

# COMPREHENSIVE LAND USE PLAN 2013

## FLORENCE TOWNSHIP GOODHUE COUNTY MINNESOTA



Building a Sustainable Community

# Florence Township Planning Commission

September 1, 2013

In 2003, the Florence Township Board of Supervisors approved the township's first comprehensive land use plan following a planning process that began in December 2002. The long and elaborate public history of developing the first comprehensive plan is documented in the original plan and in chapter 1 of this document. The original comprehensive plan identified the goals, priorities and strategies for land use activity, heritage protection, and community concerns throughout Florence Township.

The Board of Supervisors, and all residents participating in the development of the comprehensive land use plan, understood that the plan would not remain an unchanged, static document. The Planning Commission, with direction from the Board of Supervisors, would be the primary caretaker of the plan, and would conduct regular reviews of the plan. The Planning Commission would hold public meetings to consider updates of the plan.

Beginning in 2011, Florence Township residents, and residents of neighboring communities, became concerned about mining operators and energy producers showing an interest in mining and extracting silica sand from the Jordan limestone deposits in the hills and bluffs surrounding the township. Many residents became concerned that the scenic beauty, natural habitat, rural lifestyle and serenity of Florence Township would be threatened by industrial mining and processing activity. In March 2013, the Minnesota Environmental Quality Board issued an extensive study of silica sand mining that discusses numerous environmental threats of silica sand mining that could affect our county and township, including air quality, water quality, water quantity, transportation and sensitive natural areas. By the end of May 2013, the Minnesota Legislature passed legislation designed to assist local government units to study, confront and regulate the adverse impacts of silica sand mining and processing.

In May 2012, the Planning Commission and participating residents of the township discussed and reviewed the township comprehensive land use plan with a view toward clarifying and strengthening goals, priorities and strategies for sensitive natural areas, agricultural areas, residential areas, and heritage zones. These discussions continued throughout 2012 and into the spring and summer of 2013. These discussions demonstrated that all of the original guiding goals and priorities voiced by residents and property owners of Florence Township were still valid. If anything, residents and property owners declared their desire to strengthen these guiding goals and priorities in an effort to prevent this township from becoming an industrialized and heavily trafficked zone.

Based upon the comments, concerns and goals voiced by township residents and property owners, the Planning Commission has now completed and updated a revised version of the comprehensive plan. The revised comprehensive plan contains the following information:

Chapter 1 is a history of the original comprehensive plan adopted in 2003, with the vast amount of public participation that resulted in the forward-looking goals for a sustainable community.

Chapter 2 is a profile of Florence Township, its land, water, places, vegetation, its people, and its governance. This chapter contains a discussion of environmental concerns voiced by township residents over the past decade.

Chapter 3 looks at the rich history of Florence Township from its settlement by Europeans in the 18<sup>th</sup> century to the present. It discusses the economic, social, religious, and civic influences, which affect the Florence Township of today.

Chapter 4 contains the policies, priorities and strategies for accomplishing the township goals.

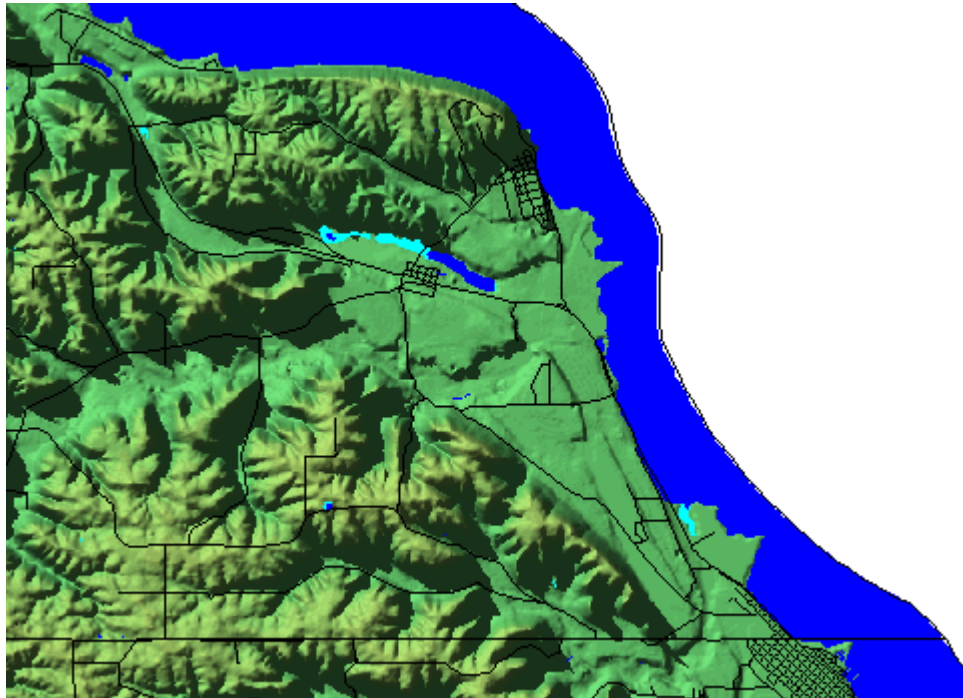
Chapter 5 identifies the various ways in which our township can implement and execute these identified goals, policies, priorities and strategies.

A public hearing has been held to enable township residents and property owners to discuss the proposed revisions to the plan. The revised comprehensive land use plan has been approved by the Florence Township Board of Supervisors. These changes to our goals, priorities and strategies will allow our township to implement land use controls to protect the agricultural, natural and residential areas from the spread of industrial activity.

Jody McIlrath, Planning Commission Chair  
Ben Boege, Planning Commission Member  
Jan Bruce, Planning Commission Member  
Patrick Savage, Planning Commission Member  
Kristen Eide-Tollefsson, Planning Commission Member  
Sven Fleischaker, Planning Commission Member  
Beth Knudsen, Planning Commission Advisor  
Brian Schreiber, Planning Commission Advisor

# FLORENCE TOWNSHIP

## Comprehensive Land Use Plan



### Vision:

**Proactively develop, preserve and maintain a safe, thriving and respectful community that sustains its historic integrity, rural character and natural and recreational resources.**

## Table of Contents

### **Chapter 1 History of Township Comprehensive Land Use Plan**

### **Chapter 2 Township Profile**

- Land
- Vegetation
- Water and Watersheds
- Environmental Concerns
- Places
- Township Population Analysis
- Highway 61 Corridor and Transportation
- Township Parks
- Governance

### **Chapter 3 Florence Township History**

### **Chapter 4 Land Use Goals, Priorities and Strategies**

- Sensitive Natural Areas
- Established Parks and Open Spaces
- Agricultural Areas
- Community and Public Service
- Florence Township Heritage
- Highway 61 Corridor and Transportation
- Quality of Life and Recreation
- Residential Development

### **Chapter 5 Implementation of Land Use Goals, Priorities and Strategies**

### **Appendices**

*Land Use Suitability Analysis for Florence Township, Goodhue County, southeast Minnesota, U.S.A,* by Beth J. Knudsen (Minnesota Department of Natural Resources)

*An Historical Timeline of the Frontenac Historic District,* by Florence Township Heritage Preservation Commission

Park Plan

2002-2003 Comprehensive Plan Process

## Chapter 1 History of Township Comprehensive Land Use Plan

In 1999, The Florence Township Supervisors charged the Florence Township Long- Range Planning Commission with the task of developing a comprehensive plan. It was not until late in 2002, that all the required elements came together to launch such an undertaking. For the first time for several years the Planning Commission had a full board willing and able to work on the project, the Supervisors allocated funds in the 2003 budget for planning.

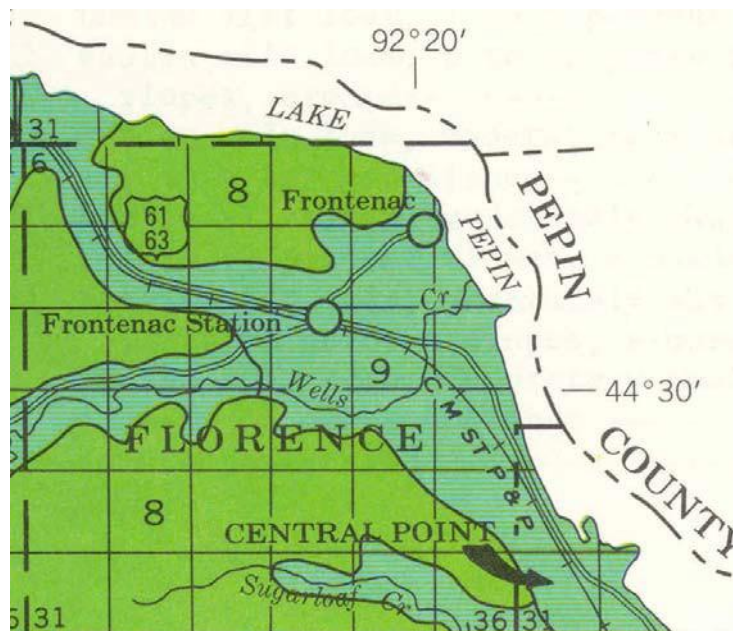
At a public meeting on November 18, 2002, a township wide planning process was initiated to lead to the development of Florence Township's first Comprehensive Plan. Regular meetings were scheduled for the third Monday evening of every month beginning January 20, 2003 at 6:30 PM at the Florence Town Hall in Frontenac Station, Minnesota.

Active and broad citizen participation was essential and was encouraged through newspaper announcements, mailings, telephone calls, personal invitations and Goodhue County announcements. Not everyone could attend all meetings, but all township residents were urged and welcomed to participate whenever they were able to do so.

Six facilitated monthly meetings were held, where over seventy citizens participated actively by attending all or some of these planning meetings. During those meetings, people engaged in discussions and group

work exercises preliminary to writing and reviewing goals and strategies for the future of Florence Township. Aside from the over seventy participants, there were countless other individuals who contributed to the planning process by providing an abundance of great refreshments for every planning meeting.

The participants in these meetings understood the need to build consensus. Consensus-based decision-making is a core element of community sustainability. Consensus does not mean that everyone involved in the process agrees with every decision, but that those disagreeing can support the decision as the process proceeds. This requires that participants demonstrate flexibility and high levels of cooperation, and that they recognize the best interests of the community and willing to place them on a par with personal interests.



Consensus is most easily achieved when residents and citizen leaders are involved in all facets of developing policy, community planning, and decision making. Residents and citizen leaders must be involved in articulating a shared vision of a community's future. They must have the opportunity to participate in goal setting processes, work plan and budget development, plan implementation, and plan evaluation. Reaching consensus at the latter stages of plan development depends on opportunities for meaningful involvement at all steps along the way. Plans developed through consensus building approaches benefit from broad community support and non-mandated compliance.

Laying a foundation for the entire planning process, this meeting was a full working session for all who participated. It began with a brief description of how Florence Township's planning is running on a parallel track with Goodhue County's comprehensive planning and the importance of citizen participation in both. Then followed a presentation of the **Basic Planning Steps** from Under Construction: Tools and Techniques for Local Planning by Minnesota Planning Agency.

Six Working Groups were organized:

1. Agriculture/Natural Resources
2. Community/Public Service
3. Florence Township Heritage
4. Highway 61/Transportation
5. Quality of Life/Recreation
6. Residential/Development



Participants as a whole group began the planning procedure by identifying Florence Township's **Strengths — Weaknesses**, and prioritizing them by individual choices. After a review of what was accomplished to this point in laying a foundation for the comprehensive plan the whole group completed the **Strengths — Weaknesses** exercise they began at the first meeting by identifying and prioritizing township **Opportunities — Threats**. See Appendix 4 which contains old appendices from the 2002-2003 comprehensive plan process.

The Planning Commission held a public review of the goals and strategies at its August 11 meeting. Ultimately, the comprehensive plan was approved, and has functioned to guide planning and regulation within Florence Township.



## Chapter 2 Township Profile

### Land

#### Location, Area

Florence Township is located within Goodhue County along the southeast border of Minnesota. Its boundary lines are the Mississippi River and its enlargement, Lake Pepin and Wisconsin border on the east, Haycreek Township on the west, Wacouta Township on the north and Mount Pleasant Township in Wabasha County on the south border. The area approximately is 36 square miles.

#### Topography

The surface of Florence Township is made up of prairie that changes to a bluff contour along the streams, especially along the Mississippi's Lake Pepin, which has areas of bottomlands along the great river. Wells, and Gilbert Creeks are important features in forming the topography of the area. Specific physical features in Florence Township include: Wells Creek Watershed, blufflands, emergent herbaceous wetlands, deciduous forest, agriculture land, limestone quarries, 2230 acre Frontenac State Park, open water of Lake Pepin.



Limestone bluffs rise hundreds of feet above Lake Pepin. Sedimentary bedrock, primarily sandstone and limestone, characterizes southeastern Minnesota. These rocks are remnants of ancient seas that covered the region 450 million years ago. Lake Pepin formed when Wisconsin's Chippewa River washed glacial debris into the Mississippi riverbed about 8,000 years ago, creating a partial dam that blocked the river's flow.



# Vegetation

## Pre-Settlement

Information specific to Florence Township is difficult to find, but the Wells Creek Watershed Partnership did describe vegetative conditions in its Watershed Introduction that does provide in this instance, an abbreviated idea of vegetation pre-settlement. Before European settlement, a variety of plant systems were interspersed. The vegetative types included Oak Forest, Maple-Basswood Forest, Floodplain Forest, Oak Woodland Brush, Bluff Prairie and Willow Swamp. Permanent vegetative cover held water on the land, kept soils in place, maintained high water quality fluctuations in the water levels.

Settlement, with farming, logging and development pressures of the mid and early 1900's removed most of the native vegetation and great amounts of sediment eroded and moved through the area. Flood and drought events were extreme as the ability of the landscape to cope with these conditions was impaired. By the early 1900's the urgency of the erosion problem nationwide spawned numerous soil conservation programs.

## Present

Farming is still an important enterprise across the township landscape. Some reforestation has occurred and remnant native plant systems can be found on steep hillsides, deep ravines and areas of floodplain forest. Some of Frontenac State Park provides an additional important reserve of remnant and restored vegetative systems. (Wells Creek Watershed Partnership Plan 1996)

In June 2001, the engineering firm of Bonestroo prepared a *Natural Resources Inventory* for Goodhue County. Chapters 2-3 of this *Natural Resources Inventory* contains an elaborate and detailed description of present-day vegetation throughout Florence Township and other areas of Goodhue County.

# Water and Watersheds

## Mississippi River

All surface water drainage in Florence Township takes an easterly or northeasterly course and reaches the Mississippi river at Lake Pepin. Lake Pepin shorelines in Florence Township are regulated by the shoreline ordinances of Goodhue County, the State of Minnesota, and the federal government.

## Wells Creek Watershed

Wells Creek is a main tributary stream of the Mississippi River in Goodhue County and Florence Township. It winds through 18 miles of scenic blufflands in southeastern Minnesota between Red Wing and Lake City and empties into the Mississippi River near the historic village of Old Frontenac. The Wells Creek watershed encompasses 52,000 acres of fields, forests, hills and bluffs (not all in Florence Township).

This watershed is typical of rural areas in the southeastern blufflands landscape. The face of the land was shaped eons ago by the force of glaciers, water and wind. Recent decades of human

activity have had a variety of impacts upon the natural resources found here. Today, the watershed community faces land management choices that will influence the future face of the watershed and the productivity and sustainability of its natural resources.

In 1994, formation of the Wells Creek Watershed Partnership brought together local citizens and natural resource professionals to share ideas and information, and to develop a vision for the future of the watershed. The Frontenac Sportsman's Club contributed significant financial support for this activity. A watershed plan was proposed in a report written in 1996. (Material from Wells Creek Watershed Partnership Watershed Plan 1995/1996)

In June 2001, the Wells Creek Watershed Partnership (with the support of Goodhue County and the Minnesota Department of Natural Resources) issued an extensive natural resources inventory of the Lower Wells Creek Watershed. The extensive study of this watershed concluded that Wells Creek provides a critical corridor between the Mississippi River and the surrounding large natural areas within the watershed. The report adopted several guiding ecological principals for protecting and enhancing the watershed, including:

- The health of natural communities depends on their size. Smaller and fragmented natural communities support fewer species and are vulnerable to extinction. Planning improves connectivity of these natural communities and avoids fragmentation of contiguous habitats.
- People are part of nature. The decisions and actions of humans are a major force in shaping the natural resources of the Lower Wells Creek Watershed.
- Species are interdependent, and humans do not understand all of the interactions within natural communities.
- Introductions of invasive and exotic species reduce native diversity, the quality of habitat and the health of natural areas.
- Planning should consider ecological boundaries and long timeframes.

The extensive inventory and mapping of the Lower Wells Creek Watershed can be found on the Goodhue County website.

## **Environmental Concerns**

Over the last decade since the creation of the original township comprehensive plan, there has been ongoing discussion among township residents about growth and development in the area and their long term environmental consequences. Among the concerns of township residents are the following potential environmental problems:

1. Poor land use practices destroying water quality and wildlife habitat
2. Lack of area wide erosion control destroying Lake Pepin
3. Bluffland protection from the consequences of excavation, mining, soil disturbance and vegetation removal
4. Protection of agricultural lands from poor farming practices, soil erosion, and industrial development.
5. Historic and archaeological preservation
6. Wetlands protection and preservation

7. Increased fragmentation of the countryside
8. Industrial activity that conflicts with dominant residential, recreational, farming and wildlife activity
9. Protection of shorelands from damage to natural topography and vegetation
10. Chemical degrading of groundwater
11. Protection of trout streams and trout habitat

Some of these concerns can be solved and mitigated at the township level. The solutions to some concerns require the collaboration of township residents and leaders with neighboring townships and communities. The solutions to some concerns require the collaboration of township residents and leaders with federal, state and county agencies.

Florence Township residents and county staffers have long been concerned about the potential for contamination of groundwater and aquifers in the Florence Township area. The Minnesota Department of Natural Resources has studied the area. All of Florence Township is highly susceptible (light red) or very highly susceptible (dark red) to ground water contamination. *Land Use Suitability Analysis for Florence Township, Goodhue County, southeast Minnesota, U.S.A.*, by Beth J. Knudsen (Minnesota Department of Natural Resources).



A commissioned report prepared by 1000 Friends of Minnesota for Goodhue County in June 2009 confirms this concern about land in Florence Township being highly susceptible to ground water contamination. (See *Goodhue County Environmental Constraints Land Use Evaluation (ECLUE) Model*, by 1000 Friends of Minnesota). See also *St. Lawrence Edge Conditions* report prepared by University of Minnesota Center for Rural Design for Hiawatha Valley Partnership, September 2008.

