

Morrison County

Comprehensive Land Use Plan

2016-2036

Morrison County, Minnesota



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Robert Otremba		Ross Wamre
Brian Middendorf, County Attorney		Steve Backowski, County Engineer

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SECTION 1.0 INTRODUCTION

The Morrison County Comprehensive Plan is intended to serve as a guide for future development, redevelopment, and preservation of Morrison County. Developed through vast public participation during the 2005 plan rewrite and citizen involvement in the 2016 update, the plan is an extension of the needs and wants of the citizens of Morrison County. This public participation included the formation of a Healthy Community Partnership (HCP) Team that guided the development of the 2005 Comprehensive Plan, the Morrison County Trails Plan, and the Morrison County Hazard Mitigation Plan. This group was also instrumental in the facilitation of public visioning sessions and in the development of the language within this plan. Public visioning sessions were conducted to gather public input related to a variety of issues facing Morrison County including land use, feedlots and similar issues.

The 2015-2016 update involved the creation of a citizen advisory group of 34 persons who were asked for their input on updating the goals and policies contained within Part Three of the 2005 Plan. This group consisted of citizens, and local business leaders as well as representatives of the county's cities and townships, Camp Ripley, lake associations, the agricultural industry, local agencies and citizens of the County with additional representation from the County Board and various county staff. Facilitation was provided by Hometown Planning of Alexandria, MN.

In addition to public participation, local communities also offered information on the many needs and desires of communities throughout the county through a series of local government official meetings held early in the planning process. Information obtained throughout the planning process is summarized within Appendix A of the Morrison County Comprehensive Plan.

This plan is comprised of three primary sections including first, an introduction to this plan, second, an assessment of land use and land use related issues within Morrison County, third, a plan for the future of Morrison County.

Through the development of this plan all other plans related to the physical development of Morrison County or the County's natural resources were compiled into this document. Part Three of this plan describes the purpose and overview of each plan, how to properly use each of these plans including definitions of the goals, objectives, policies and recommendations contained within each plan, and the implementation of each plan itself. The components of this plan are as follows:

- General Planning & Zoning Operations
- Land Use and Natural Resources
- Transportation, Infrastructure and Public Facilities
- Local Economic Development
- Education, Recreation and Culture
- Water Plan
- Hazard Mitigation

SECTION 2.0 FOUNDATIONS OF THE MORRISON COUNTY COMPREHENSIVE PLAN

Most importantly, the foundation of the Morrison County Comprehensive Plan lies within the thousands of residents, landowners, businesses, civic and community organizations, special interests, and all of the County-wide community. Minnesota state law also provides a legal basis and foundation for the Morrison County Comprehensive Plan by establishing the plan as a basis for zoning administration.

The Morrison County Comprehensive Plan is not intended to or meant to be a means by which local control is given to any other entity. It is a plan meant to retain, encourage and support local control.

Some benefits to developing a County-wide Comprehensive Plan are as follows:

- The plan provides a legal basis for land use decision-making within Morrison County
- The plan establishes a future land use vision which can be used in the administration of the Morrison County Land Use Ordinance to establish consistency.
- The plan identifies services and infrastructure needs and desires through the year 2036.
- The plan provides valuable recommendations to provide for Best Management Practices (BMPs) or policies related to new growth and development to minimize the impacts of incompatible land uses.
- The plan provides valuable information, which may be used in securing funding from public and private sources to carry out a variety of community projects.

Overall, the County's vision statement is:

To provide for an increased quality of life for Morrison County residents through the ongoing coordination and communication of values, ideas, and actions.

3.1 GENERAL PLANNING OVERVIEW

Prior to the development of a County Comprehensive Plan, several townships within the County pioneered land use planning by successfully implementing and administering local comprehensive land use plans. These townships included the townships of Little Falls, Belle Prairie, Green Prairie and Scandia Valley.

Morrison County first developed a Comprehensive Plan in 1972 with a major revision in 1989. The 1989 plan remained as a land use guide for Morrison County until the revision of the plan in 2005. Portions of the Plan were updated again in 2016.

Like many other counties within central Minnesota, Morrison County now provides and maintains Planning & Zoning administration within all of the township areas of the County.

Morrison County Land Use Planning Milestones

- 1959 County Planning Enabling Act (Authorized counties to adopt planning tools and land use controls)
- 1965 Municipal Planning Enabling Act (Authorized cities to adopt planning tools and land use controls)
- 1969 Regional Development Act (Authorized the creation of regional development commissions in 12 areas outside of the Twin Cities metropolitan area)
- 1970 Morrison County adopts Subdivision Ordinance in June and a Land Use Ordinance in July
- 1972 Morrison County adopts first Comprehensive Plan
- 1973 State provides Shoreland and Flood Plain Rules
- 1978 Little Falls, Belle Prairie, and Green Prairie Townships adopt Land Use Ordinances
- 1980 Scandia Valley Township adopts Land Use Ordinance
- 1981 Mississippi Headwaters Board created
- 1982 Township Planning Authority (Expanded with revisions to the Municipal Planning Act)
- 1985 Morrison County Develops first Water Plan
- 1989 Morrison County revises and adopts new Comprehensive Plan
- 1990 Morrison County adopts second Water Plan
- 1995 Morrison County combines Subdivision, Land Use, and Shoreline Ordinances into centralized Ordinance document. County also adopts third Water Plan
- 1996 Sustainable Development for Local Governments (Required the State to develop and periodically update a sustainable development guide and model ordinance)
- 1997 Community-based Planning (Although repealed effective July 1, 2001 the goals presented in this policy are still found to be useful in future local planning)
- 1998 Morrison County adopts Feedlot Ordinance
- 2003 Morrison County adopts fourth Water Plan

- 2005 Morrison County revises and adopts new Comprehensive Plan
- 2010 Morrison County adopts fifth Water Plan
- 2016 Morrison County updates portions of the 2005 Comprehensive Plan

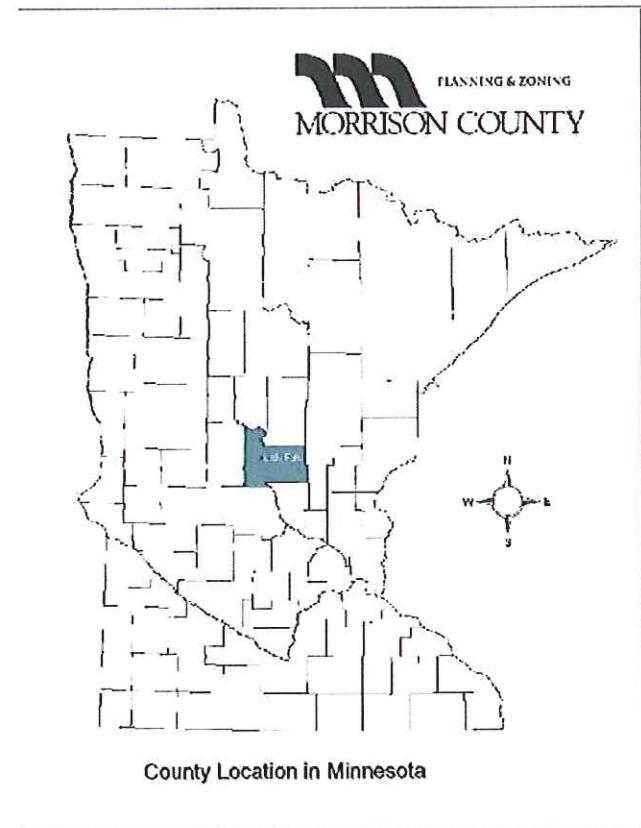
SECTION 4.0 GENERAL COUNTY OVERVIEW

Morrison County is located in central Minnesota. It is approximately 100 miles from each of the three major economic centers in the state; Minneapolis-St. Paul, Duluth- Superior, and Fargo-Moorhead. From a regional perspective, the County is located midway between two of the state's largest regional economic centers, St. Cloud and Brainerd.

Being located in between these metropolitan areas and regional economic centers and on the edge of the northern Minnesota lakes region, Morrison County occupies a strategic location. The lakes region, which starts in the northern portion of the County, has experienced tremendous growth and development pressures over the last ten to twenty years. Within the County there are over 70 lakes and hundreds of miles of rivers and streams that today, provide a wealth of water-based recreational and residential amenities. Agriculture accounts for over 70% of the total acreage of the county.

There are 16 incorporated cities and 30 organized townships in Morrison County. The local units of government range in land area up to 4,287 acres (City of Little Falls) to 51,170 acres (Cushing Township). Generally, the geopolitical boundaries of these local units of government are linear, resulting in square or rectangular shaped jurisdictions.

Overall, Morrison County covers over 737,000 acres or 1,153 square miles. The lakes and rivers in the County cover approximately 20,000 acres with wetlands covering another 195,000 acres. Combined, the surface water features cover approximately 30 percent of the County. Major employers include The Instant Web Co (Direct Mail/Advertising), Larson Boat Group (Boat manufacturing), Morey's Seafood International (Food processing), Falls Fabricating (Industrial manufacturing), Little Falls School District (Education), CHI St. Gabriel's Health (Health Care) and Camp Ripley (Military). Camp Ripley, Minnesota's National Guard Training facility occupies 53,000 acres of the overall land mass inside the County's boundary. The previous Comprehensive Land Use Plan was adopted in 2005 – updating the 1989 Comprehensive Plan. The County completed a 5th generation Comprehensive Water Plan in 2010.



SECTION 5.0

GENERAL COUNTY HISTORY

Morrison County has a rich history. First the Dacotah and then the Ojibwe Indians lived in the central Minnesota area, where the county straddles the Mississippi River. French and English fur traders and voyageurs traveled through Minnesota from the 1600s to the 1800s. They used the river to transport their goods. The county was named for fur trading brothers, William and Allan Morrison.

The 1800s saw three prominent explorers lead expeditions along the river through what would become Morrison County. Zebulon Montgomery Pike came through in 1805. Winter storms forced him and his men to erect a fort near the mouth of the Swan River. Governor Lewis B. Cass led his expedition through the area in 1820. Explorer and scientist, Joseph N. Nicollet, created the first accurate map along the river in 1836. Some of the earliest European settlers in the area were missionaries. Methodist missionaries settled temporarily along the Little Elk River in 1838. The Reverend

Frederick and Elizabeth (Taylor) Ayer moved to the Belle Prairie area in 1849. They started a mission and school there for the Ojibwe. Father Francis Xavier Pierz came to the area in 1852 and started many communities in central Minnesota, including Sobieski and Rich Prairie (later renamed Pierz) in Morrison County.

The event that prodded further development of the county was the building of Fort Ripley. In order to build this military outpost, a dam and sawmill were erected in 1849 by the Little Falls Mill and Land Company. This company was formed by James Green, Allan Morrison, Henry M. Rice, John Irvine, John Blair Smith Todd, and Napoleon Jackson Tecumseh Dana.

Little Falls, the county seat, sprung up when a second dam was built by the Little Falls Company (later called the Little Falls Manufacturing Company). The village was officially incorporated in 1879.

All of this activity occurred before the county was formed in 1856. Minnesota became a state in 1858.

The history continues and includes such figures as Chief Hole-in-the-Day I and II, Nathan Richardson, Pamelia and James Fergus, Clarence B. Buckman, Charles A. and Maud Moon Weyerhaeuser, Richard D. and Sarah Musser, Congressman C. A. Lindbergh and his son, the aviator, Charles A. Lindbergh, Jr. and many others.

6.1 PLANNING PROCESS OVERVIEW

The Morrison County Comprehensive Plan is built upon a strong foundation of participation by citizens, local officials, community groups and civic organizations, businesses, and similar citizen participation. This scope of participation began at the very start and remained strong through the closing of the process including widespread participating in visioning events, public forums, local government official meetings, and providing comments on this plan.

Instrumental to the development of the 2005 plan were the Morrison County Healthy Community Partnership Team who provided oversight, guidance, and participation in the planning process including direct facilitation of the primary visioning session held in conjunction with the plan. This team was comprised of over 20 individuals from many different aspects of the community, which provided a direct link to a broad spectrum of Morrison County. Below is a synopsis of all meetings and events held throughout the 2004-2005 Morrison County Comprehensive Planning process.

Kick-Off Meeting

Local Government Officials Participation

Citizen Participation

Interest Group Participation (Special Topics Forum) Public Review and Adoption

6.2 THE "KICK-OFF" (2005 PLAN)

Total Participants: Approx. 120

Target Audience: Any interested persons

Meeting Date: January, 2002

Description of "Kick-Off" Meeting: This meeting provided residents, landowners, members of the business community, civic or social organizations, and any other interested persons or groups with an introduction of the Morrison County Comprehensive Planning process.

6.3 LOCAL GOVERNMENT OFFICIALS SURVEY (2005 PLAN)

Total Participants: 35

(Although forms were mailed to every township and city official individually, most chose to fill out survey questionnaires as a board or council)

Description of Survey:

The purpose of the Local Government Official Survey was to obtain opinions from township board members and city council members on various topics such as land use, trails, hazard mitigation planning, and similar topics. To maximize participation in the survey process, a questionnaire was mailed to every township and city official within the County. Although survey forms were intended to be completed as individuals it was found that many of the

forms were completed as boards or councils rather than individuals, showing the strong ability of local officials within Morrison County to work together. Survey information was valuable in determining issues facing Morrison County at the present time and in the future.

6.4 LOCAL GOVERNMENT OFFICIALS MEETINGS (2005 PLAN)

Target Audience: Town Board Members, City Council Members

Meeting Dates: (1st Round)	Block 1	April 21, 2003
	Block 2	May 5, 2003
	Block 3	May 14, 2003
	Block 4	May 20, 2003
	Block 5	May 29, 2003
	Block 6	June 4, 2003
	Block 7	June 11, 2003
	Block 8	June 25, 2003
Meeting Dates: (2nd Round)	Block 2	June 17, 2003
	Blocks 4 & 5	July 9, 2003
	Blocks 6, 7 & 8	July 23, 2003
	Blocks 1 & 3	August 6, 2003

Description of Meeting Series:

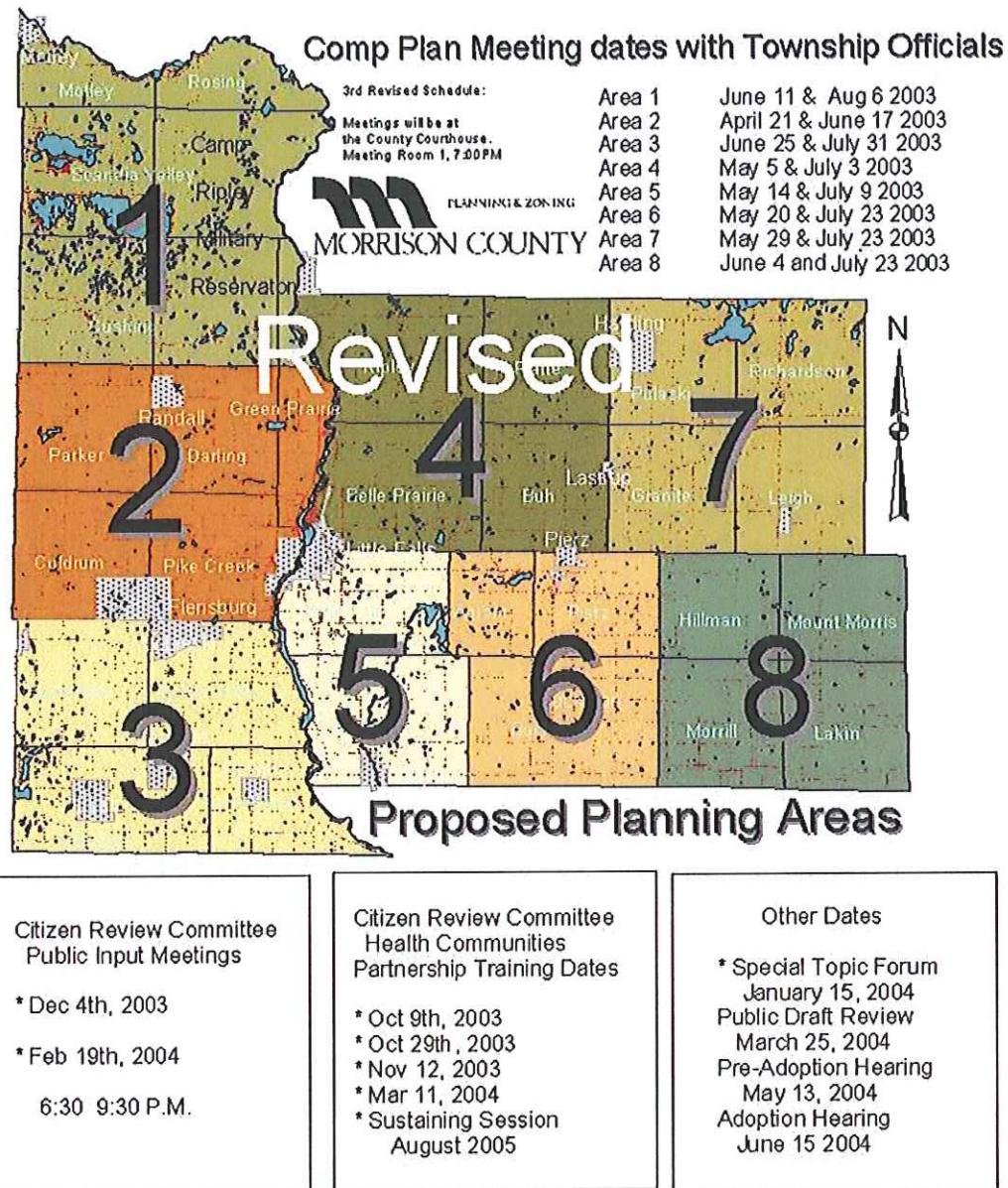
(1st Round)

Local government official meetings were held to give township board members and city council members an opportunity to share positive and negative aspects, or strengths and weaknesses, of current land use in and around their communities. Participants were asked to draw upon discussions they may have had within their respective local units of government in sharing this information. The meeting also offered an opportunity for participants to share the opportunities that may exist within Morrison County 5, 10, 15 years into the future or through the year 2025.

(2nd Round)

The second of two local government official meetings focused primarily on the development of trails and hazard mitigation planning within Morrison County, however offered local officials an additional opportunity to address any remaining land use issues. The information obtained within the second round of local official meetings was used for the development of the Morrison County Trails Plan, Hazard Mitigation Plan, and this Comprehensive Plan.

Local Government Official Meeting Blocks Map (2005 PLAN)



6.5 CITIZEN (PUBLIC) VISIONING SESSIONS ((2005 PLAN))

Target Audience: General public including residents and landowners

Total Participants: Approximately 280

Meeting Date: December 3, 2003 and February 19, 2004

Description of the First Visioning Session:

Through this visioning session citizens offered their opinions as to the strengths, weaknesses, and desired outcomes for each of the topics discussed. The components themselves were intended to cover the wide range or spectrum of physical and social aspects of Morrison County. The following is a list of topics discussed in a "round table" setting at the first citizen visioning session:

- Land Use and Shoreland Management
- Land Use and a Healthy Lifestyle
- Land Use and Feedlot Regulations
- Land Use and Agriculture (Small Farms)
- Infrastructure
- Economic Development & Agriculture
- Commercial, Industrial and Workforce
- Residential Growth and Housing
- Natural Resources and Critical Areas
- Recreational Trails

Description of the Second Visioning Session:

The following topics were discussed in a facilitated setting at the second citizen visioning session:

- Impacts of Morrison County Biological Survey on Land Use
- Hazard Mitigation Identification and Assessment (Including Mapping Exercise)
- Trails Planning in Morrison County (Including Mapping Exercise)

Results from visioning sessions one and two, together with the results from local government official input, were used in Task Force meetings to develop the goals, objectives, and policies within this plan.

6.6 SPECIAL TOPICS FORUM (2005 PLAN)

Target Audience: Civic and community organizations, local special interest associations or groups, and the general public including residents and landowners

Total Participants: Approximately 150

Meeting Date: January 15, 2004

Description of the Special Topics Forum:

The special topics forum provided a unique platform for those who represent a collection of community, business, agriculture and similar interests an opportunity to provide information to citizens of the County and to Morrison County planning process participants.

6.7 TASK FORCES (2005 PLAN)

Task Forces were formed for each of the following topics:

Task Force: Land Use

Subcommittees: Shoreland Issues

(Special Issues) Small Farms

Responsibilities:

To develop land use goals and objectives for Morrison County based from the broad-range of public, local official, businesses, and civic and community organizations. Subcommittees were developed from the entire group to reflect special land use issues.

Task Force: Feedlots

Subcommittees: None

(Special Issues)

Responsibilities: To develop feedlot goals and objectives for the Morrison County Comprehensive Plan. No special issues subcommittees were formed from this task force due to feedlots being a special issue.

6.8 PUBLIC REVIEW (2005 PLAN)

A draft of the Comprehensive Plan was mailed to all Local Government Units, Agencies, Departments, appropriate State Offices, Regional Offices, and others. One written comments was received from a Township. The lack of comments at the end of the process revealed a successful information gathering process and confidence that the document reflected the concepts presented by those involved in the process.

6.9 PLAN UPDATE (2015-2016)

The 2016 Plan Update was initiated for the purpose of reviewing the demographic data summarized in Part Two (Morrison County Assessment) as well as an update to the goals, objectives and policies outlined in Part Three (The Future of Morrison County). A Committee was formed of elected and appointed officials, County staff and representatives from interested organizations and the general public. The Task Force held five separate meetings to review the various issues within Part Three of the 2005 Plan and provide input as to how the goals, objectives and policies of the County should change. Subsequent drafts of the Plan were then presented to and discussed with the County Board of Commissioners over the course of several work sessions. A final draft of the updated Plan was the reviewed and recommended for approval by the Planning Commission. The final updated version of the Comprehensive Plan was adopted in the late summer of 2016.

SECTION 7.0 PLAN IMPLEMENTATION AND EVALUATION

The key to the success of the Morrison County Comprehensive Plan is in the implementation of the plan's goals, objectives, and policies in the manner as prescribed through the implementation schedule of the plan. To ensure the goals, objectives and policies prescribed within the plan are being completed and upheld an annual review and evaluation of the plan should be conducted.

SECTION 8.0 PLAN MAINTENANCE

Although this updated plan is intended to serve as the County-wide vision through the year 2036, the plan must be reviewed and revised as necessary to reflect the current state of the County and the goals, objectives and desires of the County-wide community. To ensure proper maintenance of the Morrison County Comprehensive Plan the plan should be reviewed at least every three to five years and revised at least every five years. Like any other Comprehensive Plan, this plan is intended to be amended to reflect the most accurate information possible as well as the true goals and desires of the community. All amendments to this plan shall be made in the same manner as amendments made to the Morrison County Land Use Ordinance with the exception of corrections of grammatical and typographical errors and the regular updating of community profile information contained within Section Two of this plan.

PART TWO: MORRISON COUNTY ASSESSMENT

SECTION 1.0 INTRODUCTION

Morrison County is rich in its vast human and physical resources. In order to provide for future land use goals, objectives and policies it is important to first assess the current status of these resources within the County. This section provides this assessment in the following areas:

- Demographic and Economic Trends
- Camp Ripley Military Reservation Local Government Overview
- Environmental and Natural Resources Assessment
- Land Use Assessment (Agricultural Uses, Residential Uses, Commercial and Industrial
- Uses, and other uses)
- Transportation Assessment
- Infrastructure and Public Facilities Assessment
- Cultural Resources Assessment

SECTION 2.0 DEMOGRAPHIC AND ECONOMIC TRENDS

2.1 POPULATION

A. HISTORICAL DATA AND POPULATION PROJECTIONS

Morrison County has many unique opportunities to offer with its rich land and water resources, rural atmosphere and character. For those who prefer a more quiet, rural atmosphere there are many cities and townships that offer a more rural setting with plenty of open spaces and areas of agricultural activity and for those who prefer a faster-paced urban lifestyle there are many vibrant cities with much to offer in fine schools, services and amenities. Growth within the county has occurred most frequently within city areas of the county and along the shoreland areas of the county's most popular lakes including Alexander, Shamineau, Fish Trap, and other lakes. Since the 1970's Morrison County has grown by over 23%, to an estimated population of 33,198 in 2010, showing a steady climb in population of the past three decades. Past population information is provided in Table 2-1. By 2045, Morrison County is projected to contain a population of 40,182 or about 21.0% more than in 2010. Table 2-2 shows the estimated growth of Morrison County through the year 2045.

Table 2-1 Past Population of Morrison County

	1920	1940	1960	1970	1980	1990	2000	2010	1970 – 2010 % Change
Total	25,841	27,473	26,641	26,949	29,311	29,604	31,712	33,198	23.2

Table 2-2 Morrison County Population Projections¹

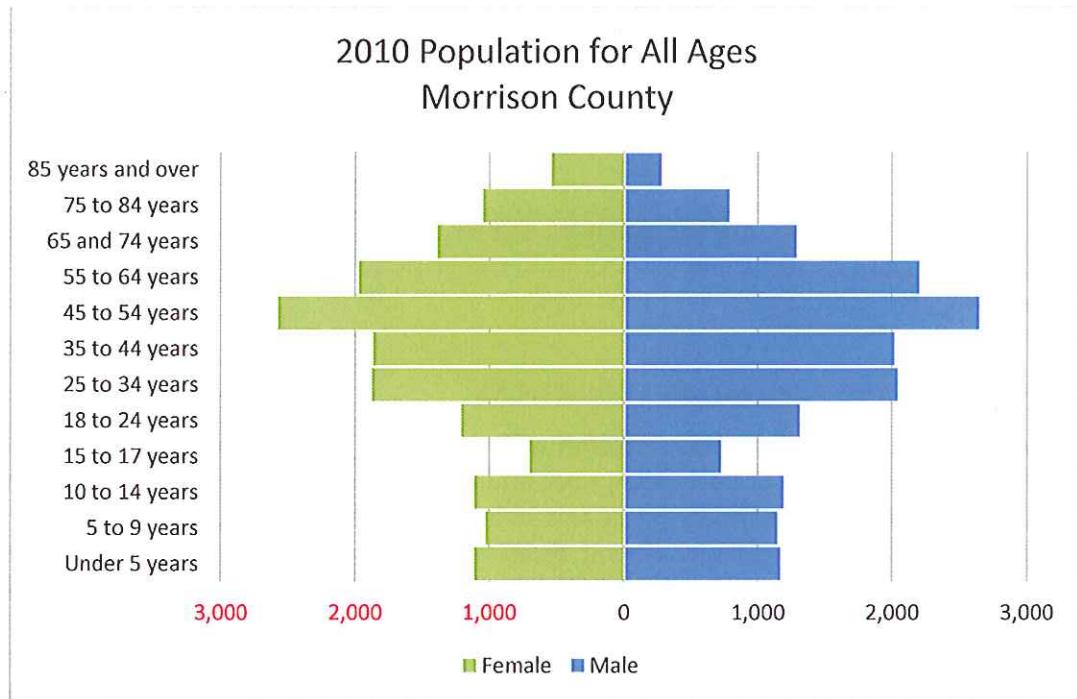
	2015	2020	2025	2030	2035	2040	2045	2015 - 2045 % Change
Total	35,023	36,322	37,388	38,238	38,898	39,527	40,182	14.7

B. POPULATION BY AGE AND GENDER

Information obtained from the U.S. Census Bureau and the Office of the Minnesota State Demographer shows the about 25 percent of the County's population is below the age 18 and about another 47 percent between 18 and 54. Those at age 55 and above represent the remaining 28-29 percent of the population.

Figure 2-1 displays a population pyramid showing Morrison County's population distribution by gender and age and Table 2-3 displays population by age and gender numerical data.

Figure 2-1 2010 Census: Morrison County Population Pyramids



¹ Population projections prepared by the Office of the Minnesota State Demographer

Table 2-3 Number of Persons by Age and Gender

Age	Male Persons	Female Persons	All Persons	Percent of Total Population
Total Population:	16746	16452	33198	100.00
Under 5 years	1161	1112	2273	6.85
5 to 9 years	1142	1030	2172	6.54
10 to 14 years	1185	1113	2298	6.92
15 to 17 years	719	703	1422	4.28
18 to 24 years	1309	1211	2520	7.59
25 to 34 years	2039	1877	3916	11.80
35 to 44 years	2015	1866	3881	11.69
45 to 54 years	2642	2580	5222	15.73
55 to 64 years	2196	1973	4169	12.56
65 and 74 years	1283	1394	2677	8.06
75 to 84 years	780	1051	1831	5.52
85 years and over	275	542	817	2.46

POPULATION QUICK FACTS

• 2015 Population Estimate: ²	37,960
• 2010 Population:	33,198
• 2000 Population:	31,712
• Population Growth 2000 to 2010:	4.7%
• Expected Growth through 2045:	17.5%
• Expected Population in 2045:	40,182

2.2 HOUSING**A. HOUSEHOLDS**

The number of households within Morrison County has also grown significantly over the past several decades. Over the period between 1970 and 2010 an additional 5,639 households were added to the County. Information on past household information is presented in Table 2-4 and information on future household projections through the year 2030 can be found in Table 2-5. For the most part, these statistics show that a significant portion of new growth is building or developing new housing units within the County.

² 2002 Estimate, Office of the Minnesota State Demographer

Table 2-4 Households within Morrison County³

	1970	1980	1990	2000	2010	1990 – 2010 % Change
Total Households	7,441	9,505	10,399	11,816	13,080	25.8

Table 2-5 Morrison County Household Projections⁴

	2010	2015	2020	2025	2030	2000 – 2030 % Change
Total Households	13,260	14,020	14,670	15,350	15,910	34.6

HOUSEHOLD QUICK FACTS

- Households Estimate in 2014: 13,083
- 2010 Households: 13,080
- 2000 Households: 11,816
- Household Growth 2000 to 2010: 10.7%
- Expected household growth through 2030: 21.6%
- Expected number of households in 2030: 15,910

A total 1,436 housing units have been added to Morrison County between 1990 and 2010. Table 2-6 presents information on the growth in the number of housing units within the County over the past three decades. Morrison County has also experienced consistent increases in the number of housing units used for seasonal, recreational, or occasional use over the past three decades. Typically such new development occurs within the attractive lakeshore areas of the County. Table 2-7 shows seasonal, recreational, or occasional use dwelling unit information for Morrison County.

Table 2-6 Housing Units within Morrison County

	1970	1980	1990	2000	2010	1990 – 2010 % Change
Total Housing Units	9,055	11,619	12,434	13,870	15,731	26.5

³ Source: US Census Bureau, 2010 Decennial Census

⁴ Population projections prepared by the Office of the Minnesota State Demographer represent projections at the time of the writing of the 2005 Comprehensive Plan.

Table 2-7 Seasonal, Recreational, or Occasional Use Dwelling Units⁵

	1970	1980	1990	2000	2010	2014	1990 – 2014 % Change
Housing Units; Seasonal, Recreational, or Occasional Use	N/A	1,419	1,522	1,670	1,599	1,661	9.1

B. HOUSING AGE

The majority of housing within Morrison County was built within two time periods, with 21 percent of homes being built prior to 1939 and another 55-56 percent built between 1970 and 2009. Approximately 43 percent of all housing within the County was 65 years old or older, and over 69 percent of housing was 25 years old or older as of the development of this plan. Table 2-8 displays the age of housing within Morrison County as reported by the U.S. Census Bureau.

Table 2-8 Age of Housing in Morrison County⁶

Housing units		
	Number	%
Total:	15,808	100.0
Built 2010 or later	133	0.8
Built 2000 to 2009	2,722	17.2
Built 1990 to 1999	2,012	12.7
Built 1980 to 1989	1,750	11.1
Built 1970 to 1979	2,306	14.6
Built 1960 to 1969	1,311	8.3
Built 1950 to 1959	1,412	8.9
Built 1940 to 1949	843	5.3
Built 1939 or earlier	3,319	21.0

HOUSING QUICK FACTS

• 2010 Housing Units:	15,731
• 2000 Housing Units:	13,870
• Household Growth 2000 to 2010:	13.4%
• 2010 Seasonal or Recreational Housing Units:	1,599
• 2000 Seasonal or Recreational Housing Units:	1,670
• Housing built prior to 1939 (%):	21.0%
• Housing built between 1990 and 2010:	18.1%

⁵ Source: American Community Survey, 2014 (5-year estimates).

⁶ Source: American Community Survey, 2014 (5-year estimates).

2.3 ECONOMIC INDICATORS

As was the case throughout most of the State of Minnesota, Morrison County experienced strong economic growth throughout the 1990's and early twenty-first century. Through actions by federal, state, regional, county and local programs and agencies together with those of private enterprise, Morrison County will continue this strong economic growth into the future. This section provides information on income, poverty, employment and industry in Morrison County as reported in the 2000 Census.

A. INCOME

In the fifteen years between 1999 and 2014, the median income of Morrison County households increased by nearly 30%. During that same time frame, the percentage of families within the poverty threshold stayed the same, although the number had increased to 7.5 to 9.0% between 1999 and 2010. Table 2-9 shows the median household income and Table 2-10 shows the percentage of families within Morrison County below the poverty threshold as reported by the U.S. Census Bureau.

Table 2-9 Median Household Income ⁷						
	1979	1989	1999	2010	2014	1990 – 2014 % Change
Median Household Income	12,073	22,102	37,047	47,085	48,080	29.8

Table 2-10 Poverty Level of Families in Morrison County						
	1979	1989	1999	2010	2014	1999 – 2014 % Change
Percent Below Poverty Level	20.5	13.1	7.5	9.0	7.5	0.0

B. Employment

The number of persons age 16 and older in the labor force in Morrison County has increased significantly from 13,179 in 1990 to 16,327 in 2014 as reported by the U.S. Census Bureau. In the decade between those same years however, the unemployment rate in Morrison County rose from 4.6% in 1990 to 5.0% in 2014. Table 2-11 shows the total employment population and percentage of unemployment in Morrison County.

⁷ Source: US Census Bureau, Decennial Censuses and American Community Survey, 2014 (5-year estimates)

Table 2-11 Employment in Morrison County

	1980	1990	2000	2010	2014	1990 – 2014 % Change
Total Employment	12,884	13,179	16,043	16,352	16,327	23.9
% Unemployment	N/A	4.6	3.8	5.2	5.0	8.7

Some shifts have occurred in the classification of workers within Morrison County since the 1990 U.S. To correct these changes, Table 2-12 uses a combination of classifications of industry from both 1990 and 2000 U.S. Census classification by industry data. Over the decade between 1990 and 2000 Morrison County experienced a notable growth in most industries with the exception of agriculture, forestry, fisheries, mining, transportation, warehousing, utilities, and retail trade industries.

