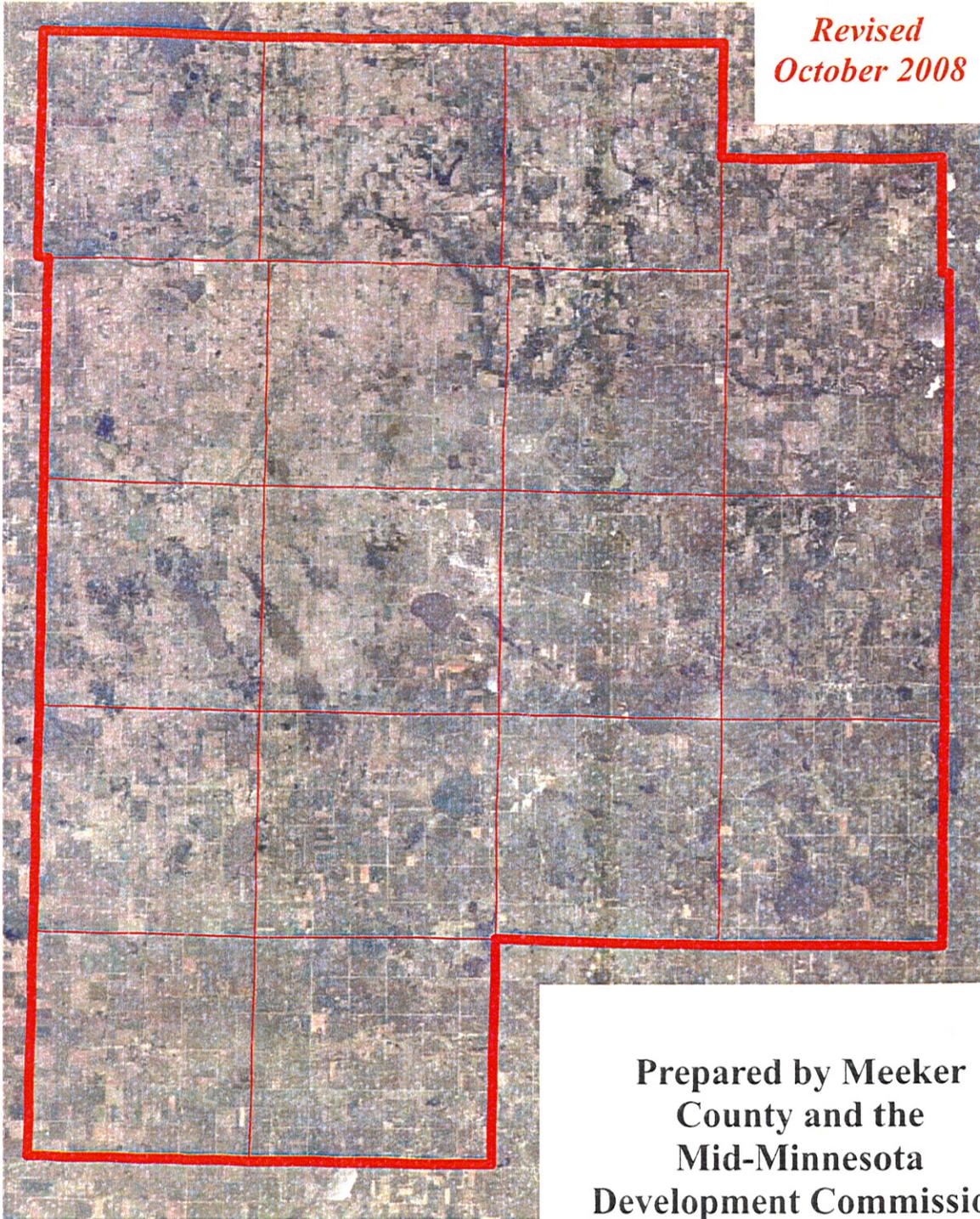


# MEEKER COUNTY COMPREHENSIVE PLAN

*Revised  
October 2008*



**Prepared by Meeker  
County and the  
Mid-Minnesota  
Development Commission**

## Meeker County Comprehensive Plan Table of Contents

<b>Chapter One: Introduction and Profile of Meeker County .....</b>	<b>Ch. 1 Pg. 1</b>
Justification for Updating the August 2000 Land Use Plan .....	2
Location of Meeker County .....	2
Meeker County’s History .....	4
Population Profile .....	7
Historic Population Levels .....	7
Population by Age Groups .....	9
Household Numbers .....	10
Population Projections .....	11
Household Projections .....	12
<b>Chapter Two: Natural Resources .....</b>	<b>Ch. 2 Pg. 1</b>
Climate .....	1
Geology .....	1
Watersheds and Topography .....	1
Middle Fork of the Crow River Watershed .....	1
Clearwater River Watershed .....	2
North Fork of the Crow River Watershed .....	2
Sauk River Watershed .....	2
South Fork of the Crow River Watershed .....	2
Water Resources .....	2
Impaired Waters .....	4
Wetlands .....	6
Wellhead Protection .....	8
Soils .....	9
Presettlement Vegetation .....	10
<b>Chapter Three: Meeker County’s Current Land Use .....</b>	<b>Ch. 3. Pg. 1</b>
Meeker County’s Current Zoning .....	1
Article 11 – A-1 Agricultural Preservation District .....	1
Article 13 – R-1 Suburban Residential District .....	1
Article 14 – R-2 Rural Residential District .....	2
Article 15 – C-1 Commercial District .....	2
Article 16 – C-2 Neighborhood Commercial District .....	2
Article 17 – I-1 General Industry District .....	2
Article 18 – UE-O Urban Expansion Management Overlay District .....	2
Shoreland Management Overlay District (SM-O) .....	4
Recreation River Management Overlay District (RR-O) .....	4

**Table of Contents continued ...**

Clearwater River Watershed Management Overlay District (CR-O) .....	4
Housing.....	5
Existing Housing.....	5
Meeker County Public Housing.....	8
Meeker County Parks .....	10
Transportation.....	12
Highways .....	12
Railroads .....	14
Mass Transit.....	15
Airports .....	16
Maintenance of the Transportation Network .....	16

**Chapter Four: Community Profiles..... Ch. 4 Pg. 1**

How to Use the Community Profiles.....	1
A Profile of Cedar Mills .....	2
A Profile of Cosmos .....	4
A Profile of Darwin .....	6
A Profile of Dassel .....	8
A Profile of Eden Valley .....	10
A Profile of Grove City .....	12
A Profile of Kingston .....	14
A Profile of Litchfield .....	16
A Profile of Watkins.....	18
Summary of the Community Profiles.....	20

**Chapter Five: Township Profiles ..... Ch. 5 Pg. 1**

How to Use the Township Profiles.....	1
Acton Township .....	2
Cedar Mills Township .....	4
Collinwood Township .....	6
Cosmos Township .....	8
Danielson Township.....	10
Darwin Township .....	12
Dassel Township.....	14
Ellsworth Township.....	16
Forest City Township .....	18
Forest Prairie Township.....	20
Greenleaf Township .....	22

**Table of Contents continued ...**

Harvey Township .....	24
Kingston Township .....	26
Litchfield Township .....	28
Manannah Township .....	30
Swede Grove Township.....	32
Union Grove Township .....	34
Summary of the Township Profiles .....	36

**Chapter Six: Current and Emerging Issues..... Ch. 6 Pg. 1**

Agriculture Issues .....	1
Economic Development Issues.....	2
Environmental Issues.....	3
Parks and Recreation Issues .....	4
Rural Housing Issues.....	5
Transportation Issues.....	6
Urban Growth Issues .....	7
Other Issues .....	8

**Chapter Seven: Goals, Objectives, Policy Guidelines..... Ch. 7 Pg. 1**

Action Steps Acronyms & Definitions.....	1
Goal One: Citizen Participation and Intergovernmental Cooperation.....	2
Goal Two: Economic Development .....	3
Goal Three: Natural Resources.....	5
Goal Four: Transportation .....	9
Goal Five: Land Use Planning.....	12
Goal Six: Public Investments .....	14
Goal Seven: Public Awareness.....	15

**Chapter Eight: Implementation..... Ch. 8 Pg. 1**

Goal One: Citizen Participation and Intergovernmental Cooperation.....	1
Goal Two: Economic Development .....	1
Goal Three: Natural Resources.....	1
Goal Four: Transportation .....	3
Goal Five: Land Use Planning.....	3
Goal Six: Public Investments .....	3
Goal Seven: Public Awareness.....	4
Miscellaneous Implementation Steps (not goal specific).....	4

## Table of Contents continued ...

<b>Chapter Nine: Future Land Use Plan.....</b>	<b>Ch. 9 Pg. 1</b>
Section One: Zoning.....	1
Section Two: Other Official Planning Documents and Efforts.....	2
Meeker County Comprehensive Water Plan.....	2
Watershed District Management Plans.....	2
Meeker County Hazard Mitigation Plan.....	2
State Highway 15 Corridor Study.....	2
Access Management Ordinance.....	3
Greenleaf, Cedar, and Sioux Lakes Area Conservation District.....	3
Section Three: Official Future Land Use Map.....	3
Land Use Plan Summary.....	4

### List of Maps

Map 1A: Meeker County’s Location, Cities, and Townships.....	Ch. 1 Pg. 3
Map 2A: Meeker County Watersheds.....	Ch. 2 Pg. 3
Map 2B: USFWS National Wetlands Inventory.....	Ch. 2 Pg. 7
Map 2C: Soils.....	Ch. 2 Pg. 11
Map 2D: Presettlement Vegetation.....	Ch. 2 Pg. 12
Map 3A: Meeker County Zoning Map.....	Ch. 3 Pg. 3
Map 3B: Meeker County Parks & Recreational Areas.....	Ch. 3 Pg. 11
Map 3C: Meeker County Functional Classification.....	Ch. 3 Pg. 13
Map 4A: City of Cedar Mills Current Land Use.....	Ch. 4 Pg. 3
Map 4B: City of Cosmos Current Land Use.....	Ch. 4 Pg. 5
Map 4C: City of Darwin Current Land Use.....	Ch. 4 Pg. 7
Map 4D: City of Dassel Current Land Use.....	Ch. 4 Pg. 9
Map 4E: City of Eden Valley Current Land Use.....	Ch. 4 Pg. 11
Map 4F: City of Grove City Current Land Use.....	Ch. 4 Pg. 13
Map 4G: City of Kingston Current Land Use.....	Ch. 4 Pg. 15
Map 4H: City of Litchfield Urban Growth.....	Ch. 4 Pg. 17
Map 4I: City of Watkins Current Land Use.....	Ch. 4 Pg. 19
Map 5A: Acton Township Zoning.....	Ch. 5 Pg. 3
Map 5B: Cedar Mills Township Zoning.....	Ch. 5 Pg. 5
Map 5C: Collinwood Township Zoning.....	Ch. 5 Pg. 7
Map 5D: Cosmos Township Zoning.....	Ch. 5 Pg. 9
Map 5E: Danielson Township Zoning.....	Ch. 5 Pg. 11
Map 5F: Darwin Township Zoning.....	Ch. 5 Pg. 13
Map 5G: Dassel Township Zoning.....	Ch. 5 Pg. 15
Map 5H: Ellsworth Township Zoning.....	Ch. 5 Pg. 17

**Table of Contents continued ...**

Map 5I: Forest City Township Zoning .....	Ch. 5 Pg. 19
Map 5J: Forest Prairie Township Zoning .....	Ch. 5 Pg. 21
Map 5K: Greenleaf Township Zoning .....	Ch. 5 Pg. 23
Map 5L: Harvey Township Zoning .....	Ch. 5 Pg. 25
Map 5M: Kingston Township Zoning .....	Ch. 5 Pg. 27
Map 5N: Litchfield Township Zoning .....	Ch. 5 Pg. 29
Map 5O: Manannah Township Zoning .....	Ch. 5 Pg. 31
Map 5P: Swede Grove Township Zoning .....	Ch. 5 Pg. 33
Map 5Q: Union Grove Township Zoning .....	Ch. 5 Pg. 35

**List of Tables**

Table 1A: Time-line of “Major Events” in Meeker County’s History .....	Ch. 1 Pg. 6
Table 1B: Six County Area Gain in Population since 1970 (U.S. Census) .....	Ch. 1 Pg. 8
Table 1C: City, County, & State Population by Age Groups in 2000 (U.S. Census) .....	Ch. 1 Pg. 9
Table 1D: Median Population Age for Meeker County and its Cities (1990 & 2000) .....	Ch. 1 Pg. 10
Table 1E: Meeker County Population, Households, and Average Household Size Since 1970 (U.S. Census) .....	Ch. 1 Pg. 10
Table 1F: Population Projections for Meeker County .....	Ch. 1 Pg. 11
Table 1G: Household Projections for Meeker County .....	Ch. 1 Pg. 12
Table 2A: 2008 Section 303 (d) List of Impaired Waters (Meeker County) .....	Ch. 2 Pg. 5
Table 2B: Status of Wellhead Protection .....	Ch. 2 Pg. 9
Table 2C: Meeker County Soils .....	Ch. 2 Pg. 10
Table 3A: 2000 Housing Characteristics for Meeker County and Minnesota (2000 U.S. Census) .....	Ch. 3 Pg. 6
Table 4A: Cedar Mills .....	Ch. 4 Pg. 2
Table 4B: Cosmos .....	Ch. 4 Pg. 4
Table 4C: Darwin .....	Ch. 4 Pg. 6
Table 4D: Dassel .....	Ch. 4 Pg. 8
Table 4E: Eden Valley .....	Ch. 4 Pg. 10
Table 4F: Grove City .....	Ch. 4 Pg. 12
Table 4G: Kingston .....	Ch. 4 Pg. 14
Table 4H: Litchfield .....	Ch. 4 Pg. 16
Table 4I: Watkins .....	Ch. 4 Pg. 18
Table 5A: Acton .....	Ch. 5 Pg. 2
Table 5B: Cedar Mills .....	Ch. 5 Pg. 4
Table 5C: Collinwood .....	Ch. 5 Pg. 6

## Table of Contents continued ...

Table 5D: Cosmos.....	Ch. 5 Pg. 8
Table 5E: Danielson.....	Ch. 5 Pg. 10
Table 5F: Darwin .....	Ch. 5 Pg. 12
Table 5G: Dassel.....	Ch. 5 Pg. 14
Table 5H: Ellsworth.....	Ch. 5 Pg. 16
Table 5I: Forest City.....	Ch. 5 Pg. 18
Table 5J: Forest Prairie.....	Ch. 5 Pg. 20
Table 5K: Greenleaf.....	Ch. 5 Pg. 22
Table 5L: Harvey .....	Ch. 5 Pg. 24
Table 5M: Kingston.....	Ch. 5 Pg. 26
Table 5N: Litchfield.....	Ch. 5 Pg. 28
Table 5O: Manannah.....	Ch. 5 Pg. 30
Table 5P: Swede Grove .....	Ch. 5 Pg. 32
Table 5Q: Union Grove .....	Ch. 5 Pg. 34
Table 8A: MCPA 303d List of Impaired Waters: Meeker County, 2008.....	Ch. 8 Pg. 2

## List of Figures

Figure 1A: Population Data for Meeker County Since 1930 (U.S. Census) .....	Ch. 1 Pg. 7
Figure 3A: Total Housing Units Comparison for Meeker County Townships, Cities, and Meeker County from 1990 to 2000 (U.S. Census).....	Ch. 3 Pg. 5
Figure 3B Meeker County Housing Unit Construction by Decade & 3C: (2000 U.S. Census) .....	Ch. 3 Pg. 7
Figure 3D: Meeker County Median Housing Values in 1990 & 2000 (U.S. Census).....	Ch. 3 Pg. 8

## Chapter One: Introduction and Profile of Meeker County



*Sunrise on Butternut Lake  
~Photo by Amy Wilde~*

This document establishes a Comprehensive Plan for Meeker County. The primary purpose of the Plan is to provide a “vision” for growth and development by outlining what Meeker County residents would like to see occur in the future. This Plan accomplishes that in two ways. First, Chapter Seven establishes the County’s Goals, Objectives, and Policy Guidelines. These prescriptions describe how land use decisions should be made on a day-to-day basis. Second, Chapter Eight outlines which activities should be completed by the County to ensure the Plan is implemented properly.

