

McGREGOR AREA COMMUNITY DESIGN STRATEGY

FINAL REPORT

October 2002



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The Final Report, along with background information on the planning process, is also available online at the Center for Rural Design website <<http://ruraldesign.coafes.umn.edu/mcgregor.htm>>

October 2002

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Executive Summary

The Process

Small communities like McGregor, constrained by budget and other resources, can benefit from partnering with others on land use planning. McGregor area citizens addressed water quality and growth management questions facing them, embarking on a planning process that also involved the Watershed District, the City of McGregor and surrounding townships, lakeshore associations and business interests, federal, state and county agencies. A history of ditching and drainage, combined with damaging increases in phosphorous levels in the Big Sandy Area Lakes system, focused the issues. Allowing development while protecting the rich mosaic of wetlands and waterways in this Mississippi River sub-watershed became the challenge.

A team led by the Center for Rural Design (Design Team, hereafter) undertook the task of visualizing where and how development could occur. The underlying goal was to improve the McGregor area community's economic interest and promote the region's ecological health. Proposals that emerged from this visualization process will help prevent future loss of the scenic value and natural resource base unique to the area.

The planning process:

- Identified areas where development pressures are forcing physical change to sensitive natural resources, to understand how land use decisions aligned with the goals of the County's comprehensive plan.
- Produced a series of land use scenarios for potential development areas, to illustrate the issues to be considered and to demonstrate community design principles as a guide to land use decisions.
- Recommended an implementation program prioritized for managing growth that is project-based and incremental in nature and capitalizes on the natural resource wealth and citizen energy that characterize the region.
- Documented the process in a format that accurately tracks the evolution of this citizen-based strategy for sustaining the McGregor area community's diversity and vitality.

Early in the process, the citizens' committee adopted a formal identity as the McGregor Area Community (Core Group, hereafter), with the following definition:

"We are connected by roads and communications networks, governance and services, cultural and natural resources. We are based in social ties to each other and with ties to this place. We are bound together by a concern for managing change that ensures quality of life for the whole community."

The Product

This Design Strategy is a framework for addressing issues related to water quality and quality of life in three areas of change: the City of McGregor, area lakeshores, and the recreational landscape of the Big Sandy Area Lakes region.

Such a planning framework is not a land use plan, rather it offers an integrated approach to making decisions about growth and development, grounded in a comprehensive understand-

ing of the Big Sandy Area lakes region and built on citizens' knowledge and personal experience as well as agencies' expertise to picture a sustainable future for the McGregor area.

A citizen-based planning framework produced a set of agreed upon community design principles the community can use to shape future development. The McGregor Area community design principles are:

- Maintain McGregor as the center of this sub-region.
- Minimize disturbance to natural resources from development.
- Utilize existing infrastructure to locate new development.
- Integrate wastewater and storm water systems into a green space system.
- Preserve and restore wetlands and habitat corridors.
- Connect towns to lakes with recreational trails along natural features.
- Improve water quality value and quality of life with all development.
- Make the planning process visible.
- Create a communication structure for collaborative decision-making on future development.

The principles promote three general goals that translated into three planning task areas:

- Sustain McGregor as a vital sub-regional center
- Visualize sustainable lakeshore development
- Build a stewardship relationship with water resources through recreation

Recommendations

Main recommendations are as follows:

- Adopt this Strategy as a planning framework to complement Aitkin County's Comprehensive Plan and support the Big Sandy Area Lake Watershed Management Project (BSALWMP) Management Plan.
- Amend zoning and other regulatory tools to accommodate the community design principles espoused by the Design Strategy.
- Move forward on the recommended priority projects as funding becomes available and, where possible, as part of larger funded initiatives.
- Use the design principles to evaluate proposed developments and for proposing new development.
- Continue to make the planning process visible and inclusive.

In addition, this Design Strategy document outlines implementation recommendations for each of the planning task areas.

Introduction

Document Format

This document tracks a community planning process that addressed growth management in the McGregor region of Minnesota and sets a strategy for realizing specific community goals. Its focus is based in part on the Big Sandy Area Lakes Watershed Management Project (BSALWMP) mandate to “provide a local mechanism to encourage equal partnership among all stakeholders”, partly on the sustainable development goals of Aitkin County’s Comprehensive Plan (2000), but largely on citizens’ interest in seeing growth managed to preserve quality of life in the area.

The document begins with a summary of the issues and goals that initiated the need for a regional design strategy and this project. Next, the planning process is described – who was involved and how interaction happened – along with an outline of the planning tools used. The community design principles that evolved during the planning process are described, as are the three physical planning areas to which the principles were applied:

- City of McGregor
- Residential lakeshores
- McGregor area recreational water resources

These principles and planning areas are followed by a series of design scenarios, also organized by planning task area. Each set of scenarios is introduced with specific planning issues and design assumptions and accompanied by recommendations for implementation.

A summary of priority initiatives for implementation concludes the design strategy main document. The appendices contain a list of technical and funding resources as well as all the meeting notes and the photos and maps created for the project.

While this document is city/township driven in its response to local concerns, it is intended to complement the Aitkin County Comprehensive Plan and support the mission of the Big Sandy Area Lakes Watershed Management Plan.

Goals and Need for a Regional Design Strategy

The City of McGregor sewage treatment facility failed in 1999, and discharged effluent directly into the Big Sandy River system. The City’s response was immediate in correcting the problem, but the incident raised concern about water quality control in this fast-developing region and suggested the need for a broader examination of development patterns. Other issues included the conversion of lake homes to year round residences, the increasing number of senior in the region, and the need for affordable housing and rental properties. In late 2000, the Big Sandy Area Lakes Watershed Management Project joined with Aitkin County and the Minnesota Pollution Control Agency to offer planning assistance to the Greater McGregor Area Development Council (later called the McGregor Area Community Core Group), a citizens’ group formed for the purpose of encouraging sustainable development in the McGregor region. In this region dominated by lakes and wetlands, the protection of water quality as well as preservation of quality of life needs to guide development and change. This concern became the focus of this project.

The McGregor Area Development Council met with the Design Team in the fall of 2000 to discuss the planning issues and opportunities related to environmental concerns in the

region. The study area was defined early in the planning process as the City of McGregor and the immediate eight townships adjoining the City and Big Sandy Lake including the Townships of Libby, Turner, Workman, Shamrock, Jevne, McGregor, Unorganized and Spalding. In early 2001, the citizens' group approved the planning proposal and process with funding and in-kind contributions from various jurisdictional interests and volunteer service groups.

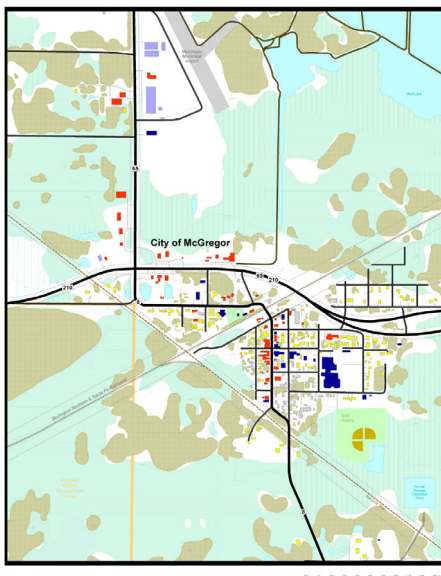
Goals of the Study

The goals of the study were to:

- Create a structure for constructive dialogue about the future for the Greater McGregor area
- Develop a set of agreed upon planning principles rooted in an ecosystem-based understanding of the region
- Capitalize on the system of lakes, wetlands and waterways as a community amenities, rather than impediments to development
- Outline work areas that can direct and sustain the dialogue after completion of this project
- Make this planning process a community building effort

Planning Process

The Design Team began its process by meeting with representatives of the Greater McGregor Area Development Council (Core Group, hereafter) to define issues and understand development patterns. A series of digital Geographic Information Systems (GIS) maps was produced to show the land use, land cover, hydrological, wetlands and habitat characteristics of the region. These maps were then overlaid with current property ownership and zoning to compare current development initiatives and existing physical conditions against sustainable community goals such as promoting a diverse economy, protecting natural systems diversity and building community.



The conditions and issues of the region were documented within three task areas where development is impacting water quality and quality of life: the City of McGregor, the residential lakeshores, and recreational lands surrounding Big Sandy Area Lakes. Within each area, the strategic advantages and perceived impediments to development were organized into planning assumptions to inform the process.

As a next step, an exhibit was produced for the 2001 annual Wild Rice Days event in McGregor to garner broader community input on the physical planning issues facing the region and invite the public to the first of three community workshops held throughout the planning process. The fall workshop was held at the McGregor Community Center, led by the Design Team, and facilitated by the Core Group. Upwards of 60 people attended including a wide range of civic interests and both permanent and seasonal residents.

**McGregor Area
Community Core Group:**

- George Amundson, McGregor Township
- Scott Arneson, Aitkin County Administrator
- Darrell Bruggman, Aitkin County Commissioner
- Judy Cirilli, City of McGregor
- Carole Holten, Workman Township
- Mel Johnson, Clark Township
- Nancy Karjalahti, Shamrock Township
- Bill Langsdorf, Big Sandy Area Lakes Watershed Management Project (BSALWMP) and Jevne Township
- Bob Lewis, Jevne Township, and former Core Group Chairperson
- Lynette Maas, McGregor School Superintendent
- Cheryl Meld, McGregor School District
- Penny Olson, City of McGregor
- Don and Liz Perrine, Turner Township
- Rian Reed, MnDNR and BSALWMP
- Tom Remus, U.S. Dept. Interior, and Core Group Chairperson
- Jerry Smith, BSALWMP
- Mary Stefanski, Rice Lake National Wildlife Refuge, and Unorganized Township
- Mike Thompson, Lakes and Pines Community Action Council
- Russ Thompson, Shamrock Township
- Richard Turnock, Spalding Township

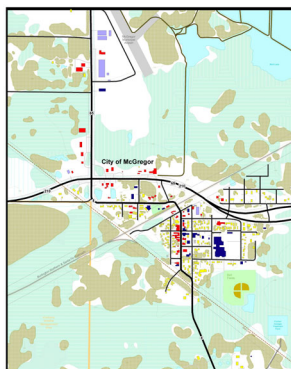
Students in the McGregor School produced maps and images of their daily experiences and favorite places in the area. These maps became part of the analysis of the sense of place this region evokes for residents.

A set of community design principles, proposed by the Design Team and endorsed by the Core Group, guided production of a series of development scenarios that would become the focus of subsequent workshops for the three task areas.

With supportive coverage by area newspapers and promotion by the Core Group, the workshops became an important forum for community debate involving over 100 citizens through the year-long process. All workshop responses and meeting summaries were circulated to the Core Group and posted to the Center for Rural Design (CRD) website as the project progressed.

Planning Tools/Approach

The community workshops led by the Design Team encouraged as many people as were interested to participate in the McGregor area project. Other tools included a 3-D tactile model at 1"= 200' scale of the immediate McGregor area with 'cut out' pieces showing different design scenarios and digital (GIS) maps to reveal the physical dimensions of and relationships between elements of the region. A series of aerial photos illustrated current land use issues and areas of change that were the focus of this project.



Snapshots of the workshops, along with the maps, drawings, diagrams and photos of the 3-D model are placed in this document to illustrate the design strategy and capture the essence of the community planning process. Meeting minutes and notes from the community workshops are included in Appendix 2.

The model of the city of McGregor is shown with photos of the place and the process.

General Planning Issues

The city of McGregor is at the heart of a larger rural community defined in part by the strategic location of the school in the center of town and partly by its situation at the junction of two railroads and two state highways. Given the expanding retail, industrial and residential demands in surrounding townships, the City has a legitimate need to plan for future development to allow it to continue its important function as regional center.

McGregor is in close proximity to important rivers, lakes and a reservoir system that shapes the Big Sandy Area Lakes Watershed. Given the economic importance of the system as a regional water supply, and with the increasingly intensive recreational use of area lakes and shore lands, the Watershed District needs to be concerned about protecting the volume and quality of the region's water resources.

Aitkin County is growing rapidly but little of that growth is happening in McGregor. The lack of developable land in the city combined with the changing demographics of the county create pressure on the city to adapt creatively in order to attract new development. At the same time, the city needs to preserve the natural environment and avoid further ditching and drainage.

The planning issues that emerged from an early Core Group meeting were summarized first as a series of questions then translated into goals to be explored as design strategies:

- How can the need for a range of housing opportunities be met without threatening the water quality, wildlife habitat and quality of life that attract people to want to live here?
- How can the existing infrastructure in the City of McGregor be utilized to locate new industry, commercial and housing?
- What types of development need to occur to ensure the city and school remain as the service 'hub' for the lakes area?
- How might growth occur to provide the greatest long-term benefit to the city?
- How might developments in the greater McGregor area be designed to either have no new impact or improve water quality for the Big Sandy system and serve as a model for other sub-watersheds?
- How can communication be structured between agencies and with citizens to encourage collaborative decision-making?
- How will decisions be made about implementing the design strategies put forward by this project?

Goals for the project were to:

- Create an integrated decision-making process to guide future development, this process needs to be based in an understanding of the natural resources, the people, and the opportunities that exist to sustain the economic and ecological interests of the Greater McGregor area.
- Utilize existing investment in infrastructure, by extension or infill, to locate new development in McGregor and the Greater McGregor Area.
- Ensure minimal negative impact from development on natural resources, and where possible, improve wildlife habitat, water quality values and landscape and architectural aesthetics with development.

Design Principles and Scenarios

As the planning process evolved, a set of community design principles specific to McGregor and the region's planning issues was developed. The principles establish the basis for development decisions that will cumulatively define a sustainable McGregor community.

The principles are:

- Maintain McGregor as the center of this subregion.
- Minimize disturbance to natural resources from development.
- Utilize existing infrastructure to locate new development.
- Integrate wastewater and storm water systems into a green space system.
- Preserve and restore wetlands and habitat corridors.
- Connect towns to lakes with recreational trails along natural features.
- Improve water quality value and quality of life with all development.
- Make the planning process visible.
- Create a communication structure for collaborative decision-making on future development.

In determining which of the planning issues to model with development scenarios, issues were chosen that the Core Group could agree on and that could demonstrate the design principles to the larger community. The Design Team was charged with the following three scenario building tasks, each with specific goals:

Scenario Building Task 1: Sustaining McGregor as Center of the Sub-region

- Housing scenarios to meet life-cycle housing needs in McGregor
- Commercial and industrial development scenarios to retain families in school district and city area
- Aesthetic improvements to city streets, downtown and city edges

Scenario Building Task 2: Visualizing Lakefront Development Character

- Housing development scenarios for area lakes
- Alternative wastewater and storm water treatment scenarios
- Architecture and landscape design alternatives

Scenario Building Task 3: Building Relationships around Water

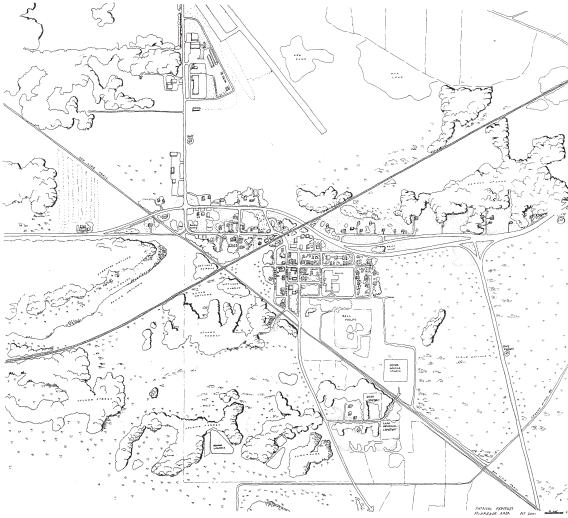
- Quality surface water recreation areas and area-wide recreation identified
- Communication structure created between public agencies, agencies and citizens, citizens and developers to encourage collaborative decision-making on implementation of area-wide and specific environmental and civic projects



The scenarios described in the remainder of the document are not development plans but illustrations of how the planning principles might shape future development. The schemes are mainly intended to encourage discussion of the planning goals and principles for each of three task areas and demonstrate the distinct but integrated characters that in total reflect the community's vision for the McGregor Area.

Sustaining McGregor as Center of Region

Planning Issues



Three main areas of concern were identified in the planning process related to McGregor.

These include:

- community character and housing
- economic fabric
- the natural environment.

The need for life-cycle housing poses some of the biggest questions for McGregor. Both physical infrastructure and social services are necessary to support the range of housing types needed from rentals and start-up homes to seniors' assisted care facilities. As background, the City of McGregor is located in the fastest growing area of Aitkin County. In 2000,

McGregor's population was 404, (a 7% increase in ten years), within a lakes region of 3255 people (a 20% increase in ten years). An Aitkin County housing study anticipates 10+ new households in McGregor by 2006 and 200+ new households in the lakes region of the Big Sandy Area Lakes townships. The need will likely increase for lower maintenance housing options and health care services in McGregor for aging local residents and active seniors wishing to move off the lakes but stay in the region.

Attracting new industry, not just service sector jobs, to the area is another issue. How might growth occur to provide the greatest long-term benefit to the City?

When preserving the water quality of the area is another major issue, the questions become:

- How much development capacity is contained within the existing sewer service area of McGregor?
- How might development in McGregor be designed to either have no new impact on water quality or improve the water quality for the Big Sandy system and serve as a model for other cities in the watershed?
- How can housing and commercial development include the wetlands and waterways that define McGregor's natural character in site design?

Meeting the City's goal to promote McGregor as the Gateway to the Lakes region was another design challenge. The slogan "Through Town to the Lakes" on the Highway 8 entrance sign to McGregor became a theme for redesign of the city's edges, streets and highway entries. The goal of this project is to create a 'greener' streetscape that would attract more travellers to and through the city.

Design Assumptions

- Maintain the viability of McGregor as a vibrant socioeconomic center and a recreational destination within the region.
- Utilize existing investment in infrastructure to locate new commercial development.

- Given existing zoning ordinances, maximize available residential sites where sewer and water already exist to leverage that investment.
- Identify best practices to improve water quality with all development.
- Ensure minimal negative impact from development on natural resources, and where possible, improve wildlife habitat and water quality values with development.
- Identify high quality upland areas that could be used for city expansion, allowing natural resource areas to be preserved.
- Design 'borrow' ponds to function for wildlife as well as an aesthetic amenity for new development.

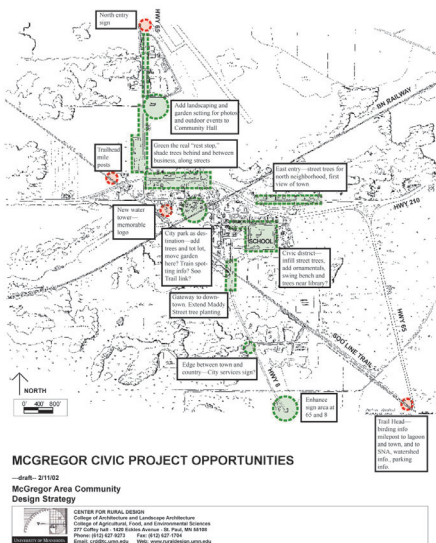
Development Scenarios

As a way to address the many issues and opportunities, the City should envision McGregor as a model sustainable community within this sub-region, not just a service stop along the highways leading to the lakes. Creating such a place would help resolve the water quality and quality of life issues that generated the need for this study and fulfill the sustainable development goals articulated in the community workshops. These goals include:

- An enhanced civic image, expanding on what's there today, that would build community pride.
- Commercial and industrial development that would illustrate civic opportunities.
- The creation of new housing that would serve the range of life-cycle needs and promote water quality.

To translate this vision into physical reality, and to address the implementation questions raised by the Core Group, the Design Team prepared a series of scenarios for the City of McGregor that could be worked on separately yet planned as a whole system. The illustrations that follow are a representative sample. All the scenarios are reproduced in the appendix at a more legible scale.

Scenario: McGregor Civic Opportunities



With the goal to enhance the civic image and build community pride, the design principles are:

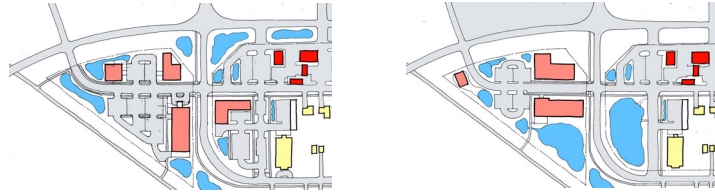
- Create entry signs and markers along Highways 8, 65 and 210 into McGregor.
- Improve trailhead signage along Soo Line Trail.
- Enhance city streets with shade trees and public gardens, at highway entries and in residential and commercial areas to create a 'greener' city.

With the goal of encouraging new industry to locate as infill along existing highways, the principles are:

- Maximize available commercial and industrial land and tie development to existing sewer and water system.
- Restore wetlands where feasible and divert water through settling ponds before entering the existing ditch system.

Scenario: North Gateway to Downtown

With the goal of illustrating civic opportunities with new commercial development at the north Maddy Street/Highway 210 entrance to downtown, the design principles are:



- Extend downtown character to the edge of the highway.
- Shade parking areas and walkways.
- Create a network of streets and sidewalks.
- Filter stormwater in runoff ponds.

Scenario: Seniors' Housing



With the goal of providing new seniors' housing in McGregor with existing zoning, the design principles are:

- Build a multi-unit active seniors' apartment development as infill with existing zoning.
- Ensure apartment views to surrounding wetlands and street activity.
- Filter stormwater runoff in onsite ponds.
- Minimize disturbance to intact habitat areas.

Scenario: Residential Infill



With the goal of providing new life-cycle housing, the design principles are:

- Build a mix of single family and multi-unit housing as infill with existing zoning.
- Maximize available residential land and tie development to existing sewer and water system.
- Restore wetlands where feasible and divert water through settling ponds before entering ditch system.
- Through water quality education, minimize runoff from lawns, streets and parking.

