc.	Jackson	29
9032	Miller Creek Watershed	Monroe SWCD	Monroe	30
8013	Muchakinock Creek Watershed	Mahaska SWCD	Mahaska	31
9029	Otter Creek Watershed			32
8008	Rathbun Lake Watershed: BMPs for Priority Land in Targeted Sub-Watersheds 2008	Rathbun Land and Water Alliance	Decatur, Wayne	33
9018	Rathbun Lake Watershed: BMPs for Priority Land in Targeted Sub-Watersheds 2009	Rathbun Land and Water Alliance	Appanoose, Clarke, Decatur, Lucas and Wayne	34
1024	Rathbun Lake Watershed Special Project	Rathbun Land and Water Alliance	Appanoose, Clarke, Decatur, Lucas Monroe and Wayne	35
7021	Sand Creek Watershed	Delaware SWCD	Delaware	36
8021	Sands Timber Water Quality Project	Taylor SWCD	Taylor	37
9005	Silver Creek Watershed Project	Clayton SWCD	Clayton	38
8005	Silver Lake Watershed (report not received at time of filing)	Osceola SWCD	Osceola, Dickinson	
7014	South Raccoon/Maple River Junction (report not received at time of filing)	Carroll SWCD	Carroll	

Project ID	Watershed Name	Organization	Counties Where Located	Page Number
8019	Staff and Beaver Creek Watersheds	Howard SWCD	Howard	39
8009	Storm Lake Watershed	Lake Preservation Association for Storm Lake, Inc.	Buena Vista	40
8004	Summit Lake Watershed	City of Creston	Union	41
9028	Tributary B Four Mile Creek	City of Ankeny	Polk	42
1017	Tuttle Lake Watershed	Emmet SWCD	Emmet	43
9007	Upper Buffalo Creek Watershed	Buchanan SWCD	Buchanan, Fayette	44
7024	Volunteer Creek Watershed	City of Carlisle	Warren	45
8018	Walnut Creek Watershed	Montgomery and East Pottawattamie SWCDs	Montgomery, Pottawattamie	46
9011	Walnut Creek Watershed	Poweshiek SWCD	Poweshiek	47
1014	Walnut Creek Watershed	Montgomery and East Pottawattamie SWCDs	Montgomery, Pottawattamie	48
1008	White Oak Lake Watershed (report not received at time of filing)	Mahaska County Conservation Board	Mahaska	
1003	Williamson Pond Watershed	Watershed Improvement Review Board	Lucas	49
1012	Yellow River Headwaters	Winneshiek SWCD	Winneshiek, Allamakee	50

Project Name: Bear Creek Watershed
Project Sponsor: Delaware SWCD
Length of Project: January 1.2010 to June 31, 2013

Counties included in the project area: Delaware

Total Watershed Improvement Funds awarded for this project:	**$ 347,950**
Total Watershed Improvement Funds spent:	**$ 131,136.98**
Total Watershed Improvement Funds obligated:	**$ 20,451**
Watershed Improvement Fund unobligated balance as of 12/31/2011:	**$ 196,362.02**

Project objectives:

- **OBJECTIVE 1.**Administer the Bear Creek Watershed Improvement Project
  To ensure all objectives and activities planned are implemented
- **OBJECTIVE 2.** Improve Livestock Waste Storage.
- **OBJECTIVE 3.** Improve Livestock Waste Usage.
- **OBJECTIVE 4.** Decrease Sediment Losses to Bear Creek by 2,319 tons/ac/year.
- **OBJECTIVE 5.** Improve Education and Area Outreach

Summary of accomplishments and water quality outcomes
There were 12 MRBI contracts in Delaware from 2011 money. Delaware has 7 applications on file for FY 2012 MRBI funding. If Bear Creek Watershed projects are not funded by MRBI funds, the district will use WIRB funds to construct them.

Bear Creek Watershed had a good fall for terrace and water and sediment control basins construction. The project completed 4,350 feet of terraces, 8.4 ac of grassed waterways (CRP and MRBI), 1 waste storage structure (EQIP) and 8 water and sediment control basins (WIRB and MRBI). There has been 33,130 feet of terrace, 150.0 acres of waterways (103.3 ac- CRP and 46.7ac-WSPF-WIRB), 42.6 acres of CRP filter strips, 1,133 acres of new notill acres, 4waste storage structures and 27 water and sediment control basins have been applied in this project. There are 9 MRBI applications on file as of Dec 29. Three of these are for ag-waste sites to replace open lots. Sediment delivery reduction in Bear Creek Watershed in Federal FY 2010 was **1230 tons,** the Federal FY 2011 reduction in 2011 is **447** tons and the reduction in Federal FY 2012 is **201** tons. The total reduction for the project is 7,213 tons from FY2006-present. Three of the waste storage structures have replaced open lots with total containment thus have reduced manure sediment delivery to Bear Creek.

Total Dollars per funding source that was expensed during 2011 are as follows:
WIRB ($17,168.60), CRP ($$22,484.15), MRBI ($99,123.77).

The practices that are not being used are streambank stabilization and Waste Storage Structures. The waste storage structure money could be used in the next year because there are two sites which do not fit the MRBI rules and also there is a structure which was not built but has design and the landowners have renewed interest in building structure.

The Upper North Fork project committed 1.2 million MRBI dollars to contracts in Federal FY 2011. Landowner/operators have committed to do cover crops, nutrient management including plans, grassed waterways, notill planting, water and sediment control basins, waste storage/ total roof structure and terraces. MRBI project sponsored a cover crop day on November 15 at 1:00 p.m. on Oran Pape's farm at Dyersville with four farmers attending.

Project Name: 1010-005 Bloody Run Creek
Project Sponsor: City of Marquette
Length of Project: October 1, 2010 – December 31, 2011

Counties included in the project area: Clayton County

Total Watershed Improvement Funds awarded for this project:	**$200,000**
Total Watershed Improvement Funds spent:	**$165,425**
Total Watershed Improvement Funds obligated:	**$200,000**
Watershed Improvement Fund unobligated balance as of 12/31/2011:	**$ 0**

Project objectives:

Marquette witnessed the devastating impact of uncontrolled runoff emanating from the bluffs surrounding the city during storm events. The city strived to improve watershed management and water quality within the Bloody Run Creek area, enhancing the key natural resources and adjoining wetlands as envisioned. Designated as an Iowa Great Place, Marquette's plan to create an educational park, inclusive of a trail system and learning center that focuses on wetlands and their value as a unique natural resource in the NE Iowa area is proceeding.

Summary of accomplishments and water quality outcomes:

Keeping the preservation of these resources and the effective management of the watershed in mind, these are the major goals achieved:

- Completed construction of debris basin catchment of Phase II.
- Mitigated unmanaged runoff and decreased the impact of uncontrolled overland flows. Observations made during a 2 inch storm event validated the effectiveness of the improvements made as no damage was witnessed from natural debris and sediments runoff.
- Constructed conveyance systems to integrate with Upper Pond containment structure completed in Phase I.
- Provided a defined route for major storm flows, improving the system's function and assuring effective future conveyance in both a 5-year and 100-year storm events.
- Benefitted from the design of water discharge into wetland area rather than directly into Bloody Run Creek, providing a natural buffer of protection.
- Improved water quality of runoff; preserving local wetlands and Bloody Run Creek.
- Collaborated efforts with projects identified in the Iowa Great Places plan to achieve common goals of local resource preservation and wetland education.
- Conducted public outreach and interaction; led tours including local school educators and students.

Marquette has concluded all construction related aspects of this project and will continue to monitor system performance with respect to future storm events. All citizens as well as visitors to the region will benefit from the outcomes achieved in completion of this WIRB project.

Future projects to expand the benefits of Phases I & II into the Pheasant Ridge development could be undertaken should additional program funding be available.

Project Name: Brushy Creek 7031-011
Project Sponsor: Des Moines Water Works
Length of Project: three years 2009-2011

Counties included in the project area: Carroll

Total Watershed Improvement Funds awarded for this project:	**$ 206500**
Total Watershed Improvement Funds spent:	**$ 206500**
Total Watershed Improvement Funds obligated:	**$ 0**
Watershed Improvement Fund unobligated balance as of 12/31/2011:	**$ 0**

Project objectives:

- Identify producers and form a Watershed Improvement Association
- Implement Improvement Strategies
- Assess effectiveness through monitoring
- Produce Project summary report
- Develop Communication Materials

Summary of accomplishments and water quality outcomes

Formation of a Watershed Improvement Association: Producers participated in WIRB activities and appreciated WIRB project goals but no one stepped forward to form a self governing association. Leadership was provided by the WIRB partners through personal contacts. Whether interest in BMPs will continue without funding support or outside leadership is uncertain..

Cost Share Projects: Partners contributed $177,000 toward WIRB project categories plus an additional $250,000 toward other supporting activities. Producers contributed $301,000 toward WIRB cost share with additional dollars toward unsupported manure settling basins.

Implement Improvement Strategies: All producers have now installed manure containment structures, mostly at their expense. Producers overwhelmingly chose fall corn stalk testing as their nutrient management too. Thirteen producers participated in 2010 and 2011 with twenty six (26) fields sampled. This represents approximately 5% of the project area. Only two completed comprehensive nutrient plans and associated soil testing. Septic systems installations were completed for all residents of Roselle in 2011.

Assessment and Monitoring: Fall stalk testing was highly variable but showed an increase in the number of fields in the optimum to high category and a decrease in fields in the low to marginal category. Whether producers used this information for precision nitrogen application is uncertain. It suggests that producers focused more on increasing production than reducing losses. Stream quality was assessed at 8 sites from forty five (45) rounds of routine sampling plus event samples. The average April through June nitrate-N concentrations remained essentially unchanged during this three year period with all sites exceeding the 12 mg/l objective except for the outlet site at 11.8 mg/l. Peak concentrations however decreased slightly. *E. coli* counts improved considerably in 2011 with 5 of the 8 sites meeting the mid-March through mid-November geomean goal of 630counts/100ml. Further monitoring in 2012 would provide a more accurate analyses of project benefits as several structures were installed during fall 2011.

Produce Project Summary Report: Information is still being received but project evaluation is well underway. A preliminary assessment was presented to WIRB partners on 11/30/2011.

Project Name: Camp Creek Watershed Erosion Control Project
Project Sponsor: Growing Green Communities
Length of Project: April 1, 2010 to March 31, 2013

Counties included in the project area: Polk

Total Watershed Improvement Funds awarded for this project:	**$322,500**
Total Watershed Improvement Funds spent:	**$280,000**
Total Watershed Improvement Funds obligated:	**$ 0**
Watershed Improvement Fund unobligated balance as of 12/31/2010:	**$ 42,500**

Project Objectives

- Administer the Camp Creek Watershed Erosion Control Project.
- Protect erosion-control Best Management Practices (BMPs) to be constructed by recording them as conservation easements.
- Design and construct selected BMPs at selected sites within the Camp Creek Watershed.
- Reduce soil loss from landowner property and sediment delivery to Camp Creek by 10 tons per acre per year.
- Conduct an information and education program to increase awareness of water quality, particularly within the Camp Creek Watershed.

Summary of Accomplishments and Water Quality Outcomes
The main tasks for 2011 included:

- Negotiated easement agreement with Bartelma Farms for 26 acres
- Began BMP installation (wetland bank) on previously acquired Gulling property
- Began BMP installation (sediment basin, seeding) on Bartelma property

A wetland bank is in development at the Gulling property. As stated in the 2010 Annual Report, the potential reduction of soil loss, is approximately 695 tons per year. This produces an average reduction in soil loss and sediment delivery to Camp Creek of 16.4 tons per acre per year, exceeding the project goal of 10 tons per acre per year.

Previous calculations using the Watershed Sediment Delivery Calculator calculated a reduction in soil loss from a 90-acre parcel of land at Bartelma Farms to be 39.1 tons per year. The easement area, however, is 26 acres; the reduction in soil loss is estimated to be 11.3 tons per year, exceeding the project goal of 10 tons per acre per year. The easement at the Bartelma property was legally surveyed and recorded with the county recorder.

There is one other parcel that is being considered for project participation. Total acres and potential BMPs are currently under discussion.

When participants and parcels of land are finalized, work will begin on preparation of conservation easements and design of BMPs. It is anticipated that Growing Green Communities will facilitate the easement preparation and the Natural Resources Conservation Service (NRCS) will design the BMPs.

