GULL LAKE WATERSHED

RESOURCE PROTECTION GUIDEBOOK

Barry Township

Prairieville Township

Richland Township

Ross Township

July 15, 2011

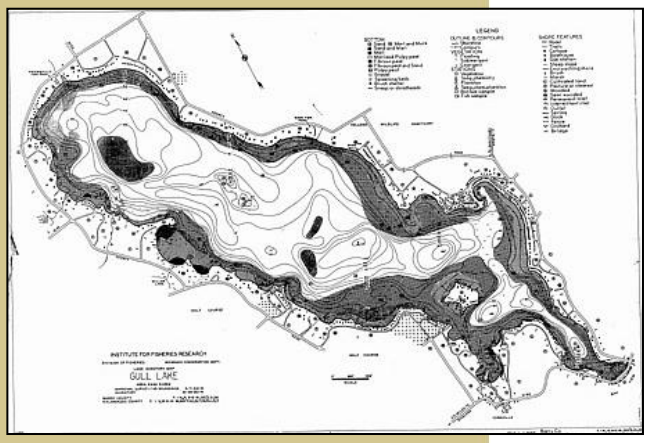
LSL Planning, Inc.
Community Planning Consultants

WATERSHED MISSION

Protect the quality of the Gull Lake watershed to preserve the health of Gull Lake as a natural resource and to sustain the viability of the surrounding area for living, working and recreation.

VISION

Wetlands and drainage systems within the Gull Lake Watershed will be protected in recognition of their role in preserving the health of the watershed. Care will be taken to not exceed the carrying capacity of the watershed, both ecologically and recreationally. With each site plan review or other land use decision, natural feature and water quality protection will be a consideration while recognizing and honoring the importance of the watershed in the local economy and in its impact on property values.



With a surface area of 2,030 acres and depths of up to 110 feet, Gull Lake is a natural resource that is enjoyed by residents from four townships located in both Barry and Kalamazoo Counties.

MISSION, VISION AND STRATEGIES REVIEW

PURPOSE OF THIS GUIDEBOOK

The purpose of this guidebook is to begin implementing the Mission, Vision and Strategies developed by the four townships of Prairieville, Barry, Ross and Richland in 2010. While each township has made its own efforts to preserve environmental quality, efforts implemented at the watershed level are more likely to yield positive results, because even the most valiant efforts in one community can be undermined by the negligent actions of another. Consensus and coordination among each contributing community is therefore critical to success.

This Guidebook is provided as a continuation of the ongoing efforts to educate, plan and implement protection measures throughout the watershed. It provides in one location, a variety of tools for use by each township to improve regulations, development review, and practices within the watershed.

ESTABLISHED STRATEGIES

The following strategies have been developed to protect the watershed:

1. Coordinate watershed protection efforts among Barry, Prairieville, Richland, and Ross Townships through local zoning ordinances and master plans
2. Establish the site plan review process as an effective mechanism to implement watershed protection techniques.
3. Engage in joint, advanced site plan review training that incorporates natural features and water quality protection. This training should be ongoing, as watershed technology advances and new members are appointed to applicable boards and commissions.
4. Employ water quality protection techniques at the watershed level through planning and zoning, especially through the site plan review process. For larger scale projects, the planners in the affected townships are encouraged to communicate with planners in other watershed communities to provide additional professional resources to the Planning Commission.
5. Incorporate groundwater protection programs in the zoning ordinance and other applicable regulations.
6. Incorporate best management practices for stormwater management techniques in the zoning ordinance and other applicable regulations.
7. Employ watershed protection techniques through zoning.

INTRODUCTION TO THE WATERSHED

Located in Kalamazoo and Barry Counties, Gull Lake is a 2,047 acre body of water that receives drainage from an area more than 10 times its size. It is associated with various ecosystems and habitat that, if destroyed or lost to development, will threaten not only the health of local wildlife, but ultimately the health of the community in general. Natural resources provide valuable environmental quality benefits that warrant their preservation. Wetlands help to filter stormwater runoff and protect groundwater quality, groundcover stabilizes soil and prevents erosion, riparian corridors protect cold water conditions and fish habitat, and natural buffers act as critical habitat for a diversity of plants, insects, and wild and aquatic life.

Watershed planning cannot occur in a vacuum, and there are a variety of tools that can be used to protect Gull Lake. Furthermore, more than one tool or regulation may be needed to accomplish the above strategies. As a result, this Guidebook has been organized to represent a logical order to future implementation, focusing on the following four primary efforts:

COORDINATED WATERSHED-BASED PLANNING

Planning in advance of development can be effective because it causes communities to review threats and anticipate opportunities before they occur.

