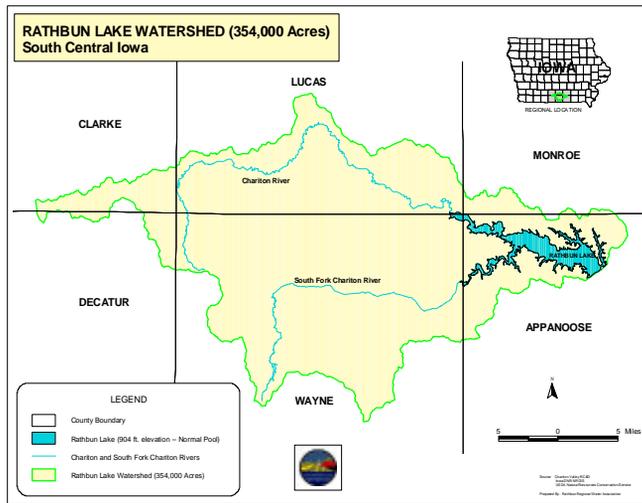


# Rathbun Lake, Iowa Watershed Initiative Nomination Proposal:

## Local Use of GIS Technology for More Effective Watershed Protection



A COOPERATIVE PROPOSAL BY THE MEMBERS AND PARTNERS OF THE  
RATHBUN LAND AND WATER ALLIANCE



OCTOBER 2002

**RATHBUN LAKE, IOWA WATERSHED INITIATIVE NOMINATION PROPOSAL:  
LOCAL USE OF GIS TECHNOLOGY FOR MORE EFFECTIVE WATERSHED PROTECTION**

**Local Project Sponsor:** Rathbun Land and Water Alliance

**Local Sponsor Contact:** Mr. John Glenn, President, Rathbun Land and Water Alliance, 16166 Hwy. J29,  
Centerville, Iowa 52544, Phone 641-647-2416, Email: [jglenn@rrwa.net](mailto:jglenn@rrwa.net) .

**NARRATIVE**

**CHARACTERIZATION OF THE WATERSHED AND OVERALL WATERSHED PLANNING EFFORT**

**Rathbun Lake**

Rathbun Lake is the primary source of water for the Rathbun Regional Water Association (RRWA). RRWA is one of the largest rural water systems in the United States and the largest system in Iowa. RRWA provides close to 6 million gallons of water daily to over 60,000 people in 18 counties and more than 40 communities in Iowa and Missouri. In addition to being an important source of drinking water, the 11,000 acre lake provides recreational opportunities for 1 million visitors annually, flood damage reduction, fish and wildlife habitat, downstream water quality improvement, storage for supplementing navigational flows, and water for the Iowa Department of Natural Resources' (DNR) Rathbun Fish Hatchery. Rathbun Lake is located on the Chariton River in south central Iowa. The US Army Corps of Engineers (ACOE) developed the lake in the late 1960s and manages the lake, associated facilities, and adjacent public land.

**Watershed Characteristics**

Rathbun Lake's watershed consists of 354,060 acres. Row crops are the principal land use with corn and soybeans the most common crops. Pasture and hayland are present on one third of the land and consist primarily of cool season grasses. Woodland is concentrated in upland drainages and lowland areas. Approximately 468 livestock operations are in the watershed. Most produce beef cattle and rely on pasture for grazing. There are 13 publicly owned areas in the watershed consisting of more than 24,000 acres.

The 6 counties in the watershed are Appanoose, Clarke, Decatur, Lucas, Monroe, and Wayne. These counties are among the least prosperous in Iowa, suffering from some of the highest poverty and unemployment rates and lowest levels of income and farm sales in the state. There are 9 communities, 857 farms, and 15,000 residents in the watershed. Almost all of the residents in the watershed rely on Rathbun Lake for their drinking water. The Rathbun Lake watershed is presented in Map 1 in Appendix III.

### **Sources of Water Quality Impairment**

**Priority Water Resource Problems in the Rathbun Lake Watershed:** The Rathbun Land and Water Alliance and its partners have developed and assembled information which indicates that water quality in Rathbun Lake is impaired primarily by agricultural sources of water pollution in the lake's watershed:

- The Iowa DNR's assessment of levels of use impairment for lakes and streams indicates that Rathbun Lake and water resources in its watershed are impacted by agricultural nonpoint sources of pollution.
- Rathbun Lake is a high priority water body on the US Environmental Protection Agency's (EPA) "Section 303(d) List of Impaired Waters in Iowa", due to high levels of atrazine. Four other water bodies in the watershed are also listed due to high levels of sediment, nutrients, and atrazine. Recently the Iowa DNR has considered listing more water bodies in the watershed due to low dissolved oxygen.
- Water quality monitoring indicates that turbidity, significant suspended solids, and high nutrient and pesticide loading pose a threat to Rathbun Lake's ability to support its water supply, recreational, and habitat uses. The ACOE reports that the lake may someday be unable to assimilate continued loading of silt, nutrients, and pesticides unless the flow of these pollutants from the watershed is reduced.
- Sediment studies conducted by the ACOE indicate that Rathbun Lake has lost a considerable portion of its sediment storage due to excessive erosion of land in the watershed and on the shoreline. The studies have determined that sedimentation has occurred at a rate that is up to 3 times faster than that originally anticipated for the lake.

**Rathbun Lake Watershed Assessment:** The Alliance has completed a watershed assessment for Rathbun Lake. In preparing the assessment, the Alliance developed and utilized applications of geographic information system (GIS) technology to evaluate sub-watersheds in terms of sources of water quality impairment in the lake. In addition to being the most comprehensive analysis of its type for a watershed the size of Rathbun Lake's in Iowa, the assessment demonstrates the effectiveness of GIS for watershed protection planning and is considered a model approach for the state. The assessment determined that:

- The relative amounts of sediment from soil erosion on agricultural land that are carried in runoff to the lake are very high in 6 and high in 17 sub-watersheds. See Map 2 in Appendix III.
- The relative amounts of phosphorus carried in runoff from agricultural land to the lake are very high in 11 and high in 21 sub-watersheds. Nitrogen in runoff is very high in 7 and high in 23 sub-watersheds. The amount of atrazine carried in runoff is high in 25 sub-watersheds. See Maps 3 to 5 in Appendix III.
- Riparian conditions in 13 sub-watersheds are highly deteriorated. See Map 6 in Appendix III. Livestock use is the primary factor contributing to these degraded conditions. Deteriorated riparian zones are less effective at filtering runoff and are potential sources of eroded soil and livestock wastes.
- The potential for livestock operations to impair water quality is high in 15 sub-watersheds. See Map 7 in Appendix III. Most operations rely on pasture for grazing with little or no confinement of animals.
- Important non-agricultural sources of water quality impairment include severely eroding shoreline areas that contribute significant sediment to the lake and aged and failing septic systems in the watershed.

The Alliance has used assessment results to develop a watershed management approach to protect water quality in Rathbun Lake. This approach relies on GIS as a decision-making aid to help ensure that the Alliance and its partners make the most effective use of their resources to accelerate the application of best management practices (BMPs) in sub-watersheds targeted for having a high to very high potential for sediment, farm chemicals, activities in riparian zones, and livestock operations to impair water quality.

## **Watershed Plan Goal, Objectives, and Activities Underway**

**Watershed Plan Goal:** The goal of the Alliance's watershed protection activities is to achieve and maintain a level of water quality in Rathbun Lake that fully supports the lake's multiple uses.

**Watershed Plan Objectives:** The Alliance will pursue the targeted sub-watershed approach presented in the watershed assessment to accomplish this goal. This approach uses the Alliance's GIS capabilities to:

- Prioritize sources of water quality impairment within targeted sub-watersheds including farmland with high rates of sediment and chemical delivery, deteriorated riparian zones, and livestock operations;
- Identify and plan BMPs that are most cost effective at addressing pollution from these priority sources;
- Secure the technical and financial resources required to implement planned BMPs;
- Assist farmers, residents, and public agencies to accelerate the application of BMPs; and
- Monitor and evaluate the effectiveness of BMPs to improve and protect water quality in Rathbun Lake.

**Activities Underway to Protect Water Quality in Rathbun Lake:** The Alliance and its partners have undertaken water quality protection activities that will complement the Watershed Initiative project including:

- Field scale demonstrations of BMPs for cropland, grassland, woodland, and livestock operations and accompanying educational activities for farmers and residents in the watershed.
- Development of Total Maximum Daily Load (TMDL) requirements and implementation of associated water quality protection projects for Bob White Lake and Corydon Reservoir in the watershed.
- Restoration of more than 8,000 acres of wetland and riparian habitat on private and public land in the Chariton River corridor upstream and downstream from Rathbun Lake.
- Development of markets for farm products such as value-added beef and biomass for energy generation that encourage land use in the watershed that is protective of water quality.
- The Rathbun Lake Watershed Protection Center that RRWA plans to construct to educate the public about the lake and water quality issues. Proceeds from the Center will support watershed protection.

## DESCRIPTION OF PROPOSED WATERSHED INITIATIVE PROJECT ACTIVITIES

### Proposed Watershed Initiative Project Activities

**Accelerate the Application of BMPs in Targeted Sub-Watersheds:** The Alliance will accelerate the application of BMPs to address sources of water quality impairment in targeted sub-watersheds. The watershed assessment and GIS analysis described below will guide the application of BMPs. Financial support from the Watershed Initiative will enable farmers in the watershed to apply BMPs during the 3 years of the project that would otherwise require at least 10 years with existing sources of assistance. As many as 125 farmers will apply these BMPs. The BMPs will decrease the delivery of sediment and associated chemicals to Rathbun Lake from 5,500 acres of land by more than 60%, or 10,000 tons per year, and will reduce the impact of livestock on water quality. The BMPs that farmers will apply in targeted sub-watersheds are identified in the project budget in Appendix I. The total estimated cost to apply these BMPs is \$996,625. This proposal requests \$523,738 in Watershed Initiative funds to share this cost. The balance of \$472,887 will be provided by farmers and soil and water conservation districts (SWCDs).

**GIS-Assisted BMP Selection and Evaluation:** The Alliance's use of GIS for the Rathbun Lake watershed assessment revealed the technology's potential to greatly improve local planning, selection, and evaluation of BMPs in targeted sub-watersheds. The Alliance will capitalize on this potential by using GIS to:

- Identify the areas of land in sub-watersheds targeted by the assessment that are the primary sources of sediment, chemicals, and livestock wastes that impair water quality in Rathbun Lake and on which BMPs should be applied. Map 8 in Appendix III illustrates this use of GIS to identify priority areas.
- Select and evaluate BMPs that achieve the most cost effective reduction in the amounts of these contaminants delivered to Rathbun Lake. GIS will use cost information and tools such as Iowa's Soil Erosion and Sediment Delivery Procedure and the Phosphorus Index to select and evaluate BMPs.

RRWA has committed the \$39,062 in staff and related expenses required for this GIS assistance.

**Water Utility's Role in Watershed Protection: Watershed Protection Enhancement Agreements:** The Alliance proposes a unique partnership between the region's water utility, RRWA, and farmers in the watershed. Watershed protection enhancement agreements between farmers and RRWA will provide financial incentives to encourage farmers to apply BMPs that complement those implemented through available state and federal programs. As many as 90 farmers will enter into watershed protection enhancement agreements with RRWA. RRWA has committed \$75,000 for the financial incentives.

**Market-Based Watershed Protection: Profitable Forage and Livestock Production:** The Alliance will demonstrate forage and livestock production practices that are profitable and protective of water quality. Practices will include management alternatives for riparian areas, pasture renovation, extended and rotational grazing systems, and livestock watering systems. Demonstrations, field days, and workshops will be held on private farms and Iowa State University's (ISU) McNay Research Farm in the watershed. As many as 180 farmers will participate in the field days and workshops. The total estimated cost for the demonstrations is \$60,500. This proposal requests \$31,200 in Watershed Initiative funds to share this cost. Farmers, ISU, Farm Bureau, and SWCDs will contribute \$29,300 in funds, staff, and equipment.

**Rathbun Lake Water Quality Monitoring Program:** The Alliance and its partners conduct water quality monitoring for sediment, pesticides, nutrients, and bacteria in Rathbun Lake and its tributaries. The DNR also conducts aquatic ecosystem monitoring in the lake and watershed. These monitoring efforts are used to assess water quality conditions and to help plan, apply, and evaluate the effectiveness of BMPs. The Alliance and the DNR will continue their monitoring programs during and following the Watershed Initiative project. The Alliance and its partners have committed \$266,862 in staff, materials, and funds for water quality monitoring. The DNR will commit \$225,000 for aquatic ecosystem monitoring during the project.

**Project Management and Technical Assistance:** The Alliance's board of directors will provide direction and oversight for the project. A team of 3 professional staff will be assigned to manage project activities

and deliver assistance to farmers. The total estimated cost for project management and technical assistance is \$344,510. This proposal requests \$65,114 in Watershed Initiative funds to share this cost. RRWA and the Iowa Department of Agriculture and Land Stewardship's Division of Soil Conservation (IDALS DSC) have committed the balance of \$279,396 in staff and related expenses.

**Schedule for Proposed Project Activities**

The Alliance and its partners are prepared to proceed immediately with the Watershed Initiative project.

The Alliance proposes to complete the project during the 3-year period from June 2003 to May 2006.

<b>Proposed Project Activities</b>	<b>Anticipated Schedule for Completion</b>
Accelerate the application of BMPs in targeted sub-watersheds	BMP application with farmers will continue during most of the project.
GIS-assisted BMP selection and evaluation	The use of GIS to support BMP application will be ongoing during most of the project.
Development of watershed protection enhancement agreements	Agreements will be developed to support BMP application during most of the project.
Demonstration of profitable forage and livestock production practices	Demonstrations will be conducted throughout the project. Field days and workshops will be held at least quarterly.
Rathbun Lake water quality monitoring program	Monitoring will consist of monthly and event sample collection and analysis during the project.
Outreach activities	Field visits and small group meetings will be conducted throughout the project. Articles and Internet posting will be completed monthly.
Project management and technical assistance	Alliance will meet at least quarterly to review project activities. Staff will provide daily management and technical assistance throughout the project.
Communication with EPA regional contact	Alliance and staff will communicate at least monthly with the EPA regional contact to review project activities and ensure compliance with quality assurance/control and peer review requirements.
Prepare and submit project reports	Quarterly project performance and financial reports as well as the project final report will be prepared, submitted, and distributed as required.

### **Measures of Success, Monitoring, and Evaluation for Proposed Project Activities**

The accomplishment and impact of project activities will be measured in terms of the application and effectiveness of BMPs and the completion of supporting activities. Specifically:

**Application of BMPs in the Targeted Sub-Watersheds:** Progress will be assessed by comparing the number and types of BMPs implemented during the project with those proposed. Farmers will also evaluate assistance provided for BMP application as well as the cost and performance of BMPs.

**GIS Evaluation of BMP Effectiveness:** GIS will be used to estimate the reduction in contaminants such as sediment and chemicals delivered to Rathbun Lake as a measure of the effectiveness of BMPs. Alliance members and partners will also assess the usefulness of GIS to plan, select, and evaluate BMPs.

**Water Quality Monitoring Results:** Results from water quality monitoring efforts will be assessed for their value in planning and evaluating the effectiveness of BMPs. In addition, the results will also be used to determine the need for modifications to the monitoring activities that will improve their usefulness.

**Outreach Activities:** The number of individuals reached during farm visits, small group meetings, field days, and workshops will be compared with the number anticipated. Participants will provide feedback to evaluate and improve these activities. The Alliance will track access to its Internet site and the number of articles in newsletters, newspapers, farm magazines, and final reports distributed.

### **Compatibility of Proposed Project Activities with Other Federal and State Programs**

The Watershed Initiative project will accelerate the application of BMPs and supporting outreach activities to protect water quality in Rathbun Lake. Project activities are compatible with other federal and state programs that support water quality protection efforts for Rathbun Lake. These programs include the Iowa Nonpoint Source Management Program, Iowa Unified Watershed Assessment, Iowa Source Water Protection Program, and Iowa Total Maximum Daily Load (TMDL) Development Program. Watershed Initiative project activities will enhance the impact of the Iowa Watershed Protection Program, the US EPA's Section 319 Program in Iowa, and the Iowa DNR's Private Lands Program that are important sources of

assistance for BMP application in the watershed. Special mention should be made that Watershed Initiative project activities, particularly the use of GIS to identify priority areas that require BMPs, will complement and aid the effective delivery of USDA Farm Bill programs including the Environmental Quality Incentives Program and Conservation Reserve Program to protect water quality in Rathbun Lake.