Residential neighborhood on 1/5 acre lots

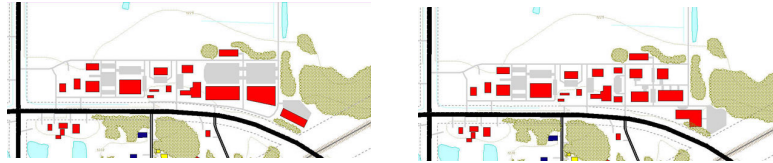
DEVELOPMENT CHARACTERISTICS

- Selecting narrower house types creates more affordable lots.
- Assumes city sewer and water
- Assumes "borrow pond" to elevate building pads
- 52 homes on 1/5 acre lots (60 x 150 typ.)
- 18 acres developed
- .62 miles of road

Scenario: Commercial/Industrial Infill

With the goal of encouraging new industry to locate as infill along existing highways, the principles are:

- Maximize available commercial and industrial land and tie development to existing sewer and water system.
- Restore wetlands where feasible and divert water through settling ponds before entering ditch system.



Implementation, Policy and Projects

- Begin a civic enhancement program with visible public sites, one project per year. Use the design principles and this strategy document as part of any request for proposals on enhancement projects.
- Leverage new investments, from the school expansion to road improvements and a new water tower, to undertake priority projects.
- Amend zoning ordinances related to setbacks and density to support the residential in-fill housing goals identified in this document.
- Update property ownership map and lot line information to reflect current land use and zoning and existing infrastructure. This information becomes a point of reference to use with soils and natural features data in determining development capacity for the City.
- Develop a formal tree planting strategy, with native species that tolerate wet soils.
- Apply for grants to implement tree planting, park improvements and trails development identified in this document.
- Create a Maddy Street Civic District to oversee installation of trees, benches, awnings and other amenities along the upgraded street.
- Work with the BSALWMP to identify wetland bank sites, to infill lower sites with marginal natural resource value.
- Continue to work with Aitkin County and the BSALWMP to minimize the risk of municipal wastewater discharge into the Big Sandy River system.
- Work with McGregor School and the energy of the 500+ student daily population to develop service, learning, and environmental stewardship programs, through student participation in civic and environmental projects identified in this document.

Potential Projects—Sustaining McGregor as Center of the Sub-region

Gateway Projects

Partners: City of McGregor Chamber of Commerce

Technical or Financial Assistance: Minnesota DOT
Minnesota DNR

Projects:
North Gateway Signage
South Gateway Signage
NE Gateway Signage
Water Tower Logo
Plant Trees
Rest Stop

Timeframe: Short term

Maddy Street Civic District

Partners: City of McGregor Chamber of Commerce

Technical or Financial Assistance: Minnesota DNR

Projects:
Sidewalks
Trees
Benches
Awnings

Timeframe: Immediate

City Park

Partners: City of McGregor
Service Clubs

Technical or Financial Assistance: Minnesota DNR

Projects:
Trees
Garden

Timeframe: Long term

Create Affordable Housing

Partners:

City of McGregor
Lakes and Pines Community Action
Central Minnesota Housing Partnership
US Dept of Agriculture Rural Development
Minnesota Housing Partnership
Minnesota Housing Finance Agency
The Dept of Housing and Urban
Development
Greater Minnesota Housing Fund
The Blandin Foundation
The Northland Foundation

Technical or Financial Assistance:

Projects:

Seek Developer

Finalize Development Plans (Community Approval and Participation)

Timeframe: Seek developer in the short term, finalize plans over long term

Visualizing Lakeshore Development

Planning Issues

Over 1400 seasonal and 300 permanent residences are situated on Big Sandy Lake, twice as many households as 20 years ago. This is typical and predictive of the pressures for residential shoreline developments on all the lakes in the Big Sandy Area. The increased demand for lake lots, coupled with the fact that lakeshore development contributes up to 10% of total lake nutrient load, has resulted in a more urban and mixed residential land use and some failing individual septic systems. The outcome is too much phosphorous in area lakes, with a detectable decline in water quality that ultimately affects real estate values as much as ecological health of the region.

Design Assumptions

- Establish soil suitability for housing and septic system, ideally located on fine sandy loam soils with less than 12% slope to a lake.
- Preserve the natural shoreline for wildlife habitat, views and public access.
- Arrange housing layouts so that steep slopes, natural drainage ways and native vegetation fall into open space.
- Cluster homes to maximize green space.
- Build cluster septic system to minimize land area necessary, protect groundwater and consolidate expenditures and management.
- Locate cluster septic drain field in commonly held open space to function as part of a visual corridor or habitat corridor through the development.
- Ensure community input on market and design for cluster development and cluster septic as a way of building community support for the principles.

Development Scenarios

The following scenarios look at the range of lakeshore residential developments that are possible under existing County zoning and shoreland rules and can showcase cluster housing and cluster septic system concepts. The important question to be answered is what the appropriate mix of systems should be for new developments and existing residential on area lakeshores.



A 38-acre site on the east shore of Big Sandy Lake was chosen to illustrate the principles of sustainable development being explored in this study. This 'model development area' was also chosen because it is already platted, shows few existing built structures on aerial photographs, and is located in Shamrock Township, one of the townships participating in this project. The site affords a chance to demonstrate, using a variety of visualization tools including ArcView (GIS) and autocad 3-D modeling, different design scenarios and applied design strategies that could allow proximity to the lake while protecting water quality.

Existing Patterns: Single Family Homes



This scenario provides for 24 new residences and is developed to include the existing eight dwellings in the 38 acre site. Total residences in the site then, would be 32. The pattern of development continues the existing traditional lakeshore development.

Each of the lots adjacent to the lake would have a dock. This dock is only available to the land owner. The addition of eight new docks associated with the new development would bring the total number of docks on this site to 14.

The riparian lot sizes are 100' x 330 feet to accommodate the bluff condition found on the site. Non-riparian lots are 150' x 250'.

There are approximately six acres or 15% open space. This open space, however, is privately held and only available to the landowner. The design takes advantage of some existing roads in the area and requires an additional 3,300 feet of new construction. The non-riparian lots are accessed by a new road so that access off the main highway is minimized.

Waste water treatment system:

Each single family dwelling would have its own separate treatment system. There is an opportunity with this design scenario to utilize cluster septic systems. An example of this type of cluster septic system exists on Minnewawa Lake.

Preservation Pattern: Single Family Homes Clustered

This scenario provides for (37) single family homes in addition to the homes that are already there. Lot sizes are 100' x 200'.

This scenario would be accomplished through a Planned Unit Development (P.U.D.) scheme. About 55% open space on the site remains undeveloped. The 100' strip along the lake is shared by the residences as well as the dock and trail system. The road system is about 4600 feet in length.



Waste water treatment system:

The total septic requirements are 4,300 feet of rock filled trench. This design scenario has two separate trench systems that are shared by two cluster groups. The open space area has more than ample space to provide a site for a second system when the initial site is no longer functional.



Preservation Pattern: Senior Town Homes



This scenario provides for 41 two-bedroom town homes. There is also a communal main building for use by the residents. While providing a large number of town homes, this planned unit development still maintains about 60% of the site in open space for the residents with the potential for conservation easements that would make the open space available for a public trails system and public access to the beach.

This scenario develops the site around the existing dwellings. Other scenarios could be explored whereby some of the existing dwellings could be purchased. The road system is about 3,000 feet in length.

Waste water treatment system:

The total septic requirements are 4,100 feet of rock filled trench. This design scenario has five separate trench systems that are shared by several townhomes. There are many options for aggregating the septic fields. These range from several smaller trench systems as in this design to a scenario where there is one large trench system in the open space area. In any event, the open space area has more than ample space to provide a site for a second system when the initial site is no longer functional.

Implementation, Policy and Projects:

- Create a prototypical lakeshore cluster housing development, with community input to determine market for cluster housing, and a willing developer.
- Work collaboratively with the lakes associations, Townships, Aitkin County, BSALWMP, Association of Area Realtors and Lakes & Pine Community Action Council to create an advisory board on lakeshore development.
- Identify County tax forfeit lands that may be available for development.

Potential Projects—Defining Lakeshore Development

Create Prototypical Lake Shore Cluster Housing Development

Partners:

Citizens of Townships
Aitkin County
Lake Associations
Association of Area Realtors
Mille Lacs Indian Band

Technical or Financial Assistance:

Arrowhead Regional Development
Commission
Central Minnesota Housing Partnership

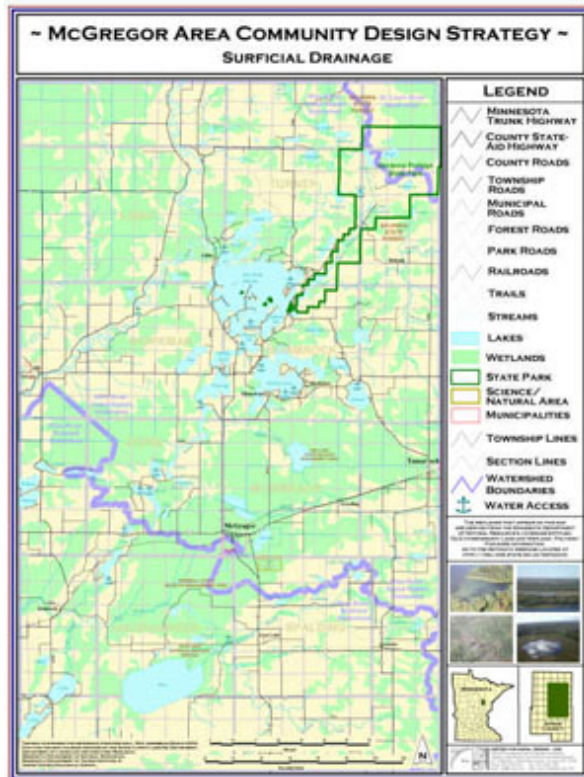
Projects:

- With community input, determine who cluster housing is for
- Seek developer
- Seek community input into cluster development

Timeline: Long term

Building Relationships Around Water

Planning Issues



City of McGregor letterhead speaks to the enduring attraction of the Big Sandy Area Lakes region: “Located in Aitkin County, the land of year-round outdoor recreation”. Hunting, fishing, and birding, snow sports and motorized off-road driving compete for some of the same terrain. In fact, the range of outdoor recreational opportunities, both serviced and informal, has increased tensions between different types recreation to the point that the social cohesion of the region suffers. Frequent misuse or overuse of areas endangers the natural resources and puts in question the potentially strong resource-based tourism industry. ‘Weekenders’ vs. permanent residents, snowmobilers vs. ATVers, bicyclists vs hikers, jet skiers vs. canoeists, swimmers vs. power boaters: the list is long and getting longer, suggesting the need for an assessment of community values associated with this place. The lack of a comprehensive regional plan for recreation and natural resources management reflects the underlying question, what is appropriate recreation and for whom in this region?

Priority issues are numerous on the question of best management practices for this highly-valued recreational region. To list the issues most often mentioned in the community workshops:

- Not enough recreation or public swimming beaches exist.
- Not enough enforcement is exercised on ATV and snowmobile trails.
- Too many personal watercraft run on the lakes.
- Year round trails are needed for ATV’s, cross-country skiing and bicycles.
- A multi modal trail system is needed, with maintenance built in.
- Personal watercraft need designated areas.
- ‘Weekenders’ need education on wetland and lake water quality values and resource stewardship expectations of recreationists.

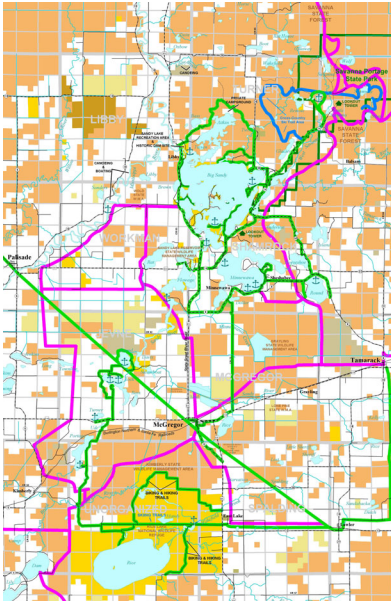
Design Assumptions

Opportunities exist to create environmental and civic projects in the recreational region of Big Sandy Area Lakes that would serve to teach about the natural resources values of the region. These include opportunities to:

- Restore wetlands to protect water quality and create civic amenities with educational value and interpretive potential.
- Build a recreational trail system to connect cities with lakes and wetlands.
- Partner with agencies, lakes associations and other community groups to initiate consensus environmental projects.

Development Scenarios

Towns to Lakes Trails System Scenario



An area-wide recreational bicycle and ski trails system will connect towns to lakes to provide year-round recreation for residents and tourists alike. The trails system takes advantage of the significant amount of public land to create trails and assumes negotiations with private property owners for trail easements where links are needed between public land parcels.

The system is really a series of loop trails (5 to 30 mile loops) originating at McGregor and extending west to Rock, Bass and Steamboat Lakes, southwest to Rice Lake, northeast to Round Lake and north to Minnewawa and Big Sandy Lakes. Routes may intersect existing snowmobile and off-road vehicle (ATV) trails, but would be funded and maintained outside the state legislature dedicated monies for snowmobile and ATV trails. The trails system development may be eligible for Minnesota DNR's Local Trail Connections grant program.

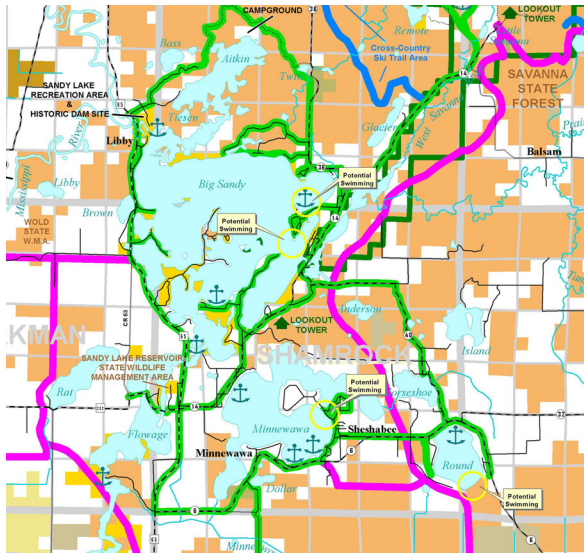
Design Principles:

- Extend existing trails one segment at a time starting with an extended bicycle trail from Rice Lake Wildlife Management Area to city of McGregor or along County Road 40 between Big Sandy and Round Lakes.
- Create a looping system of designated trails where possible to offer a range of short- and longer-distance trail experiences in the same area.
- Designate trail routes with stops at key features in the region, such as historic sites, swimming beaches, wildlife viewing areas, roadside rest stops, resorts and restaurants.
- Add a trail component to public improvement projects as the opportunity arises to extend the trails system, e.g. Highways 65 and 8 upgrades, BSALWMP wetland restorations, McGregor School expansion.
- Inventory all types of existing designated and informal trails for condition and usage to learn about user preferences, underuse, overuse and level of community support.
- Locate trails on public land and road rights-of-way where possible to minimize the need for land acquisition or access agreements with willing private property owners.
- Create a map of the region's trails and recreational systems as part of a tourism strategy.
- Explore locating an off-road vehicle park in the region to help control environmental damage and promote spending in area resorts, cafes and service centers.

Swimming Access Scenario

State and federal funding is available for boat access and public docks via anglers' registration fees, but no grant monies are yet available for public beach development. Interagency discussions (U.S. EPA, U.S. Army Corps of Engineers, Minnesota DNR, BSLAWMP) will be needed to resolve the question of too few public swimming places in the area.

Design Principles:



A community goal is to create more public access and swimming beaches at area lakes to offset the increasing privatization of area lakeshores. The design principles are:

- Create new swimming beaches at lakes where property owners will cooperate to allow beach development and public use
- Inventory property ownership at desirable swimming lakes to decide the best
- Location for early implementation of a new swimming beach [County Plat maps 57-58]
- Locate swimming beaches so as to minimize conflict with boat access and other surface water use
- Integrate information about new swimming beaches into a regional trails and recreational system map

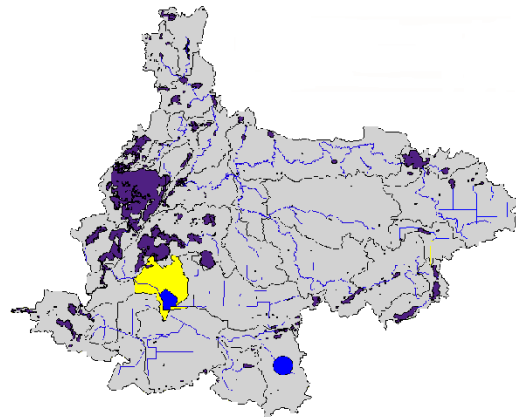


Photos of recreational access in the Big Sandy Lakes system.

Minnewawa Creek Restoration Scenario

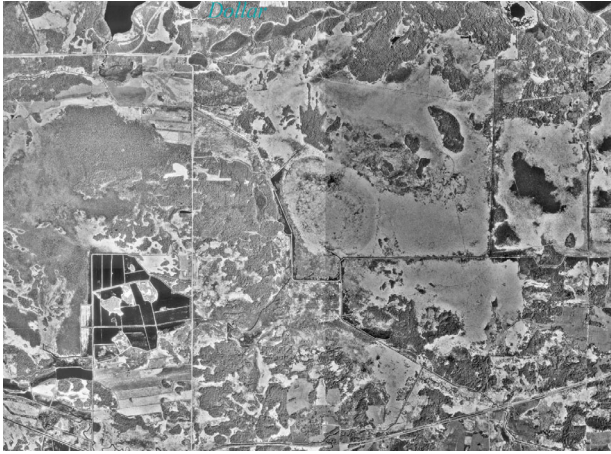


The community goal is to restore the natural stream flow of Minnewawa Creek in a ditched area at Grayling Wildlife Management Area to demonstrate environmental benefits of collaborative water quality improvement project.



Big Sandy Area Lakes Watershed boundaries (BSALWMP, 2001).

Design Principles:



Airphoto showing Grayling WMA in top center of photo (USGS DOQ image).

- Design the project with BSLAWMP, Grayling Wildlife Management Area and area farmers to create a stable stream channel while maintaining enough flow to drain affected agricultural land
- Plan to monitor the project over time, for changes in nutrient load, soil erosion, wildlife habitat and water quality
- Ensure public access to the project for residents to monitor and visitors to observe, possibly as part of an interpretive recreational bicycle trail
- Create an educational brochure that increases public awareness of the region's water quality issues and shows ways to resolve them through physical design, collaborative partnerships and education

Implementation Policy and Projects:

- Work with the Minnesota DNR, BSALWMP, Aitkin County, townships and recreational interest groups to design a regional recreation system that is watershed-based in its management approach. This group must address the multiple, sometimes conflicting, demands for the same recreational resource base.
- Create an inventory of existing and potential recreational resources in the region based on the GIS map data contained in this document. The inventory will account for agency goals and developer interests, e.g. new golf course development and more public swimming access points, to ensure sustainable recreational development occurs.
- Develop a tourism strategy with the Minnesota Extension Service Tourism Center that takes economic development and resource protection goals into consideration and capitalizes on the distinct character of the region.
- Move forward on one of the priority projects to illustrate the value of recreational use as an opportunity for environmental education.

Potential Projects—Building Relationships around Water

Create Lake to Town Trails System

Partners:

City of McGregor
Townships
Lakes Associations
Trail User Groups
Mille Lacs Indian Band

Technical or Financial Assistance:

Minnesota DNR
BSWR

Projects:

- Form collaborative group
- Inventory trails
- Seek funding

Timeframe: Short term (form collaborative group), others are long term projects

Create Public Swimming Beaches

Partners:

Shamrock Township
Lake Associations
BASLWMP
City of McGregor
Mille Lacs Indian Band

Technical or Financial Assistance:

Minnesota DNR

Projects:

- Identify partners
- With community participation, pass resolution at township
- Obtain funding

Timeframe:

Immediately identify partners, pass resolution (short term), obtain long term funding

Wetlands Restoration

Partners:

City of McGregor
Lake Associations
BASLWMP

Technical or Financial Assistance:

Minnesota DNR
BSWR

Projects:

- County Ditch 5
- Mudlake
- Minnewawa Creek

Summary Recommendations



Photos showing historical points of interest, current water quality conditions and development density along Big Sandy Lakeshores collectively illustrate land use and water quality issues that focused this study.

While numerous implementation and policy recommendations are made throughout this document, this section is reserved for the main recommendations and priority projects that emerged from the planning process. These recommendations include:

- Adopt this Strategy as a planning framework to complement Aitkin County's Comprehensive Plan and support the BSALWMP Management Plan.
- Amend zoning and other regulatory tools to accommodate the design principles of integration, restoration and minimal impact on natural resources across the region.
- Carry out the recommended priority projects as funding becomes available and as part of larger initiatives where possible, to showcase the community design principles.
- Use the design principles to evaluate proposed development and for proposing new development.
- Continue to make the planning process visible and inclusive.

Recommendation on Community Organizing

As preface to the priority projects, this section describes an additional set of initiatives under community organizing that support the priority projects and planning goals, so help shape a watershed-based decision-making process. Each community organizing initiative includes a list of partners and possible funding or technical assistance sources.

The priority projects are described following this section that could be implemented within the immediate to near future.

Develop a Regional Plan For Big Sandy Lakes Area

Partners:

BSALWMP
Townships
MPCA
MN State Planning Agency
Aitkin County
Minnesota DNR
Upper Mississippi River Basin
Lake Associations
Mille Lacs Indian Band

Technical or Financial Assistance:

Blandin Foundation
MN State Planning
Arrowhead Regional Development
Commission

Projects:

- Form Regional Planning Consortium
- Consider a moratorium on commercial lakeshore development until regional plan and/or sanitary district is completed
- Determine development carrying capacity of Big Sandy Lakes Area
- Form a Regional Recreation Board
- Seek zoning authority for Big Sandy Lakes Area

Timeframe: In the immediate or near future, form a regional planning consortium and propose a lakeshore development moratorium; all other projects are long term goals.

Form Sanitary District for Big Sandy Lake Area

Partners:

Townships
Aitkin County
Lakes Associations
Uof M Agricultural Extension Service
BSALWMP
Mille Lacs Indidan Band
Minnesota Pollution Control Agency
BSWR

Technical or Financial Assistance:

Projects:

- Form Sanitary District
- Propose a moratorium on commercial lakeshore development until regional plan and/or sanitary district is completed
- Inventory existing condition of septic systems
- Determine appropriate mix of sanitary treatment systems
- Seek funding for systems

Timeframe: Immediately form a sanitary district and propose a lakeshore development moratorium. Inventory septic systems in the short term. All other goals are long term.