Table 2-12 Job Classification by Industry

CLASSIFICATION/INDUSTRY	1990	2000	2010	2014
Employed persons 16 years and over	13,179	15,077	16,352	16,327
Agriculture, forestry, fisheries, mining	1,835	1,382	1,139	1,201
Construction	786	1,219	1,537	1,304
Manufacturing	2,051	2,727	2,497	2,359
Transportation, warehousing, and utilities	668	604	680	766
Wholesale trade	397	404	416	396
Retail trade	1,873	1,755	1,838	1,823
Finance, insurance, and real estate	306	469	604	595
Professional, management, waste management and	463	820	1,298	1,262
Arts, entertainment, personal and recreation services	404	1,022	1,034	1,179
Educational, Health services	2,138	3,142	3,669	3,607
Other professional, information, and related services	596	837	678	910
Public administration	618	694	810	737

ECONOMIC QUICK FACTS

• 2010 Median Household Income (\$):	47,085
• 1999 Median Household Income (\$):	37,047
• 1999 to 2010 Percent Change in Median Household Income:	27.1
• Families Below Poverty Level (2010):	9.0%
• Total Unemployment (2010):	5.2%

3.1 BACKGROUND

As a unique facility within the State of Minnesota, and more specifically Morrison County, it is appropriate to discuss the Camp Ripley Military Reservation. The Camp is owned and operated by the Minnesota Department of Military Affairs. Camp Ripley is located in north central and northwestern Morrison County and with the exception of 62 acres of land in Crow Wing County Camp Ripley lies entirely within Morrison County. The Camp occupies a gross area of 51,020 acres (approx. 80 sq. miles) within the posted limits of the installation, plus an additional 1,811 acres off post. The Camp is bordered on the north by the Crow Wing River and on the east by the Mississippi River. In addition to serving as a military training site, Camp Ripley is a statutory game refuge.

Camp Ripley is one of the largest National Guard Training Sites in the United States and, without a doubt, equipped with some of the finest ranges and facilities in the country. The mission of Camp Ripley is threefold including 1) to train soldiers and units that support National Security objectives; 2) to provide resources that assist in the protection of life, property, and preserve peace, order and public safety for the State of Minnesota; and 3) to participate in local, state, and national programs that add value to our community.

Camp Ripley was opened to the Minnesota Army National Guard (MNARNG) on 14 June 1931 after the state legislature approved funding for a larger training site. Initially, the training site consisted 2,000 acres but was increased to 15,275 acres during World War II. During World War II, Camp Ripley was used primarily as a training site for the Minnesota State Guard after the National Guard was federalized. During the Korean Conflict, Camp Ripley's training area expanded 10,396 acres further north to approximately 25,671 acres. By the mid to late 1960's, Camp Ripley increased to include the present area encompasses 52,831 acres.

Since 1994, when Camp Ripley first started tracking utilization with a military scheduling program known as Range Facility Management Support System (RFMSS), more than four million personnel have trained at Camp Ripley. Organizations include: All branches of the military, many foreign military units as well as civilians from a variety of organizations, including federal, state and local law enforcement agencies. Traditional users include: Military units of the Army and Air National Guard, Army, Air Force, Marine and Navy Reserves, Army, Air Force, Navy and Marine Active Duty personnel; Foreign Soldiers from Canada, Norway, Croatia, Columbia and Chili; Civilian organizations like the FBI, DEA, ATF, DNR, Department of Corrections, State, County and City Police, emergency response teams, Boy Scouts and Civil Air Patrol.

Camp Ripley has been and always will be the center of gravity for the individual and collective training requirements for all units of the MNARNG. It is also the only place in the state soldiers can meet most if not all of their STRAC requirements. It is the only military installation in the State of Minnesota that can provide standard weapons qualification ranges used by Army National Guard and United States Army Reserve units. Multiple Rocket Launch System, artillery towed/self-propelled, mortars, tanks,

Bradley Fighting Vehicles, mechanized maneuvers, engineer demolition, air assault, and a variety of aviation operations at Camp Ripley, cause noise, dust and smoke.

3.2 CURRENT FACILITIES

The Camp Ripley Military Reservation includes a cantonment area (the developed portion of the training site including the Camp's buildings and utilities) and the training area that is a largely forested, undeveloped area with firing ranges.

The cantonment area is the urbanized portion of the Camp. It is located in the southeast corner of Camp Ripley with the main gate entering from the south off Highway 115. The cantonment area is 1,998 acres in size and is laid out in a rectangular shape elongated north-south. It contains the offices, troop housing, and support facilities including the airfield. The Camp's utilities distribute power and supply heat, water wastewater treatment, communications, and solid waste collection services. Troop housing areas border the north and east sides of the airfield (in the center of the cantonment area) and motor pool areas are adjacent to each troop housing area. Two parallel sets of railroad tracks run into the utility area. Streets are bituminous and gravel surfaced. Troops in training are provided masonry, one story structures for headquarters, food service and supply functions, and are either furnished aluminum metal hutments or two-story concrete block barracks as sleeping quarters. Camp Ripley is a closed post. Its main cantonment area is served by three primary access gates. Cantonment area operational activities include the logistical support services necessary to provide for the needs of organizations utilizing the training site. The support facilities include buildings supervised by the Camp Commander's Staff and the MN Department of Military Affairs that store supplies (including ammunition, food, petroleum and training equipment), the Mobilization and Training Equipment Site (for storage and maintenance of combat, tactical and some administrative vehicles and related equipment), the Camp headquarters buildings, chapel, museum, 16-bed troop medical clinic, troop housing, airfield and many other related facilities.

The cantonment area also includes several tenant facilities associated with the Minnesota Department of Military Affairs including the United States Property and Fiscal Office, the Director of Logistics, Facilities Management Office, Combined Support Maintenance Shop, Organizational Maintenance Shop, and the Armory that serves about 1000 soldiers assigned to Camp Ripley.

In all, about 578 personnel are employed full time at the Camp and work out of the cantonment area facilities. There are 154 State funded positions and the remainder is federally paid. To supply all the necessary services during peak training periods, an additional 175 to 200 seasonal personnel are typically employed.

Camp Ripley's training areas includes firing ranges, impact areas/target areas for large caliber weapons and maneuver areas. The southern portion is primarily forested with mature deciduous hardwoods (excluding the cantonment area) and relatively flat. Large portions of this area are accessible to mechanized units because there is an extensive network of trails throughout the wooded areas. Moving northward, the forested areas become denser and the relief increases. There are many steeply sloping ridge and swale areas. There is also a significant amount of wetlands north of the cantonment area. Relatively few trails are established through the wood and the ravines and wetlands tend to block armor movement.

Camp Ripley has firing ranges capable of accommodating any conventional weapons assigned to today's military units. There are two active artillery and mortar impact areas within the Camp Ripley Military Reservation; the George E. Leach Range and the Norman E. Hendrickson Range. Each range has an impact area of approximately three square miles. The impact areas are off limits.

3.3 FUTURE DEVELOPMENTS

Since 1931, Camp Ripley has been meeting the operational and training needs of an increasing number and variety of military units. Current developments around the world require the Camp's facilities to be capable of supporting an increasing number and variety of training exercises year-round. Most recently, with the increased emphasis on the National Guard's role supporting the War on Terror combined with new training standards by the Secretary of Defense has necessitated improvements to the Camp's facilities. For these reasons, Camp Ripley's Master Plan has been updated and outlines numerous projects within both the cantonment area and training area of Camp Ripley.

Camp Ripley continues to work on a complete facelift of existing facilities. Many of the utility services have been upgraded including the sanitary sewer system, storm sewer system, underground electrical wiring, wastewater treatment plant, and the water treatment plant and distribution system. Continuing projects include upgrading training area facilities, communication and automation infrastructure, adequate education facilities, and support facilities for existing aviation training.

Camp Ripley had an economic impact of \$288.5 million to the surrounding communities in 2015. With increased potential for development around Camp Ripley, land use conflicts, because of the noise, dust and smoke, will become more predominant. This potential conflict has prompted the Department of Military Affairs to develop a program known as the Army Compatible Use Buffer (ACUB).

The Minnesota Department of Military Affairs is attempting to minimize the impacts that military training has on surrounding landowners through ACUB. The program consists of a process whereby the Minnesota Department of Military Affairs becomes involved in local land use planning programs to address potential conflicts with present and future incompatible land uses. In addition, Camp Ripley has identified priority areas adjacent to the Military Reservation to help focus on the ACUB Program. Landowners within the area may be eligible to participate in a voluntary program to protect their lands from development, and thereby minimizing the public from Camp's noise, smoke, and dust. Furthermore, the program could ensure Camp Ripley's viability as a military training site into the future. Compatible land uses such as agriculture, forestry, and recreation will be encouraged in this voluntary program, which will also serve to protect the rural character of the area.

Camp Ripley Sentinel Landscape Program

Located along the northern stretch of the Mississippi River, Camp Ripley is the primary National Guard Training Center for units from Minnesota, North Dakota, South Dakota, Wisconsin, Iowa, Ohio, and Illinois. For decades, the agricultural and open space lands surrounding Camp Ripley have enabled the installation to conduct aircraft, live fire, artillery, IED, and winter training with limited restrictions and protected the quality of water entering the Mississippi River and its four major tributaries. However, the rural character of the area that facilitated this dynamic is now attracting potential residential development that could significantly affect Camp Ripley's ability to fulfill its mission; convert historic farms, ranches, and forested lands into other uses; and adversely affect one of the most ecologically rich environments and important source water areas in the Midwest.

Recognizing the need to protect this landscape, the Minnesota legislature passed H.F. No. 283, which was signed into law by Governor Mark Dayton in May 2015. Under the law, the adjutant general convened a Sentinel Landscape Coordinating Committee to identify the boundaries of the Camp Ripley Sentinel Landscape and develop a suite of tools and programs that could provide technical and financial assistance to interested landowners within the Sentinel Landscape. With input from local government, stakeholders, and Federal agency partners, the Coordinating Committee identified the desired outcomes of the Camp Ripley Sentinel Landscape partnership: protecting the installation's military training mission and the landscape's wildlife management areas, watersheds, and agricultural resources.

1. BENEFITING WORKING LANDS

Restoring, managing, and protecting the viability of historic agricultural and forest lands within the Camp Ripley Sentinel Landscape is a top priority for the local community, with 260 landowners already expressing interest in enrolling over 29,000 acres of private working ranches, croplands, and timberlands into established assistance tools and programs. This enthusiastic participation will more than double the number of private landowners already participating in efforts buffering Camp Ripley and managing natural resources within the Sentinel Landscape.

Local partners like the Minnesota Board of Soil and Water Resources and the Morrison Soil and Water Conservation District will work with willing landowners to provide technical assistance that will strengthen prime working lands, using programs such as the Healthy Forests Reserve Program (HFRP), Agricultural Conservation Easement Program (ACEP), and Environmental Quality Incentives Program (EQIP). Landowners will have the opportunity to access conservation education and enhance their land management practices while maintaining their right to continue agricultural production and protect their lands from development as appropriate within the Sentinel Landscape.

2. CONSERVATION OPPORTUNITIES

The Camp Ripley Sentinel Landscape includes 34 minor watersheds grouped into 7 sub-watersheds, 40 miles of the Mississippi River, and the Crane Meadows National Wildlife Refuge. Thousands of acres of public and private conservation lands converge on the Camp Ripley Sentinel Landscape, which is also one of the state's most important source water protection areas for drinking water.

While coordination across county and city boundaries has long been necessary to protect the quality of cross-border watersheds, the Camp Ripley Sentinel Landscape Partnership is leveraging broader support to protect and improve the quality of the region's soil and water resources. The Minnesota Forest Resource Council is working with landowners to implement forest stewardship plans within the Sentinel Landscape, while Partners for Fish and Wildlife will work with private landowners to restore and enhance fish and wildlife habitat, wetlands, and pollinator habitat.

These efforts are also resulting in additional opportunities for the community, including expanded trail, water, and natural area access for hunting, fishing, and recreation.

3. LOOKING FORWARD

The Sentinel Landscape Partnership at Camp Ripley will continue to coordinate and leverage the resources of the Department of Defense Readiness and Environmental Protection Integration Program, USDA's Natural Resources Conservation Service, U.S. Fish and Wildlife Service, and U.S. Forest Service with state and local partners to advance the goals of the Camp Ripley Sentinel Landscape. Together, these actions will sustain area agriculture, protect the Mississippi River headwaters, and preserve a unique landscape that will allow Camp Ripley to continue to effectively train National Guard members for decades to come.

Source: <http://sentinellandscapes.org/explore/camp-ripley/>

SECTION 4.0 MORRISON COUNTY COMMUNITIES

4.1 CITIES

A. GROWTH OF CITIES

Most of the cities within Morrison County experienced growth between 1990 and 2000 due to new population growth and possibly as a result of some annexation. The largest population growth numbers were experienced by cities along interregional highway corridors such as Highway 371, Highway 10, and Highway 25. Despite overall county population growth there were some cities that experienced population decline over those same years. Table 2-13 shows the growth of Morrison County cities between the 1990 and 2010 Censuses.

Table 2-13 Growth and Population Decline of Morrison County Cities

CITY NAME	1990	2000	2010	1990-2010 Increase or Decline	1990 – 2010 % Change
Bowlus	260	260	290	30	11.5
Buckman	201	208	270	69	34.3
Elmdale	130	107	116	(14)	(10.8)
Flensburg	213	244	225	12	5.6
Genola	85	71	75	(10)	(11.8)
Harding	76	105	125	49	64.5
Hillman	45	29	38	(7)	(18.4)
Lastrup	112	99	104	(8)	(7.1)
Little Falls	7,371	7,719	8,343	972	13.2
Motley ⁸	441	583	660	219	49.7
Pierz	1,014	1,277	1,393	379	37.4
Randall	571	535	650	79	13.8
Royalton	802	816	1,239	437	54.5
Sobieski	199	196	195	(4)	(2.0)
Swanville	324	351	348	24	7.4
Upsala	371	424	427	56	15.1

The majority of the 16 cities within Morrison County provide planning & zoning administration within their incorporated limits. The following is an inventory of Comprehensive Plans and zoning ordinances maintained and administered by cities within Morrison County.

⁸ Morrison County Portion of the City of Motley

Little Falls	Zoning & Comp Plan
Pierz	Zoning & Comp Plan
Upsala	Zoning & Comp Plan
Randall	Zoning & Comp Plan
Royalton	Zoning & Comp Plan
Motley	Zoning & Comp Plan

4.2 TOWNSHIPS

A. GROWTH OF TOWNSHIPS

Most of the 30 townships within the County experienced growth between 1990 and 2000, however some population decline was experienced, most likely due to annexation and also shifts in population. Townships that experienced the most growth are located along interregional corridors such as Highway 10, Highway 371, or near or around popular area lakes. Table 2-14 shows the population growth of Morrison County townships from 1990 to 2000.

Table 2-14 Township Population Growth and Decline

TOWNSHIP NAME	1990	2000	2010	1990-2010 Increase or Decline	1990-2010 % Change
Agram	444	534	572	128	28.8
Belle Prairie	1,620	1,647	1,105	-515	-31.8
Bellevue	852	1,115	1,093	241	28.3
Buckman	716	717	733	17	2.4
Buh	582	572	520	-62	-10.7
Culdrum	487	505	487	0	0.0
Cushing	502	632	714	212	42.2
Darling	597	600	535	-62	-10.4
Elmdale	847	904	1,010	163	19.2
Granite	520	480	481	-39	-7.5
Green Prairie	672	665	748	76	11.3
Hillman	167	164	197	30	18.0
Lakin	334	409	450	116	34.7
Leigh	174	192	212	38	21.8
Little Falls	1,393	1,624	1,682	289	20.7
Morrill	608	650	696	88	14.5
Motley	179	205	202	23	12.8
Mount Morris	93	90	93	0	0.0
Parker	453	469	474	21	4.6
Pierz	636	513	535	-101	-15.9

Pike Creek	937	932	953	16	1.7
Platte	369	329	357	-12	-3.3
Pulaski	295	340	300	5	1.7
Richardson	412	485	536	124	30.1
Ripley	607	692	729	122	20.1
Rosing	105	135	146	41	39.0
Scandia Valley ⁹	949	1,217	1,191	242	25.5
Swan River	759	755	743	-16	-2.1
Swanville	504	534	517	13	2.6
Two Rivers	576	582	689	113	19.6

B. TOWNSHIP PLANNING

While Morrison County provides planning and zoning administration for all townships, the County encourages the development of township Comprehensive Plans that are consistent with, and at least as restrictive as the Morrison County Comprehensive Plan. These plans are helpful to the County in that most Comprehensive Plans developed by townships address land use issues that are unique to the specific township area and provide input to the County in addressing those issues. The following is an inventory of Comprehensive Plans and zoning ordinances maintained and administered by townships within Morrison County.

Township	Comprehensive Plan
Belle	Y
Bellevue	Y
Ripley	Y
Little Falls	Y

LOCAL GOVERNMENT QUICK FACTS

Largest City in Morrison County:	Little Falls (Population 8,343)
Largest Township in Morrison County:	Little Falls Township (Population 1,682)
Largest City Population Increase 1990-2010:	Little Falls (972 Persons)
Largest Township Population Increase 1990-2010:	Little Falls Township (289 Persons)
Largest City Population Decrease 1990-2010:	Elmdale (-14 Persons)
Largest Township Population Decrease 1990-2010:	Belle Prairie (-515 Persons)

⁹ The population data presented shows combined population data for Scandia Valley and Rail Prairie Township due to the merger of the two Townships in 2002.

5.1 CLIMATE AND PRECIPITATION

Climate

Short, warm summers and cold, dry winters typify the climate of Minnesota and Morrison County. Summer temperatures in the County average 68 degrees F, with an average daily maximum temperature of 81 degrees. The highest recorded temperature, which occurred in Little Falls on August 18, 1976, was 101 degrees.

The average winter temperature is 12 degrees F with an average daily minimum temperature of 1 degree. The lowest temperature on record, -41 degrees, was recorded on January 9, 1977. The frost-free period is approximately 136 days.

Precipitation

The normal annual precipitation received in the County from the years 1961 to 1990 ranges from 27 to 28 inches. About two-thirds of precipitation, or 17 to 18 inches, is received during the growing season from May to September. In the drought year of

1987, only 17.5 inches of precipitation fell the entire year, with only 13 inches during the growing season. More recently, in the 1990s, the County has experienced some wetter years.

Long Term Precipitation Patterns

Based on the multiple weather scenarios that the continental climate generates, the norm for climatic conditions in the County, as well as the state, can vary. The term, "normal" is merely a mid-point for fluctuating weather events for a given period of time. Analyzing precipitation patterns over a longer period of time is important to wise water planning and management. The lowest annual precipitation total recorded over the 161- year period was 10.21 inches in 1910. Only one year later, precipitation totaled 40.44 inches, the highest on record.

Multi-year periods of similar weather also stand out in the climate record. For example, annual precipitation totals show a distinct drying pattern from the turn of the century though and including the "Dust Bowl" years of the 1930s. Note the relative lack of "wet" years over that period. Beginning in roughly 1940, the precipitation trend takes a ladder- step up to an era of tremendous variation including episodes such as the 1976 drought and the extraordinarily wet period in the mid-1980s.

Over the past number of years, since the 1990 Water Plan was developed, additional gauging stations have been added in the County by the SWCD office. The rain gauges record daily rainfall events. The heaviest 1-day rainfall event reported in the County was 4.70 inches in Little Falls on August 1, 1953.

5.2 GEOLOGY

Bedrock Geology

Morrison County is underlain by relatively simple layers of rock and sediment. Metamorphic and crystalline basement rocks are overlain by weathered rocks and sediment that are in turn overlain by glacial deposits. The stacking of geologic layers reflects the order in which they were formed. The basement rocks were formed over 1.7 billion years ago. The weathered rocks and sediments were deposited on top of the basement rock from 65 to 140 million years ago.

Surficial Geology

Over the last two million years, there have been approximately 20 large-scale southward advances of the Laurentide Ice Sheet. These major glacial advances have been grouped into four stratigraphic units, including the Nebraskan, Kansan, Illinoian and Wisconsinian (listed in order of age from earliest to latest). The most recent advance, the Wisconsinian, has made the most impacts on the watershed in terms of glacial deposits and surface features.

Most of the glacial deposits were deposited over these formations during the Quaternary period less than one million years ago. Morrison County is located in a region where glaciers advanced at least four times during the 60,000 years of the Wisconsin glaciation. Many of the hills and plains that make up the existing landscapes in the watershed are the result of several substages of the Wisconsin glaciation, with the last advance occurring over 9,500 years ago.

5.3 HYDROLOGY

Groundwater

Earlier in this section, a description of the bedrock and surficial geology of Morrison County was provided. Together, the bedrock and surficial geology create the “container” for groundwater resources to reside in. Hydrogeology is the study of the groundwater that is located within the spaces, voids, cracks and other openings in the surficial and bedrock geology of a given area. Groundwater volumes, quality, flow directions, water table levels, etc. are major components in the study of hydrogeology.

Generally, groundwater comes directly from precipitation or surface water that infiltrates into the subsurface (below the land surface). Precipitation and surface water infiltrate into the subsurface through an unsaturated surface zone into a saturated zone where spaces between soil and rock particles are completely filled with water. The surface or level separating the unsaturated zone from the saturated zone is called the water table. Water stored in the saturated zone is called groundwater. An aquifer is a geologic formation that is saturated and that transmits large quantities of groundwater.

The ability of the earthen materials that make up the geologic container that stores groundwater varies considerably. Two basic properties are used to analyze the geologic materials include porosity, which is the amount of space within the geologic materials available to store water and permeability, which measures the ease in which water can move through materials. A confining layer is a geologic unit of low permeability and tends to separate or limit groundwater flow.

An unconfined aquifer contains groundwater that is in direct contact with the atmosphere or through the unsaturated zone. These aquifers have no confining layers and are often hydrologically connected with a river and stream. They are most readily recharged by precipitation, but are also particularly vulnerable to direct access of contaminants from the land surface. An aquifer that is completely saturated and is overlain by a confining area is called a confined or artesian aquifer.

Bedrock Aquifers

One of thirteen principal bedrock aquifers in Minnesota is found in Morrison County. Approximately one-fourth of the County in the northwestern quadrant is located in the Proterozoic Aquifer. Wells in this aquifer produce 5 to 70 gallons per minute and are 50 to 400 feet in depth. The rest of the County is underlain by Precambrian age rock consisting of igneous and metamorphic rock. Although these bedrock areas are not considered as having aquifers, wells in these areas can produce 5 to 25 gallons per minute and are generally 30 to 450 feet deep.

Figure 2-2 illustrates the generalized locations of bedrock aquifers in the state including the crystalline bedrock aquifers.

Glacial Drift Aquifers

Above the bedrock aquifers, there are substantial aquifers located in the glacial drift. The advance and retreat of glaciers left a series of significant water-bearing deposits in this drift. Glacial drift aquifers are divided into two categories including surficial drift and buried drift aquifers.

Surficial drift aquifers are exposed at the land surface and are found in about one-third of the state. Most of these aquifers consist of sand and gravel deposits called outwash. Wells in these aquifers are typically at a depth of 30 to 240 feet and produce from 100 to 800 gallons per minute although some wells may exceed 2,000 gallons per minute. These aquifers are a significant source for irrigation, industry, and public water supply systems in Morrison County.

Buried drift aquifers are comprised of sand and gravel deposits like surficial drift aquifers, but lie below confining layers of till, loess or alluvial material. These deposits are due to repeated glaciation and may or may not comprise a confining layer. Most buried drift aquifers are less than 10-feet thick, but can be as much as 100 feet in some areas. In general, groundwater flow is similar to the surficial drift aquifer, however, it has a longer travel path and is less responsive to recharge. Typical yields are 100 to 600 gallons per minute, with up to 1,500 gallons per minute possible in isolated areas. Figure 2-3 illustrates the general locations of glacial drift aquifers in the state.

CLIMATE AND PRECIPITATION QUICK FACTS

• Average summer temperatures of Morrison County:	81° High 68° Low
• Highest recorded temperature:	101° (8/18/1976)
• Average winter temperatures of Morrison County:	12° High -41° Low
• Average annual precipitation (1961-1990):	27-28 Inches
• Average growing season precipitation (May-September):	17-18 Inches
• Lowest recorded annual precipitation:	10.21 Inches (1910)
• Average growing season precipitation (May-September):	40.44 Inches (1911)

Figure 2-2 Sedimentary and Crystalline Aquifers

Figure 2-3 Surficial and Buried Sand and Gravel Aquifers

Figure 2-2 Sedimentary and Crystalline Aquifers

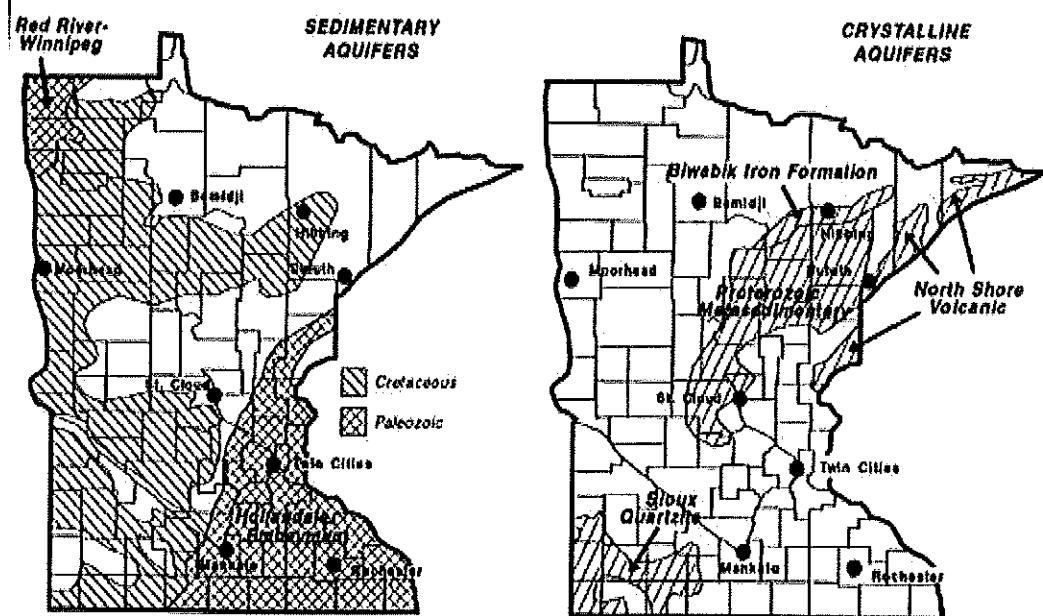
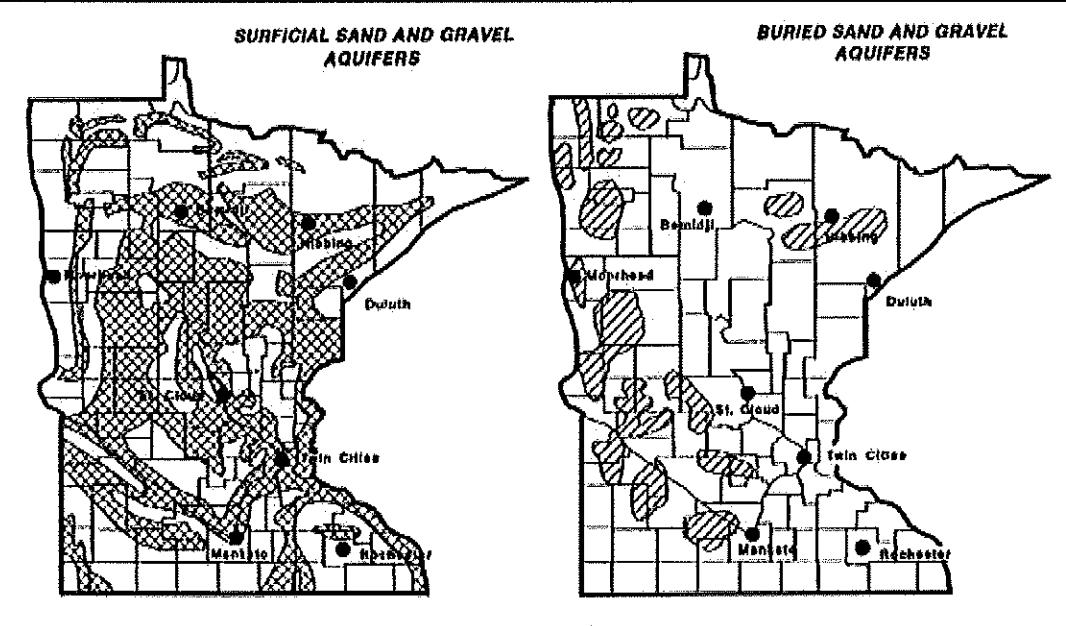


Figure 2-3 Surficial and Buried Sand and Gravel Aquifers



Source: MN DNR, Metropolitan Council

Depth to Groundwater Source

Some of the deepest wells are located in the northwestern corner of the County in the St. Croix moraine area. The wells in this area extend up to 165 feet in depth. A second area with relatively deeper wells is located east and southeast of Little Falls near Highway 27 and County Road 35. The wells in this location extend up to 130 feet in depth.

The majority of the wells in Morrison County are relatively shallow, or less than 30 feet, however in some cases the depth to groundwater ranges up to 165 feet. The shallow wells located throughout the County are primarily used for residential or general agricultural purposes (excluding irrigation). The County Well Index (CWI) provides specific data on the depth to the groundwater source for each well. Approximately 15 percent of the wells in the County have been inventoried in the CWI.

It should be noted that, in addition to availability of aquifers in a given location, another major factor that affects the depth to groundwater source for wells is the particular use of the well. Residential users tend to consume smaller amounts of groundwater and less financial resource so they tend to have shallow wells. In contrast, large volume consumers such as municipal and irrigation users, tend to drill deeper wells to ensure adequate groundwater.

Depth to Water Table

When considering the development of a given piece of land or constructing improvements including septic systems and structures, it is imperative to know what the depth to the water table is. The County Soil Survey contains this information on a generalized basis for the 81 detailed soils units in the County (see Table 16 in the Soil Survey). Water table depths range from 0.5 – 2.0 feet, 1.0 – 3.0, 1.5 – 3.0, 3.0 – 5.0 and greater than 6.0 feet. The Soil Survey also provides information on the typical timeframes for high water table conditions (water table levels fluctuate) and the type of water table including perched conditions. For more localized information on water table levels please refer to the Morrison County Soil Survey.

Groundwater Recharge Areas

Ground and surface water are connected through the processes of recharge and discharge. The amount of recharge is dependent on several factors including climate and precipitation, land use, vegetation, soils, slope, extent and type of confining layers, bedrock type, etc. Further, the recharge of confined aquifers is greatest where unconfined aquifers are present.

Most irrigation and municipal groundwater withdrawals in the County come from surficial aquifers in the sand plain areas where there are limited confining layers and are rapidly recharged. Some of the most intensely used lands, including commercial, industrial and agricultural uses, are also located in these areas of the County. The high infiltration that supports the recharge of the large capacity aquifers also makes them very susceptible to contamination.

In general, recharge areas in the County include areas with coarse textured soils, gravel pits, wetlands and ponds, lakes and rivers and even road ditches. There has been limited efforts to map the potential recharge areas in the County, especially in the sand plains. Further, the extent of the interconnections between surface water and groundwater in Morrison County is not well understood at this time. Geologic studies such as the County Geologic Atlas project sponsored by the MN DNR and MGS would provide detailed information on the geologic resources.

Groundwater Discharge Areas

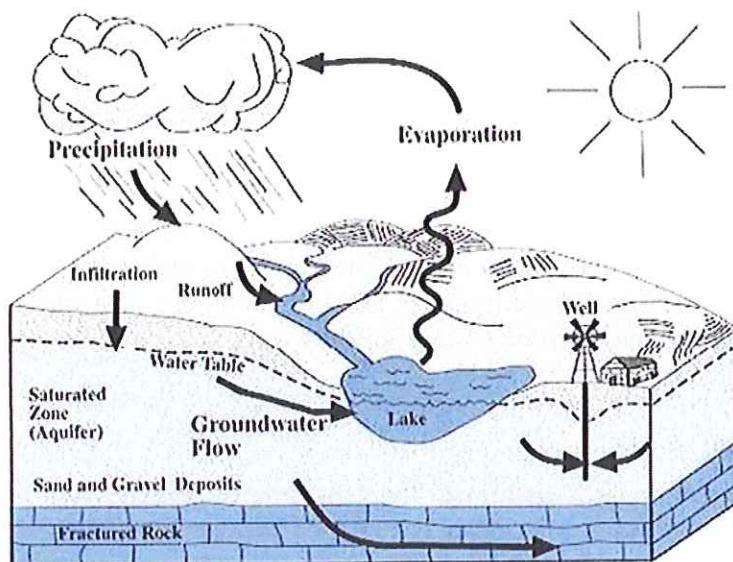
The flow of water in an aquifer generally follows topography or slope, moving from high ground to low lands. In turn, groundwater may also flow into streams and lakes or exit from the subsurface as springs. These areas are referred to as discharge areas.

The Mississippi and Platte rivers, and Rice and Skunk lakes are the main discharge points that are known in the County. Little Rock Creek in the south central part of the County is also spring fed. Like the recharge areas, specifics on discharge areas are not well understood.

The Hydrologic Cycle

The total amount of water in the world does not change. It moves as a liquid, vapor, or solid from oceans to air, air to land, over the land surface or into the ground, and back to the oceans. Figure 2-4 illustrates the water (hydrologic) cycle.

Figure 2-4 Hydrologic Cycle



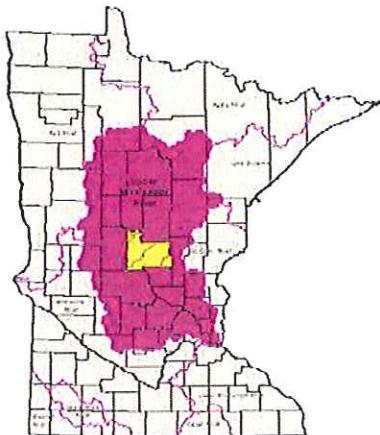
Ninety-seven percent of the world's fresh water supply is ground water. However, in Minnesota a significant portion of water occurs on the surface. With three continental divides separating surface water flows in the state, Minnesota and its 87 counties truly becomes a headwaters state.