### **Description of Watershed Initiative Project Management and Stakeholder Involvement**

**Rathbun Land and Water Alliance:** The Alliance's board of directors will provide direction and oversight to the Watershed Initiative project. Alliance members include the SWCDs and county governments in the watershed as well as RRWA. The Alliance's ability to implement the Watershed Initiative project is demonstrated by its success in undertaking the water quality protection efforts described on page 4. The Alliance is organized as a nonprofit corporation. A team of 3 professional staff will be assigned by Alliance members and partners to manage and conduct project activities. The staff has more than 15 years of combined experience managing projects to protect water quality in Rathbun Lake.

**Participation and Contribution of Alliance Members and Partners:** Thirty-three Alliance members and partners have committed funds, staff, and other support to ensure the success of the Watershed Initiative project. These commitments are described in the project budget in Appendix I and letters in Appendix II.

### **DESCRIPTION OF OUTREACH ACTIVITIES**

#### **Strategy for Transferring Project Knowledge and Accomplishments**

**Rathbun Land and Water Alliance Internet Site:** The Alliance frequently receives requests for information regarding its water quality protection efforts. The Alliance has established and maintains an Internet site at [www.rlwa.org](http://www.rlwa.org) that has proven to be an effective method of providing information about its activities. The Alliance will regularly post information about the Watershed Initiative on its Internet site as a means of sharing project knowledge and accomplishments. Alliance members and Farm Bureau have committed \$3,600 in funds to support the Internet site.

**Rathbun Lake Watershed Initiative Project Final Report:** The Alliance also makes effective use of high quality, printed fact sheets to provide information regarding its water quality protection activities. The Alliance proposes to prepare a full color, multi-page final report that will describe the accomplishments of the Rathbun Lake Watershed Initiative project. This report will be distributed in response to requests for project related information. Farm Bureau has committed the \$2,000 in funds required for the report.

### **Public Information and Outreach**

**Farm Visits and Small Group Meetings:** A survey of farmers in the watershed conducted by the Alliance found that personal contact was the most helpful method to obtain information. As such, the Alliance will make extensive use of individual farm visits and local meetings with small groups of farmers to inform and educate them about the project and water quality protection. As many as 150 farmers will be reached through these visits and meetings. Additional activities to inform and educate farmers in the watershed will include articles in the RRWA and SWCD's newsletters, local newspapers, and farm magazines.

**On-Farm Demonstrations, Field Days, and Workshops:** As described on page 6, the Alliance will conduct demonstrations of forage and livestock production practices that are profitable and protective of water quality. The demonstrations, field days, and workshops will reach as many as 180 farmers.

**Rathbun Lake Watershed Protection Center:** A primary purpose of the Center described on page 4 will be to educate visitors and residents about Rathbun Lake and efforts to protect the lake's water quality. The Center will utilize presentations by well-trained and knowledgeable staff and high quality, interactive exhibits for public education. Visitation to the Center is estimated at as many as 50,000 people annually. Mention should be made again that proceeds from the Center's operation will be used exclusively to support watershed protection activities. The Center is expected to be completed and operational in 2005.

# APPENDIX I

## Project Budget

**APPENDIX I Project Budget: Estimated Costs for Proposed Project Activities**

The budget on pages A-1 to A-4 presents the estimated costs for project activities during the proposed 3-year project period. The budget on page A-5 presents project costs by object class category for the proposed 3-year project period.

<b>Proposed Project Activities</b>	<b>Total Costs</b>	<b>Watershed Initiative</b>	<b>Alliance and Partners</b>	<b>Notes to the Project Budget <sup>a</sup></b>
Accelerate the Application of Best Management Practices (BMPs) in Targeted Sub-Watersheds:				
Terrace System Installation	\$240,000	\$168,000	\$72,000	80,000 feet of terraces on 570 acres x \$3 per foot; farmers and SWCDs will provide funds as non-federal match.
Grade Stabilization Structures	262,500	183,750	78,750	25 structures controlling 1,125 acres x \$10,500 per structure; farmers and SWCDs will provide funds as non-federal match.
Water and Sediment Control Basins	70,000	49,000	21,000	20 basins controlling 400 acres x \$3,500 per basin; farmers and SWCDs will provide funds as non-federal match.
Integrated Crop Management	42,000	29,400	12,600	700 acres x \$20 per acre x 3 years; farmers will provide funds as non-federal match; practices will include spring nitrate test, fall stalk test, crop scouting, and soil tests.
Pasture and Hayland Planting	56,000	39,200	16,800	Conversion of 400 acres of marginal cropland x \$140 per acre; farmers and SWCDs will provide funds as non-federal match.
Grassed Waterways	21,125	14,788	6,337	5 acres of waterways x \$4,225 per acre; farmers and SWCDs will provide funds as non-federal match; practice will demonstrate alternative techniques for more effective waterway installation and operation.

Additional Notes to the Project Budget:

<sup>a</sup> Acronyms for Alliance members and partners: SWCDs: Soil and Water Conservation Districts' state cost share funds.

**APPENDIX I Project Budget: Estimated Costs for Proposed Project Activities continued**

<b>Proposed Project Activities</b>	<b>Total Costs</b>	<b>Watershed Initiative</b>	<b>Alliance and Partners</b>	<b>Notes to the Project Budget <sup>a</sup></b>
Accelerate the Application of Best Management Practices (BMPs) in Targeted Sub-Watersheds:				
Critical Land Grass Filters	44,000	39,600	4,400	100 acres x \$440 per acre includes establishment costs and incentive payment; farmers will provide funds as non-federal match; consists of conversion of critically located cropland to grass with a minimum 5-year maintenance period.
Riparian Forest Buffers and Filter Strips	70,000		70,000	200 acres x \$350 per acre; farmers and USDA Continuous Conservation Reserve Program will share the costs for installation of the riparian forest buffers and filter strips.
Planned Grazing Systems	176,000		176,000	800 acres x \$220 per acre; farmers and USDA Environmental Quality Incentives Program will share the costs for application of planned grazing systems; systems include pasture improvement and paddock development practices.
Livestock Waste Management System	15,000		15,000	1 system x \$15,000 per system; farmer and USDA Environmental Quality Incentives Program will share the cost for installation of the livestock waste management system.
GIS-Assisted BMP Selection and Evaluation:				
GIS Specialist	39,062		39,062	0.20 FTE x \$31.30 per hour salary, benefits, and travel x 3 years; RRWA will provide staff and expenses as non-federal match.

Additional Notes to the Project Budget:

<sup>a</sup> Acronyms for Alliance members and partners: USDA: United States Department of Agriculture; RRWA: Rathbun Regional Water Association.

**APPENDIX I Project Budget: Estimated Costs for Proposed Project Activities continued**

<b>Proposed Project Activities</b>	<b>Total Costs</b>	<b>Watershed Initiative</b>	<b>Alliance and Partners</b>	<b>Notes to the Project Budget <sup>a</sup></b>
Watershed Protection Enhancement Agreements:				
Financial Incentives for BMP application	75,000		75,000	\$25,000 per year x 3 years; RRWA will provide funds as non-federal match.
Demonstration of Profitable Forage and Livestock Production Practices:				
Practice Installation and Management	42,800	27,800	15,000	8 field scale demonstrations x \$5,350 in funds, equipment, and staff per demonstration; farmers and ISU will provide equipment and staff as non-federal match.
Field Days and Workshops	17,700	3,400	14,300	18 field days and workshops x \$400 per event; \$3,500 per year x 3 years ISU staff support; Farm Bureau, ISU, SWCDs, and PF will provide funds and staff as non-federal match.
Rathbun Lake Water Quality Monitoring Program:				
Sample collection and analysis	491,862		491,862	\$88,954 per year x 3 years; ACOE, RRWA, ISU, and DNR will provide funds, equipment, and staff as non-federal match; consists of monthly and event monitoring at 19 sites; also includes \$225,000 for DNR aquatic ecosystem monitoring.

Additional Notes to the Project Budget:

<sup>a</sup> Acronyms for Alliance members and partners: RRWA: Rathbun Regional Water Association; ISU: Iowa State University; SWCDs: Soil and Water Conservation Districts; PF: Pheasants Forever; ACOE: US Army Corps of Engineers; DNR: Iowa Department of Natural Resources.

**APPENDIX I Project Budget: Estimated Costs for Proposed Project Activities continued**

<b>Proposed Project Activities</b>	<b>Total Costs</b>	<b>Watershed Initiative</b>	<b>Alliance and Partners</b>	<b>Notes to the Project Budget <sup>a</sup></b>
Project Management and Technical Assistance:				
Environmental Management Specialist	52,042		52,042	0.20 FTE x \$41.70 per hour salary, benefits, and travel x 3 years: RRWA will provide staff and expenses as non-federal match.
Environmental Specialist	162,240		162,240	1.0 FTE x \$26 per hour salary and benefits, and x 3 years: IDALS DSC will provide staff and expenses as non-federal match.
Environmental Specialist	130,228	65,114	65,114	1.0 FTE x \$20.87 per hour salary, benefits, and travel x 3 years: RRWA will provide staff and expenses as non-federal match.
Outreach Activities:				
Alliance Internet Site	3,600		3,600	\$100 per month x 3 years; Farm Bureau and CVRED will provide funds as non-federal match; Internet site hosting and updates.
Watershed Initiative Project Final Report	2,000		2,000	5,000 copies x \$40 per 100 copies; Farm Bureau will provide funds as non-federal match; consists of the publication of a full color, multi-page final report.
<b>Totals</b>	<b>\$2,013,159</b>	<b>\$620,052</b>	<b>\$1,393,107<sup>b</sup></b>	

Additional Notes to the Project Budget:

- <sup>a</sup> Acronyms for Alliance members and partners: RRWA: Rathbun Regional Water Association; IDALS DSC: Iowa Department of Agriculture and Land Stewardship's Division of Soil Conservation; CVRED: Chariton Valley Rural Economic Development.
- <sup>b</sup> Commitments of funds, staff, and additional in-kind support from the Alliance and its partners is estimated at \$961,857. This amount exceeds the minimum match requirement for the Watershed Initiative of 25% of the total proposed project cost. The amount of commitment from the Alliance and its partners does not include the funds provided for BMPs from the USDA's Environmental Quality Incentives Program and Continuous Conservation Reserve Program or the federal aid funds for the DNR aquatic ecosystem monitoring.

**APPENDIX I Project Budget: Estimated Costs by Object Class Category**

The budget on page A-5 presents the estimated costs for project activities by object class category for the proposed 3-year project period.

<b>Object Class Categories</b>	<b>Federal (Watershed Initiative)</b>	<b>Non-Federal (Alliance and Partners)</b>	<b>Other Federal <sup>a</sup></b>	<b>Totals</b>
Personnel	\$46,956	\$265,516		\$312,472
Fringe Benefits	12,168	64,634		76,802
Travel	5,990	10,808		16,798
Equipment		3,000		3,000
Supplies	3,400	3,800		7,200
Contractual	551,538	614,099	\$431,250	1,596,887
Construction				
Other				
Total Direct Charges	620,052	961,857	431,250	2,013,159
Indirect Charges				
Totals	\$620,052	\$961,857	\$431,250	\$2,013,159

Notes to the Project Budget:

<sup>a</sup> Funds provided from the USDA's Environmental Quality Incentives Program and Continuous Conservation Reserve Program to share the costs of applying BMPs with farmers and Federal Aid to Fish Restoration Program for the DNR aquatic ecosystem monitoring.

# APPENDIX II

Letters of Commitment From Project Partners

## APPENDIX II Letters of Commitment from Project Partners

This appendix includes letters of commitment and support from the following project partners:

- Rathbun Land and Water Alliance
- Rathbun Regional Water Association
- Iowa Department of Agriculture and Land Stewardship's Division of Soil Conservation
- Appanoose Soil and Water Conservation District
- Clarke Soil and Water Conservation District
- Decatur Soil and Water Conservation District
- Lucas Soil and Water Conservation District
- Monroe Soil and Water Conservation District
- Wayne Soil and Water Conservation District
- USDA Natural Resources Conservation Service Appanoose County
- USDA Natural Resources Conservation Service Clarke County
- USDA Natural Resources Conservation Service Decatur County
- USDA Natural Resources Conservation Service Lucas County
- USDA Natural Resources Conservation Service Monroe County
- USDA Natural Resources Conservation Service Wayne County
- US Army Corps of Engineers
- Appanoose County Farm Bureau
- Clarke County Farm Bureau
- Decatur County Farm Bureau
- Lucas County Farm Bureau
- Monroe County Farm Bureau
- Wayne County Farm Bureau
- Iowa Farm Bureau Federation
- Iowa Department of Natural Resources Fisheries Bureau
- Iowa Department of Natural Resources Geological Survey Bureau
- Iowa Department of Natural Resources Wildlife Bureau
- Iowa State University Ecology, Evolution, and Organismal Biology
- Iowa State University Cooperative Extension
- Iowa State University McNay Research and Demonstration Farm
- Chariton Valley Rural Economic Development
- Pheasants Forever Wayne County Chapter
- ADLM Counties Environmental Health
- Wayne County Sanitarian



# RATHBUN LAND & WATER ALLIANCE

*Fostering a Voluntary Approach Driven by Landowners, Water Users, and  
Public and Private Organizations to Protect and Enhance Land, Water, and  
Economic Resources in the Rathbun Region.*

October 29, 2002

The Honorable Tom Vilsack  
Office of the Governor  
State Capitol  
Des Moines, IA. 50319

Dear Governor Vilsack:

On behalf of the members and partners of the Rathbun Land and Water Alliance, I would like to submit for your consideration the accompanying ***Rathbun Lake, Iowa Watershed Initiative Nomination Proposal***. Enclosed with this letter please find two (2) copies of the proposal in electronic format on compact disk and two (2) unbound paper copies in accordance with the Watershed Initiative proposal submittal guidelines.

The Alliance and our partners have developed a practical, action oriented proposal that will have a significant positive impact on water quality in Rathbun Lake. Alliance members and partners have committed the funds, staff, and additional in-kind support that, together with the financial assistance being requested from the Watershed Initiative, will ensure the success of the Rathbun Lake proposal. Featured components of the Rathbun Lake proposal include:

- Accelerated application of best management practices in the watershed. Farmers in the watershed and local soil and water conservation districts will share the costs with Watershed Initiative funds to apply practices that improve and protect water quality in Rathbun Lake.
- Geographic information system (GIS) analysis. The Alliance and our partners will provide the funds and staff to perform GIS analysis to identify priority land in the watershed and improve the effectiveness of best management practices to protect water quality.
- Water quality monitoring. The Alliance and partners will also provide the funds and staff to continue monitoring water quality in Rathbun Lake and its tributaries. The monitoring results will be used to assess water quality conditions and to help plan, apply, and evaluate the effectiveness of best management practices.

- Public outreach activities. Educational activities that will be conducted by the Alliance and our partners will include on-farm demonstrations of best management practices, field days, workshops, individual farm visits, local meetings with small groups of farmers, and the regular posting of project information on the Alliance's Internet site at [www.rlwa.org](http://www.rlwa.org).

The Alliance and our partners are confident that you will agree that the Watershed Initiative is an excellent opportunity to combine state, federal, and local resources to improve and protect water quality in Rathbun Lake. We would like to respectfully request that you consider selecting the Rathbun Lake proposal as one of Iowa's candidate projects for the Watershed Initiative.

Please contact me with any questions or for more information related to the accompanying *Rathbun Lake, Iowa Watershed Initiative Nomination Proposal*. Your consideration and support will be greatly appreciated.

Sincerely,



John Glenn  
President

October 28, 2002

The Honorable Tom Vilsack  
Office of the Governor  
State Capitol  
Des Moines, IA. 50319

Dear Governor Vilsack:

Please let me begin by expressing to you Rathbun Regional Water Association's appreciation for the strong support and assistance that you and your staff have provided to projects and activities related to Rathbun Lake such as the Honey Creek Destination Park.

