

# **GREATER MARENGO-UNION AREA WATERSHED PLANNING PROJECT 2005 - 2006**

## **YEAR ONE REPORT and ACTION PLAN**



Assisted by

Metropolitan Planning Council  
Openlands  
Campaign for Sensible Growth

Funded with a grant from the Joyce Foundation  
November 2005

## FOREWORD

If the last decades of the 20th century will be remembered for the actions and concerns about development pressure in the areas surrounding cities, edge cities, and now edgeless cities, the first decades of the 21st century will be marked by concerns about water, a primary ingredient for development. Water is arguably an area's most precious resource, and the relationship between land use and water is becoming increasingly relevant to regional health. The quantity and quality of any given region's water supplies depend primarily on how much of the land is developed or left as open space, the intensity of the farming practices, various industries and urbanized populations that depend on clean water, and other land-use decisions. Similarly, land-use options are often limited for communities and developers by water resource consideration – with locations of floodplains, depth and quality of aquifers, quality of surface lakes and streams, and other water-related factors affecting where and how development requiring clean water supplies can occur. The northeastern Illinois region is at a critical juncture in its need for management, planning and protection of its water resources.

In 2003, the project sponsors – the Campaign for Sensible Growth, Metropolitan Planning Council, and Openlands – launched a collaborative effort to examine the relationships between development, land use, and water quality and quantity. Through research, released in the report *Changing Course* (December 2004), it was determined that while surface water quality in northeastern Illinois has shown some improvement over the past three decades, unregulated nonpoint source pollution stemming from continued regional growth has had increasingly negative consequences for surface waters. In addition, it is becoming clear that the supply of potable water is limited. With ever-increasing demands for a finite supply of clean water, research shows that sustaining water resources depends on implementation of sustainable land-use practices.

In August 2005, the sponsors completed the first year of a two-year watershed planning project, designed to help communities and counties play a vital role in improving public policy and practices regarding water quality and quantity. The sponsors have helped create committees of citizens working at the local level in two watershed areas characteristic of the tensions of watershed planning in areas on the edge of urban development. One of them is the Greater Marengo-Union watershed, which encompasses a four-township area in southwest McHenry County and contains a segment of the Kishwaukee River and portions of several of its tributaries. The other planning area is the watershed of Trim Creek, which flows through Will and Kankakee counties before it discharges into the Kankakee River. The project sponsors are providing technical assistance to improve the effectiveness of area-scale watershed planning. Each pilot project addresses river sub-watershed areas of a manageable size for this project; both areas are in the path of new suburbanization that is a proven threat to water resource management; both planning projects address tributary flows into critical Class A (highly ranked) Illinois rivers; and both watersheds contain local governments concerned about future water quality, water supply, and potential flooding.

## **THE GREATER MARENGO – UNION WATERSHED PLANNING AREA OF THE KISHWAUKEE RIVER**

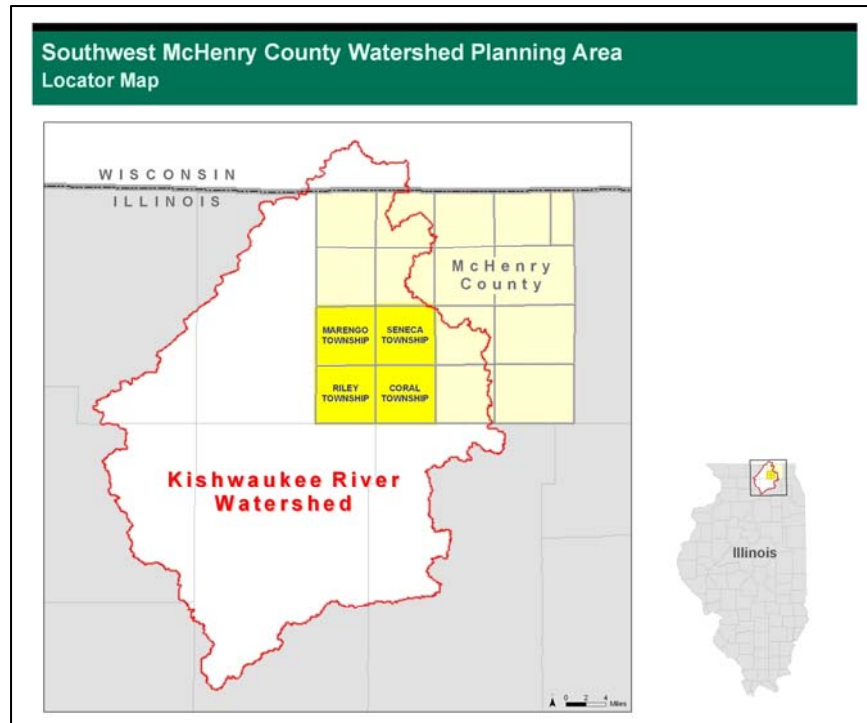
The Greater Marengo-Union watershed planning area encompasses a four-township area of southwest McHenry County, and includes the jurisdictions of the City of Marengo, Village of Union, County of McHenry, and townships of Marengo, Riley, Coral, and Seneca. This area contains a number of tributaries of the Class A Kishwaukee River, including the North Branch, South Branch, Rush Creek, Coon Creek, and several smaller streams.

