

MACKINAW RIVER WATERSHED PROJECT IMPLEMENTATION OF SUBWATERSHED PLANS 7, 8, and 9

1/20/99

Problem Statement

The overall water quality of the Mackinaw River is good, according to the Illinois Water Quality Report (1994-1995). But while much of the Mackinaw River also has been classified as a “unique aquatic resource” by the Illinois Environmental Protection Agency (EPA) and the Illinois Department of Natural Resources (DNR), it is a river under stress. Site visits to the river reveal stresses from a variety of nonpoint sources of pollution. Causes of stress include: siltation, nutrients, thermal modification, flow alteration, and organic enrichment/DO. Sources of stress include agriculture, urban runoff, hydrologic habitat modification, and developmental pressures. The local community is currently interested in protecting the good water quality of the Mackinaw River, and wants to reduce these stresses to avoid further degradation of the river.

The Mackinaw River drains approximately 1,136 square miles from portions of six counties in central Illinois. The river flows westerly and empties into the Illinois River south of Pekin, Illinois at river mile 147.7. The Illinois EPA has two ambient stations on the Mackinaw River and conducted intensive basin surveys in 1987 and 1994. In cooperation with the Illinois DNR and the Illinois EPA, portions of the Mackinaw River including two tributaries: Walnut Creek and Panther Creek; have been rated as “A” streams. With the exception of the lower 7.7 miles, the Mackinaw River was rated as fully supporting the aquatic life use.

Purpose and Project Description

In 1994, the Illinois EPA joined forces with The Nature Conservancy (TNC) to work with local stakeholders to create a watershed management plan for the Mackinaw River watershed. The purpose of the watershed plan is to protect the Mackinaw River by reducing “problem” water quality areas on the river and its tributaries., thus ensuring the continuation of the good overall water quality of the river. This application is to secure funding to implement best management practices (BMP) and programs prescribed by the Mackinaw River Watershed Management Plan and subwatershed plans for the Upper Mackinaw, West Branch of Panther Creek, Mud Creek, Henline Creek, Walnut Creek, the Little Mackinaw River, and the next three priority subwatersheds to be determined by the Mackinaw River Watershed Council (MRWC) and the Illinois EPA.

The Mackinaw River is approximately 131 miles long and drains portions of six central Illinois counties: Ford, Livingston, McLean, Woodford, Tazewell, and Mason. Approximately 94 percent of the landuse is agricultural. The remaining landuse includes: urban, pasture, transportation, woodland, and other.

The joint partnership between the Illinois EPA and The Nature Conservancy has focused on the creation and support of a community-driven watershed management plan for the entire watershed. To date the Mackinaw River Watershed Council has completed a general watershed

management plan and subwatershed plans for the Upper Mackinaw River, the West Branch of Panther Creek, and Mud Creek. The subwatershed plans identify specific stresses and prescribe BMPs needed to protect and improve water quality in these areas. Subwatershed plans for Henline Creek, Walnut Creek, and the Little Mackinaw River are currently being written with assistance from the local community and the Mackinaw River Watershed Council. The next three subwatershed areas will be determined by The Mackinaw River Watershed Council and the Illinois EPA, and subwatershed management plans will be developed and submitted to the Illinois EPA by 2002.

The purpose of this project is to implement a portion of the BMPs needed to protect or improve the water quality within subwatershed priority areas seven, eight, and nine. Efforts to implement BMPs in the Upper Mackinaw River, the West Branch of Panther Creek, Mud Creek, Henline Creek, Walnut Creek, and the Little Mackinaw River will continue. In addition to the implementation of BMPs the Mackinaw River Watershed Council will work in partnership with The Nature Conservancy to increase public support for the project and build important relationships with local government and conservation partners. The Nature Conservancy proposes the following components:

- Staffing for the Mackinaw River Watershed Council
- Community Outreach and Education
- Acquisition of Conservation Easements
- Best Management Practices