Rathbun Regional Water Association is excited about our participation in yet another important Rathbun Lake project, the Rathbun Land and Water Alliance's Rathbun Lake Watershed Initiative proposal. As I believe you know, Rathbun Lake is the primary source of water for the Rathbun Regional Water Association. We consider the Watershed Initiative an exceptional opportunity to help farmers in the Rathbun Lake watershed accelerate the application of best management practices that will improve and protect water quality in the lake.

The purpose of this letter is to describe Rathbun Regional Water Association's commitment of funds and staff to help ensure the success of the Rathbun Lake Watershed Initiative proposal. Specifically, Rathbun Regional Water Association will commit the following resources. The important role of these contributions is more fully described in the proposal:

- Professional staff to conduct geographic information system (GIS) analysis in support of local watershed protection efforts. The estimated value of this in-kind staff assistance is \$39,062.
- Financial incentives to encourage farmers to apply best management practices that enhance watershed protection. As much as \$75,000 in funds will be provided for these financial incentives.
- Financial support in the amount of \$25,815 annually or a total of \$77,445 for the water quality monitoring program in Rathbun Lake and its tributaries.

- Professional staff required to perform the day-to-day project management and provide technical assistance to farmers in the watershed. The estimated value of this in-kind staff support is \$117,156.

I would also like to mention Rathbun Regional Water Association's commitment to secure the funds to build, own, and operate the Rathbun Lake Watershed Protection (Lighthouse) Center, a related project at Rathbun Lake with which you may be familiar. The Center will be located on public land at Rathbun Lake and will be dedicated to educating visitors and residents about the lake, water quality, and other important regional resources. We believe that the Center will be a perfect complement to the Honey Creek Destination Park at Rathbun Lake. Rathbun Regional Water Association has pledged the proceeds from the operation of the Center to support Rathbun Lake watershed protection efforts. We are hopeful that the Center can be completed and operational in 2005.

Once again, I would like to thank you for your support. I would also like to respectfully request that you consider selecting Rathbun Lake as one of Iowa's candidate watersheds for the Watershed Initiative.

Please do not hesitate to contact me with any questions or for additional information regarding Rathbun Regional Water Association's commitment to the Rathbun Lake Watershed Initiative proposal.

Sincerely,

A handwritten signature in black ink, appearing to read "John Glenn", with a long horizontal flourish extending to the right.

John Glenn  
Executive Director



# IOWA DEPARTMENT OF AGRICULTURE AND LAND STEWARDSHIP

PATTY JUDGE  
SECRETARY OF AGRICULTURE

October 28, 2002

John Glenn, President  
Rathbun Land and Water Alliance  
16166 Hwy. J29  
Centerville, IA 52544

Dear John:

In a recent meeting with representatives of the Rathbun Land and Water Alliance we discussed the commitment of the Division of Soil Conservation to ongoing activities in the Rathbun watershed. Currently, we fund one fulltime staff person, Vince Sitzman, for activities in the watershed that are designed to improve water quality for the lake. Though I cannot predict the level of funding that the Division might receive in the coming Legislative session, it would be the intention of this agency to continue with staffing of the position in the future.

It is always a pleasure to partner with active groups such as yours for watershed improvement. The dedication that your leadership has shown over the years and the investment you have made clearly demonstrates your commitment to what we perceive to be a common interest, improved water quality in Rathbun Lake.

Sincerely,

A handwritten signature in cursive script that reads "William A. Ehm".

William A. Ehm, Director  
Division of Soil Conservation

**Appanoose County Soil and Water Conservation District**

**501 North 12<sup>th</sup> Street**

**Centerville, IA 52544**

**(641) 856-3893**

***Leon Kauzlarich***

***Ron Turk***

***Sharon Redinbaugh***

***Carl Miller***

***Charles Deatsch***

October 23, 2002

Mr. John Glenn  
President  
Rathbun Land and Water Alliance  
16166 Hwy. J29  
Centerville, Iowa 52544

Dear Mr. Glenn,

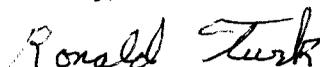
It has come to our attention that the Rathbun Land and Water Alliance is sponsoring an application for the Rathbun Lake Watershed Initiative Project. The Appanoose Soil and Water Conservation District (SWCD) fully supports this project and views it as a tremendous opportunity to further the protection of our most valuable water resource, Rathbun Lake.

To assist with achieving maximum benefits from this project, our SWCD will prioritize available state cost share funds for best management practices located in the Rathbun Lake Watershed Initiative project area. In addition, we will commit technical assistance to support the application of conservation practices with landowners participating in the Watershed Initiative.

Finally, we pledge \$200 of financial support to the Rathbun Land and Water Alliance for information and outreach activities associated with the Watershed Initiative proposal. Combined with financial support from other partners, these information and outreach activities will inform landowners and water users about current water quality protection efforts underway.

Please feel free to contact me if you have any questions concerning our commitment to this project. We look forward to working with you and the Alliance on the Rathbun Watershed Initiative.

Sincerely,



Ronald Turk  
Vice-Chair, Appanoose SWCD

An Equal Opportunity Provider and Employer

**CLARKE COUNTY SOIL AND WATER CONSERVATION DISTRICT**

709 FURNAS DRIVE, SUITE 3

OSCEOLA, IA 50213-0425

641/342-2917

FAX 641/342-2278

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October 24, 2002

John Glenn, President  
Rathbun Land & Water Alliance  
16166 Hwy J29  
Centerville, IA 52544-8037

Dear Mr. Glenn:

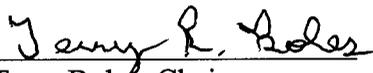
The Clarke County Soil and Water Conservation District would like to commend the Rathbun Land & Water Alliance for their efforts to protect the natural resources in the Rathbun Lake Watershed. Your application to the EPA for the Watershed Initiative is another step that will help to bring improved water quality to a lake that serves a very large and important part of the state.

The Clarke SWCD supports the implementation of Best Management Practices (BMPs) and is willing to commit financial and technical assistance towards the Rathbun Watershed. Recently, the District hosted a locally led meeting to help set priorities within the county. Water quality was the top resource issue named at this public gathering, helping to solidify the District's commitment to projects such as yours.

The District is willing to target information, education, and outreach activities toward the watershed landowners, operators, and water users to keep them abreast of the water quality concerns and protection efforts being taken. Having the latest GIS technology available to your project will help communicate this information as well as help to set priorities within the watershed assuring cost effectiveness.

The Clarke District supports the Watershed Initiative proposal and looks forward to cooperating with the Alliance on this project. Please contact me if there is any more we can do to assist you with this important endeavor.

Sincerely,

  
Terry Boles, Chairman,  
Clarke County SWCD



**DECATUR COUNTY  
SOIL & WATER CONSERVATION DISTRICT**

303 SW Lorraine  
P.O. Box 27  
Leon, Iowa 50144  
Phone 641-446-4135

SWCD  
G. Corwin Cox  
Bradley Funk  
Earl Hanthorn  
Anita Opfer  
Don Templeton  
Jeannine Hampton, Secy.

October 23, 2002

John Glenn, President  
Rathbun Land & Water Alliance  
16166 Hwy J29  
Centerville, IA 52544-8037

Dear Mr. Glenn:

The Decatur County Soil and Water Conservation District (SWCD) recognizes the importance of improving water quality in the Rathbun Lake. We have studied the Rathbun Lake Watershed Initiative Project Nomination Proposal to the EPA and are in complete agreement with the actions outlined in this proposal. We have written many letters through the years in support of the Rathbun Land & Water Alliance and their endeavors and pledge our continued support.

We will strive to acquaint Decatur County landowners with knowledge of the availability of state cost-share funds for Best Management Practices in this area and will approve as many of their applications as our limited state cost-share funds permit. We will join our NRCS District Conservationist Kevin Reynolds in committing technical assistance to help landowners with their water quality protection activities. This will be an excellent opportunity to help with implementation of conservation provisions as set forth in the new farm bill.

Decatur Soil and Water Conservation District is fully committed to working with the Alliance on this project. We will help the Alliance in disseminating information of the proposed watershed initiative project activities and will assist our landowners in accelerating their water protection activities.

Sincerely,

G. Corwin Cox, Chair  
Decatur County SWCD

**LUCAS COUNTY SOIL & WATER CONSERVATION DISTRICT**  
**RR #5 – BOX 119AA**  
**CHARITON, IA 50049**  
**Phone: (641)774-2512 FAX (641)774-2700**



October 21, 2002

John Glenn, President  
Rathbun Land & Water Alliance  
16166 Hwy J29  
Centerville, IA 52544-8037

Dear Mr. Glenn:

The Lucas County Soil and Water Conservation District has been a long time supporter of the Rathbun Land & Water Alliance and their efforts to improve water quality in the Rathbun Lake watershed. The District fully supports the Alliance's Watershed Initiative application to the EPA and feels this is an excellent opportunity to strengthen and increase the various partnerships as well as promote the widespread construction of Best Management Practices (BMPs) throughout the Rathbun Lake watershed using the latest GIS technology.

The Lucas County SWCD has committed to prioritizing available state cost share funds for BMPs applied through the Rathbun Lake Watershed Initiative Project. The District will also commit the necessary technical assistance to support BMPs with landowners participating in the Watershed Initiative.

In conclusion, the District fully supports the Watershed Initiative Proposal and we look forward to working with the Alliance on this project. Please feel free to contact me if you have any questions concerning our commitment to this project.

Sincerely,

  
Arnold Schneider, Chairman  
Lucas County SWCD

<i>Arnold Schneider, Chairman</i>	<i>Kevin Luedtke, Vice Chairman</i>	<i>Lowell Wiele, Co-Treasurer</i>
<i>Roger Pierce, Commissioner</i>	<i>Ron Kent, Commissioner</i>	<i>Richard Arnold, Assistant</i>
	<i>Dennis Reida, Assistant</i>	

**MONROE COUNTY  
SOIL AND WATER CONSERVATION DISTRICT  
ALBIA FIELD OFFICE  
1701 SOUTH B STREET, SUITE 100  
ALBIA, IOWA 52531  
Phone: 641-932-5144  
FAX : 641-932-2746**

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October 29, 2002

John Glenn, President  
Rathbun Land & Water Alliance  
16166 Hwy J29  
Centerville, IA 52544-8037

Dear Mr. Glenn:

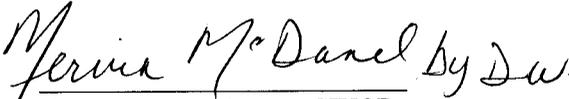
The Monroe County Soil and Water Conservation District has been a long time supporter of the Rathbun Land & Water Alliance and their efforts to improve water quality in the Rathbun Lake watershed. The District fully supports the Alliance's Watershed Initiative application to the EPA and feels this is an excellent opportunity to strengthen and increase the various partnerships as well as promote the widespread construction of Best Management Practices (BMPs) throughout the Rathbun Lake watershed using the latest GIS technology.

The Monroe County SWCD has committed to prioritizing available state cost share funds for BMPs applied through the Rathbun Lake Watershed Initiative Project. The District will also commit the necessary technical assistance to support BMPs with landowners participating in the Watershed Initiative.

In addition to prioritizing funds and providing technical assistance the District will also commit funds (dollar amount to be determined) for information, education, and outreach activities associated with the Watershed Initiative Proposal. These funds in combination others partner commitments will help create an effective outreach program that will inform landowners and water users about current water quality protection efforts underway.

In conclusion, the District fully supports the Watershed Initiative Proposal and we look forward to working with the Alliance on this project. Please feel free to contact me if you have any questions concerning our commitment to this project.

Sincerely,

  
Chair, Monroe County SWCD

WAYNE COUNTY SOIL AND WATER CONSERVATION DISTRICT  
300 SOUTH LAFAYETTE \*\* CORYDON, IA 50060\*\* PHONE 641/872-1350

---

October 17, 2002

John Glenn, President  
Rathbun Land & Water Alliance  
16166 Hwy J29  
Centerville, IA 52544-8037

Dear Mr. Glenn:

The Wayne County Soil and Water Conservation District has been a long time supporter of the Rathbun Land & Water Alliance and their efforts to improve water quality in the Rathbun Lake watershed. The District fully supports the Alliance's Watershed Initiative application to the EPA and feels this is an excellent opportunity to strengthen and increase the various partnerships as well as promote the widespread construction of Best Management Practices (BMPs) throughout the Rathbun Lake watershed using the latest GIS technology. We also strongly believe that this project will be very instrumental in carrying out the conservation provisions within the Farm Bill such as EQIP, CSP, and CCRP.

The Wayne County SWCD has committed to prioritizing available state cost share funds for BMPs applied through the Rathbun Lake Watershed Initiative Project. The District will also commit the necessary technical assistance to support BMPs with landowners participating in the Watershed Initiative.

In addition to prioritizing funds and providing technical assistance, the District will also commit \$ 2,500 for information, education, and outreach activities associated with the Watershed Initiative Proposal. These funds in combination others partner commitments will help create an effective outreach program that will inform landowners and water users about current water quality protection efforts underway.

In conclusion, the District fully supports the Watershed Initiative Proposal and we look forward to working with the Alliance on this project. Please feel free to contact me if you have any questions concerning our commitment to this project.

Sincerely,



Hubert A. Staggs  
Chair, Wayne County SWCD

United States Department of Agriculture



Natural Resources Conservation Service  
501 N 12<sup>th</sup> Street  
Centerville, Iowa 52544  
(641) 856-3893 ext. 3

October 18, 2002

Mr. John Glenn  
President  
Rathbun Land and Water Alliance  
16166 Hwy. J29  
Centerville, Iowa 52544

Dear Mr. Glenn,

On behalf of the Appanoose County NRCS staff, I would like to take this opportunity to express our support for the Rathbun Land and Water Alliance's Watershed Initiative Proposal. The work outlined in the proposal will compliment efforts already underway to provide natural resource protection in the Rathbun watershed. In addition, this project will help implement conservation provisions associated with the 2002 farm bill and improve our current Geographic Information System (GIS) capabilities, allowing us to better assist landowners apply best management practices (BMPs) on the land.

In order to support this project, the Appanoose NRCS commits to helping landowners with the technical and financial assistance needed through existing programs such as the Environmental Quality Incentives Program (EQIP) as well and the Continuous Conservation Reserve Program (CCRP). We will also assist our Soil and Water Conservation District (SWCD) to prioritize state cost share funds for BMPs applied through the Rathbun Lake Watershed Initiative project.

We look forward to working with the Rathbun Land and Water Alliance as well as our other partners to make the Watershed Initiative a success.

Sincerely,

A handwritten signature in cursive script that reads "Margaret A. Cope".

Margaret A. Cope, District Conservationist  
Appanoose County

United States  
Department of  
Agriculture

Natural Resources  
Conservation  
Service

709 Furnas Drive  
Osceola, IA 50213-0425  
641-342-2917

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October 25, 2002

John Glenn, President  
Rathbun Land & Water Alliance  
16166 Hwy J29  
Centerville, IA 52544-8037

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OCT 28 2002

RATHBUN REGIONAL  
WATER ASSOC., INC.

Dear Mr. Glenn:

The Clarke County Natural Resources Conservation Service (NRCS) Field Office would like to thank you for your efforts in completing the Rathbun Land and Water Alliance's Watershed Initiative Project Proposal. The activities outlined in your summary will serve to enhance the work that we and the Clarke County SWCD perform with landowners in the Rathbun Watershed.

Our office is committed to the development of Resource Management System (RMS) plans. This means that we address all of the resource concerns on a tract as they relate to soil, water, plants, air, and animals. Our task becomes easier with the help of the Alliance and its partners. What you are doing to help target the priority areas, provide analysis, and conduct information and outreach services means that we can develop a more effective approach to our planning services.

We look forward to stepping up our assistance with the Rathbun Watershed Landowners and are willing to provide the technical and financial resources necessary to aid in the protection of the Lake. Many of the conservation provisions of the 2002 Farm Bill could also be addressed through this project.

Thank you for your continued support of conservation.

Sincerely,



Dennis Schrodtt  
District Conservationist

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OCT 24 2002

United States Department of Agriculture

RATHBUN REGIONAL  
WATER ASSOC., INC.