The entire Plan is written with a 20-year time frame. This period of time was decided as a “manageable” amount of time to plan for, although the Plan will be enforced until it is either revised or ultimately replaced. The following information is included in this Comprehensive Plan:

**County Profile** – Chapter One provides a profile of Meeker County, including information on the County’s history, social-demographic information, and future population and household estimates.

**Natural Resources** – Chapter Two introduces the natural resource base of the area, including topography, water features, and soils information.

**County Land Use** – Chapter Three examines Meeker County’s existing land use. Housing, agriculture, transportation, and recreational areas are the major types of land use examined.

**Community Profiles** – Chapter Four presents a community profile for each of the nine cities located in Meeker County.

**Township Profiles** – Chapter Five presents a township profile for each of the County’s 17 townships (North Kingston and Kingston Townships are combined).

**Current and Emerging Issues** – Chapter Six describes what types of local and multi-jurisdictional planning issues will shape the County in the future.

**Goals, Objectives, and Policy Guidelines** – Chapter Seven outlines what specific approaches the community will take to guide land use decisions. The goals have been organized into seven topic areas. The seven goals are used as a framework for the objectives and policy guidelines that, in turn, provide specific information on how decisions will be made by County officials on a day-to-day basis.

**Implementation** – Chapter Eight establishes a temporary work plan to implement the goals, objectives, and policy guidelines found in Chapter Seven.

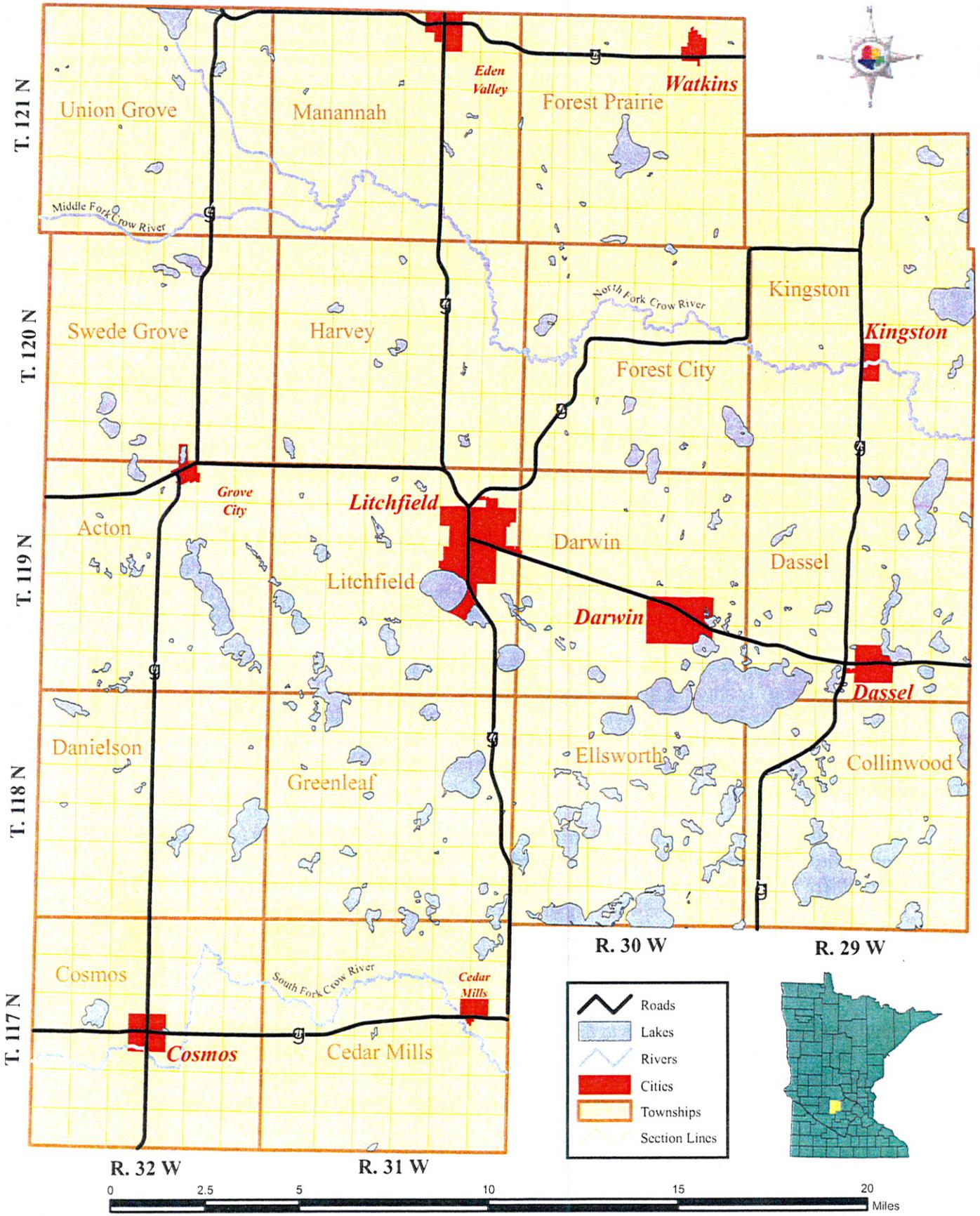
### **Justification for Updating the August 2000 Land Use Plan**

In May 1998, the Meeker County Board of Commissioners made the decision to update the County’s Comprehensive Land Use Plan, previously dated 1978. The County Board formally adopted the new Plan on August 15, 2000. The primary land use component of the 2000 plan was the addition of a new “A-3 Zone,” which would’ve allowed either A-1 or A-2 agriculture land to be rezoned for residential clusters. After experiencing difficulty in creating clearly objective criteria for the new zoning district, it was decided, through a variety of meetings, that establishing one zoning district countywide (with a number of development options) would be the most fair for the County’s residents. As a result, it was decided in 2006 to update the 2000 Comprehensive Land Use Plan. The update was then adopted by the County Board on October 7, 2008.

### **Location of Meeker County**

Meeker County is located in central Minnesota, approximately 40 miles west of the Minneapolis-St. Paul Metropolitan Area. As Map One shows, the County has 9 cities and 17 townships (North Kingston and Kingston Townships are combined in this Plan). The County is characterized by numerous lakes, rolling hills, and vast agricultural land. The County shares borders with Stearns County to the north, Wright County to the east, McLeod County to the southeast, Renville County to the southwest, and Kandiyohi County to the west.

# Map 1A: Meeker County's Location, Cities and Townships



## Meeker County's History

On February 23, 1856, the Minnesota State Legislature made Meeker County a governmental unit. It is believed the County got its name from the Honorable B. B. Meeker, a citizen of St. Anthony (although this has never been confirmed). The first County Board of Commissioners met in May 1856. This meeting was comprised of only two people: John W. Huy and Thos. Skinner. There was supposed to be a third member, Dr. Frederick Noah Ripley, who met his end after getting caught in a spring snow storm near a lake near Litchfield that now bears his name. This was a time of great expansion throughout most of the State of Minnesota, including Meeker County. From 1856 to 1859, the population of the State rose from 32,000 to around 150,000.

The first city in the County was Forest City, which was incorporated in March 1856. By May of the same year, Forest City was named the County Seat, and the first deed was recorded in Section 28 of Kingston Township on September 11. The County's first public election took place in October in several places around the County. County Commissioners were elected along with a County Surveyor and Register of Deeds. The first Post Office in the County was also opened in 1856 in Forest City and soon after a sawmill followed. In 1858, a sawmill was also started in Greenleaf and a flourmill in Cedar Mills. By 1870, eight flourmills operated throughout Meeker County.

The County's first assessment and tax levy was made in 1858. The County's assessed valuation was \$181,571. The first County Treasurer was elected in the following year. In 1860, the first U.S. Census was conducted in Meeker County. There were 928 people living in the County at that time. Of this number, 572 were native born Americans and 356 were immigrants.

Much of the County's early development was influenced by the Native Americans. In 1862, the "Sioux Uprising" resulted in the building of a number of stockades where many of the County's cities are currently located. In addition, many people began to move to the area after the Civil War. As the railroad expanded west from Minneapolis and St. Paul, the railroad acquired land from the communities as "payment" for the opportunities the railroad brought to each community.

As the County Seat, Forest City felt confident that the railroad would have to go through their community and so they didn't offer much land. The same was true for the other communities in the northern part of the County. Two businessmen from Darwin (which was called Rice City at the time), on the other hand, saw the importance of the railroad and made an offer to the railroad that was accepted. As a result, the new towns of Dassel, Darwin, Litchfield, and Grove City were platted in 1869. By the end of winter, the railroad was in place up to Dassel. Incidentally, Dassel, Darwin, and Litchfield all got their names from railroad executives.

With the railroad's decision to go to the south of Forest City, there was some pressure to move the County Seat to a city located on the rail line. A special election was held and Litchfield was chosen. This had a direct and devastating effect on Forest City. For example, today Litchfield has an estimated population of 6,562, while Forest City is too small to be incorporated.

The County had its boundaries changed by the State Legislature for the last time in 1870, as the Townships of Cedar Mills and Cosmos were taken away from Renville County. Later that year, the City of Cosmos was formed. A new rail line was built in 1886 that served the areas between Litchfield and St. Cloud. It was put in by the Soo Line. There were already many settlements in the area, but with the new rail line Eden Valley and Watkins were incorporated into Cities.

The late 1800s saw the beginning of the dairy industry in Meeker County, which currently is considered to be one of the County's major employers. Dairy farming was encouraged by the State because it was already apparent at that time that the soil was becoming less productive. Dairy farming would help supplement the farmers' income while giving the soil a chance to become more fertile. The Danielson Creamery (in Danielson Township) was started in 1890 and was one of the first cooperative creameries in the State.

The first organized telephone company in Meeker County started in 1898 in Litchfield. Seven years later, Eden Valley got its first telephone service. In 1903, the U.S. Post Office came to Meeker County and also opened an office in Litchfield beginning with seven routes. The deliveries were done with horse drawn buggies and sleighs, except when the snow got too deep and it had to be delivered by horseback. There was a Countywide vote in 1915 on the future of alcohol in Meeker County. There was a large voter turnout that resulted in Meeker County going "dry." This resulted in the closing down of the Litchfield brewery located on Lake Ripley.

With the First World War in 1917, farm prices jumped dramatically because of the increased demand and much of the farm labor leaving to work in defense plants. As the war ended in 1918, a bad strain of flu spread throughout Meeker County, which resulted in the deaths of many people. The Farmers Cooperative Electric Company was organized in 1921. This was an attempt to get electricity into the rural areas of the County. It started slow, but after 10 to 15 years, the benefits of electricity to farming were realized and its use began to spread.

By the beginning of 1932, unrest among the County's farmers was on the rise due to very low prices. Many of the farmers began to organize in an attempt to get better prices through strikes, closing creameries, and preventing livestock deliveries. This was the beginning of the Depression in Meeker County. A drought that lasted three years made matters even worse. Although the Second World War didn't start for America until December 1941, the draft came to Meeker County early that year and men began leaving to train for service. It wasn't until the War ended in 1946 that local people who had served all over the world began to return to the area. 1946 also saw the return of deer hunting in Meeker County. It had been closed for a long time because of over hunting which severely depleted the County's deer population. The State Conservation Department also began a campaign of carp removal from the County's lakes in 1951. Over 3,000 pounds were taken out of Lake Willie alone.

In 1951, Highway 7 was constructed, running through Cedar Mills and Cosmos. In 1953, by a vote of 3 to 1, liquor was legalized again in the County. By 1954, nearly half of the cities in Meeker County had a municipal liquor store. Table 1A below provides a summary of the "major" historical events that occurred in Meeker County since 1855.

One of the best ways to compare the County's rate of population growth is to examine the growth rates of neighboring counties. Table 1B accomplishes this by including demographic information for Kandiyohi County to the west, Stearns County to the north, Wright County to the east, McLeod County to the southeast, and Renville County to the southwest. The Table includes U.S. Census data for each County from 1970 to 2000.

**Table 1B:  
Six County Area Gain in  
Population since 1970 (U.S. Census)**

County (Major City)	1970	1980	1990	2000	1970-00 Change	Percent Change
Kandiyohi (Willmar)	30,548	36,763	38,761	41,203	10,655	34.9
McLeod (Hutchinson)	27,622	29,657	32,030	34,898	7,276	26.3
Meeker (Litchfield)	<i>18,387</i>	<i>20,594</i>	<i>20,846</i>	<i>22,644</i>	<i>4,257</i>	<i>23.2</i>
Renville (Olivia)	21,139	20,401	19,673	17,154	-3,985	-18.9
Stearns (St. Cloud)	95,400	108,161	118,791	133,166	37,766	39.6
Wright (Buffalo)	38,933	58,681	68,710	89,986	51,053	131.1
<b>Six County Area</b>	232,029	276,237	300,801	339,051	107,022	46.1

Table 1B shows that, with the exception of Renville County, all of the counties that share a border with Meeker County have experienced a solid gain in population since 1970. For example, Wright County's population more than doubled in less than 20 years (131% gain). Notice that Meeker County experienced the lowest percent change in population (23%) among the Counties that gained new residents. Nevertheless, the 23 percent gain means that, over 30 years, the County gained one new resident for nearly every four residents living in the County in 1970.