What occurs in the watersheds of Morrison County not only affects the drinking water used by the 30,000 or so citizens of the County, but also hundreds of thousands of other Minnesotans living along the Mississippi River corridor, including St. Cloud and the Twin Cities. These communities draw the majority of their drinking water supplies from the river. Further down the Mississippi, even larger populations depend on the water in the river.

Mississippi River Basin

There are 10 river basins in Minnesota. Morrison County lies entirely within the Upper Mississippi River Basin, as do all of its adjacent counties with the exception of Mille Lacs County, which has a small portion of its eastern border in the St. Croix River Basin.

Figure 2-5 River Basins



The Upper Mississippi Basin is the only river basin in Minnesota that is located entirely within the state borders. It covers 20,100 square miles or 12,864,000 acres. There are 15 major watersheds within this basin. Figure 2-5 illustrates the basins in the state and the counties.

Major Watersheds

Major watersheds are the next unit or area in the hydrologic system or hierarchy. Within the state, there are 81 major watersheds, which make up the 10 river basins.

Figure 2-6 Major Watersheds



Within the Upper Mississippi River Basin, there are 15 major watersheds. In Morrison County, there are six (6) major watersheds. The amount of area that each of the six major watersheds cover Morrison County varies considerably. For example, only a very small portion of the Sauk River watershed (6 acres) overlaps the southwestern corner of the County. Small proportions of the Mississippi River – St. Cloud (168 acres), Crow Wing

(21,000 acres), and Long Prairie (43,000 acres) major watersheds are also located within Morrison County. In contrast, two major watersheds, the Mississippi River – Brainerd and the Mississippi River – Sartell, cover the vast majority of the County with 250,000 and 360,000 acres respectively. These two major watersheds cover 82.5 percent of the County. Figure 2-6 shows these major watersheds.

A watershed is the area within the geographic boundaries of land that drain into a surface water feature such as a stream, river, or lake and contributes to the recharge of groundwater. Watersheds are divided by areas of higher elevation that cause the drainage patterns of surface water within the watershed. Further, watersheds come in different sizes and shapes. The quantity and quality of the water resources within them, both surface and ground, are influenced greatly by the lands that the water flows through.

Minor Watersheds

To better inventory and assess water features, resource managers have further divided major watersheds into minor watersheds. Within the six major watersheds in Morrison County, there are 111 minor watersheds. Most of the minor watersheds are not named but have a hydrologic code assigned to them by the MN DNR. Figure 2-7 illustrates the locations of major and minor watersheds in the County. Table 2-15 lists the major or more popular rivers and streams that flow within the major watersheds in Morrison County:

Figure 2-7 Minor Watersheds

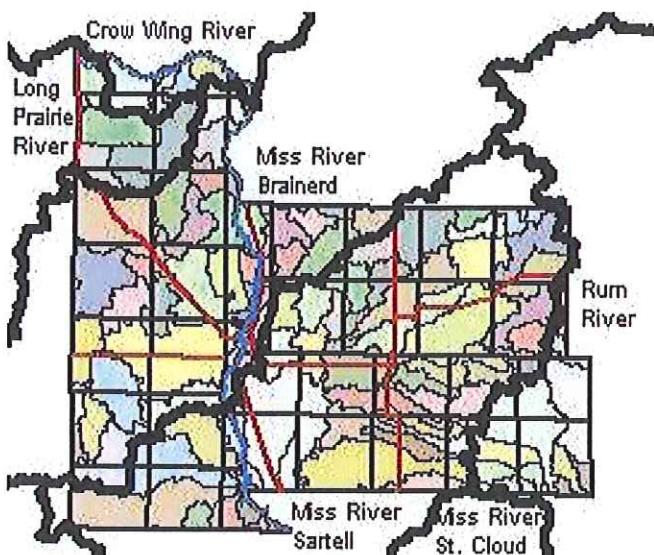


Table 2-15 Major Watersheds and Tributaries in Morrison County¹⁰

Major Watershed	Hydrologic	Tributary Rivers and Streams
Crow Wing River	07010106	No significant tributaries
Long Prairie River	07010108	No significant tributaries
Mississippi River – Brainerd	07010104	Fletcher Creek Little Elk Creek Swan River Pike Creek
Mississippi River – Sartell	07010201	Hay Creek Little Two River Two Rivers Hazel Creek Spunk Creek Platte River Skunk River Little Rock River
Mississippi River – St. Cloud	07010203	No significant tributaries
Rum River	07010207	Tibbetts Brook

Protected Waters Inventory

As authorized under Minnesota Statute 103G, the MN DNR has designated and classified all surface water features in Morrison County that meet the state's requirements. In general, the statute established two classifications for public waters including public water (lakes, rivers, streams and public ditches) and public waters wetlands.

Public waters are all waterbasins and watercourses that meet the criteria set forth in Minnesota Statutes, Section 103G.005, subd. 15. Public waters wetlands include all types 3, 4, and 5 wetlands (as defined in U.S. Fish and Wildlife Service Circular No.39, 1971 ed.) that are 10 acres or more in size in unincorporated areas or 2 ½ acres or more in size in incorporated areas. (See Minnesota Statutes Section 103G.005, subd. 17b, Wetland Type).

Within Morrison County, there are 359 surface water features listed on the Protected Waters Inventory, including basins (lakes), water courses (rivers, streams and ditches), and wetlands. Table 2-16 provides a summary of the number of water features listed in the inventory:

Table 2-16 Protected Waters Inventory¹¹

Classifications	Number
Protected water basins (lakes)	97
Protected water courses (rivers, streams, ditches)	70
Protected wetlands	192
Total	359

¹⁰ Source: Minnesota Department of Natural Resources (DNR)

¹¹ Source: Minnesota DNR Division of Waters

General Lake Characteristics Inventory

Simply stated, lakes are depressions in the landscape that hold water. Although this definition is fairly obvious, how lakes were formed and how they function naturally is not as apparent or well understood by the general public. Limnology is the scientific study of lakes, reservoirs, rivers and streams. It includes the physical, geological, biological, and chemical aspects that affect a particular freshwater body. There is an extensive body of knowledge on how lakes function and evolve. The sidebar suggests just a few of the many resources available on limnology and lake management. Please also see the resources in the Bibliography and other appendices.

Each lake has its own unique set of environmental factors and conditions that affect the natural functions as well as the lake's desirability and capacity from a human impact standpoint. Further, lakes are impacted to varying degrees by the surrounding land that drains into a particular lake. A lake inventory represents an initial important step in managing lake resources. Some of the factors included in a lake inventory include size, formation, watershed area, flowage, water quality, etc.

Based on the statewide inventory of lakes, which is known as Bulletin No. 25 that was prepared in 1968 by the Minnesota Conservation Department (known today as the MN DNR), there were 97 lakes and basins 10 acres or larger with banks substantial enough to contain water in Morrison County. Table 2-17 provides a breakdown of the County's lakes by size.

Table 2-17 Number of Lakes by Acres¹²

Lake Size	Number of Lakes
10 – 25	27
25 – 50	4
50 – 100	1
100 – 200	9
200 – 500	25
500 – 1,000	8
1,000 – 5,000	23
Total	97

Most of the lakes in Morrison County are glacial lakes, formed in the glacial drift or from ice blocks left behind. The geologic patterns also created varying areas that drain to each lake. Some lakes, such as Lake Alexander in the northwestern corner of the County, have small watersheds. In contrast, the reservoir lakes have extremely large areas that drain into them.

The Morrison County Water Plan provides a detailed inventory of the major lakes in Morrison County including data on geographic, hydrologic, water quality, and resource management activities of the lakes. Sharing and distributing this information to lake associations, local officials and homeowners can help build greater awareness on how they are impacted by human interaction and activities.

¹² Source: Minnesota DNR Division of Waters

Ordinary High Water

The ordinary high water level is defined according to Minnesota Statutes 103G.005, Subd. 14, as:

The ordinary high water level is an elevation delineating the highest water level that has been maintained for a sufficient period of time to leave evidence upon the landscape, commonly the point where the natural vegetation changes from predominantly aquatic to predominantly terrestrial; For watercourses, the ordinary high water level is the elevation of the top bank of the channel; and For reservoirs and flowages, the ordinary high water level is the operating elevation of the normal summer pool.

The MN DNR has established ordinary high water levels (OHWLs) for 22 of Morrison County's lakes. The levels are equal elevations around the lake and establish where the public water ends and the upland begins. These elevations are important for many applications including shoreland zoning, private property rights and water level management. Table 2-18 provides a summary of the established OHWLs.

Table 2-18 Lakes with Ordinary High Water Levels¹³

Lake Name	Lake Number	OHW Elevation
Alexander	49-0079	1277.0
Bernhart	49-0135	1282.3
Camile	49-0078	1297.6
Cedar	49-0140	1209.33
Crookneck	49-0133	1275.6
Fish Trap	49-0137	1276.8
Green Prairie Fish	49-0035	1141.1
Ham	49-0136	1277.6
Kuhl	49-0269	1197.1
Larson	49-0094	1196.4
Long	49-0015	1260.1
Peavy	49-0005	1276.7
Pierz	49-0024	1107.6
Pine	49-0081	1245.1
Polander	49-0087	98.9
Prowect	49-0098	147.5
Round	49-0056	1213.4
Shamineau	49-0127	1275.1
Sullivan	49-0016	1255.0
Unnamed	49-0220	1113.4
Unnamed	49-0277	151.7
Unnamed	49-0195	1149.0

¹³ Source: Minnesota DNR Division of Waters

With approximately one-fourth of the County's lakes having an established OHWL, the Task Force should consider working with landowners and the MN DNR to establish the OHWL elevations for the remaining lakes in the County.

Lake Classification

Natural Environment Lakes usually have less than 150 total acres, less than 60 acres per mile of shoreline, and less than three dwellings per mile of shoreline. They may have some winter kill of fish; may have shallow, swampy shoreline; and are less than 15 feet deep.

Recreational Development Lakes usually have between 60 and 225 acres of water per mile of shoreline, between 3 and 25 dwellings per mile of shoreline, and are more than 15 feet deep.

General Development Lakes usually have more than 225 acres of water per mile of shoreline and 25 dwellings per mile of shoreline, and are more than 15 feet deep.

Table 2-19 Number of Lakes by Shoreland Management Classification¹⁴	
Shoreland Zoning Classification	Number of Lakes
Natural Environment	51
Recreational Development	1
General Development	19
Total	71

Rivers and Streams

Stream Flows

Several agencies have monitored stream flows in Morrison County over the last 100 years or more. The USGS maintains an extensive database on its web site for stream flows from information recorded at gauging stations. At least 6 sites have been maintained by the USGS and 2 sites by the MN DNR.

One of the reports available through the USGS website is a list of annual mean streamflows. Data collected from the gauging station on the Mississippi River at Royalton for annual mean flows has been collected for over 75 years and provides an in depth inventory of flows and corresponding precipitation patterns. Some of the highest flows at this site were in 1986, 1997 and 1999. Some of the lowest occurred in 1976 and the early 1930s.

Rivers

Remote Rivers are primarily in roadless, forested, sparsely populated areas in northeast Minnesota.

Forested Rivers are in forested, sparsely to moderately populated areas with some roads in northeast, southwest, and north-central Minnesota.

¹⁴ Source: Morrison County Land Use Ordinance

Transition Rivers are in a mixture of cultivated, pasture, and forested lands.

Agriculture Rivers are in intensively cultivated areas, mainly southern and western areas of the state.

Urban Rivers are in high-density residential, commercial, and industrial development areas.

Tributary Rivers are all other rivers in the Protected (Public) Waters Inventory not classified above.

Table 2-20 Number of Rivers by Shoreland Management	
Shoreland Zoning Classification	Number of
Forested Rivers	3
Transitional Rivers	4
Agricultural/Urban Rivers	4
Tributary Rivers	67
Total	78

Wetlands

In the mid-1800s, there was an estimated 19 million acres of wetland in the State of Minnesota. Today, over one-half of the wetlands have been drained or filled. For many years, wetlands were considered obstacles to growth and progress. Major policy changes at the federal, state, and local levels have been adopted and implemented over the past fifteen years in a concerted effort to protect the remaining wetlands.

Wetlands provide many natural resource benefits. They improve and protect surface and groundwater quality. Wetlands play a key role in a watershed by collecting and storing runoff during storm and snowmelt events, filtering waters before they enter rivers, streams and lakes, and adding diversity of plant and animal life to the area. They serve as holding areas for stormwater when rainfalls are heavy, thereby reducing flood damage. They provide valuable fish and wildlife habitat, which are resources critical to the tourism industry. Wetlands also provide resources for a growing number of commercial purposes including peat mining, sod and vegetable farming, and bait harvesting for fishing. Loss of wetlands and their functions has a significant impact on overall surface and groundwater quality. Today, wetlands are increasingly viewed as resources rather than liabilities or obstacles.

Two wetland classification systems have been developed to define wetland types. In 1956, the U.S. Fish and Wildlife Service developed what became known as the Circular 39 system, a classification of eight wetland types. The eight types range from seasonally flooded areas to inland marshes to forested swamps and bogs. The main difference between the types is the depth of water and variety of vegetation.

A more extensive system, known as the Cowardin classification system, provides a more precise ecological description of wetlands. The Cowardin wetland areas were mapped as a part of the National Wetland Inventory (NWI). Due to extensive amount of information provided with the NWI, the wetland map in this plan is based on the eight types from the Circular 39 system. Landowners seeking more detail on wetlands can view or obtain copies of the NWI maps from the SWCD or the County Planning and Zoning office.

¹⁵ Source: Morrison County Water Plan (2003)

National Wetland Inventory

Table 2-21 provides an inventory of wetlands in the County based on the National Wetland Inventory. Just over one-fourth of the County's surface area is covered by wetlands according to this inventory. Additional wetland mapping information is maintained by the SWCD office.

Table 2-21 Wetland Inventory¹⁶

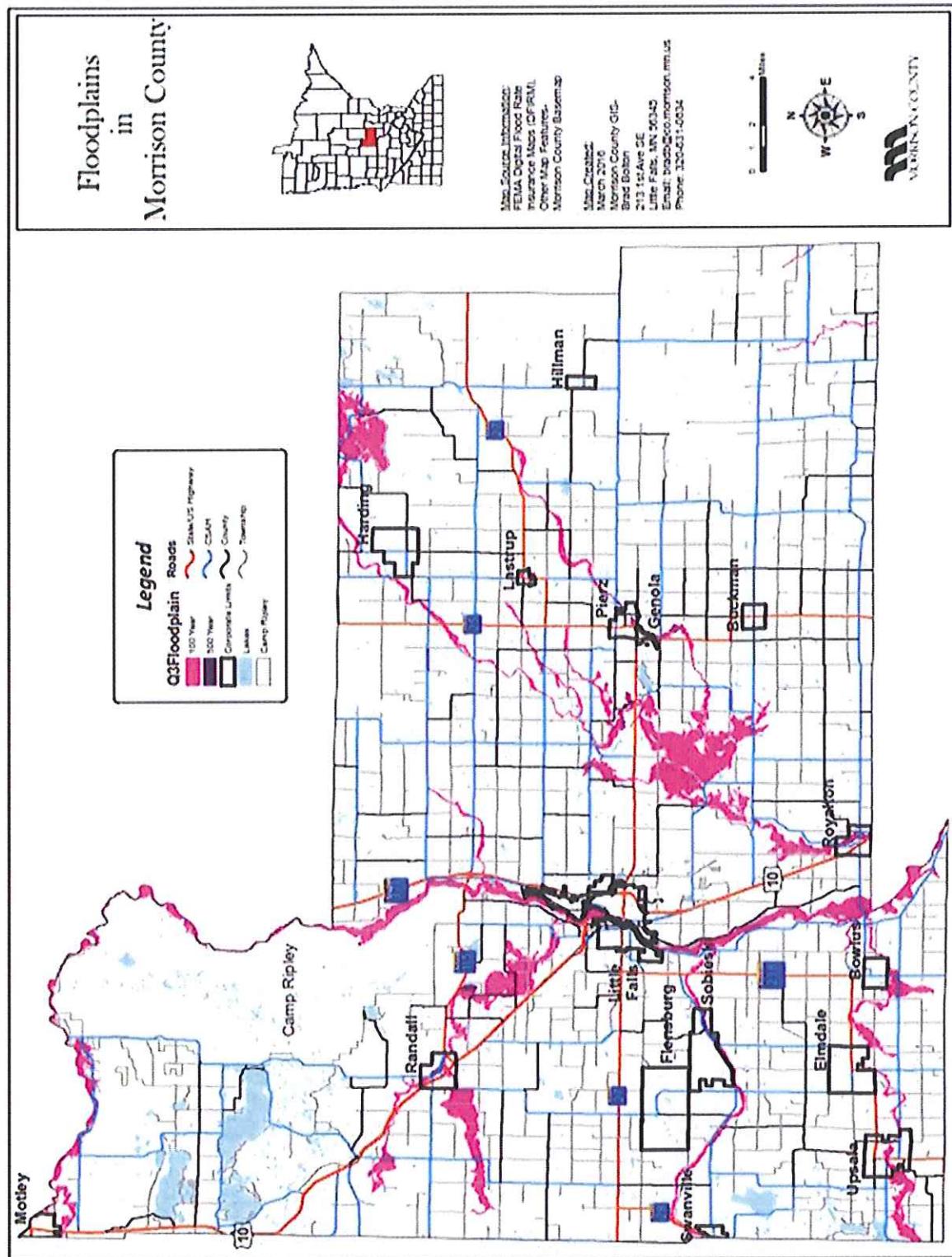
Wetland Type	Number of	Acres
1 – Seasonally Flooded	1,455	4,158
2 – Wet Meadow	1,311	29,734
3 – Shallow Marsh	10,971	69,421
4 – Deep Marsh	2,020	1,008
5 – Shallow Open Water	1,738	17,601
6 – Shrub Swamp	6,826	50,624
7 – Wooded Swamps	1,962	7,536
8 – Bogs	587	6,454
80 – Industrial/Municipal	11	20
90 – Riverine	37	8,351
NWI Wetland Totals	26,918	194,907
98 – Uplands	1,481	554,245
Total	28,399	749,152

Floodplains

Lands located within floodplains in the County are shown in Appendix Two of this plan. The majority of the flood prone areas in the County are located along the Mississippi River, Little Elk River, Two Rivers, Platte River, Skunk River and Fletcher Creek. Sullivan, Platte and Skunk lakes also have relatively large floodplain areas identified on this map. Since the floodplain map is based on available state data sets, it is therefore more general in nature. These floodplain maps are intended for use as an initial reference document only.

¹⁶ Source: Morrison County Water Plan (2003)

Floodplain Map



5.4 LANDFORM DESCRIPTIONS

Landform patterns are important because they help to explain the relationship between the land and its underlying features with surface and groundwater resources. For example, groundwater resources are more susceptible in sand plain areas than in till or drift plain areas. The till plains have substantial clay deposits that minimize groundwater infiltration. Therefore, it is useful to consider the landform patterns of a given watershed or geopolitical area.

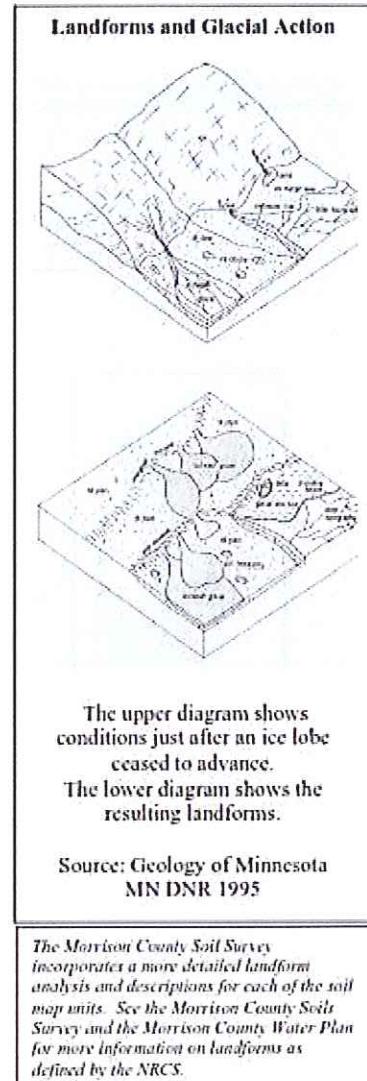
The primary landform patterns in the County were formed by the most recent geologic activity and include sand plains, moraines, till plains, and drumlins (see the sidebar). The general locations of the landform patterns in the County follow the descriptions below.

Sand Plains. There are seven different sand plain areas in the County. The sand plains were formed by the sediments deposited in flat level areas from glacier meltwaters. The two largest sand plains include the Mississippi Sand Plain along either side of the river and the Agram Sand Plain in the south central portion of the County. The three largest cities in the County (Little Falls, Pierz and Royalton) are located in these two sand plain areas. To the west of the river are four sand plains, including the Flensburg, Randall, Scandia Valley, and Pillager sand plain areas.

Drumlins Plains. Drumlins are long, narrow mounds of till formed by local glacial action. Two different drumlin fields, the Brainerd and Pierz, cover the majority of the land area east of the Mississippi River. The cities of Buckman, Hillman, Harding and Lastrup are located in the drumlin areas.

Moraines. Moraines are the ridges or piles of till material deposited by glaciers either along its sides (lateral), glacial deposit of till with no marked relief having been transported at the base of the ice (ground), or till deposited by a glacier at the line of its farthest advance (terminal). The steep hills in the northwestern portion of the County were formed by the St. Croix Moraine.

Till Plains. Clay, sand, cobbles and boulders deposited by the glaciers left a landform pattern referred to as a till plain. Much of the southwestern quadrant of the County is referred to as the Holdingford Till Plain and consists of rolling to level landscapes.



The Morrison County Soil Survey incorporates a more detailed landform analysis and descriptions for each of the soil map units. See the Morrison County Soil Survey and the Morrison County Water Plan for more information on landforms as defined by the NRCS.

5.5 TOPOGRAPHY AND DRAINAGE

Elevations

The overall elevation in Morrison County ranges from 1,200 to 1,450 feet above sea level. The highest elevation in Morrison County is 1,450 feet on the St. Croix Moraine in the northwestern corner of the County. The lowest area in the County is located in the south central portion of the County and has an elevation of 1,200 feet.

Topography

The general topography of Morrison County is gently rolling. There are no drastic elevation changes within the county, with the exception of the hills in the northwestern corner. Many hills in this corner rise steeply from nearby lakes to heights of 1,400 feet. The lakes in the northwestern corner of the County have an elevation of approximately 1,250 feet. This area drains to the Long Prairie River at an elevation of 1,220 feet, then to the Crow Wing River at 1,200 feet. Shoreland erosion in these areas is a serious problem. Elevations in Camp Ripley average 1,250 feet.

The central and southern portions of the County tend to be gently rolling to flat with most hillsides being easily cultivated. Some erosion control practices are used. The banks along the Mississippi River and smaller streams are gently to moderately sloped with most banks being less than 20 feet in height. The Mississippi River exits at the County's southern border at an elevation of approximately 1,000 feet above sea level. The County Planning and Zoning Office maintains copies of the USGS maps in both digital and paper formats.

Public Drainage System

There are 24 public ditches within Morrison County. Table 2-22 lists all of the public ditches in the County and their length. Overall, the County maintains jurisdiction over 88 miles of drainage ditches.

Table 2-22 Public Drainage Systems Inventory¹⁷

Sub. Code	Subwatershed Management Unit	Ditch Name	Twp-Range	Total Miles
1	Northwest Lakes	Ditch #6	133-	5.0
	<i>Northwest Lakes Total</i>			<i>5.0</i>
2	Little Elk	Henry Ditch	130-	0.4
2	Little Elk	Ditch No. 1	130-	3.9
2	Little Elk	Ditch No. 12	131-	5.9
	<i>Little Elk Total</i>			<i>10.2</i>
3	Fletcher Creek	Ditch No. 5	42-31	4.8
3	Fletcher Creek	Ditch No. 14	41-31	1.7
3	Fletcher Creek	Ditch No. 15	42-31	2.7
	<i>Fletcher Creek Total</i>			<i>9.2</i>
5	Platte River	Ditch No. 2	41-31	2.3
5	Platte River	Ditch No. 9	41-31	4.6
5	Platte River	Ditch No. 16	41-31	4.9
5	Platte River	Branch Ditch No. 1 to Ditch 16	41-31	1.7
5	Platte River	Branch Ditch No. 2 to Ditch 16		
	<i>Platte River Total</i>			<i>16.0</i>
6	Skunk River	Ditch No. 7	39-31	2.7
	<i>Skunk River Total</i>			<i>2.7</i>

¹⁷ Source: Morrison County Water Plan

8	Swan River	Ditch No. 8	128-	5.1
	<i>Swan River Total</i>			5.1
11	Rum River	Ditch No. 3	40-28	4.4
11	Rum River	Ditch No. 11	39-29	4.0
11	Rum River	Ditch No 16	39-29	6.2
11	Rum River	Branch Ditch No. 1 to Ditch 16	39-29	4.4
11	Rum River	Main Ditch No. 18	39-29	6.5
11	Rum River	Branch Ditch No 1 to Ditch 18	39-29	1.9
11	Rum River	Branch Ditch No. 2 to Ditch 18	39-29	3.5
11	Rum River	Ditch No. 21	39-29	3.6
11	Rum River	Ditch No 22	39-29	4.9
11	Rum River	Branch Ditch No. 1 to Ditch 22	39-29	1.2
	<i>Rum River Total</i>			40.6
	Grand Total			88.8

SECTION 6.0 LAND USE ASSESSMENT

6.1 PRE-SETTLEMENT LAND COVER

As shown on the table above, significant land use changes have occurred in Morrison County over the past 100 years. For example, forestland was the predominant land cover in presettlement times covering 54 percent of the County. Today, forestland covers less than one-half of what it once did with over 200,000 acres having been removed. In more detail, coniferous forests, primarily white pine, once covered over 67,000 acres in the County. Today, coniferous forests cover less than 10 percent (5,600 acres) of what they once did.

Brushland covered about one-fifth of the County in presettlement times, or about 124,000 acres. Most of the brushland was located along the Mississippi River and in the south central "sand plains" area of the County. Brushland areas were quite extensive covering multiple sections of land or several miles in several directions. Today, the amount of brushland covers one-third of its original land area within the County, or 46,000 acres.

Areas originally under prairie land cover or grasslands, represented a relatively small portion of the County (23,400 acres) and were generally located in three places; a long strip north of the City of Little Falls, a cluster northwest of the City of Royalton, and an area southwest of Buckman. Upon closer inspection of the Presettlement Land Cover Map, these grassland areas tended to be located behind corridors or clusters of brushland. Brushland typically separated the grasslands from the rivers and streams in the County, which provided increased buffering capacity.

As shown on the Presettlement Land Cover Map (Figure 2-8), extensive vegetative buffers use to exist along the rivers and streams and around the lakes and wetlands in the County. As a result, there was very little bare or disturbed soil which greatly limited erosion and sedimentation problems in the County's lakes and waterways.

Figure 2-8 Presettlement Land Cover Map

Presettlement
Vegetation
in
Morrison
County



4 MILES



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Presettlement Vegetation Summarized by 1989 Land Cover Code

6.2 1989 LAND COVER

Table 2-23 provides an inventory of the acreages for the various type of land cover inventoried as a part of the statewide effort taken in 1989 and Figure 2.8 illustrates their locations. This data is the most current detailed land use data available.

Table 2-23 1989 Land Cover Inventory¹⁸

Description	Count	Acres
Urban and Industrial	54	7,748
Farmsteads and Rural Residences	4,655	10,155
Rural Residential Development Complex	111	1,008
Other Rural Developments	371	720
Cultivated Land	2,967	238,508
Transitional Agricultural Land	43	859
Grassland	6,047	175,317
Grassland-Shrub-Tree (deciduous)	4,174	44,859
Grassland-Shrub-Tree (coniferous)	121	1,158
Deciduous Forest	11,600	190,681
Coniferous Forest	830	5,599
Mixed Forest	39	485
Water	2,035	17,916
Wetlands	2,263	39,743
Gravel Pits and Open Mines	128	613
Exposed Soil, Sandbars, and Sand Dunes	5	11
Unclassified	73	176
Total	35,516	735,557

6.3 LAND COVER COMPARISON

One of the fundamental steps in assessing the impacts of land use and human activities on water resources is quantifying changes to land cover that have occurred over a relatively long period of time within a given area. The best data available to develop this historical comparison comes from two land cover data sets prepared by the state, the "Presettlement" and 1989 land cover inventories. Table 2-24 illustrates the generalized land use changes that have occurred in Morrison County over the past 100 or so years.

¹⁸ Source: Minnesota Land Management Information Center (LMIC)

Table 2-24 Presettlement and 1989 Land Cover Comparison¹⁹

Land Cover Description	Presettlement		1989	
	Acres	Percent	Acres	Percent
Urban development	0	0	7,748	1.1
Rural development	0	0	11,884	1.6
Cultivated land	0	0	239,367	32.5
Hay/pasture/grassland/prairie	23,411	3.2	175,317	23.8
Brushland	124,354	16.8	46,017	6.3
Forestland	399,008	54.1	196,765	26.8
Water	6,484	0.9	17,916	2.4
Bog/marsh/fen	184,507	25.0	39,743	5.4
Mining	0	0	624	>0.1
Unclassified	0	0	176	>0.1
Total	737,764	100.0	735,557	100.0

¹⁹ Source: Minnesota Land Management Information Center (LMIC)

Figure 2-9a 1989 Land Cover Map

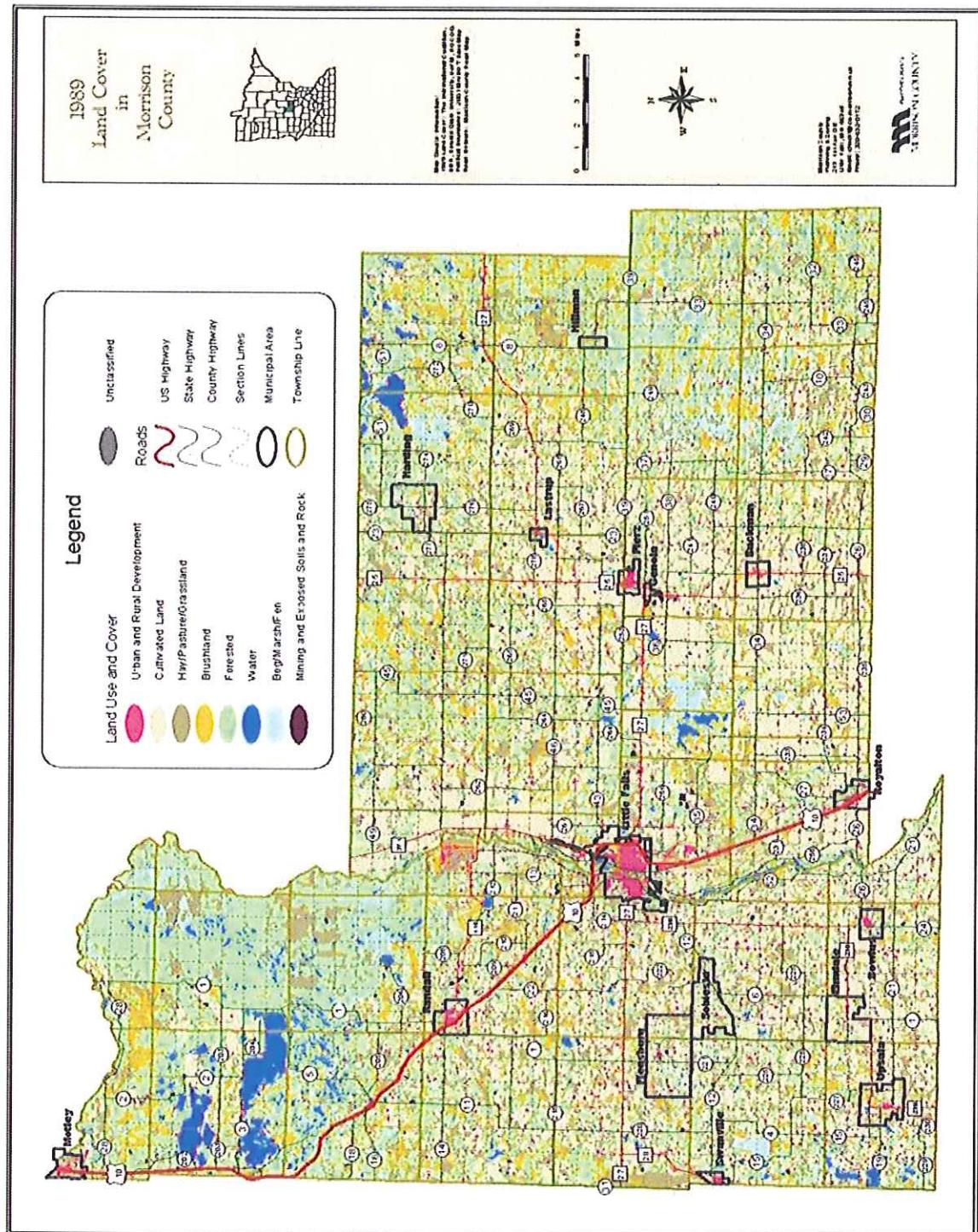
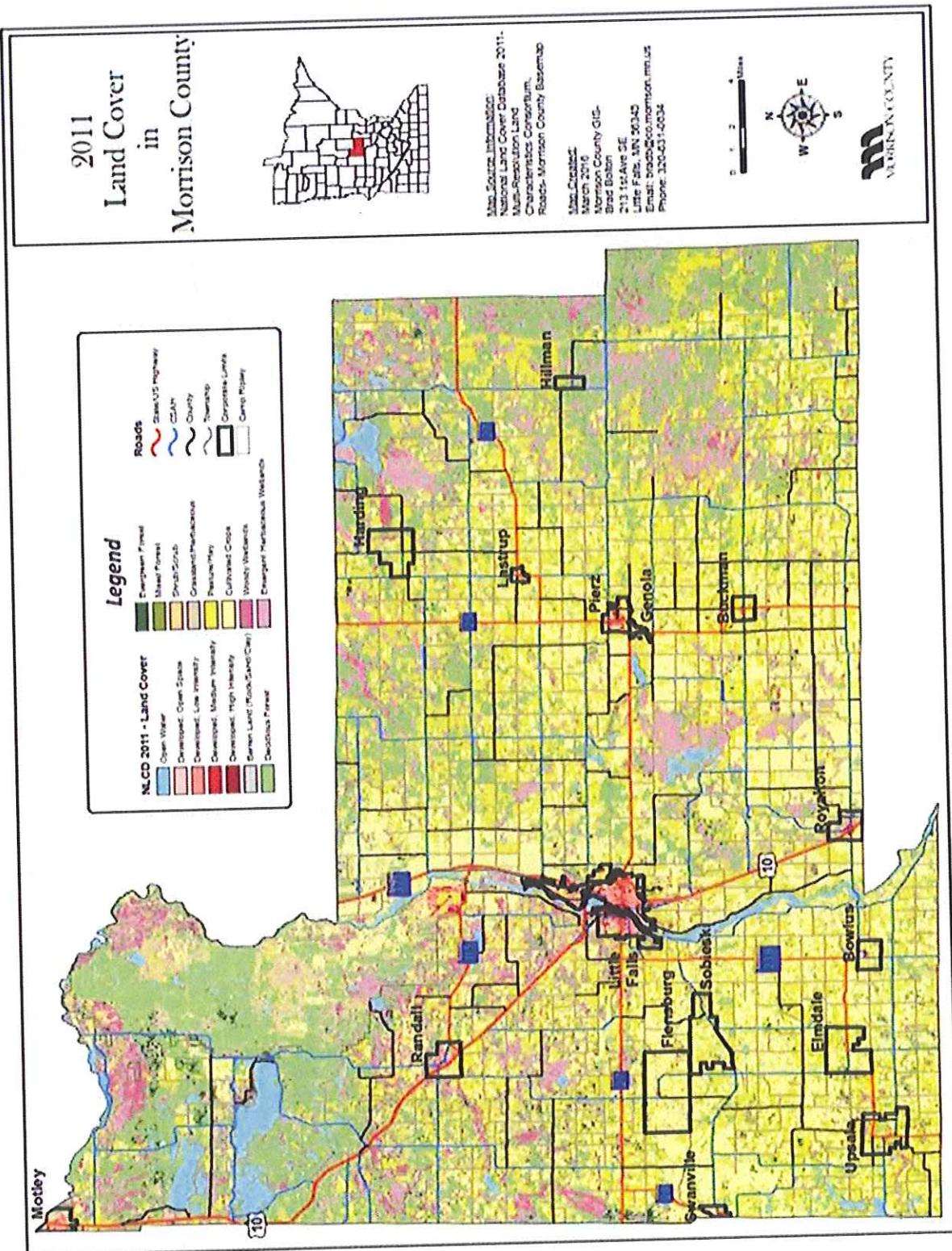


Figure 2-9b 2011 Land Cover Map



6.4 AGRICULTURAL LAND USE

Overview

The primary land use within Morrison County is agricultural land use. According the Minnesota Land Management Information Center, Morrison County is comprised of nearly 35% cultivated land, over 24% grassland, and nearly 24% deciduous forest. Agricultural activity accounts for a substantial portion of the local economy within Morrison County and includes the use of land for the production of crops, livestock, and agricultural products. Among the 87 counties within the State of Minnesota, Morrison County ranks third in the state in the number of farms within the County at 1,924 total farms reported by the USDA 2002 Census of Agriculture. This is a small drop compared to the 2,009 farms within Morrison County reported by USDA in 1982. Morrison County also ranks 11th in total farmland with 452,120 acres. Despite these rankings, Morrison County farms are among the smallest on average when compared to all other counties within Minnesota. Total, the 2002 Census of Agriculture reported the average size of farms within Morrison County at 235 acres compared to the state average of 340 acres.