303 SW Lorraine Box 27  
Leon, IA 50144-0027  
Ph: (641) 446-4135

October 23, 2002

John Glenn, President  
Rathbun Land & Water Alliance  
16166 Hwy J29  
Centerville, IA 52544-8037

Dear Mr. Glenn:

The Decatur County NRCS Office Staff and our partners in the conservation effort are in complete agreement with the Rathbun Lake, Iowa Watershed Initiative Project Nomination Proposal to EPA. We have always supported the Alliance's endeavors in educating the public about water quality and with the watershed assessment and water quality monitoring programs. We feel very strongly that the activities outlined in this Watershed Initiative Proposal are critical in achieving the enhanced level of water quality protection necessary to protect Lake Rathbun.

The Leon Field Office, Decatur County, is committed to helping landowners/operators protect their soil and surrounding waterways, with special emphasis on the land draining into Rathbun Lake. We pledge sufficient technical and financial assistance, as available, through the following programs of the new farm bill: Environmental Quality Incentives Program (EQIP) and the Continuous Conservation Reserve Program (CCRP); and will help guide the district in approving State Cost-Share for Best Management Practices applied through the Rathbun Lake Initiative Program.

We look forward to building upon the partnerships that have been developed through the years. Much has been accomplished and we feel if this proposal is accepted, the additional funds available will enable landowners to accelerate their water quality protection activities.

Sincerely,

A handwritten signature in black ink that reads "Kevin Reynolds". The signature is written in a cursive style with a large, prominent "K" and "R".

Kevin Reynolds, District Conservationist  
Decatur County, Iowa



Natural Resources Conservation Service  
Rt. 5 Box 119AA, Suite 2  
Chariton, IA 50049  
Phone: (641) 774-2512

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OCT 24 2002

RATHBUN REGIONAL  
WATER ASSOC., INC.

October 23, 2002

John Glenn, President  
Rathbun Land and Water Alliance  
16166 Hwy J29  
Centerville, IA 52544-8037

Dear Mr. Glenn:

The Lucas County NRCS office would like to express their support for the Rathbun Land and Water Alliance's Watershed Initiative Proposal. The work described in this proposal will help us build on previous work related to the watershed assessment, water quality monitoring program, and information and education activities related to the Rathbun Lake Watershed Project. Through the assistance of this proposal we will be able to further protect and improve water quality and install conservation measures essential in the implementation of the conservation provisions associated with the new Farm Bill within the Rathbun Lake watershed.

The Lucas County NRCS will commit to helping landowners with the technical and financial assistance needed through existing programs such as the Environmental Quality Incentives Program (EQIP) as well as the Continuous Conservation Reserve Program (CCRP). We will also commit to working with Soil and Water Conservation Districts (SWCDs) to prioritize state cost share funds for Best Management Practices applied through the Rathbun Lake Watershed Initiative project.

The partnerships that have been developed throughout the years with the SWCDs, Rathbun Land and Water Alliance, and others have been very instrumental in completing the Rathbun Lake watershed assessment and we look forward to expanding these efforts through the Watershed Initiative.

Sincerely,

A handwritten signature in black ink, appearing to read "Brian Gross", written over a horizontal line.

Brian Gross, District Conservationist  
Lucas County

United States Department of Agriculture



Natural Resources Conservation Service  
1701 South B St., Ste. 100  
Albia, IA 52531  
Telephone: 641-932-5144

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October 29, 2002

John Glenn, President  
Rathbun Land and Water Alliance  
16166 Hwy J29  
Centerville, IA 52544-8037

Dear Mr. Glenn:

The Monroe County NRCS office would like to express their support for the Rathbun Land and Water Alliance's Watershed Initiative Proposal. The work described in this proposal will help us build on previous work related to the watershed assessment, water quality monitoring program, and information and education activities related to the Rathbun Lake Watershed Project. Successful implementation of this proposal is essential if we are to achieve our goals concerning soil and water conservation within the Rathbun Lake watershed.

The Monroe County NRCS will commit to helping landowners with the technical and financial assistance needed through existing programs such as the Environmental Quality Incentives Program (EQIP) as well as the Continuous Conservation Reserve Program (CCRP). We will also commit to working with Soil and Water Conservation Districts (SWCDs) to prioritize state cost share funds for BMPs applied through the Rathbun Lake Watershed Initiative project.

The partnerships that have been developed throughout the years with the SWCDs, Rathbun Land and Water Alliance, and others have been very instrumental in completing the Rathbun Lake watershed assessment and we look forward to expanding these efforts through the Watershed Initiative.

Sincerely,

A handwritten signature in cursive script that reads "John Frieden".

John Frieden, District Conservationist  
Monroe County

The Natural Resources Conservation Service provides leadership in a partnership effort to help people conserve, maintain, and improve our natural resources and environment.

An Equal Opportunity Provider and Employer

United States Department of Agriculture



Natural Resources Conservation Service  
300 S Lafayette  
Corydon, IA 50060  
Phone: 641/872-1350 Fax: 641/872-1631

October 18, 2002

John Glenn, President  
Rathbun Land and Water Alliance  
16166 Hwy J29  
Centerville, IA 52544-8037

RECEIVED

OCT 29 2002

RATHBUN REGIONAL  
WATER ASSOCIATION

Dear Mr. Glenn:

The Wayne County NRCS office would like to express their support for the Rathbun Land and Water Alliance's Watershed Initiative Proposal. The work described in this proposal will help us build on previous work related to the watershed assessment, water quality monitoring, and information and education activities related to the Rathbun Lake Watershed Project. We also believe that the use of GIS technology would be very instrumental in carrying out the conservation provisions of the farm bill. Successful implementation of this proposal is essential if we are to achieve our goals concerning soil and water conservation within the Rathbun Lake watershed.

The Wayne County NRCS will commit to helping landowners with the technical and financial assistance needed through new and existing programs such as the Conservation Security Program (CSP), Environmental Quality Incentives Program (EQIP), and the Continuous Conservation Reserve Program (CCRP). We will also commit to working with Soil and Water Conservation Districts (SWCDs) to prioritize state cost share funds for BMPs applied through the Rathbun Lake Watershed Initiative Project.

The partnerships that have been developed throughout the years with NRCS, SWCDs, Rathbun Land and Water Alliance, and others have been very instrumental in completing the Rathbun Lake watershed assessment and we look forward to expanding these efforts through the Watershed Initiative. As always, please feel free to call if you have any questions.

Sincerely,

A handwritten signature in cursive script that reads "Doug Bahl".

Doug Bahl, District Conservationist  
Wayne County



DEPARTMENT OF THE ARMY  
RATHBUN PROJECT OFFICE  
KANSAS CITY DISTRICT, CORPS OF ENGINEERS  
20112 HWY J5T  
CENTERVILLE, IOWA 52544-8308

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OCT 23 2002

RATHBUN REGIONAL  
WATER ASSOC. INC

October 18, 2002

REPLY TO  
ATTENTION OF:

John Glenn, President  
Rathbun Land & Water Alliance  
16166 Highway J29  
Centerville, Iowa 52544-8037

Dear Mr. Glenn:

As Operations Manager for the Corps of Engineers at Rathbun Lake, I would like to express support for the activities proposed in the Watershed Initiative application to the Iowa Department of Natural Resources and the Environmental Protection Agency. Specifically, the construction of a Rathbun Lake Watershed Protection Center would be a great educational tool for the area communities and promote tourism in the region.

The Corps of Engineers has been committing about \$40,000 annually towards water quality monitoring and will make every effort possible to continue support at that level. This support for the water quality monitoring program is intended to continue for the duration of the Watershed Initiative project at Rathbun Lake. Fieldwork and laboratory operating expenses make up the bulk of the Corps' participation in the program. The Corps will also continue to apply Best Management Practices on land owned by the Corps of Engineers in the Rathbun Lake watershed.

In closing, I look forward to continuing our partnership with the Rathbun Land and Water Alliance and working towards protecting and improving the water quality of Rathbun Lake.

Sincerely,

William R. Duey  
Operations Manager

**ACFB**

**APPANOOSE COUNTY FARM BUREAU**  
1024 N 18th Street ~ P O Box 396 ~ Centerville IA 52544  
Phone 641-437-4333 ~ Fax 641-437-1935

October 16, 2002

John Glenn, President  
Rathbun Land and Water Alliance  
16166 Hwy J29  
Centerville, Iowa 52544-8037

Dear John:

The Lake Rathbun watershed covers much of Appanoose County and is an asset to the area. It provides good quality water for many households in southern Iowa and northern Missouri. It provides recreation opportunities, and is an attraction for growth and development in our area. The Appanoose County Farm Bureau Board of Directors has strongly supported the efforts of the Rathbun Land and Water Alliance that preserve and enhance these natural assets.

We will contribute \$200 as a pledge of support to the Rathbun Land and Water Alliance in this Watershed Initiatives Grant Application. We want to continue to support the educational and information activities that have been valuable to the water customers of Rathbun Rural Water, farmers and general public. We will work with the Iowa Farm Bureau and other county Farm Bureaus in the area to inform the public of what farmers are doing to promote environmentally sound agriculture.

The efforts of the Alliance since 1997 have provided producer awareness of soil conservation and farming practices as they relate to water quality issues. The activities of the Alliance have also provided a positive image of farmers and agriculture to the general public in this area and all across the state. We want to support efforts that promote sound conservation practices on tilled ground, incentives to promote grazing systems for cow-calf producers, and alternative agriculture production like bio-mass fuels production.

We hope that our support will enhance the Watershed Initiative Grant Application submitted by the Rathbun Land and Water Alliance.

Sincerely,



Mark Haines, President  
Appanoose County Farm Bureau



**Clarke County Farm Bureau**

2215 North Main, Osceola, IA 50213  
Bus. (641) 342-6066/Fax. (641) 342-6067

October 18, 2002

John Glenn, President  
Rathbun Land and Water Alliance  
16166 Hwy J29  
Centerville, IA 52544-8037

Dear Mr. Glenn:

The facts about water quality initiatives implemented in the Rathbun Watershed need to be told. Clarke County Farm Bureau strongly favors education models that accomplish our important objective. The Rathbun Land and Water Alliance has been a valuable tool by engaging farmers and landowners and successfully fostering implementation of land management techniques that improve the lake for all water users.

Again, we feel awareness through education and information dissemination is the key and that is why we support your effort to attain Watershed Initiatives Grant funds. Please accept our donation of \$200 and our commitment of support toward your endeavors.

My fellow farmer members and I would agree that sustainable and practical conservation tilling of the land, sound grazing systems and the development of alternative forms of agriculture as your organization promotes, set the stage for education of this positive image. Now, let us help you get the job done and tell our agricultural story as it relates to this important watershed project.

Good luck as you strive to attain your goals. We are glad to be of help!

Sincerely,

Warren Keeler, President  
Clarke County Farm Bureau



**Decatur County Farm Bureau**

118 North Main, Leon, Iowa 50144-1448  
Bus. (641) 446-6412

October 17, 2002

John Glenn, President  
Rathbun Land and Water Alliance  
16166 Hwy J29  
Centerville, IA 52544-8037

Dear Mr. Glenn:

For over a decade Rathbun Watershed initiatives have truly been an asset to south-central Iowa communities. In Decatur County we can easily see the benefits numerous successful initiatives like implementing soil conservation practices and improving water quality not to mention the recreation opportunities that many of us have enjoyed. For all these reasons and more the Decatur County Farm Bureau feels it is important to support your Watershed Initiatives Grant Application.

Please accept our donation of \$200 and our undivided support of the education initiatives outlined in the grant application. We believe that by establishing the educational component, our goal of bringing together those of us focused on agriculture and strong rural values, with today's more urban influenced society can truly bridge an important gap.

Thanks for your hard work and forethought in developing such a valuable project.

Sincerely,

Fred Cox, President  
Decatur County Farm Bureau



**LUCAS COUNTY FARM BUREAU**

811 South Fourth St, Chariton, Iowa 50049/(515) 774-5984

October 17, 2002

John Glenn, President  
Rathbun Land and Water Alliance  
16166 Hwy J29  
Centerville, IA 52544-8037

Dear Mr. Glenn:

Lucas County Farm Bureau has long been a supporter of area watershed activities. We feel that since 1997 the efforts by the Rathbun Land and Water Alliance have been the benchmark for other watershed groups to strive for. We are compelled to support your efforts and uphold our tradition of enhancing the protection of water quality.

We are honored to contribute \$200 as an initial pledge of financial support to the Rathbun Land and Water Alliance as your organization strives to attain an important Watershed Initiatives Grant. We specifically support the public information and education component which truly exemplifies our interest in inspiring awareness among land owners, farmers, water users and the public.

Through effective and well planned education efforts like those you are planning, Lucas County Farm Bureau and others can help tell the story of how our farmer members properly utilize surrounding agricultural lands to enhance water quality.

We are hopeful that your grant application is successful. Through you, we are successful too.

Sincerely,

Randy Beard, President  
Lucas County Farm Bureau



**MONROE COUNTY FARM BUREAU**

119 Washington Avenue East, Albia, Iowa 52531/Phone 932-7873

October 18, 2002

John Glenn, President  
Rathbun Land and Water Alliance  
16166 Hwy J29  
Centerville, Iowa 52544-8037

Dear John;

The Monroe County Farm Bureau Board of Directors supports the efforts of the Rathbun Land and Water Alliance. We will contribute \$200.00 toward the Public Information component of the Watershed Initiatives Grant Application. We believe the Rathbun Land and Watershed Alliance has had a positive impact on the image of agriculture and farmers who farm in the Rathbun Lake watershed. The efforts of this group since 1997 have given agriculture producers a keen awareness of water quality issues in Lake Rathbun.

We want to continue to support the education and information activities of this grant application. These services have been valuable to farmers and the water customers of Rathbun Rural Water. We will continue to promote agriculture practices that are economically viable, environmentally sound and have an impact on soil conservation to improve water quality in Lake Rathbun.

We hope that our support will help enhance the Watershed Initiative Grant Application submitted by the Rathbun Land and Water Alliance.

Sincerely,

Tim Kaldenberg, President  
Monroe County Farm Bureau.



**WAYNE COUNTY FARM BUREAU**

212 South Franklin, Corydon, Iowa 50060 / (515) 872-2725

October 16, 2002

John Glenn, President  
Rathbun Land and Water Alliance  
16166 Hwy J29  
Centerville, Iowa 52544-8037

Dear John;

The Wayne County Farm Bureau Board of Directors on behalf of our 939 members in Wayne County Iowa wholeheartedly supports the efforts of the Rathbun Land and Water Alliance. The efforts of this group since 1997 have given agriculture producers a keen awareness of water quality issues in Lake Rathbun. The activities of the Alliance have also provided a positive image of farmers and agriculture to the general public in this area.

We pledge to support the Rathbun Land and Water Alliance in this grant application by financially contributing to the public information component of the project. We will contribute \$200.00 to those efforts. We want to continue to support the education and information activities that have been valuable to the water customers of Rathbun Rural Water, farmers and general public.

We will continue to promote with our farmer members farming practices that are practical, sustainable and environmentally beneficial to water quality in Lake Rathbun.

We hope that your agency will look favorably on the Watershed Initiative Grant Application submitted by the Rathbun Land and Water Alliance.

Sincerely,

Gary Bennett, President  
Wayne County Farm Bureau.



## **IOWA FARM BUREAU FEDERATION**

5400 University Avenue, West Des Moines, Iowa 50266-5997 / (515) 225-5400

October 23, 2002

Mr. John Glenn  
Rathbun Land and Water Alliance  
16166 Hwy. J 29  
Centerville, Iowa 52544

Dear John:

Water quality protection is an important issue for all Iowans, including the more than 155,000 members of the Iowa Farm Bureau Federation (IFBF). The IFBF pursues voluntary education and demonstration programs that protect water quality. In that effort, the IFBF has actively supported many of the activities of the Rathbun Land and Water Alliance. Their education and outreach efforts have been consistent with IFBF policy and receive strong local support. Their network of local support, built on a foundation of sound voluntary education and demonstration programs, is a key to their success, and that is why the IFBF supports the Rathbun Lake Watershed Initiative as one of Iowa's nominations for the EPA Watershed Initiative program.