The City of Marengo, its neighbor 4.4 miles to the east, the Village of Union, and the four surrounding townships (Coral, Marengo, Riley, and Seneca) are along the

perceptible line of development moving west and north from Lake and Kane counties into McHenry County. Located along the I-90 corridor, the area has access to and from Chicago and Rockford, Ill. Local chambers of commerce are promoting further commercial and industrial development. Public officials in Marengo, with a population of

6,355, and Union, with less than 1,000 as of the 2000 census, and the townships are all aware of what may come their way if there are no concerted planning efforts. They have watched the rapid development of neighbors Lake in the Hills, Antioch, Huntley, and Hampshire, and are concerned about the consequences of that development: traffic congestion along Route 12, 70 percent more wastewater pumped into the Kishwaukee at the Lake-McHenry line, and the prospect of development taking the place of agricultural land and an abundance of natural resources.

The City of Marengo grew from 4,768 people in 1990 to 6,355 by 2000, and the township is projected to increase to 10,080 by 2030 (Northeastern Illinois Planning Commission). Union, which had a population of 562 in 1990, will increase substantially as well, while Coral Township is expected to grow to 8,775, and Seneca to increase to 6,722 by 2030.



Each community has development proposals before them. The area is home to McHenry County Conservation District holdings, camping facilities, and the scenic Kishwaukee River. Marengo's Indian Oaks Park is a 140-acre multi-purpose recreational area, with a community swimming pool, soccer and softball fields, nature center, and full program offerings. Union supports two parks, Veterans' and Siems, near the confluence of the river and the South Branch. In the area, too, are a variety of interesting museums and attractions including the Illinois Railroad Museum and McHenry County Historical Society.

These local governments now are working together to create a Greater Marengo-Union Area Watershed Plan to serve as a roadmap to a coordinated approach for land-use and water resource management. The participating local jurisdictions are working to strengthen codes and ordinances and establish effective guidelines for reviewing proposed development. The municipalities of Marengo and Union officially signed onto the project, as did McHenry County, and the townships of Marengo, Coral, and Riley. Each provides members to the project's Steering Committee to collaboratively guide the watershed planning process. Monthly meetings have been held alternatively in Marengo and Union on Feb. 23, March 23, April 27, May 25, July 20, and Aug. 17, 2005. A special public meeting was held June 22, 2005, to engage other local residents in the planning process.

## **THE IMPORTANCE AND URGENCY OF WATERSHED PLANNING FOR THE GREATER MARENGO-UNION AREA**

The participants in the watershed planning project have identified and discussed the natural resource assets, government and institutional settings, growth issues, and the multiple benefits of improved watershed management in the planning area. There is a consensus that watershed planning is important to the people of the area. With significant new growth already anticipated, there is a need to prepare for managing development to conserve water resources, protect against flooding, and maintain the current quality of local communities and the agricultural economy.

The facts are:

1. The Kishwaukee River is a Class A Illinois stream that is a high quality resource providing drinking water, water for industrial uses (including irrigation for sod farms and other agricultural uses), and many recreational and economic benefits to the region.
2. The Kishwaukee River is a high quality stream that fully supports aquatic life and has a high rating of biological quality.
3. The Kishwaukee River, its tributaries and underlying groundwater resources are sources of water supply for property owners and residents of the watershed.
4. The quality of the Kishwaukee River is threatened in various ways, including sedimentation from upstream and its tributaries, as well as nonpoint source pollution run-off from within the four-township area and vegetation overgrowth on the banks and within the stream.