Townships To Assess The Need for Five Person Board

Partners:

Citizens of Townships
Town Supervisors

Technical or Financial Assistance:

Minnesota Association of Townships

Projects:

Determine need for five person board

Timeframe: Immediate project

Priority Project 1: McGregor Civic Opportunities

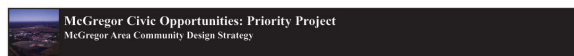
Design Goal: Enhance civic image and build community pride

Design Principles:

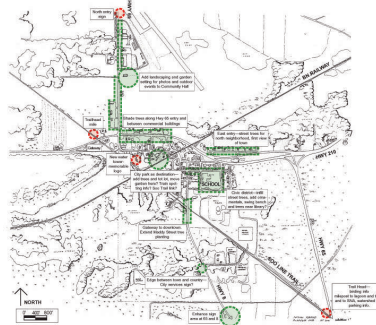
- Create entry signs and markers along Highways 8, 65 and 210 into McGregor
- Improve trailhead sign areas along Soo Line Trail
- 'Green' city streets with shade trees and public gardens, at highway entries and in residential and commercial areas

Projects:

- North Gateway to Downtown: Commercial development illustrates civic opportunities
- Extend downtown character to edge of highway
- Maximize use of available land
- Shade parking areas and walkways
- Create street and sidewalk network to meet existing
- Filter storm water in run-off ponds



Design Goal:
Enhance civic image and build community pride



Design Principles:
- Create entry signs and markers along Highways 8, 65 and 210 into McGregor
- Improve trailhead sign areas along Soo Line Trail
- 'Green' city streets with shade trees and public gardens, at highway entries and in residential and commercial areas

North Gateway to Downtown:
Commercial development illustrates civic opportunities

Strategies:
- Extend downtown character to edge of highway
- Shade parking areas and walkways
- Create street and sidewalk network
- Filter stormwater in runoff ponds



Priority Project 2: Meeting Seniors' Housing Needs

Design Goal: Locate new seniors' housing in McGregor

Design Principles:

- Build a multi-unit active seniors' apartments development as in fill to maximize available land use
- Ensure apartment views to surrounding wetlands and street activity
- Filter storm water in run-off ponds on site
- Minimize disturbance to intact habitat areas

Seniors' housing development scenarios for McGregor illustrate design principles and help revitalize the community with needed housing type

Minnesota's rural heritage is reflected in the porch detail, building materials and architectural style of these seniors' residential developments (photos courtesy of ESG Architects)



Design Goal:
Locate new seniors housing in McGregor

Design Principles:
- Build a multi-unit active seniors apartment development as in fill with existing zoning
- Ensure apartment views to surrounding wetlands and street activity
- Filter stormwater runoff in onsite ponds
- Minimize disturbance to intact habitat areas

Seniors' Housing in McGregor:
Seniors' housing development scenarios illustrate community design principles and help revitalize the community with needed housing type



Minnesota's rural heritage is reflected in the porch detail, building materials and architectural style of these seniors' residential developments. (photos courtesy of ESG Architects)

Priority Project 3: Lakeshore Development

Design Goal:

Showcase sustainable lakeshore development with cluster housing and cluster septic system

Design Principles:

- Establish soil suitability for housing and septic system, ideally locate on fine sandy loam soils with <12% slope to lake
- Preserve the natural shoreline for wildlife habitat, views and public access
- Arrange development layout so that steep slopes, natural drainage ways and native vegetation fall into open space
- Cluster houses to maximize green space
- Build cluster septic system to minimize land area needed, protect groundwater and consolidate expenditures and management
- Locate cluster septic drainfield in commonly-held open space to function as part of a visual corridor or habitat corridor through the development
- Ensure community input on market and design for cluster development and cluster septic as a way of building community support for the principles

East Side Big Sandy Lake Residential Development Scenarios

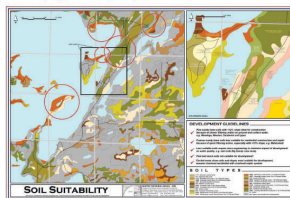
Illustrate cluster housing concept with cluster septic systems



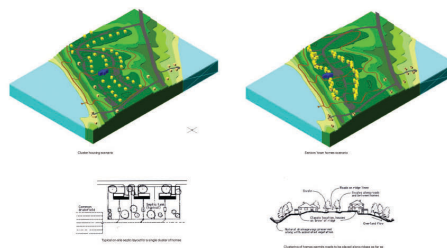
Design Goal:
Showcase sustainable lakeshore development with cluster housing and cluster septic systems

Design Principles:

- Establish soil suitability for housing and septic system, ideally locate on fine sandy loam soils with less than 12% slope to the lake
- Preserve the natural shoreline for wildlife habitat, view and public access
- Arrange housing layout so that steep slopes, natural drainage ways and native vegetation fall into open space
- Cluster homes to maximize green space
- Build cluster septic system to minimize land area necessary, protect groundwater and consolidate expenditures and management
- Locate cluster septic drainfield in commonly-held open space to function as part of a visual corridor or habitat corridor through the development
- Ensure community input on market and design for cluster development and cluster septic as a way of building community support for the principles



East Side Big Sandy Lake Residential Development Scenarios:
- Illustrate cluster housing concept with cluster septic systems



Priority Project 4: Swimming Beaches

Design Goal:

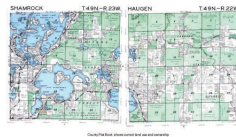
Create more public access and swimming beaches at area lakes to offset increasing privatization of lakeshore

Design Principles:

- Create new swimming beaches at lakes where property owners will cooperate to allow beach development and public use
- Inventory property ownership at desirable swimming lakes to decide the best location for early implementation of a new swimming beach
- Locate swimming beaches so as to minimize conflict with boat access and other surface water use
- Integrate information about new swimming beaches into a regional trails and recreational system map

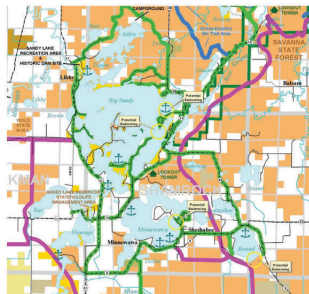


Design Goal:
Create more public access and swimming beaches at area lakes to offset increasing privatization of lakeshore



Design Principles:

- Create new swimming beaches at lakes where property owners will cooperate to allow beach development and public use
- Inventory property ownership at desirable swimming lakes to decide the best location for early implementation of a new swimming beach
- Locate swimming beaches so as to minimize conflict with boat access and other surface water use
- Integrate information about new swimming beaches into a regional trails and recreational system map



Priority Project 5: Minnewawa Creek Rehabilitation

Design Goal:

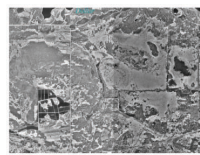
Restore the natural stream flow of Minnewawa Creek in ditched area at Grayling Wildlife Management Area to demonstrate environmental benefits of collaborative water quality improvement project

Design Principles:

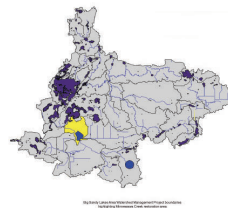
- Design the project with BSLAWMP, Grayling Wildlife Management Area and area farmers to create a stable stream channel while maintaining enough flow to drain affected agricultural land
- Plan to monitor the project over time, for changes in nutrient load, soil erosion, wildlife habitat and water quality
- Ensure public access to the project for residents to monitor and visitors to observe, possibly as part of an interpretive recreational bicycle trail
- Create an educational brochure that increases public awareness of the region's water quality issues and shows ways to resolve them through physical design, collaborative partnerships and education



Design Goal:
Restore the natural stream flow of Minnewawa Creek in ditched area at Grayling Wildlife Management Area to demonstrate environmental benefits of collaborative water quality improvement project



Design Principles:
- Design the project with BSLAWMP, Grayling Wildlife Management Area and area farmers to create a stable stream channel while maintaining enough flow to drain affected agricultural land
- Plan to monitor the project over time for changes in nutrient load, soil erosion, wildlife habitat and water quality
- Ensure public access to the project for residents to monitor and visitors to observe, possibly as part of an interpretive recreational bicycle trail
- Create an educational brochure that increases public awareness of the region's water quality issues and shows ways to resolve them through physical design, collaborative partnerships and education



Priority Project 6: Town-to-Lakes Recreational Trail System

Design Goal:

Build a recreational trail system to connect communities to lakes to provide year-round recreation for residents and tourists

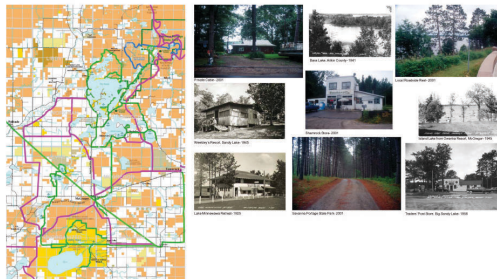
Design Principles:

- Extend existing trails – one segment at a time - starting with an extended bicycle trail from Rice Lake Wildlife Management Area to City of McGregor or along County Rd 40 between Big Sandy and Round Lakes
- Create a looping system of designated trails where possible to offer a range of short- and longer-distance trail experiences in the same area
- Plan trail routes with stops at key features in the region such as historic sites, swimming beaches, wildlife viewing areas, roadside rest stops, resorts and restaurants
- Add a trail component to public improvement projects as the opportunity arises, to extend the trails system, e.g. Highways 65 and 8 upgrades, BSLAWMP wetland restorations and McGregor School expansion
- Inventory all types of existing designated and informal trails for condition and usage to learn about user preferences, under use, overuse and level of community support
- Locate trails on public land and road rights-of-way where possible to minimize the need for land acquisition or access agreements with willing private property owners
- Create a map of the region's trails and recreational systems as part of a tourism strategy



Design Goal:

Build a recreational multi-modal trail system to connect communities to lakes to provide year-round recreation for residents and tourists



Design Principles:

- Extend existing trails one segment at a time, starting with an extended bicycle trail from Rice Lake Wildlife Management Area to city of McGregor, or along County Road 40 between Big Sandy and Round Lakes
- Create a looping system of designated trails where possible to offer a range of short and longer-distance trail experiences in the same area
- Designate trail routes with stops at key features in the region, such as historic sites, swimming beaches, wildlife-viewing areas, roadside rest stops, resorts and restaurants
- Add a trail component to public improvement projects as the opportunity arises to extend the trail system (examples include Highways 65 and 8 upgrades, BSLAWMP wetland restorations, McGregor School expansion)
- Inventory all types of existing designated and informal trails for condition and usage to learn about user preferences and identify areas of underuse or overuse and level of community support
- Locate trails on public land and road-rights-of-way where possible to minimize the need for land acquisition or access agreements with private property owners
- Create a map of the region's trails and recreational systems as part of a tourism strategy

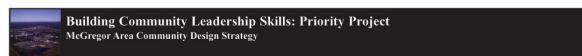
Priority Project 7: Building Community Leadership Skills

Design Goal:

Cultivate strong community leaders to move forward with the collaborative decision-making process regarding future growth in the area that is at the heart of the regional design strategy

Design Principles:

- Build on community support for a regional design strategy to complete demonstration projects that showcase the community design principles
- Form task groups to lead the priority projects identified through this planning process
- Work with Blandin Foundation and the Arrowhead Regional Development Commission to provide community leadership training for task groups and individuals
- Set target dates for completing the priority projects beginning with those that have funding and public interest and can be tied to a larger project or event, e.g. new trail design incorporated into County road upgrades or a civic greening project to celebrate the McGregor Centennial
- Collaborate on projects whenever possible to build community, extend sense of stewardship and enhance quality of life in the McGregor region

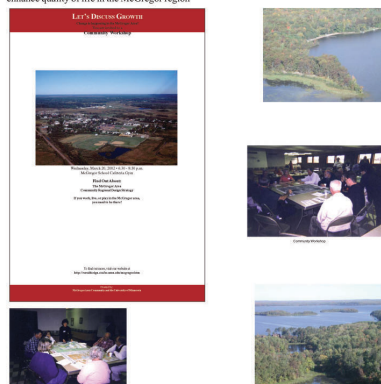


Design Goal:
Cultivate strong community leaders to move forward with the collaborative decision-making process regarding future growth in the area that is at the heart of the regional design strategy



Design Principles:

- Build on community support for a regional design strategy to complete demonstration projects that showcase the community design principles
- Form task groups to lead the priority projects identified through this planning process
- Work with Blandin Foundation and the Arrowhead Regional Development Corporation to provide community leadership training for task groups and individuals
- Set target dates for completing the priority projects, beginning with those that have funding and public interest and can be tied to a larger project or event (e.g. new trail design incorporated into county road upgrades, or civic greening project to help celebrate McGregor Centennial)
- Collaborate on projects whenever possible to build community, extend sense of stewardship and enhance quality of life in the McGregor region



Appendices

Appendix 1: Timeline and Projects

Appendix 2: Community Workshops and Core Group Meetings: Notes, Minutes and Questions

Appendix 3: Affordable Housing and Economic Development Funding and Technical Assistance

Appendix 4: Natural Resources and Trails Funding and Project Assistance

Appendix 5: References

Appendix 6: McGregor Development Scenarios

Appendix 7: Priority Projects Posters

Appendix 8: Maps

Appendix 1: TIMELINE AND PRODUCTS

Phase 1:

Mid-July 2001:

Agreement signed

Mid-July:

Meeting with Core Advisory Group (assumed to be GMADC):

Outline process and products/data needs; case studies presented

Early August:

Core Group Meeting:

“What we see” focus; GIS-based info on region presented; current projects/issues located; points of agreement clarified for design team.

Early September:

Community Fair Exhibit:

Poster board of project goals, community identity, potential design scenarios, with room for comment by area fair-goers, including Wild Rice Days event public

Student Photography Project:

Citizen student photography and documentation project, focused on kids’ valued places and daily experience, to be used for public display and as part of design scenario building tasks

Mid-September:

Whole Community Workshop 1:

GIS-based area-wide ‘capacity’ mapping presented; current projects/issues located and discussed, e.g. housing, water quality, infrastructure; design scenarios and decision-making principles proposed; goal is to gain broader community input on and learn what information still needs to be gathered to develop design strategy.

Early October:

Core Group Meeting:

Debriefing on project; area-wide stakeholder relationships identified; web site report-in-progress reviewed

Phase 2:

Early November 2001:

Whole Community Workshop 2:

Future development scenarios modeled (GIS-based mapping, 3-D models); show a variety of alternative land use scenarios based upon such patterns as soil structure, surface drainage, habitat patterns and potential; all scenarios based upon sustainable development approaches that balance environmental, economic and social needs; workshop participants will discuss and analyze alternatives and comments will be solicited in a variety of formats so that the design team can gain a better understanding of points of agreement or disagreement on outcomes desired for the future.

Early December:

Core Group Meeting:

“What’s possible, what’s strategic” focus; design and decision-making principles confirmed; actions identified; web site reviewed.

Mid-January 2002:

Whole Community Workshop 3:

Regional strategy presented, showing a range of design scenarios based upon the discussion and comments of Workshop 2; discuss the planning and design principles used to create the scenarios; draft a list of suggested priority work areas that are suggested by the scenarios.

Late January:

Core Group Meeting:

“Picture the futures” recommended regional design strategy presented.

Late February:

Whole Community Workshop 4:

Design model(s) and report presented; review and endorse a work plan for the next year that is based upon consensus planning principles and priority issues.

**Appendix 2: Community Workshops and Core Group Meetings:
Notes, Minutes and Questions**

JULY 12, 2001 CORE GROUP MEETING

Community Attendees:

Scott Arneson-Aitkin County, Darrell Bruggman-Aitkin County, Judy Cirilli, City of McGregor, Nancy Karjalahti-Shamrock Township, Bill Langsdorf-BSALWMP, Bob Lewis-Jevne Township, Lynette Maas-McGregor ISD #4, John Merboth-BSALWMP, Penny Olson-City of McGregor, Don Perrine-Turner Township, Liz Perrine-Turner Township, Rian Reed-MNDNR, Tom Remus-MNDNR, Jerry Smith-BSALWMP, Mary Stefanski-Rice Lake National Wildlife Refuge, Russell Thompson-Shamrock Township, & Richard Turnock-Spalding Township

Design Team Attendees:

Gina Bonsignore, Thora Cartlidge, Nicole Chang, Sue Lawson

At the July 12th meeting, the McGregor Area Community Core Group was asked by the University team what their expectations were for this project. This summary details the expectations and issues generated from this meeting. It was presented back to the Committee at a Core Group meeting on August 2nd as the basis for refining the outcomes of this process.

What are the expectations of the project — Participant comments:

- Was looking at the future; how much increase in development there would be in the area so the FWS can plan for the increased use
- Wants to see direction from Comp Plan for the Township for the future
- Major concern is that this be community building and that are cognizant of all types of views
- Cooperation among towns / city – create that dialogue
- Cooperation across boundaries
- Organization into watersheds
- Sees as a foundation for beginning
- Deal with issues beforehand
- Better comp plan relative to area
- Focused planning
- Vehicle for communicating and building community
- Community building
- We need a comprehensive plan including development, preservation of water quality, sewer system and regional vision.
- Cooperation issue: talk with government and create dialogues
- After deciding the whole problem, need to look into details
- Everyone has different needs, we should look at all opportunities and problems
- Zoning code: at township level they don't have any zoning ordinances – it is controlled at county level—that there should be a building code
- More active public involvement through open houses would be an effective way for making decisions
- Concerned about the time factor for implementing projects — sewage projects – takes a long time to get a project going
- Organization into watersheds
- Need for building codes
- Develop pride in area
- Need for sense of community

Summary of expectations:

There are two major areas mentioned regarding the expectations of the group:

1. They want this process to be community building. Specific items mentioned in community building were:
 - Involving as many citizens as possible throughout the process
 - Creating opportunities for dialogue amongst citizens
 - Involving students at school in project
 - Fostering a sense of pride in the area
 - Recognizing areas where cooperation can be made among governmental units
 - Instituting cooperative processes
2. The end result of this project should result in some tangible planning product.
 - There seems to generally be agreement that the Aitkin County Comprehensive Plan is a starting point from which to launch into this project.
 - There also seems to be agreement that this project should produce more specific direction for the local governmental units (townships and city)
 - It is unclear what the specific product will be.
 - It is also unclear what authority / mechanism would be used to institute these more specific directions for the communities.

What are the issues –comments by participants:

For the purposes of this project, comments made by core members regarding the issues are divided into three categories: the natural environment, community character and housing issues, and economic issues.

Natural environment

- Concerned about water quality
- Preserve the natural environment
- Maintain the water quality
- Soil is high in potassium phosphate content
- Wants to start organized sewer infrastructure
- Environmental concerns
- Land acquisition issues – in relationship to critical natural resource issues
- Ditching
- Land that was agriculture is becoming recreational or hunting lands – impact of that
- Water sewer – effects on townships
- Needs for controlled development as a comprehensive zoning – especially water quality and forestry land
- Water quality is living in this area
- How can we manage farming, logging, and recreational opportunity related to water quality and wetlands
- In Lake Minnewawa area, there are dense residential activities happening; we are concerned about soil, septic systems, cluster zoning in residential areas

Community character / Housing Issues

- Sees development coming – doesn't want to become another Gull Lake which means condos, townhouses – loss of character
- Not opposed to development
- Wants development done properly
- Wants to see development controlled – see / stay same
- Rural area?

- Island in the swamp – limited building area
- Wants to see housing for
 - Those just entering housing market
 - Older folks – assisted care type – for instance – when older folks can't do their own maintenance – town home type
- Wants to maintain as a city
- Also wants to be part of the area – hub
- Concerned about the increase in emergency services
- Manage the growth
- Growth can not be contained in the City of McGregor
- Affordable housing – people can't find places to live
- Elderly leave because not adequate medical care
- Development implications – what kind of development (Big Sandy, Minnewawa)
- Transportation problems
- Housing
- Management of growth
- Growth – has grown to one of highest property wealth areas in state – limits qualifying for state aid for schools
- Also has one of highest free and reduced rates
- Need moderately priced housing – incoming teachers not able to find place to live – family housing
- City streets need improvement
- School has very stable enrollment
- Need restaurants for family – majority of restaurants associated with bars
- Sees a greater demand for services in township
- Main concerns are housing and water
- Places for children and hometown for retired people – medical and public facilities are needed
- Institution of a building code/inspection process

Economic fabric and tax structure

- Economics – provide for young people – and not just jobs in the service sector
- Tax structure – difficult to stay in township
- Three phase power – industry related
- Green space and tax implications
- Lands selling for \$1,000 and acre – unheard of prices until now
- Need for industry to attract people – not only logging and more service facilities
- Industrial park is concern – feel they are running out of room

Decisions:

The University of Minnesota team will return August 2, 2001, with a summary of community expectations, issues and goals heard at the July 12, 2001 meeting, and a proposed timeline and products from the process.

AUGUST 2, 2001 MEETING

Community Attendees:

Scott Arneson-Aitkin County, Darrell Bruggman-Aitkin County, Lynette Maas-McGregor ISD #4, Penny Olson-City Of McGregor, Don Perrine-Turner Township, Tom Remus-MNDNR, Jerry Smith-BSALWMP, Mary Stefanski-Rice Lake National Wildlife Refuge, & Mike Thompson-Lakes and Pines Community Action Council

Design Team Attendees:

Thora Cartlidge, Sue Lawson

Ground Rules:

Ground rules were discussed, modified agreed upon, as follows:

Ground Rules Planning Process (as adopted from Ellen O'Neill & Associates)

- We all have something to teach and something to learn in this process.
- We are all experts.
- The process of learning requires us to rethink our assumptions.
- We agree to be open to rethinking our own assumptions and to hearing other people's ideas.
- We will act with respect for everyone's knowledge and experience by:
 - Listening without interrupting or talking over each other
 - Listening without judging someone's ideas or experience
 - Sharing time / space equally with each other
 - Agreeing to disagree respectfully
 - Describing the problem or issue, not the person
- We agree to act in ways that are in the best interest of the McGregor Area Community and move beyond our own self-interest.
- We agree to listen to our neighbors in the public meetings and reflect their concerns, ideas and needs in the planning process.

Decisions / Core Group Decisions:

Core group decisions will be made by using modified consensus. If full consensus is not readily reached on an item for decision, a modified consensus will be used, consisting of 75% of those attending the meeting.