Jeff Green, a hydrologist with the Minnesota Department of Natural Resources voiced his concern about water contamination in the St. Lawrence Edge, a shale formation running through the blufflands of Florence Township and adjoining areas of Goodhue County. In his June 24, 2009 message to Goodhue County included within the 1000 Friends of Minnesota report, Jeff Green stated:

*The St. Lawrence Edge is prominent in the blufflands area. It is an emerging issue with concerns being raised about groundwater recharge, water contamination, bluff stability, and cold water for trout streams.*

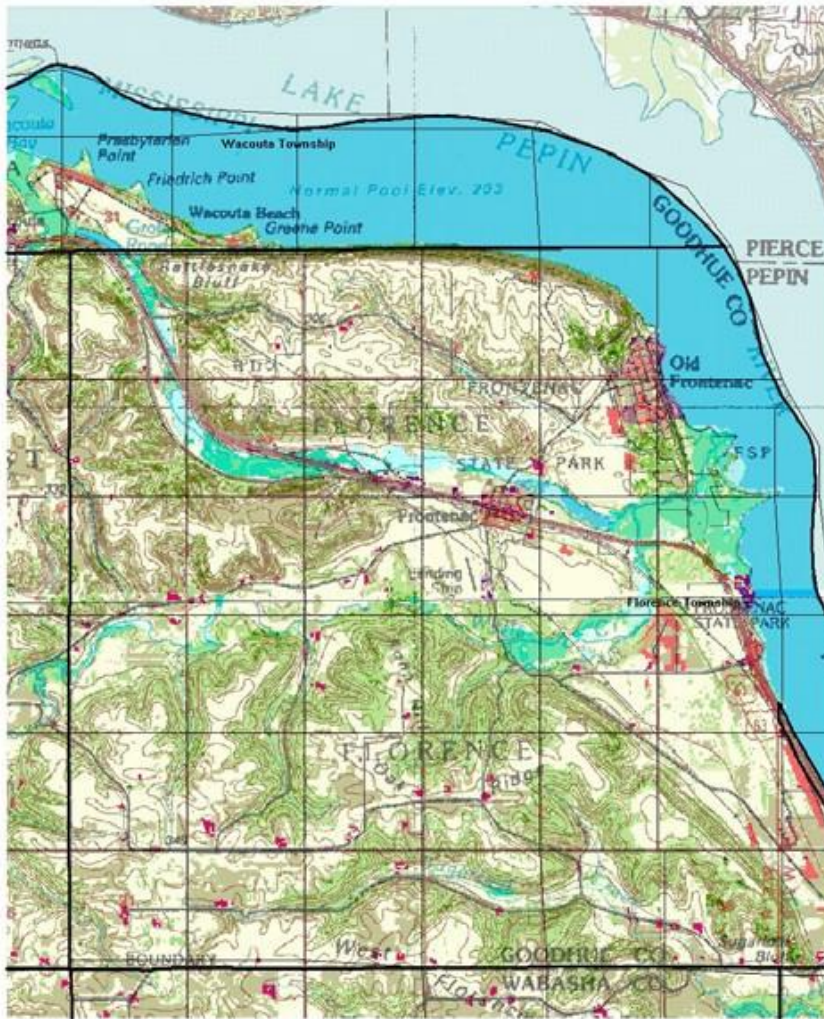
*Ground water recharge can be impacted by surface activities such as road construction, water and sewer line trenching, housing development. Clearing of the forests can alter the natural hydrology of the hillslope and change the groundwater recharge and discharge patterns. Homes built on top of the shale and siltstone units of the St. Lawrence Edge may experience wet and flooding basements. To date, there is no special recognition or protection of this unique area. Only minimal protection is afforded to the upper bluffland drinking water recharge areas, the natural water purification system and cold-water sources for trout streams. Communities can adopt zoning regulations that guide development in these areas.*





# Minnesota Navigator

## An Enhanced 30 meter Land Use/Cover



- Minnesota Navigator**
- Lake homes and other rural dev. (1990s)
  - Rural farmsteads (1990s)
  - Low intensity residential
  - High intensity residential
  - Commercial/industrial/transportation
  - Urban / recreational grasses
  - Row crops
  - Small grains
  - Pasture / hay
  - Upland (grasslands / herbaceous)
  - Shrublands
  - Deciduous forest
  - Evergreen forest
  - Mixed forest
  - Transitional
  - Emergent herbaceous wetlands
  - Bog/Marsh/Fen (1990s)
  - Forested wetlands
  - Spruce/fir in wetlands
  - Open water
  - Bare rock/sand/clay
  - Mining/gravel pits

Scale: 0 1 2 mi

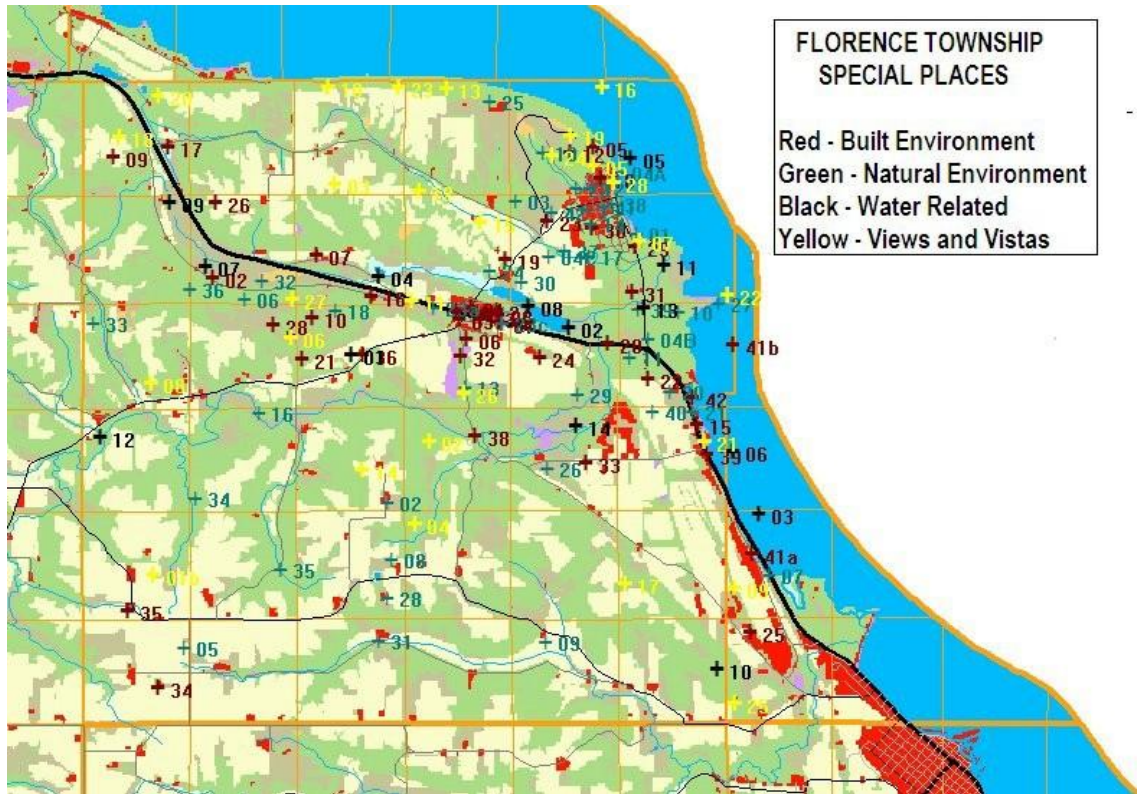
National Land Cover data from USGS, 1992. Data from the Census of the land, 1990's was added to: Other rural development was added to shrub and all forest land; and all forest lands; farmsteads were added to pasture/grasslands/shrub/transitional; Bog/marsh/fen was added to emergent vegetation; Spruce was added to Forested wetlands. <http://landcover.usgs.gov/html/landcover.html>

Metadata : <http://www.epa.gov/mrfc/classification.html>

- MCD 2000
- Counties
- All Public Roads



## Places



Old Frontenac is one of the most historically significant villages in Minnesota. It thrives in its largely historical state from its beginnings in the 1850s. The entire village of Old Frontenac is nestled on the National Register for Historic Places—a tribute to the frontier paradise cultivated under the patronage of the Garrard family. With the exception of the paved county road that serves the local residents, all the streets are still unpaved gravel. No streetlights or visible utilities mar the overall impression of an untouched early settlement. No commercial businesses are in the village. The nineteenth-century buildings of Old Frontenac remain virtually untouched. A pictorial history of Old Frontenac is attached to this comprehensive plan as an appendix.

Frontenac Station originally housed a station of the Chicago, Milwaukee, St. Paul and Pacific Railroad, and the picturesque scenery soon began attracting wealthy residents. It became a village of summer homes with lakeside views. The railway line outside the village ran from north to south, connected the remote area with larger cities, but it was far enough away from the bluffs not to detract from the vacation destination. There are actually two villages that comprise Frontenac. The railway line attracted some residents, while the bluffs attracted others. The houses along the railway line, and later the highway, became known as 'Frontenac Station'.

The forestland between Frontenac Station and Old Frontenac, as well as much of the land to the north and some to the south, was set aside as Frontenac State Park in 1957. The state park includes the floodplain along the Mississippi River, bluffs which are a flyway for many migratory bird species, prairies and hardwood forests. It is within the Mississippi flyway.



**Hansen's Harbor**



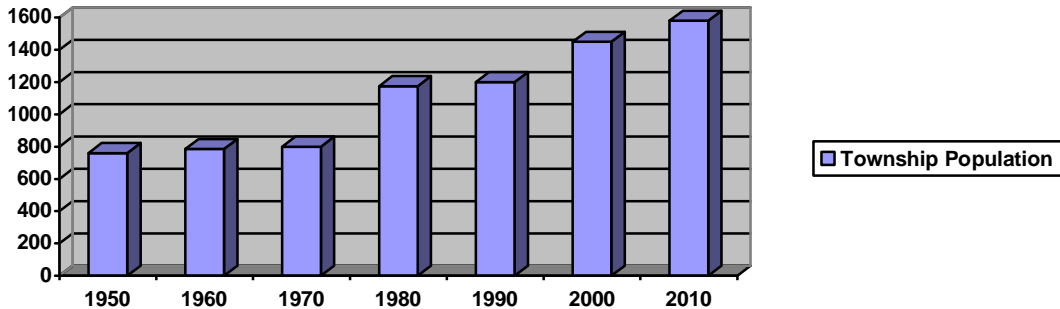
**Frontenac State Park**

**St. Hubert House  
Old Frontenac**



# Township Population Analysis

## Population Growth Trends

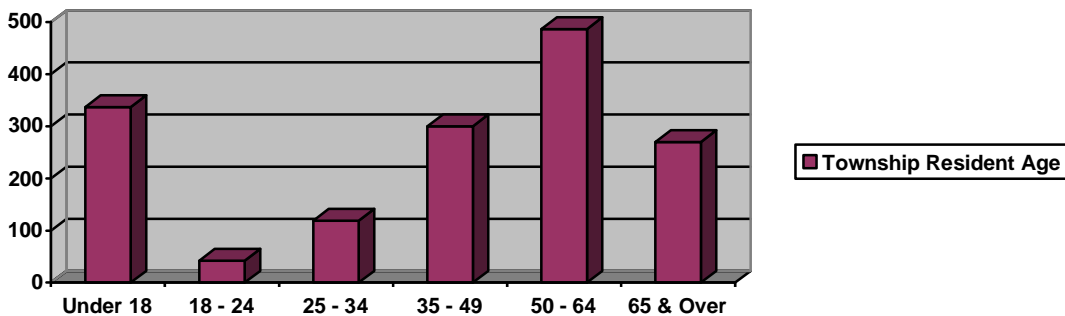


The year 2000 national census recorded the population of Florence Township as 1450 individuals – an increase of 21% over the 1990 population of 1196. The year 2010 national census recorded the Florence Township population at 1581 individuals. The year 2012 population is estimated by the Minnesota demographer to be 1586 individuals. Clearly, the township population is growing steadily.

Florence Township has 626 households, with 416 of those households being family households, and 210 being individuals living alone. The average household size is 2.28.

## Ancestry

The dominant ancestry spread of the township population is German, Norwegian, Swedish, and Irish, with a sprinkling of English, Scottish, French, Polish, Italian, Danish and Dutch. There are even a few Swiss, Welch, Asian and African-American residents.

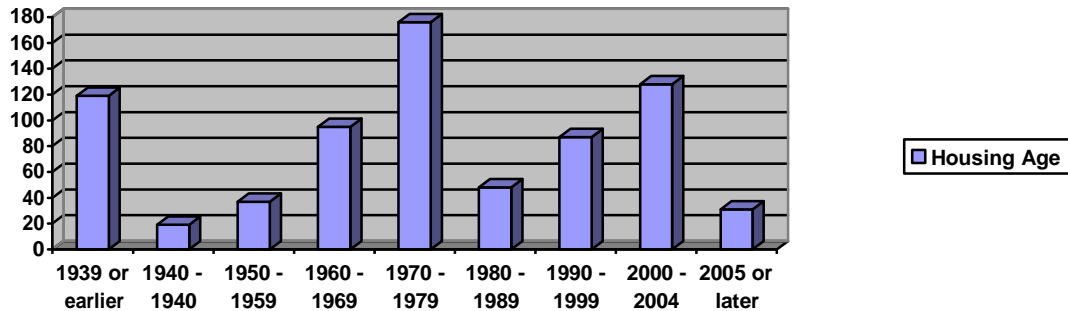


## Population Age Distribution

Of the 1581 individuals living in Florence Township in 2012, 1244 were over the age of 18. Of the 1244 adult residents, 1057 were over the age of 35. Most residents were between the age of 50 and 64. And, 270 residents are over the age of 65. At least 244 of our children are enrolled in school.

## Residence Tenure

The 2003 comprehensive plan declared that 69% of township residents lived in the same house in 1995 as in 2000. The 2010 census discloses that over 90% of township residents lived in the same house at least 1 year. Clearly, the tenure of residency is stable, not transient, primarily because 81.1% of the housing is single-family residence, not rental units. Of the total of 740 housing units, 600 of the housing units are single-family residence, and almost all of the remaining housing units are mobile home units. The 2010 census identifies 39 rental housing units, with 91 individuals living in those rental housing units.



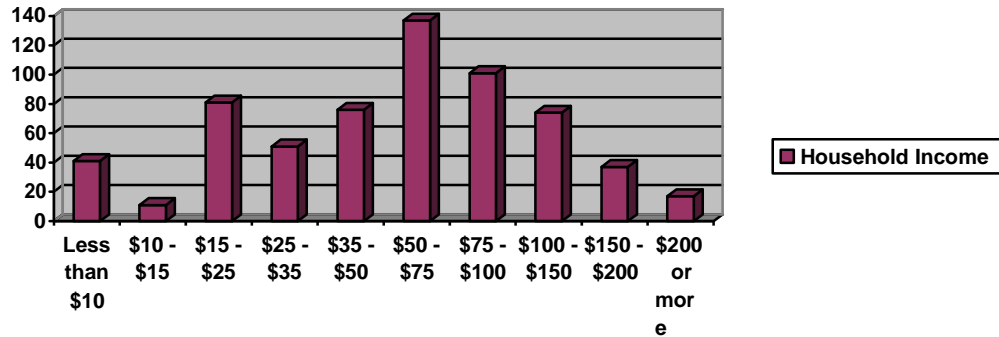
Spikes in the age of housing within the township reflect the population growth trends. There is a substantial amount of older housing stock that remains in good condition. In the 1970s when population growth returned to the area, newer housing was built that remains viable today. At the start of the 21<sup>st</sup> century, another surge in population growth caused development of new housing.

## Educational Levels

The year 2010 census identifies 1113 residents as being over 25 years of age. Of those individuals, 414 are high school graduates, and 278 have some college education but no degree, and another 320 hold college or graduate degrees.

## Household Income

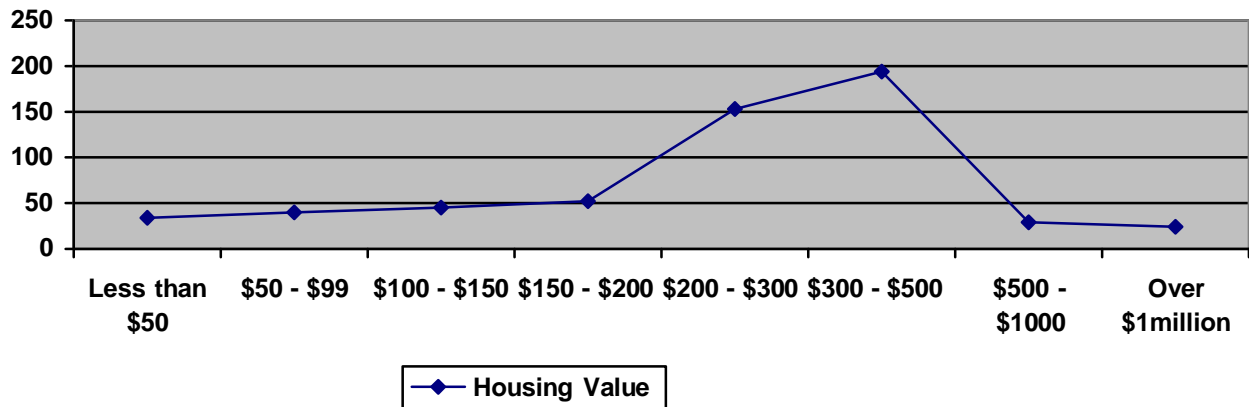
The 2003 comprehensive plan declared the median household income to be \$53,971. The year 2010 census states that the median household income in Florence Township is \$57,917. Of the 1183 residents over the age of 18, 751 residents are in the labor force, and 432 do not work. Some 530 residents work in the private sector, while 103 residents work in government. Approximately 80 residents are self-employed. Most households produce between \$50,000 and \$100,000 of income, with at least 128 households producing over \$100,000 in household income.



Household Income (\$000s)

## Housing Value

The year 2010 census provides an estimate of housing value in Florence Township. Most housing is valued between \$200,000 and \$500,000. The overall estimate of housing value is portrayed in the following graph:



Housing Value (\$000s)

## **Highway 61 Corridor and Transportation**

The Highway 61 corridor running through Florence Township is a principal arterial connecting key activity centers, serving longer- to medium-length trips, and typically high-speed with limits on numbers of access points. For decades, the Highway 61 corridor has provided the benefits of good access to Florence Township with the burdens of high traffic and safety problems.

During the last decade, Florence Township has participated with Goodhue County in studying transportation in the area. Goodhue County with SRF Consulting Group developed a major transportation plan in 2004-2005 to review population and traffic growth trends, safety and multimodal uses of the county's road system.

The Goodhue County Transportation Plan recognized that future growth within the county will focus on a few select communities, including Florence Township. Goodhue County and Florence Township recognize that residential growth is occurring in the township, with most likely forecast for areas south of Highway 61.

Florence Township also believes there is too much access along Highway 61 within the township.

Within the Goodhue County Transportation Plan, the county proposes to change Territorial Road from a local road to a minor collector due to increased development along this route. The county believes changing Territorial Road will minimize additional access along Highway 61. The county proposes to transfer jurisdiction of Territorial Road from Florence Township to Goodhue County.

Florence Township will consult and collaborate with Goodhue County to develop off-road trails for bicycles, horseback rider, hikers and skiers, which could connect with existing trail systems.

## **Township Parks**

Florence Township owns and operates four established and well-maintained community parks: Community Center Park, Valhalla Park, the Frontenac Station Play Park, and Wakondiota Park. These township parks are overseen by the township park commission pursuant to the new Park Plan implemented by the township in 2012. The Park Plan is contained in Appendix 3.

# **Governance**

## **What is a Township**

Townships or towns are municipalities or public corporations. Both cities and towns are considered general purpose local governments because they have been granted the authority to serve the broad-based needs of their residents. In Minnesota, townships served as the base on which the state was built and served as one of the first forms of local government.

## **Township Government**

The establishment of town government in Minnesota is based on Minnesota Constitution. Under article 12, section 3 of the Constitution, the Legislature to “provide by law for the creation, organization, administration, consolidation and dissolution of local government units and their functions...” It is through this authority the legislature has created cities and towns. Townships are authorized to protect the health, safety and welfare of it’s citizens MN Statue 365.10, Subd.17.

## **Annual Town Meeting**

The most notable feature of township government is the town meeting. Because the town residents have direct input into the operation of the town through the town meeting, town government is closer to pure democracy than any other established form of government in Minnesota. The strength of town government is the voice it gives to its residents.

Every town is required to hold an annual town meeting on the second Tuesday in March. While an agenda is developed before the meeting by the town board with certain items of business that must be decided, the residents have an opportunity to raise any other item of town business to the floor for discussion and possible action. Whether the town board is legally bound by the decisions at the annual town meeting depends upon the issue being decided.

## **Township Board of Supervisors**

The governing body of Florence Township is the town board of supervisors. The Florence Township board of supervisors consists of five elected town officers: three supervisors; one clerk; and one treasurer. The Florence Township board of supervisors meets monthly at the Florence Townhall. All township business is conducted in an open meeting with a regular review of township finances, parks and roads. The current Florence Township board of supervisors consists of the following residents:

Supervisor	Mike Blair
Supervisor	Joe Ellingson
Supervisor	Jim McIlrath
Treasurer	Tom Gnotke
Clerk	Susan Eisenmenger



Florence Township has also convened and empowered the following committees to oversee, monitor and supervise the infrastructure of the township:

Planning Commission  
Old Frontenac Heritage Preservation Commission  
Road Committee  
Parks Committee

Frontenac Cemetery Association is an independent entity governed by the Cemetery Board

Township convened non-profit organizations include:

Friends of Old Frontenac  
Friends of the Township Hall  
Frontenac Sportsman's Club

## Chapter 3 Florence Township History

### Early Exploration

The first written records of Lake Pepin and surrounding areas are attributed to the French who advanced money for exploration of the unknown West in the 17<sup>th</sup> century. Traveling from Ft. Frontenac at the foot of Lake Ontario, the explorers followed the Illinois River to the Mississippi and eventually arrived at Lake Pepin. In September of 1727, an expedition established itself on the western shore of the lake at a location known as Pointe Au Sable, now Long Point. The fort was named Ft. Beauharnois after the governor of New France. In 1731, a new fort was built on the site of the present Villa Maria Retreat Center, but after years of turmoil the fort was permanently abandoned in 1756.



### Settlers

The first permanent white settler in what was to become Florence Township was James C. (Bully) Wells, who operated a trading post on the west shore of Lake Pepin for 16 years beginning in 1839. Wells achieved some prominence in Minnesota serving in the lower house of the first three territorial legislatures. His wife, Jane, was a Sioux of mixed blood, and the daughter of a trader named Duncan Graham. The United States granted Jane Wells property that was incorporated into a plat within Florence Township in 1857, through the Half Breed Script initiative. In 1852, Evert Westervelt located on the present site of Frontenac and platted out a town he called Westervelt. Two years later, Israel and Lewis Garrard arrived in Westervelt looking for hunting land. Once the Wells held legal title to the land granted to Jane

in 1857, they deeded that land to Israel Garrard and Evert Westervelt for \$2,200 that same year. There were several changes in property holdings between Westervelt and the Garrards, but on September 13, 1859, an agreement between Evert Westervelt and Israel, Kenner, and Lewis H. Garrard, each one-fourth proprietors of the town of Westervelt, in Goodhue County, Minnesota, changed the name of the plat to Frontenac. The Garrard Brothers also purchased a tract of land running seven miles along the shore of Lake Pepin to the present site of Lake City and over three and one-half miles back from the water. The Garrard family became intimately connected with the history of Florence Township.