Project Name: College Creek Watershed Improvement Project
Project Sponsor: City of Ames
Length of Project: January 1, 2008 to December 31, 2010

Counties included in the project area: Story County

Total Watershed Improvement Funds awarded for this project:	**$304,335**
Total Watershed Improvement Funds spent:	**$304,335**
Total Watershed Improvement Funds obligated:	**$ 0**
Watershed Improvement Fund unobligated balance as of 12/31/2010:	**$ 0**

Project objectives:

- Administer project and implement all activities and objectives in the project
- Integrate residents and recreational users with project technical staff in the process of design, planning, and construction of stream, riparian and upland water quality enhancement practices
- Engineer/design water quality enhancement practices; practices included are engineering-sound, biologically-friendly, and sensitive to the public's sense of aesthetics and interest in native plant communities
- Construct stream channel and stream bank stabilization and riparian enhancement
- Monitor and evaluate outcomes; changes in storm water runoff quantity and quality and stream bank stability will be measured

Summary of activities and accomplishments for calendar year 2011
College Creek neighborhood residents were able to enjoy the first year with the newly improved project area. The vegetation used for restoration is a mix of native plants, which typically takes approximately three years to get established. The City of Ames has contracted to have a company perform weed control as well as general maintenance to the area as the native plants get established. A small amount of additional erosion has been discovered in the project area that was not stabilized with riprap as part of this project. This area will be stabilized using local storm sewer funds in the near future.

In August 2010, the City of Ames experienced record flooding. Staff has continued to work through community-wide flooding projects, however this project site has held up well. The original grant had targeted 4,095 LF of Stream Channel and Bank Stabilization. Overall, 4,255 LF of Stream Channel and Bank was stabilization as part of this project. Based on USDA NRCS estimate method, soil loss has been reduced by 154 tons/year as a result of this construction. Staff is working to complete the Final Report.

Project Name: Competine Creek Water Quality Improvement Project
Project Sponsor: Marion SWCD
Length of Project: July 1, 2009 to June 30, 2012

Counties included in the project area: Marion

Total Watershed Improvement Funds awarded for this project:	**$199,530**
Total Watershed Improvement Funds spent:	**$ 68,907**
Total Watershed Improvement Funds obligated:	**$ 44,674**
Watershed Improvement Fund unobligated balance as of 12/31/2011:	**$ 85,949**

Project objectives:

- Administer the Competine Creek Water Quality Improvement Project to Ensure All Objectives and Activities Planned are Implemented
- Reduce Pollutant Delivery to Competine Creek by 1,787 Tons of Sediment and 2,144 Pounds of Phosphorus per Year
- Install Urban Conservation Practices that Reduce the Volume of Peak Flow, Improve Stream Bank Stability, and Promote Infiltration of Stormwater Runoff
- Conduct an Information and Education Program to Increase Awareness and Knowledge of Competine Creek Water Quality Issues to Watershed Residents and the Local Community

Summary of accomplishments and water quality outcomes

- Submitted annual progress report
- Reported monthly progress to SWCD Commissioners and Stakeholders
- Met with Project Advisory Committee quarterly
- Met with landowners on location of high priority sites that meet high priority criteria and conducted inspection and evaluation of 12 sites
- Surveyed, designed and supervised 3 projects meeting high priority criteria
- Practices implemented include 11,425’ of contour narrow base terraces, 7 water and sediment control basins and 1 acre of grassed waterway
- Total reduction of 1,331 tons of sediment and 1,572 pounds of associated phosphorus delivered to the priority water body associated with the practices implemented
- Designed and supervised construction of urban rain garden practice to reduce the volume of peak flow and promote infiltration of storm water runoff
- Continued IOWATER water quality monitoring as a means of assessing water quality concerns and improvements within the priority water body
- Continued education and stewardship program with the local community to increase awareness and knowledge of water quality issues
- Conducted annual field day with local Middle School Science students to promote the importance of good stewardship of water resources.
- Submitted 2 news releases and conducted 2 radio interviews on project activities

Project Name: Competine Creek Partnership Watershed Project
Project Sponsor: Wapello County Soil & Water Conservation District
Length of Project: December 15, 2010 to December 31, 2012

Counties included in the project area: Jefferson, Keokuk, and Wapello

Total Watershed Improvement Funds awarded for this project:	**$199,250.00**
Total Watershed Improvement Funds spent:	**$ 36,164.78**
Total Watershed Improvement Funds obligated:	**$116,406.97**
Watershed Improvement Fund unobligated balance as of 12/31/2011:	**$ 46,678.25**

Project objectives:

- Establish 64,486' of tile outlet terraces, 12 grade stabilization structures and 12 water and sediment basins over the 2 years of the project.
- Reduce sediment delivery to Competine Creek by 3,617 tons/year and flood water discharge by 9%.
- Establish 40 acres of CRP Buffers over the life of the project.
- Construct 2 urban conservation practices utilizing REAP and landowner contributions.
- Conscientious administration ensuring objectives planned are implemented.

Summary of Accomplishments and Water Quality Outcomes

- Currently there are 15 applications on file waiting funding/approval for tile outlet terraces.
- 75,109 feet of terrace, 2 water and sediment basins, and 6 grade stabilization structures have been approved and waiting for completion.
- 20,200 feet of terrace, 20 water and sediment basins, and 1 grade stabilization structure have been completed and paid reducing an estimated 1,116 tons/year of sediment to Competine Creek.
- 134.3 acres of CRP habitat and buffers enrolled in Competine watershed.
- Met with advisory board bi-annually.
- Reported monthly progress to SWCD commissioners.
- Iowa Learning Farms held a Field day at Pekin School.
- Wapello County SWCD sent out article on updates in Competine Creek in the Oct./Nov./Dec. Newsletter.

Project Name: Dry Run Creek Watershed Improvement Project
Project Sponsor: Black Hawk Soil and Water Conservation District
Length of Project: January 2011 – November 2013

Counties included in the project area: Black Hawk

Total Watershed Improvement Funds awarded for this project:	**$48,400**
Total Watershed Improvement Funds spent:	**$ 0**
Total Watershed Improvement Funds obligated:	**$48,400**
Watershed Improvement Fund unobligated balance as of 12/31/2011:	**$ 0**

Project objectives:

- Implement bioretention cells and a green roof to treat 100% of the first flush of stormwater from a 5.16 acre new student housing development on the University of Northern Iowa Campus.

Summary of accomplishments and water quality outcomes

Construction began on the new student housing development. As of December 31, 2011 work began on the parking lot biocell. Completion of this item is anticipated by June 2012. Construction of the green roof and building biocells has not begun. This too is anticipated to be completed by June 2012. A request was made by the University to extend the completion date from March 8, 2012 to June 30, 2012. This no-cost extension request was granted.

Project Name: Duck Creek Buffer Program
Project Sponsor: River Action Inc.
Length of Project: June 1st, 2009 to December 31st, 2011

Counties included in the project area: Scott County

Total Watershed Improvement Funds awarded for this project:	**$124,375**
Total Watershed Improvement Funds spent:	**$60,392**
Total Watershed Improvement Funds obligated:	**$0**
Watershed Improvement Fund unobligated balance as of 12/31/2011:	**$63,983**

Project objectives:
Objective 1: Administer the Duck Creek Buffer Program to ensure all objectives and activities planned are implemented.
Objective 2: Construct 16 acres of buffer along Duck Creek's main stem and tributaries on public and private lands.
Objective 3: Address Duck Creek's impairment- *E.coli* bacteria, and improve physical and biological conditions of the stream.
Objective 4: Conduct an awareness and education campaign to increase awareness and provide education of Duck Creek's condition and the practices that degrade and improve the watershed and creek.

Summary of accomplishments and water quality outcomes:

The Duck Creek Buffer Program was completed during 2011. The final report has been submitted to the Watershed Improvement Review Board and is awaiting final approval. In summary, the Duck Creek Buffer Program exceeded its goal of establishing 16 acres of native vegetation buffers and did so well under budget. At the conclusion of the program, 19 acres of buffers were installed in proximity to Duck Creek and its major tributaries at approximately half of the anticipated cost. Furthermore, these buffers capture runoff from approximately 30 acres of upland. Thus, in total, the buffers will reduce pollutant loads from approximately 49 acres of the Duck Creek watershed. Table 1 provides estimates of the pollutant load reductions provided by these best management practices (values were calculated using the Illinois EPA's Urban Runoff spreadsheet and the Iowa DNR's Water Quality Improvement Plan for Duck Creek):

	Pre-BMP Loading	**Post-BMP Loading**	**Load Reduction**
TN	68 lbs/yr	41 lbs/yr	27 lbs/yr
TP	12 lbs/yr	6 lbs/yr	5 lbs/yr
TSS	3,660 lbs/yr	988 lbs/yr	2,672 lbs/yr
E. coli	3.17E+14 bacteria/yr	1.58E+14 bacteria/yr	1.58+14 bacteria/yr

Table 1: Estimated pollutant loading and reductions for 49 acres of contributing drainage areas.

Although an education campaign early on in the program engaged private landowners, only the cities of Davenport and Bettendorf enrolled land. Based on word-of-mouth feedback, stewardship ability seems to be a factor that limits the reach of the program. If funds for professional maintenance during the difficult first three years of buffer establishment were made available, a broader spectrum of landowners would be enticed to install buffers. Funding for riparian restoration in low quality, invasive-dominated areas would also increase participation.

Project Name: 9031-016 – Duck Creek Watershed Storm Water Drainage and Conveyance Improvements
Project Sponsor: City of Davenport
Length of Project: April 15, 2010 to July 1, 2013 (3 years)

Counties included in the project area: Scott County

Total Watershed Improvement Funds awarded for this project:	**$400,000.00**
Total Watershed Improvement Funds spent:	**$400,000.00**
Total Watershed Improvement Funds obligated:	**$ 0.00**
Watershed Improvement Fund unobligated balance as of 6/30/2011:	**$ 0.00**

Project objectives:

1. Administer the St. Ambrose University Storm Water Drainage and Conveyance Improvements Project to ensure all objectives and activities planned are implemented.

2. Install practices to decrease frequency and magnitude of flooding on St. Ambrose University campus and downstream properties by detaining storm water and promoting infiltration.

3. Capture and treat 3.5 acre-feet of storm water runoff, improving the water quality within Duck Creek.

4. Increase public awareness and knowledge of water quality and quantity issues to watershed residents and the local community

Summary of accomplishments and water quality outcomes

The project was designed by MSA Professionals and bid documents and plans produced. During the design process, multiple meetings were held with representatives of MSA, St. Ambrose University and the City of Davenport Public Works Department. The plans and specifications were approved by the City of Davenport Council on March 9, 2011 and advertised for bid in the Quad City Times (local newspaper) on March 22, 2011. Bids were opened publicly on April 26, 2011. The contract with Hawkeye Paving Corp of Bettendorf, Iowa was approved by the City of Davenport Council on May, 11, 2011. Construction of the project began May 16, 2011.

Construction consisted of the underground infiltration/detention system, improved storm sewer system, large event overflow route, an energy dissipating plunge pool, pervious paving, parking area paving, landscaping and other appurtenances. The construction was completed on August 16 with punch list items being completed the following weeks. To date, the area has experienced a number of five-year and smaller rain events without the roadway and campus flooding that previously occurred. With the events, the storm water has been able to infiltrate through the underground system instead on being piped to Duck Creek.

Project Name: 8006-003 East Okoboji Beach Drainage LID Retrofit Project
Project Sponsor: Dickinson County Soil and Water Conservation District
Length of Project: (specific dates stated in the grant agreement)

Counties included in the project area: Dickinson

Total Watershed Improvement Funds awarded for this project:	**$**386,000
Total Watershed Improvement Funds spent:	**$**347,400
Total Watershed Improvement Funds obligated:	**$**38,600
Watershed Improvement Fund unobligated balance as of 12/31/2011:	**$**0.00

Project objectives:

- Retrofit LID practices, lake-friendly storm-water drainage systems and roadway reconstruction throughout the East Okoboji Beach sub-division
- Education of landowners and homeowners within East Okoboji Beach

Summary of accomplishments and water quality outcomes

2011 was the final year for the East Okoboji Beach WIRB project. All of the components of the project were completed and all of the practices were installed. In all there were 139 LID BMP's installed (1 bio-retention cell, 122 enhanced swales, 13 rain gardens, and 3 enhanced swales with plants). These practices have been certified as correctly installed and are functioning as designed. All of these practices are treating and filtering the estimated 80 acres of urban drainage that is in EOB.

Water monitoring of stormwater runoff was continued through 2011. The results of this year's data will show levels of pollutants in the stormwater after all of the LID practices have been installed. This has been compared to the previous two years worth of data and has shown to have reductions in suspended solids, nutrients, and phosphorus compared to the previous years. This will provide proof that the LID practices have had a positive impact on infiltrating and cleaning stormwater runoff before it enters East Lake Okoboji. Depending on funding we may continue to monitor the stormwater in EOB to display the effectiveness of the LID practices as they age.