In support of this nomination, the IFBF commits to continued cooperation with the Rathbun Land and Water Alliance to secure funding for the education and outreach efforts identified in the watershed plan. Already there have been commitments from six county Farm Bureaus totaling \$1,200. In addition, the IFBF will work with the alliance to secure the balance of the necessary education and outreach budget from one of a variety of IFBF grant programs in 2003, including the IFBF Challenge Grant Program (awards up to \$5,000 for support of local partnerships that develop Iowa's rural communities and enhance the quality of life), and the IFBF Nonpoint Source Pollution Information and Education County Grant Program (awards up to \$2,500 annually for innovative information and education programs for rural and urban NPS issues).

Historically, the involvement of the IFBF and the respective county Farm Bureaus with the Rathbun Land and Water Alliance can be summarized as follows:

- Input into and participation in the Rathbun watershed assessment;
- Receipt of an IFBF Nonpoint Source Pollution Information and Education County Grant totaling \$8,000 for various informational and educational activities;
- Field testing by Rathbun area farmers of the Iowa Farm\*A\*Syst materials;
- \$20,000 in financial support for the Chariton Valley Biomass Project; and
- \$33,000 in financial support for the Chariton Valley Beef Initiative.

These activities clearly indicate the commitment to the Rathbun Lake Land and Water Alliance to their watershed. We proudly support the nomination of the Rathbun Land and Water Alliance as one of Iowa's nominations for the EPA Watershed Initiative program.

Sincerely,

Rick Robinson  
Director, Environmental Affairs



# STATE OF IOWA

THOMAS J. VILSACK, GOVERNOR  
SALLY J. PEDERSON, LT. GOVERNOR

DEPARTMENT OF NATURAL RESOURCES  
JEFFREY R. VONK, DIRECTOR

October 21, 2002

John Glenn, President  
Rathbun Land and Water Alliance  
161666 Hwy J29  
Centerville, IA 52544

RECEIVED

OCT 22 2002

RATHBUN REGIONAL  
WATER ASSOC., INC.

Dear Mr. Glenn:

The Iowa Department of Natural Resources, Fisheries Bureau would like to express continued support for the information and education activities as well as best management practices that have been installed within the Rathbun Lake watershed. We fully support the activities proposed within the Watershed Initiative Proposal and believe it would be a great step toward improving the water quality and fishery at Rathbun Lake.

The Chariton Research Unit of the IDNR, Fisheries Bureau will continue our study of the aquatic ecosystem within the Rathbun Watershed. The objective of our research investigation is to assess implementation of Best Management Practices in the Rathbun Lake Watershed through computer modeling and by identification of changes in water quality, changes in stream benthic invertebrates, changes in stream fish populations and relate these changes to downstream lake water quality and the sportfishery produced by Rathbun Lake. Most importantly, fish and benthic invertebrates will be used to assess the benefit of BMPs on water quality and biology within the watershed. Our contribution and commitment to this investigation for fiscal years 2003-2007 is estimated at \$ 375,000 as part of the Federal Aid to Fish Restoration program.

Again, we wholly support the efforts the Rathbun Land and Water Alliance is taking in water quality improvement in the watershed. We will definitely work cooperatively with these efforts.

Sincerely,

A handwritten signature in black ink that reads "Larry Mitzner". The signature is written in a cursive style with a long, sweeping underline.

Larry Mitzner  
Natural Resources Biologist  
Iowa Department of Natural Resources  
Rt 1 Box 209  
Chariton IA 50049

[larry.mitzner@dnr.state.ia.us](mailto:larry.mitzner@dnr.state.ia.us)

641.774.2958



THOMAS J. VILSACK, GOVERNOR  
SALLY J. PEDERSON, LT. GOVERNOR

RECEIVED

OCT 23 2002

RATHBUN REGIONAL  
WATER ASSOCIATION

DEPARTMENT OF NATURAL RESOURCES

JEFFREY R. VONK, DIRECTOR

October 18, 2002

Mr. John Glenn  
President  
Rathbun Land and Water Alliance  
16166 Hwy. J29  
Centerville, Iowa 52544-8307

Dear John:

The purpose of this letter is to express to the Rathbun Land and Water Alliance a commitment of support from the Iowa Department of Natural Resources' Iowa Geological Survey (IGS) for the Rathbun Lake Watershed Initiative Nomination proposal. Specifically, the Iowa DNR looks forward to the opportunity to continue our cooperative approach to water quality monitoring in Rathbun Lake and its tributaries during the proposed duration of the Watershed Initiative project.

As we have discussed, cooperative efforts such as ours that pool resources from a number of partners enable us to collect the information that is needed to help protect Iowa's water quality in an efficient and cost effective manner. In many cases, it would not be possible to obtain this much-needed information about the State's water resources without this type of cooperation.

It is a pleasure to inform the Alliance and our other partners that the Water Monitoring Section plans to continue to contribute \$10,400 per year in 2003, 2004, and 2005 to share the cost of our water quality monitoring activities at Rathbun Lake. As you know, the Iowa DNR's funds for water quality monitoring are appropriated annually by the Iowa legislature. At this time, however, we believe that the future level of funding will allow us to continue to support our joint water quality monitoring efforts.

Please do not hesitate to contact me with any questions or for additional information regarding the Iowa Geological Survey's support and commitment.

Sincerely

Mary P. Skopec, Ph.D.  
Section Supervisor  
Water Monitoring Section  
Iowa Department of Natural Resources

GEOLOGICAL SURVEY BUREAU

109 TROWBRIDGE HALL/IOWA CITY, IOWA 52242-1319 / 319-335-1575 / FAX 319-335-2754 / [www.igsb.uiowa.edu](http://www.igsb.uiowa.edu)



# STATE OF IOWA

THOMAS J. VILSACK, GOVERNOR  
SALLY J. PEDERSON, LT. GOVERNOR

DEPARTMENT OF NATURAL RESOURCES  
JEFFREY R. VONK, DIRECTOR

Iowa Private Land Program  
Rt 5 Box 119AA  
Chariton, IA 50049  
641-774-8011

October 25, 2002

Marty Braster  
RRWA  
16166 HWY J29  
Centerville, IA 52544

RECEIVED

OCT 28 2002

RATHBUN REGIONAL  
WATER ASSOC., INC.

Dear Mr. Braster:

The purpose of this letter is to express the Iowa Department of Natural Resources Private Lands Program support for the activities proposed within the Watershed Initiative Proposal. As you know, the ability to create partnerships with other organizations is essential for project development, especially with agencies that have limited budgets. The states newly established Private Lands Program is eager to begin new partnerships with organizations such as yours.

As you know, the goal of our program is to create new wildlife habitat as well as enhance existing habitat through the various funding sources and existing state and federal programs such as REAP, EQIP, and WHIP. In order to accomplish this goal we must work with Soil and Water Conservation Districts, Pheasants Forever Chapters, NRCS, and organizations such as the Rathbun Land and Water Alliance. Although many of these organizations goals may vary from ours, many of these conservation practices implemented through the above mentioned programs meet all the partners' goals including protecting water quality.

With this in mind, the IDNR Private Lands Program, specifically an Iowa Legislative Directive called the Pheasant and Quail Restoration Program, anticipates spending \$300,000 over the next five years in technical and financial assistance for landowners in the Rathbun Lake watershed to apply upland game bird habitat improvement practices. This will be in addition to the technical and financial assistance from other sources and for other species estimated at \$200,000 for the duration of the Watershed Initiative project.

As always, please feel free to contact me for additional information or questions regarding the IDNR Wildlife Bureau's support and commitment to this project.

Sincerely,

A handwritten signature in black ink, appearing to read "Helga McDaniel". The signature is written in a cursive, flowing style.

Helga McDaniel  
Wildlife Specialist, IDNR



# STATE OF IOWA

THOMAS J. VILSACK, GOVERNOR  
SALLY J. PEDERSON, LT. GOVERNOR

DEPARTMENT OF NATURAL RESOURCES  
JEFFREY R. VONK, DIRECTOR

Rathbun Wildlife Unit  
Iowa DNR  
Rt. 5, Box 119AA  
Chariton, IA 50049  
October 18, 2002

RECEIVED

OCT 20 2002

RATHBUN REGIONAL  
WATER ASSOC. INC

John Glenn, President  
Rathbun Land and Water Alliance  
161666 Hwy J29  
Centerville, IA 52544

Dear Mr. Glenn:

The purpose of this letter is to express the Iowa Department of Natural Resources Rathbun Wildlife Units's support for the activities proposed within the Watershed Initiative Proposal. The IDNR has been a long time supporter of many Rathbun Land and Water Alliance activities that support wildlife habitat and are protective of water quality.

As you know, many of the projects we are currently working on, and those which we have completed in the past, would not have been possible without the many partnerships who worked collectively to make them a success. It is with these cooperative efforts that have enabled many project ideas become a reality. We fully believe that the activities proposed in the watershed Initiative Proposal would be a great step toward improving the water quality of Rathbun Lake.

As you know, the IDNR owns and manages a significant portion of land within the Rathbun Lake watershed. The IDNR will continue to commit the necessary resources needed to implement best management practices on land within the Rathbun Lake watershed that is owned and managed by the IDNR during the Watershed Initiative project.

As always, please feel free to contact me for additional information or questions regarding the IDNR Rathbun Wildlife Unit's support and commitment to this project.

Sincerely,

A handwritten signature in black ink that reads "Jeff Telleen". The signature is written in a cursive, flowing style.

Jeff Telleen

Wildlife Management Biologist, IDNR

**IOWA STATE UNIVERSITY**  
OF SCIENCE AND TECHNOLOGY

Ecology, Evolution and  
Organismal Biology  
124 Science II  
Ames, Iowa 50011-3221  
515 294-2734  
FAX 515 294-7874  
downing@iastate.edu

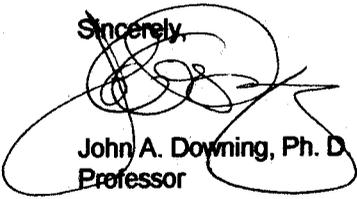
**October 28, 2002**

**John Glenn, President  
Rathbun Land and Water Alliance  
16166 Hwy. J29  
Centerville, IA 52544-8307**

**Dear Mr. Glenn:**

**This letter is to acknowledge the continued partnership between Iowa State University and the Rathbun Land and Water Alliance for water quality monitoring. We fully support the Rathbun Lake, Iowa Watershed Initiative Project Proposal and intend to continue our involvement via future water quality monitoring activities. Iowa State University continues to provide monetary support for this project by contributing a portion of the indirect costs toward water quality monitoring activities for the next three years. Iowa State University contributions during this time period should average \$14,058 per year, which is an estimate based on past contracts and general cost increases assumed for future work. We look forward to the success of this project in implementing water protection practices in the Rathbun Lake watershed.**

**Sincerely,**



**John A. Downing, Ph. D.  
Professor**

IOWA STATE UNIVERSITY  
Cooperative Extension

Lucas County  
Fairgrounds  
Route 5 Box 91  
Chariton, Iowa 50049  
641-774-2016  
FAX: 641-774-8588

October 20, 2002

John Glenn, President  
Rathbun Land and Water Alliance  
161666 Hwy J29  
Centerville, IA 52544

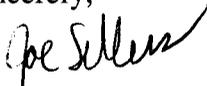
Dear Mr. Glenn:

Iowa State University Extension and local Extension districts are a long time supporter of the education and demonstration projects the Alliance has initiated that support the agricultural community. The purpose of this letter is to express Extensions' continued support for the Watershed Initiative Proposal to the Environmental Protection Agency. We believe that activities proposed in the Initiative are an effective means of working with landowners and getting BMPs on the ground in critical areas of the Rathbun Lake watershed.

Extension staff serving south-central Iowa are committed to working with landowners by demonstrating the latest livestock and forage management BMPs. Extension, in cooperation with landowners and the McNay Research and Demonstration Farm, will demonstrate forage management practices that will improve profitability of local farms and protect soil and water resources. These will include pasture renovation, fescue management, weed control, and other topics delivered to producers in field demonstrations, pasture walks, and workshops. Area and state specialists will provide the necessary technical assistance to the McNay Research and Demonstration Farm and cooperating landowners needed to implement these demonstrations. We estimate the value of this in-kind contribution to be \$10500 over the three years of the project.

We look forward to working with the Alliance on this project and believe these activities have the potential to educate many landowners within the Rathbun Lake watershed. Please contact me if you have any questions concerning our support for the Watershed Initiative Proposal.

Sincerely,



Joe Sellers  
Field Specialist

---

Iowa State University and U.S. Department of Agriculture cooperating.

Extension programs are available to all without regard to race, color, national origin, religion, sex, or disability.

**IOWA STATE UNIVERSITY**  
OF SCIENCE AND TECHNOLOGY

Research and Demonstration Farms  
B1 Curtiss Hall  
Ames, Iowa 50011-1050  
515 294-5045  
FAX 515 294-6210

October 20, 2002

John Glenn, President  
Rathbun Land and Water Alliance  
161666 Hwy J29  
Centerville, IA 52544

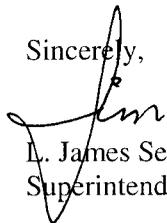
Dear Mr. Glenn:

The ISU McNay Research and Demonstration Farm would like to express support for the Rathbun Land and Water Alliance's Watershed Initiative Proposal to the EPA. The activities proposed in Initiative will be very effective in identifying critical areas within the watershed for BMP implementation. This proposal also includes BMP demonstration sites, which will be a very effective information and education tool for landowners within the watershed.

The ISU Research and Demonstration Farm is very pleased to be part of this proposal. The farm is located in the Rathbun Watershed so is a natural place for some these BMP's. It is also important for area producers because it is on the same soils, terrain and in the same weather area. We will have demonstrations in the extended grazing systems, rotational grazing, pasture renovation, alternatives in riparian management, weed management, and watering systems. Producers and others will be able to see their management practices through field days, pasture walks, and workshops. We believe that demonstrating grazing practices that are cost effective, profitable and protective of water quality can be an effective tool for landowners in the watershed. To assist in this project, McNay will provide in-kind support of \$3,000 for equipment and in-kind support of \$12,000 for staff assistance.

In closing, we believe this is an excellent opportunity to work with landowners by providing alternative grazing techniques. We fully support this proposal and look forward to working with the Alliance. Please feel free to call if you have any questions concerning our support for this Proposal.

Sincerely,



L. James Secor  
Superintendent McNay Research & Demonstration Farm

ALLEE RESEARCH AND DEMONSTRATION FARM:  
2044 640th Street, Newell, Iowa 50568; 712 272-3512  
ARMSTRONG RESEARCH AND DEMONSTRATION FARM:  
53020 Hitchcock Ave., Lewis, Iowa 51544-9603; 712 769-2402  
MCNAY RESEARCH AND DEMONSTRATION FARM:  
Route 1, Box 152, Chariton, Iowa 50049; 641 766-6465  
MUSCATINE ISLAND RESEARCH AND DEMONSTRATION FARM:  
P.O. Box 40, Fruitland, Iowa 52749; 319 262-8787  
NORTHEAST RESEARCH AND DEMONSTRATION FARM:  
3321 290th Street, Nashua, Iowa 50658; 641 435-4864  
NORTHERN RESEARCH AND DEMONSTRATION FARM:  
310 S. Main St., Kanawha, Iowa 50447; 641 762-3247

NORTHWEST RESEARCH AND DEMONSTRATION FARM:  
6320 500th Street, Sutherland, Iowa 51058; 712 446-2526  
RHODES RESEARCH AND DEMONSTRATION FARM:  
1079 320th Street, Rhodes, Iowa 50234; 641 493-2653  
SOUTHEAST RESEARCH AND DEMONSTRATION FARM:  
3115 Louisa/Washington Road, Crawfordsville, Iowa 52621;  
319 658-2353  
LAUREN CHRISTIAN SWINE RESEARCH AND DEMONSTRATION FARM:  
Rt. 2, Box 182, Atlantic, Iowa 50022; 712 243-2729  
WESTERN RESEARCH AND DEMONSTRATION FARM:  
36515 County Hwy E34, Castana, Iowa 51010; 712 885-2802.  
FAX 712 885-2600

**CHARITON VALLEY  
RURAL ECONOMIC DEVELOPMENT, INC.**

---

19229 Highway 5  
Centerville, IA 52544  
Phone: 641 437-4376

*Appanoose County  
Lucas County  
Monroe County  
Wayne County*

October 23, 2002

Mr. John Glenn, President  
Rathbun Land & Water Alliance  
19229 Highway 5  
Centerville, Iowa 52544

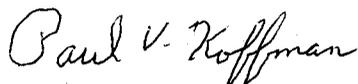
Dear Mr. Glenn:

The purpose of this letter is to confirm the support of Chariton Valley Rural Economic Development (CVRED), Inc. in the efforts of the Rathbun Land & Water Alliance (RLWA) to protect water quality in Rathbun Lake. CVRED provides leadership and support for rural economic development efforts in south central Iowa. As you know, a survey of residents in southern Iowa found that more than three quarters of those surveyed recognized Rathbun Lake as an important economic asset to the region and felt that poor water quality in the lake would impact economic development in the region. As such, protection of water quality in Rathbun Lake is consistent with the mission and activities of CVRED.

