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## *Iowa Department of Agriculture and Land Stewardship*

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*Bill Northey - Secretary of Agriculture*

January 31, 2008

Governor Chester Culver  
State Capitol  
LOCAL

Dear Governor Culver:

Pursuant to Iowa Code Chapter 466A Section 3, Item 3e, the Watershed Improvement Review Board is submitting its annual report. Copies of this report are being provided to the President of the Senate and the Speaker of the House. An electronic copy of the report is also being provided to your office and the President of the Senate and Speaker of the House per the requirements of Chapter 466A.

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

In 2007, the Fund was allocated \$5 million for state fiscal year 2008 for water quality improvements from the tobacco settlement trust fund. On September 24, 2007, the Board awarded grants to ten applicants. Total amount allocated to these projects is \$2,656,842. A second Request for Applications is underway and will close February 22, 2008.

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

Sincerely,

A handwritten signature in blue ink that reads "Jolee Belzung".

Jolee Belzung, Chair  
Watershed Improvement Review Board

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

JB:jgn



## *Iowa Department of Agriculture and Land Stewardship*

*Bill Northey - Secretary of Agriculture*

January 31, 2008

John P. Kibbie  
President of the Senate  
State Capitol  
LOCAL

Pat Murphy  
Speaker of the House  
State Capitol  
LOCAL

Dear Senator Kibbie and Representative Murphy:

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Jolee Belzung, Chair  
Watershed Improvement Review Board

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

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## **Watershed Improvement Review Board Calendar Year 2007 Annual Report**

**Submitted January 31, 2008**

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

The fifteen-member Board conducted eight meetings throughout the year in-person or via teleconference. Meetings were held January 22, April 23, May 17, July 17, August 13, September 24, October 29, and December 17. Attachment 3 lists the board members and their organization affiliation.

The Board appointed a five-member subcommittee to review and revise the Request For Applications (RFA) documents and submit recommendations to the full Board. The RFA documents were approved as modified at the May 17, 2007 Board meeting.

The Board announced the third RFA for the Watershed Improvement Fund on June 6, 2007 and accepted applications until August 1, 2007.

The Board received 25 applications in response to the RFA. These applications requested \$7.6 million in Watershed Improvement Funds and leveraged an additional \$11.2 million for a total of \$18.8 million of watershed project activity proposed.

On September 24, after reviewing and ranking the applications individually, the Board met and selected ten applications for funding. The ten projects were approved for \$2,656,842 of Watershed Improvement Funds. Data on the ten selected projects in 2007 include the following:

- These projects included portions of 16 counties
- The \$2.7 million requested of Watershed Improvement Funds leveraged an additional \$4.7 million for a total of \$7.4 million.
- Selected individual projects ranged from \$42,000 to \$500,000.

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

With funds remaining unobligated from the May 2007 RFA, a second RFA was announced November 7, 2007. This RFA will close February 22, 2008.

In cooperation with the Treasurer of State, submitted the Fiscal Year 2006 report for the Tobacco Settlement Trust Fund to the Joint Transportation, Infrastructure and Capitals Appropriation Subcommittee, the Legislative Services Agency, the Department of Management and the Legislative Capital Projects Committee of the Legislative Council.

Attachment 2 showing the locations of applications received during the RFAs in 2005, 2006 and 2007 and the applications selected for funding. After three RFAs, 43 projects have been funded of 111 applications.

Attachment 4 contains the annual progress reports from the thirty-three projects in-progress in 2007.

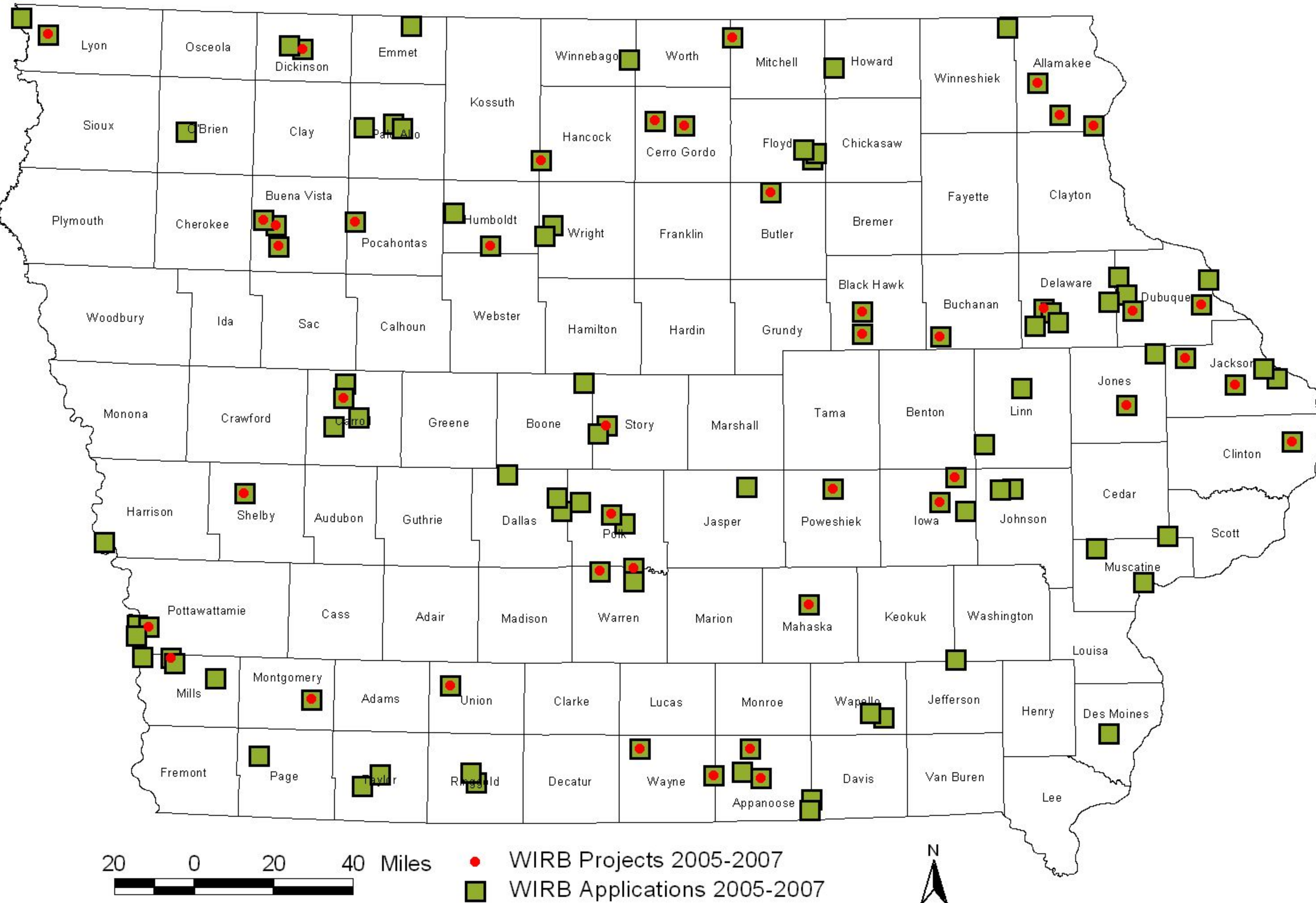
**Attachment 1. Watershed Improvement Fund Grants Awarded Calendar Year 2007**

<b>Watershed Name</b>	<b>Organization</b>	<b>Water Quality Impairment(s) Addressed</b>	<b>Counties Where Located</b>	<b>Funding Amount</b>
Clear Lake Watershed	Hancock SWCD	Stormwater runoff	Hancock, Cerro Gordo	\$154,000
College Creek	City of Ames	Streambank erosion, stormwater runoff	Story	\$304,335
Hurley Creek Watershed/McKinley Lake	City of Creston	Agricultural runoff and drainage, streambank erosion, municipal discharge, stormwater runoff, unsewered communities, livestock runoff	Union	\$117,500
Keg Creek	Regional Water Association	Unsewered communities	Mills	\$500,000
Little Clear Lake Watershed	Pocahontas SWCD	Agricultural runoff and drainage	Pocahontas	\$42,000
Rathbun Lake Watershed	Rathbun Land Water Alliance	Agricultural runoff and drainage, streambank erosion, livestock runoff	Appanoose, Clarke, Decatur, Lucas, Monroe, Wayne	\$495,720
Sand Creek Watershed	Delaware SWCD	Agricultural runoff and drainage, streambank erosion, livestock runoff	Delaware	\$387,787
South Raccoon/Maple River Junction	Carroll SWCD	Unsewered communities	Carroll	\$150,000
Volunteer Creek Watershed	City of Carlisle	Streambank erosion, stormwater runoff	Warren	\$367,500
Yellow River Watershed/Direct Drain Project	Allamakee SWCD	Agricultural runoff and drainage, streambank erosion	Allamakee	\$138,000

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

**\$2,656,842**

## Attachment 2. Location of applications received and projects funded by WIRB, 2005-2007



**Attachment 3. Appointed Members of the Watershed Improvement Review Board  
January 1 - December 31, 2007, Iowa Code Chapter 466A**

<b>Name</b>	<b>City</b>	<b>Term Ending</b>	<b>Sponsoring Organization</b>
Mark Rosenbury	West Des Moines	2009	Agribusiness Assn of Iowa
Jolee Belzung	Ankeny	2010	Iowa Assn of Water Agencies
Tom Hadden (May—December)	Altoona	2009	Iowa Environmental Council
Susan Heathcote (January—April)	Des Moines	2009	Iowa Environmental Council
Leah Maass	Ellsworth	2009	Iowa Farm Bureau
Marcia Dudden	Dike	2008	Iowa Pork Producers
Kevin Jacobson	Story City	2010	Iowa Rural Water Assn
Robert Ballou	Monticello	2010	Iowa Soybean Assn
Deb Ryun	Chariton	2009	Soil and Water Conservation Districts of Iowa
Jeff Bergman	Burlington	2009	Iowa Assn of County Conservation Boards
Jim Gillespie	Earlham	2008	Representative of IDALS
Bernie Hoyer	Des Moines	2008	Representative of DNR
Rob Hogg (September—December)	Cedar Rapids	2010	State Senator
Dennis Black (January—August)	Grinnell	2008	State Senator
David Johnson	Ocheyedan	2010	State Senator
		2008	State Representative
Dolores Mertz	Ottosen	2010	State Representative