The high level of increased population gain in the neighboring Counties will eventually "catch-up" with Meeker County. The primary reason for this is due to Meeker County's "rural character," which will ultimately attract new housing developments. However, the increasing development pressure in the neighboring Counties has already begun to be noticed in Meeker County. The trend should become even more noticeable as the larger metropolitan areas continue to expand, especially in the north and east due to the proximity of St. Cloud and the Minneapolis suburbs.

## Population by Age Groups

Table 1C provides a breakdown of the populations of Meeker County's cities, the County as a whole, and the State of Minnesota by age categories for the year 2000. While Meeker County's total population has witnessed steady growth in recent years, the rate of population growth among the elderly (65 and older) has been significantly higher. In 1970, the County's elderly population was 2,777 persons. By 2000, this population grew by 33.2 percent, to a Census count of 3,699 persons. The State's Demographers Office projects the percent increase in elderly population will continue to grow at a larger rate than that of the total population over the next 30 years (*Minnesota's Changing Counties: The Next 30 Years*). It is during this time frame that the "baby boomers" will reach their retirement age. This is a strong indicator of the increasing need for many senior-related services, including senior housing and transit services.

**Table 1C:  
City, County and State Population  
by Age Groups in 2000 (U.S. Census)**

City	Age Under 18	Age 18-24	Age 25-44	Age 45-64	Over 65
Cedar Mills	12	3	16	9	13
Cosmos	121	46	156	123	136
Darwin	75	19	69	69	44
Dassel	296	92	334	235	276
Eden Valley	217	113	226	134	176
Grove City	173	61	146	124	104
Kingston	28	17	35	27	13
Litchfield	1,649	554	1,676	1,330	1,353
Watkins	225	71	225	137	222
<b>Meeker County</b>	<b>6,109</b>	<b>1,666</b>	<b>5,968</b>	<b>5,202</b>	<b>3,699</b>
<b>State of Minnesota</b>	1,286,894	470,434	1,497,320	1,070,565	594,266

A close examination of Table 1C reveals that, although the 65 and older category may be outpacing the other categories in growth rates, most cities in Meeker County have many residents who are between the age of 25 to 44 and 18 and under. The only category that was seriously low in 2000 was the 18 to 24 category, which suggests that many high school graduates move out of the County to pursue a college education. In addition, St. Cloud, Willmar, Hutchinson, and the Twin Cities Metropolitan Area attract people due to higher paying jobs.

Another way to document Meeker County's aging population is to examine how the population's median age has changed throughout the years. Table 1D provides this information for Meeker County and its cities.

**Table 1D:  
Median Population Age for  
Meeker County and its Cities (1990 & 2000)**

City	1990	2000	City	1990	2000
Cedar Mills	32.5	40.8	Grove City	33.6	35.8
Cosmos	40.0	41.5	Kingston	33.4	36.7
Darwin	41.1	38.5	Litchfield	36.2	38.5
Dassel	38.0	38.6	Watkins	36.8	38.4
Eden Valley	37.2	33.7	Meeker County	<i>34.9</i>	<i>38.3</i>

Table 1D reveals the median population for the County increased from 34.9 in 1990 to 38.3 in 2000. However, a close examination of each city's median population age reveals that not all cities aged in population. Two, out of the County's nine cities, actually had a decrease in median age over the ten-year time-span. The primary difference in the County's overall increase is due to an aging population in the County's largest cities, especially in Litchfield (representing 29 percent of the County's 2000 population).

### Household Numbers

An increase in the County's population naturally means an increase in the number of households located in Meeker County. Table 1E shows exactly how the number of households has increased as the County has gained population since 1970. Although knowing the total number of people and households is important, these numbers allow an average County household size to be established (i.e., the average number of people living in each household). Notice that since 1970, the average household size in Meeker County has decreased from 3.17 people per household to an average size of 2.58 people per household in 2000. This trend is important because it shows that even more housing units will be needed in the future to accommodate the County's increasing population.

**Table 1E:  
Meeker County Population, Households, and  
Average Household Size Since 1970 (U.S. Census)**

Year	1970	1980	1990	2000
Population	18,387	20,594	20,846	22,644
Households	5,792	7,178	7,655	8,590
Average Household Size	3.17	2.87	2.72	2.58

## Population Projections

The information presented up to this point in the chapter helps to pinpoint a reliable range of population projections for the County for the next 20 years. Chapters Four and Five provide detailed population and household projections for each city and township located in Meeker County. These projections should be used to plan for each of those identified areas. However, Table 1F presents three population projections for the entire County based on its historic level of growth since 1960. In addition to the historic-based projection (provided by the State Demographer), Table 1F includes population projections that are based on fast and very fast annual rates of population gain. The fast projection is 150 percent of the County's historic rate of growth. Likewise, the very fast projection is 200 percent of the County's historic growth rate. The combination of the historic, fast, and very fast population projections provide a reliable range of possibilities that could occur in Meeker County over the next 20 years.

**Table 1F:  
Population Projections  
for Meeker County**

<i>Historic Population</i>	1960	1970	1980	1990	2000
		18,887	18,387	20,594	20,846
<b>County's Population Projections</b>	2005	2010	2015	2020	Change
Based on Historic Growth	23,520	24,520	25,540	26,470	3,826
Fast Annual Growth (150%)	23,958	25,458	26,988	28,383	5,739
Very Fast Annual Growth (200%)	24,396	26,396	28,536	30,296	7,652

Table 1F suggests that Meeker County would gain an additional 3,826 residents by the year 2020, if it simply experienced the same growth rate as in the past. This many new people would have a significant impact on the County's natural and man-made resources. Although this many new people would cause many growth-related problems, the very fast annual population projections suggest an even worse situation. Table 1F shows a total of 7,652 new people for this estimate. With most of Meeker County's neighbors experiencing rapid development pressures, the fast and very fast annual growth rates should be considered for planning purposes.

**One aspect of Table 1F needs to be understood:** it is not the summation of the population and household projections presented in Chapters Four and Five (City and Township Profiles). The primary reason the numbers do not add up is because Table 1F is merely a set of population projections based on Countywide data since 1960. Conversely, the population projections for each city and township are based on the assumption that some future population gain is possible even if the unit of government has lost population in the past. In other words, Table 1F takes into

account that some areas of the County will actually lose population while other areas of the County will more than make up for the losses (see the text box below).

**Household Projections**

The information presented in Table 1F is needed to help establish Meeker County’s household projections. By dividing the population estimates by the County’s projected average number of people per household, Table 1G presents a range of household estimates for Meeker County over the next 20 years. The Table suggests that between 1,998 and 3,528 new households are likely to be established by the year 2020.

**Table 1G:  
Household Projections  
for Meeker County**

<i>Historic Households</i>	1960	1970	1980	1990	2000
		5,439	5,792	7,178	7,655
<b>Projections (2.5 people per unit)</b>	2005	2010	2015	2020	Change
Based on the Last 40 years (100%)	9,408	9,808	10,216	10,588	1,998
Fast Annual Growth (150%)	9,583	10,183	10,795	11,353	2,763
Very Fast Annual Growth (200%)	9,758	10,558	11,374	12,118	3,528

***A Note about Population and Household Projections!!!***

A population projection is a well-informed estimate about how many people could potentially live in an area in the future. One of the best indicators used to make a reliable estimate is the area’s historic level of growth. For example, if a community has grown by an average of 2 percent a year for the last 20 years, it is often assumed that this average rate of growth will continue into the future.

The difficult part of making population projections is determining whether past trends will continue and, if not, how they will change. The future population of a community derives from its present population plus births and net migration minus any deaths. Therefore, any factor that influences births, deaths, or migration will alter the projected population. In addition, the community’s population can also change simply by altering its boundary through annexation. Finally, several things can affect the community’s attractiveness to both current and potential residents: ease and cost of commuting to employment areas; employment opportunities within the community; local housing supply and housing costs; and the community’s overall aesthetics (lakes, scenery, etc.).

As a result of the complexity of making population projections, they should be viewed with apprehension. To help compensate for their uncertainty, the population projections used in this Comprehensive Plan provide a low, medium, and high range of possibilities.

## Chapter Two: Natural Resources

Meeker County is located in Central Minnesota between the corn belt to the south and the lakes region to the north. As a result, the County has both strong agricultural and vast natural resource characteristics. This Chapter examines these characteristics, including sections on the County's climate, geology, topography, presettlement vegetation, water resources, and soils.

### Climate

The County is located in the Continental Climate Zone, which is characterized by a wide range of seasonal temperatures. The average high in Meeker County is 72 degrees Fahrenheit and the average low is 16 degrees Fahrenheit. The average annual precipitation in the County is 27 inches, approximately one-third of which occurs during the growing season. Snowfall in winter months averages approximately 47 inches.

### Geology

Much of Meeker County's landscape has been influenced by glaciation. As a result, much of the County is covered by glacial drifts, consisting of till (a mixture of sand, silt, and clay, along with gravel cobbles and boulders), lake sediments (particle sizes consisting mostly of silt and clay) and outwash (gravel and sand-sized particles). These inter-layered deposits of till, lake sediments, and outwash range in thickness from around 200 feet in the extreme northern part of the County, to nearly 400 feet in the central and southern parts of the County. The glacial drift is underlain by undifferentiated igneous and metamorphic rocks, mostly gneiss, granite, and schist. In places, a thin layer of cretaceous sediments overlays the igneous and metamorphic rock.

### Watersheds and Topography

There are five major watersheds in Meeker County: the Clearwater River Watershed, the Middle Fork of the Crow River Watershed, the North Fork of the Crow River Watershed, the Sauk River Watershed, and the South Fork of the Crow River Watershed. All of these watersheds are part of the Upper Mississippi River Drainage Basin. Map 2A shows the locations of these watersheds and the boundaries of the minor watersheds within each of them. The topography of the County's five major watersheds is briefly summarized below:

**Middle Fork of the Crow River Watershed** – The Middle Fork of the Crow River Watershed was delineated in 2005 from the North Fork of the Crow River Watershed. It occupies a little over 10% of the area of the original North Fork of the Crow River Watershed and its characteristics are similar. The area of this watershed is about 28,006 acres.

**Clearwater River Watershed** – The topography of the Clearwater River Watershed is typified by rolling moraines, characterized by knolls and hills of irregular size and shape, intermingled with swales and numerous closed depressions. Relief in morainic areas of the watershed ranges from 5 feet to less than 50 feet. The highest elevation within Meeker County is found within this watershed, at 1,250 feet above sea level. This watershed contains 30,566 acres.

**North Fork of the Crow River Watershed** – The topography of this watershed is characterized by rolling moraines and glacial outwash and lake plains. Moraines are found in northern and eastern portions of the watershed. The central portion of the North Fork of the Crow River Watershed consists of glacial outwash plains and glacial lake plains of mostly silty and clayey sediment. Relief within the watershed ranges from less than 5 feet to approximately 100 feet in the eastern and northwestern portions of the County. The lowest elevation (1,000 feet above sea level) within Meeker County is found at the point where the North Fork of the Crow River exits the County. This watershed contains approximately 241,670 acres.

**Sauk River Watershed** – The Sauk River Watershed is dominated by a rolling moraine topography. Topographic relief generally ranges from 5 feet to less than 50 feet. The area of this watershed is 10,118 acres, the smallest in Meeker County.

**South Fork of the Crow River Watershed** – Rolling moraines and glacial outwash and lake plains dominate the topography of the South Fork of the Crow River. Moraines are found in the southern portion of the watershed, while glacial outwash and lake plains are found in the northern portion. Relief within the South Fork of the Crow River Watershed ranges from 5 feet to less than 50 feet. This watershed contains 102,009 acres.

## **Water Resources**

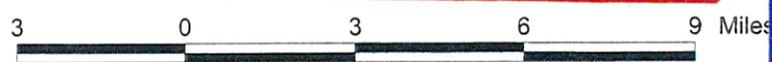
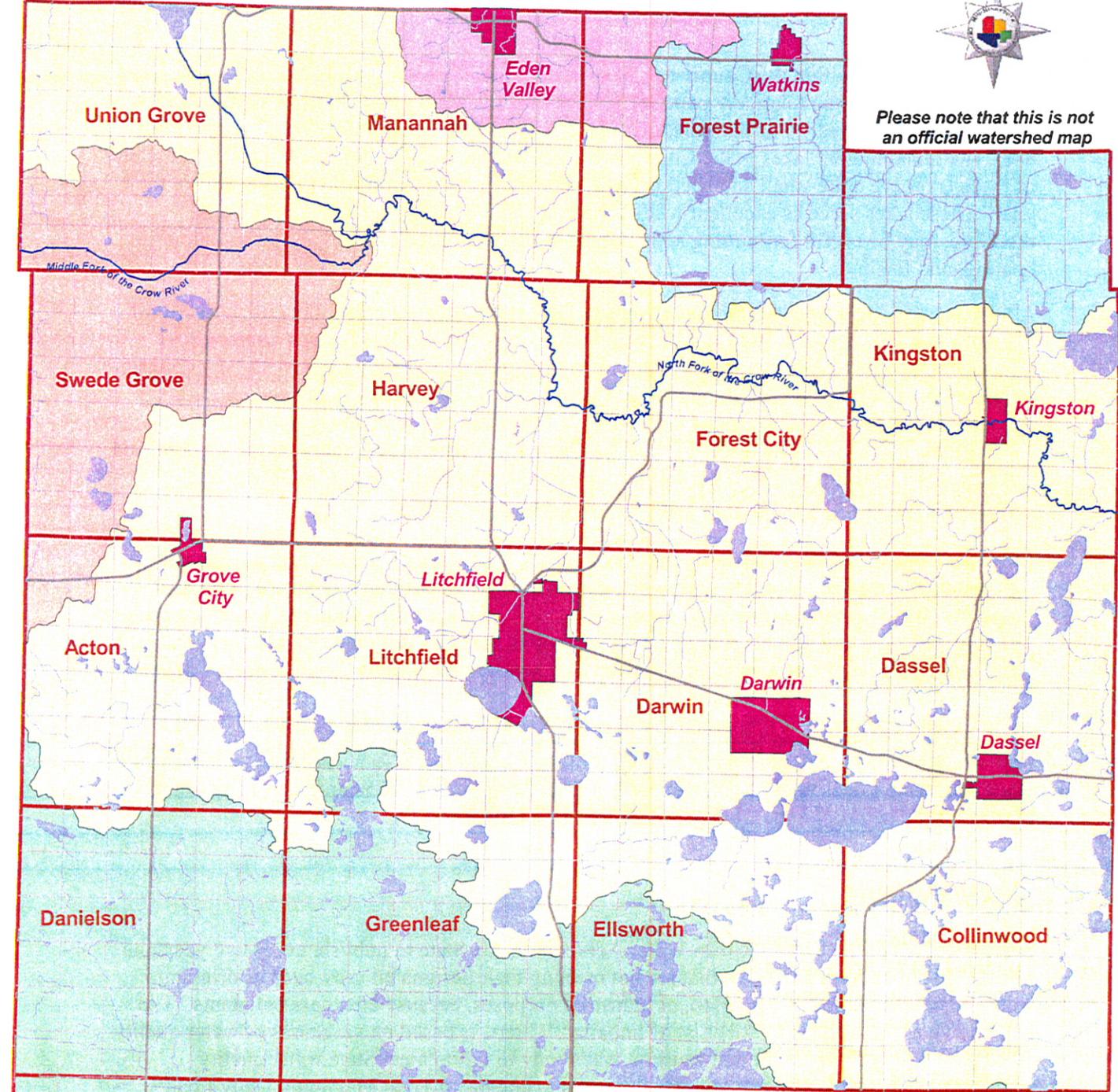
The County has abundant surface water resources with a large number of lakes and wetlands and numerous stream systems. Of the precipitation that the County receives each year (26-28 inches), 1 to 2½ inches becomes surface runoff. The surface water bodies receive this runoff and act as a temporary reservoir.