Decisions / Project Issues, Goals, and Community Identity:

Project issues, goals, and community identity statements were discussed, modified and agreed upon, as follows in the "Form Issues to Design Strategies" document.

Decisions / Products Timeline and Products:

Project timeline and products and proposed design tasks were discussed and modified and will be decided at the August 13, 2001 meeting, as follows in the "From Issues to Design Strategies" document.

A community fair exhibit will be created, shared with the core group at the next meeting and decided.

AUGUST 13, 2001 MEETING

Community Attendees:

Scott Arneson-Aitkin County, Judy Cirilli-City of McGregor, Bill Langsdorf-BSALWMP, Bob Lewis-Jevne Township, Lynette Maas-McGregor ISD #4, Penny Olson-City Of McGregor, Don Perrine-Turner Township, Tom Remus-MNDNR, Mary Stefanski-Rice Lake National Wildlife Refuge, & Mike Thompson-Lakes and Pines Community Action Council

Design Team Attendees:

Thora Cartlidge, Sue Lawson

Decisions / Timelines and Products:

The sequence of the timeline was agreed, however the first community workshop will be scheduled for mid-October (proposed for mid-September), so pushing the subsequent events back by several weeks.

Products were agreed, with discussion of the specifics of the proposed design scenarios resulting in the attached revisions.

A specific date and time for the first community workshop will be decided at the next meeting of the core group, set for September 19, 2001, at 9:00 a.m., at McGregor City Hall.

Decisions / Community Awareness:

An informational poster will be created based on the text revisions that will be displayed during Wild Rice Days and other community events to encourage community participation in the project.

A three-ring project notebook will be provided at the September 19, 2001 meeting to all core group participants to help keep track of project materials, and eventually to hold the design strategy document.

Members of the core group agreed to seek participants from groups not represented in the core group, including loggers and agricultural producers, the area Tribal Council, Chambers of Commerce, lakes associations and townships.

A website has been created that contains all pertinent information to the project, including a project description and schedule, minutes of the meetings, maps and drawings, as well as an email connection for correspondence with the Center for Rural Design. The website address will be <http://ruraldesign.coafes.umn.edu/mcgregor.htm>

SEPTEMBER 26, 2001 MEETING

Community Attendees:

Judy Cirilli-City of McGregor, Nancy Karjalati-Shamrock Township, Bill Langsdorf-BSALWMP, Bob Lewis-Jevne Township, Lynette Maas-McGregor ISD #4, Don Perrine-Turner Township, Tom Remus-MNDNR, Jerry Smith-BSALWMP, & Russ Thompson-Shamrock Township

Design Team Attendees:

Gina Bonsignore, Thora Cartlidge, Wes Hellevik, Sue Lawson, & Manjula Sharma

Decisions / Community Workshop:

The Community Workshop is scheduled for October 12th at the McGregor (Lions) Community Center, 4:30-6:30 p.m. Logistics were discussed regarding workshop format and a poster decided to be printed and distributed to encourage broad community participation. Area newspapers will be notified.

The intent of the workshop is to invite community comment on the physical planning issues assembled to date with the Core Group and to work in facilitated groups on the design scenarios that may be developed further by the University team.

Three-ring project notebooks were distributed with all minutes and background information on the project. The notebooks will be updated as work proceeds. The same information will be available online at <http://www.ruraldesign.umn.edu/projects/mcgregor>.

OCTOBER 12, 2001 MEETING/COMMUNITY WORKSHOP

4:30 - 5:00 pm	Soup and Sandwiches Map and Design Boards Available for Viewing
4:45 - 5:15 pm	Workshop Introduction Map and Design Boards Presentation
5:15 - 6:00 pm	Breakout Group Tasks
6:00 - 6:30 pm	Breakout Group Reports Summary and Future Direction

Community Attendees:

Roxanne & Ron Abrahamson, Margaret Anderson, Scott Arneson, Janice & Lee Bennett, Phyllis & Jerry Blanchard, Cynthia Brekke, Ann & Jim Carlson, Judy Cirrilli, Aileen & Herry DeMenge, Adriline Fredericksonn, Barb & Bob Griffen, Elausie Hartxberg, Carle Holten, John (Jack) Hooper, Bob Lewis, Curt Johnson, Nancy Karjalethi, Jim Knoble, Bill Kreitz, Ruth & Arne Loftus, Lynette Maas, Edna Neitzel, Pat & John Nystuen, Mary & Gordy Patterson, Liz & Don Perrine, Bob Reis, Ron Richardson, Jeanne Schram, Ron Smith, Barb & Tom Spencer, Marlys & Keith Vertheis, Valerie & David Warner, Jr., and Danny Warrinet

Design Team Attendees:

Gina Bonsignore, Thora Cartlidge, Sue Lawson

TASK 1 - McGregor as the Service Center

This summary was developed by group leader, Gina Bonsignore.

The group began by looking at a base map depicting the City of McGregor and its immediate environs. University of Minnesota design team member, Gina Bonsignore, described how the team would look at alternatives for different places in town where there was landowner interest in development. This session would help identify these areas, as well as ideas for what might be needed and feasible.



Following is a summary of the groups' priorities for McGregor:

1 - Provide housing for seniors, with a variety of options, from independent to more assisted living. A facility in Bloomington was given as a good model to emulate. Looking at where such housing could be located, the group reviewed a variety of potential sites:

Downtown Site:

- Would provide easy access to shops and restaurants, but would there be room? Two possibilities on Maddy Street and near the existing senior building.

North of Town:

- Near the grocery store
- Would be close to groceries (but they deliver, so that isn't an absolute necessity).
- There seems to be room.

Edge of Town:

- for example, east of the tracks
- Would provide nice views of wildlife, wetland areas, peaceful setting.

2 - Provide more rental housing. There are no places available, making it difficult to attract new employees. While there is unemployment here, there is also a shortage of skilled workers. It makes it more difficult to attract people here, when there is little immediately available housing.

3 - Attract regional "share" of new business and investment.

4 - Expand and enhance what is there. Make sure what we have is fully utilized and maximized. Look at ways to enhance the visual and physical connections between highway and town. (This idea came from the U design team.)

Issues:

- Is there enough dry land? What is our inventory of available land in the industrial park and commercial area?
- New infrastructure investments in city sewer and water will help.
- Lack of natural gas has been a limitation for some facilities to locate here.
- Skilled labor. We may not have enough skilled labor to attract new business.
- Need to involve more people in the City's Development Corporation.

**Specific Ideas:**

- Can we get a satellite county facility here, if only one day a week?
- The town lacks a performance space for theatre/music productions. The arts community is alive and well, but has no visible presence.

TASK 2 - Lake Shore Design - 'Break-Out' Group Summary

This summary was developed by group leader, Sue Lawson.

There were about ten people in the group. The majority of them were older citizens, with the exception of one couple who were middle aged. There were four or five people who were retirees to the area and had moved up from the Twin Cities to "get away from that rat race". One couple had been born and raised in the area.

Following is a summary of their preferences for various design scenarios:

1 - Overwhelmingly, they would prefer no new development of the lake shore. They feel that it should be preserved as natural habitat.

2 - When pressed, they could see development on the lake if tools such as conservation easements, PDR or TDR's, cluster designs, could be used.

3 - An acceptable development scenario would be one that focused on senior citizens. They would like to see a range of housing for seniors from townhouses to assisted care facilities. When asked about the proximity to medical care, they were quite satisfied with the services they have - there are First Responders and the ambulance from McGregor takes 15 minutes to get to the area. They further pointed out that the majority of the population in the area is around Big Sandy Lake and that there should be some options for seniors to stay in the area.

4 - When asked who would be working at this senior development and where would they live, in conjunction with their knowledge of people like teachers coming into the area to work and not find housing, they recognized that there is definitely a need for affordable housing in their community. They all agreed that the development of lake shore property for affordable housing was probably not likely because of the cost. When asked what they would do if they could get program money for this, they were reluctant to commit to affordable single family development on the shore. And definitely not multi-family housing. When asked if they would like the Center for Rural Design to look at affordable housing of the lake shore, they were very supportive of this idea.

5 - They were very opposed to any more commercial development of the lake.

6 - Important to have good roads, police, health, sewer, and water.

7 - Cluster septic systems in the future.

8 - Don't fertilize lawns to the lake.

9 - Sewer treatment facility for Shamrock Township in future.

TASK 3 - Recreation in the Region

This summary was developed by group leader, Thora Cartlidge.

Priority Issues:

Recreation, public swimming beaches - not enough public

Hunting, golf course

ATV and snowmobile trails - not enough enforcement

Township roads are legal for ATV

ATV trails are needed

ATV's race on road, dig up roads

Businesses want ATV's - good business

ATV, snowmobile, personal watercraft, swimming

Do we want to provide all activities to tourists? Fee for use? How area develops recreation and for whom?

Issues:

Cross country skiing - many trails not advertised

Skiers don't spend money like snowmobilers

Bike trails - circular trail, smaller loops connecting to bigger loops

Swimming:

- Not enough public swimming access

- Round Lake only public area for swimming, but is designated a boat access with no swimming officially allowed

- Swimming area at Dam Park

- Too many personal watercraft on the lakes

Trails:

- Visitors want to bike, but not many trails

- Why not use Sentence to Serve Program for trail building?

Other Issues:

-Year round trails for ATV's, cross-country and bicycles

- Lakes connected by trails

- Swimming beach at Round Lake

- Personal watercraft need designated area



DECEMBER 12, 2001 STEERING COMMITTEE MEETING

Community Attendees:

Mike Thompson, Lakes and Pines CAC; Richard Turnock, Spalding Township; Bob Lewis, Jevne Township; Jerry Smith, BSALWMP; Darrell Bruggman, Aitkin; Bill Langsdorf, BSALWMP; Cheryl Meld, McGregor ISD #4; Lisa Kruse, ISD #4; Scott Arneson, Aitkin County; Jean Pitt, U of M Extension Service, Aitkin County; Tony Bodway, McGregor Area Realty; Judy Cirilli, City of McGregor

Design Team Attendees:

Thora Cartlidge, Gina Bonsignore

The Steering Committee met to assess the outcomes of the fall community workshop, review the priority design tasks for the University team based in workshop participants' comments and discuss mid-winter dates for a follow-up community workshop.

MARCH 20, 2002 MEETING/COMMUNITY WORKSHOP

Community Attendees:

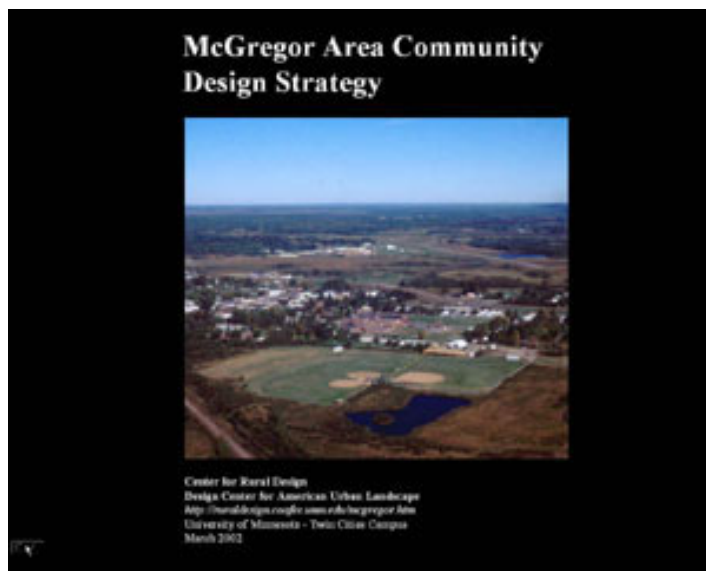
Dianne Knobon, SWHIM; Larry Berg, McGregor/Big Sandy; Darrell Bruggman, Aitkin County; Michael Hagen, Aitkin; Neil Stecker, Tamarack; Bob Lewis, Jevne Township; Mary Stefanski, Rice Lake National Wildlife Refuge; Rochelle Ghinz, McGregor; Judy Cirilli, McGregor; Franklin Turnoch; Don and Liz Perrine, Turner Township; Cynthia Brekke, Voyageur Press of McGregor; Larry Turner, McGregor; Rian Reed, MnDNR/BSALWMP; Carl Rippie, BSALWMP/LMA/SWHIM; Penny Olson, City of McGregor; Lynette Maas, McGregor ISD #4; Jerry Smith, BSALWMP; Sarah Christopherson, Minnesota Extension Service

Design Team Attendees:

Gina Bonsignore, Thora Cartlidge, Sue Lawson, Marcie - , Anna -.

An open house style public workshop at the McGregor School Cafeteria Gym included a short project summary slide show followed by the opportunity to view the drawings and models created to date and give comments to the design team. Images of the workshop are shown below.

This is a collaborative undertaking by the McGregor Area Community with Big Sandy Area Lakes Watershed Management Project, the City of McGregor and surrounding townships, and Aitkin County.



MAY 14, 2002 CORE GROUP MEETING

Community Attendees:

Darrell Bruggman-Aitkin County, Judy Cirilli-City of McGregor, Bill Langsdorf-BSALWMP, Penny Olson-City of McGregor, Rian Reed-MNDNR, & Jerry Smith-BSALWMP

Design Team Attendees:

Thora Cartlidge

What was decided:

Review of Web-Based Draft Report: Speaking to the draft report posted to the project's website, Thora took the core group through the main recommendations of the proposed Regional Design Strategy.

Community Design Principles:

Bill Langsdorf moved that the community design principles be adopted by the committee, seconded by Judy Cirilli, as presented to the March 20th community workshop.

- Maintain McGregor as the center of this sub-region
- Minimize disturbance from development on natural resources
- Utilize disturbance from development on natural resources
- Integrate wastewater and storm water systems into a green space system
- Preserve and restore wetlands and habitat corridors
- Connect towns to lake with recreational trails along natural features
- Improve water quality value and quality of life with all development
- Make the planning process visible
- Create a communication structure for collaborative decision-making on future development

Project Priorities:

Discussion of the range of potential projects that could be undertaken to illustrate the design principles resulted in the following, with those listed first that could likely be done in the near future, due to current stakeholders interest, and so become early successes in implementing the Regional Design Strategy.

- 1 - Entry signs and waymarkers for McGregor!
- 2 - Civic greening program - street trees and public gardens - as a highly visible and participatory civic project
- 3 - A 10 to 15 unit seniors' housing development in town, as infill, convenient for walking to shops and services
- 4 - Lakeshore development on either Big Sandy or Minnewawa, showcasing cluster septic service
- 5 - A new swimming beach on the south side of Round Lake or another lake using (County) ISO dedicated lots for lake access
- 6 - Restoration of Minnewawa Creek

7 - First segment of a town-to-lakes recreational trail system, possibly along Minnewawa Creek

Responsibility for Implementation:

Discussion of what group should be responsible for the Strategy, what kind of group structure - formal or informal? - and whether the core group wants to continue meeting, resulted in the consensus of those present on the need for the full group to meet once more to decide on the next steps. The hope was expressed that several projects could be undertaken and celebrated as part of the City of McGregor Centennial in 2003.

Community Final Presentation:

The dates June 20th and June 26th (by telephone with Judy Cirilli) were discussed for a final public presentation of the Design Strategy report that will incorporate any feedback to the online version of the draft report. Notices will appear in area newspapers the week of June 17th to announce the date and location.

JUNE 24, 2002 MEETING - COMMUNITY WORKSHOP

Community Attendees:

Darrell Bruggman, Aitkin County; Bob Lewis, Jevne Township; Mary Stefanski, Rice Lake National Wildlife Refuge; Judy Cirilli, City of McGregor; John Cirilli, McGregor; Katy Cirilli, McGregor; Jerry Smith, BSALWMP; Nancy Karjolihti, Shamrock Township; Bill Langsdorf, BSALWMP; Loren Miller; Scott Arneson, Aitkin County; Sylvia Merboth; John Merboth; Paul Grams

Design Team Attendees:

Gina Bonsignore, Thora Cartledge, Sue Lawson, Melissa Wyatt, Marcie – , Anna –.

McGregor Area Community Design Strategy Community Presentation Agenda

1. Introductions
2. Slide show summary of design strategy
3. Time to view project drawings and models
4. Discuss priority projects and next community steps

The Next Steps:

Organizing community interest and moving forward on a first project

Summary of Design Strategy:

The Issue: Managing growth to protect water quality and quality of life in the greater McGregor area

The Response:

A regional strategy based on agreed community design principles

The Outcomes:

1. Facilitated dialogue between townships, city, county, and state agencies and citizen interest groups on regional growth issues
2. A set of priority projects to demonstrate the strategy
3. An illustrated report of the process and recommendation (available both as printed document and online)

The Next Steps:

Organizing community interest & Moving forward on a first project

Goals:

In determining which of the priority issues to model with design scenarios, we chose the issues that could be agreed upon and that demonstrate the project's goals to the larger community.

-Create an integrated decision-making process to guide future development that is based in an understanding of the natural resources, the people and the opportunities that exist to sustain the greater McGregor area economically and ecologically build a sense of community.

-Utilize existing investment in infrastructure, by extension or infill, to locate new development in McGregor and the greater McGregor area.

-Ensure no negative impact from development on natural resources, and where possible, improve wildlife habitat, water quality values, and landscape and aesthetics with development.

- Making this planning process a community building effort by providing timely and accurate information and involving as many people as are interested.
- Provide a structure for communication between agencies, agencies and citizens, and within the community that encourages collaborative decision-making.

Design Scenario Tasks:

- TASK 1 - Sustaining McGregor as Center of Sub-Region
- TASK 2 - Visualizing Lakefront Development Character
- TASK 3 - Building Relationships around Water

Decisions:

The Community Design Strategy, and the community design principles and seven priority projects on which it is built, will be written and assembled as a formal final report to be recommended by the McGregor Area Community Core Group for endorsement by participating agencies and jurisdictional authorities. Citizen input, through the public workshop process, has contributed much to the end product, as demonstrated by the following agency responses to the community priority projects:

Mary Stefanski offered federal funding support, through the Rice Lake National Wildlife Refuge, to complete a first segment of the 'town to lakes' trail system project,

Scott Arneson described funding and technical support through Aitkin County to install a cluster septic system with any new lakeshore cluster housing development, to illustrate the principles of sustainable lakeshore development.

Judy Cirilli offered the City of McGregor's leadership in 'greening' the city with native trees and gardens to further the civic investment in McGregor and help celebrate City's Centennial in 2003.

Jerry Smith described BSALWMP's interest in undertaking reclamation and restoration of Minnewawa Creek, as a way of illustrating ecological design principles and adding environmental education value to a priority BSALWMP project.

The Core Group will meet once more to decide on:

- a) next steps needed to encourage investors to build housing, new commercial and industry using the design principles endorsed through this process;
- b) how to organize a community leadership training project to take advantage of the civic interest demonstrated through this process in the future of the McGregor area; and
- c) what citizen group structure should emerge from this planning process that would continue the community dialogue begun through the Community Design Strategy.

"If we join hands and involve people, we'll be able to manage the changes that occur and preserve the quality of life." --Aitkin Independent Age 2001

McGregor Community Meeting Comments: June 24, 2002

1. Civic Projects
 - Trees: need for specimen size trees, not seedlings. Possible planning for Arbor Day tree planting event?
 - New School Gym wall: perfect opportunity for signage or mural
 - Information Center: needs better, more visible signage
 - Community Center: needs better, more visible signage

2. Seniors' Housing
 - Sites: the drug store/open lot site downtown might be a good location
 - Type of housing: need to determine whether this will be assisted living or simply seniors only apartments
 - Sites: the site near the airport might be suitable
 - Zoning: parking may not be as high a priority. Zoning could be changed to accommodate fewer parking spots per unit.

3. Lakeshore Development
 - Interest: create/foster interest group for cluster housing with shared septic systems
 - Sites: use GIS maps to locate appropriate pilot sites
 - Septic system function: investigation of 26 local septic systems showed 23 complied. Perhaps septic failure is not as big an issue in this particular area.
 - Appropriate questions: accurate information about septic system options needs to be collected. Information provided by construction companies/pipe suppliers may not represent the most cost effective or appropriate technology.
 - Grant programs: investigate funding options for pilot projects
 - U of M Extension: source of accurate information/options for septic
 - Publicity: successful projects need to be brought to the attention of local residents to foster support
 - BSALWMP Studies: information about septic options is available in recent reports

4. Trails
 - Priority Trails: priority projects need to be identified in a timely manner to possibly coordinate with other projects
 - Hill City Example: Hill City obtained funds from the Lions Club. Is there a similar option for McGregor?
 - Grant Applications: grants need to be applied for on an annual basis. Assistance may be available from the county in the grant application process.
 - Rice Lake National Wildlife Refuge may have funds available for trail extension from the refuge to McGregor.

5. Beaches
 - Lake Associations working with the county: some county support and supervision may be available in the establishing of new beaches

6. Creek Restoration
 - DNR Involvement: Dave Dickey with the DNR has expressed interest in working on restoration projects in the area
 - Meander Restoration: projects already planned by DNR to restore meanders to some ditches. Projects should receive funding and be implemented soon.