**Attachment 4. 2007 Annual Project Reports Table of Contents**

<b>Watershed Name</b>	<b>Organization</b>	<b>Counties Where Located</b>	<b>Page Number</b>
Big Bear Creek	Jones Soil and Water Conservation District	Jones	7
Big Sioux River	Lyon Soil and Water Conservation District	Lyon	8
City of Carpenter—Cedar River	Mitchell Soil and Water Conservation District	Mitchell	9
Clear Lake	Hancock Soil and Water Conservation District	Hancock, Cerro Gordo	10
Conroy Waste Water System Project—Clear Creek	Iowa Soil and Water Conservation District	Iowa	11
Dry Run Creek	Black Hawk Soil and Water Conservation District	Black Hawk	12
Elk River	Clinton Soil and Water Conservation District	Clinton, Jackson	13
Farmers Creek	Jackson Soil and Water Conservation District	Jackson	14
Fox River	Fox River Ecosystem Development Board	Appanoose, Davis	15
Hewitt Creek	Hewitt Creek Watershed Improvement Association, Inc.	Dubuque	16
Holiday Lake	Poweshiek Soil and Water Conservation District	Poweshiek	17
Joint Drainage District No. 1-10	Humboldt Soil and Water Conservation District	Humboldt	18
Joint Drainage District No. 93 & 100	LuVerne Magor Drainage Conservation Association Inc.	Kossuth, Hancock	19
Lake Colchester/Middle Creek	Lakewood Village Association	Warren	20
Lake Storm Lake	Lake Preservation Association	Buena Vista	21
Leisure Lake	Limestone Bluffs RC&D Inc.	Jackson	22
Lime Creek NPS Project	Lime Creek Watershed Improvement Association Inc.	Buchanan, Benton	23

Little Pony Creek	West Pottawattamie Soil and Water Conservation District	Pottawattamie	24
Lower Coldwater-Palmer Creek	Coldwater-Palmer Watershed Improvement Association Inc.	Butler, Floyd	25
Mill-Picayune	Shelby Soil and Water Conservation District	Shelby	26
Muchakinock Creek	Mahaska Soil and Water Conservation District	Mahaska	27
Norfolk Creek Subwatershed	Allamakee Soil and Water Conservation District	Allamakee	28
Price Creek	Benton and Iowa Soil and Water Conservation Districts	Benton, Iowa	29
Rathbun Lake	Rathbun Land and Water Alliance	Appanoose, Clarke, Decatur, Lucas, Monroe, Wayne	30
Rathbun Lake	Rathbun Land and Water Alliance	Appanoose, Clarke, Decatur, Lucas, Monroe, Wayne	31
Saylor Creek	Iowa Heartland RC&D	Polk	32
Storm Lake	Buena Vista Soil and Water Conservation District	Buena Vista	33
Storm Lake	Buena Vista Soil and Water Conservation District	Buena Vista	34
Upper Catfish Creek	Dubuque Soil and Water Conservation District	Dubuque	35
Upper Miller Creek	Black Hawk Soil and Water Conservation District	Black Hawk	36
Urban Watersheds of Dickinson Lakes	Dickinson Soil and Water Conservation District	Dickinson	37
Viking Lake	Page 1 Rural Water District	Montgomery	38
Yellow River	Allamakee Soil and Water Conservation District	Allamakee, Clayton, Winneshiek	39



**Project Name: Big Bear Creek**  
**Project Sponsor: Jones SWCD**  
**Length of Project (January 1<sup>st</sup> 2007-December 31<sup>st</sup> 2009)**

**Counties included in the project area:** (Jones)

**Total Watershed Improvement Funds awarded for this project:** \$ 455,313.00  
**Total Watershed Improvement Funds spent:** \$ 84,308.00  
**Total Watershed Improvement Funds obligated:** \$ 33,596.00  
**Watershed Improvement Fund unobligated balance as of 12/31/2007:** \$ 337,409.00

**Project objectives:**

- Administer the Big Bear Creek Watershed Improvement Project to ensure all objectives and activities planned are implemented.
- Construct Best Management Practices in the identified high priority areas.
- Reduce overall sediment delivery and phosphorous loading by 30%
- Conduct an information and education program to increase awareness and knowledge of Big Bear Creek water quality issues to watershed residents and the local community.
- Monitor the stream using the IOWATER Program.

**Summary of activities and accomplishments for calendar year 2007**

A total of fourteen landowners signed up and were approved by the Commissioners to install water quality BMP's. Eleven were approved under WIRB, two approved under the Conservation Reserve Program and one under the Iowa Financial Incentive Program. Seven have been completed and certified. Two have been completed and certified to be approved at the January Commissioners Meeting. The other five will be completed this spring. A total of six more projects have been estimated and will be submitted for the next six month funding period. The completed projects have a total sediment delivery reduction of 529 tons and an estimated 688 pounds of phosphorus that were reduced from reaching the stream. The Sediment Delivery Calculator was used to arrive at these figures. All the approved WIRB projects were in the priority areas identified in the grant application.

The Project Coordinator (PC) met with the Watershed Council(5-12 landowners) every other month to discuss project activities and monitor progress. A Council Meeting along with a tour of a recently constructed pond attracted twenty two people. Two local supervisors along with representatives Hancock & Zirkelbach were in attendance. The PC met with the Wyoming City Council to discuss project goals. A Storm Water Drain Stencil Program was suggested to them as a way to increase awareness to water quality. We plan on completing this simple but effective program this spring. The Midland Times carried two articles in the paper this year on the Bear Creek Water Quality Project. One was on the construction activities of a pond site to control an eighty acre drainage area above the site. The other article was the Hancock Report, which stated the fine work the District does to improve water quality. The PC received numerous positive comments from the general public on both articles. The RASCAL Assessment for the creek corridor was completed, but as of this report, the Iowa DNR has not returned the information to the PC. The IOWATER Program is used to monitor two sites in the watershed.

**Project Name: Lyon County Clean Water Project**  
**Project Sponsor: Lyon SWCD**  
**Length of Project: January 1, 2007 – December 31, 2009**

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

**Total Watershed Improvement Funds awarded for this project:**       \$ 57,500.00  
**Total Watershed Improvement Funds spent:**                         \$ 0.00  
**Total Watershed Improvement Funds obligated:**                     \$ 0.00  
**Watershed Improvement Fund unobligated balance as of 12/31/2007:** \$ 57,500.00

**Project objectives:**

- Administer the Lyon County Clean Water Project to ensure all objectives and activities planned are implemented.
- Reduce pollutant delivery to water resources by constructing six cost-effective alternative treatment systems for controlling open feedlot runoff that meet or exceed the environmental regulations for pollution control.
- Utilize monitoring processes to measure effectiveness of alternative treatment to meet water quality standards.
- Conduct an information and education program to increase awareness and knowledge of Lyon County water quality problems, impact of open feedlots on water quality, alternative treatments, and relative cost and environmental performance to livestock producers, watershed residents, and the local community.

• **Summary of activities and accomplishments for calendar year 2007:**

Created Excel spreadsheet based on data that was gathered for this project in 2003. The original data included information that was used to create an AGNPS (Agriculture Non-Point Source Pollution) ranking system for the cattle feedlots in this study. Additional information was inputted from the Lower Big Sioux Rapid Watershed Assessment project.

Attended a project coordinators meeting sponsored by Stephen Hopkins of the Iowa DNR on 8-22-07. Various project coordinators in Area 1 gave a brief description of their projects.

Attended WIRB training class on 9-12-07. Received instruction for proper report and ledger procedures. Adam Kiel of DNR provided instruction for using the electronic “Tablet”. Each feedlot site was inputted and “Tablet” was returned to DNR for mapping purposes.

158 Letters were mailed on 10-3-07 explaining the project with a survey included asking about future plans in the cattle feeding business, annual number of animal units at sites, feedlot cleaning procedures, etc.

A TAC (Technical Advisory Committee) was created to provide input for implementing this project. The TAC is made up of local people, state agencies personnel, Iowa State University specialists, and various other individuals. The TAC suggested a point system that was implemented for selecting the “targeted” sites that will be contacted for possible participation.

2007 Watershed Improvement Fund Annual Project Progress Report

**CITY OF CARPENTER SEWAGE TREATMENT SYSTEM PROJECT**  
**Mitchell County Soil & Water Conservation District**  
**Length of Project November 1, 2006 to December 31, 2008**

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

<b>Total Watershed Improvement Funds awarded for this project:</b>	<u>\$500,000.00</u>
<b>Total Watershed Improvement Funds spent:</b>	<u>\$ 24,701.63</u>
<b>Total Watershed Improvement Funds obligated:</b>	<u>\$ 74,298.37</u>
<b>Watershed Improvement Fund un-obligated balance as of 12/31/2007:</b>	<u>\$401,000.00</u>

**Project objectives:**

- Stop the illegal discharge of a point source of wastewater into Deer Creek
- Provide the residents of Carpenter with an environmentally sound system of treating wastewater
- Provide an affordable treatment of the wastewater for the residents and businesses located in Carpenter, Iowa
- Improve the water quality of the Cedar River and Deer Creek by eliminating a point source of water quality pollution

**Summary of activities and accomplishments for calendar year 2007**

Overall in 2007, the City of Carpenter Sewage Treatment Project moved forward with the planning phase of the project. This planning phase incorporated the Iowa Department of Natural Resources 52 step process for the wastewater construction permitting process.

A project initiation meeting was held in Des Moines on January 22, 2007 with representatives from City of Carpenter, County of Mitchell, IDNR, USDA Rural Development, a preliminary engineering firm, local Council of Government and the Mitchell Soil & Water Conservation District. Another pre-design meeting was held August 9, 2007 in Carpenter, IA, to discuss overall project planning and design. A preliminary plan on the system type to treat the water quality problem is still current.

The County of Mitchell agreed to own and manage the completed system for Carpenter. Veenstra & Kimm, Inc., a private engineering firm from Mason City, IA, was chosen as the project engineering firm for this project. In 2007, they completed a topographic survey, boundary survey, and coordinated the soil exportation work on the lagoon site and throughout the community. They are now in the process of initial design of the planned sewage system for Carpenter. An environmental assessment was completed by North Iowa Area Council of Governments to identify any impacts, direct or indirect for all assessment categories. No significant environmental impacts were identified.

An attorney was selected to complete the legal requirements for all property acquisition and legal work associated with this project. A land appraisal for the lagoon site was completed and the county has secured an option of purchase the lagoon site from a private landowner.