Meeker County has 144 lakes of ten acres or more. These lakes cover an area of 22,942 acres (359 square miles), which represents approximately 5.6 percent of the total area of the County. The lakes within the County are located mostly in the moraine areas. For the purpose of general analysis, there are two basic types of lakes within the County: “high to moderate” recreational use and “low” recreational use. “High to moderate” recreational use lakes are those which experience high to moderate amounts of water oriented uses such as swimming, fishing, hunting, trapping, boating, or water skiing. “Low” recreational use lakes would be those that experience low amounts of these activities.

# Map 2A: Meeker County Watersheds



Please note that this is not an official watershed map



LEGEND		Watersheds	
	Highway		Clearwater River
	River/Stream		Middle Fork of the Crow River
	Township		North Fork of the Crow River
	Section		Sauk River
	City		South Fork of the Crow River
	Lake		

There are 44 lakes within the County that have surface areas greater than 150 acres. These lakes can be considered to be relatively permanent since they maintain somewhat consistent water levels from year to year. Furthermore, these lakes experience “high to moderate” recreational use. The remaining 93 lakes in the County are considered to be of “low” recreational use. Many of these lakes are quite small and shallow, and some may only contain water during part of the year. These lakes serve as excellent wildlife habitat and are largely underdeveloped and, therefore, may be useful for hunting and trapping, but are not used extensively for swimming, boating, and fishing.

In addition to the many streams and ditches in the County, there are also three main rivers, all branches of the Crow River. The Upper Fork empties out of Koronis Lake in Union Grove Township and meanders in a southeasterly direction until it leaves the County through Kingston Township. The Middle Fork drains out of Green Lake in Kandiyohi County and enters the County in the southwestern part of Union Grove Township and joins the North Fork in Manannah Township. The South Fork of the Crow River enters the County on the western side of Cosmos Township and exits on the eastern side of Cedar Mills Township. This river originates out of Little Kandiyohi Lake also in Kandiyohi County.

Meeker County’s shale, sandstone, and clay bedrock is covered by ground moraine deposits of glacial drift material. Aquifers within this glacial drift are of two main types: surficial drift aquifers (which are unconfined and usually shallow) and buried drift aquifers (which are pockets of confined sand and gravel separated by glacial till). Surficial drift aquifers are very localized and usually do not cover a wide area. Buried drift aquifers are usually found at deeper depths.

The County updated its Comprehensive Local Water Management Plan in 2008. The Plan provides a detailed look at the water resources of the County and is in accordance with the 1986 Comprehensive Local Water Management Act from Minnesota State Statutes. A copy of the Plan is available through the County Administrator’s Office.

### **Impaired Waters**

Section 303(d) of the Federal Clean Water Act requires the State to publish, every two years, an updated list of streams and lakes that are not meeting their designated uses, such as drinking water, fishing, swimming, irrigation, or industrial purposes, because of excess pollutants. The list, known as the Section 303(d) List of Impaired Waters, is based on violations of water quality standards. For each pollutant that causes a waterbody to fail to meet State water quality standards, the Clean Water Act requires the states to conduct a Total Maximum Daily Load (TMDL) study. A TMDL study identifies all point and nonpoint sources of each pollutant in a waterbody, which fails to meet water quality standards.

The 2008 Section 303(d) List of Impaired Waters for Meeker County is found in Table 2A. According to the Table, a total of seven river reaches and seven lakes are due to be included on the list. A number of these reaches and lakes are listed multiple times for different pollutants. The absence of a waterbody or watercourse from the 303(d) List does not necessarily mean it is meeting its designated uses. It may be that the reach or lake has either not been sampled or there is not enough data to make an impairment determination.

**Table 2A:  
2008 Section 303 (d) List of Impaired Waters (Meeker County)**

<b>Rivers &amp; Streams</b>	<b>ID</b>	<b>Affect Use</b>	<b>Pollutant</b>	<b>Target start/ Completion</b>
Clearwater River; Clear Lake to Lk Betsy	07010203-549	Swimming	Fecal Coliform	2004/2009
Clearwater River; Clear Lake to Lk Betsy	07010203-549	Aquatic Life	Low Oxygen	2004/2009
Crow River, North Fk; Lk Koronis to Middle Fk Crow R	07010204-504	Aquatic Life	Impaired Biota	2010/2017
Crow River, North Fk; Lk Koronis to Middle Fk Crow R	07010204-504	Aquatic Life	Mercury FCA	2002/2015
Crow River, North Fk; Middle Fk Crow R to Jewitts Cr	07010204-507	Aquatic Life	Mercury FCA	2002/2015
Crow River, North Fk; Jewitts Cr to Washington Cr	07010204-506	Aquatic Life	Mercury FCA	2002/2015
Crow River, North Fk; Washington Cr to Meeker Co line	07010204-555	Aquatic Life	Mercury FCA	2002/2015
Crow River, South Fk; Headwaters to Hutchinson Dam	07010205-540	Aquatic Life	Impaired Biota	2010/2017
Crow River, South Fk; Headwaters to Hutchinson Dam	07010205-540	Aquatic Life	Mercury FCA	1999/2011
Crow River, South Fk; Headwaters to Hutchinson Dam	07010205-540	Aquatic Life	Turbidity	2010/2017
Grove Creek; Unnamed Cr To Middle Fk Crow R	07010204-514	Aquatic Life	Impaired Biota	2010/2017
Grove Creek; Unnamed Cr To Middle Fk Crow R	07010204-514	Aquatic Life	Low Oxygen	2010/2017
Jewitts Creek; Headwaters to N Fk Crow R	07010204-585	Aquatic Life	Ammonia	2006/2011
Jewitts Creek; Headwaters to N Fk Crow R	07010204-585	Aquatic Life	Impaired Biota	2006/2012
Jewitts Creek; Headwaters to N Fk Crow R	07010204-585	Aquatic Life	Low Oxygen	2011/2015
Unnamed Creek; T120 R31W S32, south line to Jewitts Cr	07010204-552	Aquatic Life	Impaired Biota	2006/2012
<b>Lakes</b>	<b>ID</b>	<b>Affect Use</b>	<b>Pollutant</b>	<b>Target start/ Completion</b>
Big Swan Lake	47-0038	Aquatic Life	Mercury FCA	2002/2015
Clear Lake	47-0095	Swimming	Excess Nutrients	2008/2013
Dunns Lake	47-0082	Swimming	Excess Nutrients	2008/2013
Dunns Lake	47-0082	Aquatic Life	Mercury FCA	2002/2015
Hope Lake	47-0183	Swimming	Excess Nutrients	2019/2022
Lake Arvilla	47-0023	Aquatic Life	Mercury FCA	2002/2015
Lake Betsy	47-0042	Swimming	Excess Nutrients	2008/2012
Lake Francis	47-0002	Aquatic Life	Mercury FCA	2002/2015
Lake Jennie	47-0015	Aquatic Life	Mercury FCA	2002/2015
Lake Minnie-Belle	47-0119	Aquatic Life	Mercury FCA	2002/2015
Lake Washington	47-0046	Aquatic Life	Mercury FCA	2002/2015
Long Lake	47-0026	Aquatic Life	Mercury FCA	2002/2015
Long Lake	47-0177	Swimming	Excess Nutrients	2019/2022
Richardson Lake	47-0088	Aquatic Life	Mercury FCA	2002/2015
Richardson Lake	47-0088	Swimming	Excess Nutrients	2008/2013
Spring Lake	47-0032	Aquatic Life	Mercury FCA	2002/2015

## Wetlands

The term wetland refers to a low depression in the landscape, covered with shallow and sometimes intermittent water. Wetlands are also commonly referred to as marshes, swamps, potholes, sloughs, shallow lakes, and ponds. Some have surface water only in the springtime during thaws or after rainstorms, while others may form permanent shallow lakes that rarely dry up. Wetlands are classified according to their depth of water, total area, and seasonal life span.

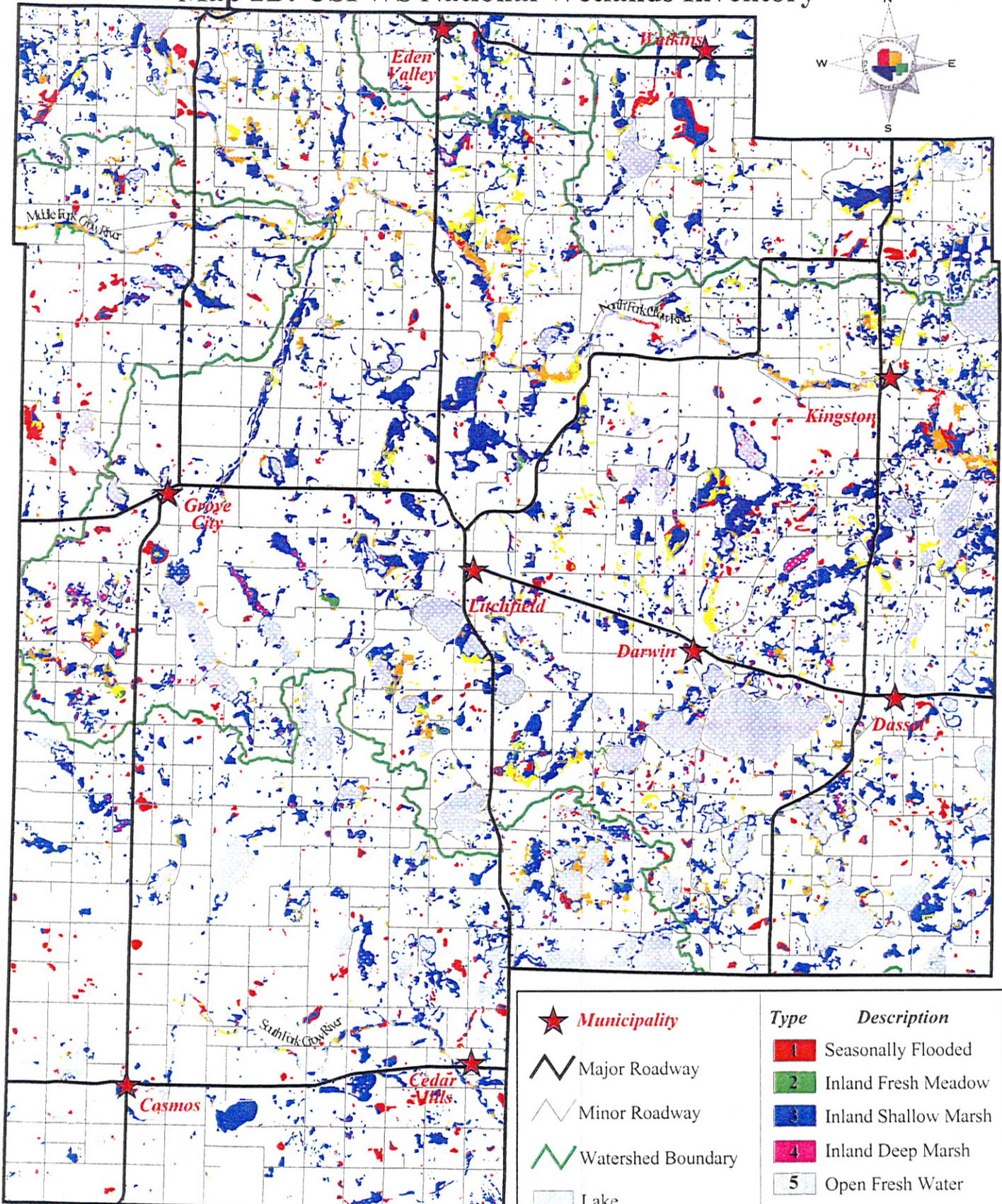
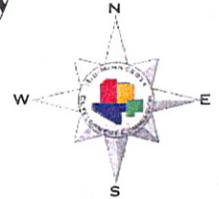
Originally, wetlands were located nearly throughout the entire County. With the advent of intensive agriculture practices and the application of land drainage techniques, many of the wetlands located on lands that were flat and suited to agricultural use have been drained. Because of this, there are now relatively few wetlands in the flat till plain areas of the County. Most of the remaining wetlands are found in the moraine areas of the County where the wetlands have either been preserved or where drainage is not economically feasible.

Most of the County's remaining wetlands were identified in the United States Fish and Wildlife Service (USFWS) National Wetlands Inventory. This Inventory classifies all wetlands into eight different wetland types. A description of each of the USFWS wetland types is provided below.