EDUCATION AND TRAINING

To be defensible, communities must provide a connection between regulations and protection. Through ongoing education, communities can stay abreast of best practices and strategies to protect the watershed.

BEST MANAGEMENT PRACTICES

Key elements of a watershed protection program are included in this Guidebook. Using the ongoing education provided above will ensure communities stay abreast of the latest advances in protection.

RESOURCE PROTECTION

This Guidebook includes the most effective and most trusted techniques in resource protection. Where best practices intend to monitor and manage current watershed conditions these tools involve preventative regulations.

GULL LAKE HISTORY

Gull Lake has been drawing residents and visitors for years. It's clear, deep waters and proximity to Battle Creek and Kalamazoo have made the area a destination. However, with permanent settlement comes the potential for environmental impacts. Past septic failures caused the need for a permanent sewer system around the lake, which is just one indicator of how human influence can impact the environment. This Guidebook seeks to provide ways that the four townships in the Gull Lake Watershed can use to prevent similar problems in the future.

"Every accomplishment starts with the decision to try."

- Author Unknown

USING THIS GUIDEBOOK

This document contains many protection strategies that, in their entirety, can be quite intimidating to a community looking for specific direction on where to begin. Each township is encouraged to use this guidebook at its own pace and discretion, based on its individual needs, goals, budgeting restraints, and other local factors.

Protecting the Gull Lake Watershed will require a long-term approach that is just beginning. Therefore, implementing any of the strategies listed is considered progress toward the ultimate goal. Each township should not feel as though it needs to follow a prescribed order or approach.

This "HOW TO" guide intends to give direction on where to start, and what to do next...

Communicate

- Discuss ideas with other townships
- Identify common issues and concerns
- Determine opportunities to share resources
- Motivate each other

It is envisioned this process will begin through township staff and consultants, who are familiar with local policies and regulations. Because many of these tools are complex, these individuals can help each community sort through them to determine which are most appropriate and which should be pursued first. They can also help coordinate joint meetings of the Township Boards or Planning Commissions, and will likely be instrumental in maintaining momentum.

Prioritize

- Identify key concerns for YOUR community.
- Use the Toolkit Matrix to match those concerns with the proper tool.
- Prioritize the concerns, or tools, based on local conditions
- Seek assistance from consultants and staff

While this guidebook provides a broad list of tools, each township should set its own specific protection priorities. This can be done through community surveys, brainstorming sessions, local steering committees, or through directives from the Township Board. In any event, the decisions about where to begin should start at the local level.

Share

- Discuss implementation stories with the other townships
- Hold semi-annual meetings (suggested in spring and fall) to discuss cooperative measures and learn about successes
- Plan for future activities and implementation

Sharing successes and failures will eventually lead to a "short list" of effective tools. While the ideal implementation strategy would involve full coordination among all four townships, such an effort is not practical for logistic, budget and political reasons. This does not mean communities cannot join forces on any initiative; rather, this Guidebook respects each township's local authority and ability to choose its own direction.

Tools Provided:	Coordinate protection efforts among Barry, Prairieville, Richland & Ross Townships ❶	Implement protection techniques through site plan review ❷	Engage in ongoing training and education ❸	Employ water quality protection techniques at the watershed level ❹	Develop groundwater protection programs and regulations ❺	Develop best management practices ❻	Employ watershed protection techniques through zoning ❼
COORDINATED WATERSHED-BASED PLANNING							
Contacts database	✓						
Communication letters	✓		✓				
Coordinated meeting calendar	✓						
Site plan review flow chart	✓	✓		✓			
Site plan review standards		✓					
EDUCATION AND TRAINING							
Media and technology outlets	✓		✓	✓		✓	
Educational resources			✓	✓		✓	
Invitation Letters	✓		✓			✓	
BEST MANAGEMENT PRACTICES							
Resource protection program	✓		✓	✓	✓	✓	
Homeowner stewardship tips			✓	✓		✓	
Alternative seawall concepts			✓			✓	
Wastewater management	✓	✓	✓	✓	✓	✓	
Subdivision regulation	✓	✓			✓	✓	✓
RESOURCE PROTECTION							
Conditional rezoning guide	✓	✓	✓	✓	✓	✓	✓
PUD /TDR ordinance example	✓	✓	✓	✓	✓	✓	✓
Model groundwater ordinance	✓	✓	✓	✓	✓	✓	✓
Model surface water ordinance	✓	✓	✓	✓	✓	✓	✓
Model open space ordinance	✓	✓	✓	✓	✓	✓	✓
Model soil erosion ordinance	✓	✓	✓	✓	✓	✓	✓
Stormwater ordinance examples	✓	✓	✓	✓	✓	✓	✓
Wellhead ordinance example	✓	✓	✓	✓	✓	✓	✓
Natural buffers ordinance sample	✓	✓	✓	✓	✓	✓	✓

TOOLKIT MATRIX

The table above summarizes the tools provided in this Guidebook, and the related strategy that they intend to fulfill. More detail on the applications, use and considerations for each is provided on the following pages.