USDA Rural Development has selected this project for Federal Funding for the balance of the project costs. They have agreed to allocate funds in the form of a grant/loan. The Community Development Block Grant application was not selected for funding on this project by IDED. Construction phase of the project is planned to be completed in F.Y. 2008.

**Clear Lake Storm Water Improvement Project  
Hancock Soil & Water Conservation District  
Length of Project (January 2006 to March 2008)**

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

**Total Watershed Improvement Funds awarded for this project:** \$ 225,000  
**Total Watershed Improvement Funds spent:** \$ 42,000  
**Total Watershed Improvement Funds obligated:** \$ 150,000  
**Watershed Improvement Fund unobligated balance as of 12/31/2007:** \$ 33,000

**Project objectives:**

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

**Summary of activities and accomplishments for calendar year 2007**

The investigation of 12 storm water outlet sites for improvements was completed in February. Each site was ranked for cost effectiveness based on the amount of total suspended solids and phosphorus that would be removed at each outlet. It was determined that 11 of the 12 sites showed feasibility of implementing a cost effective structural BMP. Cost estimates of the improvements indicated that 7 of the 11 feasible improvements could be made with existing funding. The local governments met to prioritize and determine which 7 sites to develop plans and specifications for. The sites selected included 3 in the City of Clear Lake, 3 in Cerro Gordo County, and 1 in the City of Ventura. The plans and specifications were completed and the construction of the 7 sites was advertised for bid in late September. The bid opening took place on October 10<sup>th</sup> and four bids were received. Presentations were provided to the respective councils and boards of the local governments where the improvements were planned to be made, and each approved the planned improvements. The storm water projects totaled \$342,815.38

Construction began in November and continued into December. About 80% of the construction activities on the 7 sites were completed by the end of December. Some construction activities such as pavement replacement and seeding could not be completed until the spring of 2008. An extension was therefore requested to extend the project until March of 2008 to ensure all construction activities could be completed. The project is on pace to exceed the goal of investigating 10 sites and installing 5 BMPs as a total of 12 sites were investigations and 7 BMPs are being installed. The cumulative annual pollutant loading reduction of these installations total 21,200 lbs. of suspended solids and 32.9 lbs. of phosphorus.

Several information and education activities such as PowerPoint presentations and newspaper articles were conducted to explain the importance of the storm water quality improvements.

**Clear Creek Watershed Project**  
**Iowa County SWCD**  
**Length of Project (March 1, 2006 to December 31, 2008)**

Counties included in the project area: [Iowa](#)

<b>Total Watershed Improvement Funds awarded for this project:</b>	<b>\$500,000</b>
<b>Total Watershed Improvement Funds spent:</b>	<b>\$292,643.65</b>
<b>Total Watershed Improvement Funds obligated:</b>	<b>\$128,008.35</b>
<b>Watershed Improvement Fund unobligated balance as of 12/31/2007:</b>	<b>\$79,348</b>

**Project objectives:**

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

**2007 Accomplishments**

**PROJECT PLANNING AND DESIGN**

- Final design by Garden Engineering completed on 8/2/07.
- Archeology study was completed by Bear Creek Archeology on 4/13/07. No findings.
- Geotechnical study completed by Terracon Consultants Inc. on 7/27.
- Design, technical studies and permits were submitted to IADNR on 5/21/07. Construction and Operating permits approved, received on 8/15/07.

**LAND ACQUISITION AND EASEMENTS**

- Treatment facility and lagoon sites identified in Section 22 T80NR10W approximately ½ miles SE of Conroy. 7.59 acres purchases for \$80000 on 6/29/07.
- All easements for hook ups, sewer lines and all junction/clean outs completed and purchased 6/15/07.

**PROJECT CONSTRUCTION**

- Reviewed Bidding process with IDALS, Garden Engineering and Poweshiek Water on 6/7/07 to insure compliance with Iowa Code. Bid advertised during June 2007.
- Bids were opened 7/12/07 and awarded to Lawson Construction Inc. on 7/23/07.
- Preconstruction meeting held on 8/28/07 at Poweshiek Water in Brooklyn. SWCD met with PRW, contractor and engineers to discuss project.
- Construction started on 9/3/07 to install Septic Collection System. Sewer mains, hookups, man-holes and cleanout sites will be completed by the end of December. The first lagoon is under construction and will be completed by winter.
- 2008 Project work includes completing lagoons and building treatment plant.

**Dry Run Creek Watershed Improvement Project  
Black Hawk Soil & Water Conservation District  
2006-2009**

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

**Total Watershed Improvement Funds awarded for this project:** \$500,000  
**Total Watershed Improvement Funds spent:** \$95,415  
**Total Watershed Improvement Funds obligated:** \$202,500  
**Watershed Improvement Fund unobligated balance as of 12/31/2007:** \$202,085

**Summary of activities and accomplishments for calendar year 2007**

**Project objectives:**

**1. Administer the Dry Run Creek Watershed Improvement Project to ensure all objectives and activities planned are implemented.**

Not only were all baseline objectives met, in many cases objectives were exceeded, particularly those related to media and community relations. The project has generated substantial local media attention from the Waterloo Courier, Cedar Falls Times and both KWWL and the local access television news reporters.

**2. Track/Monitor progress of practices installed in 2007.**

<b>2007 Practice</b>	<b>Location</b>	<b>Status</b>
Bioretention Cell	UNI	Constructed, final stab. 2008
Bank Stabilization	UNI	Completed
Rock Chute	Prairie Lakes Church	Completed
Native Seeding	Prairie Lakes Church	Completed
Soil Quality Amendment	Meadows Assoc.	Completed
Pervious Concrete	UNI	Completed
Rain Garden/Rain Barrel Sys.	Private L. O.	Completed
Inlet Skimmer Box	Kwik Star	Completed
LID Sub-Development	Private Developer	Under Construction
Stormwater Wetland	Private Developer	Under Construction

**3. Monitor for improved water quality, infiltration and overall effectiveness of practices installed.**

**Average In-Stream Measurements**

<b>Time</b>	<b>°F</b>	<b>pH</b>	<b>Tra. (mm)</b>	<b>Comments</b>			
AVG:	66.0	8.2	233.6	No flow from tile			
<b>In-Stream Conditions</b>				<b>Flume Runoff</b>			
<b>Time</b>	<b>°F</b>	<b>DO</b>	<b>pH</b>	<b>Tra. (mm)</b>	<b>Temp</b>	<b>DO</b>	<b>pH</b>
AVG:	66	7.5225	8.1	249.3333	74	6.1125	8.1

**4. Conduct an information and education program to increase awareness and knowledge of urban water quality issues to watershed residents, land owners and the local community.** I&E has been split between community members, youth and local contractors and developers. All three groups are participating in workshops, attending events and activities related to the project. 85 contractors attended the March erosion & sediment control workshop.

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

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

<b>Total Watershed Improvement Funds awarded for this project:</b>	<b>\$ 292,045.00</b>
<b>Total Watershed Improvement Funds spent:</b>	<b>\$ 85,776.85</b>
<b>Total Watershed Improvement Funds obligated:</b>	<b>\$ 52,637.30</b>
<b>Watershed Improvement Fund unobligated balance as of 12/31/2007:</b>	<b>\$ 153,630.85</b>

**Project objectives:**

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

**Summary of activities and accomplishments for calendar year 2007**

In cooperation with the 319/WSPF Elk River Water Quality Project and following 2006 activities, final designs were completed this fall by NRCS Area Engineering staff for two applicants for ag waste sediment basins and filter strips as secondary treatment. The projects were not constructed this year and are planned for spring and summer of 2008. In addition to the two final designs received, two ag waste sediment basins were constructed. One project was a new application in 2007. Final designs were completed by NRCS Area Engineering staff and the project underwent the Public Bidding Process due to use of WSPF funding. The other ag waste sediment basin constructed was contracted through EQIP. Further assistance and correspondence occurred with two producers still considering a sediment basin on their operation.

One of the ag waste sediment basins constructed is located along a main highway. The project created a lot of local “buzz” in regards to the project. The producer has indicated he has received several comments and inquiries about the project, many from people not engaged in agriculture.

Two grade stabilization structures in the form of rock chutes were completed in the watershed that will provide an estimated gully sediment loading reduction of 30 tons of sediment per year. Contacts made within the watershed resulted in four other grade stabilization structures approved for funding.

A total of 6.1 acres of grass waterways were constructed which will provide an estimated sediment loading reduction of 129 tons per year. An additional 4.2 acres of waterways are approved for funding and an application for 3.2 acres is pending EQIP funding.

Through CRP 11.4 acres of filter strips and 4.4 acres of riparian buffer were established. These practices will provide an estimated sediment loading reduction of 77 tons per year.

**Farmers Creek Watershed Project  
Jackson Soil and Water Conservation District  
March 1, 2006 to December 31, 2008**

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

<b>Total Watershed Improvement Funds awarded for this project:</b>	<b>\$28,738.00</b>
<b>Total Watershed Improvement Funds spent:</b>	<b>\$ 8,038.12</b>
<b>Total Watershed Improvement Funds obligated:</b>	<b>\$ 0.0</b>
<b>Watershed Improvement Fund unobligated balance as of 12/31/2006:</b>	<b>\$20,699.88</b>

**Project objectives:**

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

**Summary of activities and accomplishments for calendar year 2007**

The WIRB project for Farmers Creek continued its public relations campaign this year, concentrating on promoting alternative sources for watering livestock. Three pasture walks were held, giving the SWCD the opportunity to demonstrate the WIRB funded nose pump and also the completed cattle approaches and stream fencing on the Kremer property. Solar pumps were also demonstrated. The combined attendance for the three pasture walks was over 160 producers. The pasture walk events were publicized in the Maquoketa Sentinel Press, Herald-Leader and Dubuque's Telegraph Herald. Radio station KMAQ also advertised the events. Project displays were exhibited at the Maquoketa Farm and Home Show in February, with attendance topping 2000. WIRB project updates and practice guidelines were placed in the four quarterly newsletters that went out to all 150 residents.

The pasture walks generated a lot of interest in alternative watering systems, and influenced at least one landowner to build two cattle approaches. He had existing fence to initiate flash grazing around the approaches. Another producer is investigating the use of a windmill and has established a rotational grazing system.