In 1933, Frances Densmore, a family friend of the Garrards, wrote an article *The Garrard Family of Frontenac*, in which she described the village of Frontenac as it appeared then:

*Frontenac can never be an ordinary village. Its opportunity for becoming commonplace passed when the railroad turned inland. Today the only sidewalk is along one side of Frontenac Inn. There is not a street light in the village, nor a filling station, nor a shop of any sort—not even a place to buy a newspaper. On Garrard Avenue, from Graystone to Dakota Cottage, only one house has been built in more than forty years. To those who respond to the atmosphere of Frontenac it is a haven of rest and a place of beauty, the home of a grace and a culture with roots in the past and a flowering in our own age.*

This would be an accurate description of Old Frontenac in 2013.

### **Township Government**

Florence Township was organized under the general act of 1858. It was named in honor of Florence Graham, daughter of Judge Chris Graham, Red Wing.

Florence Township has been served by many individuals, who held office contributing their time and talents to the benefit of the Township. The following is a list of township officers in the early days of its organization. 1858 – L.H. Garrard, Chairman, E.Z.K. Munger, Supervisor, L. Utley, Supervisor, Peter Grant, Clerk. Officials of the township recorded births, deaths, and marriages for the county. Until the 1970's the township elected a Justice of the Peace who conducted local traffic court and performed marriages. A Township Constable was elected to keep the peace. Township Treasurer is now an elected office. Commissions and Committees are appointed by the Board of Supervisors to study and make recommendations to the Board, i.e., Old Frontenac Heritage Preservation Commission, Frontenac Cemetery Association, Florence Township Long Range Planning Commission, Zoning, Road Committee, Parks Committee.

The Florence Township Hall was built in 1875, three years after the Village of Frontenac was established by Israel Garrard to accommodate the Chicago, Milwaukee and St. Paul Railroad and the commercial and transportation activities and opportunities the railroad would make possible. The Hall has been the seat of Florence Township government since its construction and has also served a variety of community social and recreational functions over the years. Where the township officials met prior to 1875 is not known, however the present facility has been in continuous use since that time. The Florence Township Hall is the oldest town hall in the State of Minnesota continuously used by township government since its construction. All Local and General elections have been held at the hall. In 1997 township residents nominated the Florence Township Hall for listing on the National Register of Historic Places. The Hall was officially listed to the National Register of Historic Places on July 20, 2000.

Florence Township Board of Supervisors records from before 1895 have not been located. They are also missing for the years 1898 to 1905 and 1926 to 1928. Extant records are in storage at the Goodhue County Historical Society in Red Wing.

The Frontenac Station Post Office has been an important feature of Florence Township. In 1992, residents signed a petition and put political action to work when the possibility of the Post Office closure was imminent. The Post Office is still a functioning postal facility for township residents.

Township residents again rose to the occasion in 1996 when Florence Township was selected as a possible storage site for NSP's nuclear waste. Supervisors and citizens met in many forums to determine a course of action.

## **Schools**

The territorial government had passed the Organic Act of March 3, 1849, that provided two sections in each township be reserved for school purposes. County taxes supported the cost of public education. Before schools were organized and erected, children were taught by the few teachers among the settlers in private homes, old claim cabins, barns, granaries, etc.

By the early 1900s there were eleven school districts in Florence Township. The first one, District # 24, in section 10, was the Frontenac School located on County #2 between Frontenac and Frontenac Station. It was organized in 1857 and the building still stands today. The Frontenac School was consolidated in 1955.

Other schools consolidated with Red Wing were:

District #25, section 7 Pleasant Valley School 1857 – 1950  
District #26 Sunnyside School 1862-1956

Schools consolidated with Lake City were:

District #27, section 24, Florence School 1863-1950  
District #28, section 31, West Florence School 1956  
District #29, section 32, Central Point 1860-1948  
District #127, sections 4 and 5, Hill Avenue School 1879- District #93, section 28, Oak Ridge School 1872-1954

Today, Florence Township is served by two school districts, # 256 out of Red Wing and #813 from Lake City. With the open school policy, students may now attend any school in Minnesota with the consent of both districts.

## Parks and Recreation

In 1956, the Minnesota Legislature enacted a bill to appropriate money, acquire land and establish Frontenac State Park. The initial acquisition was somewhat less than 1000 acres of land that was transferred by quitclaim deed from John H. Hauschild on May 18, 1956, to the Frontenac State Park Association. Additional land was acquired in 1965, 1969, 1971, 1986, 1996 and 2002. The current acreage within the statutory boundary is 2773 acres. The amount of land under private ownership within the statutory boundary is 496 acres.

The Richard J. Dorer Memorial Hardwood Forest was established in 1961 and covers some 40,000 acres in southeastern Minnesota. The area is a driftless area; a region untouched by glaciers, and is populated with oak, elm, birch, basswood, black cherry, pine and black walnut. Managed by the Department of Natural Resources, there are ten recreational units within the forest, none of which are in Florence Township.

Frontenac was designed on three terraces, each being separated by parkland deeded to the township by Israel Garrard. The lower terrace bordering Lake Pepin is Vahalla Park, and the upper terrace is

Wakondiota Park. A community ball field is located in this park. There is also a play park in Frontenac Station that was provided to the community by the Sportsman's Club in 1990.

A Township Beach is located on Lake Avenue Way in Frontenac, adjacent to the historic Lakeside Hotel. The Sportsman's Club built a boat ramp at the beach in 1987.



A state owned roadside rest named Staheli Park is located along Hwy 61 east of Frontenac Station. Originally farm land, in 1940 the farm buildings were removed and a campground was established. The State of Minnesota acquired the land in 1970 and subsequently constructed a floodwall and rest facility.

Hansen's Harbor, a marina on Lake Pepin, was established in 1952. The harbor was created from two artesian ponds that had been used as holding areas by a commercial carp fishing operation owned by Clyde Randall. The harbor is permitted for 336 boats, and also accommodates a sixteen-unit trailer court.

The first golf course in Florence Township was the Lake City County Club, founded in 1928. It expanded to 18 holes in 2000.

In 1965 Red Wing Ski Corporation was incorporated and a small facility named Mount Frontenac was established along Hwy 61 just west of Frontenac Station. In 1977, local resident, William B. Webster and partner D.H. Boyd purchased the corporation. In 1984, a nine-hole golf course and clubhouse were built, and in 1990 a second nine holes and a large clubhouse were added. In 2000, Mount Frontenac was purchased by the Prairie Island Tribal Council who enlarged both the ski and golf areas. The course is considered to be one of the most scenic in southern Minnesota.

### **Churches and Cemeteries**

The first Christian service in Goodhue County was held at Ft. Beauharnois in 1727. A chapel called the Chapel of St. Michael the Archangel was later built at the fort.

In September 1859, a Presbyterian Church was organized in West Florence in an old log schoolhouse. A church was erected in 1871 and taken over by the German Lutherans. Today the church is known as Immanuel Lutheran and has two cemeteries. At one time a Methodist Church was located in West Florence in section 34. The church was taken down, but the cemetery, dated 1859, remains and maintained by a Lake City Methodist congregation.

In 1866, St. John's Lutheran Church was organized in Frontenac Station. A church was built on its existing site in 1872. A steeple was added in 1898. A new front addition and entry were added in 1977. Currently the pastor serves both Immanuel and St. John's.

Sometime in the early 1860's Sarah Bella McLean promoted and raised money to build a church and parsonage for the Church of Christ or Campbellites in Frontenac. The church was destroyed by fire, but the parsonage remains today as a private residence located on the northeast corner of Sumner and Manypenny. A German Methodist Church located on the corner of Wood and Faribault Streets was also destroyed by fire.





The one remaining church in Frontenac is the Episcopal Church, built by Nathaniel McLean in 1868. The church remains almost in its original condition to this day. At a later time, a small building was constructed adjacent to the church for Sunday School and fellowship gatherings. There is a cemetery located at this church where the grave of Evert Westervelt can be found.

The Frontenac Cemetery is located on the east end of Wood Street on the corner of Green Street, and is maintained by the Township. While burials were conducted there as early as 1867, and the land was in fee simple ownership of Frontenac Cemetery Association, the cemetery was not platted or dedicated to the public until 1938. Members of the Garrard family are buried there.

Initial plans for the construction of the Villa Maria were made in 1885 when Israel Garrard offered a 120 acre tract of land overlooking Lake Pepin to the Ursaline nuns who operated a school in Lake City. Foundations were laid in 1888 and the building was dedicated in 1890. The original building was constructed cruciform in shape, 301' by 90'. It was four stories high and had a tower on the north end that extended 150' high. In 1946 an addition was built to accommodate increased enrollment in the girl's school. A fire destroyed the main building in 1969, and classes ceased. The facility is now a retreat center operated by the Ursaline order and serves all denominations for educational purposes. A new conference center was constructed near the site of the original structure and was dedicated in 2002. The Villa has a cemetery for burial of members of their Order.



## **Social and Civic Organizations**

Life in Florence Township has been shaped by its social and civic organizations. These groups have gathered to improve the quality of life for its citizens, for learning, recreation and preservation of community resources.

### **Current Organizations**

4-H Florence Wizards - 1928

Wells Creek Riders Snowmobile Club

Wells Creek Watershed Partnership

Friends of Florence Town Hall was

founded in 1996 to protect, restore and utilize the historic Town Hall.

Frontenac Sportsman's Club Inc. was formed in 1985 for the purpose of community service through social good, education and conservation of natural resources.

In the mid 90's, the Frontenac Sportsman's Club built the Community Center, located on Territorial Road with money raised from charitable gambling. The property was then donated to Florence Township. The center is available as a meeting place and to rent for private functions.



## **Past Organizations:**

Farm Bureau - 1918  
Rural Electric Association - 1940  
National Farm Organization -1960  
Frontenac Booster Club – 1972

## **Transportation**

Long before the arrival of Europeans, the Mississippi River served as a central artery for Native Americans. Before the advent of steam, fur traders were running their goods by canoe and keelboats that were poled or pulled down the Mississippi. The lumber industry rafted logs, and lumber was pushed through Lake Pepin to its destination. During early settlement the principle transportation route for passengers and goods was the river.

By 1940, the upper Mississippi lock and dam systems were finished and the river was tamed for commercial barges. Lake Pepin is in the UMRS Pool 4 designation that includes the area between Lock and Dam # 4 upstream to Lock and Dam #3.

By 1855 there was a weekly stagecoach and mail route between Red Wing and Frontenac with a stop in Wacouta, because packet steamers refused to stop at these intermediate sites. By 1925 the highway was paved from Lake City to Red Wing. In 1951-52 additional land was purchased to widen the road necessitating houses in the area west of Hansen's Harbor to be moved back, and the construction of a new bridge entering Lake City. In 1979 a new bridge was built over Wells Creek and 1980 saw new blacktop between Red Wing and Lake City, resulting in removal of numerous trees through Frontenac Station. Year 2001 project included blacktop resurfacing and turn lanes at intersections to be added. The Minnesota Department of Transportation has current plans for road improvements over the next ten years that could result in relocation of the entire roadway.

In 1871 railroad tracks were completed between Red Wing and Lake City. The location of the tracks is attributed to Israel Garrard who negotiated with the Chicago, Milwaukee and St. Paul line to prevent trains from intruding on the quiet solitude of Frontenac. Garrard gave land for the tracks as well as the town site, now known as Frontenac Station. The first train stopped in 1898. Train service was twice a day for passengers and mail. By 1938 the Hiawatha, a high speed train running between Chicago and Seattle was stopping at Frontenac Station, and received heavy use during World War II. When Amtrak took over rail service in 1971, the depot was closed as trains no longer made a stop at Frontenac. The depot building, located on the south side of Hwy 61 across from Scandinavia Street was dismantled in 1976.

Frontenac also had bus service provided by Greyhound that stopped four times daily. It transported packages, newspapers and passengers. Service terminated in about 1990.

In the 1890's, early attempts to fly were made at Frontenac under the direction of Colonel Jephtha Garrard, who was trying to produce a flying machine. In 1940, a government airfield comprising 115 acres and two runways was started in Section 15 just east of County Hwy #2. It was a weather station and emergency field for planes between Chicago and Minneapolis. The field closed in 1946. Since then it operated as a small flying school and used for ultra-lite enthusiasts. The land is now under private ownership.

## **Chapter 4 Land Use Goals, Priorities and Strategies**

Florence Township residents, planning commission and board of supervisors have established a set of goals, policies, priorities and strategies to guide the community in the development and use of land and natural resources within the township. These goals, policies, priorities and strategies represent desired outcomes or conditions related to the physical, natural and economic characteristics of our community.

### **SENSITIVE NATURAL AREAS**

#### **Goals and Priorities**

- A. To protect and conserve the sensitive natural areas, endangered species and habitat of Florence Township, which include the Wells Creek Watershed, blufflands, wetlands, forests, trout streams, Frontenac State Park, Mississippi River shorelands, floodplains, karst features, driftless areas and archaeological sites.
- B. To prevent any environmental damage or degradation to sensitive natural areas and habitat of Florence Township.
- C. To require all new or expanded land use development to consider the cumulative environmental impact of such development on sensitive natural areas.
- D. To provide for appropriate forest and timber management, and wood harvesting under National Timbering practices and U of M Woodland Manager.

#### **Strategies for Achieving Goals and Priorities**

- 1. Review natural resource management plans for forestlands, watersheds, wetlands, trout streams and Frontenac State Park developed by Minnesota Department of Natural Resources (DNR) and other natural resource agencies.
- 2. Consult with DNR hydrologists, foresters, geologists and other scientists to determine the role of Florence Township in preserving and managing sensitive natural areas and habitat.
- 3. Consult with Soil and Conservation District representatives to determine the role of Florence Township in preserving wetlands, reducing erosion, and preserving groundwater, aquifers, streams and other water resources.
- 4. Identify endangered plant and animal species in sensitive natural areas.
- 5. Develop and implement land use controls that prevent and reduce potential environmental damage to sensitive natural areas.
- 6. Discourage and prevent development of incompatible land use activity in sensitive natural areas.
- 7. Discourage and prevent the development of any industrial facilities and activity in sensitive natural areas, including manufacturing, processing, transfer facilities, and mining.
- 8. Discourage fragmentation of sensitive natural areas by retaining natural corridors and connections between disparate areas of habitat, vegetation and wetlands.

9. Preserve dark skies through reduction of outdoor lighting and use of downlighting.
10. Provide opportunities for visitors and residents to research and recreate in sensitive natural areas.
11. Establish a township sensitive natural areas preservation management plan to provide protections for open spaces, parks, forests, shoreland, bluffs, driftless area and wetlands located within the township jurisdiction.
12. Identify critical areas for water recharge, sink holes and fault lines, and protect these features from land use activity that could adversely affect water quality and quantity.

## **ESTABLISHED PARKS AND OPEN SPACES**

### **Goals and Priorities**

- A. To protect and preserve the established parks and open spaces within Florence Township for the scenic beauty they provide and the recreational opportunities.
- B. To prevent any environmental damage or degradation to the established parks and open spaces with Florence Township.
- C. To identify potential areas for trail corridors.
- D. To seek opportunities for the future establishment of additional parks and open spaces within Florence Township.
- E. To preserve scenic vistas associated with established parks and open spaces.

### **Strategies for Achieving Goals and Priorities**

1. Provide adequate funding for the maintenance and repair of established parks and open spaces.
2. Empower a committee of township residents to oversee the maintenance, repair, and improvement of established parks and open spaces.
3. Maintain, repair and improve the township's established parks and open spaces.
4. Encourage and promote township residents to use and protect the township's established parks and open spaces.
5. Accept gifts of land that have the potential for establishment of parks and open spaces.

## **AGRICULTURAL AREAS**

### **Goals and Priorities**

- A. To encourage and support all levels of farming on agricultural property, including livestock production, production of crops, orchards, vineyards, apiaries, raising of specialty animals, hobby farms, forest and timber management, and hunting preserves.
- B. To encourage and promote the conservation of soil and water resources through the reduction of soil erosion and stormwater drainage.
- C. To reduce the potential for industrial or other land use activity that conflicts with farming and other agricultural activity.
- D. To develop, repair and maintain township roads and bridges for transporting (i) agricultural supplies to local farms, and (ii) agricultural crops, products and livestock from local farms.

### **Strategies for Achieving Goals and Priorities**

- 1. Periodically conduct an inventory and review of farming and agricultural activity in Florence Township.
- 2. Consult with the local US Farm Service Agency to determine the status and condition of farming and agricultural activity in Florence Township.
- 3. Determine the best use of agricultural land in Florence Township based on soil productivity and crop equivalency ratings.
- 4. Protect productive soils by encouraging best farming practices and reduction of soil erosion.
- 5. Protect water resources to prevent excessive use of aquifers, water tables, streams and other water resources.
- 6. Protect water resources to prevent pollution and quality degradation of aquifers, water tables, streams and other water resources.
- 7. Consult with local Soil and Water Conservation District to review the water management plan for Florence Township.
- 8. Consult with local Soil and Water Conservation District to determine best practices for farming and to distribute that information to property owners and farmers in Florence Township.
- 9. Consult with Goodhue County feedlot officer to prevent farming and livestock production activities from violating county ordinances and state feedlot regulations.
- 10. Repair and maintain township roads, bridges and rights-of-way to provide reliable access for farmers transporting equipment and farm products.
- 11. Develop and implement land use controls that reduce and minimize conflicts with farming and livestock production activities.

12. Discourage and prevent the development of any industrial facilities and activity in agricultural areas, including manufacturing, processing, transfer facilities, and mining.
13. Discourage and prevent the development of housing subdivisions in productive agricultural areas that contain active farming and livestock production.
14. Acknowledge the value that existing aggregate mineral producers provide to Florence Township roads, farms and construction projects with rock, gravel and sand products. Control the growth and expansion of existing aggregate mineral producers to prevent their areas from becoming large-scale industrial activity zones.
15. Develop and implement land use controls that encourages and provides for reclamation of land damaged as a result of mining or industrial activity.
16. Monitor and participate in county agriculture initiatives.

## **COMMUNITY AND PUBLIC SERVICE**

### **Goals and Priorities**

- A. To develop and maintain a safe, thriving rural community that sustains the historic integrity of the township and enables our citizens to live together with respect for one another.
- B. To create and maintain an atmosphere of cooperation between the township elected officials, Frontenac, Frontenac Station, and rural areas, and the private needs of township citizens.
- C. To increase township services as township population grows.
- D. To reduce land use conflict as township population grows.
- E. To make public safety a priority of township government and citizens.

### **Strategies for Achieving Goals and Priorities**

1. Assure broad representation of diverse areas of the township on township government board and committees.
2. Consider expanding the township board to five members to increase representation of the diverse areas of Florence Township.
3. Assure adequate funding of township programs and services by considering grants and other funding opportunities.
4. Ensure financial integrity of township government revenue and spending.
5. Approve and implement township land use planning and other ordinances to control the consequences and demands of township growth.
6. Consider public safety consequences in all areas of township planning.
7. Appoint a township liaison or representative to consult and partner with Goodhue County board of commissioners and key staff on issues of concern to Florence Township.

8. Encourage active township resident participation in local, state and federal safety initiatives and organizations.
9. Appoint township representative to attend Goodhue County safety council meetings and submit regular reports to township board.
10. Work and coordinate with Goodhue County and neighboring city and rural fire and rescue organizations to assure adequate emergency response to all areas of Florence Township.

## **FLORENCE TOWNSHIP HERITAGE**

### **Goals and Priorities**

- A. To preserve and protect historic sites, landscapes and buildings in Florence Township.
- B. To remain primarily a rural and scenic residential, agricultural and recreational community with historic integrity.

### **Strategies for Achieving Goals and Priorities**

1. Obtain adequate funding to assure preservation and protection of historic sites, landscape and buildings in Florence Township.
2. Develop and implement updated township ordinances designed to increase the preservation and protection of historic, sites, landscapes and buildings in Florence Township.
3. Provide annual report on the condition and preservation of historic sites, landscape and buildings at township Annual board meetings.
4. Conduct regular public education of township history and heritage, including developing historic handbook, history exhibits in Friends of Florence Township Hall history center, articles in township newsletters, and special historical events.
5. Collaborate with Goodhue County government to preserve township heritage.
6. Encourage Florence Township government and citizens to support and value the work and recommendations of the Florence Township Planning Commission and the Frontenac Township Heritage Preservation Commission.
7. Enroll new members in Friends of Florence Town Hall and Friends of Old Frontenac to provide a strong membership base in these township organizations, and elevate historical relevance in the community.
8. Design and install uniform aesthetically pleasing signs and markers for all township historic sites.
9. Assure adequate funding in township budget for maintenance of public historic sites.
10. Discourage, deter, and prohibit any development that threatens historic sites, landscape and buildings, including landscape vistas, historic property values and scenic atmosphere.