- Type 1 Seasonally Flooded Basin or Flat:** soil that is covered with water or is waterlogged during variable seasonal periods, but usually is well drained during much of the growing season.
- Type 2 Wet Meadow:** soil that is usually without standing water for most of the growing season, but is waterlogged within a few inches of the surface.
- Type 3 Shallow Marsh:** soil that is usually waterlogged early in the growing season, often covered with as much as six or more inches of water.
- Type 4 Deep Marsh:** soil that is usually covered with six inches to three feet or more of water during the growing season.
- Type 5 Shallow Open Water (Lake):** shallow ponds and reservoirs are included in this type. Water is usually less than ten feet deep.
- Type 6 Shrub Swamps:** soil that is waterlogged during the growing season and is often covered by as much as six inches of water.
- Type 7 Wooded Swamps:** soil that is usually waterlogged at least within a few inches of the surface and is covered with as much as one foot of water.
- Type 8 Bogs:** soil that is usually waterlogged and supports a spongy covering. They normally occur in shallow basins, on flat uplands, and along sluggish streams.

Wetlands, which are regulated and protected under Minnesota Law include, and are limited to, all Type 3, 4, and 5 wetlands that have not been designated as "protected waters." Any work done below the ordinary high water mark of protected waters and wetlands requires a permit from the Department of Natural Resources. National Wetlands Inventory maps are available through the Meeker County Planning and Zoning Office (refer to Map 2B).

# Map 2B: USFWS National Wetlands Inventory



		Type	Description
★	Municipality	1	Seasonally Flooded
—	Major Roadway	2	Inland Fresh Meadow
—	Minor Roadway	3	Inland Shallow Marsh
—	Watershed Boundary	4	Inland Deep Marsh
□	Lake	5	Open Fresh Water
—	River	6	Shrub Swamp
		7	Wooded Swamp

## **Wellhead Protection**

Wellhead protection, which is administered by the Minnesota Department of Health (MDH), is a means of safeguarding public water supply wells by preventing contaminants from entering the area that contributes water to the well or wellfield over a period of time. A public water supply is defined as a system that provides piped, drinking water for human use to 15 or more service connections or to 25 or more persons for at least 60 days a year. The wellhead protection area is determined by using geologic criteria, such as the physical characteristics of the aquifer and the effects which pumping has on the rate and direction of groundwater movement. A management plan is developed for the wellhead protection area that includes inventorying potential sources of groundwater contamination, monitoring for the presence of specific contaminants, and managing existing and proposed land and water uses that pose a threat to groundwater quality.

The long-term goal of the MDH is to implement wellhead protection measures for all public water supply wells. However, due to the large number of public water supply wells (13,000), the diversity of geologic conditions in Minnesota, and current resource constraints, wellhead protection will be implemented in phases. The MDH began implementing wellhead protection measures in 1996, beginning with new community wells. Existing community wells and other types of public water supply wells will be phased in between June 1998 and June 2003. All public water suppliers will be required to:

1. Maintain the isolation distances from potential contamination sources defined in the State Well Code;
2. Monitor noncomplying sources located on their property; and
3. Report to MDH other violations to the isolation distance, or ask a local governmental unit to regulate these sources.

In addition to maintaining the isolation distances, owners of community and nontransient noncommunity wells, when either notified by MDH or when a new well is added to a municipal water supply system, must develop a wellhead protection plan which includes:

1. A map of the wellhead protection area,
2. A vulnerability assessment of the well and the wellhead protection area,
3. An inventory of potential sources of contamination within the wellhead protection area,
4. A plan to manage and monitor existing or proposed potential source(s) of contamination, and
5. A water supply contingency strategy.

Table 2B displays the Status of Wellhead Protection in Meeker County. To date, the City of Litchfield, as well as the First District Association and Towmaster Trailers, participate in the MDH Wellhead Protection Program. The City of Eden Valley is expected to be conducting a wellhead protection plan in the near future. The remaining water suppliers within the County will be phased in based on priority, which is identified by their MDH assigned State ranking.

Through the State ranking system, the lower the ranking assigned to a community, the higher the priority for the community to participate in the Wellhead Protection Program.

**Table 2B:  
Status of Wellhead Protection**

<b>Water Supplier</b>	<b>Rank</b>	<b>Status</b>
City of Litchfield	NA	Currently in the MDH Wellhead Protection Program
First District Association	NA	Currently in the MDH Wellhead Protection Program
Towmaster Trailers	NA	Currently in the MDH Wellhead Protection Program
City of Eden Valley	NA	*Expected to conduct wellhead protection plan
City of Dassel	489	Expected to be phased in based on ranking
City of Watkins	500	Expected to be phased in based on ranking
City of Cosmos	515	Expected to be phased in based on ranking
City of Darwin	541	Expected to be phased in based on ranking
Johnson Brothers, Inc.	628	Expected to be phased in based on ranking
Grove City	1022	Expected to be phased in based on ranking
St. John's Lutheran School	1226	Expected to be phased in based on ranking
Sparboe Summit Farms	1343	Expected to be phased in based on ranking

\* *Due to new well construction*

## Soils

Soils develop from the breakdown of rock minerals and from plant and animal remains that are intermixed with them. The changing of rock into soil is an extremely long process, acting over thousands of years. This process has formed the County's soils from deposits originally left by the glaciers. As an agricultural County, soils are one of its most valuable resources.

Meeker County has a wide variety of soil types due to the wide variety of glacial material from which they were formed. In addition, the County's varying landforms (i.e., till plains, out-wash plains, moraines, etc.) all contribute to a wide variety of soil characteristics. Also important in the formation of the County's soils are climate, vegetation, and topography. In general terms, the County contains four broad soil groups. These four groups are further broken down into 18 soil associations for the region. Table 2C lists the soil groups and the 18 major soil associations. Map 2D shows the locations of these soil associations.

The Natural Resource Conservation Service (NRCS) is currently working on a soil survey for Meeker County. When finished, the survey will provide a guide for locating soil types throughout the County. Descriptions of each soil type as well as major characteristics of those soils will be provided along with the completed soil survey.

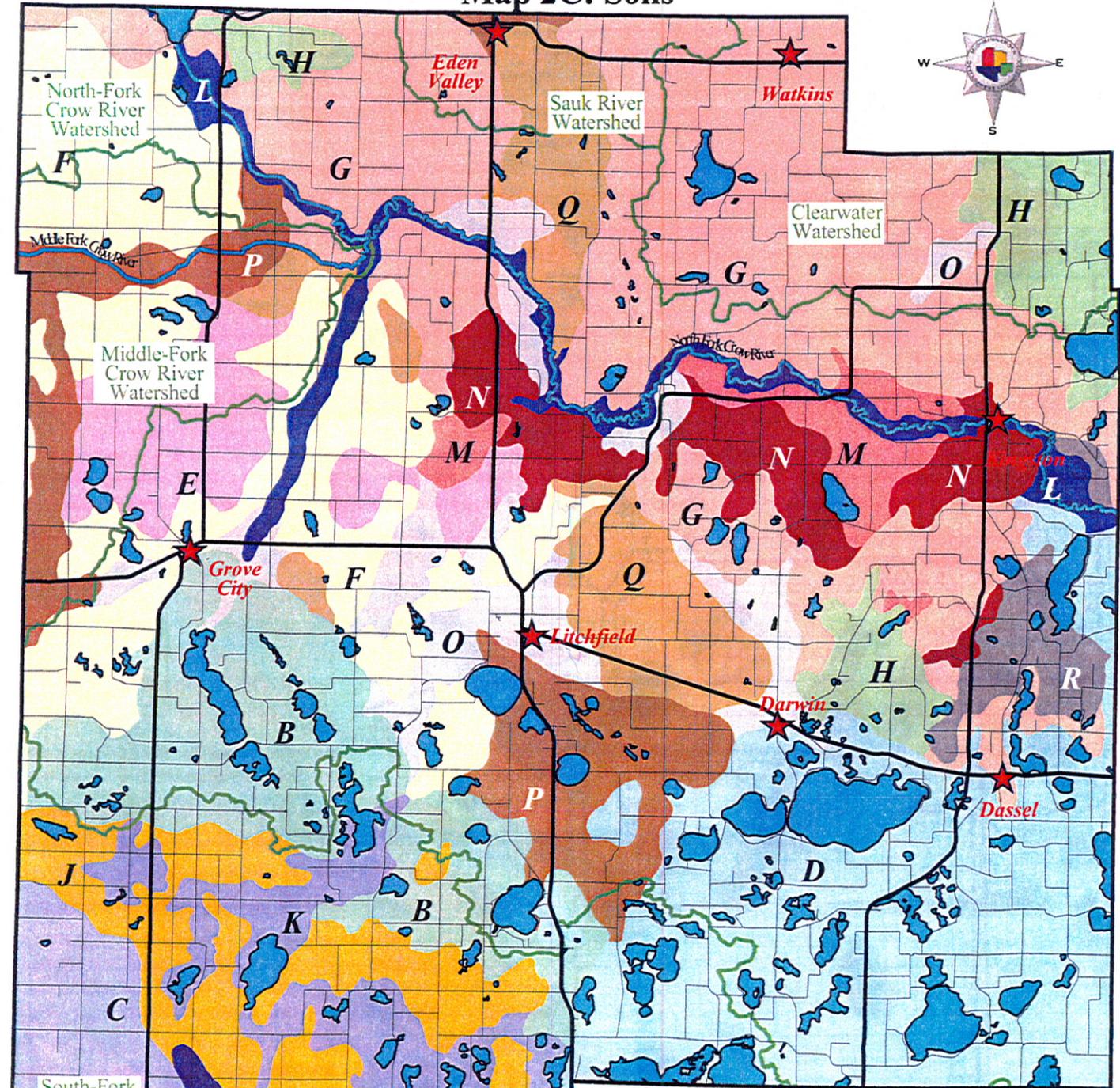
**Table 2C:  
Meeker County Soils**

- I. Nearly level to steep loamy and clay soils formed in glacial till on uplands.
  - A. Canisteo – Okoboji – Nicollet
  - B. Clarion – Hamel – Storden
  - C. Harps – Hamel – Storden
  - D. Cokato – Storden – Muskego
  - E. Swede Grove – Grove City – Manannah
  - F. Wadenill – Swede Grove – Muskego
  - G. Koronis – Forest City – Houghton
  - H. Koronis – Houghton – Forest City
  - I. Cosmos – Kandiyohi – Corvuso
  - J. Cosmos – Strout – Kandiyohi
  - K. Danielson – New London – Strout
  
- II. Nearly level to gently sloping, clayey and silty soils in lake basins.
  - A. Collinwood – Waldorf – Shorewood
  - B. Madelia – Truman – Kingston
  
- III. Nearly level to rolling loamy and sandy and organic soils on outwash plains, stream terraces
  - A. Sparta – Darfur – Litchfield
  - B. Kanaranzi – Esterville – Biscay
  - C. Fieldon – Litchfield – Darfur
  - D. Hawick – Esterville
  
- IV. Soils on floodplains and stream terraces.
  - A. Cohoctah – Muskego – Esterville

**Presettlement Vegetation**

The Minnesota Department of Natural Resources (DNR) has inventoried the original vegetation of Meeker County through its Presettlement Vegetation Database. Presettlement vegetation was determined by analyzing the detailed maps and records of early surveyors (circa 1895). The purpose of the database is to “analyze presettlement vegetation patterns for the purpose of determining natural community potential, productivity indexes, and patterns of natural disturbance.” Map 2D presents the presettlement vegetation of Meeker County. Before settlement, Meeker County was predominately covered with upland prairie and prairie wetland vegetation; however, large stands of hardwood trees were commonly found throughout the northern and eastern parts of the County.

# Map 2C: Soils



Nearly Level to Steep Loamy and Clayey Soils Formed in Glacial Till on Uplands

- A Association 1
- B Association 2
- C Association 3
- D Association 4
- E Association 5
- F Association 6
- G Association 7
- H Association 8
- I Association 9
- J Association 10
- K Association 11

Soils On Floodplains and Stream Terraces.

- L Association 18

Nearly Level to Gently Sloping, Clayey and Silty Soils in Lake Basins

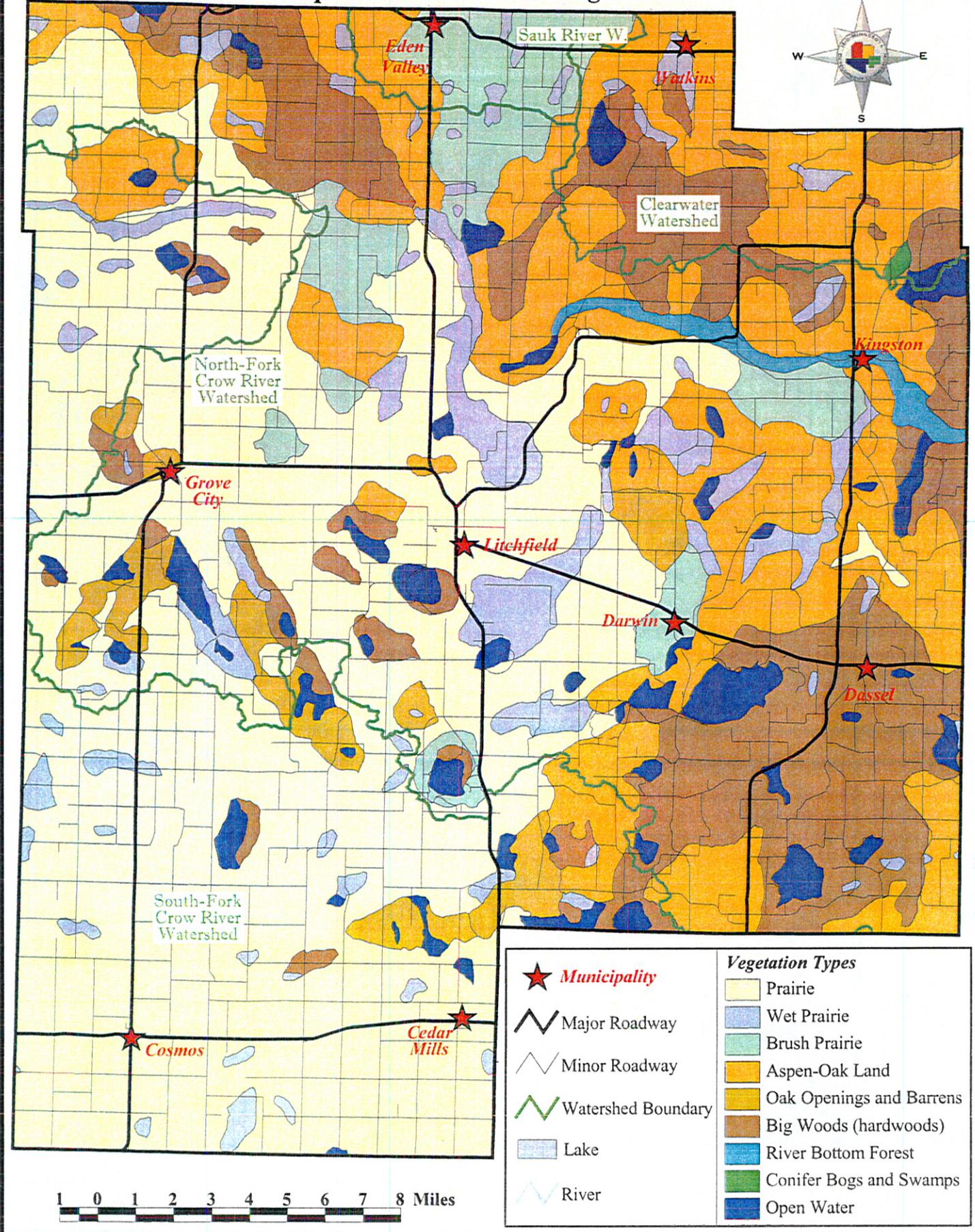
- M Association 12
- N Association 13

Nearly Level to Rolling Loamy and Sandy and Organic Soils on Outwash Plains, Stream Terraces.