Specifically, CVRED pledges up to \$1,200 to support the efforts of the RLWA described in the Rathbun Lake Watershed Initiative Nomination Proposal that is being submitted to the Iowa Department of Natural Resources and US Environmental Protection Agency. The funds consist of a \$300 contribution on behalf of each of the four counties of Appanoose, Lucas, Monroe, and Wayne. As the RLWA identifies specific activities to which these funds would best contribute, we would ask that you contact us to arrange for their use.

Again, we would like to express our support and appreciation for the efforts of the RLWA.

Sincerely,



Paul Koffman  
President



**Wayne County Chapter  
300 South Lafayette  
Corydon, IA 50060  
(641) 872-1350**

October 20, 2002

Mr. John Glenn  
President  
Rathbun Land & Water Alliance  
16166 HWY J29  
Centerville, IA 52544-8307

Dear John:

The Wayne County Pheasants Forever Chapter fully supports the Watershed Initiative proposal submitted by the Rathbun Land and Water Alliance. This project is an effective means to improve and create valuable habitat for many species of aquatic and terrestrial plants and animals as well as improve water quality within our streams and Rathbun Lake.

As you are aware, Wayne County PF Chapter currently provides food plot seed and technical assistance to landowners concerning native grass and buffer planting for residents within the county. The Wayne County Pheasants Forever Chapter will provide any technical assistance needed to carry out any BMP application related to seedings as well as \$100 to go toward Best Management Practice application or I&E activities associated with the Watershed Initiative Proposal.

Please feel free to contact me with any questions or concerns regarding the Wayne County PF Chapters support for the Watershed Initiative proposal.

Sincerely,

David Donald  
President, Wayne County PF

**Appanoose**

**Davis**

**Lucas**

**Monroe Counties Environmental Health**

---

118 East Jackson Street, Centerville 52544  
Tel: (641) 437-1909 ~ Fax: (641) 437-1706

Co-Director  
W. A. Milani

Co-Director  
Donnie Herteen

25 October 2002

Mr. John Glenn, President  
Rathbun Land and Water Alliance  
16166 HWY J29  
Centerville, Iowa 52544-8307

Re: (a) Letter of Support

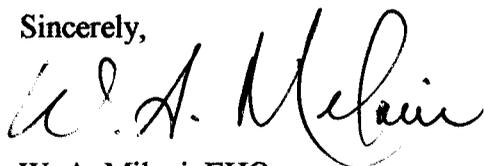
Dear John,

As per reference (a), this letter is to express to the Rathbun Land and Water Alliance a commitment of support from ADLM Counties Environmental Health for the Rathbun Lake Watershed Initiative Nomination proposal. As one of the Alliance's partners, we look forward to continue with you in the effort to protect and improve the water quality in Rathbun Lake.

As you already know this office is active in assisting communities and private property owners in the Rathbun lake watershed area to address their wastewater management needs. Most recently, for example, we have been working with the communities of Derby and Promise City/ Plano with their plans to construct community-wide wastewater treatment and disposal systems. As a result, the community of Derby is in the process of receiving approval for as much as one (1) million dollars in state and federal funds to assist them with the installation of their system. In addition, this office provided assistance to the Alliance during the watershed assessment process to identify and prioritize concentrations of effluent from on-site wastewater treatment and disposal systems within the watershed that are a potential sources of water quality impairment.

This office most strongly supports the initiative and will continue to help the Alliance address these and other related types of water quality issues in the Rathbun Lake watershed during and following the proposed Watershed Initiative project. Please do not hesitate to contact us with any questions or for additional information.

Sincerely,



W. A. Milani, EHO

# Wayne County Sanitarian

Environmental Health Office  
Wayne County Courthouse

P.O. Box 435  
Corydon, IA 50060

Phone: (515) 872-1903

October 20, 2002

John Glenn, President  
Rathbun Land and Water Alliance  
161666 Hwy J29  
Centerville, IA 52544

Dear Mr. Glenn:

As the Wayne County Sanitarian, the purpose of this letter is to express my support to the Rathbun Land and Water Alliance for the Rathbun Lake Watershed Initiative Nomination proposal. The Alliance has pooled many resources to complete work on the watershed assessment, which identifies various potential point and nonpoint sources of pollution that could potentially affect the water quality of Rathbun Lake. Expanding on this work through cooperative efforts by identifying critical areas within the watershed will also aid me in my efforts to work with community and rural wastewater systems.

As the county sanitarian, I have been working to obtain funding for community wastewater systems as well as individual household septic systems in the rural community within the Rathbun Lake watershed. The importance of this work in combination with your nonpoint source work is vital to protecting and improving the water quality of Rathbun Lake.

In closing, it is refreshing to know that other organizations realize the importance of organizing multiple partnerships to address the various water quality concerns in the region. Again, I will continue to focus my efforts on wastewater system improvements within the watershed and thank you for your efforts.

Please feel free to contact me at any time for additional information or questions concerning my support for the Rathbun Lake Watershed Initiative proposal.

Sincerely,



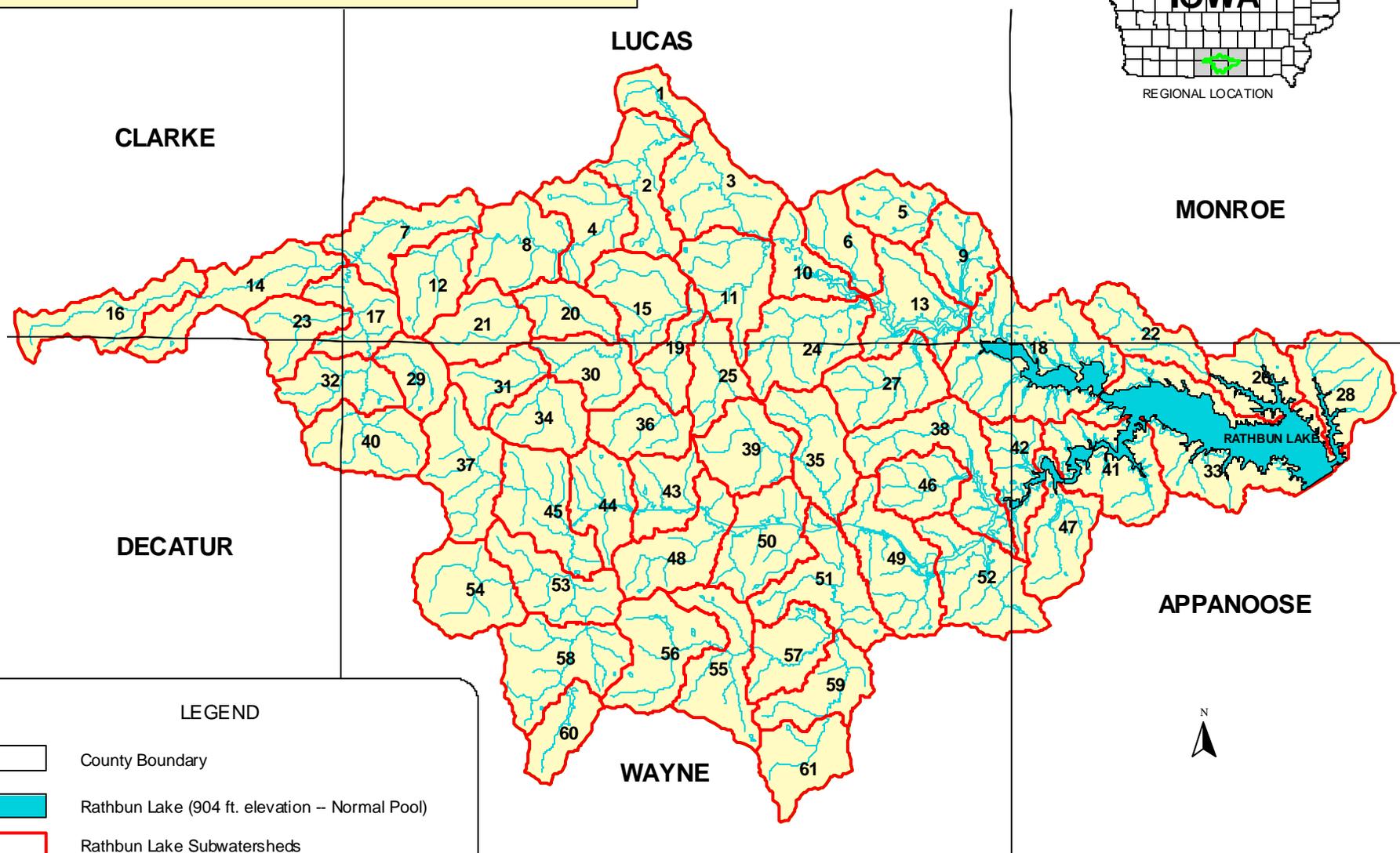
Randy Taylor  
Wayne County Sanitarian

# APPENDIX III

## Project Maps

# Rathbun Lake Watershed Rathbun Lake Subwatersheds Watershed Initiative Nomination Proposal

Map 1



**LEGEND**

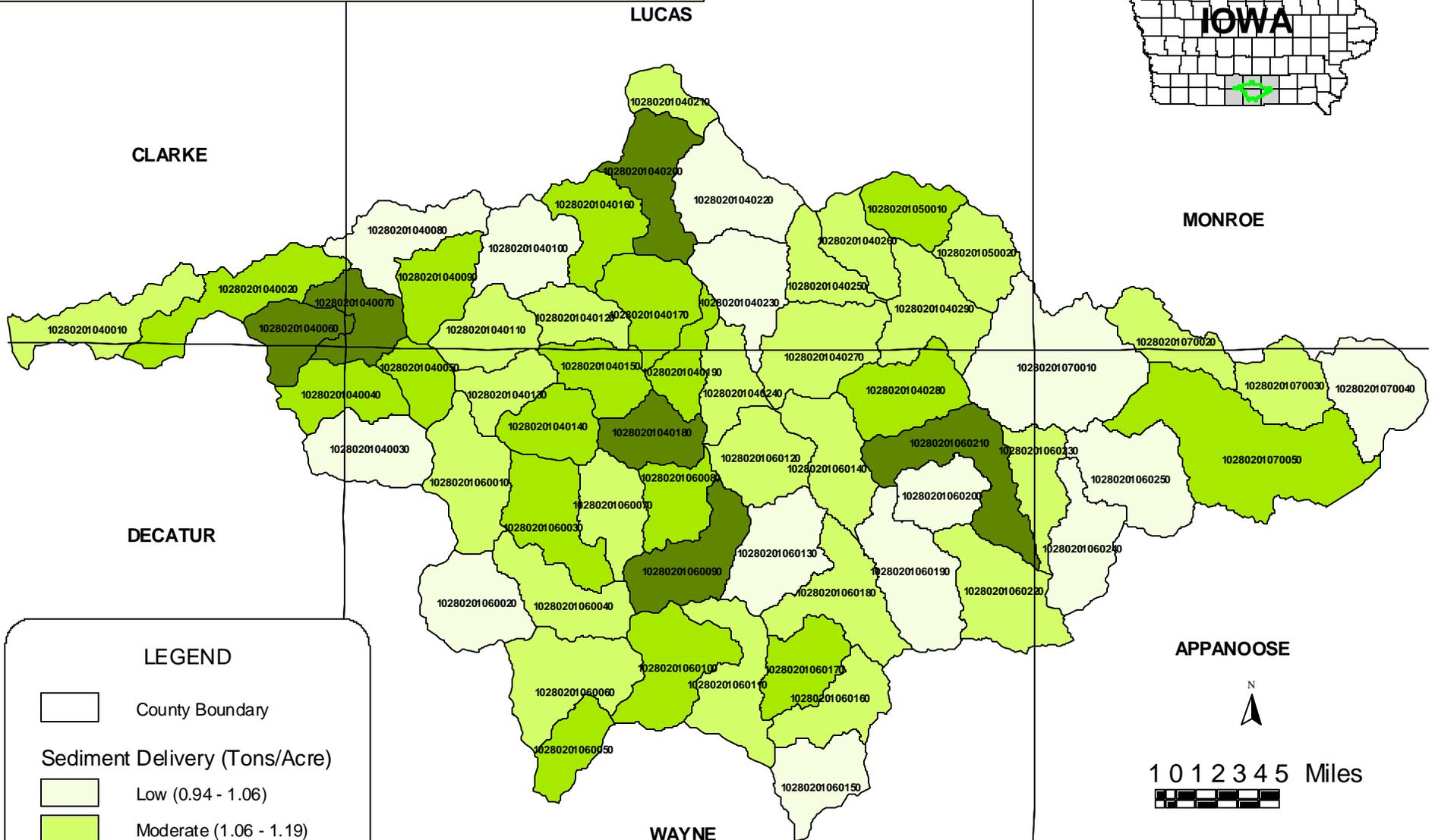
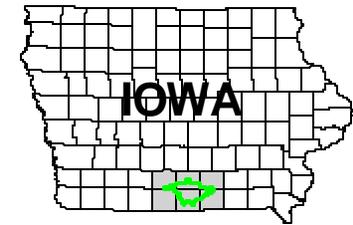
-  County Boundary
-  Rathbun Lake (904 ft. elevation -- Normal Pool)
-  Rathbun Lake Subwatersheds
-  Drainage
-  Rathbun Lake Watershed (354,000 Acres)



Source: Rathbun Regional Water Association  
Chariton Valley RC&D  
Wayne County Soil and Water Conservation District  
Iowa DNR NRGIS  
USDA Natural Resources Conservation Service  
Prepared By: Rathbun Regional Water Association

# Estimated Sediment Delivery Rathbun Lake Subwatersheds Watershed Initiative Nomination Proposal

Map 2



## LEGEND

 County Boundary

### Sediment Delivery (Tons/Acre)

 Low (0.94 - 1.06)

 Moderate (1.06 - 1.19)

 High (1.19 - 1.36)

 Very High (1.36 - 1.57)