Morrison County provides for agriculture through the following zoning designations: AF Agriculture/Forestry. The purpose of this district is to promote and protect areas which have or can support agricultural activities or are forested and are essentially rural in nature. It is intended to allow traditional low intensity rural activities such as agriculture, forestry, year-round and seasonal residences, and home businesses and occupations in manners that do not degrade the rural character of the area.

AG Agriculture

The purpose of this district is to promote and protect areas which have high quality agricultural lands and are essentially rural in nature. Within this district agricultural activities shall be given precedence over other land uses.

Crop Production

Morrison County ranked third in the state in total number of crop producing farms and sixth in number of farms irrigating land. The 2002 Census of Agriculture reported 1,735 total crop producing farms within Morrison County, 74 of which are irrigated. Despite the large ranking in number of farms, Morrison County ranked 39th in the state with 261,867 total acres of land used for crop production and eighth in quantity of irrigated land. Crop production within Morrison County includes, but is not limited to the production of corn, wheat, oats, sorghum, soybeans, potatoes, forage, sunflower seeds, vegetables, and orchard production.

Livestock and Poultry

Morrison County also ranks third in the state of Minnesota with 1,116 cattle and calf producing farms and third in the state wide inventory of cattle and calves with 81,358. Out of this cattle and calf production, Morrison County ranks first in the state in the total number of beef cow farms with 631 and third in the state in the total number of beef cows with 15,107. In milk production, Morrison County ranks third in the state of Minnesota in the number of milk producing farms with 371, and fourth in the state in the total number of milk cows with 26,414 cows.

In hog and pig production, Morrison County ranked 17th in the state in the number of hog and pig producing farms and 41st in the total number of hogs and pigs with 123 hog and pig farms located within the County and 23,100 hogs and pigs.

In sheep and lambs production, Morrison County ranked 10th in the state in the number of sheep and lamb producing farms, and 39th in the total number of sheep and lambs with 53 total sheep and lamb producing farms and 1,584 sheep and lambs.

As of the development of this plan, Morrison County boasts strong poultry production ranking 10th statewide in the total number of farms with layers 20 weeks and older and first in the total number of layers 20 weeks of age and older. A total of 70 such farms are maintained within the County with over 1.1 million layers age 20 weeks and older. Morrison County also ranks first in the state in the total number of broilers and other meat type chicken farms within the County and first in the number of broilers and meat type chickens. Total 73 broiler and meat type chicken farms are maintained within Morrison County with nearly 13 million broiler and meat type chickens.

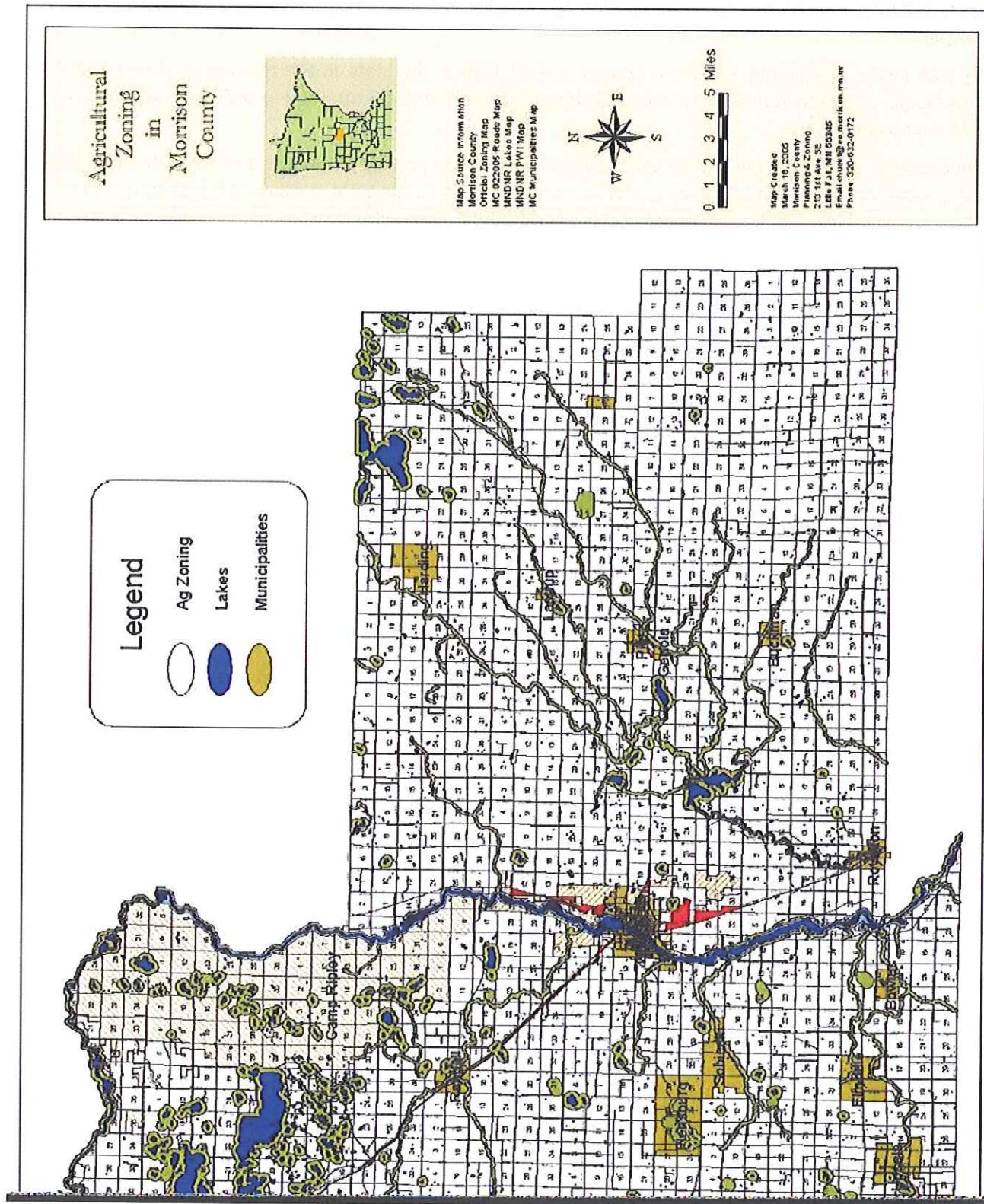
Feedlots

As of April 2016 Morrison County had 592 registered feedlots according to the Minnesota Pollution Control Agency. That figure is up from 660 registered feedlots in 2004.

IDENTIFICATION OF ISSUES

1. Conflicts of agriculture and residential development and visa versa
2. Conflicts of feedlots and residential development
3. Unclear classification or distinction of agricultural land use
4. Maintaining small farm atmosphere
5. Environmental concerns: Erosion, runoff, and "spray drift"

Figure 2-10 Agricultural Land Use Map



6.5 RESIDENTIAL LAND USE

Overview

Residential land use, including urban and rural residential land uses, accounts for less than 2% of the total land use within Morrison County according to Minnesota Land Information Center data. Urban residential development is primarily concentrated within the cities within Morrison County as well as some concentrations of higher-density residential development along lakeshore areas of the county. Rural residential development, which includes less dense rural residential development and farmsteads, can be found sporadically throughout the County.

Morrison County defines residential land uses through the following zoning designations: RR Rural Residential. The purpose of this district is to promote and protect areas which have low density, generally residential development and are essentially rural in character. It is intended to allow traditional rural activities such as agriculture, forestry, home businesses and occupations in manners that do not degrade the rural character of the area.

R Residential

The purpose of this district is to provide areas for moderate density single family residential development generally near or adjacent to incorporated areas or other areas of the county with such levels of development.

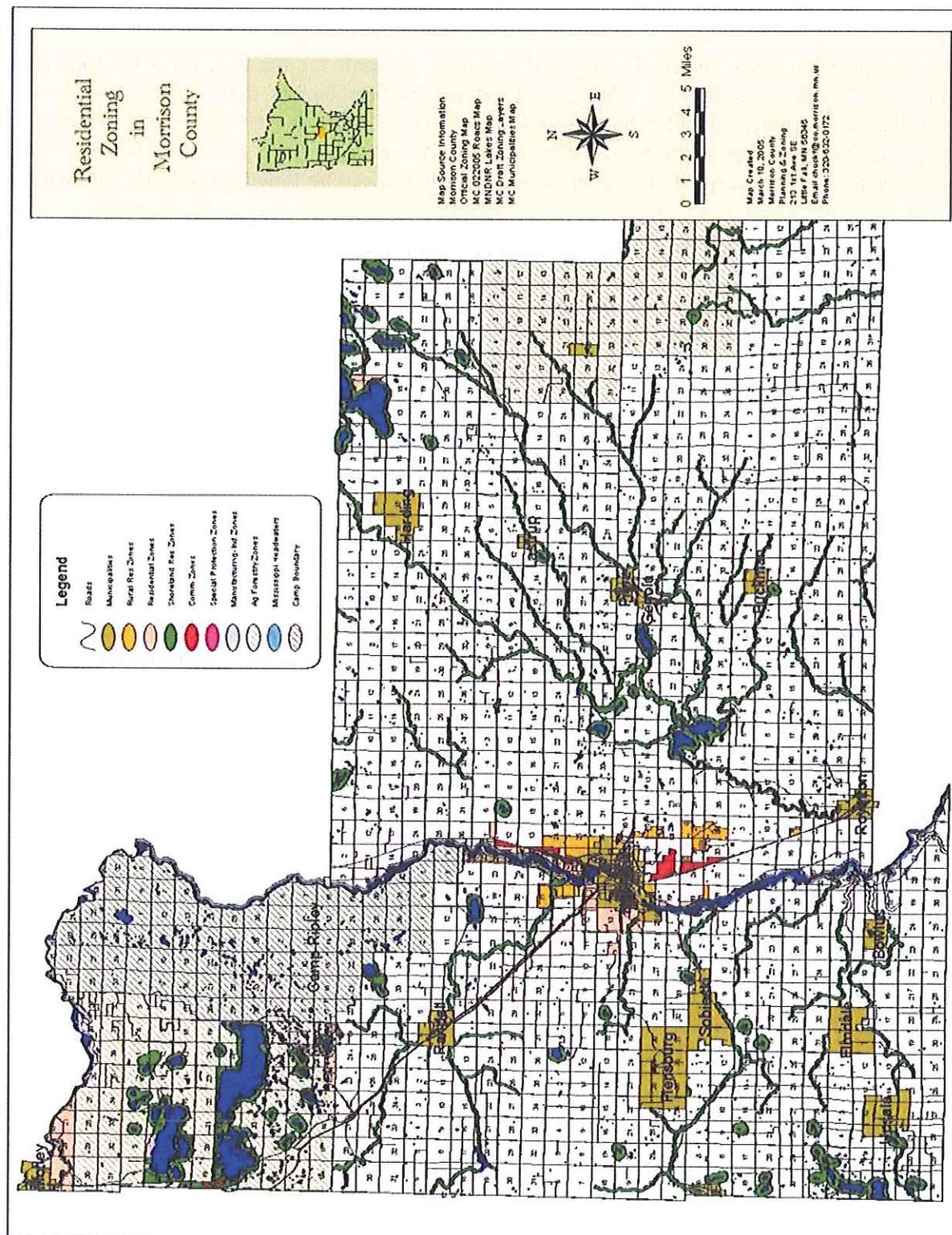
SR Shoreland Residential

The purpose of this district is to promote and protect shoreland areas for primarily residential development. It is intended to allow year-round and seasonal development, a limited type of public uses including schools and community buildings, and home occupations that do not degrade either the shoreland or residential character of the area.

IDENTIFICATION OF ISSUES

1. Residential growth increases need for new and additional services
2. More dense residential development reduces rural character and atmosphere
3. Dense residential development is inconsistent with agricultural land use and feedlots
4. Effects of dense residential development may include increased pollution, noise, traffic, and other impacts

Figure 2-11 Residential Land Use Map



6.6 COMMERCIAL & INDUSTRIAL

Overview

While the majority of commercial and industrial development is located within incorporated areas of the County, sporadic commercial and industrial development exists within unincorporated areas of Morrison County.

According to U.S. Census Bureau county business patterns, Morrison County boasted 889 total business in the year 2014 – down slightly from 891 in 2010 and up from 837 total business establishments in the year 2000. The majority of these businesses were small businesses with one to four employees. Table 2-25 displays information on the size of businesses within Morrison County in relation to total employees.

Table 2-25 Number of Businesses by Size									
		# of Employees							
	Total	1-4	5-9	10-19	20-49	50-99	100-249	250-499	500-999
2000: # of Businesses	837	474	179	95	62	15	8	3	1
2010: # of Businesses	891	523	178	106	63	8	10	3	0
2014: # of Businesses	889	495	206	106	61	13	5	3	0

Source: US Census Bureau, County Business Patterns (<http://censtats.census.gov/cgi-bin/cbpnaic/cbpsect.pl>).

Morrison County defines commercial and industrial land uses through the following zoning designations:

C Commercial

The purpose of this district is to promote and protect areas which currently are active commercial areas or meet the Comprehensive Plan guidelines for future or desired commercial development.

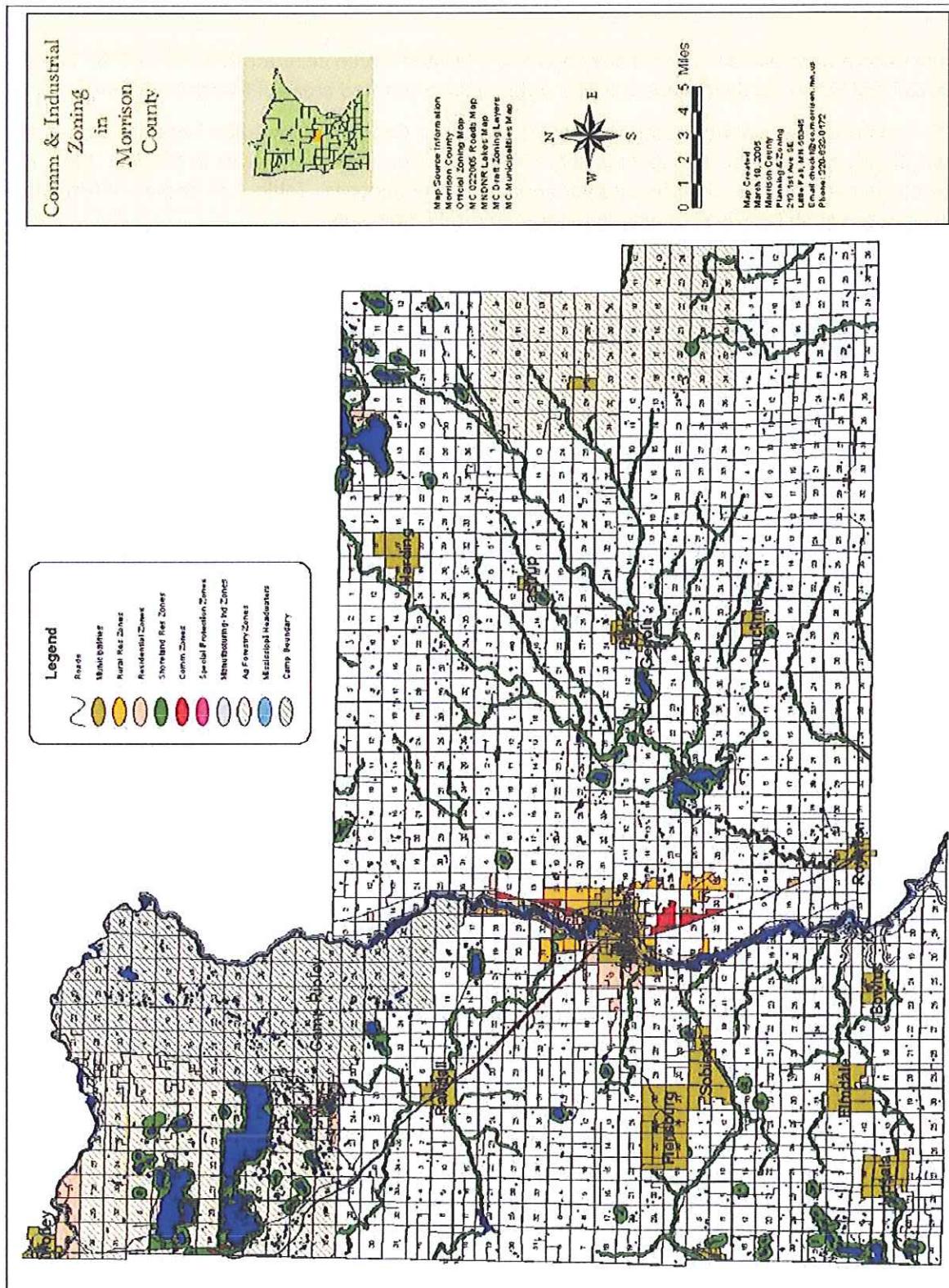
MI Manufacturing/Industry

The purpose of this district is to promote and protect areas which currently are active manufacturing or industrial areas or meet the Comprehensive Plan guidelines for future or desired manufacturing/industrial development.

SC Shoreland Commercial

The purpose of this district is to promote and protect shoreland areas for those commercial uses where access to and use of a surface water is an integral part of the normal conduct of business.

Figure 2-12 Commercial and Industrial Land Use Map

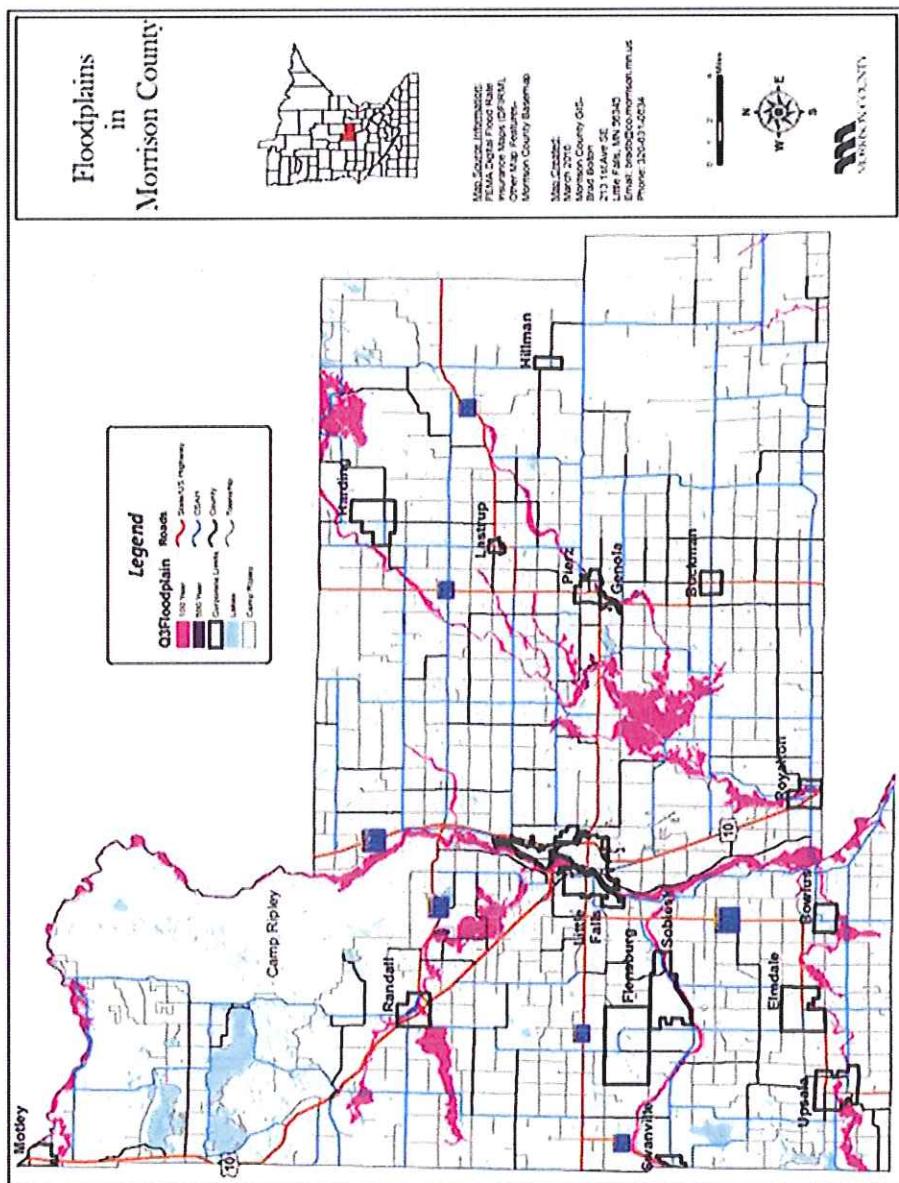


6.7 FLOODPLAIN/SHORELAND

Overview

Morrison County recognizes the importance of sensitive environmental features including shoreland and non-shoreland features of the County.

Figure 2-13 Floodplains and Water Features Map



SECTION 7.0 TRANSPORTATION INFRASTRUCTURE

7.1 JURISDICTIONS

Federal (DOT and FHWA) and State (MnDOT) (Trunk Highways) County (CSAH)

Local (City/Township)

U.S. and State Highways²⁰

U.S. Highway 10 runs north and south from Todd County in the northwest corner of the County through the Cities of Motley, Randall, Little Falls and Royalton, and continues south through Benton County. This major highway is an important interregional route linking Morrison County to the Twin Cities and Fargo-Moorhead metropolitan areas. Highway 10 also provides connections to Highway 115 in the City of Randall, Highway 27 in the City of Little Falls and also Highway 371 within the northeast portion of the City of Little Falls

State Highway 25 runs north and south from Crow Wing County on the north down through the City of Pierz to Benton County on the South. Highway 25 intersects Highway 27 through the City of Pierz. Spanning approximately $\frac{1}{2}$ of the State of Minnesota, Highway 25 begins in Belle Plaine, Scott County and runs north to Merrifield located in Crow Wing County, Minnesota.

State Highway 27 runs east and west from Todd County on the west through the Cities of Little Falls, Pierz and Lastrup to Mille Lacs County on the east. The Highway intersects Highway 238, U.S. Highway 10 in the City of Little Falls, and Highway 25 in the City of Pierz. Providing limited interregional travel, the Highway runs from the City of Moose Lake, Carlton County in eastern Minnesota, through the entire state to Traverse County on the west border of Minnesota.

State Highway 28 runs through a small portion of western Morrison County. The Highway provides access from Highway 27 to the City of Swanville and proceeds west through Todd County and terminates in Traverse County on the west border of Minnesota.

State Highway 115 runs through a small portion of Morrison County beginning in the City of Randall and running east and terminating at the Camp Ripley Military Reservation.

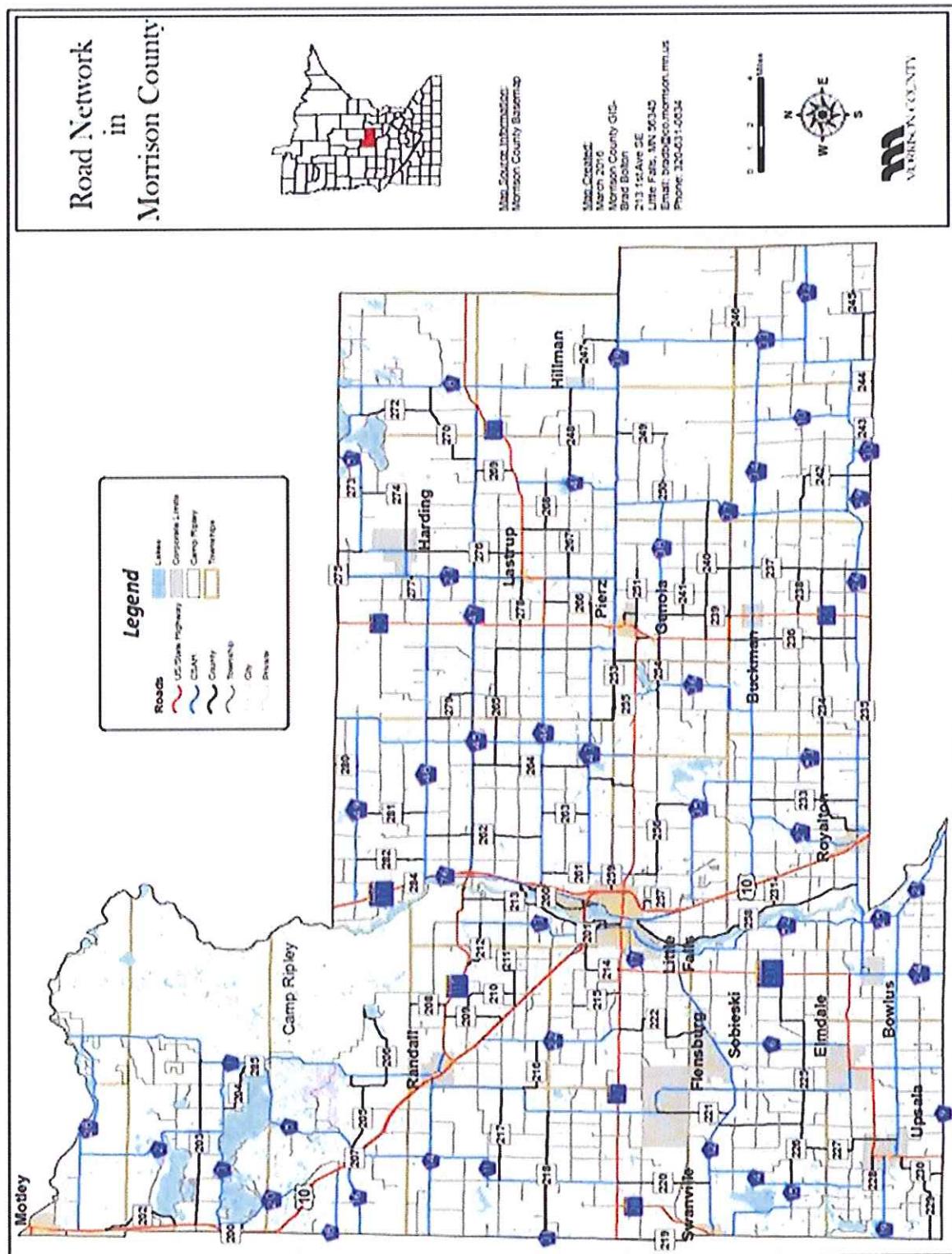
State Highway 210 is an east and west route that provides access to Morrison County through the City of Motley, City of Pillager, Cass County, and through other areas along the North border of Morrison County. The Highway runs from the Minnesota border near the City of Breckenridge and terminates near the City of Duluth on the north east border of the state.

State Highway 238 is a north and south route that provides access to the Cities of Little Falls, Bowlus, Elmdale, and Upsala and continues south through Stearns County. The Highway begins in the City of Albany located off of Interstate Highway 94 in Stearns County and runs north terminating in the City of Little Falls.

State Highway 371 provides access from and to the City of Little Falls to the north through Crow Wing County. The Highway begins at its southern end in the City of Little Falls to the north through Crow Wing County and terminates in the City of Cass Lake, Cass County, Minnesota.