- O Association 14
- P Association 15
- Q Association 16
- R Association 17

- Lakes
- ~ Rivers
- ★ Cities
- Major Roads
- Minor Roads
- Watershed

# Map 2D: Presettlement Vegetation



## **Chapter Three: Meeker County's Current Land Use**

It is imperative to understand Meeker County's current land use patterns before decisions should be made regarding the County's future land use. This Chapter examines Meeker County's current zoning districts; housing, parks, and recreational areas; and transportation land uses. In addition, a County-wide Zoning Map and Parks and Recreational Areas Map are included in the Chapter.

### **Meeker County's Current Zoning**

Meeker County's zoning districts are intended to provide for the most appropriate uses of land, while promoting orderly growth and development. Zoning districts shape current land use patterns by permitting certain uses and requiring conditions be met prior to altering the landscape. Meeker County's zoning districts directly impact and guide the current land uses illustrated on the township maps in Chapter Five. Meeker County has seven basic zoning districts and four overlay districts that regulate land use (see Map 3A). The following provides a brief description of the intent of each zoning district in Meeker County.

#### **ARTICLE 11 - A-1 AGRICULTURAL PRESERVATION DISTRICT**

**INTENT.** The intent of the A-1 Agricultural Preservation District is to provide a district whose primary purpose is to (1) maintain, conserve, and enhance agricultural land which has historically been tilled, (2) protect the land from unnecessary urban encroachment and control scattered non-farm development, (3) protect and preserve natural resource areas and retain major areas of natural ground cover for conservation purposes, (4) stabilize increases in public expenditures for public services such as roads, road maintenance, snow removal, schools, police, and fire protection.

#### **ARTICLE 13 - R-1 SUBURBAN RESIDENTIAL DISTRICT**

**INTENT.** The intent of the R-1 Suburban Residential District is to provide a district with the primary purpose of (1) allowing low density residential development as an orderly expansion of existing urban residential development where urban services can be readily extended and provided, (2) encourage low density residential development in existing unincorporated communities, and (3) provide a district that will allow low density residential development and on-lot utilities in natural environment areas and which will retain the environmental quality of the natural area.

## **ARTICLE 14 - R-2 RURAL RESIDENTIAL DISTRICT**

**INTENT.** The intent of the R-2 Rural Residential District is to provide a district with the primary purpose of (1) allowing large lot residential development and on-lot utilities where urban services cannot be economically extended, and (2) accommodate low-density residential development in areas not conducive to or not being utilized for intensive agricultural purposes.

## **ARTICLE 15 - C-1 COMMERCIAL DISTRICT**

**INTENT.** The intent of the C-1 Commercial District is to provide a district with the primary purpose of (1) accommodating certain commercial activities not compatible with the predominantly retail uses of the urban areas and (2) grouping together those uses which require accessibility to roadways to function successfully at standards which will not impair the traffic-carrying capabilities of those roadways.

## **ARTICLE 16 - C-2 NEIGHBORHOOD COMMERCIAL DISTRICT**

**INTENT.** The intent of the C-2 Neighborhood Commercial District is to provide a district with the primary purpose of (1) allowing retail, service, and general commercial uses in the existing small unincorporated urban communities in the county and (2) satisfy those basic shopping and service needs which occur daily or frequently within the community.

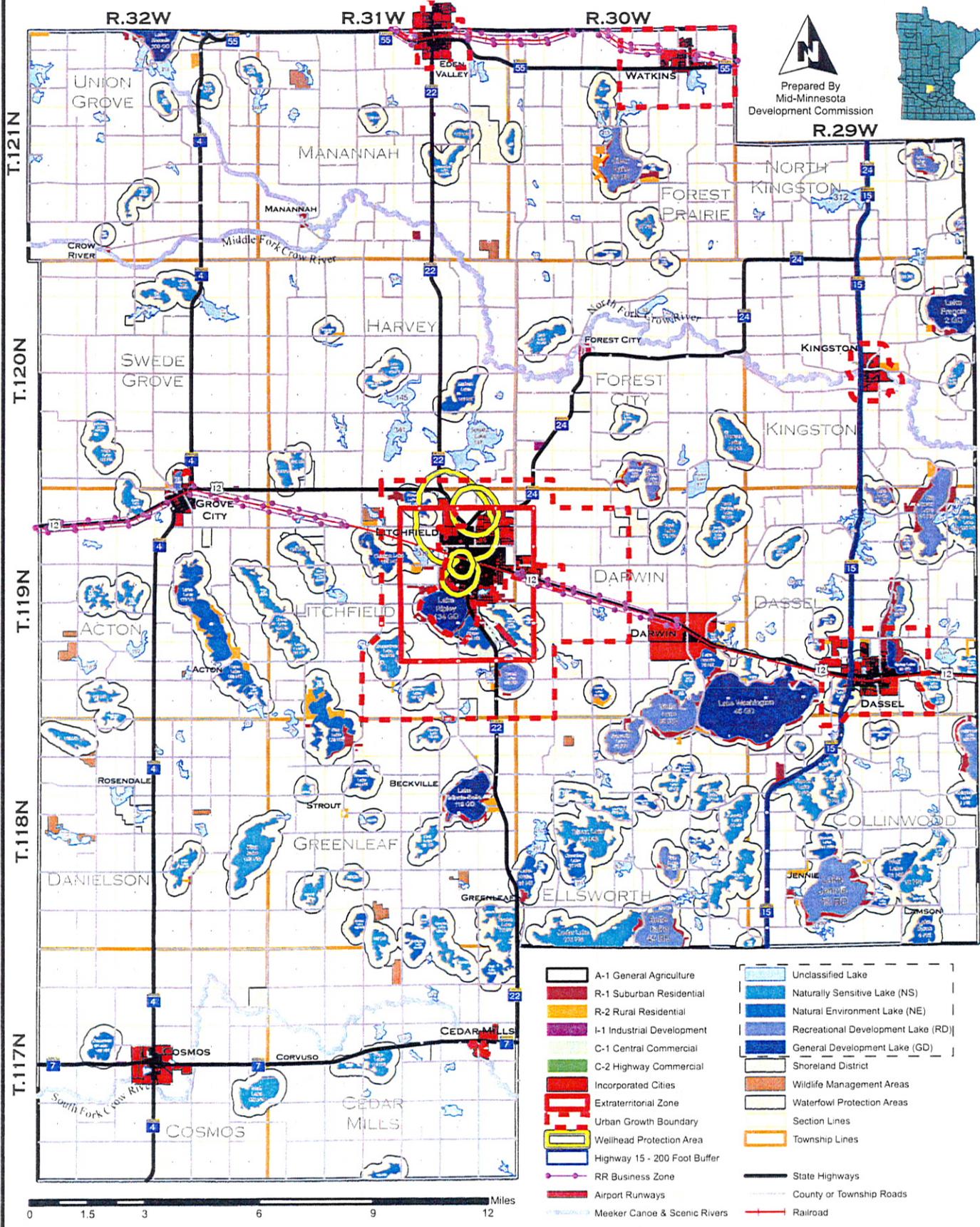
## **ARTICLE 17 - I-1 GENERAL INDUSTRY DISTRICT**

**INTENT.** The intent of the I-1 General Industry District is to provide a district whose primary purpose is to (1) allow limited industrial development adjacent to existing urban areas or on major transportation routes, (2) encourage development that is compatible with surrounding or abutting districts, (3) encourage development in areas where adequate public utilities and transportation facilities are available, and (4) provide for development standards that will not impair the value and enjoyment of surrounding land uses because of air pollution, noise, vibrations, odors, glare, fire, and explosion hazards, etc.

## **ARTICLE 18 - UE-O URBAN EXPANSION MANAGEMENT OVERLAY DISTRICT**

**INTENT.** The intent of the UE-O Urban Expansion Management Overlay District is to provide a district with the primary purpose of (1) conserving, for a period of time, land for agricultural and other open space land uses, (2) allowing limited urban growth adjacent to incorporated communities which will not adversely disrupt future development patterns and the provision of services, (3) deferring that development where it is not economically feasible to extend the necessary urban services, (4) preventing unplanned leap-frog development inconsistent with the County and/or affected communities' future land use plans, and (5) providing a process whereby an orderly transition from rural to urban uses can be achieved in a manner mutually beneficial to the County and the City.

# MAP 3A: ZONING MAP



**Shoreland Management Overlay District (SM-O)**

The uncontrolled use of shoreland areas in Meeker County affects the public’s health, safety, and general welfare, not only by contributing to the pollution of public waters, but also by impairing the local tax base. Therefore, it is in the public’s best interest to provide for the wise subdivision, use, and development of shorelands of public waters. The Legislature of Minnesota has delegated responsibility to local governments of the State to regulate the subdivision, use, and development of the shorelands of public waters, and thus preserve and enhance the quality of surface waters, conserve the economic and natural environmental values of shorelands, and provide for the wise use of waters and related land resources. This responsibility is hereby recognized and assumed by Meeker County. Lot area and width standards depend on the lake or river’s classification, if the lots are sewered or unsewered, if the lots are riparian or nonriparian, and the number of units in the dwelling.

**Recreation River Management Overlay District (RR-O)**

The intent of the RR-O Recreation River Management Overlay District is to provide a district with the primary purpose of preserving and protecting the North Fork Crow River and its adjacent lands, which possess outstanding scenic, recreational, natural, historical, scientific, and similar values. This shall be accomplished by controlling bluffland and riverland development in a manner consistent with MN Statutes, Sections 103F.301-103F.345, MN Rules, parts 6105.0100-6105.0250, and the Management Plan for the North Fork of the Crow River in MN Rules, parts 6105.1000-6105.1130. Every lot or tract in an RR-O District must contain an area not less than that area necessary to meet the lot area requirements of the basic zoning district. Lots abutting the North Fork Crow River must not be less than two acres above the ordinary high water mark.

**Clearwater River Watershed Management Overlay District (CR-O)**

The intent of the CR-O Clearwater River Watershed Management Overlay District is to denote a district with the primary purpose of (1) recognizing that the Clearwater River Watershed District’s Board of Managers have certain powers and authority to regulate certain activities related to the water resources of the District, (2) coordinating the requirements of the County’s Zoning Ordinance with the requirements of the adopted rules and regulations of the Clearwater River Watershed District and (3) expediting permit procedures as required by this Ordinance with those procedures required by the Clearwater River Watershed District. All uses allowed as permitted uses in the applicable basic zoning districts are permitted in the CR-O Districts. A permit from the Watershed District Managers is required for some work done in the CR-O District.

## Housing

Based on the population projections in Chapter One, Meeker County is expected to experience steady population growth for the next 20 years. With the County's sound economic base and centralized location to the large employment centers of St. Cloud, Hutchinson, Willmar, and the Twin Cities Metropolitan Area, housing availability will continue to be one of the County's most important planning issues. The County's rural landscape offers many natural settings that attract residential development. In keeping up with the demand for housing, it will be important for the County to focus its residential land use efforts on a wide variety of housing stock for all income and age groups. Furthermore, the location of additional housing needs to be re-evaluated on a regular basis. This could be partially accomplished by conducting housing studies.

### Existing Housing

The 2000 U.S. Census was the last official count of housing in Meeker County. The Census reported 9,821 total housing units, including all single-family houses, mobile homes, rental units, and vacant dwellings. The 1990 Census reported 9,139 total housing units in Meeker County. As a result, the growth in total housing units in Meeker County from 1990 to 2000 was 682 dwellings, representing a 7.5 percent increase. Figure 3A compares the total number of housing units for all Meeker County townships and cities and Meeker County as a whole from 1990 to 2000.

**Difference Between Housing Units and Households**

The U.S. Census reports statistics for both total housing units and households. Housing units are the total number of livable dwellings that are available. Households refer to the total number of occupied housing units.

**Figure 3A:  
Total Housing Units Comparison for Meeker County Townships,  
Cities and Meeker County from 1990 to 2000 (U.S. Census)**

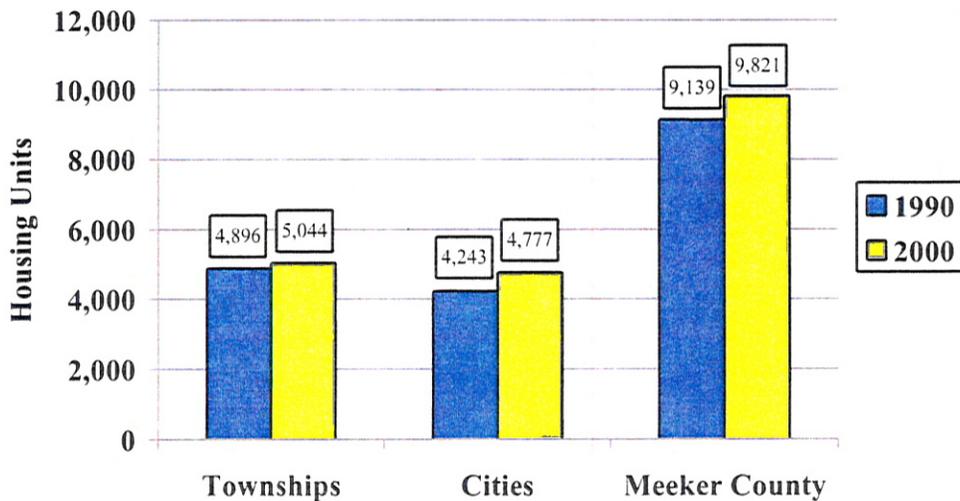


Figure 3A illustrates that more housing units were located in Meeker County townships than municipalities in both 1990 and 2000. The number of housing units in all Meeker County townships grew by 148 (3.0 %) from 1990 to 2000. In comparison, the total number of housing units for all Meeker County cities grew by 534 units (12.6 %). One factor contributing to the higher level of housing units in the townships is the County's many lakes, wetlands, and wooded areas that offer attractive locations to build homes. Future growth in these areas will ultimately reach a point that most of Meeker County's natural environmental areas will have residential developments, unless the County collaboratively prevents this from occurring.