12. Encourage and pursue efforts for the Florence Township Heritage Commission to obtain funding for historic preservation efforts from state, federal and private funding sources.
13. Cooperate and work with State and County Historical Societies.

## **HIGHWAY 61 CORRIDOR AND TRANSPORTATION**

### **Goals and Priorities**

- A. To assure Florence Township influence in Highway 61 corridor site plans, rail and highway development decisions.
- B. To develop, enhance and maintain Florence Township road and transportation network.
- C. To assure public safety concerns are met in highway design, expansion and improvement.

### **Strategies for Achieving Goals and Priorities**

1. Consult with state and county transportation agencies to assure accurate mapping and inventory of areas affected by Highway 61 corridor.
2. Consult with federal and state transportation agencies to assure Florence Township awareness of Highway 61 improvement, expansion and maintenance projects.
3. Consult with federal and state rail regulatory agencies to assure Florence Township awareness of rail improvement, expansion and maintenance projects.
4. Anticipate and mitigate potential impact on township residents and businesses of Highway 61 corridor highway and rail improvement, expansion, and maintenance projects.
5. Assure that site development along Highway 61 corridor is compatible with Florence Township comprehensive land use plan.
6. Discourage, deter, and prohibit site development along Highway 61 corridor that is incompatible with Florence Township comprehensive land use plan.
7. Discourage, deter, and prohibit development of any industrial facilities and activity along Highway 61 corridor, including manufacturing, processing, transportation and mining.
8. Develop and maintain township roads to provide adequate transportation for township residents, farmers, businesses and visitors.
9. Develop strategies for preventing excessive road damage to township roads.
10. Develop strategies for preventing excessive high volume, heavy truck traffic passing through Florence Township from other communities.
11. Maintain adequate township funding to provide adequate repair and maintenance of township roads, bridges, culverts and rights-of-way.

12. Mobilize resident and business support for road and transportation public safety.
13. Acquire or develop list of Highway 61 destinations to determine economic opportunities for local Florence Township businesses.

## **QUALITY OF LIFE AND RECREATION**

### **Goals and Priorities**

- A. To encourage, preserve and protect recreational assets and resources in Florence Township.
- B. To preserve and protect sensitive natural areas from excessive and destructive recreational use.
- C. To encourage and improve resident and business involvement in environmental review and permitting decisions affecting proposed site developments and expansions.
- D. To protect water quantity and water quality available to residents, farmers, businesses, visitors, and natural habitats.
- E. To protect the air quality environment of Florence Township.

### **Strategies for Achieving Goals and Priorities**

1. Support local businesses that make positive use of Florence Township natural and historic resources.
2. Promote and assure the development of communications infrastructure for township residents and businesses.
3. Promote recreational opportunities for residents and visitors.
4. Develop code of best practices to preserve and protect recreational assets and resources in Florence Township.
5. Consult with Frontenac State Park, Wells Creek Watershed Partnership, Soil and Water Conservation District, and other national, federal, state and local agencies to assure the protection of sensitive natural areas in Florence Township.
6. Develop township government processes and education to assure and improve resident and business involvement in environmental review and permitting decisions affecting proposed site developments.

## **RESIDENTIAL DEVELOPMENT**

### **Goals and Priorities**

- A. To ensure that new residential developments are coordinated and compatible with existing township transportation corridors and road infrastructure.
- B. To assure the priorities of residential land use over industrial land use.
- C. To encourage and maintain residential population diversity of age, income and ethnic background with varying price ranges of housing stock.
- D. To coordinate residential service infrastructure development with housing development.
- E. To preserve sensitive natural areas, open spaces, parks and agricultural areas free of excessive residential development.
- F. To preserve natural drainage systems and landforms.
- G. To preserve dark skies through control of outdoor lighting.
- H. To maintain scenic vistas and visual beauty.

### **Strategies for Achieving Goals and Priorities**

1. Consult with Goodhue County agencies and neighboring communities to determine trends of proposed residential development.
2. Ensure that township planning commission develops adequate policies and ordinances to achieve township goals for residential development.
3. Review existing and proposed township ordinances to assure compliance and consistency with township comprehensive land use plan.
4. Provide continuous discussion with residents and businesses on issues of township quality of life and residential development.
5. Understand and properly enforce guidelines of decisions for requests for variances and conditional use permits.
6. Assure adequate residential service infrastructure, including water drainage and road infrastructure.
7. Provide education on best practices for design, construction and operation of natural drainage systems.
8. Provide education to residents and businesses on light and noise pollution problems and solutions.
9. Design and propose adequate township ordinances and regulations to prevent light and noise pollution problems.

## **Chapter 5 Implementation of Land Use Goals, Priorities and Strategies**

Florence Township residents, planning commission and board of supervisors recognize that the land use goals, priorities and strategies identified throughout Chapter 4 are policy statements and must be implemented in order to achieve the desired outcomes. Florence Township residents, planning commission and board of supervisors intend to implement these policy statements as follows:

- A. Maintain and support the Township Board, Planning Commission, Park Commission, Heritage Commission, and other appointed commissions and committees to study, monitor and oversee various projects, including parks and open spaces, heritage preservation, Old Frontenac, and other Historic District land use areas.
- B. Provide sufficient township funding to adequately study, monitor and oversee key land use goals and priorities.
- C. Develop, enact and enforce adequate township ordinances to implement key land use goals and priorities.
- D. Provide adequate education to township residents regarding key land use goals and priorities.
- E. Consult and coordinate with staff and elected officials of Goodhue County, Goodhue County Soil & Water Conservation District, Minnesota Department of Natural Resources, Minnesota Department of Agriculture, Minnesota Pollution Control Agency, US Army Corps of Engineers, National Park Service, agencies, national and otherwise, and other townships regarding land use issues, projects and concerns that affect key land use goals and priorities.
- F. Survey and consult with township residents about ways in which key land use goals and priorities can be implemented and improved.
- G. Seek and obtain grants and funding from government agencies, foundations and non-profit organizations for township projects relevant to key land use goals and priorities.

## Appendix 1

*Land Use Suitability Analysis for Florence Township, Goodhue County, southeast Minnesota, U.S.A, by Beth J. Knudsen (Minnesota Department of Natural Resources)*

# **Land Use Suitability Analysis for Florence Township, Goodhue County, southeast Minnesota, U.S.A.**

Beth J. Knudsen <sup>1,2</sup>

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*Keywords:* GIS, Suitability Analysis, Land Use Planning, Goodhue County, Green Infrastructure, Map Algebra

## **Abstract**

Florence Township is situated 90 miles south of the Minneapolis/St. Paul metropolitan area and is bordered on the east by the Mississippi River. Its steep topography and vegetative cover are typical of the southeast Minnesota bluffland landscape. Its desirable location and scenic appeal have led to increasing rates of housing development, higher traffic levels and changing demographics.

Florence Township developed a comprehensive plan in 2003 using natural resource based planning principals. Using ESRI ArcView and Spatial Analyst, suitability analyses were performed based on the goals of the plan. Locations most suitable for continued agricultural use, natural resource protection and development were determined. Most agricultural lands were found to be well suited to continued production if Best Management Practices are implemented to protect resources. Corridors of sensitive natural resource features were found on and adjacent to the bluff slopes and streams. Areas of less sensitivity were found along the MN Highway 61 and near the existing communities of Lake City and Frontenac.

The development of new land use tools for long term protection of agricultural and natural resource areas will be necessary if Florence Township is to meet its goals. Targeting appropriately designed housing development to less sensitive areas close to existing infrastructure would further enhance the economic, cultural and recreational resources of Florence Township.

## **Introduction**

Florence Township is located in the northeast corner of Goodhue County, Minnesota. It is situated between Red Wing and Lake City and is bordered by Lake Pepin (Figure 1). Its steep topography includes the wooded hillsides, rock outcroppings, surface water and ground water features that are typical of the southeast Minnesota bluffland landscape.

Florence Township lies adjacent to a growth corridor of expanding

development that extends from north of St. Cloud to Rochester. This corridor has experienced most of the population growth that has occurred in Minnesota over the past decade. From 1990-2000, Goodhue County experienced a growth rate of 8%. However, the predicted growth rate for Goodhue County for the period of 2000-2030 is 41% (1000 Friends of Minnesota, 2004).

In Florence Township, the growth rate was 21% from 1990-2000. Several other townships within Goodhue County also experienced high rates of



Figure 1. Florence Township is located in Goodhue County, Southeast Minnesota.

growth (Table 1). The townships experiencing the highest growth rates are adjacent to major transportation corridors. In Goodhue County, these are State Hwy 52 and State Hwy 61. State Hwy 52 is currently undergoing a large expansion project to 6 lanes that will potentially impact population distribution and demographics in the region.

A Corridor Management Study examining options for expanding State Hwy 61 was completed by the Minnesota Department of Transportation (MNDOT) in 2003. The findings of the study generated considerable discussion within local communities. Concern about these types of large-scale decisions and the impact they have at the local level lead to increased interest in comprehensive planning by area townships and counties.

During 2003, Florence Township developed a comprehensive plan in

Table 1. US Census data for Goodhue County showing rate of growth by township.

Township	2000	1990	change
Belle Creek	437	403	8.40%
Belvidere	458	477	-4.00%
Cannon Falls	1236	1369	-9.70%
Cherry Grove	430	396	8.60%
Featherstone	785	811	-3.20%
<b>Florence</b>	<b>1450</b>	<b>1196</b>	<b>21.20%</b>
Goodhue	530	536	-1.10%
<b>Hay Creek</b>	<b>862</b>	<b>690</b>	<b>24.90%</b>
Holden	457	445	2.70%
Kenyon	437	420	4.00%
Leon	942	916	2.80%
Minneola	657	614	7.00%
Pine Island	628	673	-6.70%
<b>Roscoe</b>	<b>784</b>	<b>662</b>	<b>18.40%</b>
<b>Stanton</b>	<b>1080</b>	<b>838</b>	<b>28.90%</b>
Vasa	872	889	-1.90%
Wacouta	410	398	3.00%
Wanamingo	504	472	6.80%
Warsaw	603	574	5.10%
Welch	697	678	2.80%
Zumbrota	591	609	-3.00%

conjunction with Goodhue County's comprehensive planning process. Throughout the process, Florence Township experienced excellent public participation. They developed a well-supported plan using natural resource based planning principals. Facilitated discussions led to the creation of a vision statement for the community. The vision states that the township will "proactively develop, preserve and maintain a community that sustains its historic integrity, rural character and natural and recreational resources" (Toren and Toren, 2003).

The township formed a Land Use Committee (LUC) to implement the goals of the new comprehensive plan. The committee began meeting monthly in May of 2004. The committee identified protection of the natural resource base, preservation of scenic and cultural resources, and sustainability of the rural agricultural community as important priorities.

To accomplish these objectives, the township wanted to use GIS technology to identify the location of its high quality natural resource features, its important community features, and its agricultural working lands. Identifying locations for additional development would be a secondary outcome.

Before GIS analysis could begin, an understanding of the natural resource based planning principles used to create the Florence Township Comprehensive Plan was necessary. As defined by the Minnesota Department of Natural Resources (2004), natural resource based planning is a process that puts the community's natural resources at the forefront. By identifying natural resources at the beginning of the planning process, the community can determine where development is most

appropriate. This way, communities avoid the unintended consequences of the typical planning process where open space becomes the leftover pieces, water resources are degraded, and the character of the community is compromised.

The concept of green infrastructure is central to all natural resource based planning. Green infrastructure was defined by the President's Council on Sustainable Development - Metropolitan and Rural Strategies Task Force, 1999 as "the network of open space, airsheds, watersheds, woodlands, wildlife habitat, parks and other natural areas, which may provide vital services that sustain life and enrich the quality of life".

By emphasizing the importance of green infrastructure during the planning process, the likelihood that these systems will be valued and protected is greatly increased. (Minnesota DNR, 2004). There are also financial incentives for maintaining intact green infrastructure systems. The natural resources themselves are needed for economic development. Also, the free services being provided by functioning natural systems are often not recognized until they are disrupted. At that point, they must be replaced by human built interventions. An example of this would be the natural systems that processes and maintain clean water. If the water supply becomes contaminated, it costs society money to build water treatment plants that replicate the process nature had provided for free.

Florence Township residents have embraced the idea that their long-term quality of life will depend on valuing and protecting natural systems. The concept of protecting green infrastructure is central to their planning efforts.



## Methods

The use of GIS to support land use planning is a common application of GIS technology. A map-based product designed to reflect the desires of the community increases the likelihood that suggested zoning changes and land use policies will be adopted. Realizing that citizen acceptance of proposed changes is required for effective implementation, GIS can be used to incorporate citizen input and to prioritize issues. All analysis for Florence Township was a direct result of public input. The LUC was held accountable by the broader community to ensure that the criteria and priorities they developed reflected the goals from the comprehensive planning process.

To facilitate the process of setting criteria and designing new land use policies, a technical assistance grant from the non-profit organization 1000 Friends of Minnesota was obtained. They provided meeting facilitators to help develop protection criteria based on the goals stated in the Comprehensive Plan.

Although several natural resource categories emerged, the LUC chose to combine the criteria into three main areas of concern to be used in the GIS suitability analysis. These areas were:

Agricultural Use Protection  
Natural Resource Connectivity  
Water Resource Protection

The criteria for the analysis of each area of concern were developed during facilitated small group discussion. These individual groups shared their suggestions with the larger committee and the following criteria were accepted:

### Agricultural Use Protection

- Crop Equivalency Ratings (CER) of 60 and above
- Crop Equivalency Ratings (CER) of 80 or above
- Crop Land Units currently being tilled
- Crop Land Units farmed by the owner (not rented)
- Land currently zoned A-1 Ag Protection
- Parcels with registered feedlots
- Parcels with a speciality ag enterprise

### Natural Resource Connectivity

- Natural Areas inventoried in Goodhue County (“significant natural areas within the study area” (Bockenstedt, 2001)
- 250 foot buffer of surface water
- 250 foot buffer of steep slopes (30% grade or greater)
- Land in public ownership or permanent conservation easement
- Land identified as having significant biodiversity by the MN DNR County Biological Survey

### Water Resource Protection

- St. Lawrence Edge geologic formation
- 200 foot buffer of surface water features
- 500 foot buffer of steep slopes (30% grade or greater)
- 500 foot buffer of karst features such as springs and sinkholes
- 100 and 500 year Floodplain
- Wetlands in the National Wetland Inventory

These criteria are also shown in the Figure 2 flow chart.

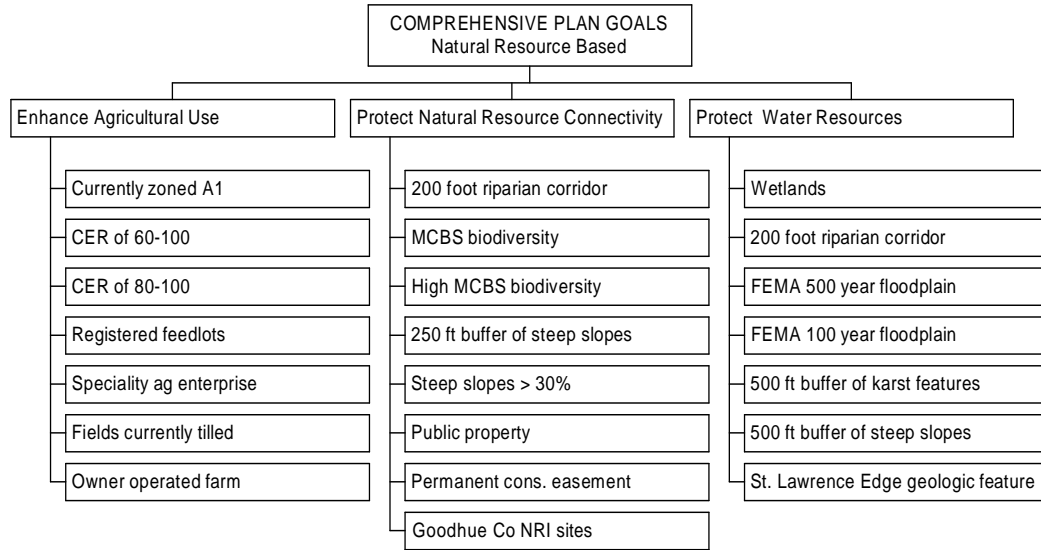


Figure 2. Flow chart of comprehensive plan goals, areas of concern and selected criteria.

**Data Selection and Acquisition**

Table 2 shows the data necessary for the analysis, the source of the data and a brief description of data processing steps. The data were obtained from four different sources. These were the Minnesota DNR, University of Minnesota, Goodhue County GIS Department and the Goodhue County Conservation Office, which includes the Farm Services Agency (FSA), Soil and Water Conservation District (SWCD) and Natural Resources Conservation Service (NRCS). Data from Goodhue County was re-projected using ArcMap projection tools from the county coordinate system to NAD 83, Zone 15.

Of special interest to this community was information from the Goodhue County Geologic Atlas. This information was presented to the townships in 2003 and had raised the level of awareness and concern

regarding their groundwater resource. Of particular concern was the Sensitivity to Groundwater Pollution plate presented in the Geologic Atlas (Figure 3). Florence Township was found to be highly or very highly susceptible to groundwater pollution from contaminants. Infiltration times for surface contaminants to reach the groundwater were estimated as quickly as within hours.

However, sensitivity to groundwater pollution was not selected as a suitability criteria. Because it is a pervasive concern throughout the township, it would simply raise all scores by an equivalent amount rather than helping to differentiate one site from another. Instead, the community decided to make this concern of paramount importance prior to any land use decision. The possibility of groundwater contamination from a land use activity must be addressed prior

Table 2. Data used for suitability analysis relates back to the Comprehensive Plan goals. Each criteria also has a score given by participants.

Comprehensive Plan Goals	Information Need:	Data:	Source:	Data Preparation Steps:	Criteria Score:
<b>Agricultural Preservation:</b>					
Support agriculture as a lifestyle / Develop an agricultural inventory	Location of currently tilled lands	Crop Land Unit (CLU) by farm	FSA <sup>1</sup>	Committee identified each field as tilled or not.	Tilled = 1
	Location of parcels with registered feedlots	Parcels data, feedlots inventory	Goodhue Co GIS SWCD	Select parcels with registered feedlots	Feedlot=1
	Location of Ag (A1) Zoning	Zoning Map	Goodhue Co GIS	Selected sections zoned A1.	A1 = 1
	Location of owner operated farms (rather than rented)	CLU data	FSA	Township residents identified each ag field that was owner-operated	Owner Operated = 1
Encourage small scale agri-business	Location of speciality ag enterprises	Parcels data	Goodhue Co GIS	Speciality ag identified, parcels selected	Speciality Ag = 1
Protect highly productive soils	Location of soil type and CER rating	SURSGO soils data CER rating	U of MN SWCD	Edit attributes to add CER according to soil type to SURSGO data	CER 60-80 = 1 CER >80 = 2
<b>Natural Resource Connectivity:</b>					
Discourage fragmentation of existing natural resource areas	Location of high value natural resource lands	MCBS Biodiversity Ranking	MN DNR	Selected land having biodiversity significance within the township	Biodiv = 1 High biodiv =2
	Location of natural communities on private land	Goodhue Co Nat Resource Inventory	Goodhue Co GIS	Selected private land inventoried for its natural resource value	Inventory lands = 1
	Location of public land and permanent easements	Parcels data	Goodhue Co GIS	Selected parcels owned by public, parcels with conservation easements	Public land = 1 Conservation Easement = 1
Preserve natural drainage systems and landforms (blufftops)	Location of bluffs	Steep Slopes (greater than 30%)	Goodhue Co GIS	County provided shapefile of 30 % slopes derived from 2ft LIDAR data.	Steep Slopes = 1
	Buffer steep slopes	250 foot buffer of steep slopes	Created	Created buffer of 30% slope shapefile (above)	Buffer Steep Slopes = 1
	Location and buffer of streams, lakes and wetlands	200 foot riparian buffer	MN DNR	Added intermittent stream in NE corner of township	Riparian Buf= 1
<b>Water Resource Protection:</b>					
Preserve natural areas, wetland areas and watersheds	Location of protected wetlands	NWI	MN DNR	NWI selected wetland types 2-4 and 6-8.	Wetlands = 1
	Location of surface water features	200 ft riparian buffer	MN DNR	200 foot riparian buffer selected for the township	Riparian buffer = 1
	Location of FEMA floodplain	FEMA Floodplain	MN DNR	Selected 100 and 500 year floodplains	100 yr fp = 2 500 yr fp = 1
Protect quality of surface water and ground water	Location of bluffs	500 Foot buffer of steep slopes	Goodhue Co GIS	Created 500 foot buffer of 30% slope shapefile	Buffer of steep slopes = 1
	Location of karst features	Known springs and sinkholes	MN DNR	Created 500 ft buffer of karst features	Karst = 1
	Location of St Lawrence edge	St. Lawrence Edge geology	MN DNR GW Unit	Selected the occurrences of this geologic feature in Florence Township	St Lawr edge = 1

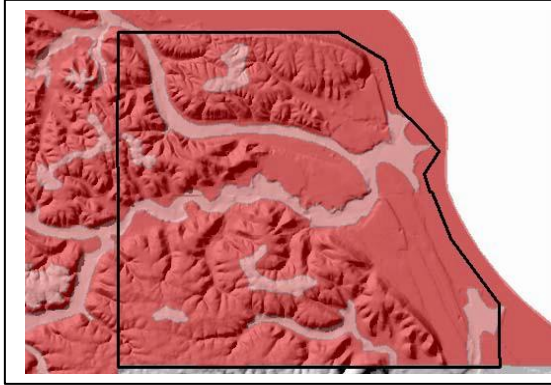


Figure 3. All of Florence township is highly susceptible (light red) or very highly susceptible (dark red) to ground water contamination.

to any consideration for allowing that activity.

