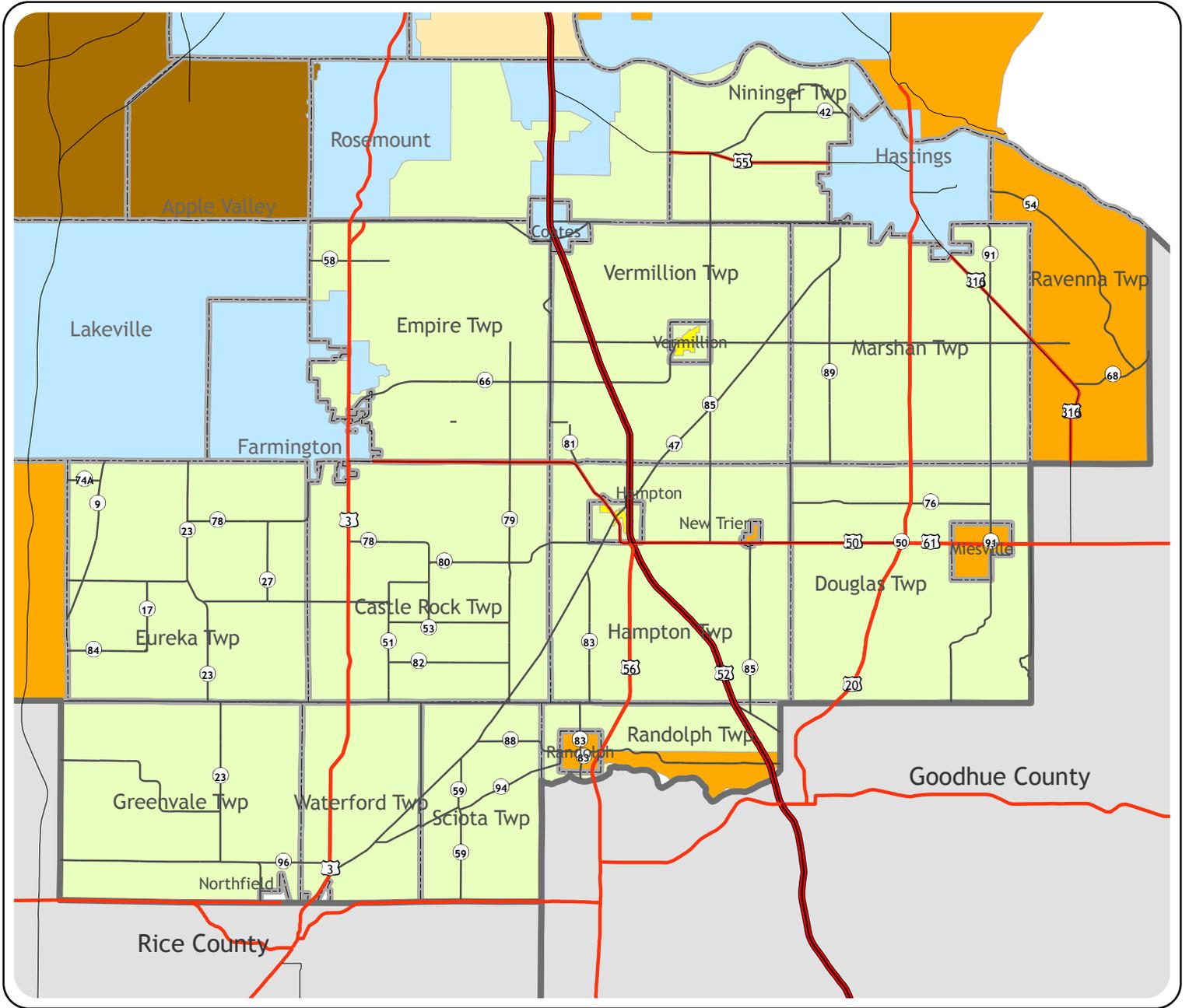
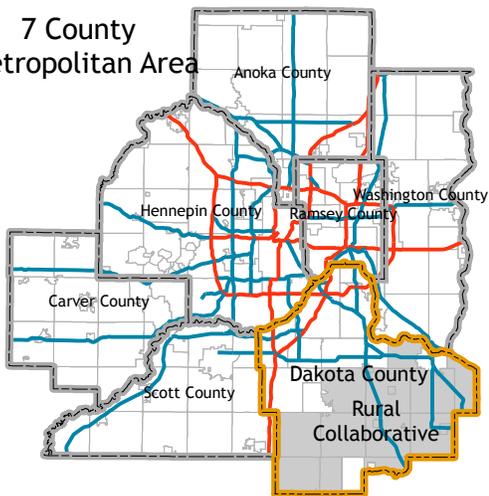