Now that we have the approval from the state engineer to build the cedar revetments, we are seeing more interest in the practice. The area engineer has surveyed a 100 foot stretch of the Bormann property and is currently working on the design. If the landowner is satisfied with the cost, he will proceed to build the revetment in the spring. Several other landowners have visited the SWCD office to watch the video "How to Build a Cedar Revetment" and to pick up literature. We have even supplied the local RC&D with revetment information for their customers.

In conclusion, our project may not be implementing as many practices as anticipated, but the interest and educational value of our efforts are immeasurable and valuable to the agriculture community as a whole.



**Project Name: Fox River Water Improvement Project**  
**Project Sponsor: Fox River Ecosystem Development Board**  
**Length of Project: January 1, 2007 to December 31, 2009**

**Counties included in the project area: Appanoose and Davis.**

<b>Total Watershed Improvement Funds awarded for this project:</b>	<b>\$ 414,376.00</b>
<b>Total Watershed Improvement Funds spent:</b>	<b>\$ 67,474.26</b>
<b>Total Watershed Improvement Funds obligated:</b>	<b>\$ 21,250.00</b>
<b>Watershed Improvement Fund unobligated balance as of 12/31/2007:</b>	<b>\$ 325,651.74</b>

**Project objectives for calendar year 2007:**

- Administer the Fox River Ecosystem Improvement Project to ensure all objectives and activities planned are implemented.
- Advertise, hire, and fund a full time position for technical and administrative activities.
- Install 1,200 ft. of fence protecting 600 feet of stream and subtributaries and excluding livestock.
- Install one stream bank stabilization site utilizing non-traditional bio-engineering techniques to reduce cost.
- Establish one site to enhance wildlife habitat.
- Construct four water and sediment control basins reducing livestock runoff and sediment to Fox River.
- Construct 1,300 feet of terraces to control and direct cropland runoff into grass filters.
- Construct three grade stabilization structures providing livestock watering source and reducing sediment delivery from active gully erosion.

**Summary of activities and accomplishments for calendar year 2007:**

- Project coordinator, Craig Foster, selected and hired effective August 30, 2007.
- 5,099 feet of fence has been installed to protect stream and subtributaries while excluding livestock.
- One stream bank stabilization project has funding obligated.
- Two water and sediment control basins have been installed on priority sites, reducing sediment delivery by an estimated 105 tons per year to the Fox River. Two additional water and sediment control basins have funds obligated and construction has been started.
- Four grade stabilization structures have been completed by landowners on sites meeting the high priority land. These four sites have reduced sediment delivery by an estimated 387 tons per year to the Fox River, as calculated by using the sediment delivery calculator. All four sites provide watering source to livestock.
- Two additional grade stabilization structure sites have obligated funds.
- One of the completed stabilization structures was buffered to help on cost share and better protect the water quality of structure.

2007 Watershed Improvement Fund Annual Project Progress Report

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

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

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

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

<b>Total Watershed Improvement Funds Awarded to this project:</b>	<b>\$159,290</b>
<b>Total Watershed Improvement Funds Spent:</b>	<b>\$ 98,426</b>
<b>Total Watershed Improvement Funds Obligated:</b>	<b>\$ 7,000</b>
<b>Watershed Improvement Fund unobligated balance as of 12/31/2007</b>	<b>\$ 53,864</b>

**Project Objectives:**

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

**Summary of activities and accomplishments for 2007**

Project participation increased from 38 cooperators in 2006 to 47 (potential is 82 farm operators) due to peer pressure and neighbor-to-neighbor recruiting, in spite of pro-rated incentive payments in 2006. A mid-project survey disclosed 100% of respondents view the performance project as rewarding a conservation systems approach, all believe the program is having a positive effect on the environment and the project encourages changes in management; 95% said the program made their operation somewhat or more profitable and gave the program an A or B on a scale of A-F, and 80% indicated participation caused them to add conservation activities.

Computer modeling indexes that combine traditional cost-share and EQIP practices with land and nutrient management were calculated on 366 fields (9,364 acres on 41 farms) an increase of 50 fields (1,177 acres). Sixteen farms (4,036 acres) lowered their risk of P loss by 12% and 15 fields in the 2006 group at risk of high-P loss reduced their P-indexes by 14% largely with more contouring (22%), no-till, cover crops, and new waterways. The Soil Conditioning Index (SCI) scores (measure of organic matter-less erosion) improved by 18% on 10 farms and 26.7% on the 15 targeted fields. Using the Sediment Delivery Calculator, sediment delivery was reduced by 1,331 T/yr and P delivery by 1,729 Lbs/yr bringing the project to-date annual sediment reduction to 7,524 tons. Cornstalk nitrate samples were analyzed for 31 farms; same-farm tests improved 21% (28Lbs N/A) from 2006, largely by taking more appropriate manure N credits.

The Dubuque NRCS-DC reports considerably more interest from the watershed in cost-share and EQIP practices as a result of the performance-incentive project. More than 60 participants at a June field day learned of project accomplishments from farm operators and professionals assisting with water and habitat monitoring that has shown some improvement. Field day reports were printed in local, state, and regional media including the national Corn and Soybean Digest.

**Holiday Lake Watershed Improvement Project**  
**Project Sponsor: Poweshiek County SWCD**  
**Length of Project: Jan. 2007 – June 2008**

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

<b>Total Watershed Improvement Funds awarded for this project:</b>	<b>\$ 64,447</b>
<b>Total Watershed Improvement Funds spent:</b>	<b>\$ 21,447</b>
<b>Total Watershed Improvement Funds obligated:</b>	<b>\$ 9,000</b>
<b>Watershed Improvement Fund unobligated balance as of 12/31/2007:</b>	<b>\$ 34,000</b>

**Project objectives:**

- Construct Best Management Practices in high soil loss areas
- Reduce sediment delivery by 50%, or 75 tons per year
- Implement an Information and Education Program

**Summary of activities and accomplishments for calendar year 2007**

Nine basins and one pond have been installed by six landowners on sites meeting the high priority land criteria. These ten sites have reduced sediment and phosphorus delivery by an estimated 58 tons and 232 pounds per year, respectively, to Holiday Lake.

Two of the top three priority basins of the Holiday Lake Owners Association were completed. These were priority basins because of the amount of sediment that was repeatedly cleaned out of silt basins that are located near the lake. The Holiday Lake Owners Association also seeded three areas to Native Grasses and Forbs for a total of about one acre.

All ten landowners of the highest-ranked farmland areas have been contacted to determine interest in constructing a structure. Due to the technical assistance and cost share being provided, three landowners have installed conservation practices. The pond and one basin were installed on a farm property that was identified as a high soil loss area using the sediment delivery calculator. The remaining six basins were on two farmer's farmland areas that were highlighted on the GIS sediment delivery map.

Four news articles were submitted to three local newspapers as well as the Holiday Lake Owners Association Newsletter. The articles informed residents of the water quality improvement project and water quality issues. Two of the articles promoted the benefits of a rain garden for lot owners around the lake. This resulted in several inquiries and two watershed lot owners seeking financial assistance.

A presentation on Urban Conservation was given during the Holiday Lake Owners Association Spring Meeting, at a Holiday Lake park shelter. Informational brochures were distributed on urban conservation, rain gardens, bio-swales, lake management, and environmental education. This led to good community contact with inquisitive discussion. Approximately 50 lake residents, visitors, and watershed residents attended.

**Joint Drainage District 1-10**  
**Humboldt SWCD**  
**Length of Project: March 1, 2006 to January 31, 2008**

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

<b>Total Watershed Improvement Funds awarded for this project:</b>	<b>\$500,000.00</b>
<b>Total Watershed Improvement Funds spent:</b>	<b>\$213,413.31</b>
<b>Total Watershed Improvement Funds obligated:</b>	<b>\$0</b>
<b>Watershed Improvement Fund unobligated balance as of 12/31/2007:</b>	<b>\$286,586.69</b>

**Project objectives:**

- Reduce groundwater pollution potential through the closure of agriculture drainage wells and installation of alternative drainage outlet
- Administer project and implement activities and objectives for the joint DD 1-10 project
- Provide information /education to keep project sponsors and landowners aware of project progress and to ensure compliance with legal procedures

**Summary of activities and accomplishments for calendar year 2007**

Closure of 19 Agricultural Drainage Wells has been completed. An alternative drainage outlet for the wells has been installed. Below is a summary of the pipe footages:

12' RCP	18,973 LF
15" RCP	3,648 LF
18" RCP	5,392 LF
24" RCP	2,946 LF
30" RCP	6,746 LF
36" RCP	966 LF
42" RCP	<u>10,488 LF</u>
<b>TOTAL=</b>	<b>49,119 LF</b>

With the closing of these wells and the installation of the alternative outlet the potential groundwater pollution in the watershed has been greatly reduced.

An initial draft of reclassification for the Drainage District No. 1-10 has been prepared by the County Board of Supervisors.

A wetland mitigation plan agreement and easement has been filed with the Humboldt County Board of Supervisors for the wetlands affected by the drainage project. A draft wetland restoration and enhancement plan has been completed by the county drainage engineer.

**Project Name: Joint Drainage District Nos. 93 & 100**  
**Project Sponsor: LuVerne Magor Drainage Conservation Assoc., Inc.**  
**Length of Project: January 1, 2007 to March 31, 2008**

**Counties included in the project area:** Hancock and Kossuth

<b>Total Watershed Improvement Funds awarded for this project:</b>	<b>\$382,668</b>
<b>Total Watershed Improvement Funds spent:</b>	<b>\$338,531</b>
<b>Total Watershed Improvement Funds obligated:</b>	<b>\$ 44,137</b>
<b>Watershed Improvement Fund unobligated balance as of 12/31/2007:</b>	<b>\$ 0</b>

**Project objectives:**

- Close two agricultural drainage wells which receive all drain tile discharge waters from 887 acres of agricultural land and 13 acres of state and county roads.
- Eliminate the annual direct discharge of an estimated 15,000 pounds of nitrate nitrogen and other pollutants to the local aquifer.
- Increase awareness of the problems and risks associated with the use of agricultural drainage wells and of the state programs which offer cost share assistance toward the closure of drainage wells and the construction of alternative drainage outlets.

**Summary of activities and accomplishments for calendar year 2007**

In 2007, the LuVerne Magor Drainage Conservation Association, Inc., an association of eight adjoining farms located a mile south of Corwith along Highway 17 received a funding commitment from the Watershed Improvement Review Board. The Association hired an engineer to prepare plans, specifications and bidding documents; to apply for the required regulatory agency permits and to secure agreements regarding the crossing of county and state roads. All permits were secured and agreements were reached with Hancock County and the Iowa DOT for the crossing of the roads and the payment of the associated costs.