Now in the last part of the project and into the future the public education component of the grant will come into place. There was an informational meeting held this summer that everyone that lives within EOB was invited to. At this meeting citizens were informed about the function of the LID cells, what they could and not do with them, and how to properly maintain them to keep them visually appealing. Recently a sign was put up next to the boat ramp in EOB that acts as the master key that displays a map of EOB and shows the location of each LID practice. At the sign location in the spring of 2012 there will be an official ribbon cutting ceremony that the public and all of the project partners and contractors that contributed toward the project will be invited to show the success of the project. The hope is to use this project as an example that can be applied to current and future sub-divisions that are within the Iowa Great Lakes Watershed.

Project Name: Fox River Water Improvement Project
Project Sponsor: Fox River Ecosystem Development Board
Length of Project: January 1, 2010 to December 31, 2014

Counties included in the project area: Appanoose and Davis

Total Watershed Improvement Funds awarded for this project:	**$493,750.00**
Total Watershed Improvement Funds spent:	**$159,499.52**
Total Watershed Improvement Funds obligated:	**$ 61,225.32**
Watershed Improvement Fund unobligated balance as of 12/31/2011:	**$273,025.16**

Project objectives:

- Administer the Fox River Ecosystem Improvement Project to ensure all objectives and activities planned are implemented.
- All practices will be installed into priority areas within the impaired segment of the Fox River addressing sediment delivery reductions to the Fox River.
- Construct 50 grade stabilization structures controlling sediment delivery from 1,750 acres entering Fox River.
- Construct 50 water and sediment control basins controlling sediment delivery from 250 acres of pasture and cropland.
- Construct 30,000ft. of terraces to control sediment delivery from 120 acres of cropland.

Summary of accomplishments and water quality outcomes

- WIRB Coordinator, Craig Foster and field office staff administered all projects to ensure objectives and activities planned were implemented.
- Construction has been completed on 13 grade stabilization structures controlling 631.5 acres and reducing sediment delivery by 1,629 tons per year.
- Construction has been completed on 46 water and sediment basins controlling 201.5 acres and reducing sediment delivery by 642.75 tons per year.
- Construction has been completed on 17,005ft of terraces controlling 238 acres and reducing sediment delivery by 338 tons per year.

Additional accomplishments:

- Fox River Impairment project received the CDI's "outstanding watershed Award" in 2010.
- A major accomplishment was to have funding approved on two grade stabilization projects in particular, one having 183.2 and the other 113.3 acres drainage. These two grade stabilization projects alone should control 296.5 acres drainage and reduce 565 tons of sediment from entering the Fox River.
- Most of the landowners in the project areas have high interest and are willing to implement and install these practices on their farms to improve water quality with technical and financial assistance.

Name of Project: Hawthorn Lake Watershed Project:
Project Spoonsor: Mahaska Co. Soil & Water Conservation District:
Length of Project: January 1, 2010 to December 31, 2013

Counties included in the project area: Mahaska

Total Watershed Improvement Funds awarded for this project:	**$360,900.00**
Total Watershed Improvement Funds spent:	**$122,596.93**
Total Watershed Improvement Funds obligated:	**$___0____**
Watershed Improvement Fund unobligated balance as of 12/31/2011:	**$238,303.07**

Project objectives:

- Administer Project and Implement all Activities and Objectives in the Hawthorn Lake Watershed Project
- Conduct outreach activities that will provide opportunities for the general public, lake users, and rural landowners to gain a better understanding of water quality and their influence on water quality.
- Target best management practices within the watershed to reduce the delivery of sediment and phosphorus from sheet, rill, and gully erosion by 1,974 tons and 2,567 lbs respectively.
- Implement in-lake management strategies that will reduce shoreline erosion and sediment delivery by 379 tons and 493 pounds respectively and control invasive species such as carp and shad, improve fish habitat, and provide better fishing opportunities to the public.

Summary of accomplishments and water quality outcomes

A kick-off meeting was held in May of 2010, with 34 landowners, stakeholders, staff, commissioners, news media, etc. in attendance. The 1st Annual Partners meeting was held in November of 2010 with 12 partners in attendance. The 2nd annual partner meeting was held in December of 2011 with 11 partners in attendance. Partners discussed shoreline work, structures on public property, signage, private land progress, and reviewed goals.

Shoreline work started the last week of December 2010 and was completed in February 2011. Installing 5,125 feet of shoreline stabilization, (4,500 feet was the projected amount). Repairs to the existing boat ramps have also been completed. Shoreline in-lake management strategies will reduce shoreline erosion by 379 tons and sediment delivery by 493 pounds. A nonselective fish kill on the main part of the lake was completed in March of 2011 to eradicate the carp and gizzard shad populations. Blue gills, channel catfish, and largemouth bass have been restocked and DNR recently checked for shad and found none.

The partners combined ordered 13 new signs (12 signs were the projected amount), heightening the awareness of Hawthorn Lake and the watershed, including directional, recreational, and entering watershed signs. Mahaska County Secondary Roads Department and watershed coordinator installed all of the signs.

A Grade Stabilization Structure was completed on private property with sediment loading reduction of 157 (t/y). 3,238 feet of terraces on private property have been installed reducing sediment loading by 104 (t/y), and 2,109 feet of waterways reducing sediment loading by 32 (t/y).

Project Name: Hewitt Creek Watershed Improvement Project
Project Sponsor: Hewitt Creek Watershed Improvement Association, Inc.
Length of Project: January 1, 2010 to December 31, 2014

Counties included in the project area: Dubuque

Total Watershed Improvement Funds awarded for this project:	**$482,035**
Total Watershed Improvement Funds spent:	**$162,779**
Total Watershed Improvement Funds obligated:	**$ 13,750**
Watershed Improvement Fund unobligated balance as of 12/31/2011:	**$305,506**

Project objectives:

- Increase watershed cooperator participation rate to 85% and encourage utilization of conservation programming.
- Improve watershed agronomic and economic performance measures.
- Reduce pollutant delivery to Hewitt Creek.
- Conduct a water monitoring program to document changes in water quality parameters.
- Administer the Hewitt Creek Watershed Improvement Project to ensure all objectives and activities planned are implemented.

Summary of accomplishments and water quality outcomes

The Hewitt Creek Watershed Improvement Association completed year 2 of a 5-year performance-based watershed improvement project. New cooperators continue to enroll in project programming with participation at 75% of watershed operators.

The watershed council used performance measured through the Iowa Phosphorus Index (PI), Soil Conditioning Index (SCI) and cornstalk nitrate test (CNT) as a basis for incentive payments. Updated index values were calculated for 36 farms with the average PI of 2.36 and SCI of 0.57. Cooperators improved their PI scores by installing or improving 16,535 feet grassed waterways and vegetative buffers. Ten cooperators planted cover crops on 547 acres, with 5 farmers testing aerial seeding before row crop harvest as an innovative management option. Twenty-two cooperators conducted CNT analysis on 86 samples with an average value of 2,943 ppm NO_3-N. More CNT samples were collected in 2011 than any other season during 5 years of testing.

Since the start of the current project, annual sediment and phosphorus delivery to Hewitt Creek has been reduced 1,894 tons/year and 2,468 lb/year primarily through grassed waterways, cover crop planting and vegetative buffer strips.

Stream monitoring was conducted at four locations and edge-of-field tile monitoring was done at nine sites. The seventh year of stream monitoring shows a Family Biotic Index of 5.15 (fair). Site 3 rain event phosphorus concentration was 1.85 mg/L P (second lowest of 7 years), while site 3 season long nitrogen concentration was 10.8 mg/L (third lowest of 7 years).

A demonstration bioreactor was installed to gauge the effectiveness of the practice to reduce nitrate delivery from a crop field to the stream. The bioreactor will be equipped to measure flow automatically and samples will be collected weekly.

The council continues to leverage the Mississippi River Basin Initiative (MRBI) project that awarded $654,109 to EQIP contract holders in Hewitt Creek.

Detailed project information can be found at http://hewittcreek.wordpress.com/.

Project Name: Hurley Creek/McKinley Lake Watershed Improvement Project
Project Sponsor: City of Creston
Length of Project: March 1, 2008 to February 28, 2011

Counties included in the project area: Union County

Total Watershed Improvement Funds awarded for this project:	**$117,500.00**
Total Watershed Improvement Funds spent:	**$72,932.27**
Total Watershed Improvement Funds obligated	**$0.00**
Watershed Improvement Fund unobligated balance as of 12/31/2011:	**$44,567.73**

Project objectives:

- Administer the Hurley Creek/McKinley Lake Watershed Improvement Project and work with all stakeholders to ensure all project objectives are implemented as scheduled.
- Reduce by at least 50% the amount of annual erosion, which will help reduce sediment load, loss of property, and may improve water quality.
- Reduce E.coli levels to meet designated use of McKinley Lake by controlling direct animal access, reducing animal waste runoff, and improving sanitary sewer systems.
- More effectively manage the storm water flow rate, which may reduce erosion and flooding and may improve water quality. Reduce stormwater flow into Hurley Creek by at least 35%.
- Educate the public, including civic groups, homeowners, farmers, and business owners in the Hurley Creek Watershed about Best Management Practices and establish comprehensive education and communications strategies to promote environmental awareness.

Summary of accomplishments and water quality outcomes

Assisted property owners in the watershed install 2,770 feet of riparian buffer strips in an urban setting. Assisted property owners in the watershed install 950 feet of riparian buffer strips in a rural setting. Four streambank stabilization projects along Hurley Creek were completed for a total of 506.6 feet. These projects will reduce sediment delivery to 135 tons of soils annually and reduce phosphorus by 176 pounds annually. Assisted two property owners with the installation of livestock crossing. These crossing will limit access to the stream channel. The city has repaired, replaced or slip lined more than 23,192 feet of sanitary sewer lines and have replaced or repaired more than 30 sewer manholes in the northeast part of town. These improvements help to reduce inflow and infiltration in to our sanitary sewer system. The improvements around the McKinley Lake and Hurley Creek areas has heightened community awareness on water quality and now have an annual cleanup week where our schools and community groups work together to remove trash from the creek and lake. Several rain gardens were planted to provide water quality benefits. Worked with a local workshop to manufacture and market rain barrels locally. This was a great project to Creston and we have identified our next watershed improvement project and work is started. This was truly a successful community endeavor.

Project Name: Indian Springs Pond Watershed
Project Sponsor: Allamakee SWCD
Length of Project: January 1, 2010 – December 31, 2012

Counties included in the project area: Allamakee

Total Watershed Improvement Funds awarded for this project:	**$201,660**
Total Watershed Improvement Funds spent:	**$50,548.84**
Total Watershed Improvement Funds obligated:	**$0**
Watershed Improvement Fund unobligated balance as of 12/31/2011:	**$151,111.16**

Project objectives:

- Minimize storm water runoff into Indian Springs Pond, sinkholes, and the stream.
- Reduce livestock stream-use by 40%.
- Reduce sediment loading of the stream and Indian Springs Pond by 3,170 tons.
- Educate the public about watersheds, karst topography, and conservation practices.
- Continue water quality monitoring of the watershed.

Summary of accomplishments and water quality outcomes

The Allamakee SWCD started continued water quality improvement efforts in the Indian Springs Pond Watershed in 2011. A total of $6,416.05 in WIRB funding, $12,506.80 in federal EQIP, and $6336.40 landowner/city dollars have been spent thus far for best management practices (BMPs) in the watershed. These practices will treat an estimated 55 acres, and will prevent a projected 154 tons of sediment and 201 tons of phosphorus from reaching Indian Springs Pond annually. The rain garden and rain barrels will also capture an estimated 70,200 gallons of water annually that will not be allowed to runoff and carry pollutants.

In addition to what was installed last year, one rain garden (in the city park), two sediment basins (one in the city park), and two rain barrels were installed this year. Over the past two years, a total of 1,900 feet of terraces, 17.6 acres of improved grazing management, six rain barrels, one rain garden, and 3 sediment basins have been installed. One landowner is planning on doing terraces next year and another landowner is considering signing up for terraces. We anticipate several more rain barrels being installed next year as well. We will allow landowners who have installed one rain barrel to receive funding on a second barrel and most have shown interest in this. Also, we plan to install to rain barrels on one of the shelter houses in the park to serve as a demonstration site.

The City of Waukon received a REAP grant to convert a park addition back to oak savanna, conduct timber stand improvement in the park, clean out/around some sinkholes, and install a recreational trail. Many of these activities were conducted this year and the rest planned to be finished in the spring. The REAP grant works in conjunction with the WIRB grant to improve land management in the park and provide more educational opportunities for the watershed project.