Dakota County Rural Collaborative Comprehensive Plan

July 2009



7 County Metropolitan Area



Metropolitan Council Geographic Planning Areas

- Agricultural Preservation Area
- Rural Residential
- Rural Center
- Diversified Rural
- Developing Area
- Developed Area

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I. INTRODUCTION

A. Context

Townships have had land use and zoning authority in Dakota County since the 1970s. The majority of rural city and township comprehensive plans in southern Dakota County were initially completed and adopted in the late 1970's or the early 1980's, having been prepared and approved as a requirement of the Metropolitan Land Planning Act of 1976. All cities and townships implement their own zoning and subdivision ordinances.

The Metropolitan Land Planning Act of 1995 required that a review of local plans be completed every ten years to ensure that local plans are consistent with the regional plans prepared by the Metropolitan Council. A collaborative of 13 townships and five rural cities prepared a joint comprehensive plan in 1999 to reflect the regional system plans of the Metropolitan Council's *Regional Blueprint*. The *Composite Comprehensive Plan Update for Eighteen Cities and Townships* was found by the Metropolitan Council to be consistent with the *Regional Blueprint* in March 2000.

B. Plan Update

The Metropolitan Council updated its regional plan, now the *Development Framework*, and issued "Systems Statements" to all jurisdictions in the seven-county metropolitan area in 2005. The systems statements identify changes in metropolitan system plans and basic planning issues that must be addressed in local plans. By law, all communities and counties must update local land use plans by December 2008.

The Metropolitan Council provided planning grants to certain communities and counties to complete local plan updates. Dakota County received a grant on behalf of rural communities and issued a request for proposals in August 2007 for the update of the *Composite Comprehensive Plan Update for Eighteen Cities and Townships*. This Plan is the update of and replacement of the 2000 Composite Plan. The "Agricultural Land Identification Process" and "Natural Areas and Corridors Study" are included in this plan update without change from the 2000 Plan.

Twelve townships and four rural cities adopted joint resolutions in the Fall 2007 to participate in the joint planning process for the land use plan update and assistance in meeting local water management planning requirements. Participating jurisdictions include:

Castle Rock Township	Marshan Township
City of Coates	City of Miesville
Douglas Township	Nininger Township
Empire Township	Randolph Township
Eureka Township	Ravenna Township
Greenvale Township	Vermillion Township
City of Hampton	City of Vermillion
Hampton Township	Waterford Township

Several communities have stand-alone or individual plans that have been prepared in addition to and independent of the collaborative plan update. In some instances these more detailed plans have been required because of local public utility systems and other community planning issues. In other instances it is the preference of the community to have a local plan that reflects a separate process and identity in addition to the collaborative effort. The individual plans are the official plans of the communities that also participated in the collaborative plan update. Communities with separate local plan updates include:

City of Coates	City of Miesville
Empire Township	City of Vermillion
Eureka Township	Vermillion Township
City of Hampton	

After preparation of the final draft plan was complete, the City of Hampton declined to approve a resolution adopting the Rural Collaborative Plan, subject to Metropolitan Council review. The tables and final Collaborative land use data have been amended in this final draft plan to remove the City of Hampton data.

Components of this collaborative plan update include:

- ◆ Population, household, and employment trends
- ◆ Land use characteristics and agricultural land identification
- ◆ Natural Resource Protection
 - Surface water management
 1. Individual sewage treatment systems (ISTS) management
 2. Natural Areas and Corridors
 3. Aggregate Resources
- ◆ Future land use plan
- ◆ Parks and Trails/Farmland and Natural Areas Program
- ◆ Solar Protection and Historic Preservation
- ◆ Transportation plan
- ◆ Implementation

In addition to this Rural Collaborative Plan, communities without independent local plans will receive a Plan Addendum after Metropolitan Council review, which is a supplemental plan with mapping, demographics, forecasts, and land use data unique to each community. The Metropolitan Council found the Rural Collaborative Plan consistent with the Regional Development Framework on July 24, 2009.