Discussions regarding appropriate responses to this high level of susceptibility to pollution are continuing. Goodhue County Public Health, MN Pollution Control Agency and MN Department Natural Resources will provide a framework for deciding on appropriate density and design for septic treatment systems, location of impervious surfaces and stormwater management in response to the sensitivity of the area.

A second emerging issue in groundwater protection is also related to the unique geology in this area. Land use activities near the St. Lawrence-Franconia formation have been identified as a potential concern by Jeff Green, MN DNR Groundwater Hydrologist. Green (2005) stated that the St. Lawrence-Franconia formations are layers of shale, siltstone and limestone that underlie the Prairie du Chien and Jordan formations. The St. Lawrence-Franconia can be found one to twenty feet below the land surface at the base of the wooded hillsides in the Mississippi River valley. Water from aquifers and runoff moves down the hillsides and discharges as springs from

the St. Lawrence-Franconia confining layer.

This St. Lawrence Edge is an emerging issue with potential concerns about groundwater recharge, water contamination, bluff stability, and cold water for trout streams. This edge may also serve to remove nitrates as the Decorah Edge formation has been found to do when studied in Olmsted County.

Groundwater recharge can be impacted by surface activities such as heavy equipment use for road construction and housing development. Clearing of the forests can alter the natural hydrology of the hillslope, changing groundwater recharge and discharge patterns. Homes built on top of the shale and siltstone units of the St. Lawrence Edge may experience wet and flooding basements.

Due to these concerns, the location of the St Lawrence-Franconia edge formation was included as a Water Resource Protection criteria. A 500 foot buffer at the top and toe of all bluff slopes greater than 30% was used as an additional criteria to reflect the importance of this area for groundwater recharge.

### ***Data Processing***

Much of the data required preprocessing and editing in order to extract the necessary information. The most effort was required to work with Cropping Land Use (CLU) data. This data was obtained from the Goodhue County FSA office and is a digital layer of all registered farm fields in Goodhue County. Each farm consists of several farm fields. An air photo showing the field boundaries was used by members of the LUC to identify ownership, rental agreements, farming practices and

Conservation Reserve Program (CRP) contracts for each field. This information was added to the attribute table to enable the selection of land currently being tilled and land that was farmed by the owner. The creation of this data merged local knowledge with existing information to allow a detailed look at the state of agriculture in Florence Township. In addition to use for this project, the data will be used for tracking changes in agriculture over time.

After the preprocessing for all the layers was complete, the features of interest were extracted from the original data and new shapefiles were created. As an example, the Goodhue County parcels layer was used to find land in public ownership. This is a large data set covering all of Goodhue County. An area of interest (AOI) polygon was created for Florence Township and the adjacent Mississippi River. The parcels that were within Florence Township were selected using the AOI polygon. Geoprocessing tools were used to clip the parcels data to the AOI. The attribute table was used to select parcels

with a public entity listed as the landowner name. These selected parcels were saved as a new shapefile.

At this point, the vector theme was converted to raster data (Figure 4). All raster data were created using a 30 meter cell size and the Florence Township Area of Interest polygon as an analysis mask. In this case, each cell was given a value of “1” based on the presence of the feature of interest. The no data cells within the AOI were reclassified to a value of “0”. The assigned values for all the data can be viewed in table 2.

The next step was to combine all of the criteria grids within each area of concern. It was particularly important that the methods used to create the suitability grids were understandable and transparent to the members of the public and the local township government. They must reflect the local knowledge about the area as well as tie directly back to the goals and objectives expressed in the Florence Township Comprehensive Plan. Additionally, the GIS analysis must incorporate the qualitative input as well as the quantitative.

As described by Mendoza (1998), Analytical Hierarchy Protocol (AHP) is appropriate for this type of analysis. The formula for AHP can be summarized as

$$S = \sum_{j=1}^n c_j x_j$$

Each parameter ( $x_j$ ) is associated with a scale factor ( $c_j$ ) that represents the relative importance or degree of influence of that parameter to the overall measure of site suitability. For example,

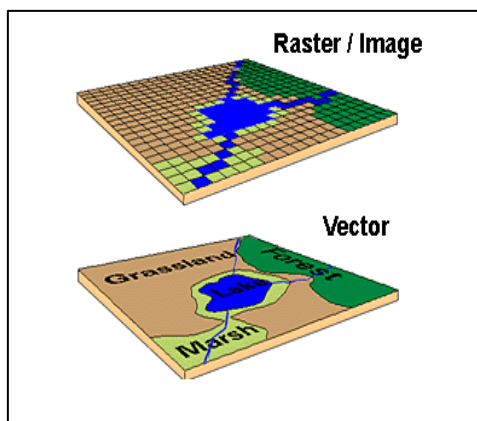


Figure 4. Vector data was converted to 30 meter grid raster data

when calculating agricultural suitability, the parameter selected to represent highly productive soils was the Crop Equivalency Rating (CER) of each soil type. A CER of 60-80 were given a scale factor of 1. Soils with a rating of 80-100 were given a scale factor of 2. These scale factors were multiplied by the value in each cell. The original values in the cells were either “1” for the

presence of valuable soils or “0” if valuable soils were not present. After applying the scale factor, the grid cells held values of 0, 1 and 2.

A summation of the values for every grid cell was then calculated. This produced a grid with values from 0 to 6, from least suitable to most suitable for agricultural protection shown in figure 5. This method was applied to the other

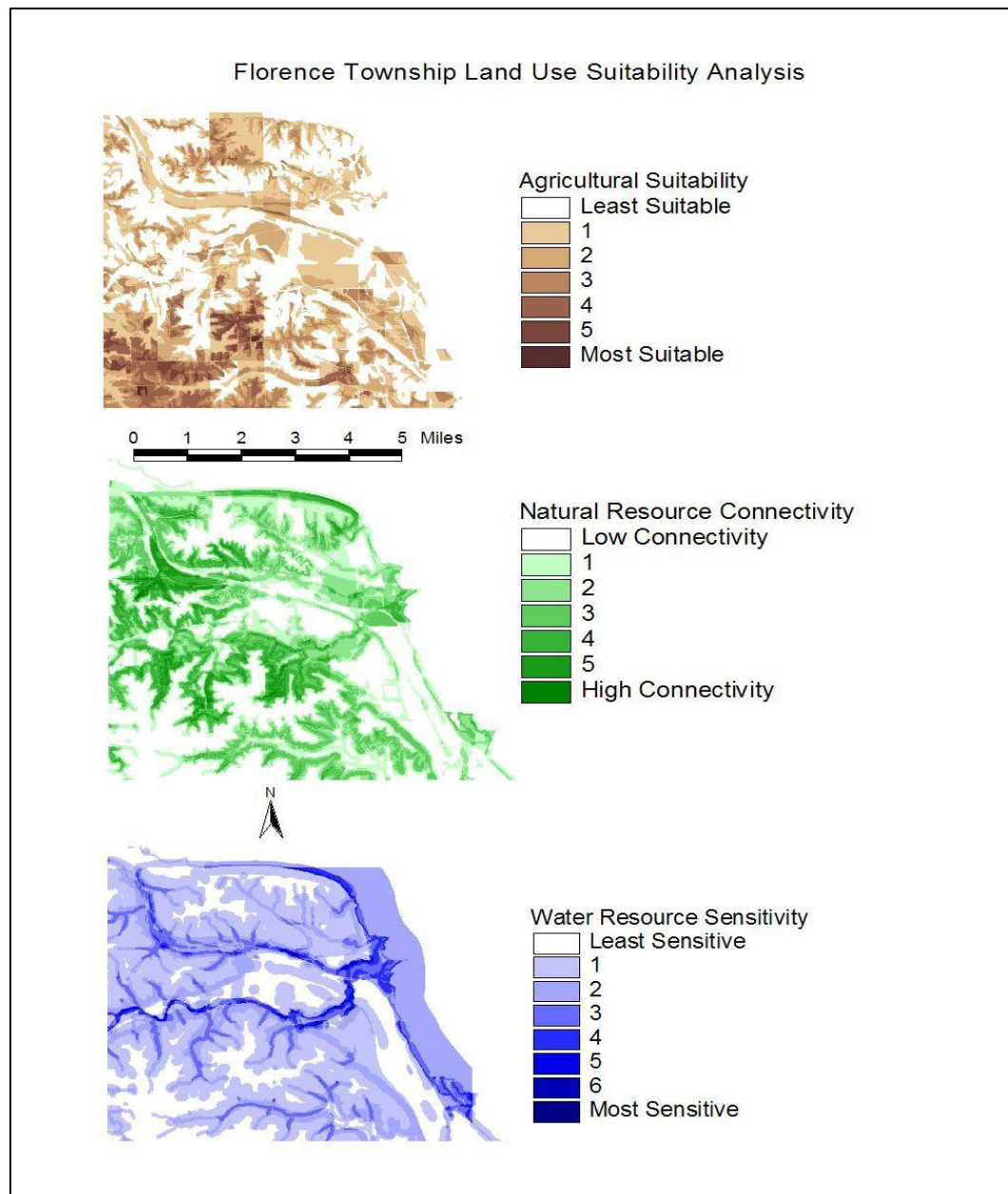


Figure 5. Three suitability grids were developed for Florence Township



remaining data to produce two more suitability grids.

Mendoza (1998) noted that AHP is more transparent and hence more likely to be accepted especially when the suitability analysis will ultimately serve as a basis for land allocation. It allows for the participation of both experts and stakeholders in providing the suitability measure of a site relative to a proposed land use.

AHP was applied to all the criteria compiled in each suitability analysis completed for Florence Township. The relative weights of each factor reflect the input from the CAC and LUC. This relatively simple method will provide the transparency needed for model acceptance by the local community.

**Composite Grid**

The final land use map for Florence Township incorporated a compilation of the suitability grids. Methods for creating a composite grid from multiple

suitability analyses are varied. Roldan (2002) describes a method for developing a cumulative grid without ambiguous values. Rather than generate one accumulated value, an offset is introduced via map algebra prior to combining the grids. This allows the analyst to harvest additional information by creating a scale of cell values that can be added together without generating ambiguous values. In this case, the agricultural suitability values were carried forward without an offset. The Water Resource values were multiplied by a factor of 10 and the Natural Resource values were multiplied by a factor of 100 as shown in Figure 6.

The offset values were created using the following expression in the map calculator:  

$$([AgFinal] + ([Wr\_final] * 10) + ([Nr\_final]*100))$$

The resulting weighted composite grid retains the values from all three input suitability analyses (Figure 7).

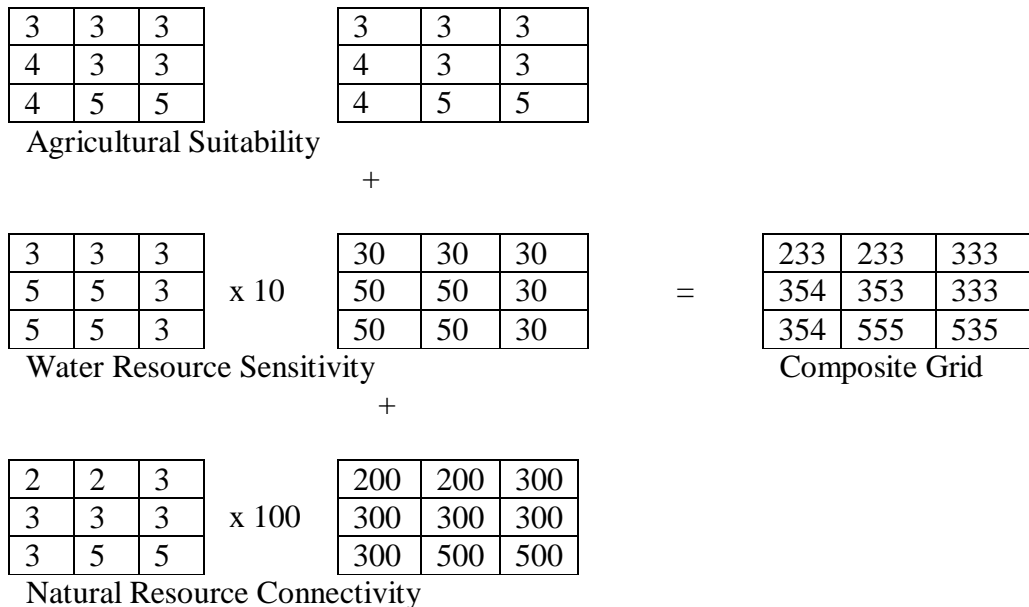


Figure 6. An offset value was used to generate cell values that reflect all three input grids.

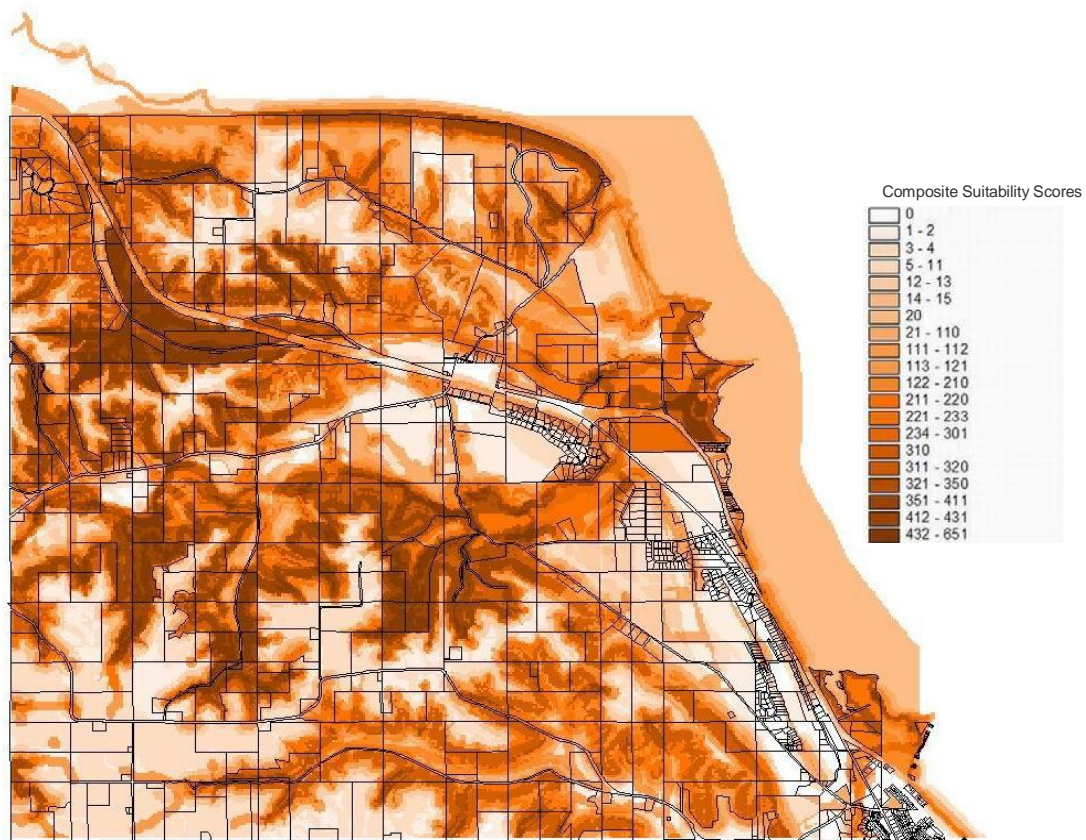


Figure 7. The suitability analyses were combined into a single composite grid.

This composite grid was converted to a shapefile. The DNR Tool Box was used to add area, acres and perimeter to the attribute table. As a final step, the composite shapefile was intersected with the parcels data which added the attributes from the composite grid to the parcels data. However, this resulted in multiple records for each grid value within a parcel (Figure 8). The resulting display is complicated on the township scale, but provides interesting detail on an individual parcel level.

Geoprocessing tools were then used to dissolve the results to the parcel boundary. The average score from each of the three input grids was attached to the parcel. A sum of all the average suitability scores was also generated for each parcel. A legend was created for each of the average value grids and

reclassified using a consistent scale. An example of the results showing the sum of the average suitability scores for each parcel is shown in Figure 9.

The township will have the opportunity to use both the averaged values and the composite grid. Both methods give valuable information and the level of detail needed will be determined by the situation.

## Results and Discussion

The acreage and percent of the most sensitive lands relative to the entire township are shown Table 3. Those lands in each of the three suitability grids that met four or more of the criteria were selected and quantified. A total of all land that met four or more criteria is shown as well.



Figure 8. The composite shapefile was intersected with the parcels layer resulting in multiple values for each parcel. Detail shows the composite values for one parcel.

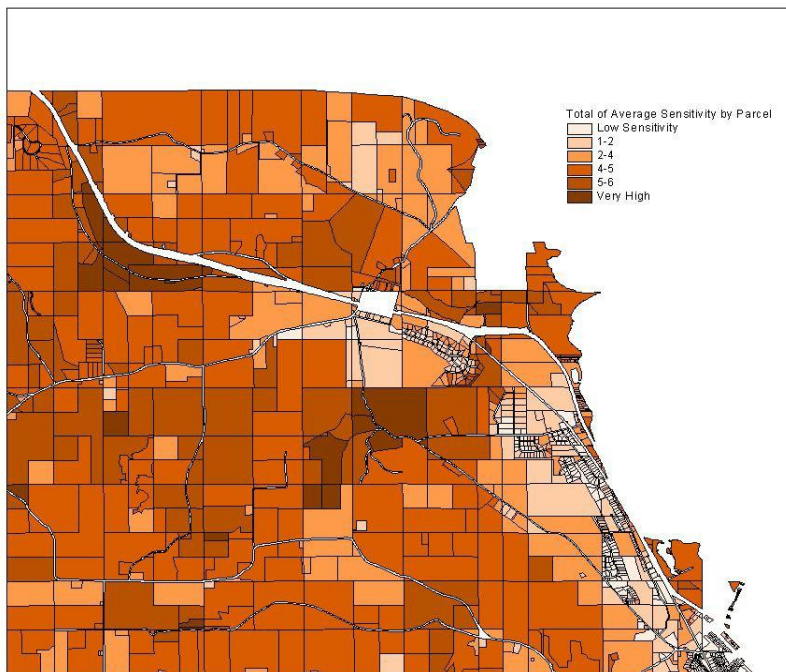


Figure 9. The multiple values shown above were dissolved to the parcel boundary to create an average sensitivity value.



Table 3. Nearly one fourth of the land in the township meets four or more sensitivity criteria

	Natural Resource Connectivity	Water Resource Sensitivity	Agricultural Suitability	Total land meeting 4 or more criteria
Acres	3012	957	1450	5213
Percent of total land base	13%	4%	6%	23%

The location of these lands reveals that the most sensitive lands in the three different grids have very little overlap. In other words, the majority of those lands that are sensitive because of their natural resource connectivity are not the same lands that are found to be most necessary for water resource protection or most suitable for agricultural use.

The few locations where lands were found to be highly sensitive for both water resource protection and natural resource connectivity are shown in red in Figure 10. From a management

perspective, it is interesting to note that the majority of this land is already in public ownership. The lands that are not public are found in the riparian area adjacent to Wells Creek. These results suggest that the identified riparian lands could be prioritized for enrollment in a land protection program such as the Conservation Reserve Program (CRP).

In addition to quantifying the most sensitive locations, locating areas of less sensitivity was also important. Found primarily along the Hwy 61 corridor, this less sensitive area will continue to receive much of the development pressure for the township. It will be important, however, to apply design standards that reflect the sensitivity of this area to groundwater pollution. This area is a sand terrace that has rapid infiltration rates. Septic system design will continue to drive decisions regarding appropriate densities at this location.

As a final step, Florence Township intends to apply the suitability analyses to new land use decision-making processes. They are developing a checklist of requirements for land use proposals based on whether a project falls within an area identified as sensitive.