7. Community Leadership Building
 - Monies: many foundations support community building efforts. Grant support should be solicited to continue this work.
 - Staff: staff support will be necessary to process inquiries, grant applications/coordination
 - Chamber of Commerce: the Chamber could serve as an initiator to keep efforts such as this planning effort going
 - Other community groups: the Lakes Association, Lions, and others could continue to foster support for planning efforts

- **Refuge System Centennial:** the anniversary of the refuge system may provide an opportunity to continue projects to commemorate milestones in McGregor's history

Appendix 3: Affordable Housing and Economic Development Funding and Technical Assistance

Private Non-Profit Funding, Development and Technical Assistance

Central Minnesota Housing Partnership

P.O. Box 2222
St. Cloud, MN 56302-2222
Tel: 320-259-0393
Fax: 320-259-9590
www.cmhp.net

Greater Minnesota Housing Fund

332 Minnesota Street, Suite 1310- East
St. Paul, MN 55101
Tel: 651-221-1997
Toll-Free: 800-277-2258
Fax: 651-221-1904
www.gmhf.com

Information on Affordable Housing Terminology, Public Policy, and Research

Minnesota Housing Partnership

1821 University Avenue West, S-137
St. Paul, MN 55104-2891
Tel: (651) 649-1710
Tollfree: (800) 728-8916
Fax: (651) 649-1725
www.mhponline.org

Housing Assistance Council

National Office
1025 Vermont Ave NW, Suite 606
Washington, D.C. 20005
Tel.: (202)842-8600
Fax: (202)347-3441
www.ruralhome.org

National Low-Income Housing Coalition

1012 Fourteenth Street NW, Suite 610
Washington, D.C. 20005

Tel: (202) 662-1530
Fax: (202) 393-1973
www.nlihc.org

Government Sources:

Minnesota Housing Finance Agency
400 Sibley Street Suite 300
St Paul MN 55101-1998
Tel: 651.296.7608 or 1.800.657.3769
651.297.2361 TTY
www.mhfa.state.mn.us

U.S. Department of Agriculture Rural Development
410 Agribank Building
375 Jackson St.
St. Paul, MN 55101
Tel: (651) 602-7824
www.rurdev.usda.gov/mn/

U.S. Department of Housing and Urban Development, Minneapolis Office
220 Second Street South
Minneapolis, MN 55401
Tel: (612) 370-3000
www.hud.gov

Foundations:

For information on applying for grant funds and writing grants see:

The National Council on Foundations
1828 L Street, NW
Washington, DC 20036
Tel: 202/466-6512
www.cof.org

Minnesota Council on Foundations
15 South Fifth Street; Suite 600
Minneapolis, MN 55402-1570
Tel: 612-338-1989
Fax: 612-337-5089
www.mcf.org

For Minnesota Funding:

Blandin Foundation
100 North Pokegama Avenue
Grand Rapids, MN 55744
Tel: (218) 326-0523
Tollfree: 877-882-2257
Fax: (218) 327-1949
E-mail: bfinfo@blandinfoundation.org
www.blandinfoundation.org

Minnesota Initiative Funds: Northland Foundation

610 Sellwood Building
202 West Superior Street
Duluth, MN 55802
Tel: 218-723-4040
Tollfree: 800-433-4045
Fax: 218-723-4048
info@northlandfdn.org
northlandfdn.org

Appendix 4: Natural Resources and Trails Funding and Project Assistance

MnDNR

- Environmental Partnership Grants: *environmental service projects to clean up natural areas such as streams, lakes and wetlands*
- Urban & Community Forestry Challenge Grant
- Outdoor Recreation Grant
- ATV Grants in Aid Trails: *to encourage maintenance, development and acquisition of public, locally controlled all-terrain vehicle trails and areas*

Application forms are available from the area Trails and Waterways Supervisors and are due in the DNR area office by November 30

Local Trail Connections

The emphasis of this program is to promote access between people and desirable destinations, not to develop significant new recreation facilities. Its primary purpose is to complete trail connections between where people live (e.g., residential areas within cities, and communities) and significant public recreation facilities (e.g., parks and other trails).

Tim Mitchell
DNR Trails & Waterways
500 Lafayette Road
Box 52 St. Paul, MN 55155
Phone: 651-297-1718
Fax: 651.297.5475

Minnesota Releaf

To assist Minnesota communities with planting and caring for their trees, to increase energy conservation, to reduce atmospheric carbon dioxide, and to achieve other environmental benefits

Ken Holman, Program Coordinator
DNR Forestry
1200 Warner Road Box 28
St. Paul, MN 55106
Phone: (651) 772-7565
Fax: (651) 772-7599
E-Mail: ken.holman@dnr.state.mn.us

The Legislative Commission on Minnesota Resources (LCMR)

Programs which help enhance and sustain Minnesota's natural resources
<http://www.lcmr.leg.mn>

Minnesota Pollution Control Agency (MPCA)

The Clean Water Partnership (CWP) was created in 1987 to address pollution associated with runoff from agricultural and urban areas

MPCA Clean Water Partnership Program
Policy & Planning Division
520 Lafayette Rd. N.

Saint Paul, MN 55155-4194
Tel: (651)297-8383

University of Minnesota Agricultural Extension Service
Septic System On-Site Treatment Program
www.bae.umn.edu/septic

Appendix 5: References

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Reed, R. *Big Sandy Summary and Recommendations for Management "White Paper"*, draft 02/25/02. Big Sandy Area Lakes Watershed Management Project.

Sutliff, Dennis. *Interview, ESG Architects*. February 2002.

U. S. Department of Interior, National Park Service, Rivers, Trails and Conservation Assistance. *Economic Impacts of Protecting Rivers, Trails and Greenway Corridors*, 4th Ed. 1995.

van der Ryn, S. and S. Cowan. *Ecological Design*. Island Press: Washington, DC. 1996.

Various Authors. *Assorted newspaper articles on the McGregor planning and redevelopment process*, various authors, 2001/2002.

Appendix 6: Priority Project Posters

Project 1: Civic Projects

Project 2: Seniors' Housing

Project 3: Lakeshore Development

Project 4: Trails

Project 5: Beaches

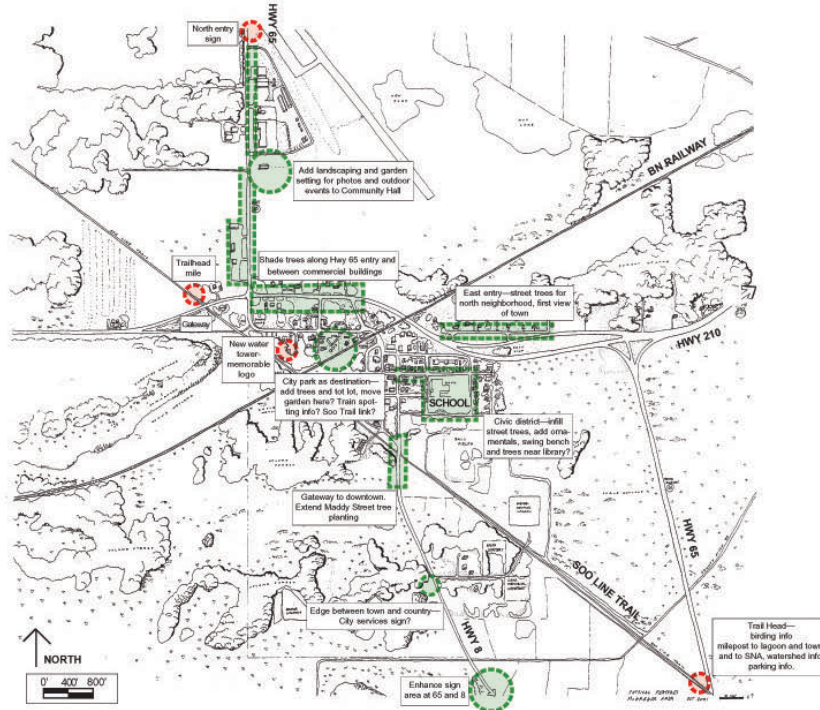
Project 6: Creek Restoration

Project 7: Community Leadership Building



McGregor Civic Opportunities: Priority Project
 McGregor Area Community Design Strategy

Design Goal:
 Enhance civic image and build community pride



Design Principles:

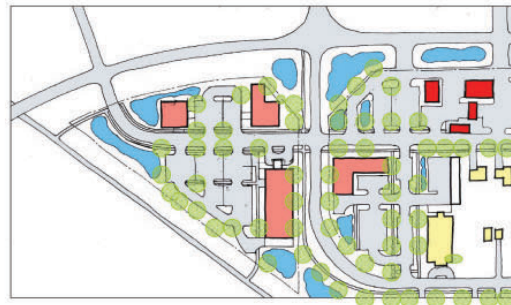
- Create entry signs and markers along Highways 8, 65 and 210 into McGregor
- Improve trailhead sign areas along Soo Line Trail
- 'Green' city streets with shade trees and public gardens, at highway entries and in residential and commercial areas

North Gateway to Downtown:

Commercial development illustrates civic opportunities

Strategies:

- Extend downtown character to edge of highway
- Shade parking areas and walkways
- Create street and sidewalk network
- Filter stormwater in runoff ponds





Meeting Seniors' Housing Needs: Priority Project

McGregor Area Community Design Strategy

Design Goal:

Locate new seniors housing in McGregor

Design Principles:

- Build a multi-unit active seniors apartment development as infill with existing zoning
- Ensure apartment views to surrounding wetlands and street activity
- Filter stormwater runoff in onsite ponds
- Minimize disturbance to intact habitat areas

Seniors' Housing in McGregor:

Seniors' housing development scenarios illustrate community design principles and help revitalize the community with needed housing type



Minnesota's rural heritage is reflected in the porch detail, building materials and architectural style of these seniors' residential developments. (photos courtesy of ESG Architects)



Lakeshore Development: Priority Project

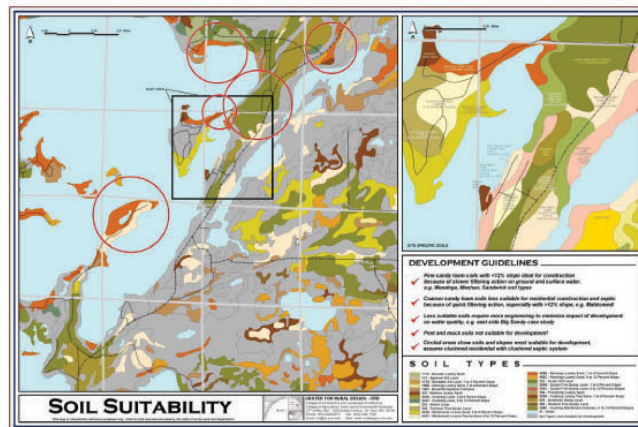
McGregor Area Community Design Strategy

Design Goal:

Showcase sustainable lakeshore development with cluster housing and cluster septic systems

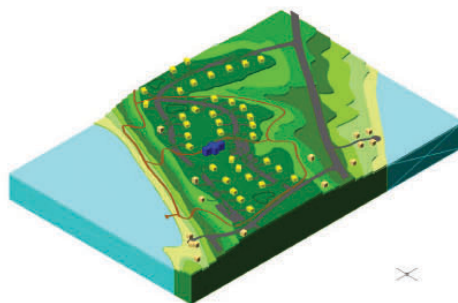
Design Principles:

- Establish soil suitability for housing and septic system, ideally locate on fine sandy loam soils with less than 12% slope to the lake
- Preserve the natural shoreline for wildlife habitat, view and public access
- Arrange housing layout so that steep slopes, natural drainage ways and native vegetation fall into open space
- Cluster homes to maximize green space
- Build cluster septic system to minimize land area necessary, protect groundwater and consolidate expenditures and management
- Locate cluster septic drainfield in commonly-held open space to function as part of a visual corridor or habitat corridor through the development
- Ensure community input on market and design for cluster development and cluster septic as a way of building community support for the principles

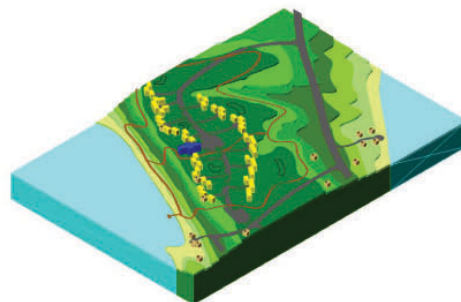


East Side Big Sandy Lake Residential Development Scenarios:

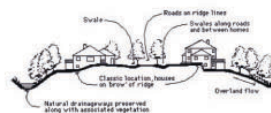
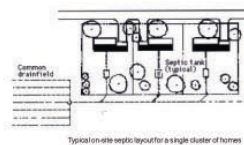
- Illustrate cluster housing concept with cluster septic systems



Cluster housing scenario



Dispersed town housing scenario



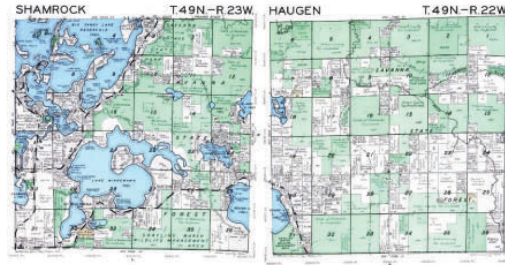


Swimming Beaches: Priority Project

McGregor Area Community Design Strategy

Design Goal:

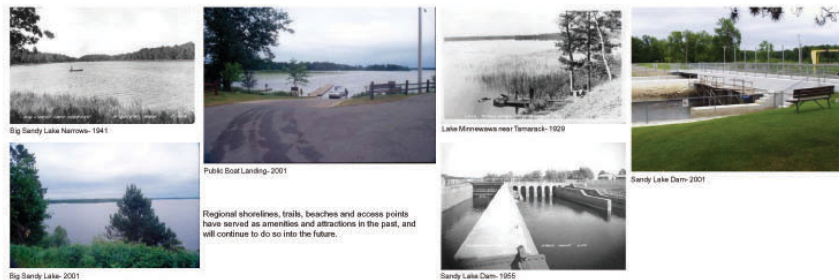
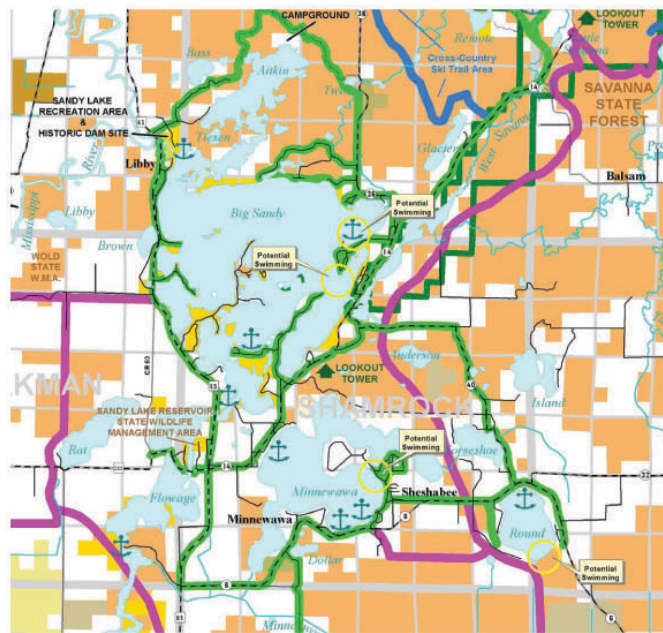
Create more public access and swimming beaches at area lakes to offset increasing privatization of lakeshore



County Plat Book shows current land use and ownership
(All in County Plat Book, 1999)

Design Principles:

- Create new swimming beaches at lakes where property owners will cooperate to allow beach development and public use
- Inventory property ownership at desirable swimming lakes to decide the best location for early implementation of a new swimming beach
- Locate swimming beaches so as to minimize conflict with boat access and other surface water use
- Integrate information about new swimming beaches into a regional trails and recreational system map



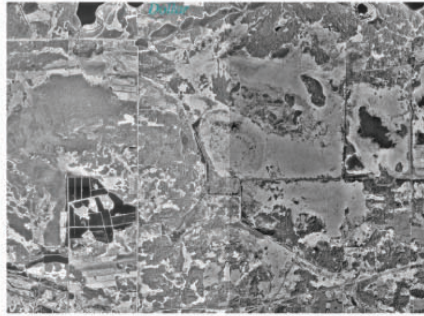


Minnewawa Creek Restoration: Priority Project

McGregor Area Community Design Strategy

Design Goal:

Restore the natural stream flow of Minnewawa Creek in ditched area at Grayling Wildlife Management Area to demonstrate environmental benefits of collaborative water quality improvement project



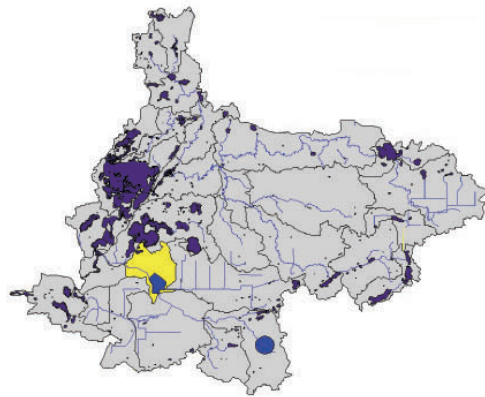
Digital Ortho Quarter Quadrant (DOQQ) image shows Grayling WMA and ditched portion of Minnewawa Creek.

Design Principles:

- Design the project with BSLAWMP, Grayling Wildlife Management Area and area farmers to create a stable stream channel while maintaining enough flow to drain affected agricultural land
- Plan to monitor the project over time for changes in nutrient load, soil erosion, wildlife habitat and water quality
- Ensure public access to the project for residents to monitor and visitors to observe, possibly as part of an interpretive recreational bicycle trail
- Create an educational brochure that increases public awareness of the region's water quality issues and shows ways to resolve them through physical design, collaborative partnerships and education



Locator map shows portion of Minnewawa Creek to be restored



Big Sandy Lakes Area Watershed Management Project boundaries
 * Highlighting Minnewawa Creek restoration area (courtesy of BSLAWMP)

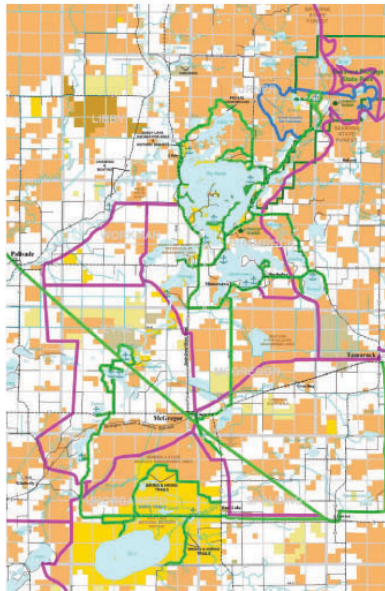


Town to Lakes Trail System: Priority Project

McGregor Area Community Design Strategy

Design Goal:

Build a recreational multi-modal trail system to connect communities to lakes to provide year-round recreation for residents and tourists



Design Principles:

- Extend existing trails one segment at a time, starting with an extended bicycle trail from Rice Lake Wildlife Management Area to city of McGregor, or along County Road 40 between Big Sandy and Round Lakes
- Create a looping system of designated trails where possible to offer a range of short and longer-distance trail experiences in the same area
- Designate trail routes with stops at key features in the region, such as historic sites, swimming beaches, wildlife viewing areas, roadside rest stops, resorts and restaurants
- Add a trail component to public improvement projects as the opportunity arises to extend the trail system (examples include Highways 65 and 8 upgrades, BSLAWMP wetland restorations, McGregor School expansion)
- Inventory all types of existing designated and informal trails for condition and usage to learn about user preferences and identify areas of underuse or overuse and level of community support
- Locate trails on public land and road-rights-of-way where possible to minimize the need for land acquisition or access agreements with private property owners
- Create a map of the region's trails and recreational systems as part of a tourism strategy



Building Community Leadership Skills: Priority Project

McGregor Area Community Design Strategy

Design Goal:


Cultivate strong community leaders to move forward with the collaborative decision-making process regarding future growth in the area that is at the heart of the regional design strategy



Design Principles:

- Build on community support for a regional design strategy to complete demonstration projects that showcase the community design principles
- Form task groups to lead the priority projects identified through this planning process
- Work with Blandin Foundation and the Arrowhead Regional Development Corporation to provide community leadership training for task groups and individuals
- Set target dates for completing the priority projects, beginning with those that have funding and public interest and can be tied to a larger project or event (e.g. new trail design incorporated into county road upgrades, or civic greening project to help celebrate McGregor Centennial)
- Collaborate on projects whenever possible to build community, extend sense of stewardship and enhance quality of life in the McGregor region

LET'S DISCUSS GROWTH
 Growth & Planning in the McGregor Area
 Wednesday, March 20, 2002
 Community Workshop



Wednesday, March 20, 2002 • 6:30 - 8:30 p.m.
 McGregor School Cafeteria Gym

Find Out About:
 The McGregor Area
 Community Regional Design Strategy

If you work, live, or play in the McGregor area,
 you need to be there!