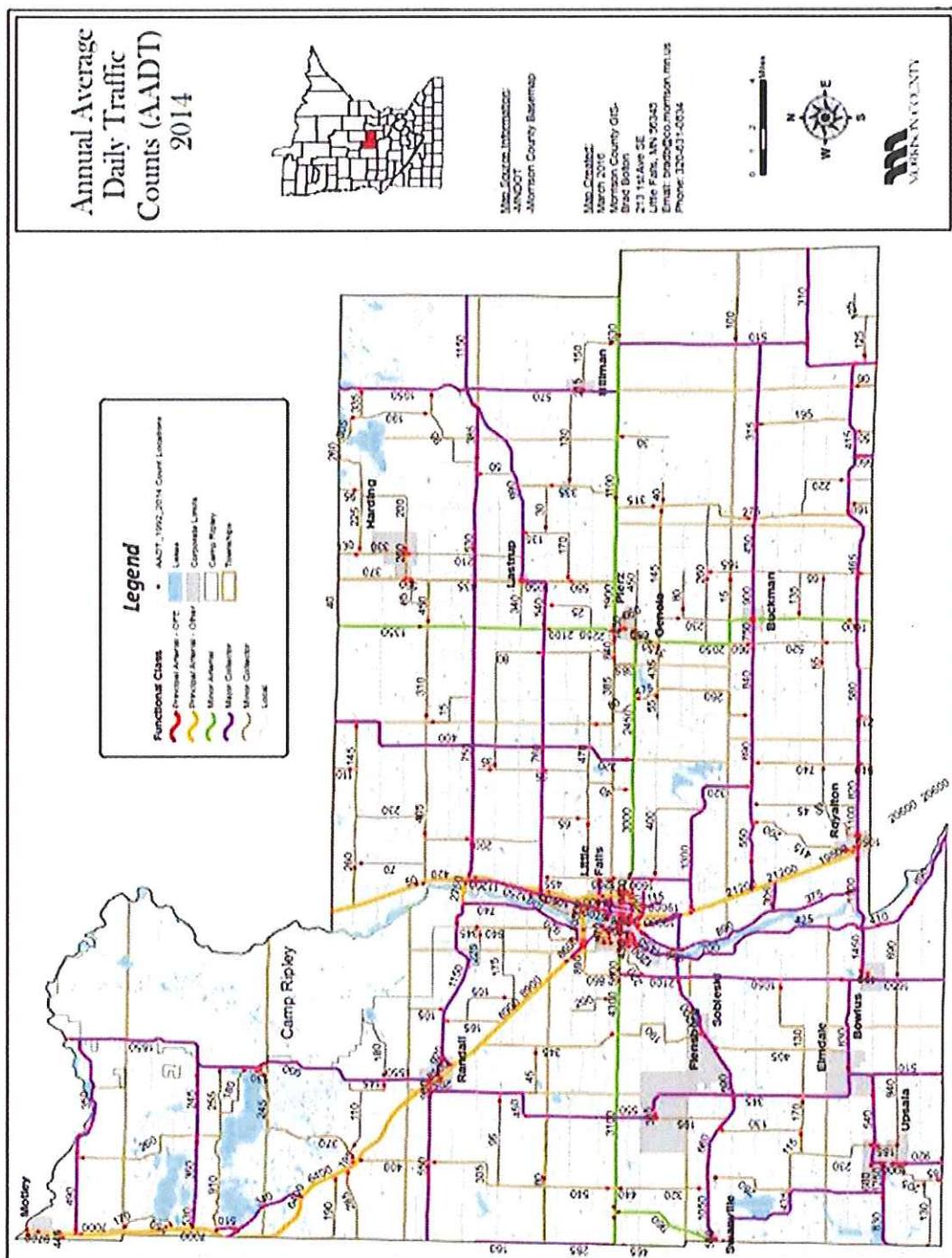
²⁰ Source: Minnesota Department of Transportation

2-14 Highways Map

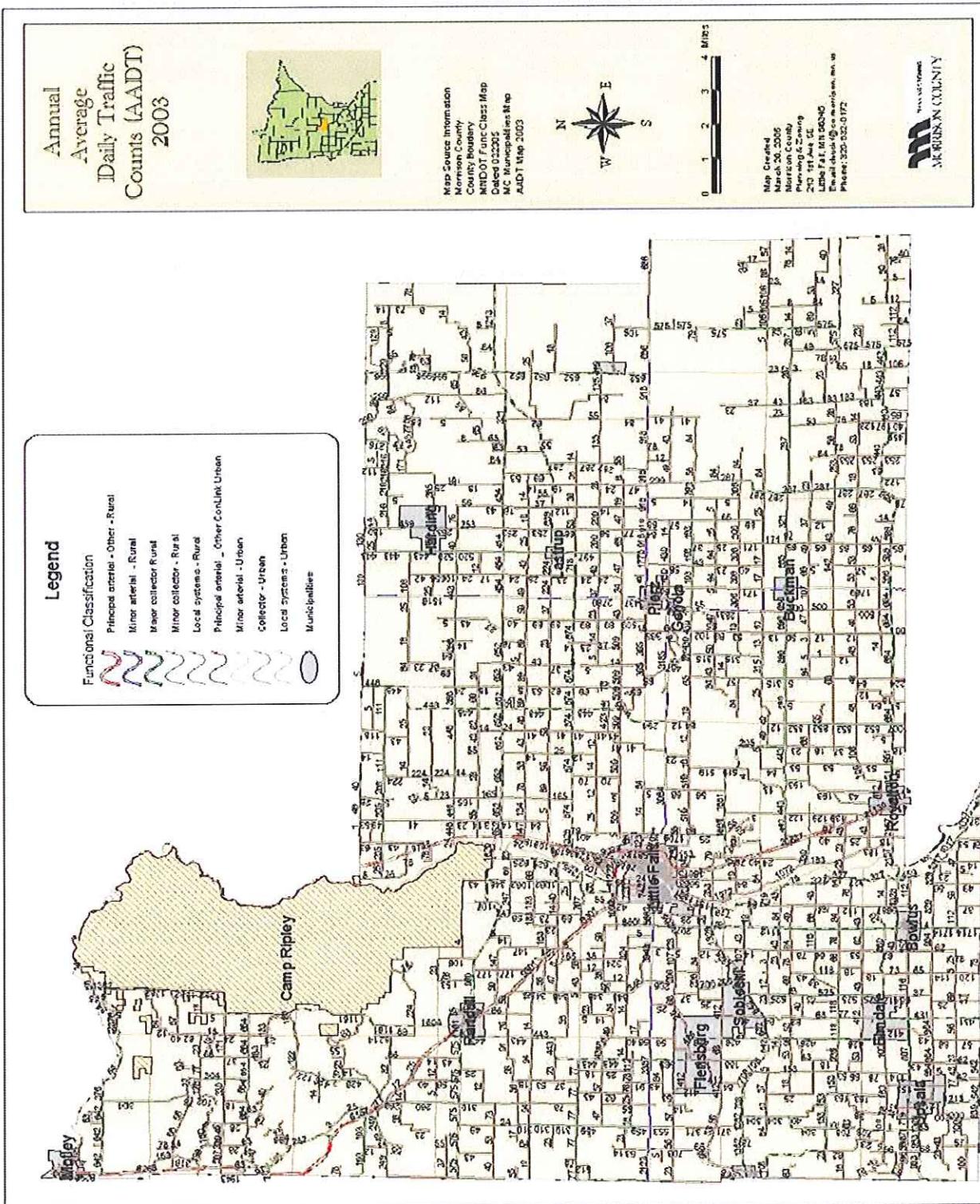


7.2 Average Daily Traffic

AADT County Map (2014)



AADT Count Map (2003)



State Annual Average Daily Traffic (AADT) Counts²¹

US Highway 10								
Segment Beg Pt.	Segment End Pt.	Description of Count Location	2002 AADT	2025 AADT	2030 AADT	2035 AADT	Yearly Growth	
110.486	115.409	&210 W OF FRONT ST IN MOTLEY	9,700	17,520	19,220	20,920	3.5%	
115.409	116.167	N OF CEDAR ST IN MOTLEY	9,100	14,850	16,100	17,350	2.7%	
116.167	116.913	N OF N JCT CSAH28	8,200	11,995	12,820	13,645	2.0%	
116.913	123.457	0.3 MI N OF CR203	6,200	9,075	9,700	10,325	2.0%	
123.457	135.705	0.3 MI SE OF CSAH7	6,100	10,930	11,980	13,030	3.4%	
135.705	136.964	NW OF CSAH104 IN RANDALL	8,000	14,440	15,840	17,240	3.5%	
136.964	143.964	NW OF CSAH22	9,200	13,455	14,380	15,305	2.0%	
143.964	145.175	W OF CSAH13	8,500	15,400	16,900	18,400	3.5%	
145.175	146.996	E OF CSAH13	11,100	14,550	15,300	16,050	1.4%	
146.996	148.143	S OF TH371 IN LITTLE FALLS	15,700	28,350	31,100	33,850	3.5%	
148.143	151.363	S OF TH27 IN LITTLE FALLS	15,900	28,550	31,300	34,050	3.5%	
151.363	158.032	SE OF S JCT CSAH76	20,600	35,090	38,240	41,390	3.1%	
158.032	158.991	NW OF N 3RD ST IN ROYALTON	20,900	37,690	41,340	44,990	3.5%	

State Highway 25								
Segment Beg Pt.	Segment End Pt.	Description of Count Location	2002 AADT	2025 AADT	2030 AADT	2035 AADT	Yearly Growth	
112.244	121.389	0.3 MI N OF CSAH26	1,750	2,383	2,520	2,658	1.6%	
121.389	126.305	N OF CSAH34 IN BUCKMAN	2,800	4,870	5,320	5,770	3.2%	

²¹ Source: Minnesota Department of Transportation (pre-2005 projections)

126.305	127.415	SW OF S JCT TH25 &27 IN GENOLA	3,750	5,878	6,340	6,803	2.5%
		&27 NE OF S JCT TH25 &27 IN GENOLA					
127.415	127.592		6,500	11,560	12,660	13,760	3.4%
		&27 S OF CR252 IN PIERZ	5,500	8,375	9,000	9,625	2.3%
127.592	128.014	&27 N OF 1ST AVE S IN PIERZ	5,600	8,820	9,520	10,220	2.5%
128.014	128.416	128.416	3,400				2.2%
128.416	129.438	&27 N OF CSAH43					
		IN PIERZ		5,125	5,500	5,875	
129.438	131.453	& 27 S OF N JCT	2,750	4,418	4,780	5,143	2.6%
131.453	144.378	N OF CSAH48	1,500	2,190	2,340	2,490	2.0%

State Highway 27							
Segment Beg Pt.	Segment End Pt.	Description of Count Location	2002 AADT	2025 AADT	2030 AADT	2035 AADT	Yearly Growth
113.144	123.74	W OF W JCT TH27 &28	2,100	3,480	3,780	4,080	2.9%
123.74	131.313	&28 W OF CSAH22	3,350	5,593	6,080	6,568	2.9%
131.313	133.848	&28 W OF TH238	3,900	6,315	6,840	7,365	2.7%
133.848	134.712	&28 E OF TH238	5,600	8,360	8,960	9,560	2.1%
		&28 E OF 13TH ST SW IN LITTLE FALLS					
134.712	135.073		6,400	8,930	9,480	10,030	1.7%
		&28 E OF 8TH ST NW IN LITTLE FALLS					
135.073	135.361		9,300	13,670	14,620	15,570	2.0%
135.361	135.649	&28 W OF CSAH52 IN LITTLE FALLS	11,400	14,390	15,040	15,690	1.1%
135.649	136.01	E OF CSAH52 IN LITTLE FALLS	14,900	21,800	23,300	24,800	2.0%
136.01	136.087	W OF 1ST ST NE IN LITTLE FALLS	15,000	21,900	23,400	24,900	2.0%
136.087	136.165	E OF 1ST ST NE IN LITTLE FALLS	13,600	19,810	21,160	22,510	2.0%

136.165	136.485	W OF 5TH ST SE IN LITTLE FALLS	12,100	17,160	18,260	19,360	1.8%
136.485	137.141	W OF TH10 IN LITTLE FALLS	13,500	21,780	23,580	25,380	2.7%
137.141	138.007	E OF TH10 IN LITTLE FALLS	9,300	13,555	14,480	15,405	2.0%
138.007	143.127	E OF CSAH43	3,050	5,178	5,640	6,103	3.0%
143.127	148.524	W OF S JCT TH25 &27 IN GENOLA	3,150	5,623	6,160	6,698	3.4%
152.562	154.616	E OF N JCT TH25 &27	710	929	976	1,024	1.3%
154.616	155.589	N OF PINE ST IN LASTRUP	910	1,359	1,456	1,554	2.1%
155.589	163.568	E OF CSAH23 IN LASTRUP	830	1,141	1,208	1,276	1.6%
163.568	169.109	NE OF CSAH47	1,200	2,120	2,320	2,520	3.3%

State Highway 28								
Segment Beg Pt.	Segment End Pt.	Description of Location	Count	2002 AADT	2025 AADT	2030 AADT	2035 AADT	Yearly Growth
123.642	124.164	N OF 1ST ST IN SWANVILLE	1,650	2,283	2,420	2,558	1.7%	
124.164	128.614	S OF W JCT TH27 &28	700	1,045	1,120	1,195	2.1%	

State Highway 115								
Segment Beg Pt.	Segment End Pt.	Description of Location	Count	2002 AADT	2025 AADT	2030 AADT	2035 AADT	Yearly Growth
0	0.551	NE OF TH10 IN RANDALL	850	1,253	1,340	1,428	1,428	2.1%
0.551	7.73	E OF CSAH13	950	1,468	1,580	1,693	1,693	2.4%
7.73	8.736	W OF TH371	1,800	2,720	2,920	3,120	3,120	2.2%

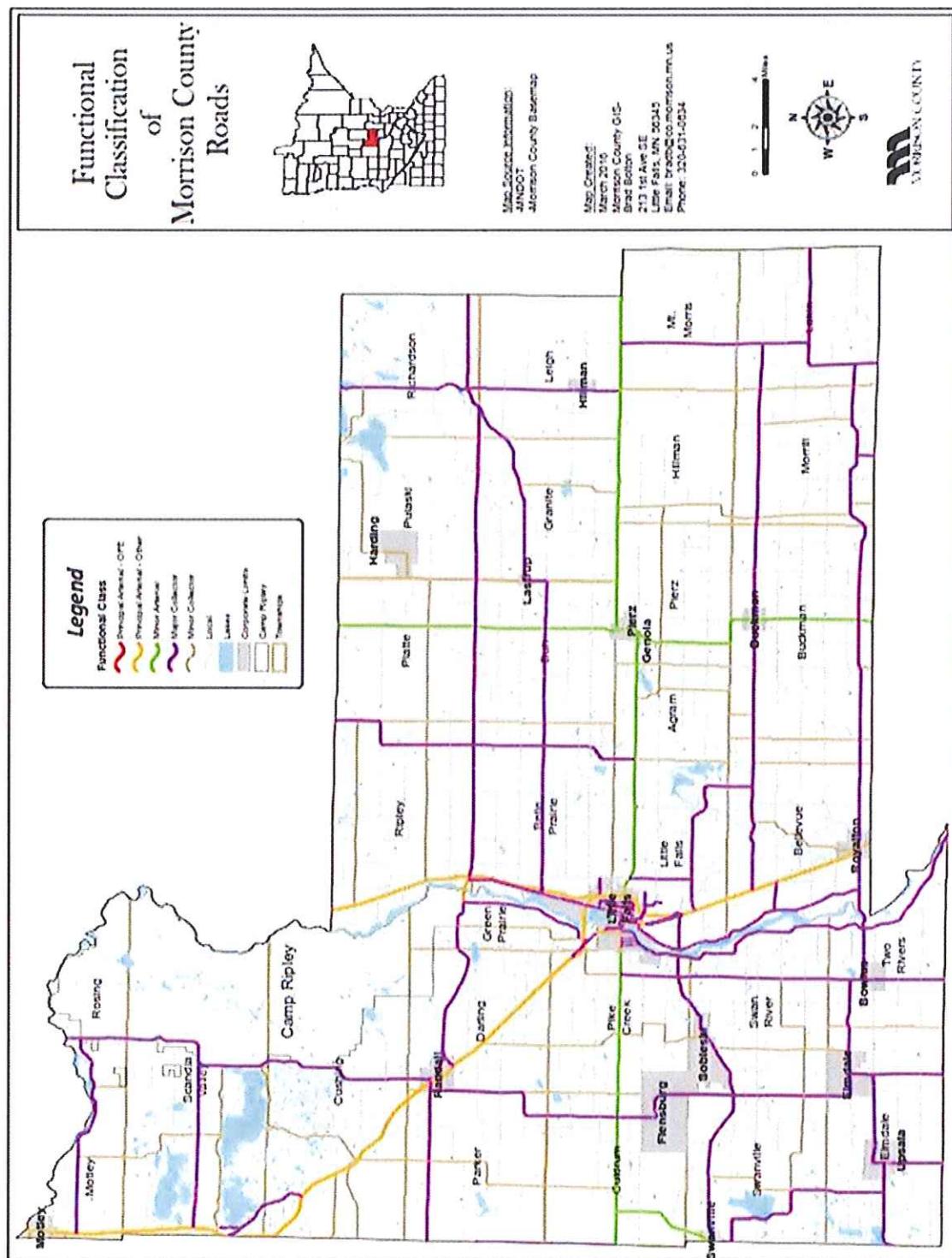
State Highway 210							
Segment Beg Pt.	Segment End Pt.	Description of Count Location	2002 AADT	2025 AADT	2030 AADT	2035 AADT	Yearly Growth
100.94	101.128	SW OF CROW WING RIVER BRIDGE IN MOTLEY	6,200	9,880	10,680	11,480	2.6%

State Highway 238							
Segment Beg Pt.	Segment End Pt.	Description of Count Location	2002 AADT	2025 AADT	2030 AADT	2035 AADT	Yearly Growth
12.902	15.011	S OF CR230 SCL UPSALA	1,200	1,775	1,900	2,025	2.1%
15.011	15.545	N OF CSAH21 IN UPSALA	2,100	3,135	3,360	3,585	2.1%
15.545	16.039	N OF CSAH19 IN UPSALA	1,300	1,990	2,140	2,290	2.3%
16.039	19.783	E OF WCL ELMDALE	600	945	1,020	1,095	2.5%
19.783	24.829	E OF N JCT CSAH1 IN ELMDALE	870	1,135	1,192	1,250	1.3%
24.829	32.202	N OF CSAH24	1,100	1,445	1,520	1,595	1.4%
32.202	34.709	N OF CSAH12	2,050	3,028	3,240	3,453	2.1%

State Highway 371							
Segment Beg Pt.	Segment End Pt.	Description of Count Location	2002 AADT	2025 AADT	2030 AADT	2035 AADT	Yearly Growth
0	1.777	S OF CSAH76	9,000	14,060	15,160	16,260	2.4%
1.777	2.578	N OF CSAH76	12,300	19,430	20,980	22,530	2.5%
2.578	5.765	S OF TH115	10,800	18,275	19,900	21,525	3.0%
5.765	13.232	N OF CSAH48	9,600	16,960	18,560	20,160	3.3%

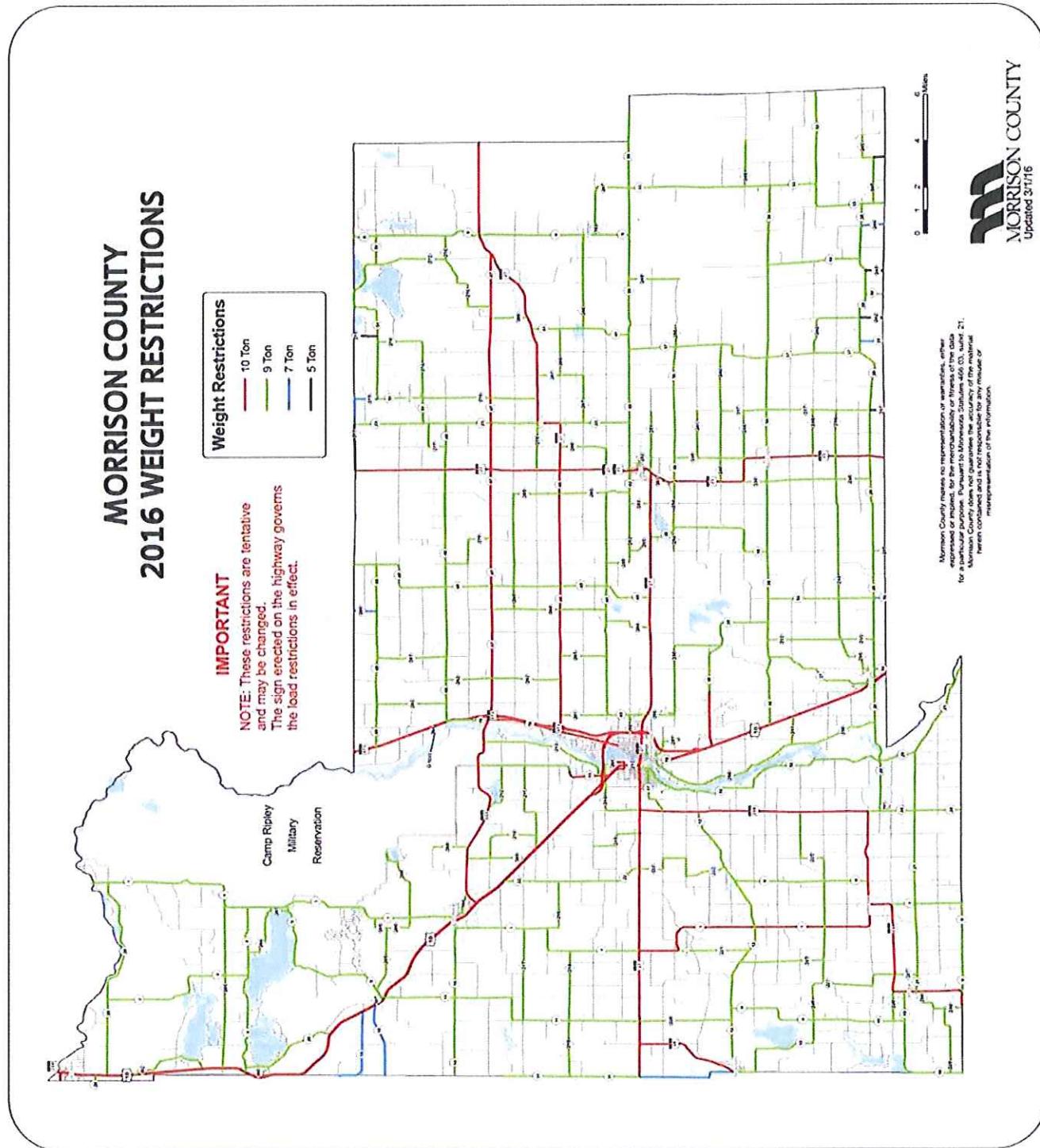
7.3 FUNCTIONAL CLASSIFICATION

Functional Classification Map



7.4 SPRING WEIGHT RESTRICTIONS

Spring Weight Restrictions Map (TBP)



7.5 TRAILS

- Soo Line Trail
- Walking/Hiking/Biking/etc.
- ATV/Snowmobile/etc.

7.6 AIRPORTS

Airport Name:	Little Falls (LXL)
Address:	13129 Airport Road, Little Falls, MN 56345
Airport Manager:	Tom Olson 320-616-5525 lkl@littlefallswireless.com
Contact Person:	Big Sky Aviation, Inc. 320-616-4425 bigsky@littlefallswireless.com
AWOS/ASOS:	320-632-6791 – VHF 119.45
MnWAS Location/Hours:	Arrival/Departure Building – 24 hours
Attended:	All/Mon-Fri/0800-1700
Available Fuel:	100LL – available 24 hours with credit card
FBO(s):	
Runway(s):	13/31: 4010' x 75' (Asphalt) 18/36: 2902' x 170' (Turf)
Lighting:	Pilot Controlled
Notes:	Runway 18/36 Closed Winter Months

Airport Name:	Motley – 22Y
Address:	1218 Highway 10 S, Motley, MN 56466
Airport Manager:	Loren A. Morey 218-352-6467 moreys@brainerd.net
Contact Person:	Loren A. Morey 218-352-6467 moreys@brainerd.net
AWOS/ASOS:	None
MnWAS Location/Hours:	None
Attended:	Unattended
Available Fuel:	None
FBO(s):	None
Runway(s):	9/27 – 2720' x 150' (Turf)
Lighting:	None
Notes:	Runway Not Plowed Winter Months

Airport Name:	Ray S. Miller Army Airfield
Address:	Camp Ripley Military Reservation

The Roy S. Miller Army Airfield located within Camp Ripley Military Reservation is used primarily for military operations. For more information on the Roy S. Miller Army Airfield contact Camp Ripley at (320) 632-7000 or visit the Roy S. Miller Army Airfield website at:

http://www.minnesotanationalguard.org/camp_ripley/airfield/.

SECTION 8.0 WATER-RELATED INFRASTRUCTURE

Public Stormwater Systems

Public stormwater systems typically consist of catch basins, storm sewer lines, manholes, and retention/detention ponds or stormwater treatment facilities. Generally, these facilities are found in larger communities. The cities of Little Falls, Pierz, Culdrum Township, the Rich Prairie Sewer & Water District, the Minnesota Department of Military Affairs and Morrison County have received permits for stormwater discharge from the MPCA.

With the exception of the City of Little Falls, digital data for mapping the location of these facilities is limited. At some point in the future, the County and the small cities will likely be required to inventory and manage the flow of stormwater.

The network of state, county and township roadways also collect, convey and discharge stormwater to ensure safe circulation of the highways. Culverts, bridges, roadway ditches and in some cases, ponds, are used to convey stormwater. The County Highway Department maintains an inventory of all bridges in the County with approximately 300 separate facilities. Further, there is an estimated 2,000 to 3,000 culverts crossing public roads in the County. An inventory of the public culverts would provide useful information in managing stormwater flows.

Public Wastewater Treatment Plants Inventory

There are 11 public wastewater treatment plants (WWTP) located in Morrison County. The largest treatment plant serves the City of Little Falls. Table 2-a provides a listing of the treatment plants, a description of the treatment process and available capacity.

Common Wastewater Treatment Systems

Although there are several areas in the County where there is substantial small lot development with on-site sewage treatment, there are no common wastewater treatment facilities at the time this plan was written.

At some point in the future, landowners and public officials may need to consider alternative ways of treating sewage in areas where a second on-site system is not feasible or where soil or water quality conditions merit such a change.

Table 2-a Existing Wastewater Treatment Plants²²

Community	Contact Information	Facility Description
Bowlus	Mayor, City of Bowlus City Hall Bowlus, MN 56314	Class D facility with a two-cell stabilization pond.
Camp Ripley	Facilities Management Office Camp Ripley, P.O. Box 348 Little Falls, MN 56345-0348	Class B facility with a mechanical treatment system consisting of two primary clarifiers, two trickling filters, an aerated solids contact basin, two secondary clarifiers, UV disinfection, one primary anaerobic digester and one secondary anaerobic digester.
Flensburg	Mayor, City of Flensburg P.O. Box 14 Flensburg, MN 56328	Class D facility with a two-cell stabilization pond.
Little Falls	Mayor, City of Little Falls 100 Northeast Seventh Avenue P.O. Box 244 Little Falls, MN 56345	Class A facility with a mechanical treatment system consisting of two primary clarifiers, trickling filter, two chlorine contact chambers, anaerobic sludge digester, sludge thickener, sludge and gas storage digester.
Motley	Mayor, City of Motley City Hall – P.O. Box 66 Motley, MN 56466-0066	Class C facility with a three-cell aerated pond system, including two settling cells, chlorination and dechlorination.
Randall	Mayor, City of Randall City Hall – P.O. Box 206 Randall, MN 56475	Class B facility with a mechanical treatment system consisting of two sequencing batch reactors, an effluent cascade aeration, sludge digester, chlorination and dechlorination.
Rich Prairie Sanitary Sewer District	Chairman, Rich Prairie SWD City Hall, 101 Main Street S P.O. Box 367 Pierz, MN 56264	Class D facility that consists of a two-cell aerated pretreatment system followed by a three-cell stabilization pond.

²² Source: Minnesota Pollution Control Agency (2004)

Royalton	Mayor, City of Royalton 9 North Cedar Street P.O. Box 276 Royalton, MN 56373	Class D facility with a two-cell stabilization pond.
Sobieski	Mayor, City of Sobieski City Hall Little Falls, MN 56345	Class D facility with a two-cell stabilization pond.
Swanville	Mayor, City of Swanville City Hall, Box 4 Swanville, MN 56382	Class C facility with mechanical treatment system consisting of aeration tank, final clarifier, chlorine contact tank, reaeration
Upsala	Mayor, City of Upsala City Hall Upsala, MN 56384	Class D facility with a two-cell stabilization pond.

Public Water Supply Systems

As defined by the state through the Wellhead Protection Rules (Chapter 4720), public water supply systems are defined as water systems that have 15 or more service connections or regularly serves at least 25 people 60 days or more a year. It should be noted in this definition, "public water systems" can be owned by public or private entities. The number of people or separate service connections (homes, businesses, etc.) is the criteria that trigger the state requirements through this program. (The wellhead protection program is discussed in more detail in Section 4.)

There are nine public water supply systems located in Morrison County. Table 2-X provides a description of the facilities.

Table 2-b Existing Public Water Suppliers²³

Community/PWSID	Facility/Well Description
Buckman 1490001	1 – 106' and 1 – 121' wells in the Quaternary Buried Artesian aquifer.
Little Falls 1490002	Seven wells ranging from 90 – 124' deep in the Quaternary Water Table aquifer.
Motley 1490003	1 – 96' well in the Quaternary Buried Artesian aquifer.
Rich Prairie Sewer and Water District 1490004	2 wells

²³ Source: Minnesota Department of Health (2004)

Randall 1490005	1 – 67' and 1 – 72' wells in the Quaternary Buried Artesian aquifer.
Royalton 1490006	1 – 106' and 109' wells in the Quaternary Buried Artesian aquifer.
Swanville 1490007	2 wells
Upsala 1490008	1 – 55' well in the Quaternary Water Table aquifer. 1 – 60' well in the Quaternary Buried Artesian aquifer.
Bowlus 1490009	1 – 132' well in Quaternary Buried Artesian aquifer.

PART THREE: THE FUTURE OF MORRISON COUNTY

SECTION 1.0 INTRODUCTION

In order to keep the spirit and intent of the Morrison County Comprehensive Plan, the plan must be truly "comprehensive" in its scope of addressing the many aspects of Morrison County including those listed below. Though each of these components are unique in several ways, they also are interconnected in such a way as to be better addressed through a centralized, highly organized planning document. To achieve this extent this plan is divided into separate plans including the following:

SECTION 2.0 GENERAL PLANNING & ZONING OPERATIONS PLAN

SECTION 3.0 LAND USE AND NATURAL RESOURCES PLAN

SECTION 4.0 TRANSPORTATION, INFRASTRUCTURE AND PUBLIC FACILITIES PLAN

SECTION 5.0 TRAILS PLAN

SECTION 6.0 LOCAL ECONOMIC PLAN

SECTION 7.0 EDUCATION, RECREATION, AND CULTURE PLAN

SECTION 8.0 WATER PLAN

SECTION 9.0 HAZARD MITIGATION PLAN

Other plans maintained by the County may also be added to the overall Morrison County Comprehensive Plan in the future.

1.1 HOW TO USE THIS PLAN

Each plan included within this plan presents goals, objectives, and policies designed to guide the future of the particular component into the future. Supporting these goals, objectives, and policies is the vast public and technical information obtained through the planning process. This data and information includes, but is not limited to the following:

Public Participation Information

Local Official Participation Information

Current Zoning Map (2003) and Data

Current Land Use Map (1989, Rev. 1995) and Data

Demographic and economic data provided in Section 2, of Volume 2 of this plan

Local growth data provided in Section 4, of Volume 2 of this plan

1.2 IMPLEMENTATION

The goals, objectives, and policies presented within this Comprehensive Plan are designed to carry out the Morrison County vision and are derived from the vast information gathered throughout the public participation component of the planning process. For the purposes of this plan, goals, objectives and policies are defined as follows:

Goal: A statement expressing the general effect or outcome that is desired by the county- wide community. A goal is carried out through the completion of a series of objectives and/or policies and recommendations.

Objective: A specific action or task that is to be performed to carry out or complete the goal which the objective is a part of.

Policies and Recommendations: A specific official action, encouraged action, or recommended change in, or continuation of process which will be taken by the County to achieve the desired effect of a corresponding goal. Policy statements may also define parameters of conduct or process that will carry out or complete the goal which the policy is a part of.

Goals and corresponding objectives and/or policies and recommendations have been developed for each of the topic areas addressed through the planning process including agricultural, residential, commercial/industrial, open space, and other land uses, as well as similar components of this Comprehensive Plan.

SECTION 2.0 GENERAL PLANNING & ZONING ADMINISTRATION PLAN

Purpose and Overview

Morrison County has provided planning and zoning administrative services for over thirty years prior to the development of this plan. The goal provided within the Planning & Zoning Operations Plan is designed to strengthen and enhance the capacity of Morrison County to provide these services beyond the year 2036.

Existing Plans, Programs, and Policies

As shown in Section 3.1 of Part One of this plan, Morrison County has had a strong history of local and County planning and zoning administration. The following includes, but is not limited to the existing plans, programs, and policies of planning and zoning within Morrison County.

- 1989 Morrison County Comprehensive Plan
- Combined Morrison County Land Use, Subdivision, and Shoreline Ordinances
- Morrison County Feedlot Ordinance
- 2010 Morrison County Water Plan
- Morrison County Planning and Zoning Department
- Local Community Planning and Zoning Administration
- Soil & Water Conservation District Plans, Programs & Policies

Goals, Objectives, and Policies

Goal A: Work continuously to improve the coordinated management of Morrison County's land resources.

Objectives:

1. Implement the goals, objectives and policies contained within the Morrison County Comprehensive Plan, using identified resources and partnerships, within the timeline specified by the plan.
2. Update the Morrison County Land Use Ordinance to be consistent with the Morrison County Comprehensive Plan and address issues identified through the plan's development process.

3. Incorporate land use incompatibility mitigation measures in the development and platting review process to address potential land use conflicts.
4. Continue the development of a Countywide parcel map.

Policies

1. Promote strong communication between potential land developers and Morrison County Planning & Zoning.
2. Support cities and townships as they develop and implement Comprehensive Plans. Plans developed should include at a minimum:
 - a. Contain accurate and clear baseline data including demographic, land use, infrastructure, public facilities, cultural resources and similar data.
 - b. Provide clear future land use mapping
 - c. Provide clearly identified areas of future growth and development
 - d. Provide a clear assessment of community needs such as infrastructure, transportation, facilities, and similar needs and demands of existing and future development
3. Continue to enforce all regulations administered by Morrison County Planning & Zoning in a fair, equitable, consistent, and respectful manner.
4. Consider proposed development based on long-term effects and benefits rather than short-term effects and benefits.
5. As local governments submit their local Comprehensive Plans as required by Minnesota Statute, the County will provide a review of the plan with comments within 60 days. Comments will focus on the consistency of the local plans with the overall County Comprehensive Plan and ensure Comprehensive Plans developed by townships are at least as restrictive as the overall County plan.

SECTION 3.0 LAND USE AND NATURAL RESOURCES PLAN

Purpose and Overview

The purpose of the Morrison County land use and natural resources plan is to provide a guide for the future development, preservation, and protection of natural resources within Morrison County. In developing the goals, objectives, and policies presented within the Land Use and Natural Resources Plan an analysis of the data listed in Section 1.1, Part 3 was conducted with a strong emphasis on the collection and incorporation of public participation and local official information.

Existing Plans and Programs

Morrison County Comprehensive Plan

Combined Morrison County Land Use, Subdivision, and Shoreline Ordinance

State of Minnesota Shoreland Rules

Local and County Planning and Zoning Administration

Morrison County Feedlot Ordinance & Delegation from MPCA Programs

Programs, information and assistance in the drafting of the 2005 Plan provided by MnGeo (formerly known as the Minnesota Land Management Information Center (LMIC)) and the Local Planning Assistance Center (LPAC) in the former State Planning Agency and the Municipal Boundary Adjustment Unit (MBAU) of the Minnesota Office of Administrative Hearings.

Programs, information and assistance for the 2005 Plan and 2016 update provided by the Office of the Minnesota State Demographer, the U.S. Census Bureau and other state and federal data sources.

Soil & Water Conservation District Plans, Programs & Policies

Morrison County Water Plans

Aquatic Invasive Species Prevention Plan for Morrison County

Mississippi Headwaters Board Comprehensive Management Plan

Local Lakes Associations and Lake Improvement Districts (LIDs)

Creating a Resilient Region: The Central Minnesota Sustainable Development Plan

National Joint Powers Alliance

Region Five Development Commission

Initiative Foundation

Goals, Objectives, and Policies

3.1 AGRICULTURAL

Goal A1: Ensure that the County provides and protects areas most suitable for a strong and stable agricultural industry, including, but not limited to crop production, animal husbandry, dairy and meat production, pasturelands or other similar uses.

Objectives:

1. Ensure that County policies and ordinances do not restrict farming practices except as necessary to ensure compliance with law or to protect public health and safety.
2. Review existing setback requirements to ensure that they are sufficiently protective of feedlot operations while also protecting nearby landowner's property development rights. Consider amendments to these setbacks, or alternate methods of preventing conflict, where appropriate.
3. Continually monitor best practices related to the regulation of feedlots. Consider amendments to policies and regulations as appropriate.
4. Encourage the use of odor reducing technology to minimize the impacts of feedlots on the natural and human environment.
5. Work to ensure through research, education, best management practices, and regulation that the long-term health of agricultural soils in the County are sustained long into the future.
6. Identify areas of the county that are the most suitable for long-term agricultural uses and adopt policies and zoning amendments that will best work to protect these areas from encroachment by conflicting uses.