Additionally, they are considering developing a Purchase of Development Rights (PDR) or Transfer

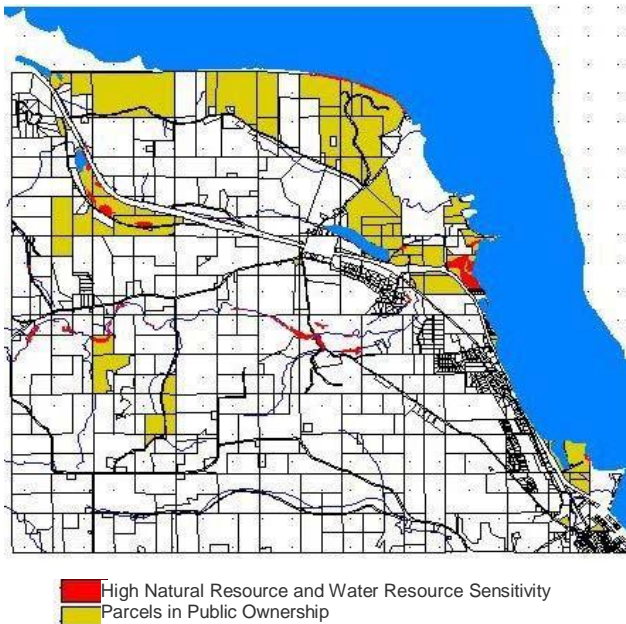


Figure 10. Some of the most sensitive natural resource lands are in public ownership. Much of the privately owned sensitive lands are found in riparian areas.

of Development Rights (TDR) program. This type of program removes the right to develop on lands that would benefit from higher levels of protection and transfers those rights to areas appropriate for development. "TDR can be thought of as a way of encouraging the reduction or elimination of development in areas that a community wants to save and the increase in development in areas that a community wants to grow.... The areas that a community wants to save are designated as 'sending areas' and the locations the community wants to grow are designated as 'receiving areas'" (Preutz, 2003). This analysis of sensitivity can be used as a tool to rank both sending and receiving areas based on the township's highest priorities for resource protection.

## **Conclusion**

In Florence Township, there are a number of possible outcomes based on this GIS analysis. It may be used to identify sending and receiving areas for a TDR or PDR program. It may also be used to support site-specific development decisions.

Other possible outcomes include a designated urban growth area near existing infrastructure adjacent to Lake City and Highway 61. A conservation overlay district may be considered to provide additional protection for lands meeting multiple sensitivity criteria. Much of this land is currently zoned for agricultural protection as A1 and A2.

Additionally, the township may develop a data sharing and maintenance agreement with Goodhue County GIS department in order to fully utilize the large amount of GIS data they have acquired.

Regardless of the implementation steps that are eventually taken, Florence Township will have access to better information about the landscape features they are charged with protecting. A well-informed governing body can better serve the needs of the community and can lead Florence Township toward the vision expressed in their comprehensive plan.

Additionally, with the high rate of projected growth for Goodhue County and the surrounding area, other communities in this landscape could benefit from similar analysis. Although this particular project relied heavily on the use of advanced GIS technology, there may be other options for visualizing the same data in a less technology dependent method. Static map products showing the location of important community features, existing infrastructure, current growth patterns, existing land use and natural resource features could be easily prepared by most County or State agencies. High quality aerial photography is also becoming easily available and can be used to readily identify features and create new data layers of sufficient quality for planning purposes.

As more communities see implementation of innovative land use protection as necessary to meet their planning goals, the need to carefully document the decision making process may give way to a more streamlined approach. Regional agreement and acceptance of important parameters for natural resource protection could lead to more consistent implementation of land use regulations. While public participation and acceptance is paramount, re-creating the wheel at each new location is not. Particularly within the blufflands landscape with its well-

defined topographic features, there is a consistency of similar issues and goals. Addressing these recognized resource issues would lend itself to expansion of this work throughout the region. Perhaps presence or absence of a few key parameters could be built into a region-wide sensitive lands overlay. This would in turn be used to encourage adoption of consistent land use policies for the benefit of communities and their natural resource base. Effective land use management must acknowledge that the natural resources themselves do not end at political boundaries.

### **Acknowledgements**

I would like to thank Dr. David McConville, John Ebert, Jay Meehl and all the staff in the GIS Department at Saint Mary's University for their support during my studies. I would also like to thank Larry Gates for his vision of what the future might hold for special places like Florence Township.

Thanks also to Brian Schreiber and all the members of the Florence Township Planning Committee for their patience and support.

I want to acknowledge the support and sacrifice by my husband Scott and my children, Steve and Michelle in allowing me the time and energy needed to complete this endeavor. I could not have done it without you.

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## Appendix 2

*An Historical Timeline of the Frontenac Historic District*, by  
Florence Township Heritage Preservation Commission

# An Historical Time Line of the Frontenac Historic District



FRONTENAC  
FROM POINT NO POINT.  
Courtesy of C. M. & St. P. Ry.

A Publication of the  
Florence Township Heritage Preservation  
Commission

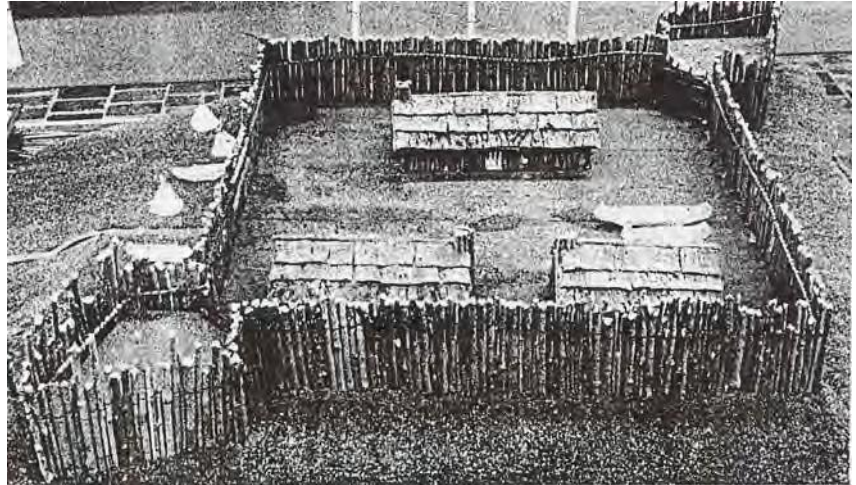


## ***Dates of Distinction***

Frontenac's evolution from the original European explorations to its modern day historic preservation is illustrated by the time stamps of its people, buildings, landscape, and events.



**Count Louis de Buade de Frontenac  
1620 -1698**

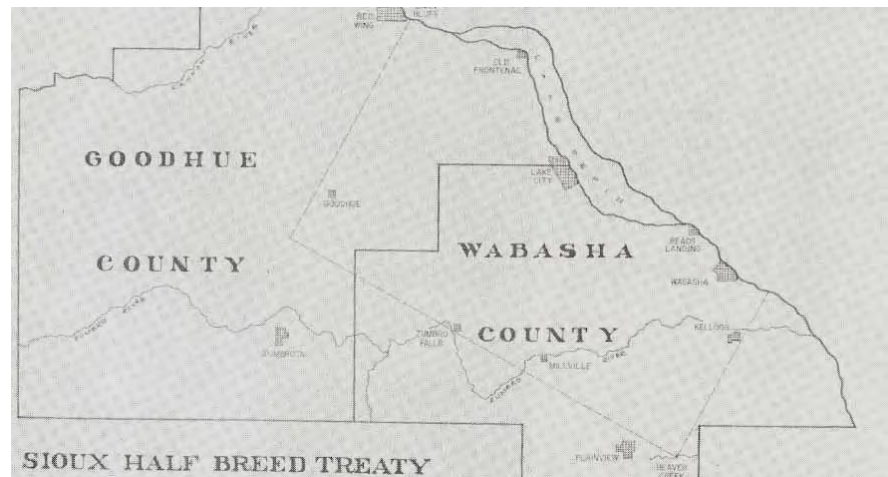


**Fort Beauharnois – 1727  
Model found in 1731 French Historical Documents**

- 1680.** Count Frontenac, Governor of New France (headquartered in Montreal, then called Villa Maria) sponsors European explorers such as LeSueur, Hennepin, and Pepin to the area.
- 1727.** The French construct Fort Beauharnois near the present site of Villa Maria to protect their fur trading interests in the area. The fort, named after Marquis de Beauharnois, then Governor of New France, contained the Chapel of St. Michael, the first Christian church in the area.

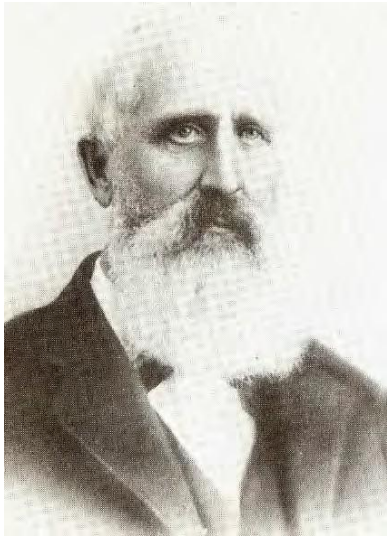


**James Wells  
1804 – 1863**



**Sioux Half Breed Land Act Map  
Rectangular Plat with Lake Pepin on the NE Boundary**

- 1837.** James (Bully) Wells and his wife Jane establish a fur trading post at the future site of Frontenac, then called Western Landing (called Waconia by the Native Americans). Wells and Alexander Faribault, territorial legislators that married Native American mixed race sisters (Jane and Elizabeth Graham), were granted the land that is now Frontenac through their wives by the Half Breed Land Act. Jane and Elizabeth Graham were the daughters of fur trader Duncan Graham and Hazahatwin, daughter of a Dakota chief. Wells later moved to Wells Township, Rice County, MN, which is near Faribault, MN, a city founded by Alexander Faribault. Wells was killed during the Sioux Uprising in 1863.



**Evert Westervelt**  
1813-1888



**Locust Lodge**  
Garrard Avenue between Wells Street & Graham Street

- 1852.** Evert Westervelt buys land from Wells and establishes a general store at Western Landing.
- 1854.** Evert Westervelt starts construction of Locust Lodge, his home on the plateau above Valhalla Terrace (Garrard Avenue between Wells and Graham Streets).
- 1854.** Frontenac stone quarry is established on the southeast slope of Point-No-Point. This unique limestone provided the foundations for many homes in Frontenac and was exported by river steamboats for structures such as the Cathedral of St. John the Divine in New York City.



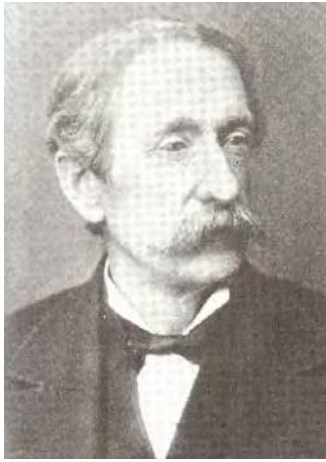
**Israel Garrard**  
1827-1901



**St. Hubert's Lodge**  
Garrard Avenue between McLean Street and Wells Street

- 1854.** Israel and Lewis Garrard of Cincinnati, OH visit Western Landing on a hunting trip in the Mississippi River Valley and decide to establish a hunting retreat.
- 1855.** Israel Garrard starts construction of St. Hubert's Lodge, his family hunting retreat, on Garrard Avenue between McLean and Wells Streets. German and Swiss craftsmen from the Huneke, Steffenhagen, Bremer, Koch, Haller, and Schneider families migrate to the area.
- 1856.** A warehouse (later converted to the Lakeside Hotel) and a store (later converted to the Pavilion) are built on Frontenac Point to support river commerce and resident provisions.
- 1856.** Evert Westervelt named the first Postmaster of Westervelt, Minnesota Territory.
- 1857.** Westervelt and the Garrards purchase 4,000 acres from Wells and Faribault. They designate 320 acres for the town site of Westervelt.
- 1858.** State of Minnesota is established. Florence Township is established.





**Lewis Garrard**  
1829-1887



**Dacotah Cottage**  
Garrard Avenue between Dacotah and Burr Oak Streets

**1858.** Dacotah Cottage is built by Lewis Garrard on Garrard Avenue between Burr Oak and Dacotah Streets. Lewis, a physician, treated the new European inhabitants and the Native Americans in Little Dacotah, another building on his property. Lewis, as a young man in 1846, wrote "Wah-to-Yah and the Taos Trail", a western frontier adventure book that is still used in schools today. Lewis was the first mayor of Lake City, Minnesota.



**Frontenac Plat Map**  
1859



**Greystone (Grout House)**  
Garrard Avenue between Johnston & Barton

- 1859.** Village name was changed from Westervelt to Frontenac in honor of Count Frontenac. This begins a 20-year period in which the Garrards develop the village of Frontenac and the area thrives in fur trading, logging, limestone, and hospitality.
- 1859.** Greystone, the first grout house in the upper Midwest is built by Huntington for Alexander Faribault on Garrard Avenue between Johnston and Barton Streets. During the 1800's, the home was inhabited by Faribault, Nathaniel McLean, Lewis Garrard, and Sarah Bellah McLean and, since 1901, has been owned by the William Webster family.



**Haller (Carlson) Home**  
**Wood Avenue north of McLean Street**



**Haller Koch Store (Schneider Tavern)**  
**NW Corner of McLean Street and Wood Avenue**

**1860.** Engelbert Haller builds his home at the NE corner of McLean Street and Wood Avenue.

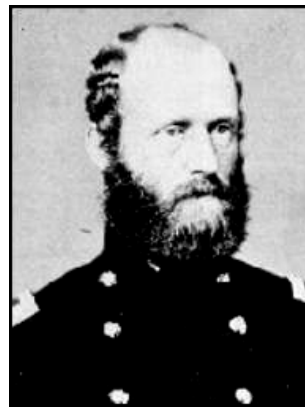
**1862.** Engelbert Haller and Kasper Koch purchase land on the NW corner of McLean Street and Wood Avenue to build a store and saloon business.



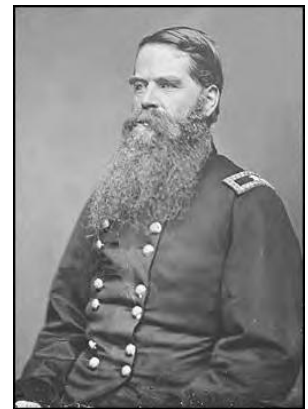
**Israel Garrard**  
**1822-1901**



**Jeptha Garrard**  
**1836 - 1915**



**Kenner Garrard**  
**1827 - 1879**



**Nathaniel McLean**  
**1815-1905**

**1865.** Israel, Jeptha, and Kenner Garrard and their step brother Nathaniel McLean return from the Civil War. The Union Army awarded Israel, Jeptha, and Nathaniel the rank of Brigadier General and Kenner, a West Point graduate, was a Major General. Israel served with the 7<sup>th</sup> Ohio Volunteer Cavalry and was on the Atlanta campaign with Sherman and at the battle of Nashville. After graduating from West Point in 1851, Kenner spent 10 years with the US Cavalry in the southwest territories and, during the Civil War, led troops at Gettysburg, Atlanta, and Nashville. Kenner, a career soldier, spent little time in Frontenac and died at the age of 52. Lewis Garrard remained in Frontenac during the Civil War due to his health and managed the family's Frontenac interests. The Garrard brothers are the grandsons of James Garrard, the 2<sup>nd</sup> Governor of Kentucky for which Garrard County Kentucky is named and the grandsons of Israel Ludlow, a surveyor who owned much of what is now Cincinnati, OH and for which Ludlow, Kentucky is named. Ludlow is in Florence County, Kentucky across the Ohio River from Cincinnati, OH.

**1866.** Haller/Koch store is sold to Jacob and Dorethea Schneider in 1866 who operated the business as the Schneider Tavern until 1887 (21 years).





**Lakeside Hotel – 1867**  
**28796 Lake Avenue Way**



**Pavilion (aka Assembly Hall)**  
**Formerly Directly West of Lakeside Hotel**

**1867.** The Lakeside Hotel was established by converting a 2-story warehouse on Frontenac Point to a 3-story hotel. It was the first resort hotel in the Upper Midwest and established Frontenac as a key resort area serving Mississippi River travelers.

**1867.** The Pavilion, a general store, was moved from a location north of the hotel to a site directly west of the hotel and was converted to a theater, bar, dance and billiard hall.



**Sarah Bellah Ludlow Garrard**  
**McLean**

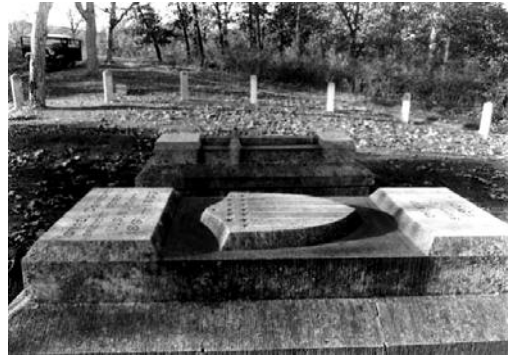


**Parsonage (aka Moccasin Inn)**  
**Sumner Street between ManyPenny and Wood Avenues**

**1867.** Sarah Bellah Garrard McLean, mother of Israel, Lewis, Kenner, and Jephtha Garrard moves to Frontenac and erects a Cambelite Church (later Church of Christ) and parsonage north of McLean Street between Manypenny and Wood Avenues. The church was destroyed by a lightning fire a few years later. The parsonage became the Moccasin Inn, a tea house, and is now a private home.



**Kate Wood Garrard**

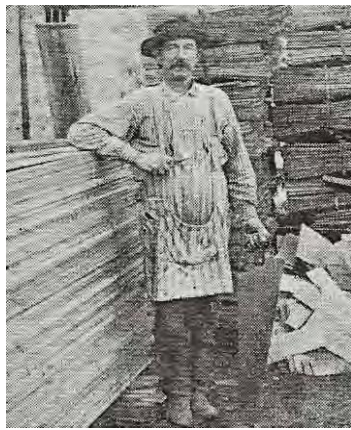


**Garrard Family Cemetery Site**

**1867.** Anna Steffenhagen, Kate Wood Garrard (wife of Israel Garrard), and her infant son are the first residents to be buried in the Florence Township cemetery (south of Green Street).



**Nathaniel McLean**



**Henry Huneke**



**Christ Episcopal Church**

**1868.** Christ Episcopal Church was consecrated at its present location on Westervelt Avenue and McLean Street. Nathaniel McLean, step brother to the Garrards, led the design and funded the construction of the church. Master craftsman Henry Huneke led the construction team.



**Lakeside Hotel - 1870**



**Hotel Cottages**

**1870.** Lakeside Hotel was enlarged by adding an 80 foot 2-story addition to its west end. The hotel complex was further expanded with the additions of Kittle House (Grapevine), Virginia Cottage, Pine Cottage, Poplar Cottage, and Fern Cottage. All were moved from various sites on the “village” level via Waconia Avenue using horses and logs.



**1871.** Garrard family donates land for a railroad right-of-way two miles to the west of Frontenac. This and a like donation by Wacouta land owners, routes the railroad and a future federal highway into an inner valley thus preserving Frontenac, Wacouta, and the adjoining blufflands.



**Winona Cottage**  
Garrard Avenue between Sumner and Faribault



**Winona Cottage Stone Wall**  
Mortar Less Construction

**1889.** Winona Cottage is built on Garrard Avenue between Faribault and Sumner Streets by Israel Garrard as a wedding present to his son George and wife Virginia. A mortar less stone wall is constructed by teams of Native Americans led by tribal elder Little John.



**Villa Maria Academy**  
South County Road #2 at Wells Creek



**Villa Maria Fire - 1969**

**1889.** Garrard family donates a tract of land to the Roman Catholic Ursuline Nuns for construction of Villa Maria Academy, a private religious oriented girls' boarding school. School Building (building with tall tower) was struck by lightning in 1969 and the school burned to the ground. The school was closed and has not reopened.

**1890.** A freak Lake Pepin storm sinks the Sea Wing, a boat and barge loaded with people, on July 13<sup>th</sup> one mile south of Frontenac. Ninety-eight (98) people, mostly from Red Wing and western Wisconsin towns, lost their lives. Some of the artifacts from this disaster washed up on the Frontenac shore.



**Frontenac Beach Bathers – 1890's**



**Frontenac Beach – 1920's**



**Steamer Pepin Unloading Passengers**



**Steamer Frontenac with Log Raft**

**1870-1939.** Frontenac is recognized world wide as an exclusive resort community. The Garrard family's vision for preserving the unique environment of Frontenac was realized as economic development occurred near the railroad at Frontenac Station, two (2) miles west of Frontenac.



**Frontenac Inn with Cottages - 1915**





**Celestine Schaller**

FRONTENAC INN

RATES

Rooms	- - -	75c
Breakfast or Supper	- - -	50c
Dinner	- - -	75c
Sunday Dinner	- - -	\$1.00
Per Day	- - -	\$2.50
Per Week, 1 person in room /2-		\$14 to \$16
Per Week, 2 persons in room, 1 bed, each		\$12 <sup>1/4</sup>
Per Week, 2 persons in room, 2 beds, each		\$14 <sup>1/6</sup>
(According to Location)		
Children under 6 years		\$8.00
Children under 10 years		\$9.00
Guests not staying out length of engagements, will pay regular rate.		
MISS CELESTINE M. SCHALLER, Manager FRONTENAC, MINNESOTA		

**Frontenac Inn Rate Card (Front)**

**FRONTENAC INN**  
A Beautiful Summer Resort on Lake Pepin

AMUSEMENTS  
Fishing, Boating, Croquet, Tennis and Dancing.