Table 3A provides housing characteristics for Meeker County and the State of Minnesota based on the 2000 Census. In 2000, 87 percent of the total housing units in Meeker County were occupied, leaving 13 percent vacant. In comparison, 92 percent of housing units statewide were occupied, with the remaining 8 percent unoccupied. Of those occupied units in Meeker County, nearly 82 percent were owner occupied. This was substantially higher than Minnesota's average of 75 percent owner occupied. In addition, single-family housing made up 81 percent of the total housing stock in Meeker County, compared with only 73 percent throughout the State. The higher percentages for Meeker County in these two categories is likely due to the significant number of housing units available in Meeker County's townships (see Figure 3A).

**Table 3A:  
2000 Housing Characteristics for  
Meeker County and Minnesota (2000 U.S. Census)**

Characteristic	Meeker County	Minnesota
<b>Occupancy</b>		
<b>Occupied Units</b>	8,590	1,895,127
<b>Vacant Units</b>	1,231	170,819
<b>Occupancy Status</b>		
<b>Owner Occupied Units</b>	7,018	1,412,865
<b>Renter Occupied Units</b>	1,572	482,262
<b>Type of Unit</b>		
<b>Single-Family Units</b>	7,984	1,507,378
<b>Duplex</b>	222	62,137
<b>3 or More Units</b>	807	397,537
<b>Mobile Homes</b>	787	93,618
<b>Other</b>	21	5,276

Figures 3B and 3C show the breakdown of housing construction by decade for Meeker County. As the Figures illustrate, a large portion of Meeker County's housing was built before 1940 (29 percent of total housing units) and during the 1970s (18 percent of total housing units). Housing units constructed during the 1990s represented 13 percent of those in Meeker County.

**Figures 3B & 3C:  
Meeker County Housing Unit Construction  
by Decade (2000 U. S. Census)**

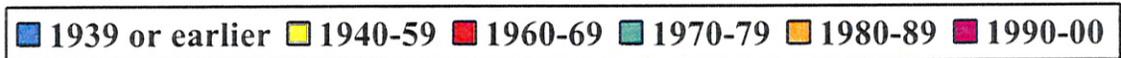
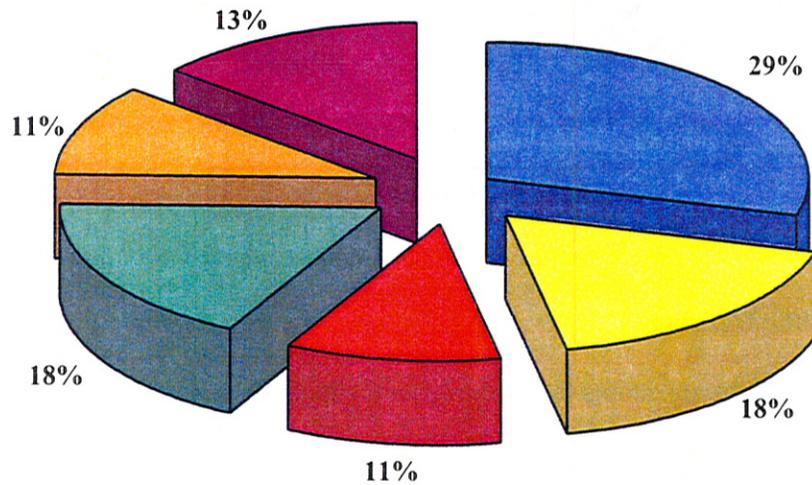
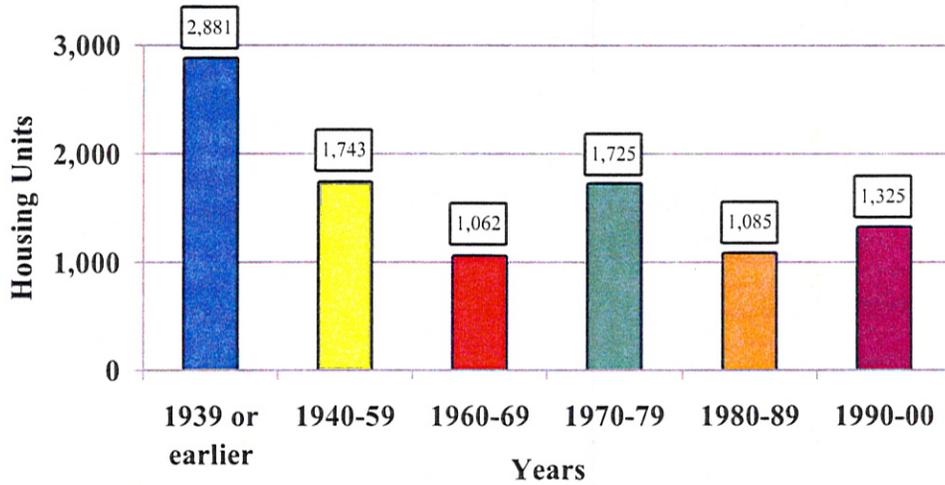
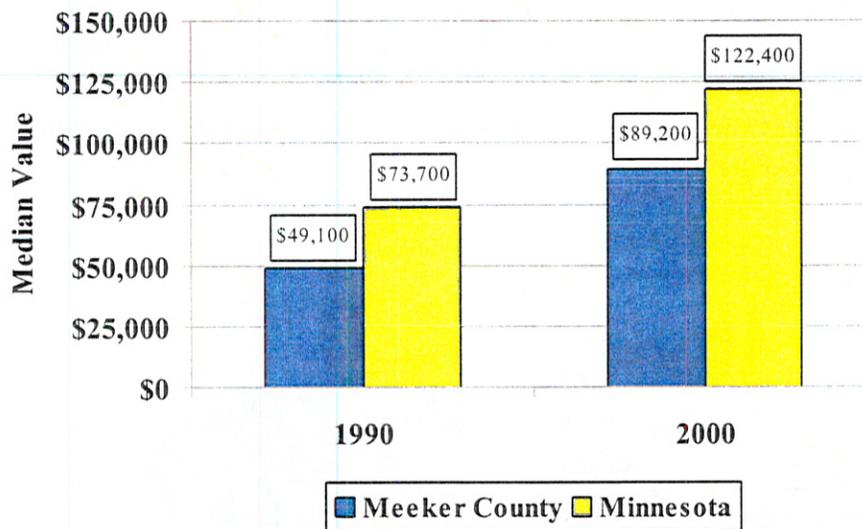


Figure 3D shows the median housing value for owner occupied housing in Meeker County and for the State. The median value of housing in Meeker County increased from 1990 to 2000 by 50 percent, while the median value for housing in Minnesota increased by 37 percent. The 2000 median value of housing units in the County was 60 percent of the State's median value, up from 55 percent in 1990.

There are several factors that contributed to the County's above average gain in median housing value. The two primary factors are the County's centralized location to many employment centers (St. Cloud, Willmar, Hutchinson, and Twin Cities Metropolitan Area) and the County's vast natural features (lakes, rivers, wooded areas, etc.). These factors create a greater demand for housing and, therefore, increase the amount that people are willing to pay for housing.

**Figure 3D:  
Meeker County Median Housing  
Values in 1990 & 2000 (U.S. Census)**



### Meeker County Public Housing

Meeker County has three organizations that provide public housing opportunities to citizens. These organizations are the Meeker County Housing and Redevelopment Authority (HRA), the Meeker County Development Corporation, and the Heartland Community Action Agency. Each of these organizations is briefly described in the following text.

The *Meeker County HRA* is a public body that provides low-income housing opportunities in the County. As of April 2000, the Meeker County HRA owned 25 public housing units in the County. Seventeen of the units are made up of an apartment facility in Dassel that houses predominately senior citizens. The remaining eight units are two and three bedroom houses

located in Cosmos (four dwellings) and Grove City (four dwellings). All of the HRA units are rented to individuals and families who meet low-income housing standards.

The *Meeker County Development Corporation* is a countywide economic development organization that maintains 28 housing units in the County (8 units in Watkins, 4 units in Cosmos, and 16 units in Litchfield). All of the units are single-story, four-plex apartment buildings. Each unit is 1,100 to 1,300 square feet in size, with two or three bedrooms and an attached garage. Unlike the HRA housing, these units are fair market rental units that are available to individuals and families of any income level. Monthly rent for these units is as follows:

- \$530 per month in Cosmos
- \$540 per month in Watkins
- \$550 per month in Litchfield for a two bedroom unit
- \$595 per month in Litchfield for a three bedroom unit
- \$38 per month in Litchfield for the rent of an additional garage
- All utilities are paid by the renter

The Meeker County Development Corporation finances the four-plex apartments with bonds. The bond payments are then paid with the rents that are collected.

The *Heartland Community Action Agency* is a private, non-profit corporation governed by a Board of Directors and serves Kandiyohi, Meeker, McLeod, and Renville Counties. The Agency administers housing programs for heating fuel assistance, housing counseling, Minnesota Housing Finance Agency loans, and rental assistance. The rental assistance program helps low-income families rent decent housing at prices they can afford. A family can expect to pay 30 percent of their gross monthly income for rent. The portion of the rent not paid by the family is paid by the rental program as a direct payment to the landlord. As of April 2000, 80 to 90 housing units in Meeker County were occupied by families receiving rental assistance. Funding for the program comes from Federal housing vouchers and eligibility for rental assistance is based on family size and yearly gross income.

## Meeker County Parks

Meeker County currently has nine County parks. Map 3B shows the location of these parks, along with some of the County's other recreational areas. The following provides a description of each park.

**Clear Lake Park** – is located three miles south of Watkins on County Road 2. It includes a picnic area, swimming beach, hiking trails, picnic shelter, bathrooms, and water. The park is 34.4 acres in size.

**Spring Lake Park** – is located one mile north of Dassel, just east of County Road 4. The park includes picnic shelters, playground equipment, water, a basketball court, a softball field, and bathrooms. There are boat landings on Spring Lake and Long Lake, and there is a fishing dock on Long Lake. The park is 13 acres in size.

**Shaw Memorial Park** – is located in Forest City, along the Crow River, near the Old Mill dam site. The park has picnic shelters, water, bathrooms, playground equipment, a softball field, a basketball court, and an ice skating rink during the winter.

**Thompson Park** – is located one mile west of Cosmos on Lake Thompson. The park includes picnic shelters, playground equipment, water, bathrooms, a fishing dock, a ball field, and a sand volleyball court. The park is 22 acres in size.

**Koronis Regional Park** – is located on the southwest shore of Lake Koronis. The park has bathrooms with showers and overnight camping with electricity. Other features include: playground equipment, a swimming beach, a boat landing, several picnic shelters, a lookout tower, two ball fields, a volleyball court, a shuffleboard court, a horseshoe court, a basketball court, marked hiking trails, and two shelters with kitchen facilities. There is a caretaker on-site to make shelter reservations and camping arrangements. The park is 62 acres in size.

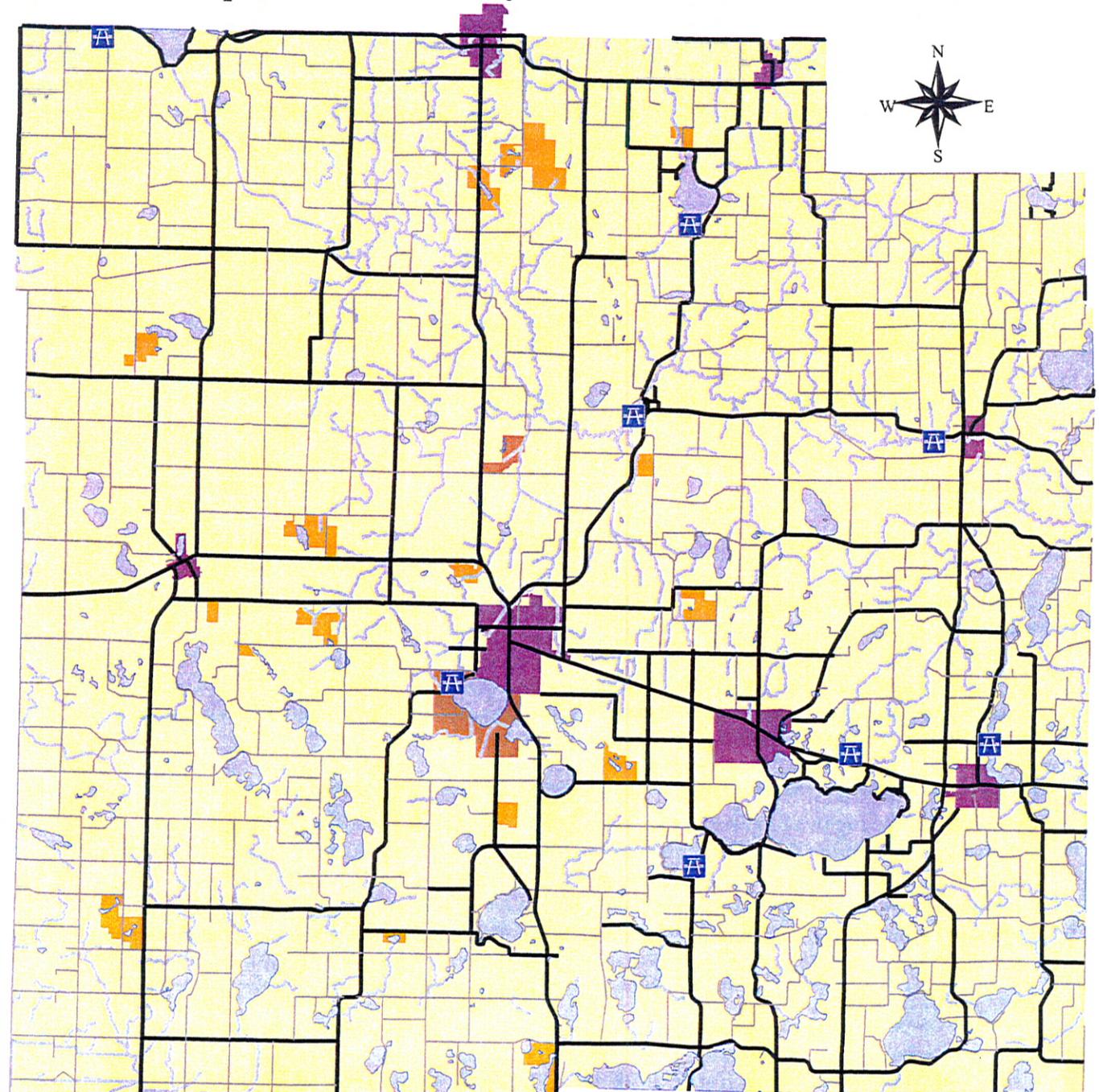
**West Ripley Park** – is located on the west shore of Lake Ripley, on the south side of Litchfield. The park has a large picnic shelter, a boat landing, playground equipment, two sand volleyball courts, horseshoe courts, a fishing pier, a water pump, bathrooms, a bike path, and a boat landing.