7. Utilize soil survey information, topography, Farm Service Agency aerial photography, current agricultural land use, feedlot information and similar information to identify the areas most appropriate for agriculture.
 - a. Research and consider adoption of zoning amendments that will create two or more rural/agricultural districts. At least one of these districts should accommodate and protect agricultural, mining and forestry uses.
 - b. Where non-agricultural uses are allowed adjacent to agriculture areas, encourage or require setbacks, vegetative or other screening or alternative subdivision designs so as to minimize the potential for conflict.
8. Recognize efforts by local and regional organizations to support a local agricultural economy that is sustainable into the future and take action to implement their recommendations when deemed appropriate and consistent with the County's Comprehensive Plan.

Goal A2: Achieve an appropriate balance between the continued and growing desire of people and certain businesses to locate in rural settings and the need to accommodate agricultural and other rural land uses in these same areas.

Objectives:

1. Identify areas of the county that would be appropriate for use by both agriculture and limited residential and commercial uses and adopt policies and zoning amendments that allow for them to locate in those areas. Such areas shall also, whenever possible, serve as a buffer between agricultural, mining and forestry uses and areas deemed incompatible with such uses.
 - a. Utilize soil survey information, topography, Farm Service Agency aerial photography, current agricultural land use, feedlot information and similar information to identify the areas most appropriate for agriculture to be co-located with rural residential and commercial uses.
 - b. Research and consider adoption of zoning amendments that will create two or more rural/agricultural districts. At least one of these districts should accommodate agricultural, mining and forestry uses in addition to limited residential densities and businesses appropriate to rural areas, such as agricultural tourism, start-up manufacturing, small farming operations and limited mining operations.

Goal A3: Understand the positive and negative impacts of emerging agricultural practices and uses for agricultural products or lands.

Objectives:

1. Stay informed about new farming practices, such as "high tunnel" farming, organic and other small scale farming, wind and solar electricity production, and the use of agricultural crops for non-food or feed products (oils, resins, fibers, clothing, energy/fuels, cosmetics, plastics and others).
2. Seek to expand their use and diversify agricultural production throughout the County where appropriate and beneficial.

Goal A4: Recognize the importance of agricultural practices, including manure management, tiling, application of fertilizers and pesticides, and clearing of new lands for agricultural uses being done in a responsible manner that protects the County's ground and surface waters, nearby property owners and important wildlife habitats.

Objectives:

1. Work with local farmers and other landowners, SWCD, state agencies and other interested parties to protect and enhance water quality in an orderly, effective and consistent manner while respecting private property rights. Prioritize the installation or enhancement of vegetative buffers or other best management practices in areas particularly susceptible to erosion or surface water pollution.
2. Research and consider whether and where additional regulations may be necessary to protect natural resources and nearby property owners.

3.2 RESIDENTIAL

Goal B1: Promote the wise utilization of land for organized residential development.

Objectives:

1. In areas where agriculture is most prevalent, limit housing densities to those most likely to prevent conflict.
2. Allow ample opportunity for rural residential living in areas less suited to agricultural production and where adequate public infrastructure exists.
3. In implementing the above objectives, ensure that newly created individual lots and/or residential developments:
 - a. Have public road frontage on roads suited to the expected levels of traffic;
 - b. Are of adequate size to accommodate at least two septic drainfield sites in addition to a dwelling and accessory buildings typical in rural residential settings.
 - c. Are appropriately sized as per the requirements of the Zoning Ordinance; and
 - d. Are designed and regulated so as to preserve an atmosphere where residents can enjoy a rural lifestyle without experiencing unnecessary conflict.
4. Develop education materials which will provide prospective buyers with information to consider prior to purchasing a parcel within Morrison County, including parcel access, determining buildable area, etc.
5. Seek to ensure that new residents of the County's rural areas are well-informed about the sights, sounds and smells that they can expect from surrounding land uses (agriculture, hunting, forestry, mining, etc...) if they live in a rural setting.
6. Work with the County's cities and their surrounding townships to plan for orderly growth and to reflect such plans in the County's zoning ordinances.

Goal B2: Continue to allow for a variety of housing options that meet the needs of Morrison County residents.

Objectives:

1. Ensure that County regulations and policies allow ample opportunities for housing suitable to the County's aging population. Study and identify methods by which aging residents seeking to stay in their rural homes can have the support and access to services they need until such time that moving to assisted living, memory care or nursing home facilities becomes necessary.
2. Continue to provide opportunities for safe, healthy and affordable housing through both the maintenance and rehabilitation of existing housing and the development of new homes.
3. Serve as a resource to current and prospective landowners so that they have accurate and complete information regarding the regulations affecting their choice of where to live and what to expect on lands around them.
4. Recognize efforts by local and regional organizations to support a strong and varied local housing market that meets the needs of local residents and take action to implement their recommendations when deemed appropriate and consistent with the County's Comprehensive Plan.

3.3 NATURAL RESOURCES & OPEN SPACE

Goal C1: Recognize the Mississippi River as a crucial natural resource within Morrison County and work to preserve and improve the long-term water quality of the River.

Objectives:

1. Implement the goals, objectives, policies and programs of the Mississippi Headwaters Board when required by law or otherwise deemed appropriate and consistent with the County's Comprehensive Plan.

Goal C2: Preserve natural resources identified as critical and sensitive including wildlife habitats, wetlands, forest lands, etc., within Morrison County.

Objectives:

1. Identify and map all critical and sensitive natural resources within Morrison County.
2. Continually identify, study and monitor strategies intended to preserve and manage natural resources.

Goal C3: Preserve and protect the quality of the County's groundwater and surface water resources to ensure its suitability for drinking water and/or recreational purposes.

Objectives:

1. Implement the goals, objectives, policies and programs of the Morrison County Water Plan when deemed appropriate and consistent with the County's Comprehensive Plan.
2. Continue to support the efforts of public and private organizations such as the Minnesota DNR and state and local lakes associations working to enhance surface water quality when deemed appropriate and consistent with the County's Comprehensive Plan.
3. Continue to study and understand the dynamics of the County's groundwater resources and how various users of those resources affect its quantity and quality.

4. Identify areas of the County that have significant risks for groundwater and surface water pollution or which have already been polluted and study ways in which to protect or restore these resources. Consider soil types, depth to groundwater, demand for drinking water and other relevant factors in identifying the most susceptible areas.
5. Make use of the Geologic Atlas of Morrison County (2014) so as to amend or create land use policies that take into account the unique aspects of each aquifer.
6. Consider amendments, where necessary, to the County's Emergency Management Plan and additional training for emergency responders regarding potential spills or other disasters involving toxic or other significant pollutants. Such planning should focus in particular on areas near railroad tracks, airports and major transportation corridors.

Goal C4: Protect the air quality of Morrison County.

Objectives:

1. Implement air, dust, odor, and noise regulations contained within the Morrison County Land Use Ordinance.
2. Consider the effect on air quality in review of any new development within the County.

Goal C5: Value the forest resources of Morrison County and encourage their management, use, and protection in a sustainable manner.

Objectives:

1. Preserve, to the extent possible, trees within new proposed developments and define appropriate clearing of trees for normal construction and view.
2. Support the forestry management practices, programs, and policies of the Minnesota DNR, the Morrison County Soil & Water Conservation District and the Camp Ripley Military Reservation.
3. Support public education programs related to forestry management and protection.

Goal C6: Value the gravel and mineral resources of Morrison County and encourage their management, use, and protection in a responsible manner.

Objectives:

1. Preserve, to the extent possible, areas of gravel or mineral deposits as land is converted to other uses.
2. Identify areas where uses of land other than gravel or mineral extraction may be of higher value and work with landowners to help them make informed decisions regarding the use of these lands.

3.4 SHORELAND MANAGEMENT

Purpose and Overview

Morrison County has an abundance of high quality lakes and rivers that are a significant part of the County's economy and attractiveness. As the desire of people to live on or near these water resources has increased over the past several decades, the need for increased management and monitoring has increased. The purpose of the Morrison County Shoreland Management plan is to provide guidance for the future development in Shoreland Management areas within Morrison County so that future generations will be able to enjoy and make use of these resources well into the future.

Shoreland Development Goals, Objectives, and Policies

- Goal D1: Work to ensure that development occurring within the County's watersheds is done in a thoughtful and deliberate manner so as to balance environmental, social and economic goals to the greatest extent possible.
- Goal D2: Seek opportunities to educate county staff, shoreland property owners and the general public as to the impacts on water quality from development and the various land uses in a watershed.
- Goal E3: Ensure that the County's lakes and rivers remain a resource that is available for use and enjoyment by the general public.
- Goal D4: Recognize the character of established neighborhoods in the County's river and lakeshore areas so as to maintain and enhance the attractiveness of these neighborhoods. Consider adopting policies or regulations tailored to each unique type of neighborhood so as to preserve their individual character.
- Goal D5: Explore with the DNR, other state and local agencies and shoreland property owners the concept of regulations that are performance-based and tailored to the individual area rather than prescriptive "one size fits all" regulations wherever possible. Require implementation of mitigation practices during new development (whether by administrative permit, conditional use, variance or other approval process) to address the impacts of existing development and promote overall improvements to water quality as an integral part of the effort.
- Goal D6: Seek to amend and create shoreland land use regulations so that they can be easily understood and consistently enforced.
- Goal D7: Develop an inventory and/or assemble a series of existing or new maps to identify factors relevant to making informed decisions in shoreland areas. Such information may include lake depths and types of aquatic vegetation along each section of shoreline, fish spawning areas, near-shore drainage patterns including the location of defined drainageways entering the waterbody, location of lots with nonconforming lake or river setbacks, contiguous nonconforming lots under common ownership which must be considered combined by state or local law, areas of natural shoreline, or other information deemed useful.
- Goal D8: Work with Lake Associations, state and local government agencies, and tourism organizations to help prevent the spread of Aquatic Invasive Species (AIS). Study and understand which lakes and rivers are most and least susceptible to this spreading so that prevention efforts can be developed and prioritized accordingly.
- Goal D9: Recognize the importance of stormwater management to the preservation and enhancement of the County's lakes and rivers and implement policies and regulations that effectively manage stormwater runoff.

Goal D10: Work to better coordinate with federal, state and local government agencies and non-profits, lake associations and others with an interest in shoreland development to effectively balance the benefits that arise from development of shoreland areas with the need to protect, preserve and restore valuable natural resources.

Objectives:

1. Continue to maintain and develop relationships with local, state and federal agencies so as to avoid duplication of efforts.
2. Work with lake associations, Lake Improvement Districts, SWCD and others to identify existing non-compliant subsurface sewage treatment systems (SSTS) and identify both voluntary and regulatory methods for ensuring they are inspected and updated as necessary.
3. In areas with small lots or other limitations to effective long-term sewage treatment, seek to encourage the acquisition or preservation of nearby land suitable for community sewage treatment systems.
4. Work with Lake Associations, Lake Improvement Districts, local farm operators, SWCD, the Mississippi Headwaters Board, the MN Department of Natural Resources, the MN Pollution Control Agency and other interested parties to promote the installation and enhancement of vegetative buffers and other Best Management Practices (BMPs) for surface water protection along residential and commercial shoreland properties. Prioritize these efforts in areas particularly susceptible to erosion or surface water pollution.
5. Continue to enforce state shoreland regulations limiting new feedlots in shoreland areas.
6. Work with pasture farm operators and existing feedlot operators in shoreland areas to ensure proper manure management and prevent pollution of surface and groundwaters.
7. Develop educational materials or programs for Board of Adjustment and Planning Commission members, as well as applicants for variances, conditional use permits and other similar approvals regarding the legal requirements, limitations and other factors involved in rendering decisions on such applications. Such decisions should be based on the clear presence of a practice difficulty based on the property itself rather than the individual needs or desires of the applicant.
8. Assemble, develop and distribute clear and informative materials to educate the public regarding shoreland best management practices, the County's shoreland regulations, and the necessary procedures for ensuring compliance with these regulations.
9. Review the impact of back lot development and access lots on surface water use, and quality and make ordinance revisions necessary to minimize these impacts.
10. Study and consider the development of clear policies relating to existing and new issues relating to shoreland areas, including vacation rental of homes in residential settings, the creation or expansion of resorts and campgrounds, the conversion, expansion or replacement of seasonal lakeshore cabins into year-round homes and the spread of invasive species.
11. Support the Objectives and Implementation Methods outlined in the Mississippi Headwaters Board's Comprehensive Management Plan and ensure that their "Standards for Land Use" are properly incorporated into the County's Land Use Ordinances when deemed appropriate and consistent with the County's Comprehensive Plan.

12. Ensure that efforts to protect surface waters consider activities and land uses throughout the entire watershed.
13. Work with the MPCA, DNR, SWCD, Mississippi Headwaters Board, Lake Associations, Lake Improvement Districts, agricultural producers and others to develop educational materials and regulations, when appropriate, to address impacts to water quality coming from areas not regulated under DNR shoreland rules. Consider the adoption of regulations to address these concerns when and where deemed appropriate.
14. Review existing floodplain regulations to ensure consistency with state and federal requirements as well as to address the potential for expanded flood risks from more frequent and intense storm events.
15. Implement the action items identified within the Aquatic Invasive Species Prevention Plan for Morrison County, originally adopted in 2014.
16. Update the Aquatic Invasive Species Prevention Plan for Morrison County on an annual basis to assess the effectiveness of the action items and determine the need for amendments.
17. Recognize efforts by local and regional organizations to protect and enhance water quality in the County and take action to implement their recommendations when deemed appropriate and consistent with the County's Comprehensive Plan.

SECTION 4.0 TRANSPORTATION, INFRASTRUCTURE AND PUBLIC FACILITIES

Purpose and Overview

This section is intended to address the interconnection of infrastructure and facilities with land use development and growth within Morrison County. It is important to note that the language provided within this plan is intended to be generalized to address only this interconnection and other existing plans address these components in greater detail.

Existing Plans, Programs, and Policies

Morrison County Department of Public Works Transportation Improvement Plan

Morrison County Highway Safety Plan

Morrison County Department of Public Works Access Management Policy

Morrison County Ordinance for the Management of Public Right of Way

Minnesota Department of Transportation State Transportation Improvement Program

Morrison County Department of Public Works Solid Waste Management Plan

Morrison County Department of Public Works Industrial Solid Waste Management Plan

Morrison County Solid Waste Ordinance

Local Road Authorities

Local and County Planning & Zoning Administration

Individual Developers and Business Owners

Goals, Objectives, and Policies

Goal E1: To maintain, improve and expand the County's Transportation network so as to provide a connected road system that moves people, goods and services in a cost efficient way

Objectives:

1. Support the continued focus of resources on Transportation Improvements that eliminates inefficiency's in moving people, goods and services from farm to market and from community to community.
2. Continue to eliminate inefficiency's in the County Transportation System by replacing or rehabilitating bridges that restrict hauling of legal loads.
3. Support efforts to increase the year around structural carrying capacity of all major collectors to 10 tons.
4. Promote the development of roadways in geometrics and structural design based on the functional classification of the road.
5. Support and encourage County Transportation planning in coordination with Federal, State, Township and City planning.
6. Promote a cooperative relationship and consistency in Transportation Planning with adjoining counties.
7. Support and promote a county road maintenance program that provides for the safe movement of people, goods and services and is conducted in as an environmentally friendly way as possible.
8. Support and encourage the development of transportation opportunity's for seniors and the disabled whenever possible.
9. Work to maintain the integrity of the transportation system by requiring adequate off road parking in the development of land.

Goal E2: Support Highway Safety improvements to the County Transportation System in the effort to minimize fatal and injury accidents on all roads in Morrison County

Objectives:

1. Support the Minnesota Department of Transportation Strategic Highway Safety Plan and the effort to reach zero deaths by encouraging cooperation between enforcement, education, engineering and emergency responders.
2. Support the implementation of the Morrison County Highway Safety Plan.
3. Continue to promote safety of road users by supporting implementation of the Morison County Access Management Guidelines on the county highway system.
4. Promote layout and designs of new developments with consideration to the safe ingress and egress of the future owners.

Goal E3: Ensure the County is meeting its obligations for managing solid waste by considering and making land use decisions that are in harmony with the Morrison County Solid Waste Management Plan.

Objectives:

1. Support land use decisions that consider the public's need for environmentally sound solid waste disposal methods and practices.
2. Work to ensure that the County's solid waste facilities are expanded or upgraded as needed to ensure adequate space for solid waste disposal in an environmentally responsible manner.
3. Support and promote recycling and beneficial reuse of materials so as to efficiently utilize final disposal capacity of the Morrison County Landfill.

Goal E4: Support the development of trails and other alternative modes of transportation throughout the County.

Objectives:

1. Encourage the implementation of the Morrison County Trails Plan and the development of the Camp Ripley Veterans State Trail.
2. Encourage community design that centralizes community centers to minimize the reliance of residents on automobiles and encourage a "healthy lifestyle."
3. Encourage the incorporation of sidewalks and trails in local community plans to promote walking and bicycling to promote a "healthy lifestyle".
4. Support the use of the Little Falls/Morrison County Airport facility
5. Explore the use of the Mississippi River for recreational or commercial transportation.

Goal E5: Support and promote the development and maintenance of Parks, Open Spaces and other recreational facilities in the county.

Objectives:

1. Encourage the development and expansion of recreational areas in the county that provide for rest, relaxation and enjoyment for the residents of Morrison County.
2. Coordinate with other local jurisdictions, where appropriate, to enhance the variety of park lands, recreational equipment and facilities and recreational programs available to the public.
3. Consider improvements to County park lands to enhance their accessibility by the disabled, elderly and young children when designing and constructing improvements.
4. Promote the County's parks and recreational facilities to local citizens as well as to visitors and tourism organizations.
5. Explore the acquisition of corridors of land to provide additional recreational opportunities, connections between public parklands, wildlife habitat and migration corridors, and/or protection of sensitive environmental features.

6. Seek to create recreational opportunities connecting public park lands and public waters throughout the County.
7. Monitor grant and other funding opportunities from both public and private organizations related to the acquisition, expansion, and enhancement of County park lands and recreational facilities. Apply for such funding when appropriate.

Regional and State Trails in Morrison County

1. Lake Wobegon Trail

The Lake Wobegon Trail is a 62-mile long, 10-foot wide, bituminous surfaced hike-and-bike pathway. The trail, which opened on September 30, 1998, extends through the Central MN counties of Stearns and Todd from the city of St. Joseph to the city of Osakis. The trail also has an extension on the west side of Albany heading northeast to Holdingford and the Stearns/Morrison County line.

The trail is also available for snowmobiling; however, use of metal studs on snowmobiles is prohibited on the trail to help protect the trail from damage caused by the studs on the snowmobile tracks. The trail has grown substantially since it was first opened and further additions to the trail are continuing to be planned. The trail has already seen a lot of use by bicyclists, snowmobilers, roller-skiers, roller bladers, and of course, walkers.

The trail was originally the idea of the Albany Jaycees, who spent many hours raising money and support for the trail. Many other local community organizations helped complete the trail. Planning for the trail began in the fall of 1994, and fundraising began in the fall of 1995. Construction costs were a joint effort between the Federal ISTEA (Intermodal Surface Transportation Efficiency Act), State DNR Regional Trail Initiatives Grant, Albany Jaycees Fundraisers (including city contributions), Central Minnesota Initiative Fund (McKnight Foundation) and Stearns County. With many supporters including Representative Oberstar, who helped procure the additional funding needed, the trail was approved and built.

The final segment of the Lake Wobegon Trail will be the "Saintly Seven Miles." It will connect St Joseph east to the Mississippi River through Waite Park and St Cloud. The extension will create an opportunity for a major east/west "greenway", similar to the Minneapolis Greenway, providing a safe alternate transportation route for walkers, bikers and roller bladers to cross the St Cloud Metro. It will also provide a connector for other metro trail systems in Waite Park, St Cloud, Sartell, Sauk Rapids and St Augusta.

The Saintly Seven Miles will also provide a connection to the national Mississippi River Trail (MRT) which runs from the headwaters at Lake Itasca to the Mississippi Delta in New Orleans. The planned construction of the ROCORI Trail will link to the Glacial Lakes trail southwest of St Cloud and is expected to connect to the Lake Wobegon Trail as well. The Minnesota State Veterans Trail is planned to link the Paul Bunyan and Heartland Trails from Brainerd to the Soo Line Trail near Bowlus to the Lake Wobegon Trail. The completion of these connections will create a nearly 600 mile paved rail trail system in Central Minnesota and the longest such trail in the world!

Source: <http://lakewobegontrail.com/info>

2. Paul Bunyan State Trail

The Paul Bunyan Trail is the longest MN Bike Trail at 120-miles and it connects the Heartland Trail, the Blue Ox Trail and the Cuyuna State Trail.

Main summer uses of developed portions of the Paul Bunyan State Trail include hiking, bicycling, and in-line skating. Snowmobiling is the primary winter use along both the paved and undeveloped sections of the trail; however studded tracks are prohibited on the paved surface. The trail provides connections to many miles of groomed snowmobile trails in the county Grants-in-Aid trail system. When completed, the Paul Bunyan State Trails will also connect with the Blues Ox Trail forming one of the longest rail to trail conversions in North America – 210 miles.

Source: <http://www.paulbunyantrail.com/>

3. Soo Line Corridor

The Development of the Soo Line Corridor through Morrison County is key to linking with other segments of the Soo Line Corridor outside of Morrison County. 110 miles of multi-use trail stretches from Genola to Superior, Wisconsin, 11 miles of which is paved from Onamia to Isle.

4. Other Trails

Includes all trails maintained by community organizations and groups such as snowmobile club trails and similar trails

SECTION 5.0 LOCAL ECONOMIC DEVELOPMENT PLAN

Purpose and Overview

The policies, and recommendations related to the local economy of Morrison County remain essentially unchanged since the development of the first County Comprehensive Plan in 1989. A list of these policies and recommendations are listed within this section:

- Morrison County has a need for employment opportunities that will allow its residents a reasonable standard of living without relying on public assistance programs.
- Morrison County has a need to improve its business climate and business development efforts to retain and expand existing businesses and to encourage the establishment of new enterprises.
- Morrison County needs to utilize its local products and resources in business expansion and job creation.
- A favorable business climate in the County should be promoted.

Plans, Programs, and Policies

Morrison County Community Development Corporation

Region Five Development Commission

Economic Development Program

Minnesota Department of Employment and Economic Development (DEED)

Federal Economic Development Administration (EDA)

Goal C1: Support efforts to build a strong and varied local economy that provides adequate employment opportunities and access to the goods and services needed by County residents.

Objectives:

1. Call attention to Morrison County's physical and human resources as a business attraction tool to promote Morrison County and its communities as a desirable County for business start-up and relocation.
2. Coordinate with cities, employers, educational institutions and economic development agencies to identify, study and utilize effective economic development tools to promote the area as an attractive place to start, expand and relocate business and industry.
3. Promote tourism as an important industry within Morrison County, both current and prospective, and preserve tourism-related natural resources from future development to maintain their value and integrity.
4. Recognize County's river and lakeshore areas as important elements of the County's overall economic health and work to support the maintenance and expansion, where appropriate, of tourism-related business in shoreland areas.
5. Continue to maintain consistent communication and interaction with the Morrison County Community Development Corporation, local chambers of commerce, the Region Five Development Commission, the National Joint Powers Alliance, State and Federal economic development agencies, and similar programs and entities to attract business to Morrison County.
6. Seek to support the expanded use of local materials and agricultural products in local manufacturing and processing businesses.
7. Recognize efforts by local and regional organizations to promote commercial/industrial development and take action to implement their recommendations when deemed appropriate and consistent with the County's Comprehensive Plan.
8. Seek opportunities to encourage and support local entrepreneurs in their efforts to create and expand their businesses, where appropriate, in order to create a more stable and vibrant local economy.

Goal C2: Ensure that land use regulations allow for a variety of business and industry consistent with the rural settings of the County, in areas where they have access to adequate infrastructure and services, and where they will not create unnecessary conflict with other land uses.

Objectives:

1. Limit commercial and industrial development only to areas capable of handling such development with adequate infrastructure and services.
2. Mitigate impacts of new commercial and industrial development on existing adjacent land use and the impacts of existing adjacent land on new commercial and industrial development.
3. Identify areas of the County appropriate for commercial and industrial use through the year 2035.
4. Reduce the impacts of legal nonconforming businesses in residential zoned areas by carefully considering the adverse secondary impacts of the business and its future use and limiting expansion that would be inappropriate for the area.
5. Review the list of uses allowed by conditional use in commercial and industrial areas to ensure consistency with the goals of the Comprehensive Plan related to economic development.
6. Only rezone properties for commercial or industrial uses when such actions would be consistent with the Comprehensive Plan and when they would not constitute "spot zoning" for the convenience of a particular landowner.
7. Focus on accommodating business and industry within the unincorporated areas of the County that are best suited for rural settings.
8. When water and/or public sewer services are required, encourage those businesses to locate within the County's cities or where such services are available or able to be expanded.
9. Work to ensure that the County supports a strong and vibrant tourism economy in its river and shoreland areas.
10. Review and amend zoning regulations and conditional use permit review procedures so as to reduce barriers to business startup and expansion where they are deemed appropriate or are unlikely to create nuisances for nearby property owners.
11. Seek to amend or create regulations affecting home occupations so as to create an opportunity for appropriate and limited businesses activities to start, but not to grow so large as to create an undue burden on neighboring properties or public infrastructure and services.
12. Support and encourage the provision of employment which will provide the highest possible incomes to all work classifications.
13. Support and encourage the provision of employment that will match the capabilities and interests of the present work force and that will provide potential for growth in skill development for that work force.
14. Support and encourage the provision of employment that will enhance both the economic and human qualities of life of individuals and families in Morrison County and reduce dependence on public assistance programs.
15. Support and encourage expansion and development of manufacturing and agriculturally related business and industry in a manner that is compatible with other land uses in the County.
16. Support the expansion of existing commercial centers or businesses when doing so will not adversely impact nearby properties.

17. Commercial establishments will be expected to maintain a high standard of maintenance and repairs. The storage of trash, parking of junk cars, burning, yard maintenance, noise and light generation and many other factors should be controlled in accordance with recognized standards and procedures.
18. Public policy shall be conducive to the improvement of conditions affecting commercial operations, but not to the point of endangering the public welfare and intent of the Comprehensive Plan.
19. To the extent possible, commercial areas should be developed according to function; the indiscriminate mixing of retail, business services, personal services and other types of commercial activity shall be discouraged.
20. Support education and worker training programs, both for those beginning those careers and those seeking to gain new skills consistent with the needs of local employers.
21. Support and encourage those who seek to continue or begin new farming operations.

SECTION 6.0 EDUCATION, RECREATION AND CULTURE

Purpose and Overview

There is the need in Morrison County to provide the highest quality education and the widest range of educational options possible to allow its residents to pursue the full range of employment options and also to enhance their quality of life. To provide for these educational, recreational and cultural needs, the following issues identified through the development of the first Comprehensive Plan in 1989 are carried over in this latest revision:

Morrison County has a need to expand the library facilities available in the county as well as access to those facilities.

Morrison County has a need to ensure an appropriate level of parks and recreational facilities to meet the needs of the residents of the county.

There is the need in Morrison County to expand and promote cultural activities and events.

Plans, Programs, and Policies

6.1 EDUCATION

Goal: To promote and foster the education of the youth of Morrison County as well as the development of life-long or adult learning opportunities.

Objectives:

1. The County will cooperate to the fullest extent possible with the school districts in the County to ensure the highest quality education for the residents of the district.
2. The development of post-secondary and life-long learning opportunities for the residents of the County should be encouraged.

6.2 PARKS

Goal: To provide sufficient parks to serve visitors and the residents of Morrison County.

Objectives:

1. The currently existing parks and recreation system should be maintained and improved and a system of parks and recreational areas and facilities appropriate to the needs of the County should be encouraged.
2. Explore the possibility of maintaining a Morrison County Parks and Recreation Department to maintain all County parks and trails within the County as well as other cultural resources.

Policies and Recommendations

1. Unique historical and natural areas for cultural and recreational uses should be preserved.
2. The development of future parks should be based on need and commonly accepted recreation standards.
3. Developers, in appropriately large developments, should be required to reserve a percentage of total acreage for parks and open space.
4. Libraries should be recognized as important educational and cultural facilities and the establishment of additional library services should be promoted.
5. The importance of sound educational systems for improving the economy of the County should be recognized and work toward improving the systems should be encouraged.

SECTION 7.0 WATER PLAN

[See Morrison County Water Planner for information on the Morrison County Water Plan]

SECTION 8.0 HAZARD MITIGATION PLAN

[See County Emergency Management for information on the Morrison County Hazard Mitigation Plan]

APPENDIX A: SUMMARY OF INFORMATION OBTAINED THROUGHOUT THE PLANNING PROCESS

A1: 2005 CITIZEN (PUBLIC) VISIONING SESSIONS (2 SESSIONS)

Target Audience: General public including residents and landowners

Total Participants: Approximately 280

Meeting Date: December 3, 2003 and February 19, 2004

DESIRED OUTCOMES	
GROUP	DESIRED OUTCOME
Commercial/Industrial/Workforce	Adequate funding for education
Commercial/Industrial/Workforce	Increase tax base
Commercial/Industrial/Workforce	High quality of life
Commercial/Industrial/Workforce	Keep current industry and lure new industry and manufacturing
Commercial/Industrial/Workforce	Have county be considered a "destination"
Commercial/Industrial/Workforce	Managed growth to protect natural resources at the same time
Commercial/Industrial/Workforce	More retail/Strengthen and maintain small business
Commercial/Industrial/Workforce	School and education in the top 10% of the state
Commercial/Industrial/Workforce	More jobs with better wages and benefits
Economic development/Agriculture and	Increase industry support
Economic development/Agriculture and	Some agricultural processing facilities in Morrison County, find niche market if necessary
Economic development/Agriculture and	Little Falls School District passes a referendum
Economic development/Agriculture and	Agreement comp on use of prime land for houses to preserve woodland between cities, townships, and
Economic development/Agriculture and	Northstar stop somewhere in Morrison County
Infrastructure	Development/cluster housing near major intersections
Infrastructure	Provide high speed communication
Infrastructure	All residents using solid waste system
Infrastructure	Maintain road quality with 10 ton routes to industry
Infrastructure	Reconstruct State Highway 25
Infrastructure	Complete diamond interchange at CSAH 13 and U.S. Highway 10
Land Use & Agriculture - Small Farmers	All land splits surveyed and reported
Land Use & Agriculture - Small	Keep small farm atmosphere

DESIRED OUTCOMES	
GROUP	DESIRED OUTCOME
Farmers	
Land Use & Agriculture - Small Farmers	Change split size to maintain farm size
Land Use & Agriculture - Small Farmers	Incentives for maintaining farms for passing on to family
Land Use & Agriculture - Small Farmers	Freedom to Farm
Land Use & Agriculture - Small Farmers	Comprehensive plan and designated zones for agriculture, industry and residential
Land Use & Agriculture - Small Farmers	Classify or distinguish small farms by an established criteria
Land Use & Agriculture - Small Farmers	Taxes low for small farms (real estate)
Land Use & Agriculture - Small Farmers	Financial support for new farmers
Land Use & Agriculture - Small Farmers	Reduce permit fees for small farms
Land Use & Agriculture - Small Farmers	More market opportunities, i.e. ethanol
Land Use & Feedlot Regulations	Limit number of animals on small parcels
Land Use & Feedlot Regulations	Limit residential in agricultural areas
Land Use & Feedlot Regulations	More help for enforcement for feedlots
Land Use & Feedlot Regulations	Do not adversely affect small farms
Land Use & Feedlot Regulations	Maintain agricultural position in county
Land Use & Feedlot Regulations	Raise Animal Unit Cap
Land Use & Feedlot Regulations	Feedlot rules updated to allow for changes
Land Use & Feedlot Regulations	Develop agricultural/industrial zone
Land Use & Feedlot Regulations	Protection from development
Land Use & Healthy Lifestyle	Update handicap access
Land Use & Healthy Lifestyle	Help for less fortunate
Land Use & Healthy Lifestyle	Wider road shoulder
Land Use & Healthy Lifestyle	Boat landing regulations
Land Use & Healthy Lifestyle	Improve [existing] trails
Land Use & Healthy Lifestyle	Milfoil problem eliminated
Land Use & Healthy Lifestyle	Improve Mississippi River water quality
Land Use & Healthy Lifestyle	ATV Trails - link to Brainerd
Land Use & Healthy Lifestyle	Limit size of AG land splits/reduce or eliminate variances
Land Use & Healthy Lifestyle	Keep what we have for the future
Land Use & Shoreland	Protect small lakes from ISTS leaking & agriculture.
Land Use & Shoreland	Evaluate feasibility of central sewer on shoreland
Land Use & Shoreland	Create biking/walking trails
Land Use & Shoreland	Strict enforcement of pollution regulations
Land Use & Shoreland	More consistent enforcement of land use regulation

Land Use & Shoreland	Rezoning to be consistent for all landowners
DESIRED OUTCOMES	
GROUP	DESIRED OUTCOME
Natural Resources & Critical Areas	100% septic compliance
Natural Resources & Critical Areas	Protect aggregate resources from being developed
Natural Resources & Critical Areas	Better controls for stormwater management
Natural Resources & Critical Areas	Good studies done before new regulations or changes in regulations
Natural Resources & Critical Areas	Comprehensive natural resources protection education programs in schools
Natural Resources & Critical Areas	Greater setbacks for wastewater management and
Natural Resources & Critical Areas	Prevent and protect the large unfragmented/undisturbed areas of wetlands and forest from division and development
Natural Resources & Critical Areas	Zoning regulations to create buffer zones around lakes to protect against development
Natural Resources & Critical Areas	Cease or limit development of agricultural lands for housing development
Natural Resources & Critical Areas	No loss of green space on major corridors within the
Natural Resources & Critical Areas	Increase natural shoreland vegetation
Natural Resources & Critical Areas	Water quality improved or maintained
Recreational Trails	Follow the state regulations of road usage on county land with strong enforcement
Recreational Trails	Safety training for users
Recreational Trails	Variety of terrain
Recreational Trails	Strong public support
Recreational Trails	Education/signage to prevent misuse
Recreational Trails	Well regulated [enforced] penalties for off trail users
Recreational Trails	Multi-use trails for all users
Recreational Trails	All county roads paved with shoulders
Recreational Trails	County wide trails with connections to adjacent counties/trails
Recreational Trails	Fairly funded by user fees
Recreational Trails	Finish North/South/East/West connection
Residential Growth and Housing	Better access roads in rural development areas
Residential Growth and Housing	Retain young people
Residential Growth and Housing	Safety
Residential Growth and Housing	Park Dedication Fee
Residential Growth and Housing	Tax forfeited lands for greenspace
Residential Growth and Housing	Information centralized for development requirements
Residential Growth and Housing	Rural cluster development designated in poorer soils
Residential Growth and Housing	Comprehensive plan
Residential Growth and Housing	Ensure affordable housing
Residential Growth and Housing	Less regulation on private land

Residential Growth and Housing	Better police and fire
Residential Growth and Housing	City and farm population in harmony
Residential Growth and Housing	More enforcement

DESIRED OUTCOMES	
GROUP	DESIRED OUTCOME
Residential Growth and Housing	Balance of growth and employment opportunities
Residential Growth and Housing	Larger lot sizes/Buyer Beware provisions
Residential Growth and Housing	Better jobs and wage benefits
Residential Growth and Housing	Financial incentives to maintain and improve housing

A2: LOCAL GOVERNMENT OFFICIAL MEETING INFORMATION (2005)

WHAT: Local Government Official Meetings. Townships and cities were grouped into eight township blocks. Each of these blocks met individually or in some cases with other blocks to gather opinions on a variety of comprehensive plan-related issues, as well as trails and hazard mitigation planning.