**WAYNE**



1 0 1 2 3 4 5 Miles

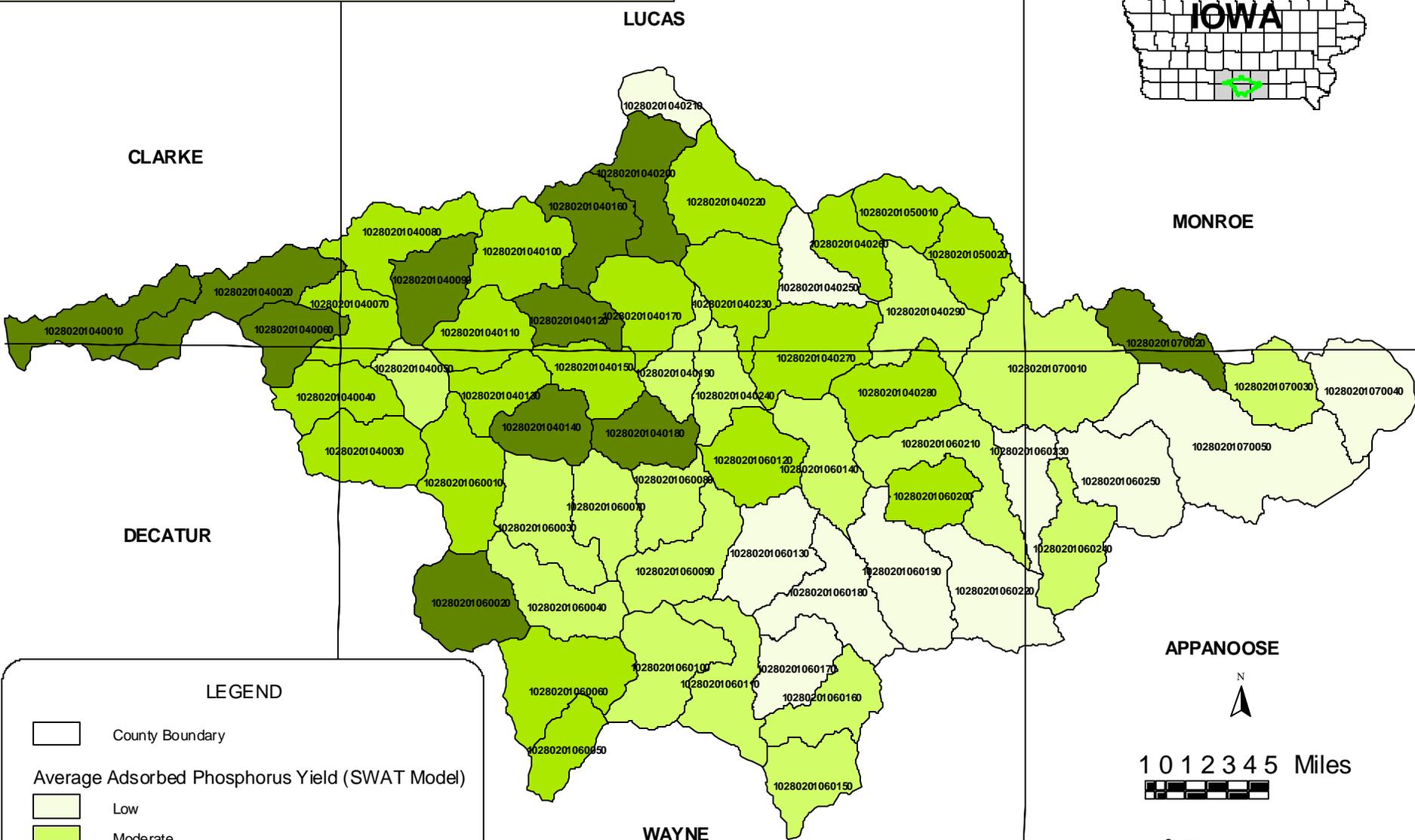
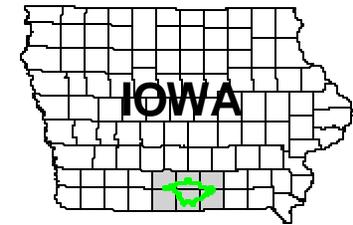


Source:  
Rathbun Regional Water Association  
Wayne County SWCD  
Chariton Valley RC&D  
Iowa State University

Prepared By:  
Rathbun Regional Water Association

# Estimated Phosphorus Yield Rathbun Lake Subwatersheds Watershed Initiative Nomination Proposal

Map 3



**LEGEND**

-  County Boundary
- Average Adsorbed Phosphorus Yield (SWAT Model)**
-  Low
-  Moderate
-  High
-  Very High



**APPANOOSE**

N



1 0 1 2 3 4 5 Miles

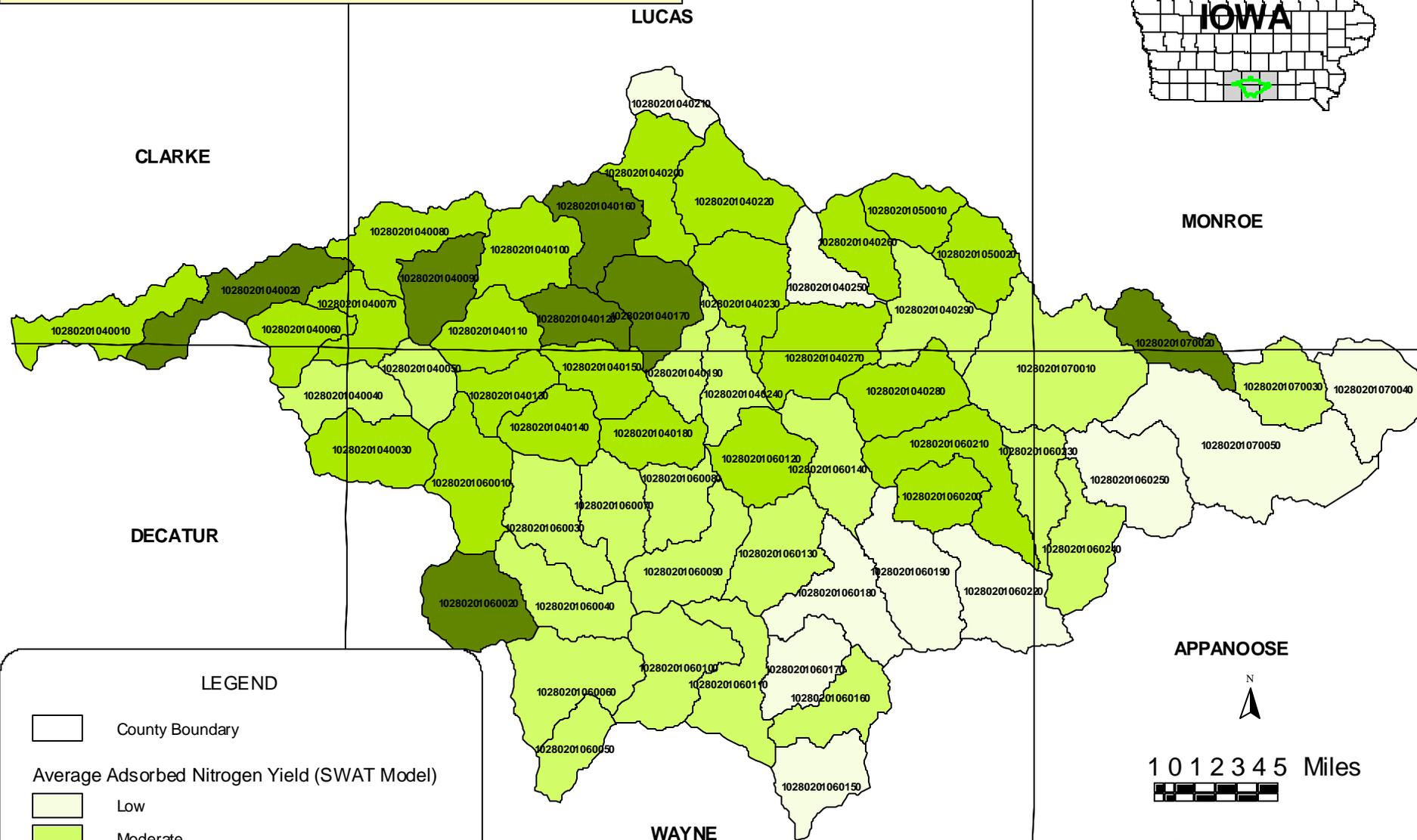
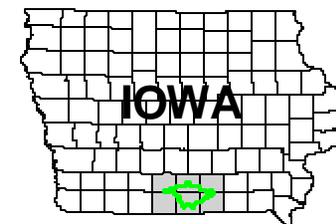


Source:  
Rathbun Regional Water Association  
Wayne County SWCD  
Chariton Valley RC&D  
Iowa State University

Prepared By:  
Rathbun Regional Water Association

# Estimated Nitrogen Yield Rathbun Lake Subwatersheds Watershed Initiative Nomination Proposal

Map 4



**LEGEND**

-  County Boundary
- Average Adsorbed Nitrogen Yield (SWAT Model)**
-  Low
-  Moderate
-  High
-  Very High

WAYNE



APPANOOSE



1 0 1 2 3 4 5 Miles

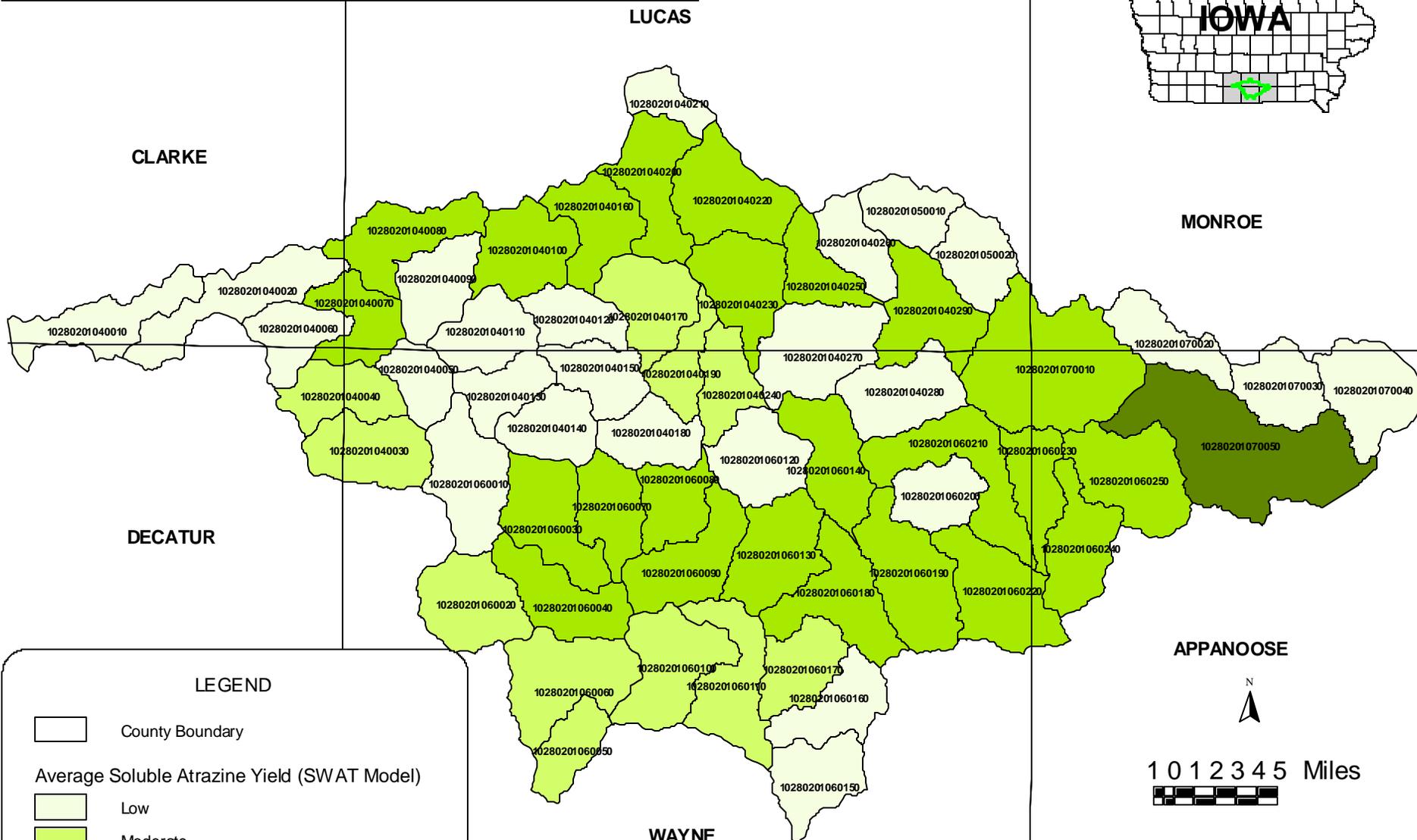
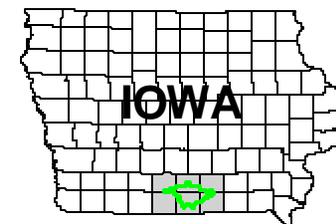


Source:  
Rathbun Regional Water Association  
Wayne County SWCD  
Chariton Valley RC&D  
Iowa State University

Prepared By:  
Rathbun Regional Water Association

# Estimated Atrazine Yield Rathbun Lake Subwatersheds Watershed Initiative Nomination Proposal

Map 5



**LEGEND**

-  County Boundary
- Average Soluble Atrazine Yield (SWAT Model)**
-  Low
-  Moderate
-  High
-  Very High



**APPANOOSE**

N



1 0 1 2 3 4 5 Miles



Source:  
Rathbun Regional Water Association  
Wayne County SWCD  
Chariton Valley RC&D  
Iowa State University

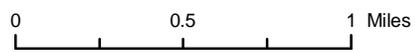
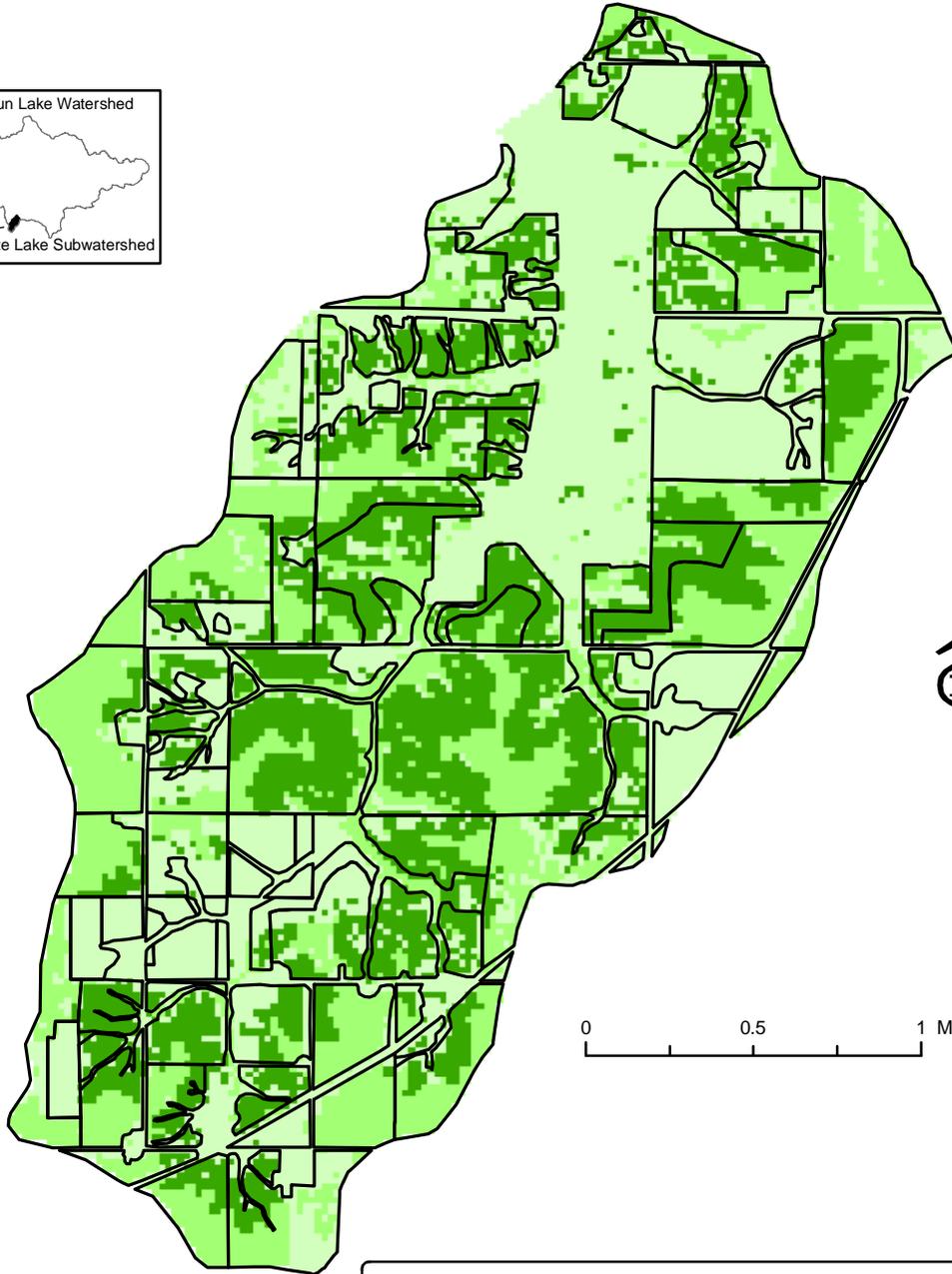
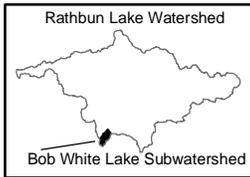
Prepared By:  
Rathbun Regional Water Association





# Bob White Lake Subwatershed Priority Area Identification Watershed Initiative Nomination Proposal

Map 8



**Legend**

- Farm Field Boundaries
- Priority Areas for Best Management Practices (BMPs)**
  - Low Priority
  - Moderate Priority
  - High Priority

Source:  
Rathbun Regional Water Association  
Wayne County SWCD

Prepared By: Rathbun Regional Water Association

# APPENDIX IV

Rathbun Lake Watershed Assessment Summary

# Assessment and Management Strategies for the Rathbun Lake Watershed



## Introduction

The Rathbun Land and Water Alliance's mission is to foster a voluntary approach driven by landowners, water users, and public and private organizations to protect and enhance resources in the Rathbun Lake region. The Rathbun Lake watershed assessment identifies and prioritizes potential sources of water pollution in the lake. Assessment results have been used to develop management strategies that will reduce and prevent pollution from these sources. The Alliance will use the assessment and management strategies to assemble the financial and technical resources needed to accomplish its mission.