This project emphasizes education and outreach. There have been several articles in the newspaper about different aspects of the project. Also, the local 6th grade conservation club has been helping with water sampling of the pond and helped plant the rain garden. I will be sitting on a city storm water committee to discuss managing storm water in the city.

Project Name: 1016-010 Iowa Great Lakes Targeted Watershed Project
Project Sponsor: Dickinson County Soil and Water Conservation District
Length of Project: January 15, 2011 – January 15, 2015

Counties included in the project area: Dickinson

Total Watershed Improvement Funds awarded for this project:	**$**128,500
Total Watershed Improvement Funds spent:	**$**2,593.20
Total Watershed Improvement Funds obligated:	**$**1,800
Watershed Improvement Fund unobligated balance as of 12/31/2011:	**$**38,848.34

Project objectives:

- Education of landowners and operators
- Re-establish vegetation on key shorelines
- Water monitoring
- Reduction of nutrients and sediment loads entering the IGL and moving toward Lower Gar Lake.

Summary of accomplishments and water quality outcomes

2011 was the first year that WIRB funds were used for the Iowa Great Lakes Targeted Watersheds project. During the first year there was a mixture of a public awareness campaign to educate the public about the project, along with installing BMP's within the targeted areas of the watershed. The public education component was achieved by using multiple methods of delivery. At the start of the project a press release was sent out to all local radio stations and newspapers discussing the start of the project along with a little background into the project. There was also a four hour radio show on a major local radio station that the Dickinson SWCD participated in. There were a total of four 5-10 minute spots that were devoted to speaking about the project and opportunities landowners and homeowners had for installing conservation practices. Along with the mass media approach there was letters sent out to every landowner and tenant in the rural targeted watershed announcing the start of the project, possible cost share options, and contact information if they were interested in conservation.

Two rain gardens within the urban targeted areas were installed in 2011 using WIRB funds as cost share treating a total of .2 acres or urban drainage. There is WIRB funds allocated that will cost share on 3,000 sq ft of shoreline restoration to protect and prevent soil erosion on a lakefront property on Center Lake.

With the IGL Targeted Watershed Project as a whole using other matching and local funds there were a total of 11 BMP's installed (nine LID practices, two CRP enrollments) in 2011 using a total of $79,049.05 for cost share money. All of the LID practices were installed within the urban targeted area, along with 13.5 acres of CRP enrolled within the rural targeted watersheds.

Looking ahead 2012 should be a busy year for the project with the public becoming more aware of the watershed project along with many projects starting to come together that will be using project money for cost share money.

Project Name: Lake Morris Water Quality Improvement Project
Project Sponsor: Lucas SWCD
Length of Project: January 1, 2009 to December 31, 2011

Counties included in the project area: Lucas

Total Watershed Improvement Funds awarded for this project:	**$ 462,375.00**
Total Watershed Improvement Funds spent:	**$ 333,902.45**
Total Watershed Improvement Funds obligated:	**$ 0**
Watershed Improvement Fund unobligated balance as of 12/31/2011:	**$ 128,472.55**

Project objectives:

- Administer the Lake Morris Watershed Improvement Project to ensure all objectives and activities planned are implemented.
- Improve water quality for raw water intake at Chariton Water Department Intake. Goals are to reduce pH maximums from over 9.0 to 8.0 and turbidity monthly average from 2008 yearly average of 15 ntu (nephelometric turbidity units) to 10 ntu.
- Reduce sediment delivery to Lake Morris by 661 tons of sediment. This equates to reducing 75% of the assessed sediment loading directly from city owned property surround Lake Morris. Installation of three grade stabilization and 15 water and sediment control basins will achieve this goal.
- Conduct an information and education program to increase awareness and knowledge of Lake Morris water quality issues to city residents, lake users, and the local community.

Summary of accomplishments and water quality outcomes

All reports were submitted in a timely fashion. Project Coordinators meetings were attended; Sediment Delivery training was received. Quarterly progress reports to the Advisory Committee were given informing of the project's progress.

Chariton Water Department tests water daily; TOC's are done once a month. The Water Dept. reported that with drought, the five SolarBees help algae blooms that cause higher Ph readings. PH number goal was met at 7.93 this year. The SolarBees have a 3 year base of a break in period to see evidence of their effectiveness. Turbidity yearly average was 14 nephelometric turbidity units (ntu). The Water Department reported that it will take some time to actually know how effective the structures will be but it is anticipated that ntu will consistently lower.

Two grade stabilization structures, nineteen water/sediment basins, 2,550 feet of terraces were installed reducing sediment delivery to the Lake by 422 tons per year at a rate of 67%.

Eight news articles (two with pictures) reported the project status; Lake Morris is clearer than it has been in years. A table at the Lucas County Fair featured a Lake Morris map containing proposed BMP's on the City's land. People were interested in the five SolarBees that were installed and in having the land around the lake improved. The Lake provides water for Chariton. The City Manager, Mayor, and Water Department have toured the structures built around the lake.

Project Name: Little Clear Lake Watershed Project
Project Sponsor: Pocahontas Soil and Water Conservation District
Length of Project: 1-1-2007 – 12-31-2010

Counties included in the project area: Pocahontas

Total Watershed Improvement Funds awarded for this project:	**$42,000**
Total Watershed Improvement Funds spent:	**$20,003.93**
Total Watershed Improvement Funds obligated:	**$0**
Watershed Improvement Fund unobligated balance as of 12/31/2011:	**$21,996.07**

Project objectives:

- Installation of best management practices to reduce erosion and improve water quality in the entire Little Clear Lake watershed.
- Implement an information and education program that includes developing and distributing newsletters and news releases and creating an outdoor classroom with kiosk in Little Clear Lake Roadside Park.

Summary of accomplishments and water quality outcomes

The goals for the application of program goals was of general success even though there was only work done with basically two to three landowners. The impact these landowners had on this watershed will help the biology of the lake as well as the water quality. With three practices installed at targeted locations, we will be reducing nitrate input into the lake by outletting tile into three wetlands. These impoundments will be treating approximately 165 acres, 47% of the watershed, of tile drained landscape before entering Little Clear Lake. This will also eliminate some P loading by holding water in the upland or adjacent to the lake. There was also 222.4 acres (64% of the watersheds) conservation plans revised or updated documenting nutrient management, residue management, crop rotation, and conservation cover practices that reduce sediment and nutrient delivery to Little Clear Lake.

Below are bulleted Information and Education activities that took place during the three year period:

Little Clear Lake Meetings/Newsletters
Wisconsin DNR
Iowa DNR
Combined 158 participants
General public and agency personnel
58 person mailing list
5 Newspaper articles/news releases

Field Days/Clean Up Days
1 Nutrient Strip Trial/Iowa Soybean Association
2 Little Clear Lake Clean up days
Roadside Park
Installed informational kiosk
Restored 3 acres of Prairie
Implemented restored Oak Savannah

The Pocahontas SWCD applied for a county foundation grant to upgrade the Little Clear Lake roadside park. The plan established an ecosystem education area that includes a warm season tall grass prairie restoration, a restored savannah, and a managed woodlot with native hardwoods. The grant award was $3,000 towards the materials for the kiosk and informational centers. The roadside park was cleared in March 2009 and is being managed for the re-emergence of warm season grasses present on site while the informational kiosks with signs were installed in April 2010 to educate the public about the diversity of the area.

Project Name: Little River Lake Watershed 9012-009
Project Sponsor: Decatur SWCD
Length of Project: January 1, 2010 to December 31, 2012

Counties included in the project area: Decatur

Total Watershed Improvement Funds awarded for this project:	**$42,3900.00**
Total Watershed Improvement Funds spent:	**$289,590.00**
Total Watershed Improvement Funds obligated:	**$ 61,479.00**
Watershed Improvement Fund unobligated balance as of 12/31/2011:	**$ 72,831.00**

Project objectives:

- Assist landowners to apply best management practices (BMPs) for priority land in the Little River Lake Watershed.
- Perform all project administrative requirements as per Grant agreement and approved application.

Summary of accomplishments and water quality outcomes

This past year, the District and Staff worked hard to install conservation practices on the ground. During the summer, 8 grade stabilization structures and 25 water and sediment control basins were constructed. Once crops came out, approximately 49,450 feet of terraces have been installed. Our contract to build 9 structures on public land was let and completed.

This summer we were also able to acquire funding to work on some in-lake issues not addressed in the WIRB grant. The lake was drawn down 19.5 feet and all the fish, both in the lake and upstream in the watershed, were killed. A bid was let to shape the shoreline and rip rap is being places as soon as a frost can support the trucks. The District, with help from NRCS and Iowa DNR Engineers, designed a rock laden silt dam improvement which will be let for bid yet this winter.

The District and partners continued to work with the project's team of experts to plan, carry out and assess activities. The District and team members regularly reviewed progress in project implementation. The District submitted the required project progress reports and financial ledgers in a timely manner.

Project Name: Lost Creek Watershed
Project Sponsor: Lee Soil and Water Conservation District
Length of Project: January, 2010 – December 2013

Counties Included: Lee

Total Watershed Improvement Funds awarded for this project:	$445,800.00
Total Watershed Improvement Funds spent:	65,008.27
Total Watershed Improvement Funds obligated:	244,250.00
Watershed Improvement Fund unobligated balance as of 12/31/2011:	$136,541.73

Project Objectives:

- Install BMPs in the watershed that target areas contributing sediment at a rate of one ton or more per acre per year to Lost Creek
- Limit livestock access to the stream by one half, reducing stream bank erosion and limiting bacterial contamination of the water body
- Implement an information and education campaign for Lost Creek Watershed

Accomplishments:

- Three Grade Stabilization Structures completed controlling 138 acres—sediment reduced by 799 tons and phosphorous reduced by 1,039 pounds. Two additional structures surveyed, designed, and ready for construction – 10 other applications have been approved.
- Fifty-two acres of CRP buffers completed - sediment reduced by 68 tons and phosphorous reduced by 88.4 pounds.
- Eighty and one-tenth acres of continuous CRP completed - sediment reduced by 105 tons and phosphorous reduced by 136.5 pounds.
- Tile outlet terraces installed protecting 177 acres - sediment reduced by 585 tons and phosphorous reduced by 760.5 pounds.
- One hundred five acres of Prescribed Grazing applied – sediment reduced by 40 tons and phosphorous reduced by 52 pounds
- Eight roadside signs and 8 bridge signs installed to identify Lost Creek Watershed
- Field day was held concerning buffer strips – approximately 60 people in attendance. Additional field day was held celebrating first completed structure.
- Two additional press releases to raise public awareness (4 total).
- Monitoring of water transparency by local secondary school teacher and students in conjunction with IOWATER personnel.

Project Name: Ludlow Creek Watershed Project #8011-007
Project Sponsor: Allamakee Soil & Water Conservation District
Length of Project: January 1, 2009 – December 31, 2011

Counties included in the project area: Allamakee, Winneshiek

Total Watershed Improvement Funds awarded for this project:	**$496,300.00**
Total Watershed Improvement Funds spent:	**$405,304.08**
Total Watershed Improvement Funds obligated:	**$0.00**
Watershed Improvement Fund unobligated balance as of 12/31/2011:	**$90,995.92**

Project objectives:

- Reduce sediment loading of Ludlow Creek by 40% (4,534 tons/yr).
- Reduce animal waste run-off by 40%.
- Address the water quality impact that sinkholes have on the watershed.

Summary of accomplishments and water quality outcomes

In 2011, a total of $112,085.13 in WIRB funding, $80,982.25 in federal EQIP funding, and $126,467.29 landowner dollars were utilized to implement best management practices (BMPs) in the Ludlow Creek Watershed. These BMPs will treat an estimated 81 acres and will prevent 222 tons of sediment and 288 pounds of phosphorus from reaching Ludlow Creek annually.

With the goal of reducing sediment loading of Ludlow Creek by 40%, the project worked with landowners/producers to install a total of 11,800 feet of terrace and one grade stabilization structure. These BMPs will trap approximately 222 tons of sediment and 288 pounds of phosphorus contained in 79 acres of surface runoff.

The Ludlow Creek Watershed project took large strides towards the goal of reducing animal waste runoff by 40% through the installation of two bedded pack buildings. Both buildings are outside of the watershed boundary, but the lots in the watershed were shut down in order to get funding for them. One building holds 150 animal units (AU), but only a third of the cattle are from the watershed, so he only received watershed funding on those animals and manure reductions were only reported for them as well. The second building holds 100 AU, all from the watershed. These two building will capture an estimated 1,278 tons of manure annually which can then be applied to fields for crops to utilize the nutrients. Certified nutrient management plans (CNMPs) were developed by NRCS staff to provide these producers with manure management and application guidance.