To find out more, visit our website at
<http://ruraldesign.coafes.umn.edu/mcgregor.htm>

Event ID:
 McGregor Area Community and the University of Minnesota



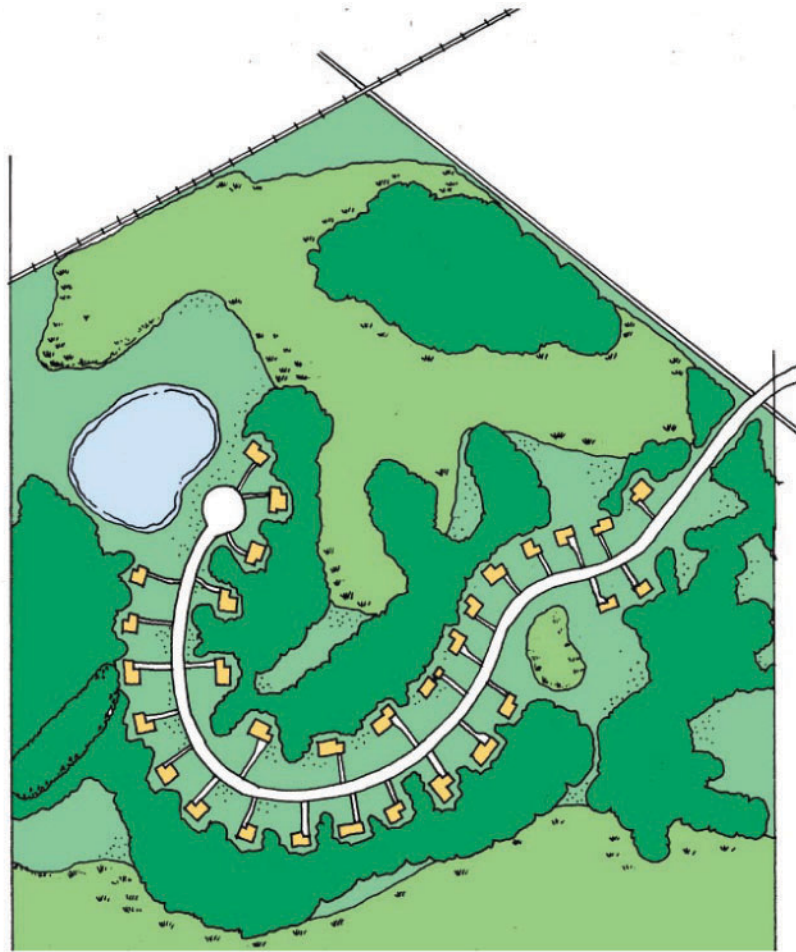
Community Workshop



Community Workshop



Appendix 7: McGregor Development Scenarios

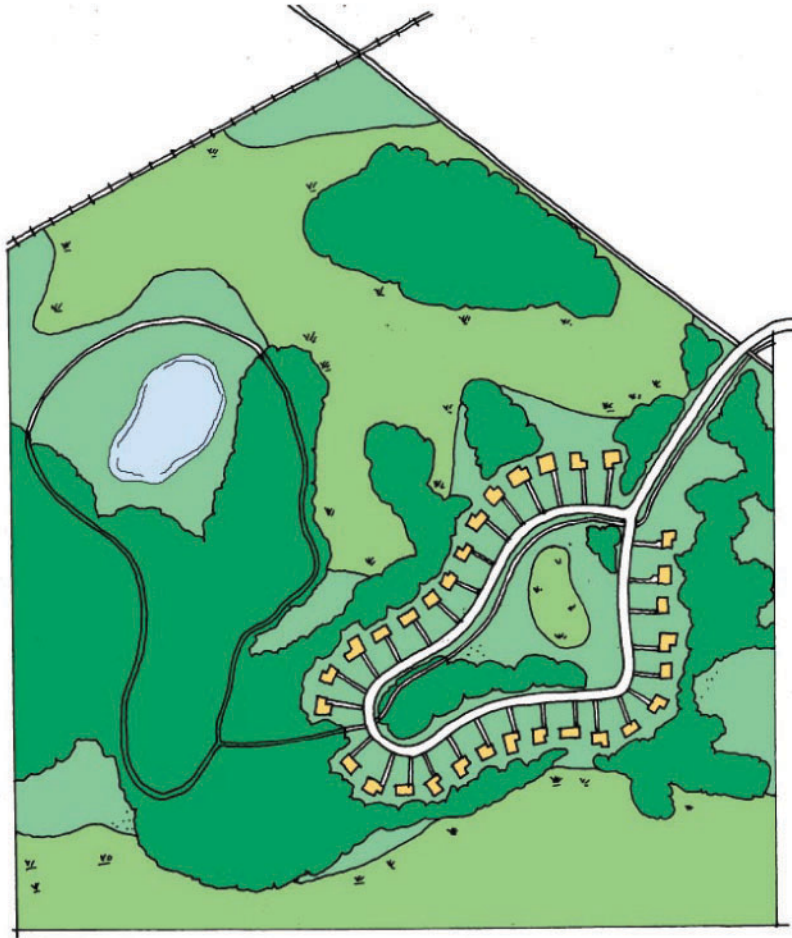


Suburban development pattern

31 units
2400 foot road

Lot configuration
80-100 feet wide

Open Space
Within private lots



Conservation development pattern- single family homes

31 units
2400 foot road

Lot configuration
75 feet wide

Open Space
Half of upland is shared conservation land

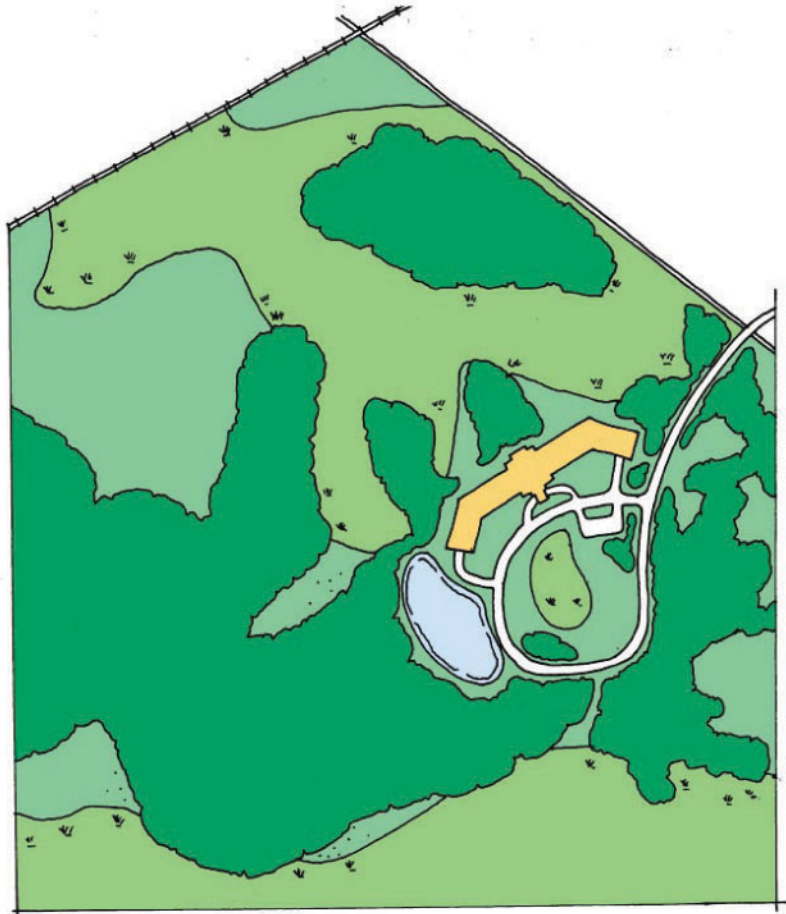


Conservation development pattern- attached homes

41 units
2400 foot road

Lot configuration
Each unit is 40 foot by 40 foot, includes 2 car garage

Open Space
Half of upland is shared conservation land



Conservation development pattern- condos/apartments

40 + apartments

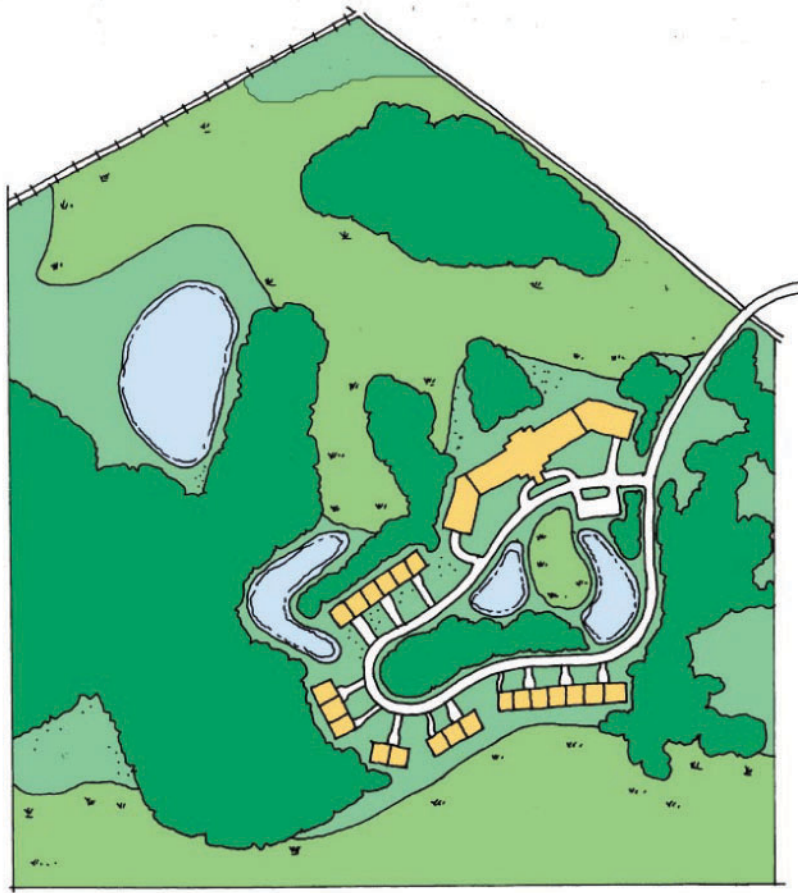
1600 foot road

Lot configuration

Apartment units have sheltered parking.

Open Space

Quarter of upland is shared conservation land



Conservation development pattern- condos/apartments and attached homes

60 +units (40 + apartments; 20 town homes)

2400 foot road

Lot configuration

Each attached unit is 40 foot by 40 foot, includes 2 car garage

Apartment units have sheltered parking.

Open Space

Half of upland is shared conservation land



SITE CHARACTERISTICS

40 Acres, approximately 26 acres on buildable (non-hydric)
One to five acre stands of trees throughout the site.

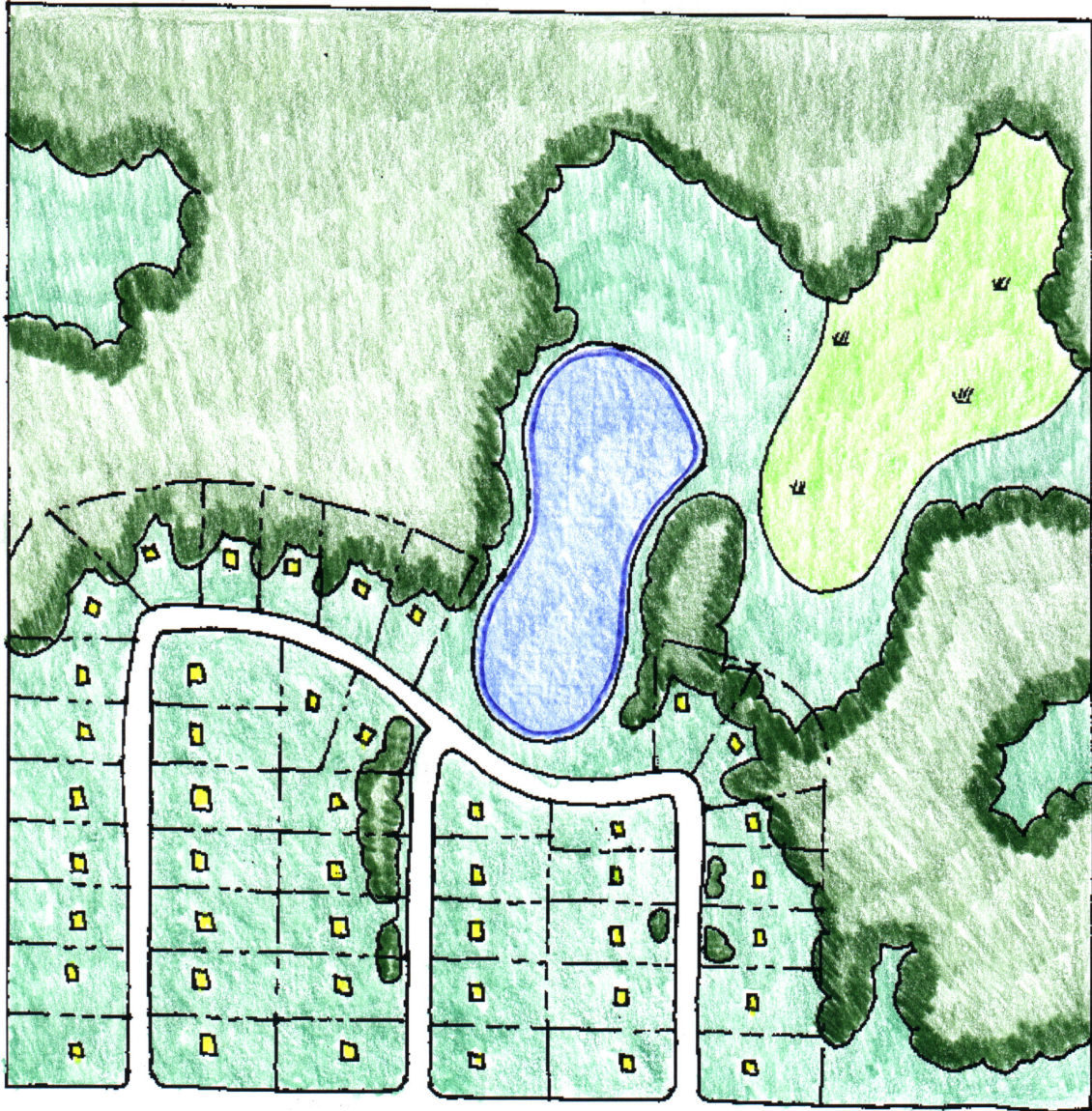




Residential neighborhood on 1/3 acre lots

DEVELOPMENT CHARACTERISTICS

- Assumes city sewer and water
- Assumes "borrow pond" to elevate building pads
- 45 homes on 1/3 acre lots (100 x 150 typ.)
- 22 acres developed
- .82 miles of road
- Woodlots fragmented



Residential neighborhood on 1/4 acre lots

DEVELOPMENT CHARACTERISTICS

- Assumes city sewer and water
- Assumes "borrow pond" to elevate building pads
- 44 homes on 1/4 acre lots (70 x 150 typ.)*
- 18 acres developed
- .62 miles of road



Residential neighborhood on 1/5 acre lots

DEVELOPMENT CHARACTERISTICS

- Selecting narrower house types creates more affordable lots.
- Assumes city sewer and water
- Assumes “borrow pond” to elevate building pads
- 52 homes on 1/5 acre lots (60 x 150 typ.)*
- 18 acres developed
- .62 miles of road



Residential neighborhood with alley lots

DEVELOPMENT CHARACTERISTICS

- A mix of lot types and sizes to suit a wider target market of homebuyers.
- Alley allows less dominant garage—larger garages at the back of the lot.
- Assumes city sewer and water
- Assumes “borrow pond” to elevate building pads
- 56 homes on 1/4 acre lots (60 or 50 x 150 typ.)



Senior Building
24 Units



Residential Infill with Existing Zoning

a.	Apartment Triplex	16	Units
b.	Single Family	3	Units
c.	Single Family	1	Unit
d.	Duplex	2	Units
e.	Fourplex	4	Units

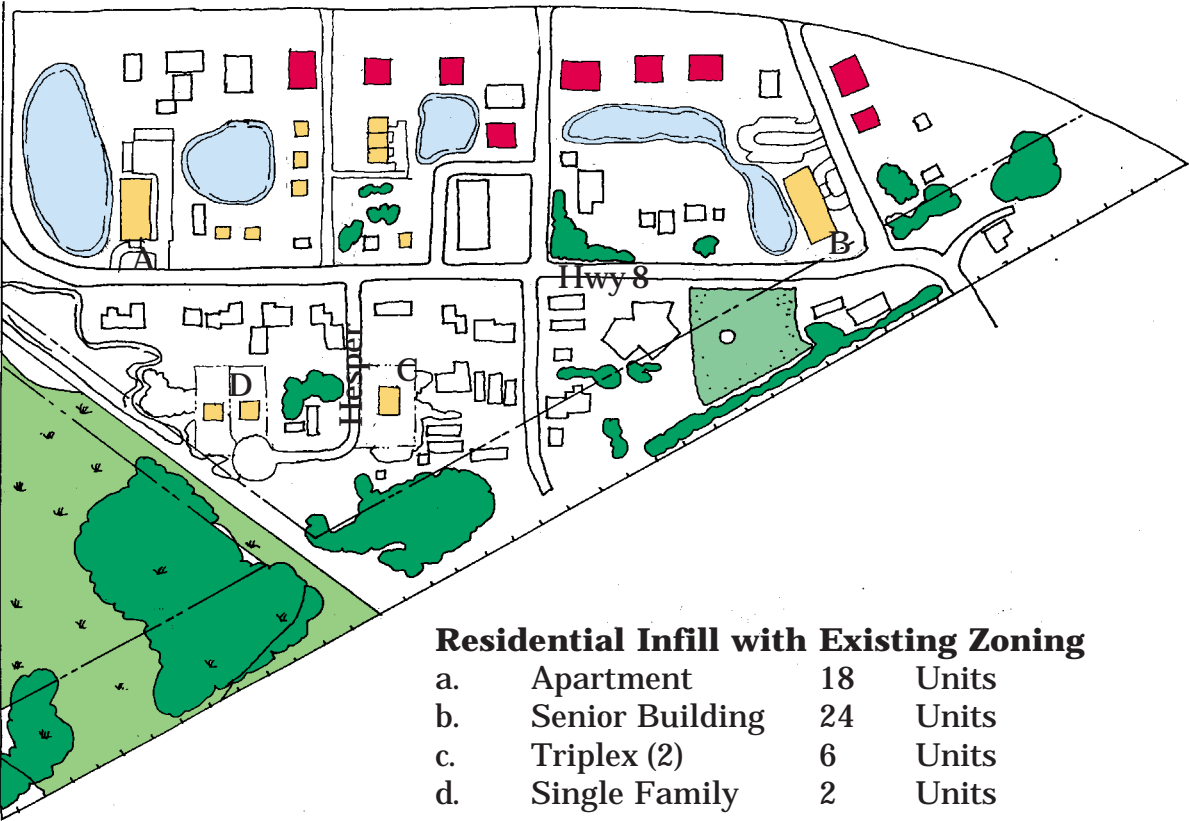
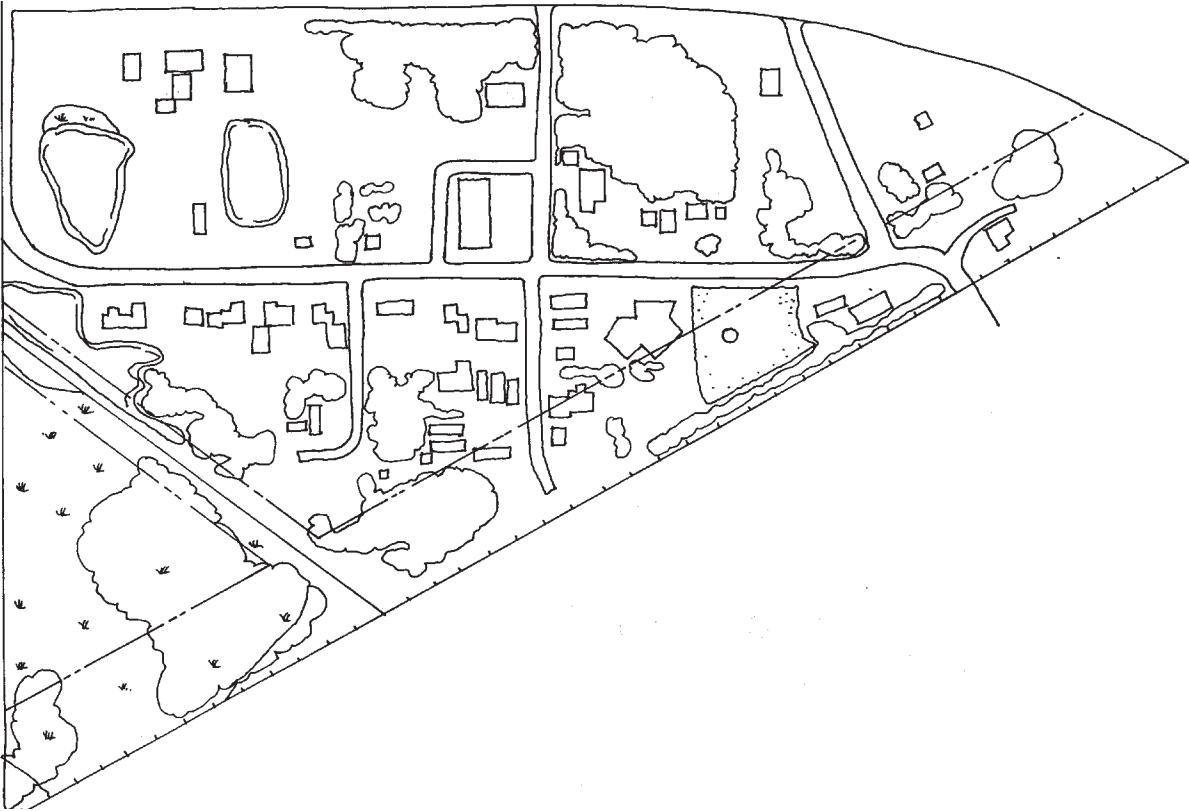


Residential Infill with Existing Zoning

a.	Apartment	16	Units
	Triplex	3	Units
b.	Single Family	2	Units
c.	Single Family	1	Unit
d.	Duplex	2	Units
e.	Fourplex	4	Units