5. Agriculture is the most prevalent land use in the watershed, the practice of which can have significant impacts, positive and negative, on water quantity and quality in the watershed.
6. Significant population and economic growth is expected in the watershed planning area, resulting in increases of run-off and discharges to the river and its tributaries, with potential significant changes to the volume, rate and quality of water, as well as potential impacts on ground water.
7. The Kishwaukee River and its tributaries have significant floodplains, which are historically part of the ecology of the stream and present constraints to new development.
8. Protection and improvement in the quality of the Kishwaukee River and its tributaries can provide the communities of the watershed with enhanced access to nature, aesthetic benefits, and recreational enjoyment.

## **FIRST YEAR PROJECT ACHIEVEMENTS**

The first year of the watershed planning project included a start-up phase for the overall pilot project being funded by the Joyce Foundation, consisting of the assessment and selection of pilot watersheds through outreach to local officials to identify project interest and potential for creating a collaborative relationship with a reasonable degree of project success. Subsequent to pilot watershed selection, significant progress has been made. Thus far, the project has:

- Organized the watershed planning steering committee by official actions taken by partner jurisdictions to participate in the project.
- Prepared GIS-based watershed base maps for watershed planning and public outreach.
- Developed interim watershed goals and objectives.
- Conducted a public workshop for assessing community watershed concerns.
- Conducted a planning area tour for gaining local input on watershed planning and land use issues.
- Photo-documented watershed and stream conditions.
- Developed working relationships with key resource management organizations such as the McHenry County Conservation District, National Resources Conservation Service (NRCS), Kishwaukee River Ecosystem Partnership, Ill. Dept. of Natural Resources, and the McHenry County Soil and Water Conservation District.
- Identified primary components of a watershed green infrastructure system.
- Developed an action plan for year two of the Great Marengo-Union Area Watershed Planning Project.

## **GREATER MARENGO-UNION AREA WATERSHED PROBLEMS AND ISSUES**

### **Protection of the Kishwaukee River as a High Quality Regional Asset**

The Class A-rated Kishwaukee River is a prime natural, recreational and economic asset for the planning area, as well as northeastern Illinois in general. There is a critical need to



The beauty and ecological importance of the Kishwaukee River are the underpinnings of a wide range of strategies that will be included in the watershed plan for the Greater Marengo-Union area.

promote land development and stormwater management that protect the quality of the Kishwaukee and its related ecosystems. Augmented efforts directed towards stream maintenance and restoration, stream monitoring and stewardship, development of paths and trails, and other low-impact facilities are needed. In addition, there is a need to encourage awareness, access and conservation of this important resource through development of appropriate access facilities, such as canoe launches, and otherwise support recreational and education programs.

### **Flood and Stormwater Management**

The watershed planning area is ripe for a quantum shift in its character as suburban development from the east and south moves into the area. Development will occur within the watershed, but the quantity and quality of that development is subject, in part, to local development policies, the success of intergovernmental cooperation, and other factors. Pressures for new development are enhanced via the Route 20 access to I-90. Such

pressures would be further increased, especially in the southwest part of the planning area, if an interchange at I-90 and Route 23 were planned and constructed.

The planning area contains the confluence of several Kishwaukee River sub-watersheds. The planning area will therefore be receiving runoff from a large developing area and creating a concern regarding the potential for increased future flooding and reduced surface water quality should stormwater fail to be adequately managed in the upland areas. The flatness of the wide Kishwaukee River Valley contributes to the difficulty of draining developed areas in the valley.

The planning jurisdictions of the City of Marengo and Village of Union overlap in the growth area between the two municipalities. Given existing flooding conditions, and the potential for their becoming worse, it is essential that a concerted, collaborative approach to land-use planning and stormwater management be designed and implemented.

Topographic, soil and other conditions vary sufficiently in the planning area to warrant examination of specialized stormwater management strategies tailored to variable conditions in lowland and upland areas. This has been considered by the Village of Union through recommendations developed by Applied Ecological Services, Inc. for the Chicago Wilderness Sustainable Watershed Action Team project. This approach needs to be considered for adoption throughout the planning area.