An end of project survey was sent to landowners to gain a better understanding of their opinions of the watershed project and water quality issues in the Ludlow Creek Watershed. The results were compared to those from the pre-project survey to see if there were shifts in opinion about Ludlow Creek water quality.

An annual newsletter was mailed to landowners/producers. Articles were written in the district annual report and on the district website regarding the project's accomplishments. A letter was also sent to landowners at the beginning of the year, reminding them that 2011 was the last year for the project.

Project Name: Lytle Creek Wastewater Treatment System Report
Project Sponsor: Limestone Bluffs RC&D
Length of Project: December 1, 2009 – June 30, 2012

Counties included in the project area: Jackson County

Total Watershed Improvement Funds awarded for this project:	**$391,752.76**
Total Watershed Improvement Funds spent:	**$ 20,136.01**
Total Watershed Improvement Funds obligated:	**$**
Watershed Improvement Fund unobligated balance as of 12/31/2011:	**$371,616.75**

Project objectives:

- Administer the Lytle Creek Wastewater Treatment System Project to ensure all objectives and activities planned are implemented.

- Secure necessary agreements, contracts, and administrative services to move project forward to construction.

- Construct a wastewater collection and treatment system for the un-incorporated community of Leisure Lake to reduce nutrient and bacteria impairments to Lytle Creek, the Maquoketa River, and local groundwater sources.

Summary of Accomplishments and Water Quality Outcomes.

The Design is complete and we have a construction permit from Iowa Department of Natural Resources in hand; the Environmental Assessment process is done; and negotiations for the treatment site and the access road have been completed. In order to proceed, EIRUSS needs a "Letter of Conditions" from the USDA. Fortunately, the USDA offered a "Letter of Conditions" to EIRUSS on December 8, 2011 and the EIRUSS Board accepted the offer that same date.

The next steps are that EIRUSS must secure interim financing and conclude purchase of the land for the treatment system. Negotiations on the land had previously been completed but EIURSS was unable to complete the transaction because, at that time, USDA funding had not been secured. EIRUSS is hopeful of going to bid and starting construction in the spring. This is contingent on securing the land.

Project Name: Miller Creek Water Quality Project
Project Sponsor: Monroe County SWCD
Length of Project: April 1, 2010 to December 31, 2013

Counties included in the project area: Monroe

Total Watershed Improvement Funds awarded for this project:	**$ 255,300.00**
Total Watershed Improvement Funds spent:	**$ 100,215.12**
Total Watershed Improvement Funds obligated:	**$ 95,643.94**
Watershed Improvement Fund unobligated balance as of 12/31/2011:	**$ 59,440.94**

Project objectives:

1. Administer Miller Creek Water Quality Project to ensure all objectives and activities planned are implemented.
2. Improve water quality in Miller Creek by reducing sediment delivery by 70% on 3,837 acres of priority land.
3. Construct 15 grade stabilization structures to reduce sediment delivery from 450 acres of priority land.
4. Construct 24 water and sediment control basins to reduce sediment delivery from 120 acres of priority land.
5. Construct 6,000 feet of terraces to reduce sheet and rill erosion on 24 acres.
6. Conduct informational programs to increase awareness and knowledge of Miller Creek Watershed issues to the general public.

Summary of accomplishments and water quality outcomes

- Funding was allocated for 13 grade stabilization structures, 6 were designed and 3 were built.
- 4,250’ of terraces were built this year; another 1,700’ were surveyed and designed.
- 26 basins were built, 4 more were surveyed and designed.
- 2 grazing systems utilizing EQIP and CRP are planned, impacting 200 ac.
- 2 news articles were submitted to the local paper.
- Newsletters were sent out to landowners and partners.
- A total of 151 acres of warm season grasses were planted utilizing CRP funding.

Miller Creek continues to be a challenge for locating sites suitable for grade stabilization structures. Structures have been located in areas with less acres of drainage or lower in the sub watershed below the rocky soils, pushing the limits of our technicians designing capabilities. Funding for 13 grade stabilization structures have been allocated with 3 being built and 4 more designed. A field day showcasing a grazing system with a WIRB pond was tentatively scheduled for this past fall but was delayed due to the harvest.

After a rainy spring, construction started in earnest with 3 major terrace and basin projects being completed. 99% of the money allotted for terraces and basins have been allocated.

Of the 3,837 priority acres, 685 acres have been controlled, resulting in a reduction of 1,137 tons of sediment and 1,260 lbs of phosphorus flowing into the Miller Creek watershed.

Project Name: Muchakinock Creek Watershed Project Abandon Mine Reclamation
Project Sponsor: Mahaska County Soil and Water Conservation District
Length of Project: January 1, 2009 – January 31, 2012

Counties included in the project area: Mahaska

Total Watershed Improvement Funds awarded for this project:	**$500,000**
Total Watershed Improvement Funds spent:	**$339,043.29**
Total Watershed Improvement Funds obligated:	**$0**
Watershed Improvement Fund unobligated balance as of 12/31/2011:	**$43,046.71**

Project objectives:
Reclaim 97 acres of abandon coal mine land on 3 sites in Mahaska County. The names of the sites are Westercamp #2, Harrison and Groenendyk. The reclamation will include site clearing, grading, erosion control structure implementation and seeding the sites with a grass mix.

Summary of accomplishments and water quality outcomes

Since the beginning date of the project the Westercamp #2 site has been completed. The site is 40 acres located 3 miles southwest of Oskaloosa. The mine spoil piles were graded down and used to fill pit ponds on the site. A large pond was constructed on the site to trap sediment and control downstream erosion. The onsite sediment delivery reduction is approximately 800 tons of sediment per year. The constructed pond on the site protects the downstream channel as well as trapping sediment from 660 acres above the site. The estimated sediment reduction to Muchakinock Creek from the pond is 2795 tons per year. Along with the sediment delivery reduction, the site reclamation work also reduces acidity in the waters on and leaving the site.

The second stage of the project, Harrison project site, is nearly completed. The site is 27 acres located 7 miles south of Oskaloosa. As of December 31, 2011 the project is 87.37% completed. All the earthwork, grading, water structures, and seeding has been completed. The site will sit over the winter and be assessed for final checkout upon spring green up.

The third portion of the project, the Groenendyk site, is also nearly completed. The site is 11.9 acres located 5 miles northwest of Oskaloosa. As of December 31, 2011 the project is 92.05% completed. All of the earthwork, grading, and liming/mulching has be completed. During spring 2012 the project area will be seeded and final checkout will occur early fall 2012 after green up has occurred on the site.

Project Name: Otter Creek Watershed Improvement #9029-015
Project Sponsor: City of West Union
Length of Project: April 20, 2010 to June 30, 2013

Counties included in the project area: Fayette

Total Watershed Improvement Funds awarded for this project:	**$**500,000.00
Total Watershed Improvement Funds spent:	**$**133,295.00
Total Watershed Improvement Funds obligated:	**$**0.00
Watershed Improvement Fund unobligated balance as of 12/31/2011:	**$**366,705.00

Project objectives:

- Minimize surface water runoff to Otter Creek, resulting in reduced sediment and chemical delivery and water temperature; with a goal to have no direct surface water runoff from streets and sidewalks. The system will perform to cool and cleanse storm water and establish a slower discharge rate to Otter Creek.
- Reduce impacts of storm and rainfall events. Upon completion, we project the area peak discharge rate reduction of 95% rate for a 100 year storm event (6.4 inches in 24 hours), and zero discharge of storm water from the project area for up to 0.8 inches in 24 hour rainfall event.
- Implement an information and education outreach to increase awareness and knowledge of water quality issues for Otter Creek and adjoining wetlands. Include local community residents and visitors, and make accessible so benefits can be replicated in communities throughout Iowa and the Midwest.

Summary of accomplishments and water quality outcomes

The Otter Creek Watershed Improvement Project is well underway in West Union. This comprehensive infrastructure project was designed as a pilot project for sustainable and green practices in a small rural setting. Due to the downtown's proximity to Otter Creek, the city's storm water drainage has a significant impact on the quality of this cold water stream. A major component of the project is the retention of the water that falls within the project area, cleansing and cooling it prior to eventual discharge into Otter Creek. This is to be accomplished through the installation of porous (permeable) pavers and bio-retention cells. The project area encompasses more than 3 city blocks in downtown West Union and as of December 15, 2011, one full block was completed. A water quality baseline has been established through monitoring at several locations along the Creek and it is hoped that by next summer, the project may begin to demonstrate its impact to the water quality. The full project area will be completed by July of 2013, so the full impact on water quality will be fully measurable at that time.

Educational outreach is an ongoing part of the process. West Union's project is part of a "Green Pilot" community designation by the Iowa Economic Development Authority and as such is featured on the IEDA's website, complete with a project webcam and an informational video. In October, Bob Vagts, West Union's city administrator, spoke at the National Preservation Conference in Buffalo NY with Tim Reinders of Main Street Iowa on the overall scope of the project and its environmental protection goals.

Project Name: Rathbun Lake Special Project:
Project Sponsor: BMPs for Priority Land in Targeted Sub-Watersheds 2008
Rathbun Land and Water Alliance
Length of Project: February 1, 2009 to January31, 2012

Counties included in the project area: Decatur and Wayne

Total Watershed Improvement Funds awarded for this project:	**$245,279.00**
Total Watershed Improvement Funds spent:	**$125,494.34**
Total Watershed Improvement Funds obligated:	**$ 37,376.75**
Watershed Improvement Funds unobligated balance as of 12/31/2011:	**$ 82,407.91**

Project Objectives:

- Apply best management practices for priority land that will reduce annual sediment and phosphorus delivery to Rathbun Lake by 2,160 tons and 8,210 pounds respectively.
- Conduct geographic information system analysis, water quality monitoring, and watershed outreach activities to support the application of best management practices for priority land.
- Perform all administrative requirements as per grant agreement and approved application.

Summary of Accomplishments and Water Quality Outcomes

Rathbun Land and Water Alliance members and partners used geographic information system analysis and field evaluations to identify 1,300 acres of priority land that is owned and/or farmed by 16 landowners in the Chariton River #2 targeted sub-watershed. The Alliance assisted nine landowners plan best management practices for 845 acres. Practices were applied by eight of these landowners for 583 acres, approximately 290 acres of which was priority land. These practices will reduce sediment and phosphorus delivery to Rathbun Lake by an estimated 1,095 tons and 4,161 pounds per year respectively. Practices applied by landowners included terraces and water and sediment control basins. The Alliance continued to contact these and other landowners in the targeted sub-watershed to help them evaluate the need for, and benefits of, applying practices for the priority land that they own and/or farm.

The Alliance's outreach efforts included one-on-one contacts with landowners; recognized seven landowners as *Rathbun Lake Protectors* at the *2011 Protect Rathbun Lake* meeting; interviews of *Rathbun Lake Protectors* with WHO radio; installed *Rathbun Lake Protectors* signs; articles on *Rathbun Lake Protectors* in Wallaces Farmer; displays and presentations for the Iowa Chapters of the American Fisheries and Wildlife Societies Conference, Iowa Water Conference, Iowa Conservation Districts and Water Industry legislative days, Agribusiness Association of Iowa's Certified Crop Advisors meeting, and public events and facilities in the Rathbun Lake area; prepared newsletter for Alliance members and partners; and maintained the Alliance's Internet site at http://www.rlwa.org/ . Alliance partners also completed activities associated with the water quality monitoring program for Rathbun Lake and tributaries in the lake's watershed.

Alliance members and partners worked with the project's team of experts to plan, carry out, and assess activities. The Alliance's board and team members regularly reviewed progress in project implementation. The Alliance submitted required project progress reports and financial ledgers.

Project Name: Rathbun Lake Special Project:
BMPs for Priority Land in Targeted Sub-Watersheds 2009
Project Sponsor: Rathbun Land and Water Alliance
Length of Project: January 1, 2010 to December 31, 2014

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

Total Watershed Improvement Funds awarded for this project:	**$491,800.00**
Total Watershed Improvement Funds spent:	**$175,427.02**
Total Watershed Improvement Funds obligated:	**$117,119.34**
Watershed Improvement Funds unobligated balance as of 12/31/2011:	**$199,253.64**

Project Objectives:

- Apply best management practices for priority land that will reduce annual sediment and phosphorus delivery to Rathbun Lake by 6,000 tons and 20,000 pounds respectively.
- Conduct geographic information system analysis, water quality monitoring, and watershed outreach activities to support the application of best management practices for priority land.
- Perform all administrative requirements as per grant agreement and approved application.