There is a large dancing pavilion in connection with the Inn. Good music.

The bathing beach is one of the finest in northwest. The rooms are airy, beds clean and comfortable. The table will be supplied with the best in market. The water is of the purest.

Long distance telephones.  
The Catholic and Episcopal churches are within easy walking distance.

Frontenac is on the main line of the C., M. & St. P. Ry., and can also be reached by Mississippi river boats.

An auto will meet all trains at Frontenac station. Auto and lunch parties will find this a delightful place to stop.

Modern toilet rooms have been added to the Inn. Electric lights have been installed in all of the buildings.

Guests should have all mail put in care of Frontenac Inn.

Direct all correspondence to  
MISS CELESTINE M. SCHALLER, Owner and Manager  
FRONTENAC, MINNESOTA

**Frontenac Inn Rate Card (Back)**

- 1907.** Celestine Schaller purchases the Lakeside Hotel property from the Garrard family and renames it the Frontenac Inn. It operated as a summer resort complex until 1937. The Inn was famous for its Sunday baked chicken dinners which served an average of 1,500 chicken dinners each season (May through September).
- 1912.** Frontenac limestone quarry closes.
- 1912 - 1922.** Waconia Avenue, the main street that connected Frontenac & Frontenac Station and connected Frontenac commerce to the Mississippi River "highway", becomes a deep gully and changes the future growth pattern of Frontenac. Wagon wheel ruts deepened by years of travel with quarry limestone and logs and further enlarged by heavy rains caused the washout.



**Methodist Campus Food Line- 1950**



**Benjamin Lodge - 1950**

- 1939.** Methodist Church purchases the Frontenac Inn complex and converts the property to a retreat center for religious, youth, and educational groups.



**Pepin Hall – 1950**  
28822 Lake Avenue Way



**Chateau Frontenac B&B – 1996**

- 1946.** Pepin Hall was erected on the Methodist Campus using the lumber from Methodist churches located at Reads Landing and Hay Creek Township. The building was restored and converted to a Bed & Breakfast by Chateau Frontenac, Ltd. in 1996. It is now a private home.
- 1952.** Hansen's Harbor is founded. Main timbers are from old 'fishing barge' from Lake City. Photo below was taken in 1958.







**Frontenac State Park Plat - 1957**



**Frontenac State Park Monument**

- 1957.** Frontenac State Park, which surrounds Frontenac on 3 sides, is dedicated as a Minnesota State Park. Over time, the park expands all the way to Wacouta as adjoining lands become available for purchase.
- 1957.** Chapel is constructed on the Methodist Campus (Hotel Complex).



**William Webster, Jr.**



**Greystone (Wild Wings Founded in Dormer Over Garage)**

- 1967.** Wild Wings, a leading publisher and distributor of wildlife original art, prints and related items is started above the garage of Greystone by William Webster, Jr. Wild Wings later occupied a building west of Greystone until moving to larger Lake City quarters in 1979.
- 1971.** Minnesota Historic District Act is signed into law. This act relates to preserving historic sites by designating certain areas as historic sites, authorizing the establishment of historic district boards or commissions, and providing for the control and maintenance of such areas for historic purposes. Frontenac was named one of the first historic districts in the state.
- 1974.** Florence Township Board of Supervisors adopts an ordinance establishing the Old Frontenac Heritage Preservation Commission. This ordinance establishes the role, powers, and duties of the Commission. It also establishes the procedures to be followed by the Commission, the Florence Township Board, and the County Planning Commission relative to the management of land use and architectural integrity of the District.



**Knudsen Home  
Garrard Avenue and Green Street**



**Lowell House Bed & Breakfast  
NW corner of McLean Street and Wood Avenue**

- 1982.** The Knudsen Cheese Cake & Caramel business is started in the home of Ron and Peggy Knudsen which is located on the corner of Garrard Avenue and Green Street. The successful business eventually expanded into larger quarters in Red Wing, MN.
- 1982.** The original Haller/Koch store (aka the Schneider Tavern and the Westervelt mansion) is restored by Barbara and Tom Lowell and opens as the Lowell House Bed & Breakfast.
- 1987.** Chateau Frontenac, Ltd. purchases the Methodist Campus (Lakeside Hotel complex) and begins restoration of the property as a hospitality center. However, due to subsequent zoning restrictions, the property restoration objective is as an historic home community.



**Virginia Cottage - 1950**



**Virginia (Koplin Home) – 2005  
Graham Street and LeRoy Avenue**

**1997.** Virginia Cottage, named after a steamboat that won a Lake Pepin steamboat race, is moved from the Lakeside Hotel complex back near its original site and is restored as an historic home on the corner of Graham Street and Leroy Avenue.



**Grapevine Cottage (Kittle House) - 1953**



**Kittle House – 2005  
28775 Lake Avenue Way**

**2005.** Kittle House (aka Grapevine), built by the Kittle family and originally located on the NE corner of Wood and Sumner and moved to the Lakeside Hotel complex in the 1870's, is renovated as an historic home on Lake Avenue Way.

**2006.** Florence Township achieves Certified Local Government (CLG) status and adopts an ordinance expanding the Commission to be the Florence Township Heritage Preservation Commission, a township wide commission with the Frontenac Historic District as the only designated historic district. This status expands the commission member population to the entire township, positions the Commission to apply for state historic grants, and provides for future historic districts expansion.

*The preceding historical time line was researched and compiled by Bill Flies in 2006 and 2007 using local records, county records, civil war records, property abstracts, letters, newspaper articles, books, web research, dated documents, Minnesota State Historical Preservation Office (SHPO) data, and discussions with district residents. Your additions and suggestions are welcomed to improve the content and accuracy of our substantial heritage. Please refer historical records and photos to the Heritage Preservation Commission for copying into our permanent records. Our objective is to offer a heritage library that is as accurate and complete as possible.*



# Our Perpetual Heritage

People, Places, and Events  
Linked Across  
Yesterdays, Today, and Tomorrows



## Appendix 3

### Park Plan



# **Florence Township Park Plan 2012**

# Florence Township Park Plan

## **Introduction**

Florence Township's parklands are distinctive public resources that enhance the beauty of its natural surroundings, and enrich the lives of its residents, neighbors, and guests. The residents of Florence Township have been entrusted with the responsibility of caring for these parks. To that end, in the fall of 2011, the Florence Township Board of Supervisors appointed a group of township residents to draft a new Park Plan and complete the necessary steps for the Town Board to create a new Park Commission. The Board intends to transfer responsibility for the parks from the Heritage Preservation Commission to the Park Commission. This transfer of responsibility will be effective upon the formal establishment of the Park Commission. The ordinances of both Commissions will be revised to reflect this transfer of responsibilities. The new park plan will replace the 2006 Park Plan and serve as an updated blueprint to guide the new Park Commission.

The new Park Plan consists of three main sections. The first section describes the Plan. The second section lists specific policies of the Plan. The third section discusses each of the township's four parks: the Community Center Park, Valhalla Park, the Frontenac Station Play Park, and Wakondiota Park.

## **I. Park Plan Description**

### Authority

This plan is in effect with the approval of the Florence Township Board of Supervisors and intends to comply with all Township, County, State, and Federal regulations. Regarding the Township's parks which are listed in the National Register of Historic Places, special consideration will be given to the guidelines of the U.S. Department of the Interior. The Plan will be implemented by the Florence Township Park Commission under the supervision of the Florence Township Supervisors.

### Objective

To provide the new Park Commission with a blueprint for the management of township parks. Objectives for each of the four parks will be addressed individually.

# Florence Township Park Plan

## Scope

The Plan will focus on Florence Township's four public parks, the Community Center Park, Valhalla Park, the Frontenac Station Play Park, and Wakondiota Park.

## Park Commission role

The Park Commission is responsible for implementing the Park Plan under the supervision of the Florence Town Board and managing the Park Supervisor. The Commission is also responsible for allocating the resources of its annual budget.

## Budget

The Commission will request from Florence Township an annual budget to assist the Commission in implementing the Park Plan.

## Regulatory framework

The regulatory framework for the Plan includes the ordinances of Florence Township and Goodhue County, the laws of the State of Minnesota and the Federal Government, and the U.S. Department of the Interior Guidelines. County, State and Federal authorities, for the most part, delegate control of local parklands to their local governing bodies. In other words, Florence Township is primarily responsible for the parklands within its boundaries.

Managing parklands often involves managing the vegetation within them. While State and Federal laws don't offer much guidance for managing vegetation in township parks, Goodhue County has ordinances relevant to the Park Plan.

The most recent Goodhue County Zoning Ordinances ( Article 11, section 7, subdivision 3. - amended August 12th, 2010) offer standards and criteria for managing vegetation in the context of Commercial Timber Harvesting operations. Two additional County ordinances, (Article 30, section 11 - amended May 19th, 2009, and Article 12, section 4 - amended May 19th, 2009) concerning Shore land and Bluff land Protection are relevant to Valhalla Park given its proximity to the Mississippi River. Both ordinances refer back to Article 11, for a description of the County's standards and criteria for proper vegetation management. This Plan intends to comply with the spirit, and the literal application when applicable, of these County Ordinances.

State law primarily concerns only Minnesota's state park system but the Minnesota Historical Society has a helpful set of guidelines for communities managing historic landscapes. These guidelines are relevant to Wakondiota Park and Valhalla Park and can be found on the Society's website, <http://www.mnhs.org/preserve/shpo/landscape/landscape3.html>.

The U.S. Department of the Interior provides detailed guidance on preserving historic landscapes. These Federal Government guidelines apply specifically to both Wakondiota and Valhalla. A detailed treatment of the Department's guidelines

# Florence Township Park Plan

can be found at the following website,  
<http://www.nps.gov/hps/tps/briefs/brief36.htm>.

## **II. Park Plan Policies**

### Park Alterations or Additions

The Commission will administer an approval process for residents who wish make changes to the parks including:

1. Altering or eliminating existing structures
2. Adding new structures
3. Altering, eliminating, or adding vegetation
4. Altering, eliminating, or adding playground equipment

This approval process will require residents to submit a completed Park Activity Application (PAA) to the Park Commission. The Park Commission will review all PAA's and then make specific recommendations regarding the PAA to the Town Board. After receiving the Park Commission's recommendation, the Town Board will determine whether or not to approve the PAA.

The Park Commission may request a professional review of some projects. In the event of such a request, all PAA's affected by the review must explicitly address the conclusions of the professional review.

Alterations or additions to permanent structures in historic districts will be submitted to the Heritage Preservation Commission for approval before a recommendation to the Town Board is made.

### Invasive Species

The removal of invasive species from the parks is encouraged. Removal of Buckthorn, Black Locust, Prickly Pear, Honeysuckle, and species listed in the Minnesota DNR's website, and the Midwest Invasive Plant Network website,

<http://www.dnr.state.mn.us/invasives/terrestrialplants/index.html>

<http://mipncontroldatabase.wisc.edu/Default.aspx>

does not require Park Commission approval for projects affecting less than 1 acre of parkland. For large-scale projects affecting more than one acre of parkland, residents need to submit a PAA to the Park Commission for Township approval.

### Dead Vegetation

Dead trees can be removed from the parks with approval from the Park Commission and the Town Board in the following cases:

1. Where the dead vegetation poses a threat to the safety of residents
2. Where the dead vegetation detracts from the health of the park
3. Where the dead vegetation detracts from the natural beauty of the park

# Florence Township Park Plan

## Park Use

Residents need to request approval from the Park Commission to use the parks for:

1. large gatherings
2. regularly scheduled events
3. special events

The Commission will appoint a contact person for scheduling park events and develop a calendar to track park availability.

## Dumping

The parks should not be used for dumping of any kind of waste including yard waste, except in areas designated by the Florence Town Board.

## Signage

Signs explaining the history of Parks in historic districts, listing hours of operation, prohibiting motorized vehicle use, and communicating other information, may be erected or replaced if deemed necessary by the Park Commission in collaboration with residents living adjacent to the area where the sign is erected. Signs will be maintained by the Park Commission. All signage must comply with Park Commission, Heritage Commission, and township ordinances.

## Boundaries

The boundaries of the parks will be clearly marked, and surveyed as needed.

## **III. The Individual Parks**

### Community Center Park

#### *History:*

In 1983 the Frontenac Sportsman's Club purchased, using charitable gambling funds, two parcels of property just west of Frontenac Station in order to build a community facility. This facility was then donated to Florence Township.

#### *Description:*

The Community Center can host up to 200 people , and includes a kitchen, barbeque pit, large dining area, rest rooms, covered picnic area, play ground equipment, volleyball courts, horseshoe pits, and a 10 acre lawn. The Town

## Florence Township Park Plan

Board appoints a manager to schedule rentals, maintain the facility, and enforce the Community Center rules.

### *Vision:*

To have the Community Center Park serve as a place where township residents, guests, and the Sportsman's Club can host social gatherings and community events.

### *Objectives:*

Florence Township seeks to continue to provide and promote a safe and economical community meeting facility for residents and guests to enjoy. The Township also seeks to increase revenues associated with the use of the facility by better advertising its availability, and to continue to update the facility as needed.

Initial steps in implementing the Plan will involve an evaluation of the safety of the park's playground equipment, and taking an inventory of maintenance issues that should be addressed.

## Valhalla Park

### *History:*

Valhalla was platted in 1857 by General Israel Garrard and Evert Westervelt. The park originally served as an overlook to provide lakeshore views to Garrard, Westervelt, and other residents and guests of Frontenac.

### *Description:*

Valhalla is located directly to the east of historic Old Frontenac properties including, St. Hubert's Lodge, Locust Lodge, Winona Cottage, Dakota Cottage, and Greystone. It begins just to the north of Dakota Cottage and extends to the south from Locust Lodge, past Greystone, along County Road 2.

Florence Township recognizes Valhalla Park as a 'Historic Vernacular Landscape' as defined by the US Department of the Interior, "a landscape that evolved through use by the people whose activities or occupancy shaped that landscape". According Charles Birnbaum who wrote the Department's Preservation Brief entitled, Protecting Cultural Landscapes, Planning, Treatment and Management of Historic Landscapes, "Function plays a significant role in Historic Vernacular Landscapes. According to Birnbaum, these landscapes can be a collection of properties along a river valley, and examples include rural villages.

Florence Township's rural village of Old Frontenac with its collection of properties along the Mississippi River is a good example of a Historic Vernacular

## Florence Township Park Plan

Landscape whose function is to provide the residents of Florence Township and their guests panoramic views of the Mississippi River.

### *Vision:*

To have an historic park that honors its heritage and its evolution over the past 150 years. To have a beautiful public space offering views of Lake Pepin framed in an environmentally robust mixture of flora and fauna, including a flourishing bird population to inspire the park's many bird watchers.

### *Objectives:*

Florence Township seeks to restore one of its most beautiful legacies. Creating a healthy park that offers spectacular views of Lake Pepin, respects the needs of township residents, and possesses a diverse mix of flora and fauna will be challenging. Initial steps in implementing the plan will involve:

- 1) Enlisting the help of professionals to design an environmentally sound park faithful to the legacy of Israel Garrard and Evert Westervelt.
- 2) Encouraging residents of Florence to participate in the design process alongside the professionals.
- 3) Solicit the help of organizations with experience in rehabilitating historic parks. These organizations could include, the DNR, Historical Societies, the National Audubon Society. and the US Department of the Interior.
- 4) Enlisting the help of professionals, residents, and others to implement the Design.
- 5) Solicit funds for the project from a variety of donors, including government grants and private donations.
- 6) The Design will be added to the Park Plan as an addendum after it is approved by the Town Board.

Once the Design has been approved and implemented a policy of ongoing maintenance will be implemented to facilitate the process of keeping up with ever-changing park conditions. Residents may seek Commission and Township approval to maintain specific areas of the design on an ongoing basis. Ongoing maintenance activity will include eliminating invasives, and undesirable new growth without submitting a PAA. Activities requiring more extensive work will require a PAA.

Residents will not be permitted to alter an area within the park in a way that would be inconsistent with the Design's specific goals without first submitting a PAA.



## Florence Township Park Plan

The Commission will be responsible for monitoring the future condition of the Park to ensure the Design is maintained.. The Commission will also be responsible for supervising the activities associated with achieving these objectives.

The boat landing and public beach are considered part of Valhalla Park in this plan. These facilities will be improved and maintained as needed consistent with the overall Design for Valhalla Park.

### Frontenac Station Park

#### *History:*

In 1996 the Frontenac Sportsman's Club purchased an empty lot in Frontenac Station on the corner of Germania Street, and Caledonia Avenue. The Club then purchased and installed playground equipment for children of the township to enjoy. The Club donated the park to Florence Township upon its completion.

#### *Description:*

The park is on the corner of Germania Street, and Caledonia Avenue. It is an enclosed area with a variety of playground equipment.

#### *Vision:*

To have a safe park for Florence Township children and families to enjoy.

#### *Objectives:*

Florence Township seeks to continue providing a safe place in Frontenac Station for children to play. Initial steps in implementing the Plan will involve an evaluation of the safety of the park's playground equipment, and taking an inventory of maintenance issues that should be addressed.

### Wakondiota Park

#### *History:*

Wakondiota Park was platted as parkland in 1857 by Evert Westervelt and Israel Garrard. In 1859 the Park moved one block east and quadrupled in length. Wakondiota Park and Delta Park lying immediately to its north are treated as one park for the purposes of this plan.

#### *Description:*

The park lies to the east of Christ Church and stretches to the north and south to form a large rectangular area that straddles Route 2. Originally, the park served as

# Florence Township Park Plan

a venue for a variety of town gatherings. Today the park hosts baseball games and provides a scenic setting for social events.

*Vision:*

To have a scenic natural space in which residents and guests can play baseball, gather for social events, and simply enjoy.

*Objectives:*

Florence Township seeks to maintain the ball field facilities, ensure the safety of the playground equipment, update the public bathroom facilities, and eventually improve, or replace the pavilion in the park. Initial steps in implementing the Plan will involve an evaluation of the safety of the park's playground equipment, baseball facilities, bathrooms, and pavilion structure, and taking an inventory of other maintenance issues that should be addressed.

## Conclusion

Florence Township has drafted this Park Plan to ensure the Township's parklands are improved and maintained for many years to come. This Park Plan has been approved by the undersigned and is in force as of the date of the Supervisor's signature:

Park Commission Chairman,

\_\_\_\_\_, title \_\_\_\_\_, date \_\_\_\_\_

print \_\_\_\_\_

Florence Township Chairman,

\_\_\_\_\_, title \_\_\_\_\_, date \_\_\_\_\_

print \_\_\_\_\_

Goodhue County Land Use Representative

\_\_\_\_\_, title \_\_\_\_\_, date \_\_\_\_\_

print \_\_\_\_\_

Florence Township Park Plan  
Florence Township Park Commission

**Park Activity Application**

Applicant Name: \_\_\_\_\_

Phone: \_\_\_\_\_

Address: \_\_\_\_\_

Proposed Activity Description

(please attach supporting materials, e.g. photographs, drawings, contracts)

Proposed Labor

(professional service name/contractor name/residents/other)

Estimated Cost Details and Total

(labor/materials/permits/other)

Proposed Sources of Funds

(township/private/endowments/grants/other)

Commission Action

- Approved:
- Approved with following Conditions: \_\_\_\_\_
- Denied (reason): \_\_\_\_\_
- Reported to Town Board on Date: \_\_\_\_\_

## Appendix 4

### 2002-2003 Comprehensive Plan Process

## Appendix A

<b>STRENGTHS</b>	<b>DOTS</b>	<b>WEAKNESSES</b>	<b>DOTS</b>
Historic district	32	Pressure - residential development	20
Dark sky - stars	26	Traffic on highway 61	14
Physical beauty	19	Preservation of housing stock	9
Post office	15	Employment opportunities (lack of)(younger)	7
Proximity to Lake Pepin	13	Highly erodable land	
Sense of community	12	Lack of telecommunication infrastructure	5
Sense of land stewardship	11	Minimal police patrol	5
Sense of history	10	Distance from emergency services	5
Geographic location	10	Lack of service for seniors	4
Family farms	9	Railroad tracks (traffic) congestion	
Recreational opportunities	8	Lack of disclosure - property information for prospective buyers.	3
Lack of commercial development in historic district	8	Lack of affordable housing	2
State park	7	Lack of career opportunities	2
Tradition of citizen participation	6	Agriculture (i.e. family farm)	2
Railroad - potential for light rail	6	Restaurant - food - good	2
Villa Maria retreat center	5	Houses - flood plain	2
Flora and fauna	5	Ratio of payer versus payees.	1
Land use diversity	3	Distance from employment	1
Bird watching area	3	Geology (Karst)	1
Citizen initiative	2	Lack of geographical location	0
Karst geology	2	Frontenac State Park (traffic)	
Potential for internet based business	0		



# Appendix B

## SUSTAINABILITY: A GUIDELINE FOR PLANNING

### What is sustainability?

- Sustainability is keeping a desired condition in existence through the use of physical, intellectual, technological, financial, or legal means.
- Sustainability is defined by a set of conditions or actions that provide resources for current and future generations while maintaining or restoring reservoirs of social, economic and environmental capital.
- Sustainable development is development that meets the needs of present generations without compromising the ability of future generations to meet their own needs.
- Sustainable development initiatives offer prescriptions for achieving sustainability based on available technology and natural resources, the direction of investments, and institutional structures.