### **Wastewater Services and Land Application Approaches**

Land application techniques for handling wastewater are beginning to be used and encouraged in the planning area. Such techniques offer a number of benefits, including irrigating agricultural lands, fitting into conservation design of subdivisions, and restoring groundwater supplies. The use of these techniques, being independent of any centralized wastewater treatment facility, can allow great flexibility in the location of development as long as system functional requirements are met. Therefore, it is important that land-use plans strive to create an aggregation of individual developments that together create viable community areas and connected open spaces. Land application systems can serve as a tool for creating, preserving and enhancing corridors of multi-use open space, conservation lands, naturalistic types of stormwater management, and agricultural areas.

Preserving agriculture in the planning area will be a major challenge. Land application systems may provide a means of accomplishing some of this, as some agricultural lands may be employed to receive irrigation from land application systems. Another “service” of the agricultural areas is the accommodation of flood waters. Currently, the lowland extensive agricultural area is located within floodplains. It will be a challenge to find an appropriate balance between areas to be protected as floodplain, areas to be developed as urban uses areas, to be reserved for agricultural uses, stormwater conveyance and infiltration, and land application of wastewater. In the future, agricultural areas in the valley of the Kishwaukee River may be called upon not only to provide agricultural services, but also to accommodate a certain amount of new growth, as well as serve as a location for the management of stormwater and application of wastewater – hence the

need for extraordinary attention to the integration of land uses and systems of stormwater and wastewater management in the lowland areas.

### **Water Supply**

The water supply needs of the area are satisfied through the extraction of groundwater and some direct pumping of water from the Kishwaukee River. The quantity and quality of this groundwater is of major concern to residents as the area begins to accommodate more development. Water supply studies have indicated that groundwater supplies are not in immediate danger of being depleted, but the longer view suggests the need for stewardship. Care needs to be taken to avoid pollution of groundwater in considering the location of sensitive soils and aquifer recharge areas in the land-use planning process and the location of on-site wastewater treatment systems. Currently, there is inadequate understanding of the extent and location of potential problem areas. Since developing a more complete understanding of groundwater issues is a long-term matter, a conservative approach to managing the resource is needed.

### **Preservation of Agricultural/Rural Character**

New subdivisions in currently popular styles are not conducive to the preservation of the scenic and rural character of the watershed, which is highly valued by current residents.



The details of the existing landscape of the watershed provide guidance for new development. Grassed drainage swales along roads and streets provide water quality benefits and a more informal rural right-of-way.

However, some of the more innovative approaches to urban design provide ways to preserve landscape character and protect nature, while also helping to reduce stormwater runoff, protect water quality, and recharge groundwater

supplies via infiltration. Effecting change in the design of new development to achieve these multiple benefits will be a major challenge. Success will require the application of multiple approaches directed towards preserving agricultural uses, encouraging sensitive design of buildings and infrastructure, and using “natural” approaches wherever possible to manage water. There will be a need to use public and private sector approaches to preserving open space, remnant woodland areas, trees and natural areas, and historic resources. A portion of the planning area is known to provide nesting locations for the endangered/threatened Swainsons Hawk, habitat characteristics that need to be preserved.



## **ESTABLISHMENT OF INTERIM WATERSHED GOALS AND OBJECTIVES**

In response to these concerns, the Steering Committee has adopted the interim watershed goals and objectives listed below. The goals and objectives are included in the memorandum “Draft Watershed Plan Goals and Objectives,” issued April 13, 2005.

**Goal A.** Achieve an integrated pattern of development and conservation area that creates sustainable communities, and conserves water resources and ecosystems in the Kishwaukee River watershed.

### **Objectives:**

1. In planning for future growth and development, continue to recognize the protection and management of the Kishwaukee River system as a critical need.
2. Promote infill development and revitalization of existing communities using engineering and design approaches that complement existing development and conserve resources.
3. Promote compact, contiguous new development that minimizes impervious surfaces and effectively manages stormwater for water quality benefits.
4. Design new development in ways that encourage conservation of green space and natural resources by following conservation design principles.
5. Provide sufficient open space within new development for natural resources management, recreation and aesthetics.
6. Provide a system of trails and bikeways that creates recreational opportunities, access for the enjoyment of natural and cultural resources, and linkages to the regional trail and greenway system.