Summary of Accomplishments and Water Quality Outcomes

Rathbun Land and Water Alliance members and partners used geographic information systems and field work to identify 4,375 acres of priority land owned and/or farmed by 90 landowners in the Lower Chariton Creek, Chariton River #3, Sandy Branch, Hamilton Creek, and Goodwater Creek targeted sub-watersheds. The Alliance assisted 50 landowners plan best management practices for 2,413 acres. Practices were applied by 37 of these landowners for 1,221 acres, approximately 610 acres of which was priority land. These practices will reduce sediment and phosphorus delivery to Rathbun Lake by an estimated 2,793 tons and 13,222 pounds per year respectively. Practices applied by landowners included terraces, water and sediment control basins, grade stabilization structures, and grassed waterways. The Alliance continued to contact these and other landowners in the targeted sub-watersheds to help them evaluate the need for, and benefits of, applying practices for the priority land that they own and/or farm.

The Alliance's outreach efforts included one-on-one contacts with landowners; recognized seven landowners as *Rathbun Lake Protectors* at the *2011 Protect Rathbun Lake* meeting; interviews of *Rathbun Lake Protectors* with WHO radio; installed *Rathbun Lake Protectors* signs; articles on *Rathbun Lake Protectors* in Wallaces Farmer; displays and presentations for the Iowa Chapters of the American Fisheries and Wildlife Societies Conference, Iowa Water Conference, Iowa Conservation Districts and Water Industry legislative days, Agribusiness Association of Iowa's Certified Crop Advisors meeting, and public events and facilities in the Rathbun Lake area; prepared newsletter for Alliance members and partners; and maintained the Alliance's Internet site at http://www.rlwa.org/ . Alliance partners also completed activities associated with the water quality monitoring program for Rathbun Lake and tributaries in the lake's watershed.

Alliance members and partners worked with the project's team of experts to plan, carry out, and assess activities. The Alliance's board and team members regularly reviewed progress in project implementation. The Alliance submitted required project progress reports and financial ledgers.

Project Name: Rathbun Lake Special Project:
Strategic Use of Sediment Basins
Project Sponsor: Rathbun Land and Water Alliance
Length of Project: November 24, 2010 to October 31, 2014

Counties included in the project area: Lucas and Wayne

Total Watershed Improvement Funds awarded for this project:	**$200,000.00**
Total Watershed Improvement Funds spent:	**$ 0.00**
Total Watershed Improvement Funds obligated:	**$ 0.00**
Watershed Improvement Funds unobligated balance as of 12/31/2011:	**$200,000.00**

Project Objectives:

- Assist landowners to construct five sediment retention basins strategically located below areas of priority land that will reduce annual sediment and phosphorus delivery to Rathbun Lake by an estimated 1,500 tons and 5,000 pounds respectively.
- Conduct watershed outreach and water quality monitoring activities to support the construction of sediment retention basins as well as the application of associated best management practices for priority land.
- Perform all administrative requirements as per grant agreement and approved application.

Summary of Accomplishments and Water Quality Outcomes

Rathbun Land and Water Alliance members and partners used geographic information system (GIS) analysis and field evaluations to identify 6,800 acres of priority land in the South Fork Chariton River #1, Upper West Jackson Creek, Upper Jackson Creek, Lost Branch, and Chariton River #6 targeted sub-watersheds. Project staff assembled the GIS data required for project activities. Staff used GIS analysis to identify and evaluate potential locations for sediment retention basins in the five targeted sub-watersheds. Project staff has contacted landowners regarding possible construction of basins at potential locations. In addition, staff assisted landowners to plan in-field practices including 18,000 feet of terraces and 40 acres of seeding.

The Alliance's outreach efforts included one-on-one contacts with landowners; recognized seven landowners as *Rathbun Lake Protectors* at the *2011 Protect Rathbun Lake* meeting; interviews of *Rathbun Lake Protectors* with WHO radio; installed *Rathbun Lake Protectors* signs; articles on *Rathbun Lake Protectors* in Wallaces Farmer; displays and presentations for the Iowa Chapters of the American Fisheries and Wildlife Societies Conference, Iowa Water Conference, Iowa Conservation Districts and Water Industry legislative days, Agribusiness Association of Iowa's Certified Crop Advisors meeting, and public events and facilities in the Rathbun Lake area; prepared newsletter for Alliance members and partners; and maintained the Alliance's Internet site at http://www.rlwa.org/ . Alliance partners also completed activities associated with the water quality monitoring program for Rathbun Lake and tributaries in the lake's watershed.

Alliance members and partners worked with the project's team of experts to plan, carry out, and assess activities. The Alliance's board and team members regularly reviewed progress in project implementation. The Alliance submitted required project progress reports and financial ledgers.

Name of Project: Sand Creek Watershed Project
Project Sponsor: Delaware Soil and Water Conservation District
Length of Project: Three Year Project (1-1-08 to 12-31-10)

Counties included in the project area: Delaware

Total Watershed Improvement Funds awarded for this project:	**$ 387,787**
Total Watershed Improvement Funds spent:	**$ 280,665**
Total Watershed Improvement Funds obligated:	**$ 0**
Watershed Improvement Fund unobligated balance as of 12/31/2011:	**$ 107,122**

Project objectives:

- **Project objectives:** To improve the fisheries aspect of Sand Creek so that it can better serve as a nursery stream for the Maquoketa River, thus improving local recreational opportunities
- To apply streambank protection to 40% of critical areas on Sand Creek (3,200' est.)
- To apply grassed waterways, no-till planting, terraces, sediment control basins, and improved nutrient management in the watershed to reduce delivery of sediment and nitrogen by 40%, as well as phosphorous and bacteria, to the stream.

Summary of Accomplishments and Water Quality Outcomes 2008-2010

Since the start of this project, thirteen landowners installed 4,725' of streambank stabilization at 26 different sites, using WIRB funds and significant EQIP dollars from USDA. **Sediment savings from the streambank work is 1,307 tons annually.**

WIRB funded 16,430' of stand-alone waterways for 13 landowners, **saving 1,264 tons of sediment delivery.** In addition, the project utilized funds from the ECP program at FSA to repair 8830' of waterways, and Iowa's IJOBS practice repair program to fix another 9,935' of waterways. **Sediment saving from waterway repair money: 936 tons annually.** Landowners also used the Conservation Reserve Program to build 25,250' of new waterways over these 3 years, as well, **with soil savings of 787 tons annually**. In total, over 60,000 feet of waterways were built or brought back up to useful standards through this water quality project. 1,250' of terraces were built in 2010, **yielding 10 tons of soil saving**. A Grade Stabilization structure constructed in Spring 2011 resulted in **annual soil savings of 44 tons**.

Only 212 acres of no-till planting was funded in Sand Creek over the life of the project, **yielding 347 tons of soil saved**. However, the project went to great efforts to raise awareness about no-till planting in this area. Two Soil Quality field days were held with the help of NRCS' Area Soil Scientist; two well-attended no-till informational meetings were held at the County Fairgrounds with assistance from ISU staff and long-time no-tillers from the area; a strip-till field day was held at the farm of a local Iowa Learning Farms cooperator; a no-till newsletter was composed by the coordinator and sent to watershed owners and operators; the cooperator wrote several articles for the county newspaper; and a free-lance writer was contracted to write a series of articles featuring no-till, also in the county newspaper.

Projects funded over the 3 year Sand Creek Project reduced annual sediment delivery by 4,754 tons annually.

Project Name: Sands Timber Watershed Project
Project Sponsor: Taylor SWCD
Length of Project: 3 years

Counties included in the project area: Taylor

Total Watershed Improvement Funds awarded for this project:	**$499,751**
Total Watershed Improvement Funds spent:	**$354,138.56**
Total Watershed Improvement Funds obligated:	**$79,259.90**
Watershed Improvement Fund unobligated balance as of 12/31/2011:	**$66,352.54**

Project objectives:

- To reduce sediment delivered to Sands Timber Lake by 974 tons

Summary of accomplishments and water quality outcomes

2011 was a fantastic year for the Sands Timber Watershed Project. Favorable weather conditions allowed multiple terrace jobs to be completed as well as the large rock chute and two other large grade stabilization structures. The lake is currently drawn down in hopes of attaining money for shoreline riprap. An amendment request was submitted to the WIRB to use leftover funds in the grade stabilization and terrace pot for this practice. The leftover monies will fund approximately half of the total footage of shoreline stabilization needed. Shoreline stabilization is a critical practice in an effort to clear up the lake. This project ends in June. All of the project goals will have been met by that time.

Project Name: Silver Creek Watershed Project
Project Sponsor: Clayton Soil & Water Conservation District
Length of Project: January 1, 2010 to December 31, 2013

Counties included in the project area: Clayton

Total Watershed Improvement Funds awarded for this project:	**$ 365,950**
Total Watershed Improvement Funds spent:	**$ 66,017**
Total Watershed Improvement Funds obligated:	**$ 8,000**
Watershed Improvement Fund unobligated balance as of 12/31/2011:	**$ 291,933**

Project objectives:

- Reduce sediment delivery to Silver Creek by at least 3,000 tons.
- Promote stream corridor and sinkhole protection along critical areas of the watershed, and install buffer practices on an additional 30% of Silver Creek and its tributaries.
- Develop a series of news articles, newsletters, field days, and demonstrations to increase public understanding of water quality issues and to encourage public involvement and participation in water quality programs.

Summary of Accomplishments and Water Quality Outcomes

The WIRB Grant Agreement has accelerated the adoption of conservation practices within the Silver Creek watershed. Since January 1, 2007, Silver Creek landowners have invested more than $238,000 in conservation improvements on their farms, complementing financial incentives from several state and federal resources. During 2010 and 2011, and over the last 60 months, Silver Creek landowners have completed a wide range of conservation practices:

Table 1: Conservation Practices Installed through the Silver Creek Watershed Project

Practice	***Completed 1/1/10 to 12/31/11***	***Total Completed 1/1/07 to 12/31/11***	***Completed with WIRB Assistance***
Continuous CRP Buffers (New) CRP Buffers (Reenrolled)	4.5 Acres 29.1 Acres	33.8 Acres 29.1 Acres	
Pasture Management		60 Acres	
Streambank Protection		450 Feet	
Terraces	64,325 Feet	169,070 Feet	22,505 Feet
Grade Stabilization Structures	2 Structures	4 Structures	1 Structure
Grassed Waterways	2,100 Feet	8,750 Feet	
Animal Waste Mgmt. Systems	1 System	1 System	

The practices installed in 2010 and 2011 will reduce sediment delivery from sheet, rill, gully, and streambank sources by an estimated 2,047 tons (roughly 128 dump truck loads of sediment). Since 2007, it is estimated that sediment delivery has been reduced by 6,364 tons within the watershed, new filter strips buffer an additional 12,195' of Silver Creek and its tributaries, and cattle have been removed from 4,900' of the stream channel. Continued support will expand project efforts, and will allow landowners to progress toward the reductions of sediment and ammonia that will ultimately remove Silver Creek from Iowa's list of impaired waters.

Project Name: Staff and Beaver Creek Watersheds
Project Sponsor: Howard Soil and Water Conservation District
Length of Project: July 1, 2009 to June 30, 2012

Counties included in the project area: Howard

Total Watershed Improvement Funds awarded for this project:	**$392,950.00**
Total Watershed Improvement Funds spent:	**$197,754.20**
Total Watershed Improvement Funds obligated:	**$44,538.08**
Watershed Improvement Fund unobligated balance as of 12/31/2011:	**$100,404.49**

Project objectives:

Objective 1. Administer the Staff & Beaver Watershed Improvement Project to ensure all objectives and planned activities are implemented.

Objective 2. Construct waste storage facilities, terraces, waterways and wetland creations and implement other conservation practices to reduce nutrient loading to the Staff and Beaver Creeks.

Objective 3. Monitor sediment delivery and nitrate loading to Staff and Beaver Creeks.

Objective 4. Conduct an information and education program to increase awareness and knowledge of Staff and Beaver Creeks' water quality issues to watershed residents and the local community.

Summary of accomplishments and water quality outcomes

July 1, 2009 marked the beginning of the WIRB Staff and Beaver Watershed Project. During the calendar year 2011 we have leveraged cost share dollars from WIRB, EQIP, CRP, CSP and 319 to complete several practices in the watersheds:

1.) Terraces – 900' certified complete (319 & EQIP)
2.) Conservation Stewardship Program – 2,964 ac. under 6 contracts (CSP)
3.) Wetland Creations – 2 constructed (319 WIRB, & WSPF)
4.) Timber Stand Improvement – 4.2 ac. (EQIP)
5.) Waterways – 3.1 ac. (CRP)

Several other practices are under contract and in the process of being constructed, including:

1.) Terraces – 2,650' (EQIP & WIRB)
2.) Wetland Creations – 2 (WIRB)
3.) Native Grass Plantings– 230.8 ac. (CRP)
4.) Wetland Creations – 2 (CRP)
5.) Ag Waste Storage – 1 (EQIP & WIRB)

Several other practices are under consideration to be completed in the spring 2012 before the project is completed.