On March 8, a public hearing was conducted in Corwith by the association regarding the construction plans. Publicly solicited bids were then opened and a contract was awarded to a local contractor. By December 1, the entire alternative drainage system had been installed and the two drainage wells were closed in compliance with state rules. All work that remains is to finalize construction contract quantities, certify contract completion, make final settlement with the contractor and settle payment of rents and damages in the construction area.

Public notice consisted of the March 8 public hearing which was attended by approximately 20 people. However, the location of the work immediate to a state highway greatly enhanced public awareness. This project sparked the interest of several landowners in Sherman Township in Kossuth County whose land is now drained to the three remaining drainage wells in Kossuth County. This group has organized and made application for drainage well closure cost share funds from the IDALS.

**Lake Colchester Middle Creek  
Lakewood Village Association  
July 2, 2007 – July 5, 2010**

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

<b>Total Watershed Improvement Funds awarded for this project:</b>	<b>\$ 247,500.00</b>
<b>Total Watershed Improvement Funds spent:</b>	<b>\$ 4,682.95</b>
<b>Total Watershed Improvement Funds obligated:</b>	<b>\$ 00.00</b>
<b>Watershed Improvement Fund unobligated balance as of 12/31/2007:</b>	<b>\$ 242,817.05</b>

**Project objectives:**

- Manage fish population for biomanipulation principles for water quality.
- Create habitat alterations based on biomanipulation principles for water quality.
- Improve inlet sediment and nutrient control practices to benefit lake water quality.
- Monitor the lake water quality and augment algae control with lake circulation technology.

**Summary of activities and accomplishments for calendar year 2007**

LVA hired a part-time employee (and utilized 5-6 volunteers) to manage fish population by testing and experimenting with various equipment, supplies and most cost-effective methods for removal of rough fish population. Equipment, including feeders, trawls, nets, bow, arrow & spears, seines and boat equipment were purchased along with various types of commercial and custom feeds. Six fishing tournaments (50-60 total participants) were held. Block-off barriers were installed to prevent loss of desirable fish at the dam. Finger Pond was drained to remove rough fish from this inlet pond. All rough fish removal efforts resulted in a total of 2,290 pounds of catfish, 979 pounds of carp, 423 pounds of shad. The goal is to remove 50% of the total biomass of bottom feeders which is estimated at 15,000 pounds of catfish and 30,000 pounds of carp, plus a large population of shad. A total of 2,070 (7" & 5") walleye, and 500 (6") bass were purchased and released into the lake in fall, 2007. In order to educate the public, two newsletter articles, website; also a tri-fold informational brochure, "In-Lake Management" was designed, printed and distributed at the Annual Lakewood Days to residents utilizing Lake Colchester.

Drawings and plans have been submitted for the design and fabrication of various PVC fish structures, cedar tree piles and limbs. 300 cattails and 40 water lilies, arrowhead and other grasses were transplanted in three separate areas of Finger Pond and Lake Colchester.

Engineering, specifications completed on excavation of Finger Pond inlet to remove 4,000 CY of silt deposits. RFQ's were sent to 12 contractors, four responded with quotes ranging from \$132,000 to \$747,000. All were rejected. Project scope and methods being re-defined.

Two members have been trained by IOWATER; conduct monthly monitoring and reporting on standing water, physical, chemical, biological and habitats assessments at four designated areas.

**Lake Storm Lake  
Lake Preservation Association  
March 1, 2006 to December 31, 2007**

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

<b>Total Watershed Improvement Funds awarded for this project:</b>	<b>\$477,000.00</b>
<b>Total Watershed Improvement Funds spent:</b>	<b>\$477,000.00</b>
<b>Total Watershed Improvement Funds obligated:</b>	<b>\$477,000.00</b>
<b>Watershed Improvement Fund unobligated balance as of 12/31/2007:</b>	<b>\$0.00</b>

**Project objectives:**

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

**Summary of activities and accomplishments for calendar year 2007**

The majority of the projects have been constructed and accepted as finished and completed projects. The exception to this statement is the two large bio-retention ponds which have been constructed but as of the end of construction season 2007 are not working as intended and therefore have not been accepted as completed.

It is the intent of the City of Storm Lake to work with the engineer on the project and the contractor on the project to work together to develop a plan for resolution in the later winter (January – March 2008) so that the plan can be implemented in the spring of 2008.

**2007**

**Leisure Lake Wastewater Treatment System Project  
Limestone Bluffs RC&D**

**Length of Project: Jan. 1-2007 – Dec. 31, 2008**

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

<b>Total Watershed Improvement Funds awarded for this project:</b>	<b>\$500,000.00</b>
<b>Total Watershed Improvement Funds spent:</b>	<b>\$ 30,146.73</b>
<b>Total Watershed Improvement Funds obligated:</b>	<b>\$ <u>0</u></b>
<b>Watershed Improvement Fund unobligated balance as of 12/31/2006:</b>	<b>\$469,853.27</b>

**Project objectives:**

- Administer the Leisure Lake Watershed Improvement 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 Lytles Creek, the Maquoketa River and local groundwater sources

**Summary of activities and accomplishments for calendar year 2007**

The Limestone Bluffs RC&D entered into a contract agreement with the Eastern Iowa Rural Utility Service System (EIRUSS) to plan and implement the wastewater treatment system for Leisure Lake. EIRUSS developed a contract with IIW Engineering to complete the engineering plans for the project. Additional financing has been secured for the project through a Community Development Block Grant with Jackson County and a USDA Rural Development grant and loan.

Contracts for legal services and bonding authority were approved through EIRUSS.

IIW Engineering is finishing the design of the collection system for the project. In addition, a site has been selected for a controlled discharge lagoon. The environmental and archeological reviews are being completed and the DNR has been requested to a site survey.

In 2008, the engineering design will be completed and bids let for construction.



2007 Watershed Improvement Fund Annual Project Progress Report

**Lime Creek Watershed Incentive Program for Performance-based Environmental Management**

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

**Length of Project: January 1, 2007 through December 31, 2009**

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

<b>Total Watershed Improvement Funds Awarded to this project:</b>	<b>\$290,011</b>
<b>Total Watershed Improvement Funds Spent:</b>	<b>\$ 54,145</b>
<b>Total Watershed Improvement Funds Obligated:</b>	<b>\$ 200</b>
<b>Watershed Improvement Fund unobligated balance as of 12/31/2007</b>	<b>\$235,666</b>

**Project Objectives:**

- Develop water quality awareness, knowledge, sustainable change and leadership within the watershed community.
- Connect farm management decision-making and environmental outcomes by demonstrating the use of science-based environmental indexes that integrate soil, crop and livestock management practices into progressively improving performance scores.
- Quantify the effectiveness of this approach, document lessons learned and develop critical success factors for the use of performance-based incentives in other watersheds.

**Summary of activities and accomplishments for 2007**

The Lime Creek watershed improvement project was initiated in 2006 with a \$90,000 three year grant from the Iowa Corn Growers Association. The initial 13 cooperators received WIRB partnership support to add 12 new cooperators in 2007. Cooperators have enrolled 10,653 crop acres, the total watershed acreage is 27,039 and crop acres 22,547. Project participation is expected to increase in 2008 due to positive outcomes measured in a 2007 late summer cooperator survey – 100% recognize the performance program rewards a conservation systems approach, 93% rated the overall program an A or B on a scale of A to F, all except one believe the program encourages farmers to change management, and 77% think the program is having a positive effect on the environment – some new cooperators wish to have more time to make that judgment.

Current phosphorus soil tests were not available for a few farms for baseline year 2006, thus only seven farms had year-to-year P-index changes with 5 implementing management that reduced their risk of phosphorus loss. The Soil Conditioning Index (SCI) baseline modeling recorded a watershed field (209 fields) weighted average of 0.69, an improvement of 21% from the 0.57 average on 99 fields in 2006. More acres planted no-till, across slope planting and reduction in tillage passes reduced the loss of organic matter and soil erosion. Sediment Delivery Calculator estimates 297T/yr reduction in sediment loss and 396Lbs/yr reduction in delivery of phosphorus from cooperator fields. Cornstalk nitrate testing increased from 24 samples that averaged 2,156ppm in 2006 to 32 samples that averaged 913ppm in 2007. The optimum range is 700 to 2,000ppm. Several second year cooperators calculated manure N credits more closely and others reduced their nitrogen application rates.

The tile line bio-reactor demonstration installed in November 2006 receiving drainage from 100 acres was monitored weekly by Coe College students and staff. Early season nitrate removal was near 20%, increasing to near 90% in July and declining to 75 to 80% during the rainfall events in late August and early September. Multiple years of monitoring are planned for this nitrate management demonstration. A field day was held at the bio-reactor site prior to spring planting.

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

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

<b>Total Watershed Improvement Funds awarded for this project:</b>	<b>\$ 215,673.00</b>
<b>Total Watershed Improvement Funds spent:</b>	<b>\$ 10,684.90</b>
<b>Total Watershed Improvement Funds obligated:</b>	<b>\$ 42,900.00</b>
<b>Watershed Improvement Fund unobligated balance as of 12/31/2007:</b>	<b>\$ 162,088.10</b>

**Project objectives:**

- Improve & monitor water quality in the Little Pony Creek Watershed.
- Create public awareness of the project & water quality issues.
- Develop an educational program with Iowa School for the Deaf & ISU.

**Summary of activities and accomplishments for calendar year 2007**

The Little Pony Creek Watershed Project has made great progress in the last calendar year. Water quality monitoring continues with the IOWATER sites and USGS monitoring station. Data is submitted to the IOWATER database at the DNR IOWATER and USGS web sites. Data is also compiled and evaluated to determine changes following land use changes and the installation of Best Management Practices. An IOWATER grant was awarded to the district to purchase equipment and teaching materials for the Iowa School for the Deaf monitoring project.

Urban Best management Practices (BMP's) have been installed in the watershed. The Hills of Cedar Creek compost seeding, and bioswale project, residential rain gardens within the development and the completion of the wetland rehabilitation, bioswale and rain garden installation on the campus of Iowa School for the Deaf have all been completed. These projects all serve as wonderful demonstrations of the successful use of Urban BMP's.