WHO: Township Supervisors, City Council Members, City/Township Planning Commission Members.

WHEN: Meetings were conducted April 2003 through August 2003.

WHERE: All meetings were held in Meeting Room #1 of the Morrison County Government Center.

Description

"Good Land"

61st in the Nation of Ag Land Units

Abundant Wildlife Aggregate (Gravel) Agricultural Land

Better Quality/Economical Food

Better Schools Business Diversity Camp Ripley

City Parks

Clean Environment Commercial Timber Extraction Community Investment Competitive Prices

Contributions to the Community Controlled Burning (for Insect Control) County Parks

County Regulation

County Water Plan

Diversity of Morrison County Ag Landuse Environmentally Friendly Power Plants within Morrison County

Existing Businesses Existing Industrial Parks Exposure/Visibility of Business & Industry

Farming Supports Environmental Management

Fishing and Hunting Lands
Good Planning
Good Roads
Good Water Sources
Green Space
Growth
Growth From St. Cloud
High Quality of Life
High Quality of Life/Family Values
Historical Aspects
Hospital
Improved Quality of Life
Improved Services
Increase in Skilled Workers Increased Availability of Goods Increased Consumers
Increased Convenience Increased Diversity Increased Housing Needs Increased Housing Options Increased Jobs
Increased Labor Force Increased Land Values Increased Living Wage Jobs
Increased Opportunities for Local Economy
Increased Services Increased Tax Base Infrastructure
Keeping Youth Within the Community
Lake and River Attractions for Residential Development
Lakes
Large Range of Employment Opportunities
Local DNR (Department of Natural Resources) Office
Local Food Suppliers
Location of Cities Promotes Natural Resources/Twin Cities is far enough away
MHB (Mississippi Headwaters Board) Mississippi River
More Activities
More Business Opportunities for Consumers
More Convenience/Closer Community More Open Use "Fences Coming Down" More/Improved Roads
Neighboring Opportunities (Mille Lacs County) New Businesses and Work Force
New Ideas and Opinions
New Ideas and Public Involvement

Nuisance Ordinances

Parks

Potential Infrastructure Present and Future Trails Prime Ag Land

Production of Agricultural Products

Promotes Local Economy Promotes Sustainability Protection of Agriculture base Provides Goods and Services
Provides Jobs

Quiet, Rural Setting

Recreational Opportunities - Campgrounds/Hunting

Land/Etc.

Renewable Crop Production

Rural Character

School District Improvements

Small Business Snowmobile Trails Stability

State Park

Strong Community Values

Strong Dairy/Ag Farming

Strong Demand for Agricultural Products and Supplies

Strong Production of Agricultural Products

SWCD (Soil & Water Conservation District)

SWCD (Soil & Water Conservation District) Enforcement

Taxbase

TIF (tax increment financing) and tax abatement programs

Tourism/Support of Local Economy

Water (rivers & lakes) Water Quality Monitoring Wetland Conservation Wetland Education Wetland Preservation

Wild Life Management Areas (WMAs) Wooded Areas Attract Residential Growth Year-Round Recreational Trails

Youth Involvement in Agriculture

Weak Description

"Distressed Areas" in Residential Areas

"Smells" - Agricultural Byproducts

"Smells" - Agricultural Byproducts/Feedlots

"Who fixes the fences?" Area Contamination

ATV and Snowmobile Usage
ATV Misuse
Boundary Line Disputes Burden on Services Burning
Burning-Permitting Process
Commercial Uses in Ag Areas
Conflicts between Residential and Agriculture
Conflicts with New Residents and Agriculture
Confusion with Regulation Regarding Repairing Damage to Existing Structures
Creation of "un-useable" lots (mostly through subdivision)-
-Variance
CRP Program
Damage to Township Roads Danger - Human/Natural Hazards Decline in Ag Land
Difficulty in Owning Ag Land Drainage Regulations Dwindling Activities/Festivals Enforcement of ISTRS Enforcement of Setbacks Environmental Impacts
Excessive Load Limits on Township and County Roads
Geese/Canadian Geese Animal Waste
Government Programs
Illegal Access Points to County Roadways
Increased Availabilities of ATVs
Increased Crime
Increased Demand for Housing Increased Demand of Services Increased Impervious Surfaces Increased Land Values
Increased Need for Animal Control
Increased Noise
Increased Risk of Disease and Infestation (Milfoil) Increased Solid Waste
Increased Traffic/School Buses
Increases the Need for Land Management
Infringing on Easements with Crops
Lack of "Valuable Resources"
Lack of Access within Public Lands
Lack of Community Education
Lack of Consumer Base
Lack of Definition of Wetland Regulation

Lack of Funding
Lack of Housing
Lack of Industrial Areas
Lack of Infrastructure for Commercial/Industrial Development
Lack of Law-Enforcement
Lack of Natural Resources Regulation Enforcement
Lack of Open Space Regulation Lack of Pay and Quality Jobs Lack of Planning
Lack of Public Lands
Lack of Public Shorelands
Lack of Site-Specific Zoning
Lack of Skilled Employment Opportunities
Lack of Surface Water Use Enforcement
Lake Access on Alexander and Fish Trap Lakes
Lakeshore Variances-Too Many
Land Given to DNR Large Ag Producers
Large Campgrounds and Resorts (Docks, Septics, Trailers, etc.)
Large Corporate Farms
Large Trucks and Equipment
Liability
Local/County/State/Federal Regulations
Loss of Businesses
Loss of Community "Closeness" Loss of Family Farms
Loss of Funding
Loss of Privacy/Lack of Respect for Others' Property Loss of Protective Oversight from State & Federal Loss of Taxbase Land to Conservation
Low Commercial Tax Rate
Migration of Labor/Jobs
MobileHomes--Affordable Housing in Residential Areas
(Decent)
MobileHomes--Density Issues
MobileHomes--Increased Demand on Services

MobileHomes--Junk Trailers MobileHomes--Small Tax Base More Burning Needed
Need for Better Prices
Need for Road Improvements
NIMBY (Not In My Back Yard)
Not Applying Best Management Practices Perception of DNR's Loss of Control Pollution and Threat to Environment
Reduction of Small Businesses
Regulation/MHB (Mississippi Headwaters Board)/Setback
Risks in Business
Road Safety Along Lakeshore
Setbacks
Shoreland/Lot Sizes Inadequate
Spray Drift
Subdivision of Agricultural Land Surface Water Use Enforcement Threats to the Environment
TIF (Tax Increment Financing)
Too many loopholes for businesses Traffic/Noise/Pollution Unproductive/Untillable Ag Land Unusable Land
Variances Allowed for the 50% Damage Rule
Vegetation Build-up in Pasturelands
Water Quality Impacts
Wetland Regulation
Wetland Regulation/Lack of Consistency and Banking
System
Wetlands/Too Many Wetlands

Opp_Desc
(County) Parks on Shorelands
Advances in Technology
Build on Rural Community Character Commercial and Industrial Uses in Ag Areas Commercial in Agricultural Areas
Community Education Opportunities Cooperation with State and Federal Agencies County Fund for ATV Damage
County Water Plan
Create Dialogue Between Townships and Cities Create Uniform Setbacks in Agricultural Areas Creating Buffers Between Ag and Residential Creation of a Lakes Alliance
Creation of Open Space Provisions in Zoning Ordinance

Creation or Dedicated ATV Trail Culverts on Township Roads Economic Development Opportunities Economic Development Programs Economic Opportunity Leadership Education Institution

Emergency Services

Encourage Increased Stocking of Lakes

Enforcement of ATV Regulation

Enforcement of ATV Regulation/Surface Water Use

Enforcement of Ordinances

Federal Farm Program

Implementation of Access Management Implementation of County Water Plan Increased Agricultural Technology

Increased AirPort Capacity

Increased Consumer Base and Jobs

Increased Enforcement of ATV Usage/Traffic Increased Need for Trails and WMA's Increased Planning Regulation

Increased Services Increased TH371 Capacity Increased Wages

Industrial Park Opportunities

Industrial Park Opportunities in City Areas

Infrastructure Opportunities - Sewer/Wastewater/Drinking Water

Landfill Would Support Future Development

Larger Parcel Sizes in Ag Land

Leasing Hunting Land Limit Tax Exempt Land Look to Ag to Ag Program

Maintain more Open Dialogue to Increase County "Awareness" Maintain Trails Plan Regularly

Maintenance of Roads Marketing Morrison County Marketing of Morrison County

Mobile Homes--Create Parks with Infrastructure Mobile Homes--Increased Permitting and Regulation Mobile Homes--Regulation of Health and Safety More Privacy

North Star Corridor (railway)

Place Residential in areas it will not infringe on Ag/Buffering

Plan for Compatible Blend of Industry with Ag Land Plan for Compatible Blend of Residential and Ag Land Planned Commercial Development

Planning Ahead

Planning Ahead - Creating Consistency

Preservation of Small Farms - through Farm Support Programs

Preservation of the Current Way of Life

Preserve Ag Land

Provide Consistent Policy Provide Seeding of Businesses Public Relations/County Marketing

Public Education on Ordinances
Recreational Opportunities
Recreational Opportunities in Agriculture
Reduce Amount of Regulation
Regulation of Liquid Manure
Restrict Small Parcels within Ag Land
Roadway Agreements With County
Special Ag Opportunities (Ethanol, Biodiesel, etc.) Subdivision (smaller lot sizes in agricultural districts) Sufficient
Industrial/Commercial Zoning (Land Available) Surcharge/Fund for replacing/fixing ATV damage
Tax Incentives for Agricultural Land use
Technology Opportunities
Tier Development Model
TIF (Tax Increment Financing)/Grants/RLF (Revolving Loan Fund) Tourism/Economic Development
Trails Funding
Waste Management Services

A3: LOCAL GOVERNMENT OFFICIAL SURVEYS (2005)

WHAT: Surveys were sent to all township supervisors, city council members, and clerks on record with Morrison County. These surveys asked general questions related to comprehensive plan, trail planning, and hazard mitigation planning issues. Total, 40 survey forms were received representing the vast majority of local governments within the County. Not all answers will add up to this number due to the availability of multiple responses within the survey, and the omission of responses by survey participants.

WHO: Township Supervisors, City Council Members, City/Township Clerks. **WHEN:** Surveys mailed and received April 2003 through June 2003.

WHERE: N/A

Morrison County Comprehensive Plan
Survey of Local Government Officials



Through this survey, Morrison County is asking for the support of Township and City officials in identifying important issues facing Morrison County up to 15 years into the future. By completing and returning this survey form by [date], you will be assisting Morrison County in this crucial first step of the planning process.

1. How long have you been an official in your City or Township? Years _____ Months [AVERAGE 11.88 YEARS]
2. What City or Township do you live in: (Name) [LIST ON NEXT PAGE]

Q2

	Frequency	Percent	Valid Percent	Cumulative Percent
Agram Township	1	2.5	2.5	2.5
Belle Prairie Township	1	2.5	2.5	5.0
Bellevue	1	2.5	2.5	7.5
Bellevue Township	1	2.5	2.5	10.0
Bowlus	2	5.0	5.0	15.0
Buckman	1	2.5	2.5	17.5
Buckman Township	2	5.0	5.0	22.5
Cushing Township	1	2.5	2.5	25.0
Darling Township	1	2.5	2.5	27.5
Elmdale	1	2.5	2.5	30.0
Elmdale Township	1	2.5	2.5	32.5
Granite Township	1	2.5	2.5	35.0
Harding	1	2.5	2.5	37.5
Hillman	1	2.5	2.5	40.0
Lastrup	1	2.5	2.5	42.5
Leigh Township	1	2.5	2.5	45.0
Little Falls	1	2.5	2.5	47.5
Little Falls Township	1	2.5	2.5	50.0
Motley	1	2.5	2.5	52.5
Motley Township	3	7.5	7.5	60.0
Pierz	2	5.0	5.0	65.0
Pierz Township	2	5.0	5.0	70.0
Pike Creek Township	2	5.0	5.0	75.0
Platte Township	1	2.5	2.5	77.5
Pulaski	1	2.5	2.5	80.0
Ripley Township	1	2.5	2.5	82.5
Royalton	2	5.0	5.0	87.5
Sobieski	1	2.5	2.5	90.0
Swan River Township	1	2.5	2.5	92.5
Swanville	1	2.5	2.5	95.0
Upsala	2	5.0	5.0	100.0
Total	40	100.0	100.0	

Land Use Questions:

3. What types of development have occurred within your area the most over the past five years? (Check all that apply)

- 16 Agricultural (Example: Land Use related to crop/animal production, Feedlots, etc.)
- 12 Dense Residential (Up to 1 Acre Lot Sizes)
- 23 Low Density Residential (Greater than 1 Acre Lot Sizes)

- d. 30 Single-family Residential
- e. 3 Multiple-family Residential
- f. 3 Recreational (Example: Campgrounds, etc.)
- g. 6 Commercial (Manufacturing, Warehousing, Retail Stores, Offices, etc.)
- h. 4 Industrial (Business Activity of a Greater Impact on the Community)
- i. 9 Natural Resources (Example: Gravel Extraction, Logging Activity, etc.)
- j. 4 Shoreland Development
- k. 3 Other: GROUP HOME/ASSISTED LIVING POULTRY

4. If possible, please briefly explain development within your area over the past five years: (Include types of development, increase in building permits, areas of growth, or any other information you may feel is important.)

"A balance of new residential housing has been at play for the last 5 years. Extensive multiple family housing was completed before the last 5 years. Additional retail business has joined our community & a medical clinic was built here."

"About 25 homes, 2-3 factories, apartment houses, home businesses." "All building permits are gotten from the County."

"Building of single family homes and remodeling of older ones." "Home permits & some other smaller buildings built."

"Homes"

"House building (Residential Development)"

"In the past 5 years we have had 4 residential developments ranging from 7 homes to 14 per development. Our WAC & SAC fees recently increased due to added need for expansion of water and sewer facilities. We are averaging 12 to 14 homes/year over 3 years."

"Increases are residential permits especially along the Long Prairie and Crow Wing Rivers. Also, sales of land for hunting and individual houses."

"Industrial development along Highway 371 corridor, Ethanol Plant, Nursery, etc., is in an area that will flood again in the future. Also, areas of Riverwood that are being permitted to build in low areas."

"More housing units have been built."

"More residential housing places being put up." "Mostly single family homes, lakeshore development." "New housing district."

"Residential"

"Residential property development primarily consisting of single family dwelling construction, as well as platting of land has increased significantly."

"Single family housing."

"Six new single family homes have been added. Four of these are on one acre+ lots. (3 commercial developments.)"

"Small farms are quitting and big farms are taking their place."

"Small housing development. Some commercial and industrial development." "Two areas were platted in lots for housing."

"We have a lot of new homes being built. Some kind of industry in Hillman would benefit this city"

"We have an increase of single family dwellings. Many people have had to upgrade septic systems. Our Township increased in population"

"We have had an increase in building permits for single family homes."

"We have more residential permits for houses on our agricultural land. Very few farm building permits."

5. Please list the top five land use issues your City or Township has been faced with recently? (Examples: residential encroachment on agricultural land, inconsistent development, development of nearby cities and or townships, undesirable development, etc. Please list the top five issues)

#1's

"Agricultural-residential encroachment" "Annexation"

"Annexation by City of Little Falls" "Annexation to Motley City"

"Buying agricultural land to build homes on." "Feedlot development"

"Feedlots and chicken farms" "Homes"

"Inconsistent development"

"Resident who insists on operating an illegal junk business" "Residential development"

"Residential encroachment on agricultural land" "Single family households in agricultural areas" "Some undesirable development (trailer houses)" "There is not a problem with the developments" "Use of agricultural land for residences"

"We need to do something about junky trailers getting permits and not getting well and septic in –some live full-time in them."

#2's

"Slum Lords"

"Agricultural land used for residential housing" "Church Camp buying land and houses" "Concern about our lagoon drain field." "Individual septic system updates"

"Industrial Park"

"Land use, residential versus agriculture" "Large feedlots"

"Large tracts of land being broken up and sold as small tracts 5-10 acre lots bringing in bunch of people that build shacks."

"Undesirable development"

“Undesirable mobile home park desires to expand”

#3's

“Commercial development on 371” “Crime”

“Disorganized development- need zoning map” “Land use with watershed constraints”

“Roads- more school buses due to open enrollment” “Scattered growth our infrastructure”

#4's

“Absentee Ownership”

“Enforcement of Minnesota Statutes”

“Need for a larger community center”

“Roads – Minimum maintenance roads being used more” “Trail systems for ATV or snowmobiles”

#5's

“Commercial use of residential property” “Need for development of an industrial park” “Trail systems for bike and walking”

6. Does your City have Zoning Regulation and/or a Comprehensive Plan?

a. 13 Yes b. 16 No

7. If yes, what year was the Zoning Ordinance, and/or Plan Adopted?

a. Zoning Ordinance 1963, 1980, 1998 (2), 2002 (2), 2003 b. Comprehensive Plan 1985, 1996, 1998, 2003 (3)

8. Does your City provide planning and zoning services to the community?

a. 7 Yes b. 18 No

If yes, please briefly describe the process of approving development.

“Building inspector handles it”

“City is divided into areas that are for residential, business, or agricultural”

“County has ordinances but doesn't follow up with their own regulations. Don't need more rule but need to follow up on existing conditional use permits.”

“Everything goes before the Planning Commission and City Council”

"Little Falls Township resigned responsibility for planning and zoning to Morrison County"

"They help you figure out the best way to go about your project and keep it most effective"

" We used the Initiative Foundation funding for a comprehensive plan"

"Work with building inspector for single family developments are gone through by Planning and Zoning, City Engineer, and Building Inspector."

"Zoning guidelines are used in decisions on building permits by the City Council. We are in the process of adopting a new comprehensive plan by this summer (2003)"

9. Does the County provide adequate Planning & Zoning services to your Local Government Unit?

a. Yes b. No

Please Explain:

"Again, no follow up on conditional use permits. Car lots, feedlots, small businesses."

" As far as I know"

"City has own zoning. County notifies of upcoming zoning issues adjacent to City."

"County does a fair job of planning and zoning"

"Cushing Township has issues with the kind of trailers getting permits. "Fair"

"I'm not sure what they provide."

"Last week inquired about zoning in Motley Township. After meeting we felt County Planning and Zoning is good right now. Little Falls Township is notified of planning and zoning applications and issues occurring within the Township. The county and LF Township have worked together on applications for feedlot grants and future planning. Planning and zoning has been giving permits for agricultural and residential

"They write permits or issue them. Very poor follow up, 2 houses on same lot without subdividing- name outlots"

We have nothing. We don't have any zones. We should be informed before planning and zoning gives people the go ahead."

"When needed we get assistance"

"Would be nice for small cities to have a service that they could piggy back on" "You have to have a permit to enlarge dairy operation or any feedlots"

10. In discussions with your community, what are some of the challenges to healthy agricultural production within your area? (Check all that apply)

- a. 24 Economic Conditions
- b. 10 County Regulation
- c. 5 State/Federal Regulation

d. 13 Non-agricultural development e. 0 Other

Please provide an explanation:

"All the laws and regulations favor the big business type enterprises and completely want the family farms out.

"Concerns generally revolve around water quality issues and enforcement, however there have not been specific complaints levied in that respect."

"County feedlot regulations"

"Dairy farmers seldom get adequate pay for milk to give a reasonable wage."

"Farm prices are so low everyone is looking for another place of employment. Puts more pressure on finding jobs. If farmer make money, they will spend it on new products which helps all of downtown"

"Farmers cannot afford to buy land,. They cannot compete against the wages people make in the city."

" I don't think this applies too much to our Township"

"Low density housing residents have complained about farm practices (noise, smell, etc.,) even running an ad to stop a large scale hog that met all set backs by over double. "Low prices, high production costs."

"Manure pit laws are too costly"

"Most of the economic problems come from low farm prices."

" Non Agricultural development can cause problems to Agricultural people moving into the county but don't want to accept the country smells, etc. "

" Our major production is turkeys and dairy production. It is pretty well established in this area and economic conditions seem to be the leading factor in their production."

"State/Federal laws on water/sewer for the future"

"The price of milk is down so the farmers are looking at other options to make ends meet"

11. Are there issues with natural resources that need to be addressed within your City or Township including wetland preservation, runoff issues, erosion, wildlife, vegetation, destruction of natural areas, or similar issues? (Please list the top five issues)

#1's

"ATV running in ditches (destroy ditches)"

"Careful with wetland preservation. It's a breeding ground for mosquitoes"

"County ditches have not been maintained and land owners allowed to straight dig with no concern for down stream."

"Farm runoff into creek" "Feedlot runoff"

"Feedlot and runoff into creeks and rivers and then to the lakes" "Possibly with wetland preservation"

"Runoff issues"

"Runoff issues(High water table)" "Sewage Lagoon"

"They have too much land conservatory from people"

"To reduce the risks of Deer Ticks and Mosquito carrying disease- we need to burn off swamps, etc."

"Watershed water control issues"

"Wetlands near our lagoon make drainage ditching hard to keep open"

#2's

"Destruction of natural areas"

"Drive ways are always ruined (ATV)" "Erosion"

"Need to allow burning of swamps, etc., to reduce ticks/mosquitoes" "Runoff issues"

"Some community members would like to expand our present nature trails."

#3's

"Drainage of wetlands"

"Residential construction that respects natural areas" "Vegetation"

"Watercrafts on River not wide enough to legally run them. (destroys wildlife)"

#4's

"Air quality"

"Flooding some years when ice breaks up." "Residential construction density"

#5's

"Water contamination" "Wetland Preservation"

Comprehensive Trails Component Questions:

These questions are designed to gather information from City and Township officials on the proposed trails component. Please draw from discussions you may have had with Township residents in answering each of these questions.

12. Is there a need for the development of trails within your City or Township?

a. 17 Yes b. 11 No

13. If the sky were the limit, what trails issues in your City or Township would you address in this Comprehensive Plan?

Please describe them:

"4-wheeler and snowmobile trails" "ATV and Snowmobile"

"ATV is a big growing concern, warm weather, dust control, noise, etc. " "Bicycle trails"

"Bike and hiking trails to hook up with other communities and through recreational areas"

"Bike Trail on old Soo Line in Bowlus."

Develop the old railroad line into a usable trail for 4 wheeler, snowmobiles, biking and hiking."

"Divert the trail to pass through our community."

"Enforcing ATV and snowmobile use, also personal watercraft."

"Established trail network that works for economic as well as natural resource preservation. Special planned development of trails use."

"Getting advice and financial help in development." "Keep them off private property."

"Keeping 4-wheelers on trails and off roads, so a trail system similar to snowmobile trails would be great."

"Need to tar or pave Soo Line trail, especially for two wheel bike use." "None"

"People need a place to run machine rather an on Township road." "Snowmobile and 4-wheeler trials"

"Soo Line Trails Pave ½ - Lack of use. Additional ATV trails- None- restrict on Soo Line. Snowmobile bridges- need to develop better trails."

"There is talk of a trail by two Rivers by Upsala" "Trails just eat up more farm land."

"Walking and biking trail. A trail for 4 wheelers so that they don't tear up ditches, etc. "

Hazard Mitigation (Preventing Hazards by Planning)

These questions are designed to gather information on the potential hazards facing Morrison County. Please draw on personal experiences or knowledge and discussions you may have had with the community in answering the following questions.

14. Which of these natural disasters has your Township experienced? (Check all that apply and note the year the disaster occurred in the space provided)

Disaster	Year of Disaster	Disaster	Year of Disaster
a. <input type="checkbox"/> Tornado		g. <input type="checkbox"/> Winter Storm	
b. <input type="checkbox"/> Flood		h. <input type="checkbox"/> Strong Wind	
c. <input type="checkbox"/> Damaging Storm		i. <input type="checkbox"/> Other	

d. <input type="checkbox"/> Wildfire	Please list "Other"
e. <input type="checkbox"/> Dust Storm	1.
f. <input type="checkbox"/> Drought	2.

SEE TABLE 14 FOR RESULTS

Table 14.

Q14

	Frequency	Percent	Valid Percent	Cumulative Percent
a (1998) b (2000-2002)	6	15.0	15.0	15.0
a (1998) b (2000) c	1	2.5	2.5	17.5
(various) g (1998-1999) h	1	2.5	2.5	20.0
(periodically)				
a (1998) b (2000) c g	1	2.5	2.5	22.5
(1998) h (occasionally)	1	2.5	2.5	25.0
a (1998) b (2001)	1	2.5	2.5	27.5
a (2001) b (1972)	1	2.5	2.5	27.5
a b c f	1	2.5	2.5	30.0
a(2000); h(1983)	1	2.5	2.5	32.5
b (1972)	1	2.5	2.5	35.0
b (1972) c (1998) f	1	2.5	2.5	37.5
(1976)				
b (1972) c h	1	2.5	2.5	40.0
b (1972) d (1977)	1	2.5	2.5	42.5
b (1972) h (1976-1992)	1	2.5	2.5	45.0
b (1972, 1997)	1	2.5	2.5	47.5
b (1999)	1	2.5	2.5	50.0
b (1999, 1972) c	1	2.5	2.5	52.5
b (2001)	3	7.5	7.5	60.0
b (2001) d (1976) f	1	2.5	2.5	62.5
(1976) g				
b (2001) Hail (1998)	2	5.0	5.0	67.5
b c	1	2.5	2.5	70.0
b(1995)	1	2.5	2.5	72.5
b(1997)	1	2.5	2.5	75.0
b(2001)	2	5.0	5.0	80.0
b(2001) c(2001)	1	2.5	2.5	82.5
b(2002)	1	2.5	2.5	85.0
c	1	2.5	2.5	87.5
c (1999)	1	2.5	2.5	90.0
c(1985); f(1988)	1	2.5	2.5	92.5
d (1980)	1	2.5	2.5	95.0
d h	1	2.5	2.5	97.5
e(2001)	1	2.5	2.5	100.0
Total	40	100.0	100.0	

15. What technological or human-induced hazards are of concern within your Township?

a. 6 Loss of data due to fire or damage	f. 10 Water supply contamination
b. 6 Train derailment	g. 4 Terrorism
c. 6 Large automobile accident	h. Other
d. 7 Hazardous waste	Please list "Other"
e. 9 Long-term electrical failure	1. "Drugs" 2. "Water runoff damage, Burning of waste/garbage"

16. Do you feel increased regulation should be used to lessen the impacts of disasters within Morrison County?
(Example: floodplain regulation, burning regulations, etc.)

a. 9 Yes b. 21 No

Comments:

"All burnable stuff should be burned not hauled to landfill"

"Careful planning and "common sense" when planning any new developments or regulation."

"Enforcement of regulations—coupled with judicious planning and zoning approaches can provide sufficient mitigation of disaster impacts."

"Flood plain regulations"

"I feel there are already enough regulations in place"

"I think that a lot of contamination occurs in the Swan River and in wells from Agricultural runoff."

"Less political (state) regulations handed down by broad specs are needed. More common sense approach with county or local policy."

"Safety, River could be lost"

"The people developing the regulation aren't knowledgeable about their job. Common sense does not prevail. They regulate to regulate not to improve things."

"Use reason when developing regulations"

"You should not be able to build on floodplains."

17. Please add any comments you would like to discuss at the upcoming Cluster

Meetings:

"Biggest problem in Granite is improving our roads." "Building code and Ordinances and enforcement"

"In order for farmers to compete we would like to see a 40 acre minimum land site on agriculture land to build houses."

"Is this a make work project or will it become something meaningful? What authority do you have?"

"MN statute/regulatory compliance/enforcement Animal Control Ordinances (County regulation)/ Control of "cash or home" businesses."

A4: 2016 SUMMARY OF COMMENTS RECEIVED AT COMPREHENSIVE PLAN COMMITTEE MEETINGS

Meeting Dates

- August 13, 2015: Kick-Off Meeting
- September 10, 2015: Residential/Commercial Development
- October 8, 2015: Agriculture
- November 12, 2015: Shoreland
- December 10, 2015: Transportation and Economic Development

Agricultural Issues

- Much of concerns have to do with emerging issues/trends
 - Small to large farms
 - Family to corporate farms
 - Fewer children of farmers want to continue farming
 - Local foods trend
 - Organic farming/alternative farming/sustainable farming methods
 - Increased use of irrigation and impact on groundwater quantity and quality
 - Increased use of pesticides and fertilizers
 - Increased tiling of agricultural lands
 - Greater number of large hog operations
 - Working around state permitting laws by breaking large farms up into multiple locations. – is this good or bad? Or both?

- New regulations – state buffer law.
- Clearing of forested land
- Runoff from farm fields – crop farming inputs, manure spreading
- Loss of bees/pollinators
- Avian flu and other mass animal disease
 - Potential for spread to humans and other public health concerns
- Changes in weather patterns – more frequent intense storms as opposed to infrequent in the past.
- “Farming” means different things today than it did in the past. More types of farming going on with different issues. Need to tailor policies to fit the different types of agricultural practices/products.
- Growing use of rural lands for non-agricultural purposes
 - Housing
 - Agri-tourism
 - Camping
 - Large group events – wedding, apple/pumpkin orchards, etc...
 - Solar power
 - Wind power
- Need to ensure decisions are made based on facts and accurate studies – not assumptions. Some of perceived environmental impacts may not be as severe as thought. Others may be more important than we realize.
- Impact of agriculture on other land uses
 - Potential for conflict with housing
 - Impact on access to gravel deposits
 - Forested lands
 - Shoreland areas
- Question of whether the County should continue to see agriculture as “King” or whether other uses/lifestyles should be seen as equally important.
 - Need to find ways with zoning or other policies to balance desires for use of rural lands.
- Potential of achieving multiple goals in farmland/wildlife area preservation with Camp Ripley’s Army Compatible Use Program (ACUB) and NRCS’s conservation programs.

Shoreland Issues

- Continuing/growing concern about lake/river water quality
 - Runoff from agriculture – fertilizers, pesticides, manure application.

- Runoff from development in general – e.g. lawn chemicals and fertilizers.
- Impact of more frequent, intense storms (as opposed to less intense rainfall events in past being the norm)
- State buffer law and its impact – only agricultural lands or (should?) also include residential/commercial/industrial lands.
- Invasive Species
- Maintenance/upgrade/inspections of septic systems
 - Better monitoring that septic tanks being pumped regularly
 - Encourage more use of community sewer systems, alternative technologies?
- Pharmaceuticals
- Oil Train Spills?
- Dam failure (Lake Sullivan)
- Lake Water Levels
- Maintenance of roads – chloride running off into lake (current pilot project on Fish Trap Lake)
- Build-up of silt/vegetation along river shorelines.
- Prevalence of impervious surfaces in shoreland areas a concern
- Lost of forest land – often for agricultural purpose, but sometimes other uses too.
- Need better planning for lakeshore/river areas with small lots – how to recognize the unique challenges and minimize burdensome regulation while still protecting the resource.
 - Need more site-specific regulations – not one size fits all. Performance based? Neighborhood based?
- Planning is better done at watershed level – MPCA, BWSR and others are beginning to do this at the state level. County should consider doing this as well.
- Need to have consistent/regular monitoring of water quality.
- General desire for more clarity, consistency with zoning administration.
- Need better coordination between state, county, city and township regulations and between county and lake associations. Also with Headwaters Board.
- Opportunities to improve education/communication with landowners and others. Work with schools and cities and lake associations to promote environmental education and Best Management Practices (BMPs).
- Need to better manage/plan for conflicts in shoreland areas
 - Resort/Transient users on lakes
 - Potential for increased use of shoreland properties for vacation rentals.
 - Do transient users of lake care less about water quality?

- Sentiment that assessments by Lake Improvement Districts (LIDs) are unfairly spread between heavy/light users of lake.
- Property rights/tax base are still important
 - Farmers need to use ponds that are sometimes classified as protected lakes.
 - Need to preserve private landowner rights will still protecting resource.
 - Need to consider that shoreland properties are big part of county's financial health.

Residential Development

- Focus in 2005 Comprehensive Plan on “cluster” development and creating “buffers” for development is perhaps overstated, but general focus on avoiding conflict between residential and agricultural uses is still valid.
 - Need to consider what zoning regulations and policies will be most effective to prevent conflicts.
 - How to balance desire to use land in rural areas for residential or related development while still preserving farmland?
- Concern about lack of affordable housing.
- Concern about lack of senior housing.
- Pressure/demand for new residential development has dropped significantly since 2005, but it could always come back again.
 - Relates to crop price fluctuations
- Impact of housing development on Camp Ripley
- Housing policy and zoning should be used to help keep small towns viable (encourage more housing development toward cities than out into rural areas?)
- Significant potential for conflict over groundwater use when housing and agriculture are in the same areas
 - Quantity of water
 - Pollution/drinking water standards

Economic Development

- Goal of promoting economic and business diversity remains a strong desire
- Resort expansions need to be carefully planned/regulated
 - Impact on water quality
 - Impact on culture of lakeshore areas
 - All shoreland users/owners depend on the quality of the lakes for their value
- Need policies to better address home-based businesses and other uses considered conditional uses in zoning ordinance outside of commercial/industrial zoning districts
 - Concern over lack of clear process, consistency in decisions – process is too difficult.