**Goal B.** Protect, enhance, restore, and properly manage the natural resources and ecosystems of the watershed.

### **Objectives:**

1. Use best management practices, local regulations, and other strategies to protect the Kishwaukee River, other surface waters, and wetlands from adverse impacts of point and nonpoint sources of pollution.
2. Conserve groundwater supply and quality by encouraging infiltration to identified recharge areas and by protecting aquifers from sources of pollution.

3. Protect the quality of the groundwater sources of springs, fens and bogs.
4. Avoid development in floodplains.
5. Protect the physical integrity of streams, wetlands, and lakes. Restore channelized streams and altered shorelines wherever possible.
6. Set development back from streams, lakes and wetlands and create native vegetation buffers between development and these water resources.
7. Create a green infrastructure of greenway corridors in order to preserve continuity of habitat, manage water resources, provide recreational opportunities, and enhance communities with nature.
8. Minimize the alteration of natural drainage patterns and existing topography during the development process.

9. Protect, restore and manage natural areas and native plant communities, including woodlands, in order to maintain and enhance the biodiversity of the watershed.



10. Preserve prime agricultural lands and promote a diversity of agricultural activities as an integral part of the character and economy of the watershed area.

The watershed supports a diversity of agricultural production, including nurseries, row crops, sod farms, grazing lands, orchards, and truck farming – all of which contribute to the economy and vitality of the area.

11. Manage sand and gravel extraction in order to protect landscape resources. Prevent excavation that would have adverse impacts on springs and bogs, and that could threaten groundwater quality.

12. Monitor water resource and habitat conditions in order to assess changing conditions and adapt watershed management strategies.

**Goal C.** Maintain the distinctive character of the built environment in communities and rural areas to preserve the quality of life and promote economic vitality.

**Objectives:**

1. Protect the important historic and cultural features of communities and rural areas in the watershed.

2. Guide development in order to preserve views, vistas, and the overall scenic quality of the watershed.

**Goal D.** Maintain a collaborative process that furthers coordinated plan implementation and plan update.

**Objectives:**

1. Achieve effective implementation of the watershed plan through intergovernmental cooperation and the use of intergovernmental agreements relating to planning, jurisdictional boundaries, land use, and resource management.

2. Review, update and coordinate the watershed plan and local plans and codes on a regular basis.

3. Create an effective public outreach program that increases citizen interest, understanding and involvement in watershed management.

**GREATER MARENGO-UNION AREA WATERSHED PLANNING STRATEGIES**

To implement actions needed to attain the goals, the following strategies were adopted by the steering committee:

**Support Kishwaukee River conservation, restoration and monitoring.**

The value of the Kishwaukee River has been well-documented and strategies for its protection have been identified. The Strategic Plan of the Kishwaukee River Ecosystem Partnership is a key guide for this work. Other organizations, including the McHenry County Conservation District, McHenry County Defenders, key state and federal agencies, and McHenry County Land Foundation also have been extremely active in promoting protection and restoration of the river. The Kishwaukee is a key feature of the Northeastern Illinois Regional Trails and Greenways Plan, Northeastern Illinois Water Trails Plan, and Biodiversity Recovery Plan of Chicago Wilderness.

The policies and recommendations associated with these initiatives are critical to the protection and restoration of the Kishwaukee River and need to be implemented with the aid of appropriate funding.

**Design and build new development using integrated features that provide multiple benefits.**

As Marengo and Union continue to develop according to their respective comprehensive plans, there are opportunities to influence the design and engineering details of new development in order to utilize best management practices (BMPs) and the principles of

conservation design to manage water resources and provide the desired community character. This will involve modifying local ordinances to require state-of-the-art techniques that encourage, wherever possible, natural approaches to managing stormwater to reduce infrastructure costs, promote groundwater infiltration, enhance aesthetics, protect biodiversity, and preserve community and countryside character. In some cases, incentives can be created to encourage the utilization of the BMPs and conservation design principles. Fortunately, the more natural approaches to managing stormwater that seek to reduce impervious surface area, provide natural landscaping, and encourage infiltration also help preserve the rural character of the area. A logical result of this is a progression from more traditional development adjacent to the existing built-up areas and a transition to a more rural appearance farther from town centers and adjacent to agricultural areas. However, even in older areas, there are opportunities to retrofit and redevelop in ways that vastly improve the management of water.



The watershed planning Steering Committee tours sites of proposed developments that provide advanced stormwater management and conservation features.

watershed.