1. The Mackinaw River Watershed Council - - The Mackinaw River Watershed Council is a non-profit organization. Its Board of Directors consists of sixteen individuals: fifteen landowners representing a diversity of landowner and resident interests from throughout the watershed, and one representative from The Nature Conservancy. The application includes funding for staffing for the Watershed Council. The staff will work to increase the capacity of the Watershed Council and complete the transition of project management from The Nature Conservancy to the Watershed Council. Staff duties will include building financial and technical support for the implementation of the Mackinaw River Watershed Management Plan, broad community outreach, and assisting in coordinating BMP funding and project workload with local partners including the Natural Resource Conservation Service (NRCS) and the local Soil and Water Conservation Districts (SWCD). Staff will also coordinate with local county and municipal governments to recognize the objectives of the Mackinaw River Watershed Management Plan and consider them in developing appropriate “smart growth” strategies for drainage, land use, and zoning.
2. Community Outreach and Education - -The Community Outreach component of the project will continue to engage rural and municipal stakeholders in implementation of watershed management strategies and actions as prescribed in the Mackinaw River Watershed Management Plan and the subwatershed plans. Community residents will continue to learn the causes and sources of nonpoint source pollution within the Mackinaw River watershed through community presentations. Staff and members of the Mackinaw River Watershed Council will utilize the project video, slide shows, and the project display developed during

the project's initial phase for targeted outreach to local citizens within subwatershed priority areas and the larger watershed area, soliciting participation and installation of BMPs.

Six "stream teams" will assist The Nature Conservancy and The Mackinaw River Watershed Council with inventories of watershed resources and installation and management of BMPs. The stream teams will be coordinated by The Nature Conservancy. Stream teams will be organized from, but not limited to, interested community stakeholders from subwatershed priority areas.

The Nature Conservancy will continue to host field trips which tour demonstration sites of installed BMPs, and watershed areas where BMPs are needed to reduce the effects of nonpoint source pollution. In partnership with the Mackinaw River Watershed Council, local NRCS and SWCD staff, field work shops will be offered at these sites to demonstrate installation and maintenance of BMPs, and further inform landowners about BMP implementation incentives. Canoe trips will provide hands-on education about water quality and potential sources and causes of impairment to the Mackinaw River. The project newsletter will continue to be published three times per year.

3. Conservation Easements - - Landowners along the river may donate conservation easements as appropriate in order to protect areas of high water quality. These easements will be adjacent to the river, its tributaries, or other critical areas as agreed upon by the Illinois EPA. The easements will be recorded at the appropriate county offices. Additional easements through the Conservation Reserve Enhancement Program (CREP) may be secured by NRCS/SWCD staff from qualifying local landowners.
4. Best Management Practices - - The primary focus of this effort will be the installation of BMPs intended to reduce nonpoint source pollution in the Mackinaw River and its tributaries. Priority will be given to BMPs that are not normally implemented by NRCS. These practices include, but are not limited to, nutrient management including water table control systems and prescribed farming practices, forest and riparian management, wetland restoration, wetland construction, streambank restoration using native vegetation, rural detention basins, rotational livestock grazing systems including alternative water devices for cattle where herds currently access the river for water. Approximately 75 percent of the BMP implementation funds will be spent within priority subwatersheds. Twenty-five percent of the BMP implementation funds will be directed towards geographically dispersed sites where constituency building is needed for future priority area implementation.

In addition to agricultural BMPs, The Mackinaw River Watershed Council will seek participation from rural towns to install BMPs which control and reduce excess stormwater runoff from impervious surfaces, treat and reduce nutrient inputs, and develop comprehensive long-range planning to accommodate growth while protecting the natural resource of the Mackinaw River and its tributaries.

Relationship to Other Activities

The Nature Conservancy has previously received three Section 319 grants to assist the local community of the Mackinaw River watershed in the development of their watershed management plan, the implementation of the first six subwatershed plans, and capacity building for the Mackinaw River Watershed Council. This application is a continuation of the Phase 1, 2, and 3 Mackinaw River Watershed Management Projects. Landowner and community interest in the outcome of the Mackinaw River Project is demonstrated by the formal establishment of the Mackinaw River Watershed Council as a 501(c)3 organization and the designation of the Mackinaw River Project Planning Team as one of Illinois Department of Natural Resources' Local Planning Councils. Designation enables the Watershed Council to obtain and direct funds for BMP implementation, and other natural resource protection strategies. This funding approach will serve to further engage the watershed community in taking action to reduce nonpoint source pollution. Conservation 2000 funds also provide ideal match for education and BMPs funded by Section 319 of the Clean Water Act.

As a direct result of Phase 1 of the Mackinaw River Project, the Mackinaw River watershed has been designated as a Conservation Priority Area by the United States Department of Agriculture (USDA) in 1997 and 1998. The Illinois EPA 319 subwatershed priority areas of the West Branch of Panther Creek and Mud Creek have been approved by the State Technical Committee for Conservation Priority Area status for 1999. These designations have provided approximately \$700,000 in revenue for use in establishing BMPs on agricultural land. Conservation Priority Area status will continue to be applied for in additional 319 subwatershed priority areas.