**Lake Manuella Park** – is located five miles south of Highway 12 on County Road 9 on the east side of Lake Manuella. The park boasts an excellent swimming beach, as well as picnic facilities, bathrooms, and a changing house. The park is 2 acres in size.

**Finish Memorial Park** – is located just west of Kingston on County Road 27, along the Crow River. The park has a tennis court, playground equipment, water, bathrooms, a canoe landing, and a shelter. The park is 17 acres in size.

**Darwin-Dassel Park** – is located two and one-half miles west of Dassel on Highway 12. At 160 acres, this park is Meeker County's largest. The park contains a sledding hill that provides a beautiful lookout over the area. The park also features two and one-half miles of trails for hiking, cross-country skiing, and horseback riding. Along with bathrooms, the park has shelters and picnic tables on the hill and the southern area of the park.

# Map 3B: Meeker County Parks & Recreational Areas



**Legend**

- County Parks
- Lakes
- Cities
- Unpaved Roads
- Paved Roads
- Luce Line Recreational Trail
- Rivers, Streams & Ditches
- Wildlife Management Areas
- Waterfowl Protection Areas



**Woodland Park** – is located approximately four miles north of Dassel on Highway 15. Most of this 80-acre park is wooded with rolling terrain and two deep ponds. It has two miles of trails for hiking and horseback riding.

## **Transportation**

The purpose of any transportation system is to move goods and people efficiently. An efficient and balanced transportation system includes highways, railroads, mass transit, and aeronautics. While the most influential mode of transportation is the automobile, the other types of transportation play an important role in the overall transportation system.

### **Highways**

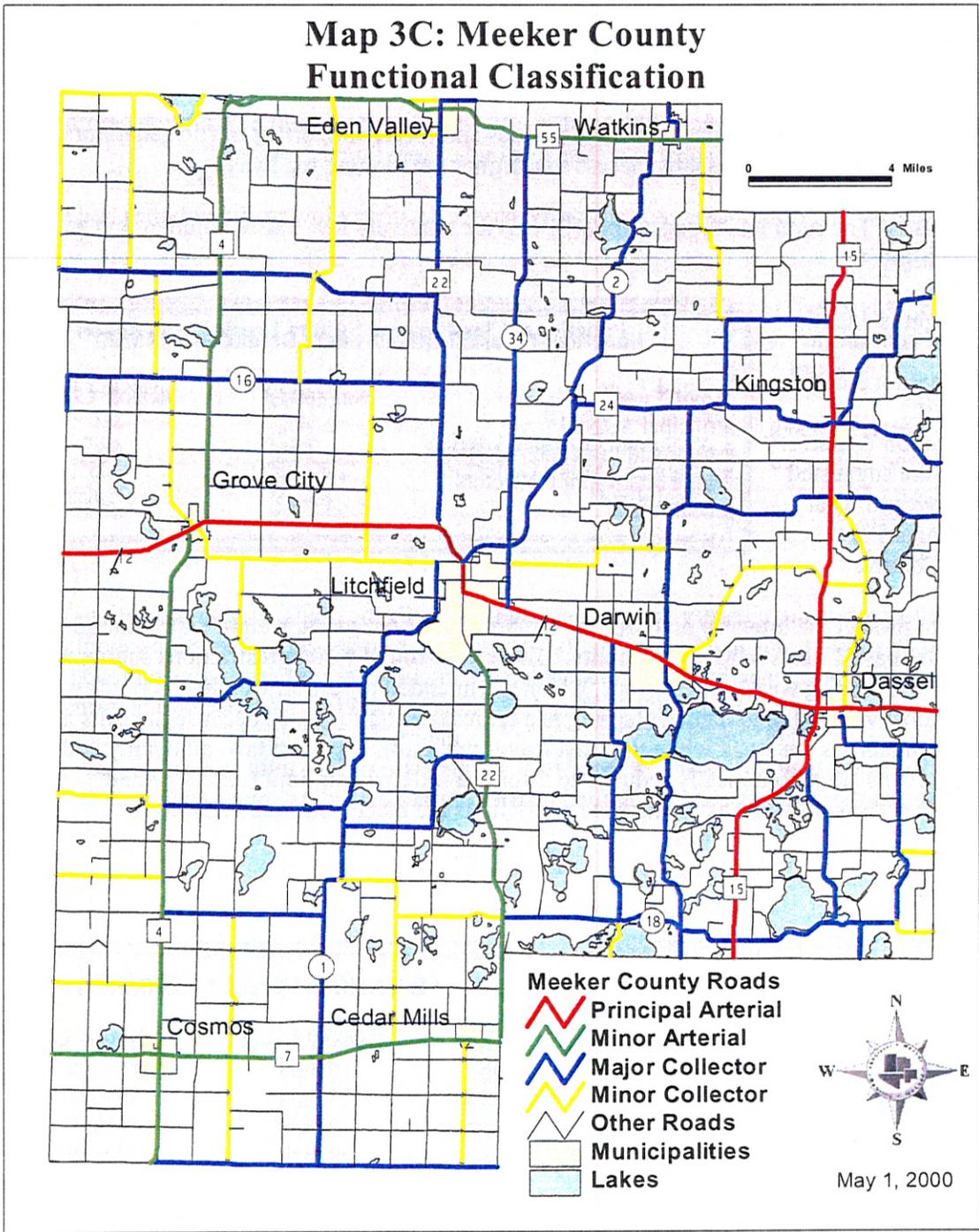
The current highway network in Meeker County has been built in response to an ever-increasing public demand for improved travel mobility. The local units of government and MnDOT are all responsible for assuring that the total highway system operates properly and the roads owned by the different levels of government are integrated into the overall highway system. Meeker County is well served by an extensive roadway network, which connects the County with the rest of the region and Minnesota. State, county, city, and township roadways all are included in the roadway network. It is the primary means of transportation for goods and persons within the County and to points outside.

The Functional Classification System is a method used to describe the main function each road performs in the highway network. It is essentially a hierarchy of roads using criteria that describes the function that a particular road performs in a highway network (typically access and mobility). There is a general agreement among the public that the responsibility for the most important roads should be assigned to the highest level of government. In this fashion, the greatest resources for road maintenance and construction are devoted to the most heavily traveled roads. It follows that less traveled roads become the responsibility of lower levels of government. Map 3C shows the Functional Classification of roads in Meeker County. These roads are defined as:

**Principal Arterial-** These highways provide an integrated network of routes that carry the highest traffic volumes, serve the longest trip movements, and provide for statewide or interstate travel. They serve all major urbanized areas and population centers. Principal arterial routes provide for through movement with minimum interference.

**Minor Arterial-** These highways link cities, larger towns, and other major traffic generators, such as major resort areas, to each other and to principal arterial routes. They form an integrated network that provide for movements within the State and between counties.

### Map 3C: Meeker County Functional Classification



**Major Collectors-** These routes provide service to the County Seat and larger cities not served by the higher systems. They predominately serve trips within the County and link locally important traffic generators with their service areas and other nearby larger cities with higher order routes.

**Minor Collectors-** These routes link smaller cities and locally important traffic generators and provide developed areas reasonable access to a higher functioning roadway.

**Local Roads-** The rural local roads primarily service relatively low traffic volumes and short distance trips.

To the right is a text box that contains a breakdown for Rural Functional Classification Systems. Listed is the suggested breakdown and what actually exists in Meeker County.

<b>Functional Classification System Breakdown (Rural)</b>		
<b>Road Type</b>	<b>Suggested</b>	<b>Meeker County</b>
Principal Arterial	2- 4%	4%
Minor and Principal Arterials	6-12%	9%
Major and Minor Collectors	20-25%	25%
Local Roads	65-75%	66%

In order to protect the integrity and prolong the lifespan of the roads, weight restrictions are imposed on paved roads in Meeker County. These year-round weight restrictions should not be confused with spring weight restrictions, which are intended to restrict weights on roads when they are most vulnerable to damage (spring is a critical period for roads because the soils and aggregate materials are weak while the frost leaves the road). By State law, all county and township roads are automatically reduced to 5-ton per-axle weight limit (unless posted otherwise) at the same time as spring road restrictions are placed on state highways.

### **Railroads**

There are two active rail lines in Meeker County. The Canadian Pacific/Soo (CP/Soo) Line operates a class four rail line on the northern edge of the County, running on the northern side of State Highway 55 through the communities of Eden Valley and Watkins. The CP/Soo rail line owns approximately 1,100 miles of line, or about 23 percent of the total rail mileage in the State. The other rail line in Meeker County is operated by Burlington Northern/Santa Fe (BNSF). It is a class four rail line along U.S. Highway 12, through the communities of Grove City, Litchfield, Darwin, and Dassel. BNSF owns approximately 1,900 miles of rail line within Minnesota, which is almost 40 percent of the total mileage in the State.

<b>FRA Railroad Track Classification</b>		
<b>Class</b>	<b>Freight Speed</b>	<b>Passenger Speed</b>
One	10 mph	15 mph
Two	25 mph	30 mph
Three	40 mph	60 mph
Four	60 mph	80 mph

The efficiency of a railroad is affected by the physical condition of the railroad lines. The Federal Railroad Administration's (FRA) track classification is based upon the physical characteristics of the roadbed, track geometry, and track structure. There are four different track classifications with maximum freight and passenger speeds. Characteristics related to the roadbed include drainage and vegetation. Track geometry includes gauge, alignment, elevation, and surface. Track structure involves ballast, ties, rail, spikes, joints, and switches. These characteristics determine the allowable operating speeds on a rail line.

The weight restriction of a particular line has a great effect upon the movement of grain traveling through the County. The most efficient means for rail shipment of grain is by 100-ton hopper cars. Such cars have a gross weight of 263,000 pounds. Without access to a rail with strength to handle these hopper cars, a shipper must choose between small rail cars or truck transportation. Both the CP/Soo and BNSF rail lines are designated to handle over 263,000 pounds, sufficient for the 100-ton hopper cars. As a result, the CP/Soo and BNSF rail lines both bear over 10,000,000 gross tons of freight annually.

MnDOT's Office of Freight, Rail, and Waterways has identified both the rail lines in Meeker County as primary rail lines. Primary rail lines make national and international connections between producers and markets and ensure protection of the current and future broad economic interests of the State.

A key element in rail transportation is the availability and capacity of elevators, especially considering the importance of grain movement in Minnesota. There are four grain elevators with access to rail lines in Meeker County that are licensed to buy and/or sell grain. Considering the importance of the rail lines and how much they handle in freight shipments, the elevator's role in the rail network is significant. To the right is a text box listing the four grain elevators that are adjacent to rail lines in the County.

<b>Location</b>	<b>Storage/Capacity</b>	<b>RR Cars</b>
Darwin	198,000 Bu	4
Eden Valley	103,000 Bu	-
Grove City	213,000 Bu	14
Litchfield	553,000 Bu	54

**Mass Transit**

Mass transit is considered to be an essential public service. Mass transit provides for increased capacity on heavily traveled roads, provides transportation access to the handicapped or those otherwise unable to drive, supports dense land use development, decreases dependence on car use, and helps to prevent the creation of additional air pollution from diminished individual car use.

Meeker County has one mass transit provider, the Meeker County Public Transit (MCPT). MCPT started serving the public in August of 1995. It started with one bus, but after one year a second bus was added. The buses run from 8 a.m. to 5 p.m., Monday through Friday. The transit program continues to grow with an expected ridership of over 24,000 passenger trips.

## **Airports**

The only airport in Meeker County is the Litchfield Municipal Airport. It is classified by the MnDOT Office of Aeronautics as an Intermediate System, having a paved and lighted runway less than 5,000 feet, capable of accommodating all single-engine and most twin-engine aircraft, as well as some light jet aircraft. The Federal Aviation Administration classifies the airport as a basic utility airfield, which can accommodate 95 percent of the general aviation fleet operating at under 12,500 pounds gross weight. While the Litchfield Municipal Airport does not offer regular commercial passenger service, the Office of Aeronautics projects that the airport will have about 6,700 general aviation passengers originating from or connecting to the airport in the year 2000. The County and the City of Litchfield need to limit development in areas adjacent to the airport by preventing encroachment of incompatible land uses and maintaining runway protection zones.

## **Maintenance of the Transportation Network**

The transportation network in Meeker County represents a huge investment of taxpayer dollars and is essential in supporting many aspects of Meeker County's economy. If some of the elements of this network are neglected or poorly managed, substantial re-investment may be needed to restore capacity and performance. Listed below are some common planning practices that, when used, can promote efficiency and prolong the effective life of the entire transportation system.

### **Access Management**

Access management is an effort to maintain the effective flow of traffic on all roads while accommodating the access needs of adjacent land development. Essentially, it is a tool that limits the number, spacing, and design of accesses along highways. Access management, when used properly and consistently, can provide for safer roadways, more efficient movement of traffic, improve cost-effectiveness and coordinated and managed growth along major roadways. Unfortunately, there are no commonly accepted and consistently applied guidelines for managing accesses. Existing access management practices and definitions of appropriate access levels vary throughout the state. However, MnDOT is in the process of developing access spacing guidelines; the County should consider adopting these access spacing guidelines when they are finished.

### **Road Weight Restrictions**

Due to the cost of constructing and maintaining a 9- or 10-ton road, few roads in Meeker County are built to that capacity. The majority of the paved roads in the County are built to handle 5- or 7-ton per-axle vehicles. However, it is not uncommon for a new development to be built in a rural area adjacent to a road that is not sufficient to handle heavy commercial traffic, with the end result being the developer asking that the road be upgraded at County expense. The result of this is that finite government resources are being used on roads that normally would not merit the upgrade. Therefore, the County should create an ordinance that prohibits development that requires a 9- or 10-ton roadway from locating in areas not currently served by a 9- or 10-ton roadway, unless that development is willing to pay for the expense of upgrading the necessary roads.