Each community has a distinct character that needs to be recognized through the development of local policy and the crafting of local regulations and guidelines. However, the effectiveness of water resource management will be limited if there are not fundamentally consistent and mutually supportive standards across local boundaries. An important function of the watershed planning process therefore is to elevate local standards in a way that is as consistent as possible within the

Success in influencing the quality and style of development can be enhanced by attracting builders who have demonstrated their interest and ability to provide the type of products desired by the community, and by working with the professional community of planners, engineers, landscape designers, and others who can design and engineer for advanced BMPs and conservation design.

There is also a need for individual communities to refine their local plans to assure complementary new developments and logical extensions of existing utilities, transportation systems, and open space corridors.

### **Create a green infrastructure system.**

Protection through a system of “green infrastructure” can help address multiple watershed plan objectives. The green infrastructure should include the Kishwaukee River

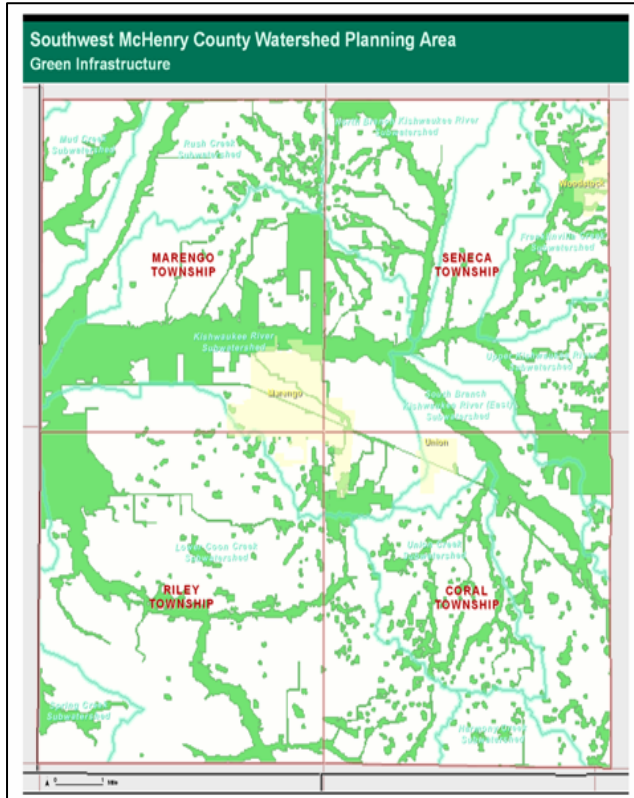
and tributaries along with their associated floodplains and a minimum buffer strip. Also included are high quality wetlands, existing protected open space, remaining unprotected natural areas, and existing and proposed trails and bikeways.

Consideration should also be given to the protecting of scenic views, which may require protection and management of key areas. Key actors in this work are the McHenry County Conservation District; City of Marengo and Marengo Park District; Village of Union; township governments; and the Land Foundation of McHenry County. Below is a preliminary map of the green infrastructure of the watershed planning area.

Two planning concepts are presented here in order to focus on important larger-scale elements of an overall green infrastructure system:

*1. Kishwaukee River Valley Reserve*

Consideration should be given to creating a Kishwaukee River Valley Reserve in a mosaic of public and private low-intensity uses specifically managed to retain agriculture; receive, cleanse and infiltrate stormwater runoff; encourage recharge of groundwater; accommodate land application of wastewater; and protect the Kishwaukee River corridor as a natural, scenic, recreational resource. The Reserve should be a major component of an overall green infrastructure plan that protects the Kishwaukee River floodplain corridors, the tributary floodplain corridors, high quality wetland areas, and designated natural areas.



The green color in the preliminary map above illustrates areas appropriate for protection as open space.

The definition of this area, beyond what is already in public ownership, is yet to be accomplished and will require more detailed study of natural conditions, coordination of local plans, and development of preservation and management strategies. This reserve will need to be more extensive than the current floodplain area and areas already in public ownership. Its size and configuration will be dependent upon further detailed analysis of the ability of projected new

development to retain water runoff and of the area needed to accommodate stormwater flows in the valley in a manner that also provides wildlife habitat and scenic quality.