The Mackinaw River Watershed includes six of the twenty-nine counties that have been approved for CREP through the USDA. The Illinois River strategy team recognize the efforts in the Mackinaw River Watershed as a model for the Illinois River Initiative and promotes the Mackinaw as an example of tributary management for other subwatersheds.

Scope of Work and Schedule (assuming a 10/1/01 start date)

1. **The Mackinaw River Watershed Council** – The Mackinaw River Watershed Council meets monthly and oversees management of the project. The Watershed Council selects all BMPs using approved selection criteria, and prioritizes BMP applications according to their ability to control nonpoint source pollution, improve water quality, and meet the objectives of the Mackinaw River Watershed Management Plan. The Watershed Council has adopted by-laws and has become a non-profit organization, and will assume full management of the project from The Nature Conservancy after the year 2002. Staff hired by the Watershed Council will maintain BMP sign-ups and community outreach efforts throughout the project period.
2. **Community Outreach and Education** – The Community Outreach and Education component will continue to engage watershed stakeholders with an emphasis on water quality education and participation in actual restoration efforts. Stream teams will assist The Nature Conservancy and the Mackinaw River Watershed Council in inventorying local subwatershed resources. Mackinaw River Watershed Council members and staff will provide community presentations for watershed stakeholders utilizing the project video, slide

shows, and the project display. The Nature Conservancy will continue to host field trips and canoe trips for watershed stakeholders, and will partner with local NRCS/SWCD staff in providing field workshops to demonstrate the implementation and maintenance of BMPs, and BMP implementation incentives. The project newsletter, in conjunction with news releases to local media, will be used to advertise events and promote the project to the watershed community and other interested individuals. This work will continue through October 2004.

3. Conservation Easements – The Nature Conservancy, The Mackinaw River Watershed Council, and local NRCS/SWCD staff will secure conservation easements as they deem appropriate. The easements cannot be predicted in advance and will depend upon landowner interest. All easements executed will be recorded at the county offices. Conservation Plans and Operation and Maintenance Plans will be created and implemented during the project period for any land put into a conservation easement. This work will continue through July 2004.

4. Best Management Practices – Staff from The Nature Conservancy, The Mackinaw River Watershed Council, and local SWCDs will continue to do outreach to increase the number of applications for cost-share programs and technical assistance from project partners and watershed stakeholders. The Nature Conservancy will assist The Mackinaw River Watershed Council in establishing an advisory committee made up of local agency partners from NRCS and SWCD. The advisory committee will review BMP applications and assist the Watershed Council in allocating funding within the subwatershed priority areas and the larger Mackinaw River watershed area. Watershed Council staff will process Section 319 BMP applications and present advisory committee recommendations to the Watershed Council for approval and prioritization. Section 319 BMP construction (including technical assistance) will be supervised and completed utilizing Conservancy staff, Watershed Council staff, local partner agencies, and subcontractors as approved through the Illinois EPA. This work will continue through July 2004.

5. Final Report and Project Evaluation – A report will be prepared which summarizes the findings of the project. The report will document the project tasks and evaluate the project’s effectiveness. The final report will be completed and submitted to the Illinois EPA by September 2004.

PROJECT COST SUMMARY

DIRECT LABOR	236,000
TNC staff*	
Administrative Assistant**(MRWC)	
Executive Director**(MRWC)	
 TRAVEL**	 55,800
 EQUIPMENT/MATERIALS**	 50,500
Office Overhead (rent, utilities)	23,000

Office Supplies (misc.)	21,500	
Field Equipment	6,000	
COMMUNICATION**		57,450
Phones	36,000	
Printing/Postage	21,450	
BEST MANAGEMENT PRACTICES**		1,500,000
Project Design		
Project Construction		
Conservation Easements		
SWCD Subcontracts		
Drainage District Subcontracts		
EDUCATION/OUTREACH**		45,275
Watershed Council & Stakeholder Meetings	3,800	
Field Trips and Field Demonstrations	12,275	
Stream Teams	12,000	
Canoe Trips	10,000	
Newsletters	7,200	
Sub-Totals:		
Direct Costs:		1,945,025
Indirect Cost @ 20%:		389,005
TOTAL:		2,334,030
IEPA SHARE:		1,400,418
MATCH:		933,612
(Provided through hard dollar match, in-kind services from the MRWC, TNC and other project participants, and conservation easements)		

*TNC staff and associated expenses are budgeted over 12 months

**MRWC staff and associated expenses are budgeted over 36 months

For more information regarding this proposal, contact:

Diane Rudin
The Nature Conservancy
1201 S. Main Street
Eureka, IL 61603
(309) 467-4662