Many news stories, tours, presentations and educational events have been done in the watershed and in cooperation with local groups. Iowa Secretary of Ag. Bill Northey held a media event at the ISD campus. He spoke to the group about the importance of conservation across the state and recognized West Pottawattamie Soil & Water Conservation District and Iowa School for the Deaf for their successful projects; installing practices, water monitoring and promoting and educating the public on Urban Conservation. Two ½-day seminars and one full-day conference were held at Iowa Western Community College. Presentations were given to students, staff & administration at IWCC and a demonstration/educational project area is being planned on the campus. Articles were written by the Council Bluffs Nonpareil, Neola Gazette and the NRCS Iowa Conservation Showcase about the projects in the watershed. The Hills of Cedar Creek compost and bioswale project is one of two in the state of Iowa that will be showcased in a report the EPA is compiling about the use of Urban BMP's. Presentations were given to local garden clubs, at Home and Garden Shows, and for various groups throughout the year.

2007 Watershed Improvement Fund Annual Project Progress Report

**Coldwater/Palmer Creek Watershed Incentive Program for Performance-based Environmental Management**

**Project Sponsor: Coldwater/Palmer Creek Watershed Improvement Association, Inc.**

**Length of Project: January 1, 2007 through December 31, 2009**

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

<b>Total Watershed Improvement Funds Awarded to this project:</b>	<b>\$311,594</b>
<b>Total Watershed Improvement Funds Spent:</b>	<b>\$ 54,331</b>
<b>Total Watershed Improvement Funds Obligated:</b>	<b>\$ 5,100</b>
<b>Watershed Improvement Fund unobligated balance as of 12/31/2007</b>	<b>\$252,163</b>

**Project Objectives:**

- Develop water quality awareness, knowledge, sustainable change and leadership within the watershed community.
- Connect farm management decision-making and environmental outcomes by demonstrating the use of science-based environmental indexes that integrate soil, crop and livestock management practices into progressively improving performance scores.
- Quantify the effectiveness of this approach, document lessons learned and develop critical success factors for the use of performance-based incentives in other watersheds.

**Summary of activities and accomplishments for 2007**

Pre-project assessments revealed that nitrate delivery from the Coldwater/Palmer watershed ranked in the 95<sup>th</sup> percentile for tributaries to the Cedar River that provides water to the 125,000 residents of Cedar Rapids. Major actions and results from the baseline year, supported by the Iowa Corn Grower Association (3yr-\$90,000), were 1) a 37% improvement in cornstalk nitrate concentrations, 3,231ppm (2006) to 2,041ppm (2007), and 2) second-year cooperator samples averaged 1,506ppm in 2007, 44% better than the new-cooperator sample average of 2,697ppm. Second-year cooperators utilized manure rate calibration offered by project staff and manure testing to refine manure N credits and others reduced their commercial N application rates based on their on-farm N rate strip comparison trials that are part of project implementation. The initial 23 cooperators shared a prorated \$27,000 of first year incentives, however were encouraged enough to recruit 14 new cooperators upon receiving WIRB support beginning with crop year 2007. A late summer 2007 project survey revealed 100% recognize the performance program rewards a conservation systems approach, 83% rated the overall program an A or B on a scale of A to F, all except one believe the program encourages farmers to change management, and 50% think the program is having a positive effect on the environment – some new cooperators wish to have more time to make that judgment.

The average P-index computer modeling score on 254 fields, 11,659 acres at 1.08 is in the low category with only one 4.7-acre field at 6.12 (high category). Watershed leaders recognize the contribution of P to excessive algae growth and the need to apply manure to the fields with less risk of P loss. The Soil Conditioning Index (measure of trend in organic matter) weighted baseline average is a respectable 0.39. Sediment Delivery Calculator estimates for the second year cooperator fields are 181T/yr reduction in sediment loss and 235Lbs/yr reduction in delivery of phosphorus.

The tile line bio-reactor demonstration installed in November 2006 receiving drainage from 50 acres was monitored only twice as there were very few days of tile flow during the growing season. Multiple years of monitoring are planned for this nitrate removal demonstration.

**Mill-Picayune Watershed Project  
Shelby Soil and Water Conservation District  
Length of Project: March 1, 2006 to December 31, 2008**

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

<b>Total Watershed Improvement Funds awarded for this project:</b>	<b>\$ 56,250</b>
<b>Total Watershed Improvement Funds spent:</b>	<b>\$ unknown</b>
<b>Total Watershed Improvement Funds obligated:</b>	<b>\$ unknown</b>
<b>Watershed Improvement Fund unobligated balance as of 12/31/2007:</b>	<b>\$ unknown</b>

**Project objectives:**

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**Summary of activities and accomplishments for calendar year 2007**

No report submitted. Pending submission of a final report for this project.

2007 Watershed Improvement Fund Annual Project Progress Report  
**Muchakinock Creek Watershed Project**  
**Mahaska County Soil & Water Conservation District**  
**Length of Project: March 1, 2006 – December 31, 2008**

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

<b>Total Watershed Improvement Funds awarded for this project:</b>	<b>\$500,000.00</b>
<b>Total Watershed Improvement Funds spent:</b>	<b>\$166,000.00</b>
<b>Total Watershed Improvement Funds obligated:</b>	<b>\$106,240.00</b>
<b>Watershed Improvement Fund unobligated balance as of 12/31/2008:</b>	<b>\$227,760.00</b>

**Project objectives:**

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

**Summary of activities and accomplishments for calendar year 2007**

The Mines & Minerals Bureau of the Division of Soil Conservation (DSC) in association with the Mahaska County SWCD and Pathfinders RC&D continued the process to reclaim abandoned mines in the Muchakinock Watershed in 2007. The Blom site that was planned to be completed in CY2007 fell through. The District submitted and was approved for an amendment to the WIRB board to reallocate funds to the Boender-Herbert site. The Boender-Herbert project is currently accepting bids. The partners hope to begin construction the spring of 2008. The Boender-Herbert site is expected to cost about the same as the Blom site. The Boender-Herbert sites are two smaller sites that are closer to Muchakinock Creek. The creek actually flows through a portion of the Herbert site.

Because the 2007 site fell through, the new sites will be constructed the same time as the 2008 site.

The District replaced the previous Project Coordinator in July.

The new coordinator attended the WIRB Training on September 12<sup>th</sup>, 2007.

On September 17<sup>th</sup> the District held an Annual Meeting for the Muchakinock Creek Watershed Projects. The Coordinator informed stakeholders/landowners about the 2007 accomplishments of the Project including abandoned mine reclamation.

With the turn around and Blom site falling through, no press releases were completed from July to December.

The Coordinator and Oskaloosa Alternative Schools are looking into new monitoring sites along the Muchakinock Creek. Previous sites were somewhat hazardous to reach the stream.

Approximately 20-30 stakeholders were reached using the Annual Meeting and Volunteer Monitoring.

**Project Name: Norfolk Creek Subwatershed Watershed Improvement Project**  
**Project Sponsor: Allamakee Soil and Water Conservation District**  
**Length of Project: January 1, 2007 to December 31, 2009**

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

**Total Watershed Improvement Funds awarded for this project:** \$351,150  
**Total Watershed Improvement Funds spent:** \$116,119  
**Total Watershed Improvement Funds obligated:** \$ 8,100  
**Watershed Improvement Fund unobligated balance as of 12/31/2007:** \$226,931

**Project objectives:**

- Construct three grade stabilization structures that would trap sediment from approximately 300 acres. Construct 20,000 feet of terraces impacting approximately 100 acres in high priority areas. Construct 4 sediment control basins that would trap sediment from approximately 200 acres
- Reduce pollutant delivery to Norfolk Creek by approximately 3,300 tons of sediment per year
- Conduct an information and education program to increase awareness and knowledge of Norfolk Creek water quality issues to watershed residents and the local community
- Conduct water quality sampling and record all data for comparison with sampling data collected since 2003

**Summary of activities and accomplishments for calendar year 2007**

All potential sites had the necessary GIS data generated such as soils maps, topog maps, distance to stream, distance to sinkholes, etc. One grade stabilization structures has been installed by a landowner on a site meeting the criteria. This site reduced sediment delivery by an estimated 270 t/y. One additional grade stabilization site has obligated funds and is scheduled for spring, 2008 construction. One sediment control basin has been installed by a landowner on a site meeting the criteria. This site reduced sediment delivery by an estimated 105 t/y. A total of 22,575' of terraces were constructed reducing sediment by a total of 473 t/y. These practices treated approximately 167 acres.

A news article appeared in the Waukon Standard newspaper and in the Allamakee County Soil and Water Conservation District annual report covering WIRB opportunities and accomplishments. The District's newsletter also had coverage of the Norfolk WIRB project. A brochure detailing year one WIRB accomplishments will be sent out to all landowners within Norfolk subwatershed in February 2008 and is being compiled at this time. Monthly reports were presented to commissioners at each meeting of the Allamakee SWCD. Quarterly reports were submitted to the WIRB at the appropriate times.

Weekly water quality samples were collected in Norfolk Creek as well as 11 other sites throughout Yellow River Watershed and sent to the State Hygienic Lab for analysis. Monthly samples are collected through the winter months. All data is recorded and will be used to evaluate any water quality improvements

**Project Name: Price Creek Water Quality and Erosion Control Project**  
**Project Sponsor: Iowa and Benton County Soil and Water Conservation Districts**  
**Length of Project: January 1, 2007 – December 31, 2009**

**Counties included in the project area:** Iowa and Benton counties

**Total Watershed Improvement Funds awarded for this project: \$71,075**

**Total Watershed Improvement Funds spent: \$0.00\***

**Total Watershed Improvement Funds obligated: \$15,000**

**Watershed Improvement Fund unobligated balance as of 12/31/2007: \$56,075**

\*project done but not billed yet!

**Project objectives:**

- Construct 4 grade stabilization structures, 13 acres of grassed waterways and 10 water/sediment control basins, 2,000 feet of terraces on drainage areas containing high priority erodible land.
- Reduce sediment delivery of 1,500 acres of high priority erodible land in the Price Creek Watershed and 200 feet of streambank.
- Conduct an information and education program to increase awareness and knowledge of the Price Creek water quality issues to watershed residents and the local community.