Toolkit:

Contacts database

There are several agencies and organizations that either serve the watershed or provide educational resources. A comprehensive list of these groups is provided, along with the websites of various programs currently underway to enhance, restore or protect local resources.

Communication letters

Michigan Planning law requires coordination during master plan updates, but not during zoning amendments. Template letters are provided to communicate changes in local ordinances and plans that may affect the watershed. Templates are also provided to convene annual or semi-annual meetings, and communicate when initiating a master plan update.

Site plan review flow chart

A recommended review process is provided to ensure ongoing coordination of development reviews within the watershed. It includes submittals to the County Drain Commissioner for their review, and a courtesy copy to the other townships when developments fall within the watershed.

Site plan review requirements and standards

Zoning law in Michigan states that site plans meeting the strict letter of the ordinance must be approved. However, many communities forget that site plan approval is based on adherence to a set of quality standards, in addition to the more specific dimensional requirements. Examples of site plan review standards are provided to show how each township (and Barry County) can increase the level of consideration given to the environment during development reviews with simple changes to the site plan review standards that do not require a comprehensive audit of each local zoning ordinance.

EDUCATION AND TRAINING

Toolkit:

Media and technology outlets

Information and watershed activity updates are currently disseminated through the township websites, newsletters and through the Gull Lake Quality Organization, Four Townships Water Resources Council, Southwest Michigan Land Conservancy and other environmental advocates. While the GLQO and some of the townships are on Facebook, and some produce regular newsletters , other media outlets could be utilized to educate and strengthen local preservation efforts. Invitation letters are provided separately as a way to advertise events in a more personal way.

Educational Resources

Because seminars, conferences and training sessions are continually being scheduled by an array of organizations in Michigan, it was not possible to identify each possible training opportunity at the time this Guidebook was created, so a list of organizations are provided that offer such training, and community tips provided to help minimize the cost to educate local staff, officials and the public.

Invitation postcard

A template invitation has been provided for when the GLQO or any of the townships wish to host training events, or notify residents, local agencies, Planning Commissions and other stakeholders of education and training events of mutual interest. The template provided is formatted in a postcard size for less costly mailing options.

Toolkit:

Resource protection program

Development of a full resource protection program requires a long process of research, discussion, planning and coordination. While such extensive planning was not possible with this Guidebook, it does provide points to consider if such a program is initiated. Documents provided include a sample conservation easement, a methodology to track changes in ownership of large parcels, and considerations for future development rights and open space preservation programs.

Conservation Easement Model

Homeowner stewardship tips

This Guidebook provides an array of zoning examples and models to regulate non-residential development but it is often the non-point sources that contribute to long-term degradation of local water resources. This Guidebook provides a list of tips for the common homeowner, offered by the Center for Watershed Protection that will contribute to better stewardship throughout the watershed.

Alternative seawall concepts

Where traditional seawalls are not effective at protecting shoreline, or where they are found to cause erosion in other areas of the shore, alternative methods are being used to protect beaches and lakebeds. Many include "softer" applications that use natural material and at a lesser cost than a typical engineered seawall.

Wastewater management

Water quality is a key concern within the watershed, so it is important to monitor existing septic systems and promote connections to the public sewer system that currently serves the area. This Guidebook gives some tips for maintaining individual septic systems to help prolong their useful life, and how best to manage residential wells to protect the groundwater supply.

Subdivision regulations

Many development impacts are facilitated by poor planning when property is divided. The regulatory document created for the Four Township Water Resources Council includes various zoning techniques that can be used to encourage clustering of development and preservation of open spaces. This Guidebook gives a few additional considerations when reviewing future developments.

Sample Road End Policy

Complete streets

The State of Michigan encourages development plans to accommodate "all legal users" of the transportation system – motorists, pedestrians, children, the elderly, disabled – through design of complete streets. Information from the Michigan Complete Streets Coalition is included to introduce these concepts and encourage better site planning.