A critical planning area is between the city of Marengo and village of Union, between the HUM Trail and Kishwaukee River. The Union Ditch project has not been completed and expectations for its ability to contain and manage runoff are low. Hence, there may be potential for a planned mosaic of agriculture, new development, and open space to provide natural stormwater detention/retention, infiltration to restore groundwater, and land application treatment of wastewater. It is important, obviously, that these uses should be planned so the quality of surface and groundwater is not compromised.

Open space in this area could consist of such features as native vegetation drainage swales and restored or constructed wetlands. Restoration and engineering studies will be required to determine the nature of the project design and the degree of naturalness that can be expected to be created.

An important node within the Reserve could be the area where the main stem of the Kishwaukee is met by its tributary North and South branches. Here is a rich, diverse floodplain area, where the river becomes canoeable at least during high water, where periodic flooding can be expected as part of the natural ecological rhythm, and expansions of Siems Park are possible with potential connections to the regional trail system (e.g. HUM trail). Design studies would be needed to determine the detailed opportunities and constraints related to the preservation and use of the confluence area. The confluence could provide Kishwaukee River access to complement additional canoe access points at City of Marengo property at Rt. 23 and at Deerpass Road.

## *2. Agricultural Protection and Agricultural Practices*



There are concerns about long-term supply for domestic and irrigation purposes in the watershed. Protecting the quality of groundwater and assuring an adequate base-flow in streams for aquatic habitat are also watershed plan objectives.

If agriculture is going to be regarded as anything other than a transition land use within the planning-area (particularly in the Kishwaukee River valley itself), major efforts will be needed. Limited tools are available such as the creation of agricultural protection districts by interested landowners.

The transfer of development rights is not a tool that has been attempted often in Illinois, and it has met with very limited success in other areas of the country. However, the irrigation of farmland with water from land application wastewater systems may offer some potential for guaranteeing the



The agricultural landscape of the Kishwaukee Valley appears ripe for development, but concerns about stormwater management, flooding, and loss of prime soils highlight the need for good planning and land management.



In some locations, farming occurs immediately adjacent to Kishwaukee River tributaries. The creation of adequate buffer strips is needed to protect river quality and aquatic habitat.

agricultural use. Additional studies of this and other techniques need to be undertaken and considered as input to ongoing watershed and community land-use planning. This work could be carried out by an intergovernmental group or similar entity charged with ongoing implementation of a watershed management program.

The Kishwaukee River and its tributaries flow through agricultural areas where buffers between the streams and tilled areas are too narrow or non-existent. Increased outreach to landowners and operators for the purpose of creating and improving existing vegetated buffers, preferably with native plants, is needed. Similarly, added emphasis on conservation tillage, nutrient management and streambank stabilization would provide added protection and enhancement for ground and surface water.

### **Establish a mechanism for ongoing watershed planning and intergovernmental cooperation.**

Completion of a watershed plan is only the first step toward implementing effective management of the watershed planning area. Perhaps the most important goal of the watershed planning effort is the creation of ongoing mechanisms for intergovernmental cooperation in implementing, updating and sustaining the plan over time. Concerted effort will be needed to procure funding to support this ongoing work, particularly such technical expertise as hydrologic modeling, stream monitoring, land preservation, and review of proposed development. The existence of a watershed plan and watershed management mechanism can be very helpful in the procurement of financial resources.

## ACTION PLAN FOR 2006

### A. Management of Water Resources

Evaluate codes and ordinances and develop recommendations, including best management practices.

|                                  |                       |
|----------------------------------|-----------------------|
| Evaluate ordinances              | September-December 05 |
| Develop recommendations          | January – March 06    |
| Conduct ordinance update process | April – July 06       |

### B. Key Resource Management and Preservation Areas: Green Infrastructure

Identify important locations and potential projects for private and public landowner management/restoration, volunteer stewardship, donation and acquisition.

|                                     |                     |
|-------------------------------------|---------------------|
| Evaluate/refine maps from workshops | October-November 05 |
| Create final recommendations        | December 05         |
| Review recommendations              | January 06          |
| Prepare final plan text/graphics    | February – March 06 |

### C. Land-Use Planning Issues

Analyze current plans and make recommendations for planning and review standards related to integration of water management and land-use planning, maintenance of community and rural character, agricultural preservation, and related issues.

|                               |                         |
|-------------------------------|-------------------------|
| Develop draft recommendations | December 05-February 06 |
| Finalize recommendations      | March 06 – May 06       |
| Prepare final plan text       | May 06                  |