### Types of Sustainability

- A common perception of sustainability has environmental, economic, and social elements intersecting. Economic Elements are growth centered, minimizing waste, energy efficiency. Social Elements involve central planning from “on high”. Environmental Elements are human centered, technological substitution.
- Preferable ecological sustainability has the environment as all encompassing with economic and social existing within the total environment. Economic Elements include maintaining natural resource stock, tempered growth, less waste, renewable energy. Social Elements involve strong citizen participation. Environmental Elements consider interacting, eco-centric natural systems.

### What is Natural Capital?

Although sometimes taken for granted, the state’s largest source of capital is its natural environment. This “natural capital” is made up of four elements, all of which communities may want to think of as part of their economic base.

- The physical environment, including non-renewable resources, such as ferrous and nonferrous ores, sand and gravel, oil and gas.
- Plants and animals living in the physical environment.
- Natural processes, such as the water, carbon and nutrient cycles that provide services ranging from waste recycling to climate control.
- Renewable resources, such as air, water, soils, trees, plants, animals and other resources important for their beauty and ecological significance.

**Community sustainability is achieved when people pursue environmental stewardship, civic democracy, economic security, and social justice as complementary goals.**

### Two Types of Planning for Sustainability

#### CITIZEN BASED w/Professionals

- SWOT Analysis
- Community Profiling
- Mapping
- Sacred Structures Planning
- Community Visioning
- Indicators
- Citizen Environmental Monitoring

#### PROFESSIONAL BASED w/Citizens

- Environmental Impact Statement
- Comparative Risk Assessment
- Geographic Information Systems

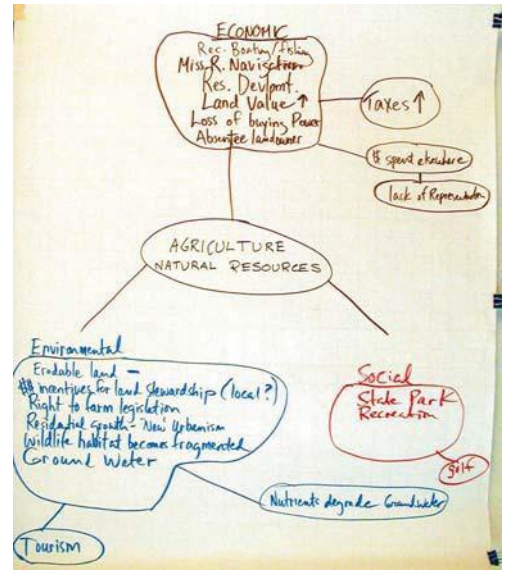
# Appendix C

## Mapping the Connections Exercise Results

A connections map is a graphic illustration of the linkages among economic, social and environmental factors that affect and are affected by local land planning decisions and economic activities. It is a two-dimensional diagram that shows the relationships among concepts under a broad topic heading. In this case the broad topic heading is the title of each **Work Group**.

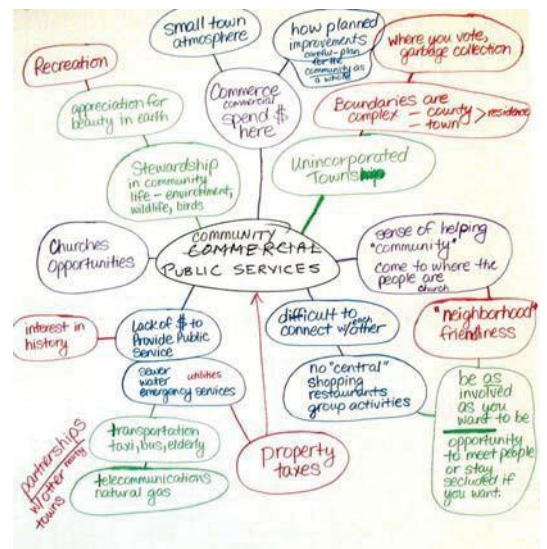
### Agriculture / Natural Resources Work Group

- Economic: Recreation, boating, fishing  
Mississippi River navigation  
Residential development  
Land value — taxes  
Loss of power  
Absentee landowner — spent elsewhere, lack of representation
- Environment: Erodeable land  
\$\$ Incentive for land stewardship (local?)  
Right to farm legislation  
Residential growth - "new" urbanism  
Wildlife habitat becomes fragmented  
Groundwater  
Nutrients degrade groundwater  
Tourism
- Social: State Park  
Recreation  
Golf



### Community / Public Service Work Group

- Stewardship in community life - environment, wildlife, birds
- Appreciation for beauty in earth
- Recreation
- Commerce - Commercial - Spend \$ here
- Small town atmosphere
- How planned improvements careful - plan for the community as a whole
- Unincorporated towns
- Boundaries are complex - county - town (residence)
- Sense of helping "community" come to where the people are.
- Churches - opportunities
- Lack of \$ to provide public service interest in history
- Sewer, water emergency services (utilities)
- Property taxes
- Transportation, taxi, bus, elderly
- Telecommunications, natural gas
- Partnerships with other nearby towns
- Difficult to connect with each other
- No "central" shopping restaurants group activities
- "Neighborhood" friendliness
- Be as involved as you want to be - opportunity to meet people or stay secluded if you want









## Appendix D

### TOP TEN REASONS TO DEVELOP AND IMPLEMENT A LOCAL COMPREHENSIVE PLAN<sup>1</sup>

**Provides legal justification for a community's land use decisions.** A fundamental reason for preparing a comprehensive plan is to establish a legal foundation for local officials' development decisions. Land use decisions can be controversial and spark lawsuits. Minnesota courts have upheld local land use decisions when there was a reasonable basis for the decisions, and the courts are more likely to find a reasonable basis for a decision if it is consistent with a community's comprehensive plan.

**Creates the opportunity for residents to guide a community's future.**

Comprehensive planning offers citizens a way to articulate common goals and ensure that day-to-day land use decisions reflect their values. It also gives them a way to invite the kind of development they would prefer. Finally, it creates an opportunity for community dialog and for residents to meet one another and discuss community issues from different points of view.

**Helps a community identify issues, stay ahead of trends and accommodate change.** Planning prompts a community to identify issues and prepare for major demographic and development changes. Planning involves collecting and analyzing data on population, employment, housing, land use, environmentally sensitive areas, business and industrial development, community facilities, shopping areas, waste generation, water and energy use, and growth trends.

**Offers a process for joint problem-solving and leveraging scarce resources among neighboring jurisdictions.** Comprehensive planning, by its very nature, helps people look at their community and region as a whole, and identify and account for the linkages between all the economic, environmental and social elements that comprise it. This allows a community to anticipate the potential ripple effects of any given goal or decision.

**Protects and makes the most of public investments.** The quality and cost of public infrastructure, such as roads, water and sewer systems, and transit, can influence a community's livability and fiscal health. A comprehensive plan can help a community understand, protect and make the most of public infrastructure and improvements, as well as determine if and when to construct new infrastructure. In addition, state and federal dollars for local government projects are increasingly tied to sound comprehensive planning.

**Helps ensure that growth makes the community better, not just bigger.** Seeking to grow as a community has become synonymous with survival. If the community is not growing, it is dying, goes the logic. Yet what does this say for suburban areas or small cities where the population is stable or declining? Growth and development can and must mean something other than only physical expansion. An effective community plan helps officials and citizens distinguish between changes that improve the quality of life and others that may simply increase costs. A local comprehensive plan can encourage new construction or redevelopment projects whose long-term environmental, economic and social benefits outweigh their costs.

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<sup>1</sup> Minnesota State Planning Agency Under Construction: Tools and Techniques for Local Planning (St. Paul, Minnesota June 2002) 6



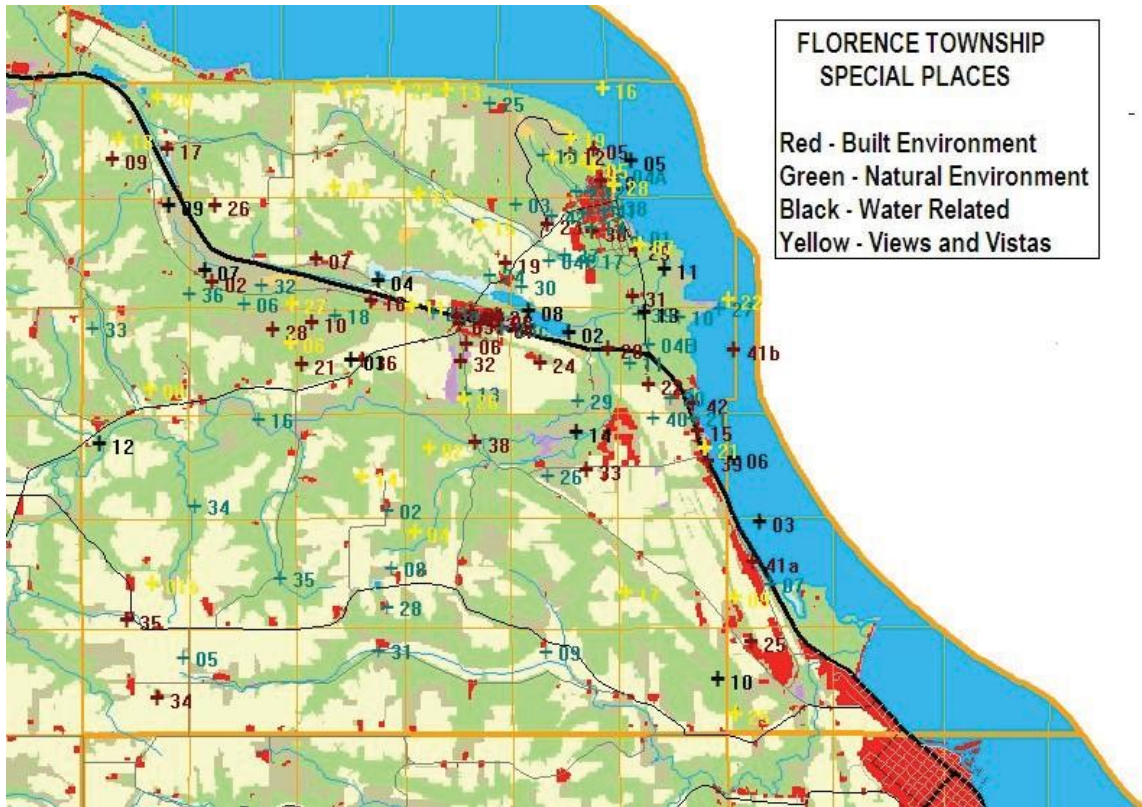
**Fosters sustainable economic development.** Governments make decisions about public investments in things — ranging from streets and sewers to power lines and schools — that have a profound influence on the health, diversity, self-reliance and competitiveness of the local economy. Even though economic development is rightly thought of as largely a private sector concern, local governments have an important responsibility to ensure that commerce serves the general health and welfare of their constituents.

**Helps a community maintain its resource base and other “natural capital.”** Natural resources such as water, forests and agricultural lands, along with the services they provide such as waste absorption and food and fiber production, are the foundation of a community’s prosperity. Together, natural resources and services represent a community’s largest form of capital, even though people often do not think of them this way.

**Protects property rights and values.** The Fifth Amendment to the U.S. Constitution stipulates, “that private property may not be taken for public use without just compensation.” Article I, Section 13 of Minnesota’s Constitution repeats the federal Constitution’s “takings clause,” saying that “private property shall not be taken, destroyed or damaged for public use without just compensation, therefore, first paid or secured.”

**Provides an opportunity to consider future impacts of today’s decisions.** In the day-to-day functioning of a community, the tendency is often to react to issues as they arise and deal with them one by one. While understandable, this reactive approach can, over time, lead to community conditions with which citizens may not be pleased or that come with a higher-than-expected price tag. The comprehensive plan is a tool that residents and local leaders can use to ask and answer the question: Is our community on a sustainable path?

# Appendix E



### BLUE DOTS - WATER RELATED

- B01 AQUIFER
- B02 FRONTENAC POND
- B03 HANSEN'S HARBOR ? WATER AND STRUCTURE
- B04 HIGHWAY 61 WETLAND AREAS
- B05 LAKE PEPIN
- B06 MISSISSIPPI RIVER
- B07 PERCHED VALLEY
- B08 PLEASANT VALLEY LAKELET
- B09 SCHREIBER'S POND
- B10 SUGAR LOAF CREEK
- B11 SWAMPY AREA SANDY POINT
- B12 WELLS CREEK
- B13 WELLS CREEK BRIDGE
- B14 WELLS CREEK WATERSHED

### GREEN DOTS - NATURAL ENVIRONMENT

- G01 FLORENCE TOWNSHIP BEACH
- G02 BOB JOHNSON FARM
- G03 FRONTENAC STATE PARK
- G04A EAGLES
- G04B BIRD WATCHING
- G04C FLORENCE TOWNSHIP BIRD FLYWAY
- G05 CEMETARY OLD FRONTENAC
- G06 RICHARD DORER HARDWOOD FOREST

- G07 STOEHLI PARK (FLORENCE PARK)
- G08 APPLE ORCHARD
- G09 BILL DANKWERT FARM
- G10 BOTTOM LAND (STATE PARK)
- G11 BURIAL MOUNDS ? STATE PARK
- G12 COMMONS AREA IN OLD FRONTENAC
- G13 COMMUNITY CENTER
- G14 COMMUNITY PARK ? OLD FRONTENAC
- G15 COTTONWOODS LINING COMMON AREA
- G16 EVERGREEN TREE CLUSTER
- G17 FRONTENAC CEMETARY
- G18 GOLF AND SKI
- G19 GRAVEL PITS
- G20 GREAT RIVER VINYARDS
- G21 HANSON'S HARBOR
- G22 HEAVENS'S RIDGE
- G23a HIGHWAY GARDENS ? A-B-C
- G23b HIGHWAY GARDENS ? A-B-C
- G23c HIGHWAY GARDENS ? A-B-C
- G24 HILLDALE FARM BUFFALO RANCH
- G25 IN YAN TOEPA VISTA
- G26 JOHN WURST FARM
- G27 LONG POINT ? FRONTENAC STATE PARK
- G28 OAK RIDGE ORCHARD ? SECTION 21
- G29 OAK SAVANNAH

G30 PRAIRIE  
 G31 RICHARD KLIEN FARM  
 G32 SCHREIBER WETLAND ?  
 MARSH  
 G33 STATE LAND ? SECTION 18  
 G34 STATE LAND ? SECTION 20  
 G35 STATE LAND ? SECTION 20  
 AND 29  
 G36 STATE LAND ? SECTION 7  
 AND 8  
 G37 TRAILS ? STATE PARK AND  
 TOWNSHIP PARK  
 G38 VALHALLA PARK  
 G39 VILLA CEMETERY  
 G40 "VINEYARD, STRAWBERRIES"  
 G41 WACONDIOTA PARK  
 G42 WILDLIFE AND PRAIRIE  
 HABITAT

RED DOTS - BUILT ENVIRONMENT

R01 CHRIST EPISCOPAL CHURCH  
 R02 ASHBAUG HOME  
 R03 B. WELLS  
 R04 BAILEY'S WHITE STONE BARN  
 R05 CHATEAU FRONTENAC ?  
 METHODIST CAMP  
 R06 FRONTENAC COMMUNITY  
 CENTER  
 R07 CONWAY'S BARN  
 R08 CREAMY HAUSE  
 R09 DEVELOPMENTS: POPLAR  
 RIDGE  
 R10 FRONTENAC GOLF AND SKI  
 R11 FRONTENAC POST OFFICE  
 R12 FRONTENAC STATE PARK  
 R13 FRONTENAC STATION  
 R14 FRONTENAC TOWN HALL  
 R15 HANSON'S HARBOR ?  
 WAYSIDE REST ? STAEHLI'S  
 PARK  
 R16 HIGHWAY 61 CORRIDOR  
 RAILROAD TRACKS  
 R17 HILL AVENUE DRIVE  
 (COUNTRY LANE)  
 R18 OLD FRONTENAC ? OLD  
 HISTORIC DISTRICT  
 R19 HISTORIC SCHOOL HOUSE  
 R20 HISTORICAL MARKER  
 HIGHWAY 61  
 R21 HOFFMAN BAILEY  
 BARN/HATCHERY  
 R22 INDIAN MOUNDS  
 R23 KNUDSON FARM ?  
 FRONTENAC  
 R24 LAKE CITY AIRPORT HANGER  
 R25 LAKE CITY COUNTRY CLUB  
 R26 LOST ARROW TRADING POST  
 R27 ST. JOHNS LUTHERAN  
 CHURCH

R28 MT. FRONTENAC  
 R29 OLD FRONTENAC CEMETERY  
 R30 "HISTORICAL BRIDGES, CHURCH,  
 CEMETERY"  
 R31 VILLA MARIA  
 R32 OLD TERRITORIAL ROAD ?  
 ORIGINAL 61  
 R33 "VINING CEMETERY, ETC."  
 R34 WEST FLORENCE CHURCH  
 R35 WEST FLORENCE  
 R36 WINDOW BARN  
 R37 POST OFFICE  
 R38 TERRITORIAL ROAD BRIDGE  
 R39 REST AREA  
 R40 "RESTAURANT, BUSINESSES"  
 R41 a "RAILROAD, AND ITS AMBIANCE  
 I.E. SOUNDS"  
 R41 b "RAILROAD, AND ITS AMBIANCE  
 I.E. SOUNDS"  
 R42 HANSEN'S HARBOR ? WATER  
 AND STRUCTURE

YELLOW DOTS - VIEWS AND VISTAS

Y01a CIRCLE S ROAD (APPLE  
 ORCHARD)  
 Y01b OAK RIDGE ORCHARD  
 Y02 BLUFFS  
 Y03 DAVE GORANSON PROPERTY  
 Y04 PFLAUM'S POINT  
 Y05 EAGLES POINT  
 Y06 GOLF COURSE AND SKI VISTAS  
 Y07 GARRARD AVENUE VISTAS  
 Y08 GOAT PRAIRIE  
 Y09 GREAT RIVER VINYARDS  
 Y10 HANGLIDER POINT (CAROL  
 GRIMM PROPERTY)  
 Y11 HIGHWAY 61 GARDENS  
 Y12 HILL AVENUE DRIVE (COUNTRY  
 LANE)  
 Y13 IN YON TEOPA ROCK  
 Y14 JIM BROOK'S POINT  
 Y15 KOHRS FARM/BISON  
 Y16 "LAKE PEPIN, BLUFF VISTAS"  
 Y17 LAKE WOOD DRIVE  
 Y18 "NEW DEVELOPMENT ? --VISTA""  
 Y19 POINT NO POINT  
 Y20 RATTLESNAKE BLUFF/VALLEY  
 Y21 "ROADSIDE REST ? ""STAEHLI  
 PARK""  
 Y22 SAND POINT  
 Y23 SHORELAND VISTAS  
 Y24 STATE PARK VISTA  
 Y25 SUGAR LOAF  
 Y26 TERRITORIAL DRIVE  
 Y27 TIGER HABITAT  
 Y28 WHERE 2 TURNS  
 XX DARK SKIES

## Appendix F

<b>OPPORTUNITIES</b>	<b>DOTS</b>	<b>THREATS</b>	<b>DOTS</b>
Preserve quality of life	15	Uncontrolled development.	19
Preservation of historic buildings	10	Increased air, water and light pollution	.11
Plan type of development	7	Loss of farmland	9
Wind energy as a resource.	6	Loss of wildlife habitat.	9
Zoning (pro-active)	4	Increased traffic congestion	5
Variety of recreational opportunities and educational programs	4	Loss of riparian habitat.	5
Wells Creek Watershed partnership (prevent erosion along Wells Creek).	3	Input into Highway 61 realignment.	4
Public access (water).	3	Public access to Lake Pepin.	3
Business development opportunities (Frontenac Station).	2	Increased boat traffic and jet skies.	3
Light rail potential.	2	Loss of vistas.	2
Plan to balance services.	1	Annexation.	2
Seek grants/funding.	1	Population growth exceeds services.	1
Extension of utilities.	1	Impact of alternative energy infrastructure on natural environment.	1
Provide more housing.	0	Potential loss of state and federal funding.	1
Taxbase.	0		
Highway 61 corridor.	0		