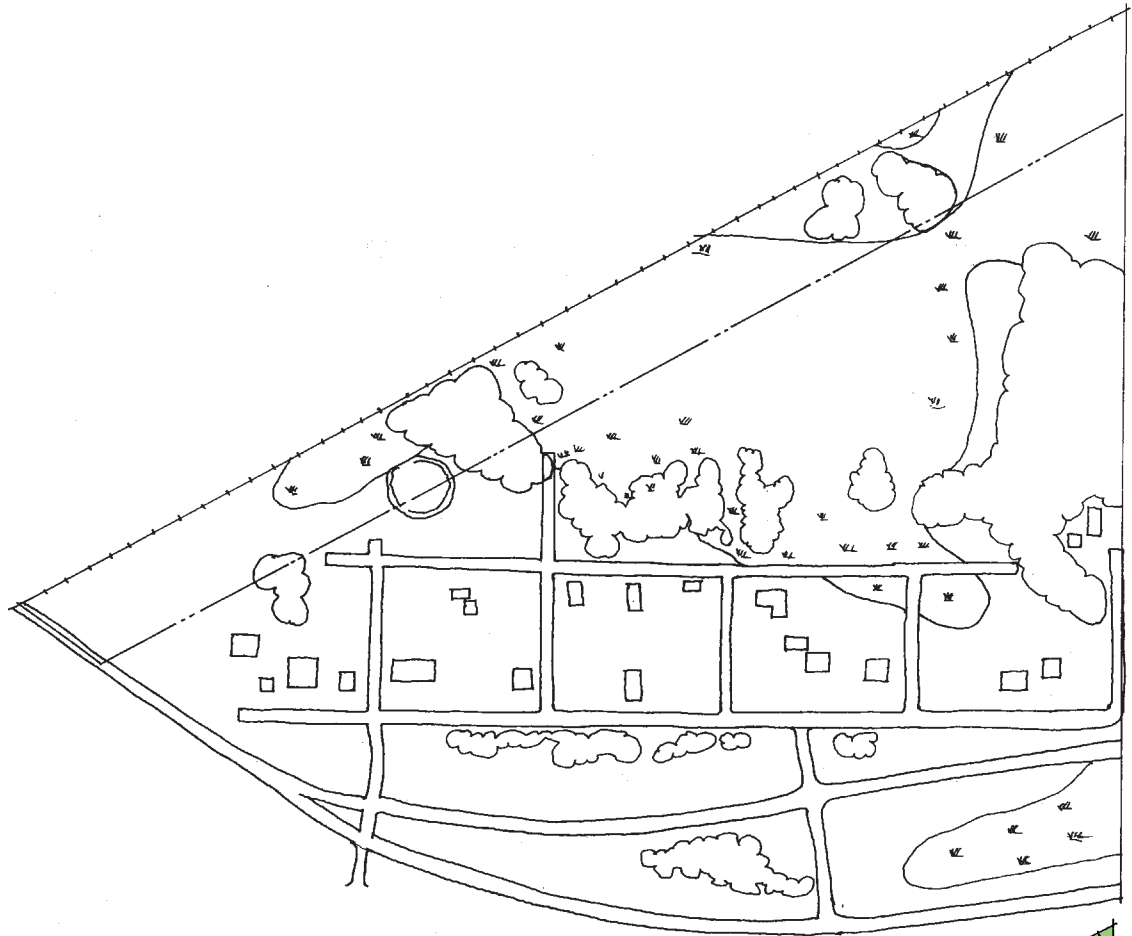
Residential Infill within Commercial Zone

f.	Townhouse/Live-Work	5	Units
g.	Apartment	10	Units
h.	Fourplex	4	Units

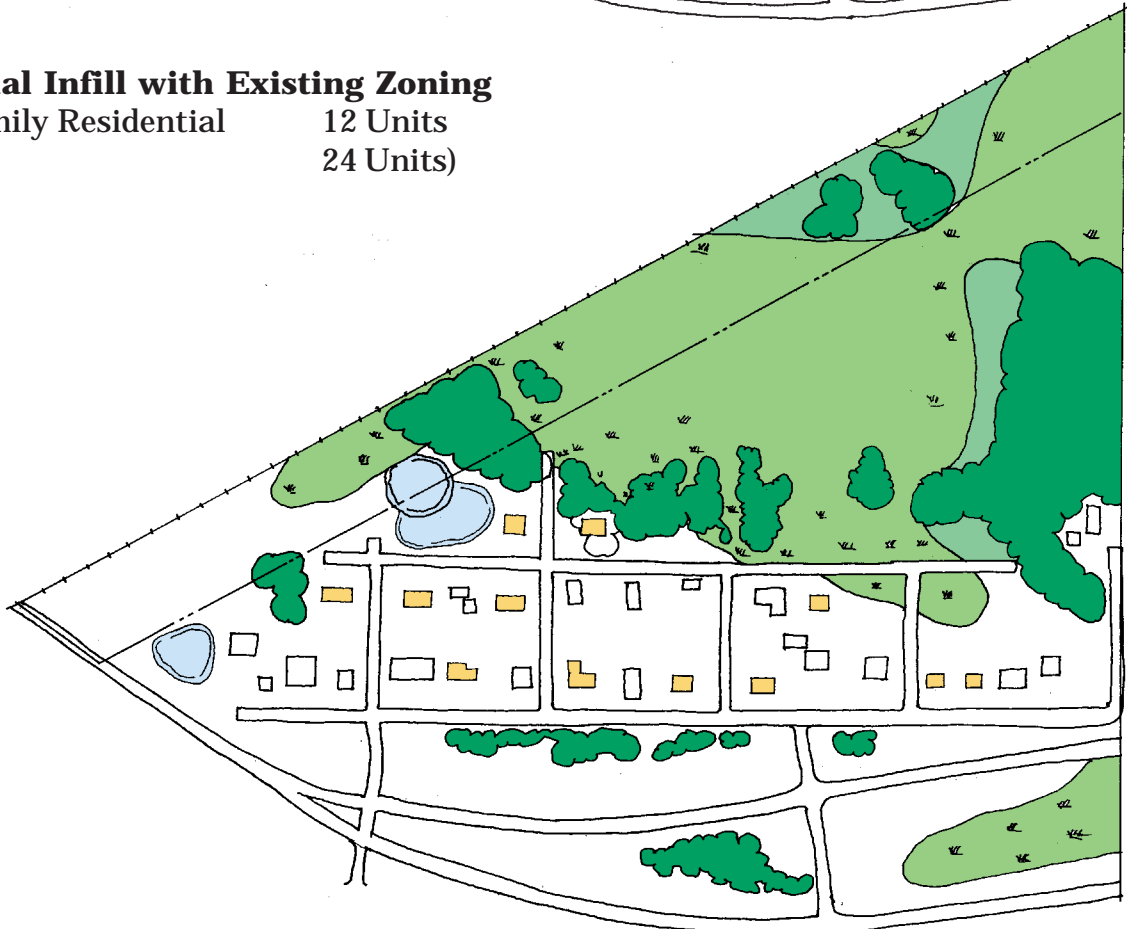


Residential Infill with Existing Zoning

a.	Apartment	18	Units
b.	Senior Building	24	Units
c.	Triplex (2)	6	Units
d.	Single Family	2	Units



Residential Infill with Existing Zoning
 Single Family Residential 12 Units
 (or Duplex) 24 Units)



Appendix 8: Maps

These maps were created by the Center for Rural Design on or before October 15, 2002. The maps represent probable situations and are intended for reference purposes only. It is important to note that the data and information contained in these maps has not been verified and therefore accuracy is not guaranteed. Data for this project were provided by Land Management Information Center, Minnesota Geological Survey, Minnesota Department of Transportation, Minnesota Department of Natural Resources, Minnesota Planning and the United State Geological Survey.

Additional data for this project was provided by the Aitkin County Land Use Department.

Map 1: Project Study Area and Major Geographic Features

Map 2: Wetlands and Major Features

Map 3: Land Use/Land Cover

Map 4: Property Ownership

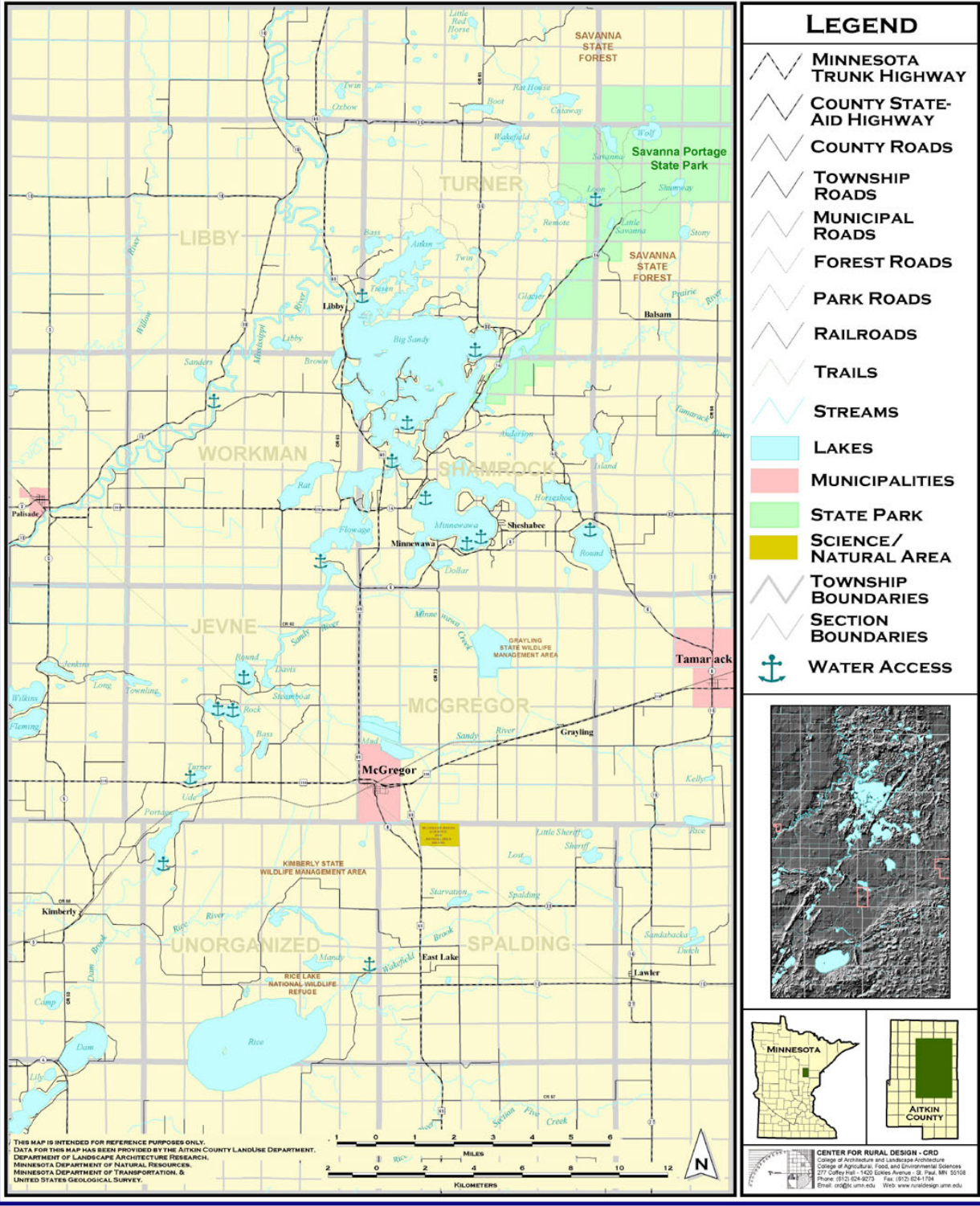
Map 5: Zoning

Map 6: Surficial Drainage

Map 7: Civic and Environmental Project Opportunities

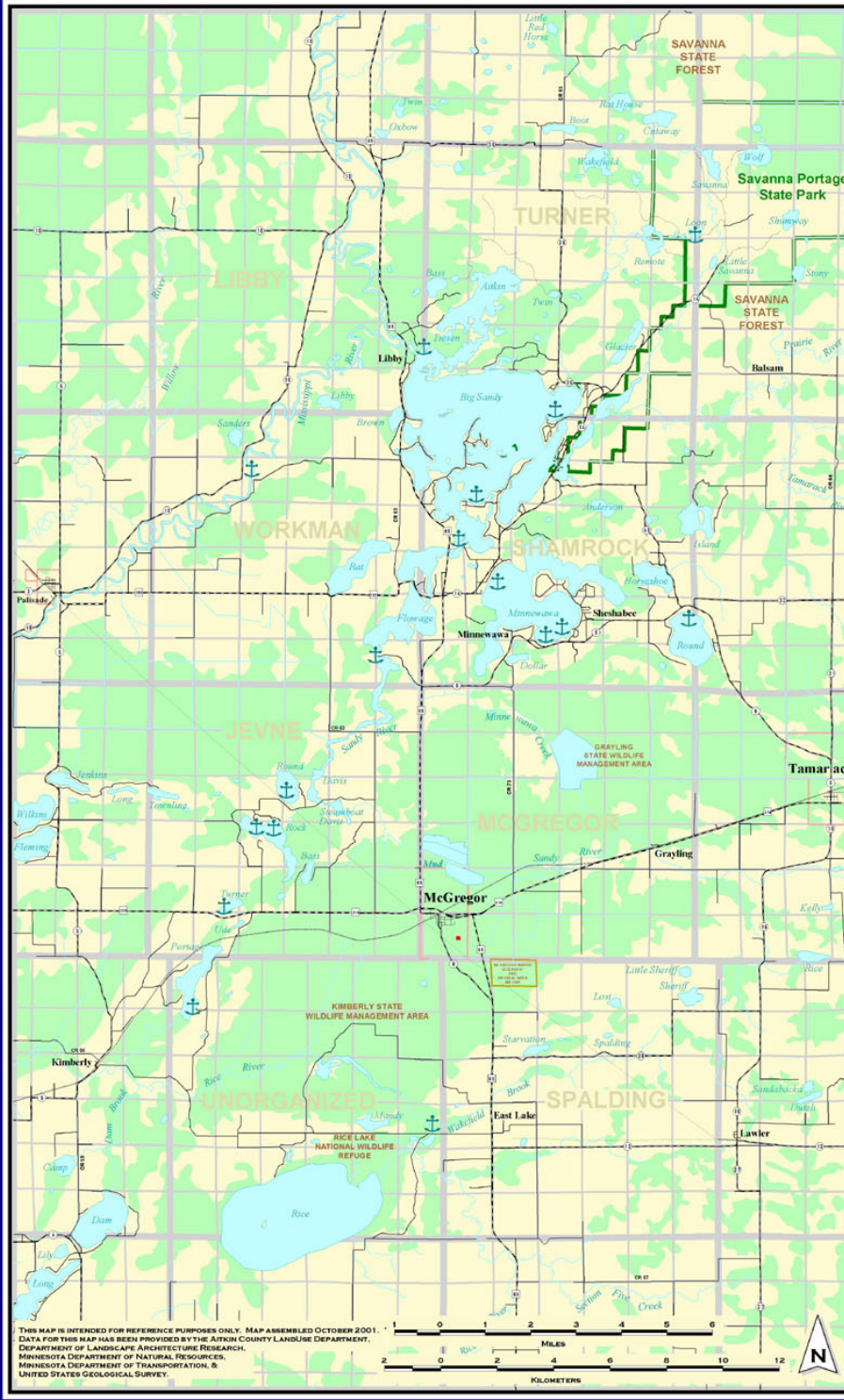
~ MCGREGOR AREA COMMUNITY DESIGN STRATEGY ~

PROJECT STUDY AREA & MAJOR FEATURES



~ MCGREGOR AREA COMMUNITY DESIGN STRATEGY ~

SURFICIAL DRAINAGE



LEGEND

- MINNESOTA TRUNK HIGHWAY
- COUNTY STATE-AID HIGHWAY
- COUNTY ROADS
- TOWNSHIP ROADS
- MUNICIPAL ROADS
- FOREST ROADS
- PARK ROADS
- RAILROADS
- TRAILS
- STREAMS
- LAKES
- WETLANDS
- STATE PARK
- SCIENCE / NATURAL AREA
- MUNICIPALITIES
- SEWAGE POND
- TOWNSHIP BOUNDARIES
- SECTION BOUNDARIES
- WATER ACCESS

THE WETLANDS THAT APPEAR ON THIS MAP ARE DERIVED FROM THE MINNESOTA DEPARTMENT OF NATURAL RESOURCE'S COVERAGE ENTITLED, "DLG HYDROGRAPHY LAKE AND WETLAND - POLYGON". FOR MORE INFORMATION, GO TO THE METADATA WEBSITE LOCATED AT [HTTP://DEL.DNR.STATE.MN.US/METADATA](http://del.dnr.state.mn.us/metadata)







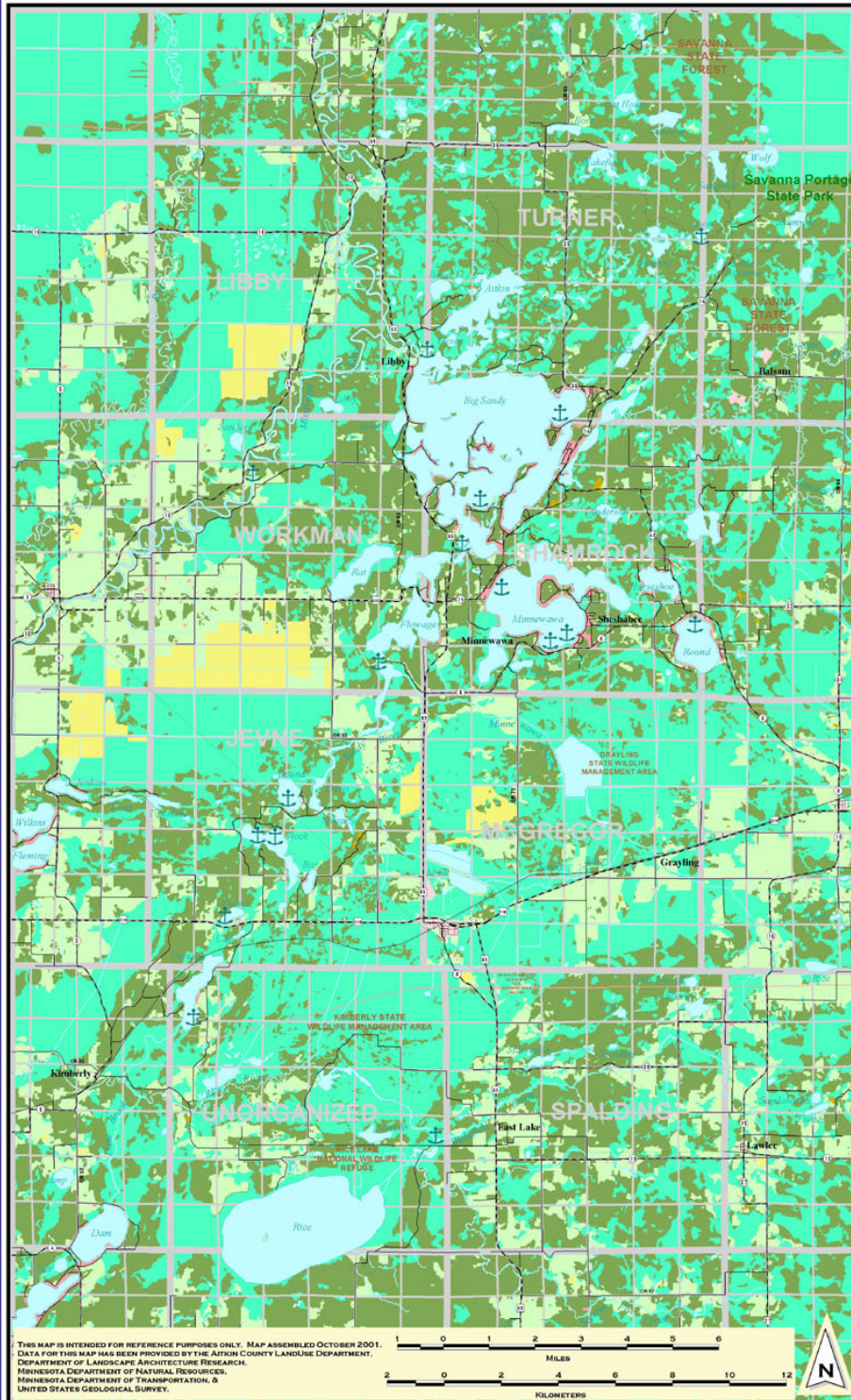



CENTER FOR RURAL DESIGN - CRD
 College of Architecture and Landscape Architecture
 College of Agriculture, Food, and Environmental Sciences
 277 Coffey Hall - 1320 Eckles Avenue - St. Paul, MN 55108
 Phone: (612) 624-3073 Fax: (612) 624-3754
 Email: crd@crd.umn.edu Web: www.ruralsdesign.umn.edu

THIS MAP IS INTENDED FOR REFERENCE PURPOSES ONLY. MAP ASSEMBLED OCTOBER 2001.
 DATA FOR THIS MAP HAS BEEN PROVIDED BY THE AITKIN COUNTY LANDUSE DEPARTMENT,
 DEPARTMENT OF LANDSCAPE ARCHITECTURE RESEARCH,
 MINNESOTA DEPARTMENT OF NATURAL RESOURCES,
 MINNESOTA DEPARTMENT OF TRANSPORTATION, &
 UNITED STATES GEOLOGICAL SURVEY.

~ MCGREGOR AREA COMMUNITY DESIGN STRATEGY ~

LAND USE / LAND COVER



LEGEND

- MINNESOTA TRUNK HIGHWAY
- COUNTY STATE-AID HIGHWAY
- COUNTY ROADS
- TOWNSHIP ROADS
- MUNICIPAL ROADS
- FOREST ROADS
- PARK ROADS
- RAILROADS
- TRAILS
- STREAMS
- LAKES
- TOWNSHIP BOUNDARIES
- SECTION BOUNDARIES
- WATER ACCESS

THE "LANDCOVERS" THAT APPEAR ON THIS MAP ARE DERIVED FROM THE MINNESOTA DEPARTMENT OF NATURAL RESOURCES' COVERAGE ENTITLED, "LANDSAT-BASED LAND USE/LAND COVER (VECTOR)." FOR MORE INFORMATION, GO TO THE METADATA WEBSITE LOCATED AT [HTTP://DELI.DNR.STATE.MN.US/METADATA](http://deli.dnr.state.mn.us/metadata).