Project Name: Storm Lake Watershed
Project Sponsor: Lake Preservation Association for Storm Lake, Inc.
Length of Project: February 1, 2009 – January 31, 2013

Counties included in the project area: Buena Vista County

Total Watershed Improvement Funds awarded for this project:	**$200,000**
Total Watershed Improvement Funds spent:	**$29,460**
Total Watershed Improvement Funds obligated:	**$150,540**
Watershed Improvement Fund unobligated balance as of 12/31/2011:	**$20,000**

Project objectives:

- Administer and implement all activities and objectives of the Little Storm Lake Watershed Improvement Project.
- Reduce the sediment transport by 75% and phosphorous transport by 58% from Little Storm Lake watershed (via Little Storm Lake) into Storm Lake.
- Conduct water quality monitoring and sediment analysis.
- Conduct educational and informational activities to keep the project partners and the public informed.

Summary of activities and accomplishments for calendar year 2011

Construction began in late January however was delayed shortly afterwards due to saturated soils and an early spring thaw. The serpentine channel was constructed during this first construction period. Construction resumed in mid-November and has proceeded rapidly due to the very dry conditions. The dike has been constructed, the water control structures for the serpentine channel have been installed, and the settling pond has been excavated.

Samples were collected at 3 locations every two weeks from April through October and after significant storm events. This and the 2010 monitoring will be used as the baseline monitoring. These samples were analyzed by the State Hygienic Lab (SHL) for the nitrogen series, phosphorous and total suspended solids.

Information has been provided to the two local newspapers and both have done articles at a regular frequency to inform the local residents of the project and the progress. Information on the project was provided to Lake Preservation Association members in the annual newsletter and at their annual meeting. Updates have been provided on a regular basis to the Lake Improvement Commission. Presentations have been made about the project to the local Kiwanis and Rotary groups.

Project Name: Summit Lake Watershed
Project Sponsor: City of Creston
Length of Project: (specific dates stated in the grant agreement) 3 Years

Counties included in the project area: Union

Total Watershed Improvement Funds awarded for this project:	**$493,117.00**
Total Watershed Improvement Funds spent:	**$443,805.00**
Total Watershed Improvement Funds obligated:	**$ 48,312.00**
Watershed Improvement Fund unobligated balance as of 12/31/2011:	**$ 0.00**

Project objectives:

- In hopes of making Summit Lake a viable water source and recreation lake, the WIRB funds are being used to:
  - Increase education and involvement of local citizens and stakeholders in the protection of the water body.
  - Monitor water supplies visually and through water sample analysis to determine changes in water quality during and after improvements.
  - Implement upstream land best practices to reduce soil and nutrient flow into Summit Lk.
  - Implement shoreline stabilization to reduce soil erosion due to wave and rainfall action along the shoreline of Summit Lake.
  - Facilitate ancillary projects proposed by the IDNR, Creston Waterworks, Southern Iowa Rural Water Association, and other organizations to improve the quality of life and fishery of Summit Lake.
- In summary, the project will improve the physical and biological condition of Summit Lake immediately after completion and over the long-term.

Summary of accomplishments and water quality outcomes

Since the project beginning of the project in 2009, the facilitation team continued to meet with landowners about upland best practices. Dozens of landowners have been approached by NRCS staff, and 100% of projects have been completed. BMPs included 21,725 LF of terraces, 5.8 acres of grassed waterways, 8 water and sediment control basins, and 2 grade stabilization ponds. In 2011, 1,750 LF of terraces and 1.5 acres of grassed waterways were completed. At the lake, the Creston Waterworks engineered and bid the installation of 18,200 LF of riprap and related BMPs for shoreline stabilization. Work on the riprap is completed. In order to make the project more successful, Creston Waterworks collaborated with the IDNR, which lowered Summit Lake and completed a fish kill. The lowering allows for easier riprap installation and construction of fish habitat. Further, the fish kill removed thousands of undesirable fish—carp and yellow bass—that took over the lake and prevented plant growth. In 2000, dam repairs started, the initial septic study was completed, shoreline protection ordinances were studied, education programs were held (with students and general public), and water monitoring was completed. To date with three years of water monitoring data, we have inconclusive findings, mostly because the project is still underway and the lake area is being disturbed. Further, the lake remains drawn down, so we don't have a full picture of impact on water quality in the lake. More time and funds could be used to invest in additional upland practices with landowners, as a few remain interested.

Project Name: Tributary B/Summerbrook Park Project
Project Sponsor: City of Ankeny
Length of Project: April 15, 2010 to December 15, 2011

Counties included in the project area: Polk County

Total Watershed Improvement Funds awarded for this project:	**$ 169,800.00**
Total Watershed Improvement Funds spent:	**$ 157,141.07**
Total Watershed Improvement Funds obligated:	**$ 0**
Watershed Improvement Fund unobligated balance as of 12/31/2011:	**$ 12,658.93**

Project objectives:

- Administer the Tributary B/Summerbrook Park Project to ensure all objectives and activities planned are implemented.
- Complete a Targeted Public Education for individuals within the Tributary B watershed.
- Complete a Streambank Restoration on Tributary B.
- Construct Stormwater Best Management Practices Retrofits within Summerbrook Park.

Summary of accomplishments and water quality outcomes

Public Education:
A major focus of this project was public education. Numerous public education meetings, courses, and tours were held. Educational articles were published regarding the project and best management practices (BMP). Residents in the watershed installed fourteen known BMPs during the course of the grant period. Educational signage was developed for the park to allow Ankeny residents to learn about the practices that have been installed.

Streambank Restoration:
The streambank restoration of Tributary B was completed during summer and fall of 2011. It is estimated that the project will eliminate nearly 25 tons of sediment from the stream annually. Stream monitoring was been completed during construction of the streambank stabilization on Tributary B. Water quality declined, as measured by transparency, as expected during construction, but improved afterwards. Downstream sampling will continue on a monthly basis.

Best Management Practices at Summerbrook Park:
Four native planting beds have been installed at the park. Each one provides our residents the opportunity to view the beauty of the plants while learning about their stormwater function.

Two bioretention cells were installed at the park in May 2011. After completing one growing season, the plants were already beautiful and hearty.

A porous asphalt trail was installed during August 2011. Bordered by three of the native landscaping demonstration beds, it will allow residents to see the difference between standard sidewalk and a trail that infiltrates water.

Project Name: Tuttle Lake Watershed
Project Sponsor: Emmet SWCD
Length of Project: December 17th, 2010 to December 31st, 2012

Counties included in the project area: Emmet

Total Watershed Improvement Funds awarded for this project:	**$ 154,350**
Total Watershed Improvement Funds spent:	**$ 32,500**
Total Watershed Improvement Funds obligated:	**$ 0**
Watershed Improvement Fund unobligated balance as of 12/31/2011:	**$ 121,850**

Project objectives:

- Administer the Tuttle Lake Watershed Improvement Project to ensure all objectives and activities planned are implemented.
- Construct 2 wetlands, 125 acres of farmable wetlands (or other approved), 23.2 acres of grassed waterways, 2 acres of filter strips, and two grade stabilization structures on predetermined sites to have the maximum benefit.
- Reduce pollutant delivered to Tuttle Lake by 152 tons of sediment per year.
- Conduct an information and education program to increase awareness and knowledge of Tuttle Lake water quality issues and progress to watershed residents, lake users, and the local community.

Summary of accomplishments and water quality outcomes

In the beginning of the project we had a setback of three landowners choosing not to enroll acres in the CRP Farmable Wetlands Program, however, after realizing the benefit of keeping the soil on site, two of the landowners sought assistance in installing almost 4,000 feet of grassed waterway. Two "wetland enhancements" have been designed, by an NRCS Engineer, and are in the process of the landowners signing agreements for the proposed improvements. All four of these projects will get underway this spring along with two filter strips. Currently in the design phase by the Area Engineer, a channelization/grade stabilization project will be constructed in the coming summer. Many intricacies come along with the several of these larger projects and often require several entities to collaborate with the landowner. There has been a significant amount of work coordinated between the landowners, the Emmet SWCD, and the Emmet County Supervisors in preparation of spring construction. The Emmet County Secondary Roads Department removed silt and debris from a culvert on the A17 ROW, making way for the survey and design of two waterways.

On the educational side of things, many of the landowners are responsive to the outreach meeting and three newspaper articles, but have been most responsive to the individualized proposals prepared for them. Of the 21 landowners called, 17 (81%) have discussed effective conservation practices for his/her property with staff. Eight of them have gone a step further by meeting on site and started the development of projects. Providing landowners with sound solutions for reducing sediment loss, as it pertains to his/her property, has proven beneficial.

The Tuttle Lake Watershed Project is close to having a majority of the WIRB money obligated within the next few months. The projects lined up will reduce sediment loading of Tuttle Lake through implementing "sediment-trapping" structures and practices.

Project Name: Upper Buffalo Creek Watershed
Project Sponsor: Buchanan County Soil and Water Conservation District
Length of Project: January 2010 – December 2013

Counties included in the project area: Buchanan and Fayette Counties

Total Watershed Improvement Funds awarded for this project:	**$494,569.00**
Total Watershed Improvement Funds spent:	**$159,559.36**
Total Watershed Improvement Funds obligated:	**$ 9,928.19**
Watershed Improvement Fund unobligated balance as of 12/31/2012:	**$325,081.45**

Project objectives:

Objective 1: Administration of the watershed project (to attain goals and objectives).
Objective 2: Reduce sediment delivery in the watershed by 40% (8,672 tons in four years) through implementing structural and management practices.
Objective 3: Reduce nutrient loading (30% reduction in phosphorus). Conduct water quality monitoring and sediment delivery calculator to identify nutrient reductions.
Objective 4: Increase aquatic habitat through recovery of the riparian corridor, prevent Stream bank erosion, and improve pre-existing in-stream habitat.
Objective 5: Conduct an information and education program to increase landowner awareness and knowledge. Provide technical and financial assistance for implementing structural and management practices.

Summary:

All project reporting (bi-annual, annual, ledger, funding requests, and cover sheets) was submitted to WIRB on/before deadlines. All progress has been reported to Buchanan and Fayette SWCD Commissioners. The annual project review will be held (with sponsoring agencies) on 01/18/2011. The Watershed Advisory Committee provided insight on selling no-till farming and pasture management. The Technical Advisory Committee has been consulted on progress of water quality monitoring, volunteer monitoring, and sediment delivery reduction. The Project Coordinator discussed conservation/management options during field visits with 21 individuals. Outside funding sources (CRP and EQIP) were used when possible to implement practices. The Project Coordinator surveyed and designed 37 grassed waterways, three wildlife buffers, two critical area seedings, two streambank stabilizations, one filter strip, one contour farm, and one wetland. The Project Coordinator figured cost-share for 46 projects. There were a total of 22 projects implemented: 15 waterways (13.9 acres), 3 critical area seedings (4.8 acres), 1 Quail Buffer (8.3 acres), 1 waterway outlet structure, and 1 filter strip (4.1 acres), 1 contour farm (40 acres), and 1 winter cover crop (50 acres). The 22 completed practices have reduced sediment delivery by 453 tons/year and reduced phosphorus loading by 588.9 lbs/year. The Project Coordinator has followed the IDNR water quality monitoring plan (bi-monthly sampling). Information and education outreach has been carried out through mailings, news releases, county fair booth, public watershed meeting, and one-on-one field visits.

Project Name: Volunteer Creek Watershed
Project Sponsor: City of Carlisle
Length of Project: January 2008 to December 2011

Counties included in the project area: Warren County

Total Watershed Improvement Funds awarded for this project:	**$367,500.00**
Total Watershed Improvement Funds spent:	**$367,500.00**
Total Watershed Improvement Funds obligated:	**$ 0.00**
Watershed Improvement Fund unobligated balance as of 12/31/2011:	**$ 0.00**

Project objectives:

1. Administer the Volunteer Creek Watershed Improvement Project to ensure all objectives and activities planned are implemented.
2. Design and construction of a sedimentation basin west of Irwin Drive with associated vegetative buffer.
3. Construct a bio-swale.
4. Utilize storm water flow models to develop and implement standards, ordinances, and physical structures that will assist the City with the implementation of innovative watershed-based storm water control discharge measures before, during, and after development.
5. Develop a comprehensive tool-kit that includes modeling approaches, conservation sensitive design strategies, and watershed-based regulations and ordinances that were utilized for or developed as part of this project.