**Summary of activities and accomplishments for calendar year 2007**

The Price Creek Watershed Project was in full swing this past spring with a project coordinator being hired in late May. Project staff assisted one landowner in implementing 11.7 acres of grassed waterways this fall. These waterways treated 262 acres of crop ground and will reduce sediment and phosphorous delivery to Price Creek by an estimated 177 tons and 212 pounds per year respectively. The project was completed in December, but the bills are pending. Funding has been obligated for an additional four acres of grassed waterways, six water and sediment control basins, and one grade stabilization structure. Construction of these practices was planned for this fall but has not yet been initiated due to weather. Field staff is currently in the planning stage with ten additional landowners. WIRB as well as federal EQIP funds will be obligated to these projects after the first of the year. It should also be noted that the Price Creek Watershed Project has leveraged funding from the IDALS-DSC's WPF/WSPF program, EPA Section 319 program, and the USDA-NRCS's EQIP program to support staff as well as provide cost share for practices aimed at reducing bacteria in Price Creek. Field staff is currently working with one landowner to fence off the stream and implement rotational grazing practices.

An informational brochure was created and sent to 128 landowners and farm operators in the watershed resulting in ten one-on-one meetings with producers. A project "kickoff" meeting was held on September 10<sup>th</sup> at the Amana Community Park in Middle Amana. The event featured guest speaker Dick Schultz from Iowa State University as well as a demonstration on a solar powered livestock water pumping device. The kickoff was attended by approximately 45 landowners and project partners. Nine articles were also submitted to local media as well as County Conservation Board, NRCS, and Farm Service Agency newsletters informing the public about the project and water quality issues.

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

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

<b>Total Watershed Improvement Funds awarded for this project:</b>	<b>\$500,000</b>
<b>Total Watershed Improvement Funds spent:</b>	<b>\$ 38,048</b>
<b>Total Watershed Improvement Funds obligated:</b>	<b>\$491,742</b>
<b>Watershed Improvement Funds unobligated balance as of 12/31/2007:</b>	<b>\$ 0</b>

**Project objectives:**

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

**Summary of activities and accomplishments for calendar year 2007:**

Rathbun Land and Water Alliance members and partners developed and utilized a geographic information system (GIS) -based methodology to identify and evaluate potential locations in the Rathbun Lake watershed to place large debris basins for water quality protection. Alliance members and partners used this GIS-based methodology to identify, evaluate, and prioritize more than 40 potential sites for the construction of these basins. Potential basin sites are located below areas of priority land in the watershed on which in-field best management practices will not be applied. The principal criterion used to rank potential sites for basin construction is the estimated average annual cost per ton of reduced sediment delivery to Rathbun Lake. Use of this methodology confirmed the relative cost effectiveness of constructing debris basins at strategic locations to reduce water quality impairment caused by sediment and associated phosphorus.

Alliance members and partners assisted twenty landowners to evaluate the construction of debris basins at potential sites in the watershed. As a result, eleven landowners agreed to construct basins at twelve of these sites. The Alliance estimates that these twelve basins will reduce annual sediment and phosphorus delivery to Rathbun Lake by more than 9,000 tons and 36,000 pounds respectively. The construction of one basin is completed. The construction of four more basins is underway and will be completed in early 2008. Engineering design is being developed for an additional seven basins. Construction of these seven basins will be completed prior to the end of 2008. Alliance members and partners also continue to work with other landowners to identify and evaluate additional potential sites for debris basins in the watershed.

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



**Rathbun Lake Special Project:  
BMPs for Priority Land in Targeted Sub-Watersheds  
Rathbun Land and Water Alliance  
Length of Project: January 1, 2007 to December 31, 2009**

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

<b>Total Watershed Improvement Funds awarded for this project:</b>	<b>\$497,100</b>
<b>Total Watershed Improvement Funds spent:</b>	<b>\$ 98,572</b>
<b>Total Watershed Improvement Funds obligated:</b>	<b>\$155,652</b>
<b>Watershed Improvement Funds unobligated balance as of 12/31/2007:</b>	<b>\$242,876</b>

**Project objectives:**

- Apply best management practices for priority land that will reduce annual sediment and phosphorus delivery to Rathbun Lake by 3,300 tons and 13,300 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 activities and accomplishments for calendar year 2007:**

Rathbun Land and Water Alliance members and partners developed and used geographic information system analysis and field evaluation to identify 2,700 acres of priority land that is owned and/or farmed by 56 landowners in the targeted sub-watersheds of Lower Chariton Creek and Chariton River #3. The Alliance has assisted 20 of these landowners to plan and apply best management practices for 1,100 acres, 580 acres of which is priority land. These practices will reduce sediment and phosphorus delivery to Rathbun Lake by 1,700 tons and 7,600 pounds per year respectively. Practices most commonly planned and applied by landowners include terraces, grade stabilization structures, and water and sediment control basins. The Alliance also continued to contact 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 focused on one-on-one contacts by project staff with landowners who own and/or farm priority land in the targeted sub-watersheds. Other outreach activities completed included: Alliance's 2007 annual meeting, during which eight landowners were recognized as "Rathbun Lake Protectors" for their efforts to apply practices in the watershed; Alliance's 2007 annual report; exhibits at the Iowa State Fair and field days at Iowa State University's McNay Research Farm; "Protect Rathbun Lake" signs installed along roadways in the watershed and at public facilities around the lake; press releases distributed to print and radio media; and the Alliance's Internet site. The Alliance also completed activities associated with the water quality monitoring program for Rathbun Lake and tributaries in the lake's watershed.

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

**Saylor Creek Watershed Improvements  
Iowa Heartland Resource Conservation and Development  
Project Length: January 1, 2007 – December 31, 2009**

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

<b>Total Watershed Improvement Funds awarded for this project:</b>	<b>\$ 500,000</b>
<b>Total Watershed Improvement Funds spent:</b>	<b>\$ 39,938</b>
<b>Total Watershed Improvement Funds obligated:</b>	<b>\$ 460,062</b>
<b>Watershed Improvement Fund unobligated balance as of 12/31/2007:</b>	<b>\$ 0</b>

**Project objectives:**

Objective 1. Submit all administrative reports and budget to WIRB according to grant requirements.

Objective 2. Develop final design of Saylor Creek Watershed improvements for the entirety of the WIRB project consisting of: 1) upper channel improvements and, 2) retention pond improvements.

Objective 3. Construct Saylor Creek Watershed improvements for the entirety of the WIRB project consisting of: 1) upper channel improvements and, 2) retention pond improvements with the exception of native seeding and plantings.

**Summary of activities and accomplishments for calendar year 2007**

Final design plans for improvements for both the upper channel improvements and retention pond were completed in July 2007. All associated action items were completed, with the exception of development of a short term maintenance program, which is currently under review by the Native Planting Coordinator assigned to this project.

Contracts for this project were awarded to Jensen Construction in August 2007 (Lake and Channel Improvements), and Applied Ecological Services in October 2007 (Wetland Construction and Native Landscaping). Construction began on these improvements in early October immediately after receipt of required construction permits for wetland mitigation and dam embankment construction from the State of Iowa and U.S. Army Corps of Engineers. The majority of grading operations associated with this project have been completed, including grading of constructed wetlands, and retention pond area. Outfall construction for the two lakes is approximately 50% completed, and outfalls for the two constructed wetlands have been fully completed. Final grading of the channel improvements, installation of shoreline improvements, and construction of subsurface habitat improvements is underway and will continue through early 2008. Project operations are anticipated to be completed by May 15, 2008 for the channel improvements and areas surrounding the North Lake, and by July 1, 2008 for areas surrounding the South Lake.

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

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

<b>Total Watershed Improvement Funds awarded for this project:</b>	<b>\$ 23,000.00</b>
<b>Total Watershed Improvement Funds spent:</b>	<b>\$ 6,868.23</b>
<b>Total Watershed Improvement Funds obligated:</b>	<b>\$</b>
<b>Watershed Improvement Fund unobligated balance as of 12/31/2007:</b>	<b>\$ 16,731.77</b>

**Project objectives:**

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

**Summary of activities and accomplishments for calendar year 2007**

Seven Iowater sites were sampled monthly by the Iowater Coordinator. Five additional sites are also monitored by citizen monitors. Along with sampling monthly for trend data, some sites were monitored for rainfall effect. I also reviewed all data submitted for the last three years for correct information. I spent time cleaning up the data and improving the rainfall totals for the sites monitored through WIRB funding. Correct and consistent data is important for quality reports. With the data collected, a DNR employee summarized the data that had been collected throughout the watershed including the IOWATER monitoring data. This report was included in the Storm Lake 319 Project Final Report.

Education and information was the target for the project this year. I attended the Iowa Watersheds Conference as a guest speaker in partnership with Pat Sauer from Iowa Municipal Utilities. I gave the practical approach to stormwater management with an overview of the work completed in the Storm Lake Watershed. I highlighted the WIRB grant as our funding partner. I also visited with Bob Quinn on “The Big Show” WHO news talk radio 1040AM about importance of urban conservation. Because of this Storm Lake was featured in a series of newspaper articles and press. Bob also sought help to install a rain garden in his own back yard! He also had a link on the WHO website giving a play by play and “how to guide”. He has also started the 1040 campaign. I credit the WIRB board for this success because without pilot projects worthy of highlighting, I would not have spoken at the conference or on “The Big Show”.

I led the sixth graders from Alta through the Turnquist Riparian Buffer. We took a hay rack ride to our boulder weirs and discussed the water quality benefits of the practice. We also reviewed the different conservation practices within site, and related them to Storm Lake Water Quality. They recently had a conservation series taught by the BSWCD, so they were excellent at answering questions. By visiting the site, they are able to see first-hand what they had learned in the classroom.

**6018-010 Storm Lake Watershed  
Buena Vista Soil and Water Conservation District  
November 1, 2006 to December 31, 2007**

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

**Total Watershed Improvement Funds awarded for this project:** \$ 73,000  
**Total Watershed Improvement Funds spent:** \$ 65,700  
**Total Watershed Improvement Funds obligated:** \$ 73,000  
**Watershed Improvement Fund unobligated balance as of 12/31/2007:** \$ 0.00

**Project objectives:**

- Monitor water quality of watershed utilizing IOWATER monitoring program.
- Install demonstration and conservation practices to treat stormwater from the City of Alta.
- Develop a variety of information and education programs and correspondence.

**Summary of activities and accomplishments for calendar year 2007**

Iowater samples were taken at all sites in the watershed once a month and on rainfall events. Next year when there is no construction happening during the rain events will give an overall idea of how the watershed has improved. During rain events there was a lot of construction happening that probably affected the clarity and nutrient readings this spring and summer. Routine samples will continue to be taken as long as there is a 319 project in the watershed. Afterward the sampling will be covered by local volunteers.