LAND USE / COVER

- CULTIVATED LAND
- GRASSLAND SHRUBBY GRASSLAND
- CONIFEROUS FOREST
DECIDUOUS FOREST
MIXEDWOOD FOREST
REGENERATION/YOUNG FORESTS
- WETLANDS - BOGS
WETLANDS - MARSH AND FENS
- GRAVEL PITS AND OPEN MINES
- OPEN WATER
- URBAN/INDUSTRIAL (CITIES & TOWNS)
- FARMSTEADS AND RURAL RESIDENCES
OTHER RURAL DEVELOPMENTS

MINNESOTA

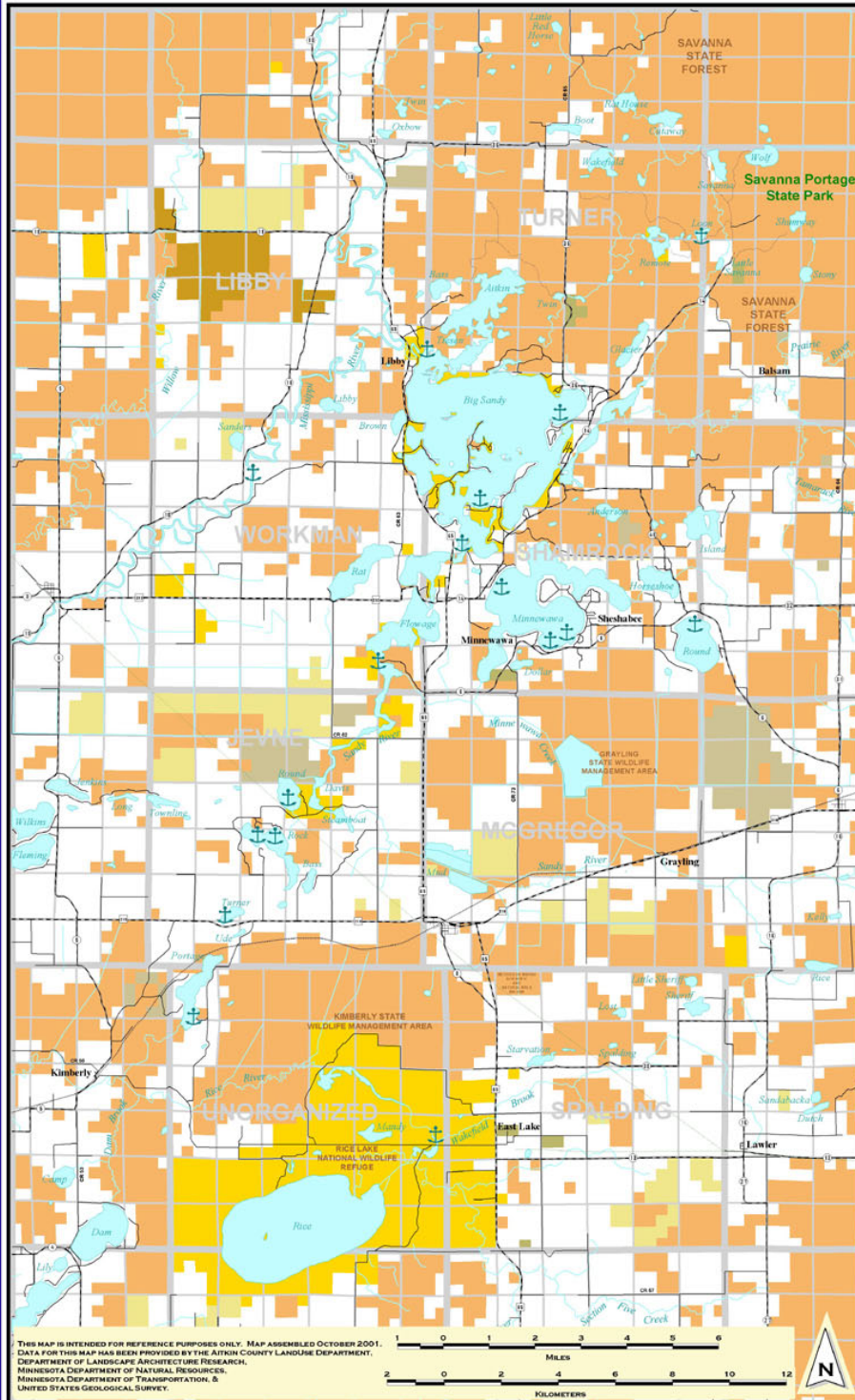
AITKIN COUNTY

CENTER FOR RURAL DESIGN - CRD
College of Architecture and Landscape Architecture
College of Agriculture, Food, and Environmental Sciences
277 Coffey Hall • 1420 Eckles Avenue • St. Paul, MN 55108
Phone: (612) 624-9273 Fax: (612) 624-1768
Email: crd@tut.umn.edu Web: www.ruralsdesign.umn.edu

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MINNESOTA DEPARTMENT OF NATURAL RESOURCES,
MINNESOTA DEPARTMENT OF TRANSPORTATION, &
UNITED STATES GEOLOGICAL SURVEY.

~ MCGREGOR AREA COMMUNITY DESIGN STRATEGY ~

TRAILS & WATERWAYS



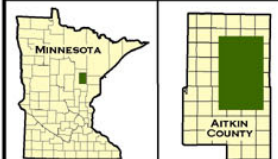
LEGEND

- MINNESOTA TRUNK HIGHWAY
- COUNTY STATE-AID HIGHWAY
- COUNTY ROADS
- TOWNSHIP ROADS
- MUNICIPAL ROADS
- FOREST ROADS
- PARK ROADS
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- SECTION BOUNDARIES
- WATER ACCESS

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OWNERSHIP

- NOT CLASSIFIED
- FEDERAL
- TRIBAL
- STATE, INCLUDING TAX-FORFEITED LANDS UNDER COUNTY STEWARDSHIP
- PRIVATE INDUSTRIAL, MORE THAN 100 ACRES OWNED WITHIN THE AFFECTED AREA
- PRIVATE NON-INDUSTRIAL BUSINESS OR TRUST, MORE THAN 1000 ACRES WITHIN THE AFFECTED COUNTY
- OTHER PRIVATE PROPERTY



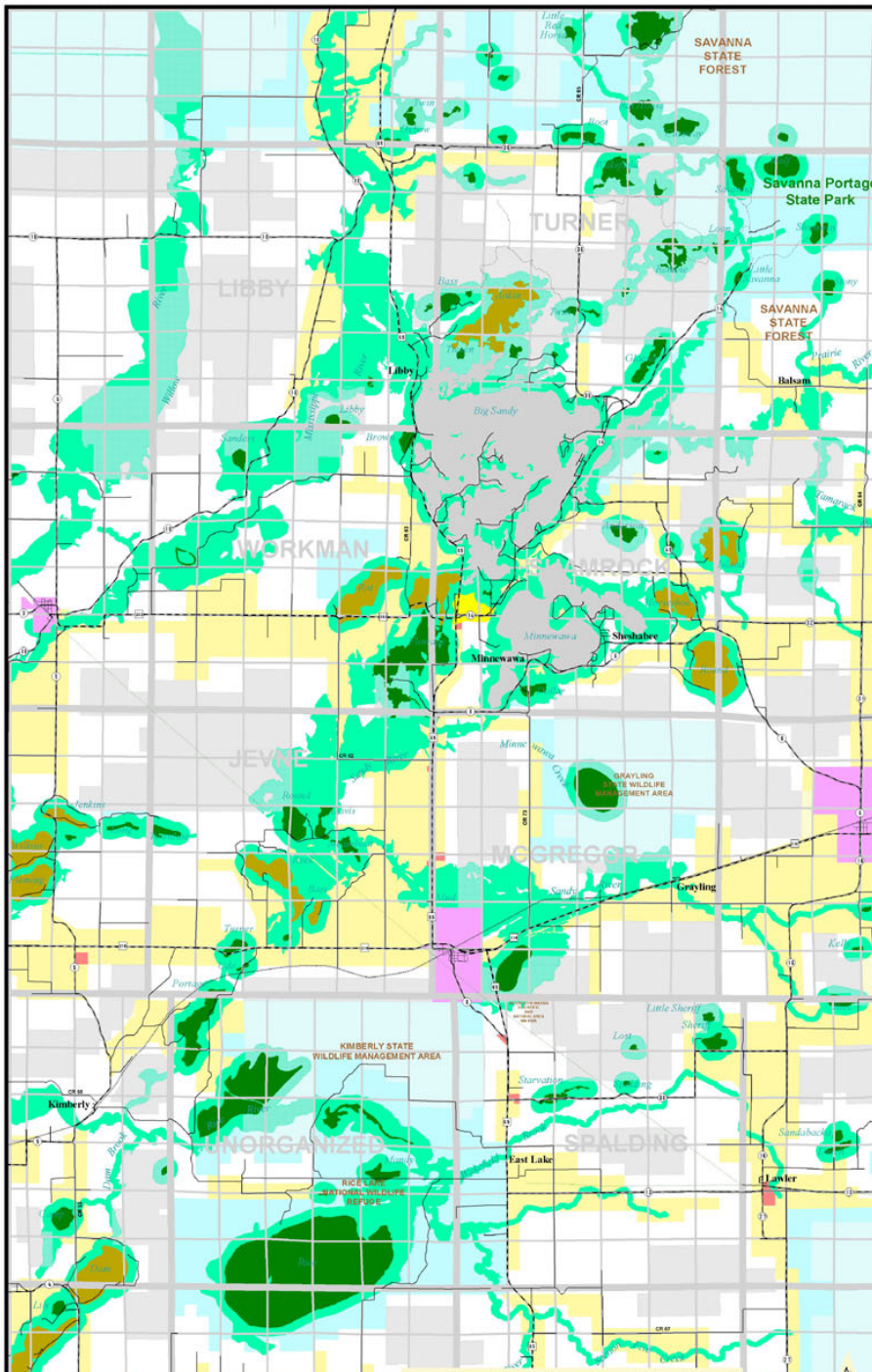
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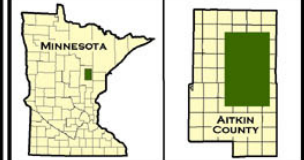
ZONING



- ### LEGEND
- MINNESOTA TRUNK HIGHWAY
 - COUNTY STATE-AID HIGHWAY
 - COUNTY ROADS
 - TOWNSHIP ROADS
 - MUNICIPAL ROADS
 - FOREST ROADS
 - PARK ROADS
 - RAILROADS
 - TRAILS
 - STREAMS
 - TOWNSHIP BOUNDARIES
 - SECTION BOUNDARIES

PROPOSED ZONING CLASSIFICATION
ADAPTED FROM
AITKIN COUNTY COMPREHENSIVE PLAN

- ### ZONING
- CITY
 - COMMERCIAL
 - RESTRICTIVE/OPEN
 - OPEN
 - GENERAL DEVELOPMENT
 - RESTRICTIVE/PUBLIC
 - PUBLIC
 - RESIDENTIAL
 - RESTRICTED/FARM RESIDENTIAL
 - FARM RESIDENTIAL
 - RESTRICTIVE/ShORELAND
 - SHORELAND
 - RESTRICTIVE/RECREATIONAL DEVELOPMENT
 - RECREATIONAL DEVELOPMENT
 - RESTRICTIVE/NATURAL ENVIRONMENT
 - NATURAL ENVIRONMENT



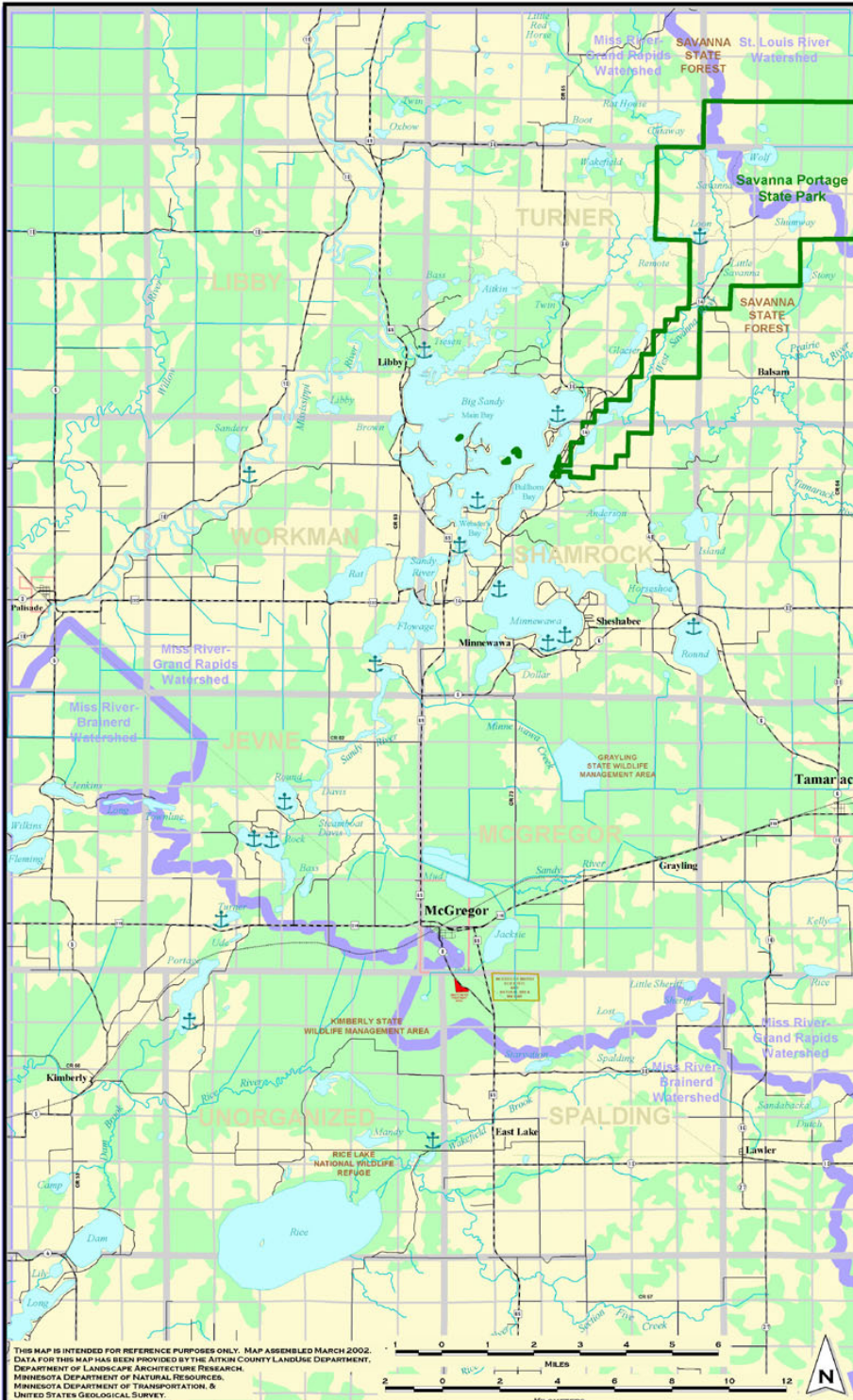
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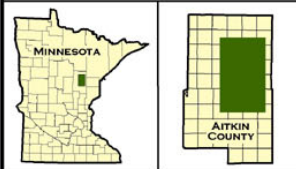
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SURFICIAL DRAINAGE



- ### LEGEND
- MINNESOTA TRUNK HIGHWAY
 - COUNTY STATE-AID HIGHWAY
 - COUNTY ROADS
 - TOWNSHIP ROADS
 - MUNICIPAL ROADS
 - FOREST ROADS
 - PARK ROADS
 - RAILROADS
 - TRAILS
 - STREAMS
 - LAKES
 - WETLANDS
 - STATE PARK
 - SCIENCE/ NATURAL AREA
 - MUNICIPALITIES
 - WASTEWATER TREATMENT AREA
 - TOWNSHIP & SECTION LINES
 - WATERSHED BOUNDARIES
 - WATER ACCESS

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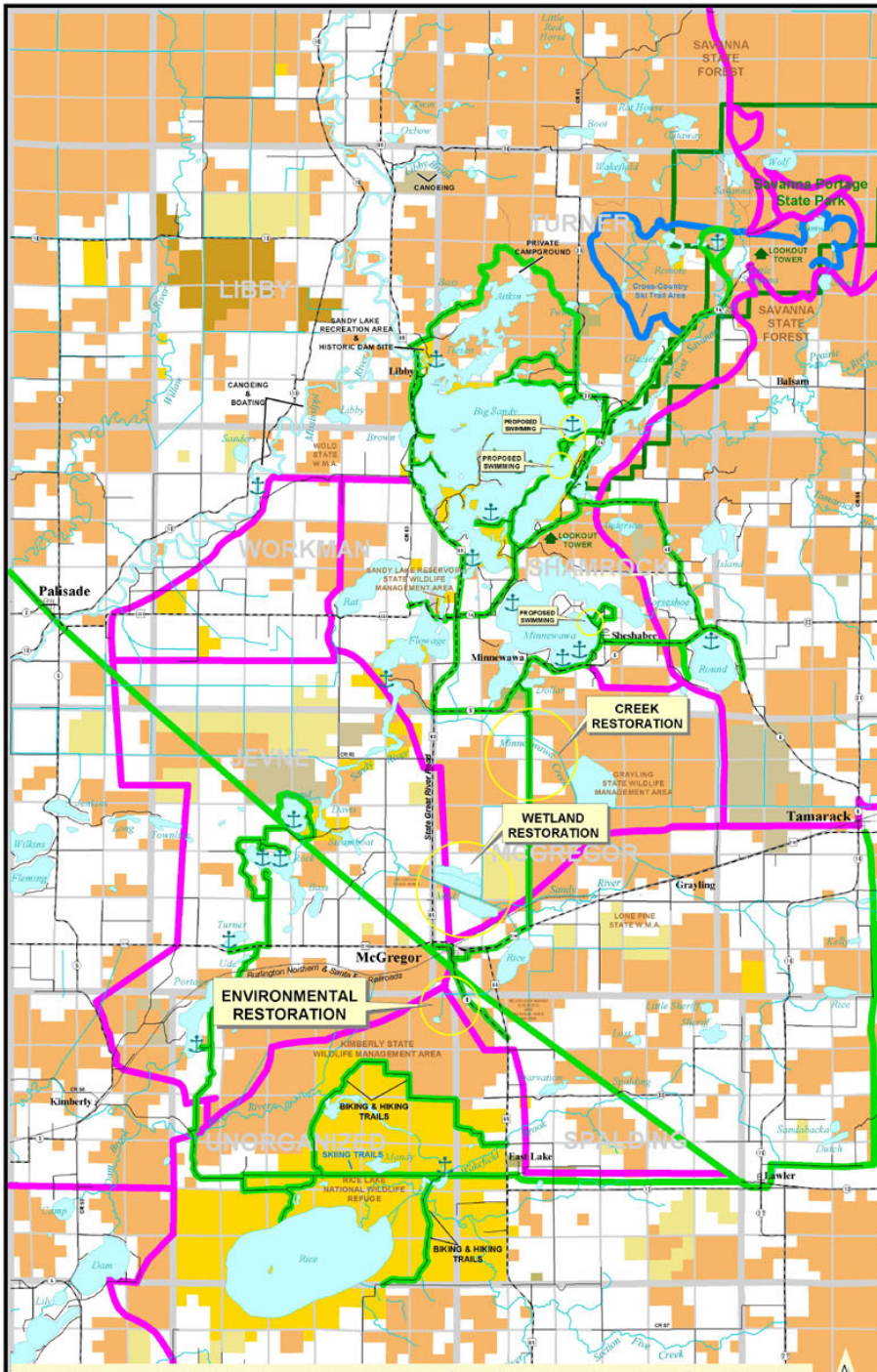
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CIVIC AND ENVIRONMENTAL PROJECT OPPORTUNITIES



LEGEND

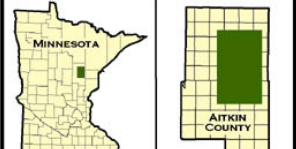
- EXISTING & PROPOSED HIKING & BIKING TRAILS
- EXISTING SNOWMOBILE TRAILS
- EXISTING SKI TRAILS
- WATER ACCESS

- MINNESOTA TRUNK HIGHWAY
- COUNTY STATE-AID HIGHWAY
- COUNTY ROADS
- TOWNSHIP ROADS
- MUNICIPAL ROADS
- FOREST ROADS
- PARK ROADS
- RAILROADS
- STREAMS
- LAKES
- TOWNSHIP & SECTION BOUNDARIES

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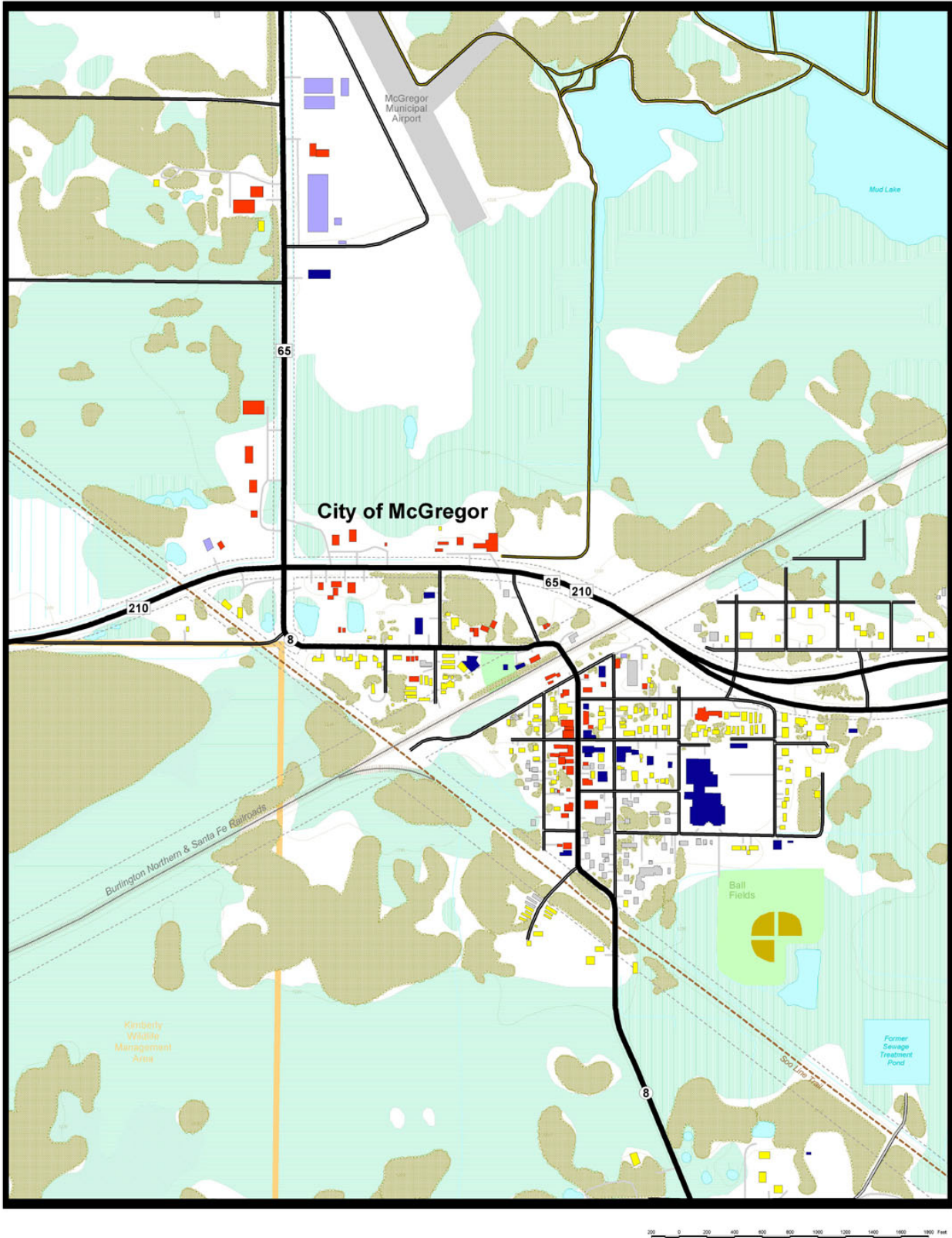
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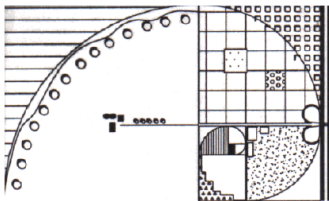


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