Summary of accomplishments and water quality outcomes

The project constructed a 4.9 acre storm water detention basin to manage the storm water and sediment flow upstream areas within the Watershed during 100-year/24-Hour storm events. The basin will also reduce peal flows which causes bank erosion downstream.

Vegetative buffer strips were constructed to help slow the flow rate of water into the storm water detention basin, reduce erosion around the edges of the basin, and to capture sediment being transported by surface water flows. This feature may reduce total suspended solids by 50%, total phosphorus by 20%, total nitrogen by 20%, and heavy metals by 40%.

The project constructed a 0.04 acre bioswale downstream of the storm water detention bain to minimize sediment loading and to reduce the amount and velocity of storm water flow by absorbing water through the root system. This feature may reduce total suspended solids by 80%, total phosphorus by 50%, total nitrogen by 50%, and heavy metals by 40%.
It is anticipated that the constructed features (and adopted storm water management ordinance once land is developed) will reduce erosion, sediment transport, flow rates, and reduce flooding within the Watershed.

With the completion of the project features, sampling/monitoring will be of increased importance to identify and measure water quality improvements as the vegetation becomes established and mature.

Project Name: Walnut Creek Watershed Project
Project Sponsor: Montgomery & East Pottawattamie SWCD's
Length of Project: 3 Years

Counties included in the project area: Montgomery, East Pottawattamie

Total Watershed Improvement Funds awarded for this project:	**$489,455**
Total Watershed Improvement Funds spent:	**$467,904.67**
Total Watershed Improvement Funds obligated:	**$0**
Watershed Improvement Fund unobligated balance as of 12/31/2011:	**$21,550.33**

Project objectives:

- To reduce the amount of sediment being deposited in Walnut Creek by 2,000 tons.

Summary of accomplishments and water quality outcomes

This fall and winter have proven to be fabulous for construction of conservation practices in Southwest Iowa. The pleasant weather allowed all planned jobs to be completed. Thus far we have managed to construct 241,978 feet of terraces, 12.9 acres of waterways, and 7 grade stabilization structures for the life of this project. Sediment reductions from these practices total 7,758 tons of sediment reduced per year, far surpassing our original goal of 2,000 tons. This proves that practices are being targeted to the most sensitive areas of the watershed. Several landowners, knowing that their projects would not be funded, are putting practices in with no cost share. This fall alone, landowners constructed 48,956 feet of terraces without WIRB cost share.

This year's commodity prices have been both good and bad for conservation. Landowners made a nice profit this year and have used a portion of those profits for the construction of structural conservation practices such as terraces. Non structural conservation practices however have been nearly impossible to implement, especially practices such as filter strips which take agricultural land out of production.

Funds for this grant agreement, which expires in June, have basically been expended. The greatest amount of money left unspent was for waterways. The CRP program was utilized instead of WIRB funding for a majority of our waterway projects. A Final Report will also be submitted for this grant. Total dollars spent for the life of the grant amounted to $1,229,297.60.

Project Name: 9011-008 Walnut Creek Watershed Improvement Project
Project Sponsor: Poweshiek County Soil & Water Conservation District
Length of Project: Jan. 1, 2010 – June 30, 2013

Counties included in the project area: Poweshiek County

Total Watershed Improvement Funds awarded for this project:	**$213,000**
Total Watershed Improvement Funds spent:	**$ 81,156**
Total Watershed Improvement Funds obligated:	**$ 31,096**
Watershed Improvement Fund unobligated balance as of 12/31/2011:	**$100,748**

Project objectives: **1.** Administer the Walnut Creek Watershed Improvement Project to ensure all objectives and activities planned are implemented. **2.** Install Conservation Practices on areas where 50% or more of the land has 1 ton/year soil loss or more. **3.** Reduce sediment delivery to Walnut Creek by 3,205 tons of sediment per year. **4.** Continue an Information and Education program to increase awareness and knowledge of Walnut Creek water quality issues to watershed residents, and the local community.

The project manager salary funding from 319 ended June 30, therefore the coordinator took leave from June 15 to Aug. 15. An amendment was requested to add salary item to the WIRB contract, without adding more money to the overall contract. This also led to an adjustment in the practice line item amounts and project goals. The Grade Stabilization structure goal was reduced from 9 to 2 and the Prescribed Grazing acres were reduced from 90 to 80. Practice line item budget amounts were also adjusted to allow these changes, effective November 2011.

Ten waterway projects have completed 51 acres of waterway with an estimated sediment delivery reduction of 585 tons/year. This includes one 4 acre project in 2011 that had an estimated sediment delivery reduction of 33 tons/year. Four basin projects have completed 29 basins with an estimated sediment delivery reduction of 59 tons/year. This includes two basin projects in 2011 that built 8 basins to reduce sediment delivery about 24 tons/year. Two projects utilized the summer construction incentive. One waterway project had 42 acres of summer construction area in 2010 and a basin project had 2 acres in 2011. One 1,900 foot terrace project was completed in 2010 with an estimated sediment delivery reduction of 13 tons/year. All together, these completed practices are estimated to have reduced sediment delivery in Walnut Creek Watershed by about 657 tons per year. The 2011 projects together totaled an estimated sediment delivery reduction of 57 tons per year. A 670 foot terrace project was approved in 2011, but was changed to 2 basins, which are part of a 7 basin project that is currently obligated. A 52 acre Prescribed Grazing project has also been approved and obligated, but not completed.

Six news releases were done: two in 2011, and two fliers were posted at local elevators, stations, and stores to keep landowners aware of watershed cost share. Phone calls were made to 44 landowners to notify them of cost share for 2012. The Poweshiek County SWCD employee monitored the 8 Walnut Creek sites in 2008 and 2009. Three volunteers conducted the IOWATER monitoring and collected water samples in 2010. Water quality monitoring volunteers were not recruited in 2011 because project funding was questionable. Iowa DNR provided a person to collect water samples for State Hygienic Lab testing on 10 different days, about every 2 weeks. Results from samples tested before 2011 were for baseline data. The 2011 data will be reviewed by DNR in 2012.

Project Name: Walnut Creek Watershed Project
Project Sponsor: Montgomery & East Pottawattamie SWCD's
Length of Project: January 5, 2011 to January 31, 2014

Counties included in the project area: Montgomery, East Pottawattamie

Total Watershed Improvement Funds awarded for this project:	**$200,000.00**
Total Watershed Improvement Funds spent:	**$109,159.07**
Total Watershed Improvement Funds obligated:	**$ 25,207.38**
Watershed Improvement Fund unobligated balance as of 12/31/2011:	**$ 65,633.55**

Project objectives:

- To reduce the amount of sediment being deposited in Walnut Creek by 200 tons.

Summary of accomplishments and water quality outcomes

This fall and winter have proven to be fabulous for construction of conservation practices in Southwest Iowa. The pleasant weather allowed nearly all planned jobs to be completed. Thus far we have managed to construct 43,900 feet of terraces, and 1 grade stabilization structure since the beginning of this project. Sediment reductions from these practices total 829 tons of sediment reduced per year, far surpassing our original goal of 200 tons. This proves that practices are being targeted to the most sensitive areas of the watershed.

This year's commodity prices have been both good and bad for conservation. Landowners made a nice profit this year and have used a portion of those profits for the construction of structural conservation practices such as terraces. Non-structural conservation practices however have been nearly impossible to implement, especially practices such as filter strips which take agricultural land out of production.

This project has progressed as planned. We should have no problem spending the remaining funds next year. If the winter stays as mild as it is now we may accomplish our goals even quicker.

1003-001 Williamson Pond
Project Sponsor: Watershed Improvement Review Board
Length of Project: November 22, 2010 to December 31, 2012

Counties included in the project area: Lucas

Total Watershed Improvement Funds awarded for this project:	**$116,500.00**
Total Watershed Improvement Funds spent:	**$ 6,000.00**
Total Watershed Improvement Funds obligated:	**$ 0**
Watershed Improvement Fund unobligated balance as of 12/31/2011:	**$ 110,500.00**

Project objectives:

OBJECTIVE 1. Administer the Williamson Pond Watershed Improvement Project to ensure all objectives and activities planned are implemented.

OBJECTIVE 2. Construct three grade stabilization structures and seventeen water and sediment basins on State Owned land.

OBJECTIVE 3. Reduce sediment delivery to Williamson Pond by 453 tons of sediment and 589 pounds of phosphorus per year.

OBJECTIVE 4. Conduct an information and education program to increase awareness and knowledge of Williamson Pond water quality issues to watershed residents, lake users, and the local community.

OBJECTIVE 5. Miscellaneous activities

Summary of accomplishments and water quality outcomes

All Semi-Annual, Annual Reports, and I-Job Reports have been submitted in a timely fashion. A Project Coordinators meeting was attended; a Sediment Delivery training was received. Quarterly progress reports to the Advisory Committee and monthly reports were given to Lucas County SWCD commissioners informing of the project's progress. The POW was reviewed every month.

Construction has not begun on State land as easements and the bid letting are being waited on from DNR. DNR has indicated other projects are ahead of Williamson Pond. DNR workload is great. Water monitoring reports were submitted from DNR concerning data analysis and interpretation and expenses thru July.

Two POL funded terrace projects were completed. Estimated Sediment Delivery Reduction for both was a total of 20 tons per year. Two terrace projects and 1 water/sediment basin were obligated to receive POL funding on private landowners within the watershed.

An article in the Chariton Newspapers was printed concerning the project. Lucas County Fair had an informational booth. A poster displayed information on BMP's private landowners within the watershed can use.

A T&E investigation was done determining that the project will not negatively affect state listed plants and animals. NRCS gave concurrence the project can proceed.

Project Name: Yellow River Headwaters
Project Sponsor: Winneshiek SWCD
Length of Project: December 15, 2010 - December 31, 2014

Counties included in the project area: Winneshiek SWCD & Allamakee SWCD
Total Watershed Improvement Funds awarded for this project: $200,000.00
Total Watershed Improvement Funds spent: $ 16,180.61
Total Watershed Improvement Funds obligated: $ 22,222.66
Watershed Improvement Fund unobligated balance as of 12/31/2011: $ 161,596.73

Project objectives:

Goal 1: Decrease sediment delivery to the YRHW by 50% over the next 4 years.
- **Objective I:** Work with landowners in targeted areas of the YRHW to implement the most effective BMPs to reduce sediment delivery to the stream, thus reducing turbidity

Goal 2: Decrease bacteria loading to the YRHW by 35% over the life of the project.
- **Objective 1:** Work with landowners in the YRHW to implement BMPs to reduce bacteria run-off from open feedlots
- **Objective II:** Work with landowners in the YRHW to change grazing practices to reduce bacteria delivery.
- **Objective III:** Work with landowners in the YRHW to update/improve septic system function to reduce bacteria loading.

Goal 3: Reduce livestock access to the stream by 75% over the life of the project.
- **Objective 1:** Work with landowners in the YRHW to restrict livestock access to the stream.

Goal 4: Increase the culture of conservation among landowners in the YRHW.
- **Objective 1:** Highlight producer's contributions and investment into project participation and promotion of conservation participation.

Summary of accomplishments and water quality outcomes

The watershed project has been an openly embraced by landowners and producers from the watershed. The district continues to focus efforts of implementation of best management practices that get the most practices established for the funds available through outreach efforts and the changing of culture of conservation. Funding continues to be the largest impediment to implementation of practices. Two large drainage grade stabilization structures were completed with three more to be completed this next construction season. These sediment/nutrient traps will control 9% of the drainage from within the priority sub-basins of the watershed. Further success has been gained in the exclusion of livestock from the stream corridor, another 5900 feet (1.1 miles) of stream corridor have been protected by removing livestock access; all together now, 44,150 feet (8.3 miles) of stream corridor previously pastured is now protected by a 20 year conservation maintenance agreement and 276 acres are now in CRP riparian buffers program. Livestock producers with open lots have been extensively contacted due to the 3 different fish kills that were reported the Iowa DNR this past year; a positive result from this has been the opening of doors to landowners that have been previously hard to access. The district continues to partner with the Northeast Iowa RC&D and Iowa DNR to complete a Watershed Management Plan. Surveys from watershed residents from major sub-watersheds and water sampling from the priority waterbody have reaffirmed and pinpointed areas of greatest concern. This will entitle the producers, advisory board, the district and funding partners the greatest opportunity to show water quality improvements by target BMP placement.