The City of Alta was ready to go when approved for the project. Unfortunately it was November and we had to wait for spring to start construction. Weather affected continued efforts to complete the project. The first stage of the project was installing the drainage system. We received heavy rains this spring and fall that postponed work because it was too wet. It was summer when the final stages were completed on the infiltration basins and waterways. Weather co-operated with the construction of these, and seeding was planned for a winter broadcast seeding of buffalo grass. Once I called the seed dealer this fall for a November seeding, they recommended that the City of Alta wait because it does not survive a frost seeding. They recommended spring as the best season for buffalo grass. Once discussed the City of Alta has postponed seeding for spring.

Once it is completed and green, the City of Alta and I plan to highlight the area to local press and groups. It was a sensitive issue to spend the City's tax payer dollars on such a project, so we want to ensure it is complete and functioning. This fall the basins were working, and water quality monitoring in future years will continue to show improvements.

**Reduction Results for the Infiltration Basins:**

Basin 1 is the main basin filtering the run-off from City of Alta streets

Basin 2 is the secondary basin filtering the run-off from the sub-division, eventually industrial park completion.

Reduction of Total Suspended Solids = 15 T/yr  
Reduction of Total Nitrogen = 408 lb/yr  
Reduction of Total Phosphorus = 34 lbs/yr  
Reduction of Zinc = 41 lb/yr  
Reduction of Lead = 23 lb/yr

Reduction of Total Suspended Solids = 4.8 T/yr  
Reduction of Total Nitrogen = 130 lb/yr  
Reduction of Total Phosphorus = 10 lbs/yr  
Reduction of Zinc = 10 lb/yr  
Reduction of Lead = 6 lb/yr

**Project Name: Upper Catfish Creek Watershed Improvement Project**  
**Project Sponsor: Dubuque Soil & Water Conservation District**  
**Length of Project: January 1, 2007 to December 31, 2009**

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

**Total Watershed Improvement Funds awarded for this project: \$48,850.00**  
**Total Watershed Improvement Funds spent: \$1,323.46**  
**Total Watershed Improvement Funds obligated: \$3,700.00**  
**Watershed Improvement Fund unobligated balance as of 12/31/2007: \$31,727.54**

**Project objectives:**

- Develop urban Best Management Practice Models to protect the cold-water characteristics of the stream by reducing thermal impacts due to anticipated urban development within the watershed
- Assist Dubuque County in developing a jurisdictional policy and regulations for the Upper Catfish Creek Watershed
- Provide information and education to stakeholders within the watershed to increase awareness of Upper Catfish Creek's water quality issues

**Summary of activities and accomplishments for calendar year 2007**

While prioritizing sensitive areas in the watershed, urban landowners have expressed an interest to install several urban best management practices. Currently, we have applications for urban BMPs such as: rain gardens, native landscaping, and infiltration trenches (all slated to be installed in 2008). The Swiss Valley Nature Center has also expressed a keen interest in installing a permeable parking lot, which is to be installed in the spring of 2008. Whispering Meadows subdivision, which is the newest development in the watershed basin, has added a water-quality standard to the covenant, addressing stormwater on a lot-by-lot basis. Every lot in this subdivision will be required to have an urban best management practice. Two articles were submitted and printed in the Telegraph Herald and the Dyersville Commercial.

This past August a Septic System Workshop was organized, which roughly 40 landowners attended. At the workshop, landowners were able to apply for a \$100 septic system pumping vouchers. We had over 15 applications; 7 septic system vouchers were awarded during 2007. We also had one application for a septic system replacement, which is located in a sensitive area in the watershed. The septic system replacement is slated to be replaced in the spring/summer of 2008.

While working with Dubuque County, the Board of Supervisors has awarded MSA Professional Services (environmental consulting firm) to develop a stormwater policy document for the Upper Catfish Creek Watershed basin. MSA will begin working on this document during 2008. A completed date is yet to be determined. This type of policy will create regulations and set jurisdictional policies in the watershed, protecting the stream's cold-water characteristics, aquatic wildlife, and habitat.

**Upper Miller Creek Watershed Improvement Project  
Black Hawk Soil & Water Conservation District  
2006-2009**

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

<b>Total Watershed Improvement Funds awarded for this project:</b>	<b><u>\$68,900</u></b>
<b>Total Watershed Improvement Funds spent:</b>	<b><u>\$ 7,393</u></b>
<b>Total Watershed Improvement Funds obligated:</b>	<b><u>\$ 0.00</u></b>
<b>Watershed Improvement Fund unobligated balance as of 12/31/2007:</b>	<b><u>\$ 61,507</u></b>

**Project objectives:**

1. Administer the Upper Miller Creek Watershed Improvement Project to ensure all objectives and activities planned are implemented.
2. Conservation Information/Education, Planning, and Practice Implementation in the Upper Miller Creek Watershed.

**Summary of activities and accomplishments for calendar year 2007**

1. Administer the Upper Miller Creek Watershed Improvement Project to ensure all objectives and activities planned are implemented.

A watershed program specialist was hired in 2007 to administer the project. His duties were to meet with land owners, promote practices and use the Sediment Delivery Calculator to determine the impact of practices installed in the watershed. While quite effective in making contact with land owners and promoting practices funded by WIRB, the position is vacant again at this time. Plans are to hire another program specialist and continue to promote conservation practices and program participation in the Upper Miller Creek watershed.

A more-comprehensive watershed assessment was conducted in 2007, where GIS maps were combined with tract information to identify existing conservation practices and more effectively target producers. While only one new WIRB-funded practice was implemented in 2007, the assessment data identified a number of existing conservation practices conducted voluntarily, with no cost share support from state, federal or local funding sources.

2. Conservation Information/Education, Planning, and Practice Implementation in the Upper Miller Creek Watershed.

In 2007, the Upper Miller Creek watershed was targeted as a priority for updating existing conservation plans, as well as creating new plans for producers in the watershed. As a follow-up question when updating existing plans, staff sought feedback and worked to generate interest in additional conservation practices in the watershed. Meetings and breakfast discussions were held with members of the original advisory committee and also “new” producers in attendance. However, the response from the producers did not indicate an interest in pursuing cost share for conservation practices. Additional promotion is planned for 2008, and a new coordinator will be hired.

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

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

<b>Total Watershed Improvement Funds awarded for this project:</b>	<b>\$486,800</b>
<b>Total Watershed Improvement Funds spent:</b>	<b>\$41,071.59</b>
<b>Total Watershed Improvement Funds obligated:</b>	<b>\$32,317.72</b>
<b>Watershed Improvement Fund unobligated balance as of 12/31/2007:</b>	<b>\$413,410.69</b>

**Project objectives:**

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

**Summary of activities and accomplishments for calendar year 2007**

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

The GIS work that was held up by issues last year was fixed this year by the Dickinson County SWCD hiring a person to work this part of the project. The funds for this came from the administrative funds for WIRB. The work completed in late November 2007 was creating a shape file for impervious surfaces within the watershed areas for this project. This work was completed and is now being worked on by the Iowa DNR with watershed work they completed. All this GIS work completed will determine priority areas for the WIRB funds to be spent in over the next year.

The graduate student we have working has been working with landowners, doing site visit to determine placement of practices, designing practices and checking them for payment. He has oversight from Iowa State University Professor Dr. Stephen Jones. Our graduate student has completed or is currently work on 18 projects.

Of the 18 practices that are completed or in the design stage, only two have been for pervious pavement systems. The majority of the public is looking for a bio-retention practice such as a rain garden to infiltrate storm water. Once the priority areas are completed we will be able to focus the majority of our funds into these areas. From initial work done with the prioritization work the major of the projects will most likely be rain gardens and should make it more feasible for us to reach the goal of 100 practices.

Public awareness of storm water management is very visible throughout the community. Within the last year, the city of Spirit Lake passed ordinance requiring water quality management for storm water runoff. The County Board of Supervisors and the city of Wahpeton started discussions on similar ordinance changes. These changes require new developments to add in the practices we are cost share for through the WIRB funds.

**Viking Lake Watershed  
Page 1 Rural Water District  
Length of Project: March 1, 2006 to March 31, 2007**

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

<b>Total Watershed Improvement Funds awarded for this project:</b>	<b>\$ 58,500</b>
<b>Total Watershed Improvement Funds spent:</b>	<b>\$ unknown</b>
<b>Total Watershed Improvement Funds obligated:</b>	<b>\$ unknown</b>
<b>Watershed Improvement Fund unobligated balance as of 12/31/2007:</b>	<b>\$ unknown</b>

**Project objectives:**

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**Summary of activities and accomplishments for calendar year 2007**

No report submitted. Pending submittal of a final project report.



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

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

<b>Total Watershed Improvement Funds awarded for this project:</b>	<b>\$ 229,000</b>
<b>Total Watershed Improvement Funds spent:</b>	<b>\$ 90,300</b>
<b>Total Watershed Improvement Funds obligated:</b>	<b>\$ 17,875</b>
<b>Watershed Improvement Fund unobligated balance as of 12/31/2007:</b>	<b>\$ 120,825</b>

**Project objectives:**

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

**Summary of activities and accomplishments for calendar year 2007**

850' of streambank was stabilized and 160' of fish hides were installed on two sites. These two sites have reduced sediment delivery by an estimated 323 tons per year to Yellow River as calculated using the Sediment Delivery Calculator. Three additional stabilization sites have obligated funds but heavy late summer rains and a wet fall kept the construction from being completed. Seven more sites await funding for 2008.

One manure system was installed for 100 head of fed cattle located in the Dry Hollow Creek subwatershed. One additional site had obligated funds and was ready for construction but was delayed due to frost. Two more sites await funding for 2008.

Upland treatment practices included 64,500 feet of terraces for 24 landowners and 3 grade stabilization structures.

Grazing practices implemented in the Yellow River Watershed include 60.2 acres of prescribed grazing including 9 paddocks, 1700 feet of fencing, 3 watering facilities and brush management. These practices were implemented on 2 grazing operations.

A news article appeared in the Waukon Standard newspaper and in the Allamakee County SWCD annual report covering WIRB opportunities and accomplishments. The District's news letter also had coverage of WIRB.

Weekly water sampling at twelve sites in the Yellow River Watershed was conducted through October, with monthly sampling continuing through the winter.

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