### D. Intergovernmental Coordination for Plan Implementation

Determine needs and methods of watershed plan implementation via intergovernmental coordination mechanisms, including such approaches as intergovernmental committees, agreements and boundaries. Develop working materials for discussion and adoption.

|                                       |                        |
|---------------------------------------|------------------------|
| Identify/assess potential models      | October 05—November 05 |
| Define approach with communities      | December 06 – March 06 |
| Prepare draft documents               | April 06               |
| Conduct deliberation/adoption process | May 06 – July 06       |
| Prepare plan text                     | May 06                 |



#### E. Monitoring Environmental Conditions

Identify and evaluate current monitoring programs, and develop recommendations for improving monitoring habitat conditions, water quality, etc.

|                               |             |
|-------------------------------|-------------|
| Evaluate status of monitoring | February 06 |
| Draft plan recommendations    | March 06    |
| Prepare draft plan text       | April 06    |

#### F. Public Education/Citizen Participation/Stewardship

Identify potential strategies to increase public awareness and involvement in watershed management.

|   |             |
|---|-------------|
| Identify strategies and local resources | February 06 |
| Draft plan recommendations              | March 06    |
| Prepare draft plan text                 | April 06    |

#### G. Plan Preparation, Review and Adoption

|                                    |                       |
|------------------------------------|-----------------------|
| Prepare first draft watershed plan | May 06                |
| Review process                     | June 06               |
| Adopt plan                         | July 06               |
| Produce plan                       | July 06- September 06 |

## **Project Participants**

### **Steering Committee**

Donna Bernardi, Supervisor, Riley Township  
Suzanne Ehardt, Director of Planning & Development, McHenry County  
Scott Hartman, City Administrator, City of Marengo  
Mayor Donald Lockhart, City of Marengo  
Roger Naylor, Supervisor, Coral Township  
Steven Weskerna, Supervisor, Marengo Township  
Robert Wagner, President, Village of Union

### **Community Participants**

Greg Arnold, Chairman, City of Marengo Planning & Zoning Committee  
David Brandt, USDA Natural Resources Conservation Service  
Jack Berry, resident  
Barbara Burton, resident  
Rosemary Bartman, Trustee, Seneca Township  
John Bussert, resident  
Leona Canning, resident  
Ed Collins, McHenry County Conservation District  
Norm Cramer, resident  
Tom Dahlfors, Trustee, Seneca Township, and Member Township Planning Commission  
Robert Dill, Coral Township Planning Commission  
Chuck Dollman, Trustee, Coral Township  
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Melissa Grant, Watershed Coordinator, Kishwaukee River Ecosystem Partnership  
Bev Haase, resident  
Mary Hannah, resident  
Nathan Hill, Watershed Coordinator, Kishwaukee River Ecosystem Partnership  
Cathy Johnson, Trustee, Riley Township  
Louis Jurisch, resident  
Alice Kane, resident  
Matt Keenum, resident  
Patricia Kennedy, Chair, McHenry County Regional Planning Commission  
Larry Krengel, resident  
David LaGue, Trustee, McHenry County Conservation District  
Bonnie Leahy, Trustee, McHenry County Conservation District  
Robert Levin, Trustee, Marengo Township  
Marcia Lockwood, Trustee, Coral Township  
Susan Mathews, resident  
Mary McCann, resident  
Patricia Meade, resident  
Duane Meinders, Chairman, Village of Union Planning Commission  
Beverly Merz-Booker, resident

Walter Modelski, resident  
Lloyd Nichols, resident  
Ald. Dorothy Otis, City of Marengo  
John Pihl, Supervisor, Dunham Township  
Jennie Riechers, resident  
Neil Sachs, resident  
Don Schellhaass, resident  
John Schultz, Chairman, Marengo Township Planning Commission  
Leon Tonyan, resident  
John Trader, Marengo Township Planning Commission  
Lisa Trainor, resident  
Aaron Truman, resident  
Fred Vergen, Marengo Township Planning Commission  
Gloria Virgl, resident  
Tom Voirin, resident  
Gail Weber, McHenry County Health Department  
Edward Weskerna, District Manager, McHenry County Soil & Water Conservation  
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Linda Westra, resident  
Rebecca White, Riley Township  
Brad Woodson, McHenry County Conservation District

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Ellen Shubart, Manager, Campaign for Sensible Growth

Photography by Richard Mariner