- County needs to provide more funding for economic development – particularly for long-term efforts
- County needs to study and understand how demographic shifts are/will affect economic development efforts.
- High student debt plays a factor in local economic development
 - More difficult to convince students to “come home” if they earn high salaries in metropolitan areas to pay off debts.
- Wind and solar are growing issues that need to be addressed
- Need to make use of social media to a greater degree when promoting economic development
- Broadband internet access continues to be a significant issue – many areas of County have no or very limited access and this impacts the ability of businesses (including farms) to operate effectively.
- County should be promoted as a hub of local food/self-sufficiency/crop diversity
- Workforce issues remain a concern – education, training in manufacturing and other industries struggling to find workers.
 - Need to understand where people live and work and how this plays into workforce issues.
 - Opportunities to partner with high schools in area and other schools to provide career counseling and training.
 - Supporting education is important – failed Little Falls bond referendum is a concern, but voters need to be confident that any bond dollars will be spent effectively too.

Transportation/Infrastructure/Parks and Trails

- General trend is that transportation is continuing to be about more than just roads/bridges
 - Trails
 - Rail (both heavy rail and passenger rail)
 - Camp Ripley connections
 - Double track coming – how to get double track across the river as well
 - River boat traffic?
- Need to think of solid waste management as an infrastructure issue
- Public ditches are an infrastructure issue that is affected by new state buffer law
- The County’s road system is a mature system that is focused on maintaining collector roads
- The “Trails” section of the 2005 Plan needs to be re-written to flow better with the rest of the Plan. It does not fit in well with the rest of the plan.
- County should focus on expanding the trail system
 - The Motley trail would be better located through Camp Ripley and Scandia Valley lakes area to take advantage of those centers than through more rural areas.
 - How to connect trail system to cities?

- Need to add "rest" facilities to trail system
 - Mississippi River Trail needs to be addressed
 - More parks to connect into the trail system?
- The Highway 10 Bypass in Little Falls has made commercial development difficult in the area in and beyond the southern part of the City. Need better access off of the Highway in these areas.
- The Highway 10/County Road 35 intersection is dangerous and needs to be addressed.
- The Royalton bypass needs to be discussed and a decision made – only gets harder as time goes on.
- Townships have a need for engineering assistance in managing their road systems
 - Role for County Engineering department in this?
 - Work with NJPA or others for grants?
- Concern over impact of E911 signs on road plowing/maintenance. Can they be placed further back from road?
- Transportation remains the economic backbone for the area.

APPENDIX B: PROCESS PARTICIPANTS

B1: HCP TEAM MEMBERSHIP LIST (2005)

NAME	REPRESENTING
Steven Backowski	Morrison County Highway Department
Francis Brisk	Morrison County Townships
Myron Czech	Agriculture
Chuck Forss	Morrison County Planning & Zoning
Conrad Freeberg	Morrison County Attorney - Cultural
Mark Gerbi	Morrison County Community Collaborative
Tim Houle	Morrison County Administrator
Tim Crocker	Minnesota Department of Natural Resources
Bob Keeton	Morrison County Lake Alliance - Education
Al Kuebelbeck	Business and Industry
Roger Kuklok	Morrison County Planning & Zoning
Helen McLennan	Soil and Water Conservation District - Education
Don Meyer	Commissioner
Pat O'Regan	City of Motley - Cities - Trails
Chuck Parins	Morrison County Planning Commission
Tom Scherling	Housing
Marty Skoglund	Camp Ripley Military Training Facility
Michelle Warnberg	Morrison County Feedlots
Tom Wenzel	Commissioner
Gene Young	Commissioner

B2: LOCAL OFFICIALS LIST (2005)

Local Government Represented	Title	Name
Agram Township	Chairperson	David Meyer
Agram Township	Supervisor	Gary Solinger
Agram Township	Supervisor	Tom Leidenfrost
Agram Township	Clerk	Don Tschida
Agram Township	Treasurer	Leon Leidenfrost

Belle Prairie Township	Chairperson	Frances (Babe) Brisk
Belle Prairie Township	Supervisor	Gregg LeBlanc
Belle Prairie Township	Supervisor	Greg Colombe
Belle Prairie Township	Clerk	Virginia (Ginny) Tembreull
Belle Prairie Township	Treasurer	Shirley Waytashek
Bellevue Township	Chairperson	Kenneth Block
Bellevue Township	Supervisor	S Donald Rudolph
Bellevue Township	Supervisor	Roman Beam
Bellevue Township	Clerk	Delphine Sobiech
Bellevue Township	Treasurer	Marlene Hopwood
Buckman Township	Chairperson	Robert Seppelt
Buckman Township	Supervisor	Dale Scholl
Buckman Township	Supervisor	Rod Winscher
Buckman Township	Clerk	Reiny Hanneken
Buckman Township	Treasurer	Ron Przybilla
Buh Township	Chairperson	Robert Smude
Buh Township	Supervisor	Gilbert Maus
Buh Township	Supervisor	Allen Poser
Buh Township	Clerk	Janelle Smude
Buh Township	Treasurer	Debra Meyer
Culdrum Township	Chairperson	Robert Doucette
Culdrum Township	Supervisor	Rodney Bleeker
Culdrum Township	Supervisor	Gerald Blaine
Culdrum Township	Clerk	Jeannie Carlson
Culdrum Township	Treasurer	Frieda Kedrowski
Cushing Township	Chairperson	James Robinson
Cushing Township	Supervisor	Louis Doucette
Cushing Township	Supervisor	Ivan Petersen
Cushing Township	Clerk	Carol Smith
Cushing Township	Treasurer	Betty L Johnson
Darling Township	Chairperson	Herb Turner
Darling Township	Supervisor	Ted Knopik
Darling Township	Supervisor	Greg Zilka

Darling Township	Clerk	Mary Mammenga
Darling Township	Treasurer	Dale Nelson
Elmdale Township	Chairperson	Eugene Harren
Elmdale Township	Supervisor	Duane Harren
Elmdale Township	Supervisor	Paul Ripplinger
Elmdale Township	Clerk	William Koehn
Elmdale Township	Treasurer	Harold Johnson
Granite Township	Chairperson	Joseph Banach
Granite Township	Supervisor	Clarence Block
Granite Township	Supervisor	Jerome Kapsner
Granite Township	Clerk	Eileen Hargrave
Granite Township	Treasurer	Roger Stumpf
Green Prairie Township	Chairperson	Roderick Fietek
Green Prairie Township	Supervisor	George Vogt
Green Prairie Township	Supervisor	Dennis Prozinski
Green Prairie Township	Clerk	Lois Peterschick
Green Prairie Township	Treasurer	Toni Kathrein
Hillman Township	Chairperson	Gerald J Meyer
Hillman Township	Supervisor	Harry K McDonald
Hillman Township	Supervisor	Tom Stangl
Hillman Township	Clerk	Jrwin Kastanek
Hillman Township	Treasurer	Loren Tomala
Lakin Township	Chairperson	Ralph Rinkel
Lakin Township	Supervisor	Don Koscielniak
Lakin Township	Supervisor	Dave Barclay
Lakin Township	Clerk	Gerald Struffert
Lakin Township	Treasurer	Pam Weisz
Leigh Township	Chairperson	Don Hayes
Leigh Township	Supervisor	Larry Hebler
Leigh Township	Supervisor	Wilfred Kruscheck
Leigh Township	Clerk	Wendy Tretter
Leigh Township	Treasurer	Mel Buesseler
Little Falls Township	Chairperson	Chuck Parins

Little Falls Township	Supervisor	David Becker
Little Falls Township	Supervisor	Cleo Meyer
Little Falls Township	Clerk	Lynn Young
Little Falls Township	Treasurer	Joe Stavish
Morrill Township	Chairperson	Robert Stuckmayer
Morrill Township	Supervisor	Ronald Beach
Morrill Township	Supervisor	Ed Kampa Jr
Morrill Township	Clerk	Tony Matvick
Morrill Township	Treasurer	James Wyatt
Motley Township	Chairperson	Verde L Pepin
Motley Township	Supervisor	Glenn Cyrus
Motley Township	Supervisor	Derald Steinbrecher
Motley Township	Clerk	Faye M Pepin
Motley Township	Treasurer	William Macheel
Mount Morris Township	Chairperson	Keith Carter
Mount Morris Township	Supervisor	LaVonne Micholski
Mount Morris Township	Supervisor	Ronald Meyer
Mount Morris Township	Clerk	Tammie Gotvald
Mount Morris Township	Treasurer	Tom Fenna
Parker Township	Chairperson	Gordon Siemers
Parker Township	Supervisor	Randy Rutz
Parker Township	Supervisor	Jerome Koval
Parker Township	Clerk	Veronica Strom
Parker Township	Treasurer	Rebecca Dunaisky
Pierz Township	Chairperson	Roman Block
Pierz Township	Supervisor	Louis Stangl
Pierz Township	Clerk	Marvin Gall
Pierz Township	Treasurer	Loren Meyer
Pierz Township		Joe Malinowski
Pike Creek Township	Chairperson	Anthony Boros
Pike Creek Township	Supervisor	Roger Virnig
Pike Creek Township	Supervisor	James Wielinski
Pike Creek Township	Clerk	Marlene Copo
Pike Creek Township	Treasurer	Denise LaForce

Platte Township	Chairperson	Shelly Woitalla
Platte Township	Supervisor	Gary Matlock
Platte Township	Supervisor	Eleanor Tretter
Platte Township	Clerk	Judy Boser
Platte Township	Treasurer	Gerald Hayes
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Pulaski Township	Chairperson	Allen Woitalla
Pulaski Township	Supervisor	Leon Boser
Pulaski Township	Supervisor	LeRoy Knopik
Pulaski Township	Clerk	Sharon Skwira
Pulaski Township	Treasurer	Lynn Donek
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Richardson Township	Chairperson	Don Thompson
Richardson Township	Supervisor	Frank Stone
Richardson Township	Supervisor	Don Erickson
Richardson Township	Clerk	Sharyn Gregor
Richardson Township	Treasurer	Ronald Peterson
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Ripley Township	Chairperson	Jim Cole
Ripley Township	Supervisor	Darvin Keehr
Ripley Township	Supervisor	JoAnn Neumann
Ripley Township	Clerk	Tom Heying
Ripley Township	Treasurer	Patricia Branschaud
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Rosing Township	Chairperson	Gerald Christie
Rosing Township	Supervisor	Robert Willette
Rosing Township	Supervisor	Gary J Rassler
Rosing Township	Clerk	Alisa Barnum
Rosing Township	Treasurer	Myra Horner
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Scandia Valley Township	Chairperson	David Tufte
Scandia Valley Township	Supervisor	Arnold Akkerman
Scandia Valley Township	Supervisor	James Thompson
Scandia Valley Township	Clerk	Kathie L Headley
Scandia Valley Township	Treasurer	Sara Meier
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Swan River Township	Chairperson	Gerard Oldakowski
Swan River Township	Supervisor	Herbert Schneider
Swan River Township	Supervisor	Alan Pietrowski

Swan River Township	Clerk	Joseph Bzdok
Swan River Township	Treasurer	James Krottoschinsky
Swanville Township	Chairperson	Larry Loven
Swanville Township	Supervisor	Alvin VanHeel
Swanville Township	Supervisor	Neil Johnson
Swanville Township	Clerk	Dan Primus
Swanville Township	Treasurer	Peggy Bliese
Two Rivers Township	Chairperson	Bert Schlangen
Two Rivers Township	Supervisor	Ron Leners
Two Rivers Township	Supervisor	Ted Skwira
Two Rivers Township	Clerk	Delores Scholz
Two Rivers Township	Treasurer	Joan Strusz
Bowlus City	Mayor	Albert Czech
Bowlus City	Councilman	Tom Fussy
Bowlus City	Councilman	Ken Stodalka
Bowlus City	Councilman	Robert Suska
Bowlus City	Clerk	Robert Maciej
Bowlus City	Treasurer	Rosbie Booth
Buckman City	Mayor	Robert Lochner
Buckman City	Councilman	Greg Gangl
Buckman City	Councilman	Rick Herold
Buckman City	Councilman	Robert Oldakowski
Buckman City	Clerk	Ken Mueller
Buckman City	Treasurer	Esther Britz
Elmdale City	Mayor	Ray Kurowski
Elmdale City	Councilman	Tom Neu
Elmdale City	Councilman	Jeff Czech
Elmdale City	Councilman	Theresa Larson
Elmdale City	Clerk	Joy Koroll
Elmdale City	Treasurer	Marlene Carlson
Flensburg City	Mayor	James Zehowski
Flensburg City	Councilman	Gary Fafara
Flensburg City	Councilman	Carol Cichon
Flensburg City	Councilman	Daniel Pelzer

Flensburg City	Clerk	Yvonne E Harper
Flensburg City	Treasurer	Marion Lapos
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Genola City	Mayor	Larry Korf
Genola City	Councilman	Leonard Wimmer
Genola City	Councilman	Charles Storkamp
Genola City	Councilman	Beverly Stumpf
Genola City	Clerk	Dolores Preimesberger
Genola City	Treasurer	Bertilla Solinger
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Harding City	Mayor	Ronald Gross
Harding City	Councilman	David Young
Harding City	Councilman	Susan M Lucken
Harding City	Councilman	Davic C Hayes
Harding City	Clerk	Bernice Marshall
Harding City	Treasurer	Wendy Young
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Hillman City	Mayor	Norman Iverson
Hillman City	Councilman	Madeline B Moren
Hillman City	Councilman	George Moren
Hillman City	Councilman	Annette Buesseler
Hillman City	Clerk	Rita Iverson
Hillman City	Treasurer	Lou Ann Bleichner
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Lastrup City	Mayor	Kay Hoheisel
Lastrup City	Councilman	Gerald Wagner
Lastrup City	Councilman	Rod Brixius
Lastrup City	Councilman	Pat Boser
Lastrup City	Clerk	Roberta Gross
Lastrup City	Treasurer	Ginny Seelen
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Motley City	Mayor	Patrick O'Regan
Motley City	Councilman	Nancy Nieken
Motley City	Councilman	Larry W Olson
Motley City	Councilman	Betty J Starke
Motley City	Councilman	Bruce Mills
Motley City	Clerk	Patricia Crawford
Motley City	Treasurer	Patricia Crawford
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Pierz City	Mayor	Mike Menden

Pierz City	Councilman	Daniel (Tony) Sauer
Pierz City	Councilman	Mary Gritzmacher
Pierz City	Councilman	Jeff Fuhrman
Pierz City	Clerk	Lorae Vardas
Pierz City	Treasurer	Maureen Watercott
Pierz City	Administrator	Lynn Fabro
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Randall City	Mayor	Gary Gannon
Randall City	Councilman	James Kestner
Randall City	Councilman	Robert Riitters
Randall City	Councilman	Gerald Adamski
Randall City	Councilman	Donald Bigalke
Randall City	Clerk	Donald Bigalke
Randall City	Treasurer	Donald Bigalke
Randall City	Administrator	Jerry Peterschick
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Royalton City	Mayor	Lori Kowalczyk
Royalton City	Councilman	Penny Zimny
Royalton City	Councilman	Dennis Cekalla
Royalton City	Councilman	Tony Duevel
Royalton City	Councilman	Don Feiler
Royalton City	Clerk	Carol Madsen
Royalton City	Treasurer	Carol Madsen
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Sobieski City	Mayor	Ronald Kruzel
Sobieski City	Councilman	Judith Hennes
Sobieski City	Councilman	Barbara Krebs
Sobieski City	Councilman	James Sobiech
Sobieski City	Clerk	Joyce Holtz
Sobieski City	Treasurer	Janice Czech
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Swanville City	Mayor	Duane L Johnson
Swanville City	Councilman	John E Borgert
Swanville City	Councilman	James M Piekarski
Swanville City	Councilman	Diane E Cornell
Swanville City	Councilman	Brenda Schmidt
Swanville City	Clerk	Julie Hollermann
Swanville City	Treasurer	Julie Hollermann
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Upsala City	Mayor	Julie A Burggraaff

Upsala City	Councilman	Marlene Hovland
Upsala City	Councilman	Rosie Filsmeyer
Upsala City	Councilman	Lloyd Klug
Upsala City	Councilman	Jim Klug
Upsala City	Clerk	Nadine Drevlow
Upsala City	Treasurer	Nadine Drevlow
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Little Falls City	Mayor	Brian D Mackinac
Little Falls City	Alderman at Large	Urban Otremba
Little Falls City	Councilman W-1	Michael C Doucette
Little Falls City	Councilman W-1	Sharon K Hogan
Little Falls City	Councilman W-2	Don Klinker
Little Falls City	Councilman W-2	Hubert Zyvoloski
Little Falls City	Councilman W-3	Dennis A Kukowski
Little Falls City	Councilman W-3	Kathleen Sobiech
Little Falls City	Administrator	Richard N Carlson
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Morrison County 1st District	Commissioner	Tom Wenzel
Morrison County 2nd District	Commissioner	Jeff Schilling
Morrison County 3rd District	Chairman	Gene Young
Morrison County 4th District	Commissioner	Don Meyer
Morrison County 5th District	Commissioner	Bill Block
Morrison County	Administrator	Tim Houle
Morrison County	Assessor	Glen Erickson
Morrison County	Attorney	Conrad Freeberg
Morrison County	Auditor	Russ Nygren
Morrison County	Corrections	Larry Falk
Morrison County	Court Admin.	Linda Sinotte
Morrison County	Extension	Jim Carlson
Morrison County	Info. Systems	Mike Disher
Morrison County	Planning & Zoning	Roger Kuklok
Morrison County	Public Health	Kirsten Hoese
Morrison County	Public Works	Steve Backowski
Morrison County	Recorder	Bunny Johnston
Morrison County	Sheriff	Michel Wetzel
Morrison County	Social Services	Steve Reger
Morrison County	Treasurer	Carole Specker
Morrison County	Veterans Service	Paul Froncak

B3: LOCAL OFFICIALS LIST (2016)

Township	Title	Name
Agram Township	Chairperson	David Meyer
Agram Township	Supervisor	David Janson
Agram Township	Supervisor	Tom Leidenfrost
Agram Township	Clerk	Don Tschida
Agram Township	Treasurer	Leon Leidenfrost
Belle Prairie Township	Chairperson	Frances (Babe) Brisk
Belle Prairie Township	Supervisor	Greg Colombe
Belle Prairie Township	Supervisor	Paul Nieman Jr
Belle Prairie Township	Clerk	Keith Kruschke
Belle Prairie Township	Treasurer	Shirley Waytashek
Bellevue Township	Chairperson	Jerome Brezinka
Bellevue Township	Supervisor	George Suska
Bellevue Township	Supervisor	S Donald Rudolph
Bellevue Township	Clerk	Jean Balaski
Bellevue Township	Treasurer	Marlene Hopwood
Buckman Township	Chairperson	Rodney Winscher
Buckman Township	Supervisor	Gary Solinger
Buckman Township	Supervisor	Ralph Hanneken
Buckman Township	Clerk	Nancy Lanners
Buckman Township	Treasurer	Jane Funk
Buh Township	Chairperson	Duane Schraut
Buh Township	Supervisor	Dale Sauer
Buh Township	Supervisor	Keith Gohl
Buh Township	Clerk	Alicia Cebulla
Buh Township	Treasurer	Debra Meyer - Myrum
Culdrum Township	Chairperson	Robert Doucette
Culdrum Township	Supervisor	Thomas Mrozek
Culdrum Township	Supervisor	Mark Kedrowski
Culdrum Township	Clerk	Jeannie Carlson
Culdrum Township	Treasurer	Jeannie Carlson
Cushing Township	Chairperson	Daniel Symanietz

Cushing Township	Supervisor	James Robinson
Cushing Township	Supervisor	David Stavish
Cushing Township	Clerk	Deb Symanietz
Cushing Township	Treasurer	Janice Stavish
Darling Township	Chairperson	Greg Zilka
Darling Township	Supervisor	John Tabatt
Darling Township	Supervisor	Jay Tody
Darling Township	Clerk	Carolyn "Bing" Ganz
Darling Township	Treasurer	Jon Nelson
Elmdale Township	Chairperson	Jerry Theisen
Elmdale Township	Supervisor	Bill Koopmeiners
Elmdale Township	Supervisor	Ken Abrahamson
Elmdale Township	Clerk	Neil J Frieler
Elmdale Township	Treasurer	Walter Beneke
Granite Township	Chairperson	Joseph Banach
Granite Township	Supervisor	Clarence Block
Granite Township	Supervisor	Jeron Kapsner
Granite Township	Clerk	Eileen Hargrave
Granite Township	Treasurer	Alan Welle
Green Prairie Township	Chairperson	Wayne Stoner
Green Prairie Township	Supervisor	Roderick Fietek
Green Prairie Township	Supervisor	Dan Maslowski
Green Prairie Township	Clerk	Lois Peterschick
Green Prairie Township	Treasurer	Mary Hoover
Hillman Township	Chairperson	Tom Stangl
Hillman Township	Supervisor	Harry K McDonald
Hillman Township	Supervisor	Gerald J Meyer
Hillman Township	Clerk	Doris Tomala
Hillman Township	Treasurer	Loren Tomala
Lakin Township	Chairperson	Mark Bialke
Lakin Township	Supervisor	Jamey Rueckert
Lakin Township	Supervisor	Ben Novak
Lakin Township	Clerk	Bylinda Klaphake
Lakin Township	Treasurer	Lavonne Micholski

Leigh Township	Chairperson	Larry Hebler
Leigh Township	Supervisor	Mark Brummer
Leigh Township	Supervisor	Dan Meyer
Leigh Township	Clerk	Wendy Tretter
Leigh Township	Treasurer	Melvin Buesseler
Little Falls Township	Chairperson	Charles Parins
Little Falls Township	Supervisor	John P Theis
Little Falls Township	Supervisor	George Sandy III
Little Falls Township	Clerk	Bonnie Bieniek
Little Falls Township	Treasurer	Joann Sowada
Morrill Township	Chairperson	Robert Stuckmayer
Morrill Township	Supervisor	Ed Kampa Jr
Morrill Township	Supervisor	Ronald Beack
Morrill Township	Clerk	Joan Nichols
Morrill Township	Treasurer	Sally Melby
Motley Township	Chairperson	Verde L Pepin
Motley Township	Supervisor	Susan Peterson
Motley Township	Supervisor	Mark Yungbauer
Motley Township	Clerk	Robin Johnson
Motley Township	Treasurer	Harvey Lannie Macheel
Mount Morris Township	Chairperson	Jennifer Miller
Mount Morris Township	Supervisor	Ronald Meyer
Mount Morris Township	Supervisor	Keith Carter
Mount Morris Township	Clerk	Tammie Gotvald
Mount Morris Township	Treasurer	Tom Fenna
Parker Township	Chairperson	Dean Robinson
Parker Township	Supervisor	Michael Fritz
Parker Township	Supervisor	Randy Rutz
Parker Township	Clerk	Stephanie Scepurek
Parker Township	Treasurer	Lynette Miller
Pierz Township	Chairperson	Robert J Virnig
Pierz Township	Supervisor	William Athman
Pierz Township	Supervisor	Dean Rocheleau

Pierz Township	Clerk	Loren Meyer
Pierz Township	Treasurer	Bernice Marshik
Pike Creek Township	Chairperson	Ron Hourscht
Pike Creek Township	Supervisor	Adam Boone
Pike Creek Township	Supervisor	Ross R Wamre
Pike Creek Township	Clerk	Darlene Kroll
Pike Creek Township	Treasurer	Lisa Turner
Platte Township	Chairperson	Judy Boser
Platte Township	Supervisor	Jackie Keehr
Platte Township	Supervisor	Adam Ginter
Platte Township	Clerk	Trista Leblanc
Platte Township	Treasurer	Debra Swaser
Pulaski Township	Chairperson	Allen Woitalla
Pulaski Township	Supervisor	Leon Boser
Pulaski Township	Supervisor	LeRoy Knopik
Pulaski Township	Clerk	Sharon Skwira
Pulaski Township	Treasurer	Lynn Dukowitz
Richardson Township	Chairperson	Mike Insley
Richardson Township	Supervisor	Mark Johnson
Richardson Township	Supervisor	Kent Larson
Richardson Township	Clerk	Cheryl Lincoln
Richardson Township	Treasurer	Ronald Peterson
Ripley Township	Chairperson	Curt Plante
Ripley Township	Supervisor	Darvin Keehr
Ripley Township	Supervisor	James Cole
Ripley Township	Clerk	Norma J Bjornson
Ripley Township	Treasurer	Patricia Branchaud
Rosing Township	Chairperson	Joe Klein
Rosing Township	Supervisor	Gary J Rassler
Rosing Township	Supervisor	Greg Ringler
Rosing Township	Clerk	Anita Walker
Rosing Township	Treasurer	Anita Walker
Scandia Valley Township	Chairperson	Dale Borgstrom

Scandia Valley Township	Supervisor	Mike Rosvold
Scandia Valley Township	Supervisor	Terry Sandstrom
Scandia Valley Township	Supervisor	Al Card
Scandia Valley Township	Supervisor	Ian Newkirk
Scandia Valley Township	Clerk	Kathie L Headley
Scandia Valley Township	Treasurer	Sara Meier
Swan River Township	Chairperson	Paul Fussy
Swan River Township	Supervisor	Gerard Oldakowski
Swan River Township	Supervisor	Tim Zapzalka
Swan River Township	Clerk	Pat Oldakowski
Swan River Township	Treasurer	James Krottoschinsky
Swanville Township	Chairperson	Neil Johnson
Swanville Township	Supervisor	John Fruechte
Swanville Township	Supervisor	David Cichon
Swanville Township	Clerk	Elda Mae Johnston
Swanville Township	Treasurer	Peggy Bliese
Two Rivers Township	Chairperson	Ron Leners
Two Rivers Township	Supervisor	Richard Zabinski
Two Rivers Township	Supervisor	Stan Christenson
Two Rivers Township	Clerk	Gina Salitros
Two Rivers Township	Treasurer	Tanya Lampert
Bowlus City	Mayor	Joe Larson
Bowlus City	Councilman	Elisha Borst
Bowlus City	Councilman	Kelly Larson
Bowlus City	Councilman	Paul Scholz
Bowlus City	Clerk	Robert J Maciej
Bowlus City	Treasurer	James Gerads
Buckman City	Mayor	Greg Gangl
Buckman City	Councilman	Tom Seelen
Buckman City	Councilman	Jeff Dingmann
Buckman City	Councilman	Rick Herold
Buckman City	Clerk	Laura Otremba
Buckman City	Treasurer	Linda Brezinka
Elmdale City	Mayor	Raymond Kurowski

Elmdale City	Councilman	Eugene Maciej
Elmdale City	Councilman	Steve Zimmermann
Elmdale City	Councilman	Ron Stewart
Elmdale City	Clerk	Joy Koroll
Elmdale City	Treasurer	Marlene Carlson
Flensburg City	Mayor	John Gessell
Flensburg City	Councilman	LuAnn Morrow
Flensburg City	Councilman	Mike Zupko
Flensburg City	Councilman	Brad Pederson
Flensburg City	Councilman	Rebecca Piekarski
Flensburg City	Clerk	Margurite Cofell
Flensburg City	Treasurer	
Genola City	Mayor	Larry Korf
Genola City	Councilman	Charles Storkamp
Genola City	Councilman	Tim O'Neil
Genola City	Councilman	Mike Welle
Genola City	Clerk	Tammy Giuliani
Genola City	Treasurer	Gary Solinger
Harding City	Mayor	Robert Litke
Harding City	Councilman	Tami Young
Harding City	Councilman	Ronald Gross
Harding City	Councilman	David C Hayes
Harding City	Clerk	Corey Hayes
Harding City	Treasurer	Karen Hayes
Hillman City	Mayor	Norman O. Iverson
Hillman City	Councilman	Evan Phillips
Hillman City	Councilman	Duane Bleichner
Hillman City	Councilman	Bob Billig
Hillman City	Clerk	Dana Iverson
Hillman City	Treasurer	Katie Phillips
Lastrup City	Mayor	Kay Hoheisel
Lastrup City	Councilman	Ted Hoheisel
Lastrup City	Councilman	Amy Fischer
Lastrup City	Councilman	Jackie Zehowski
Lastrup City	Clerk	Roberta Gross

Lastrup City	Treasurer	Diane Schmidtz
Motley City	Mayor	Nancy Nieken
Motley City	Councilman	Al Yoder
Motley City	Councilman	Steve Johnson
Motley City	Councilman	Pat O'Regan
Motley City	Councilman	Amy Hutchison
Motley City	Clerk	Terri Smith
Motley City	Treasurer	Terri Smith
Motley City	City Hall Fax	
Pierz City	Mayor	Toby Egan
Pierz City	Councilman	Michael Menden
Pierz City	Councilman	Stephanie Fyten
Pierz City	Councilman	Donald Bujalski
Pierz City	Clerk	Gina Funk
Pierz City	Treasurer	Linda Sczublewski
Pierz City	Administrator	Scott Saehr
Pierz City	City Hall Fax	
Randall City	Mayor	Robert Riitters
Randall City	Councilman	Dan Noss
Randall City	Councilman	Rick Turner
Randall City	Councilman	Charley Andres
Randall City	Councilman	Gerald Adamski
Randall City	Clerk	Gerald Adamski
Randall City	Treasurer	Gerald Adamski
Randall City	Administrator	Matt Pantzke
Randall City	City Hall Fax	
Royalton City	Mayor	Andrea Lauer
Royalton City	Councilman	Al Libke
Royalton City	Councilman	Ed Zimny
Royalton City	Councilman	Ron Verley
Royalton City	Councilman	Kelly Warzecha
Royalton City	Clerk	Carol Madsen
Royalton City	Treasurer	Carol Madsen
Royalton City	City Hall Fax	
Sobieski City	Mayor	Ronald Kruzel

Sobieski City	Councilman	James Sobiech
Sobieski City	Councilman	Jerry Ringwelski
Sobieski City	Councilman	Timothy Opatz
Sobieski City	Clerk	Joyce Holtz
Sobieski City	Treasurer	Janice Czech
Swanville City	Mayor	Sandy Peterson
Swanville City	Councilman	Jeremy J Bartkowicz
Swanville City	Councilman	Tony Maciej
Swanville City	Councilman	Norman Carlson
Swanville City	Councilman	Jim Molitor
Swanville City	Clerk	Julie Hollermann
Swanville City	Treasurer	Julie Hollermann
Upsala City	Mayor	Rollie Johnson
Upsala City	Councilman	Joan Olson
Upsala City	Councilman	Robert L Maciej
Upsala City	Councilman	Brian Lange
Upsala City	Councilman	Dennis Westrich
Upsala City	Clerk	Michelle M Stevens
Upsala City	Treasurer	Michelle M Stevens
Upsala City	City Hall Fax	
Little Falls City	Mayor	Greg Zylka
Little Falls City	Alderman at Large	Brad Hircok
Little Falls City	Councilman W-1	Loren Boyum
Little Falls City	Councilman W-1	Leif Hanson
Little Falls City	Councilman W-2	Jerry Knafla
Little Falls City	Councilman W-2	Wayne Liljegren
Little Falls City	Councilman W-3	Frank E Gosiak
Little Falls City	Councilman W-3	Jeremey Hanfler
Little Falls City	Administrator	Jon Radermacher
Little Falls City	City Hall Fax	
Morrison County 1st District	Chairman	Kevin Maurer
Morrison County 2nd District	Commissioner	Jeffrey J Jelinski
Morrison County 3rd District	Commissioner	Randy Winscher
Morrison County 4th District	Commissioner	Mike Wilson
Morrison County 5th District	Commissioner	Duane L Johnson
Morrison County	Administrator	Deb Gruber

Morrison County	Assessor	Glen Erickson
Morrison County	Attorney	Brian Middendorf
Morrison County	Auditor / Treasurer	Deb Lowe
Morrison County	Corrections	Nicole Kern
Morrison County	Court Admin.	Rhonda Bot
Morrison County	Extension	
Morrison County	Technology Services	Mike Disher
Morrison County	Planning & Zoning	Amy Kowalzek
Morrison County	Public Health	Katy Kirchner
Morrison County	Public Works	Steve Backowski
Morrison County	Recorder	Eileen Holtberg
Morrison County	Sheriff	Shawn Larsen
Morrison County	Social Services	Brad Vold
Morrison County	Veterans Service	Kathy Marshik
Rich Prairie Sewer and Water District	Secretary	Janet Brausen
Crookneck Lake Improvement Assn.	Treasurer	John Parker Jr
Sullivan Lake Assn.	Treasurer	John Korsman
Lake Alexander Assn.	Treasurer	Ron Wieber
Fish Trap Lake Imp. Dist.	Treasurer	Tim Lenox

B4: 2016 COMPREHENSIVE PLAN UPDATE COMMITTEE MEMBERSHIP LIST

Agency/Demographic	Representative
District 1 County Commissioner	Kevin Maurer
District 2 County Commissioner	Jeff Jelinski
District 3 County Commissioner	Randy Winscher
District 4 County Commissioner	Mike Wilson
District 5 County Commissioner	Duane Johnson
Township Association Representative	Jackie Keehr
Township Association Representative	George Sandy
Municipalities	Andrea Lauer
County Planning & Zoning Administrator	Amy Kowalzek

County Feedlot Officer	Darrin Welle
County Engineer	Steve Backowski
County Administrator	Deb Gruber
Department of Natural Resources	Ken Zeik
Health Care	Tracy Heidenreich
Healthy Communities Collaborative	Kate Bjorge
Morrison Co Economic Development	Carol Anderson
Nature Conservancy	Todd Holman
SWCD representative	Helen McLennan
Farming organization representatives (crop and animal)	Dean Marshik
Farming organization representatives (crop and animal)	Lori Sahr
Farming organization representatives (crop and animal)	Cindy Tiemann
Camp Ripley representative	Marty Skoglund
School District representative	Sharon Ballou
Local industry/major employer	Tom Smude
Local industry/major employer	Ken Witucki
County Surveyor	Sam DeLeo
Realtor	Chris Kruscheck
Lake Associations/LID Representative	Kerry Kupferschmidt
Lake Associations/LID Representative	Tim Shanley
Lake Associations/LID Representative - alternate	Scott Schnuckle
At Large Citizen representative - Senior Citizens	Jerry Chandler
At Large Citizen representative -Youth	Nicole Meyer
At Large Citizen representative	Lynn Woitalla



Chair, Morrison County Board of Commissioners

attested to by:



Deb Gruber, Clerk to the County Board