RESOURCE PROTECTION

Toolkit:

Conditional rezoning guide

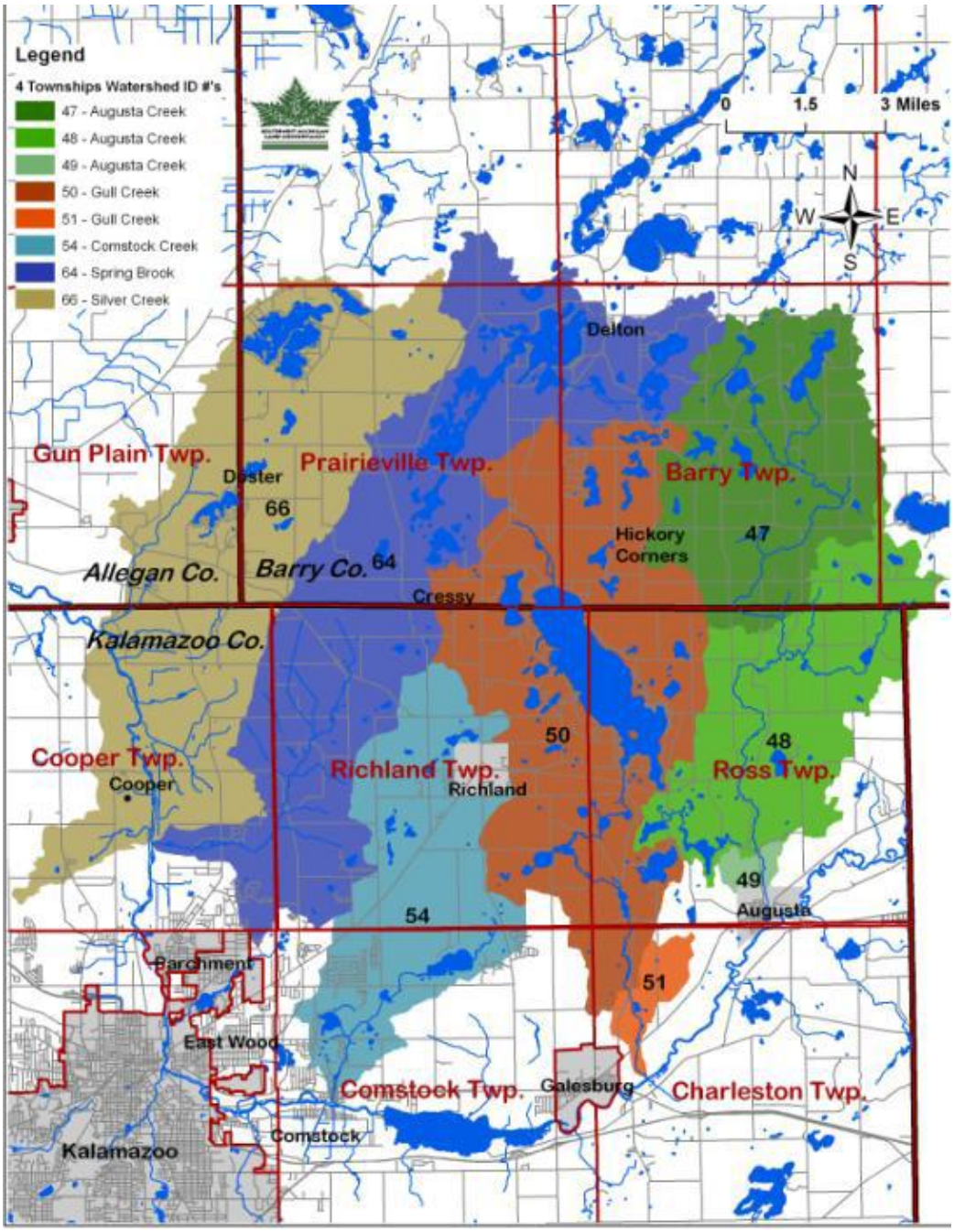
Since its authorization, Michigan municipalities have had a variety of experiences with conditional rezoning. While some communities have found it useful, if used incorrectly, conditional rezoning can cause citizen discord and applicant dissatisfaction. This Guidebook provides some direction on how best to utilize this new regulatory tool.

Model ordinances:

- Model groundwater ordinance
- Model surface water ordinance
- Model PUD open space ordinance
- Model soil erosion ordinance
- Model shoreland overlay ordinance
- Model stormwater ordinance

Ordinance examples:

- Stormwater ordinance example
- Natural buffers ordinance example
- Comprehensive Environmental Protection example (includes wetland, woodland, floodplain, stormwater and wellhead protection standards)



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