## Background on Rathbun Lake and Watershed

**Rathbun Lake** Rathbun Lake is the primary source of water for the Rathbun Regional Water Association (RRWA). Rathbun Lake also provides recreational opportunities, flood damage reduction, fish and wildlife habitat, downstream water quality improvement, storage for supplementing navigational flows, and water for the Iowa Department of Natural Resources' (DNR) Rathbun Fish Hatchery.

**Rathbun Regional Water Association** RRWA is one of the largest rural water systems in the United States and the largest system in Iowa. RRWA provides close to six million gallons of water daily to over 60,000 people in 18 counties and more than 40 communities in Iowa and Missouri.



RRWA water treatment plant located downstream of Rathbun Lake.

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**RRWA is one of the largest rural water systems in the United States and the largest system in Iowa.**

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**Watershed Characteristics** Rathbun Lake's watershed consists of more than 354,000 acres. Row crops are the principal land use with corn and soybeans the most commonly grown crops. Pasture and hayland are present on more than one third of the land and consist primarily of cool season grasses. Woodland is concentrated along upland drainages and in lowland areas. Approximately 468 livestock operations are located in the watershed. Most are beef cattle operations that rely primarily on pasture for grazing. There are 13 publicly owned areas in the watershed consisting of more than 24,000 acres.

The six counties in the watershed are Appanoose, Clarke, Decatur, Lucas, Monroe, and Wayne. These counties are among the least prosperous in Iowa, suffering from some of the highest poverty and unemployment rates and lowest levels of income and farm sales in the state. There are nine communities, 857 farms, and 15,000 residents in the watershed. Almost all of the residents in the watershed rely on Rathbun Lake for their drinking water.

**Water Quality Issues** Rathbun Lake is being impacted by sources of water pollution in its watershed:

- The Iowa DNR's assessment of lakes and streams found that Rathbun Lake is impacted by agricultural non-point sources of pollution.
- Water quality monitoring indicates that Rathbun Lake may someday be unable to assimilate continued loading of silt, nutrients, and pesticides unless the flow of these pollutants from the watershed is reduced.
- Sediment studies indicate that Rathbun Lake has lost a considerable portion of its sediment storage due to erosion of land in the watershed and the shoreline.
- Rathbun Lake is a high priority water body on the US EPA's "Section 303(d) List of Impaired Waters in Iowa", primarily due to high levels of atrazine.

**Water Quality Protection Efforts** Local efforts to protect water quality in Rathbun Lake have included:

- *Creation of the Rathbun Land and Water Alliance.*
- *Water quality monitoring.*
- *Surveys of landowners and water users.*
- *Application of best management practices.*
- *Construction of wastewater treatment facilities.*
- *Restoration of riparian and wetland habitat.*
- *Development of markets for farm products that support land uses protective of water quality.*
- *Water quality education activities.*

## Delimitation of the Rathbun Lake Watershed

The Rathbun Lake watershed has been divided into 61 sub-watersheds (Figure 1). A buffer zone next to rivers and streams and the area in the watershed from which contaminants in runoff may reach the lake in 24 hours or less have also been identified. The sub-watersheds, buffer zone, and time of travel area have been used to locate and prioritize potential sources of water pollution. These areas have also been used to develop management strategies that will reduce and prevent water pollution in Rathbun Lake.

## Inventory of Potential Sources of Pollution in the Rathbun Lake Watershed

An inventory has been completed that identifies public and private facilities and land uses in the watershed that may be sources of sediment, nutrients, chemicals, and bacteria that could cause water pollution in Rathbun Lake. The inventory included both potential point and non-point sources of water pollution.

### The inventory identifies facilities and land uses in the watershed that may be sources of water pollution in Rathbun Lake.

#### Inventory of Potential Point Sources

**Livestock feeding operations:** Animal wastes from relatively large livestock feeding operations that may enter streams, rivers, and the lake can impair water quality. A very small number of the livestock operations in the watershed are of the size that may meet the definition of a concentrated animal feeding operation under current Clean Water Act regulations.

**Road and railroad intersections:** Accidents, construction, and maintenance on roads and railroads can be sources of contaminants that may cause water pollution. Approximately 1,032 intersections with the lake, rivers, and streams are in the watershed.

**Wastewater treatment facilities:** Effluent that leaks or is discharged from lagoons and lines that are parts of wastewater treatment facilities may impair water quality. Eight facilities are located in the watershed.

**Septic systems:** Sewage that may be discharged from poorly operating septic systems can cause water pollution. Eighty-nine areas in the watershed have a concentration of five or more systems per square mile.

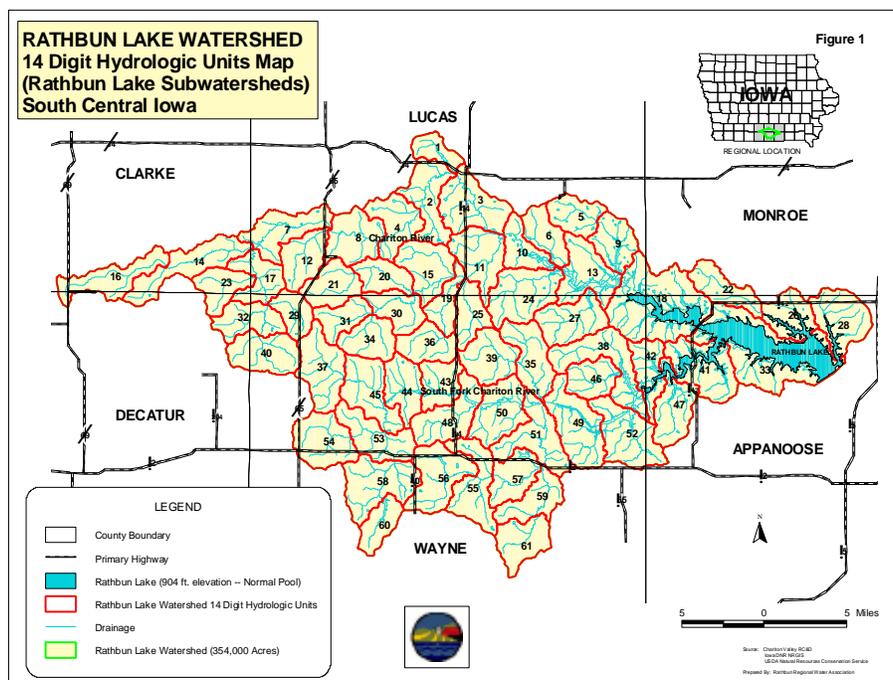
**Institutional, retail, and industrial facilities:** The storage, handling, use, and disposal of materials by these facilities may be sources of contaminants that can impair water quality. Seventy-four facilities were identified in the watershed.

**Recreational facilities:** Visitor activities, construction, and maintenance at recreational facilities may be sources of contaminants that cause water pollution. Fifty-four facilities are located in the watershed.

**Runoff from residential and commercial areas:** Runoff from residential and commercial areas may contain solid and liquid wastes that can cause water pollution. Nine areas are in the watershed.

**Quarry sites:** The operation and maintenance of equipment and processing of rock and other materials at quarries may be sources of contaminants that impair water quality. Eight quarry sites are in the watershed.

**Shoreline erosion:** Severe soil erosion caused by wave action and changes in pool elevation occurs along much of the 150-mile shoreline at Rathbun Lake.



## [Inventory of Potential Non-point Sources](#)

**Eroded soil from land in the watershed:** Information about soils, land use, vegetation, and farming practices was used to estimate erosion rates and the amount of eroded soil carried in runoff to Rathbun Lake.

**Chemicals from land in the watershed:** Information about weather, topography, soils, land use, and farming practices was used to estimate the amounts of farm chemicals carried in runoff to the lake.

**Impact of activities on riparian zones:** Information was collected to determine the impact of activities such as livestock grazing on riparian zones in the watershed and any related effects on water quality in the lake.

**Livestock operations:** Livestock operations may be sources of nutrients, microorganisms, suspended solids, and sediment that can impair water quality. Approximately 468 livestock operations are located in the watershed. Most are beef cattle operations. An estimated 350 are grazing operations that rely primarily on pasture with little or no confinement of livestock. An estimated 118 are feeding operations that confine livestock, for example, in lots or buildings, for at least a portion of the year.



*Soil erosion is a potential source of sediment and chemicals that enter Rathbun Lake.*

## [Susceptibility Analysis of Rathbun Lake to Potential Sources of Pollution](#)

An analysis has been completed to determine the relative risk to water quality in Rathbun Lake from potential point and non-point sources of pollution in the watershed. Results of the analysis can be used to prioritize the potential sources of pollution that are the greatest threat to water quality in Rathbun Lake.

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***The analysis prioritizes the potential sources of pollution that are the greatest threat to water quality in Rathbun Lake.***

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[Susceptibility Analysis for Potential Point Sources](#) The analysis used primarily two factors to analyze the risk to water quality from potential point sources of pollution. These factors included location in the watershed and type of contaminant source. The analysis found that 391 possible point sources in the watershed have a relatively high potential to impair water quality in Rathbun Lake. Road and railroad intersections, shoreline erosion sites, and septic system concentration areas account for the majority of these potential sources. At the same time, most of the wastewater treatment facilities, residential and commercial areas, and quarry sites have a high potential to impair water quality.

## [Susceptibility Analysis for Potential Non-point Sources](#)

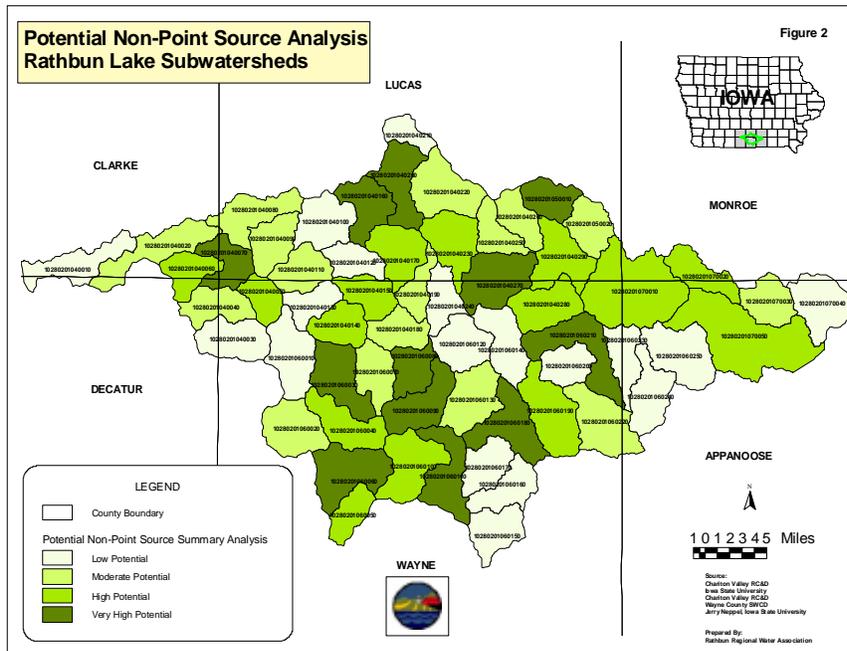
The analysis for potential non-point sources compared the estimated amounts of eroded soil and chemicals carried in runoff from land in each of the sub-watersheds in the Rathbun Lake watershed. The analysis also evaluated the impact of activities on riparian zones as well as the potential for livestock operations to impair water quality. The analysis determined that these non-point sources of pollution in 12 sub-watersheds have a very high potential of impairing water quality in Rathbun Lake. The analysis identified an additional 15 sub-watersheds in which these non-point sources have a high potential to impair water quality in the lake (Figure 2).

## [Management Strategies for the Rathbun Lake Watershed](#)

Assessment results provide the information needed to develop and pursue management strategies that will reduce and prevent water pollution in Rathbun Lake. Management strategies for the watershed include the use of assessment results to plan and apply practices to control water pollution from priority point and non-point sources as well as to match the objectives of technical and financial assistance programs with water quality protection needs.

[Practices for priority point sources](#) Efforts will initially be directed to determining the need for and applying practices to reduce and prevent pollution from point sources with a high potential to impair water quality:

- Livestock waste management with livestock feeding operations in 15 sub-watersheds with a high potential for operations to impair water quality.
- Wastewater treatment systems in 26 areas with concentrations of septic systems that have a high potential to cause water pollution.
- Runoff management practices such as retention structures and vegetative buffers at intersections, facilities, residential and commercial areas, and quarry sites that have a high potential to impair water quality.
- Shoreline erosion control measures at 37 priority sites identified at Rathbun Lake



[Practices for priority non-point sources](#) Efforts will first be directed toward evaluating the need for and applying practices in the 12 sub-watersheds with a very high and 15 sub-watersheds with a high potential for non-point sources to impair water quality in Rathbun Lake:

- Cropland practices will include terrace systems, contour stripcropping, sediment control basins, grade stabilization structures, nutrient and pest management, and conversion of marginal cropland to grassland.
- Grassland practices will include pasture planting, fencing, rotational grazing, nutrient and brush management, and livestock watering systems.
- Riparian zone practices will include planting and managing forest buffers and filter strips and measures to protect sites from livestock use such as stream crossings and to exclude livestock from critical areas.



*Grade stabilization structures can reduce the sediment and chemicals that enter Rathbun Lake.*

[Match programs with water quality protection needs](#)

Assessment results can also help match technical and financial assistance programs with the need for best management practices in the watershed. For example:

- Assistance to protect aquatic habitat from sediment can target 23 sub-watersheds with a high to very high potential for eroded soil to be carried in runoff and 37 priority shoreline erosion sites at Rathbun Lake.
- Assistance to reduce pollution from farm chemicals can target 15 sub-watersheds with a high to very high potential for chemicals to be carried in runoff.

[Implementing management strategies](#)

Alliance efforts will now focus on implementing management strategies in the Rathbun Lake watershed. The Alliance will:

- Select priority point and non-point sources and determine the need for best management practices.
- Develop water quality protection plans that describe the practices and financial and technical assistance needed.
- Assemble the financial and technical resources required to implement water quality protection plans.
- Coordinate the use of financial and technical resources to install best management practices.

Rathbun Land and Water Alliance members include: Rathbun Regional Water Association, Appanoose; Clarke, Decatur, Lucas, Monroe, and Wayne Soil and Water Conservation Districts; Appanoose, Clarke, Decatur, Lucas, Monroe, and Wayne Counties; and Chariton Valley Resource Conservation and Development. Alliance Partners include: City of Corydon; Iowa Farm Bureau; ADLM Counties Environmental Health; Leopold Center for Sustainable Agriculture; Iowa Association of Water Agencies; Trees Forever; Iowa State University; Texas Tech University; Iowa Department of Agriculture and Land Stewardship's Division of Soil Conservation; Iowa Department of Natural Resources; Southern Iowa Development and Conservation Authority; US Army Corps of Engineers; USDA Natural Resources Conservation Service; USDA Farm Service Agency; US Department of Energy; US Environmental Protection Agency; and US Geological Survey. Alliance members and partners that contributed funds for the assessment and management strategies include: Rathbun Regional Water Association; Iowa State University; Iowa Department of Agriculture and Land Stewardship's Division of Soil Conservation; Iowa Department of Natural Resources; US Department of Energy; and US Environmental Protection Agency. Assistance from the Alliance is provided on a nondiscriminatory basis. Additional information and copies of the assessment and management strategies can be obtained from the Rathbun Land and Water Alliance at 641-872-1350 or 641-647-2416.