II. BACKGROUND

A. Population, Households and Employment Trends

Table 1 identifies the population trends in the collaborative communities and Dakota County from 1970 to 2006. The rate of population growth has been modest on average and declining in some communities. Higher rates of growth occurred in communities with higher concentrations of rural residential land (Ravenna and Randolph) and in sewerred communities, such as Empire Township. The average annual rate of population growth was 1.79% in the rural collaborative compared to a 5.0% rate of growth in Dakota County as a whole. The collaborative communities represented 7.9% of the total county population in 1970, but declined to 4.19% of the total in 2006.

TABLE 1

1970-2006 Population Trends

	<u>1970</u>	<u>1980</u>	<u>1990</u>	<u>2000</u>	<u>2006</u>	<u>Annual %</u>
Castle Rock	1235	1340	1480	1495	1382	0.33
City of Coates	212	207	186	163	181	-0.41
Douglas	552	614	670	760	814	1.32
Empire	1136	1224	1340	1638	2247	2.72
Eureka	860	1268	1405	1490	1485	2.02
Greenvale	624	641	685	684	804	0.80
Hampton	595	848	866	986	966	1.73
Marshan	1186	1655	1215	1263	1325	0.33
City of Miesville	192	179	135	135	164	-0.56
Nininger	554	774	805	865	933	1.94
Randolph	267	385	448	536	639	3.87
Ravenna	550	1683	1926	2355	2429	9.49
Vermillion	779	1070	1201	1243	1315	1.91
City of Vermillion	359	438	501	437	451	0.71
Waterford	521	486	485	517	538	0.09
Subtotal	9622	12,812	13,348	14,015	15,673	1.79
Dakota County	139,808	194,279	275,186	355,904	391,613	5.00

Source: US Census; Metropolitan Council

Table 2 illustrates the household trends in the collaborative communities and Dakota County from 1970 to 2006. The household growth rates are similar to population rates; although, higher than population because households increased in all communities while household size declined during the same period. The average annual rate of household growth in the collaborative

communities was less than half the rate of the county as a whole; although, the rate of growth in Ravenna exceeded that of the county-wide average.

The total number of households in the collaborative communities doubled in the 36-year period, while the total number of households county-wide quadrupled. The collaborative communities accounted for 6.26% of the total county households in 1970 compared to 3.69% in 2006. The modest rate of household growth in the majority of communities is a direct result of the low density agricultural zoning enforced in the agricultural area.

TABLE 2

1970-2006 Household Trends

	<u>1970</u>	<u>1980</u>	<u>1990</u>	<u>2000</u>	<u>2006</u>	<u>Annual %</u>
Castle Rock	290	395	460	514	481	1.83
City of Coates	61	65	66	64	65	0.18
Douglas	122	164	192	235	253	2.98
Empire	271	360	426	515	755	4.96
Eureka	216	373	447	496	509	3.77
Greenvale	151	187	228	227	265	2.10
Hampton	126	223	260	320	324	4.37
Marshan	253	431	373	404	427	1.91
City of Miesville	43	49	47	52	53	0.65
Nininger	121	201	241	280	302	4.16
Randolph	69	118	158	192	232	6.56
Ravenna	120	433	546	734	767	14.98
Vermillion	171	281	354	395	423	4.09
City of Vermillion	81	123	157	160	164	2.85
Waterford	152	164	182	193	195	0.79
Subtotal	2247	3567	4137	4781	5215	3.68
Dakota County	37,560	64,087	98,293	131,151	147,824	8.16

Source: US Census; Metropolitan Council

Table 3 identifies the employment trends in the collaborative communities and Dakota County from 1970 to 2006. There are a number of “unsubstantiated” employment estimates in several communities and some questionable fluctuations and recent increases in other communities. Most communities do not believe recent employment increases or major fluctuations are accounted for. Employment has increased over the time frame; yet, comparisons are not possible because of the questionable estimates. The majority of the non-farm employment in the collaborative communities relates to trucking, construction services and trades, equipment sales and services, utility services, and hospitality.

TABLE 3**1970-2006 Employment Trends**

	<u>1970</u>	<u>1980</u>	<u>1990</u>	<u>2000</u>	<u>2006</u>
Castle Rock	40	50	100	200	387*
City of Coates	10	50	90	254*	84
Douglas	*	50	50	70	125
Empire	40	107	167	174	241
Eureka	*	50	50	80	182*
Greenvale	*	50	50	68	70
Hampton	10	50	50	88	94
Marshan	*	50	50	200	166
City of Miesville	20	50	50	121	115
Nininger	10	20	20	80*	46
Randolph	10	50	50	88	98
Ravenna	50	20	20	103*	56
Vermillion	*	50	50	60	376*
City of Vermillion	20	100	167	221	87*
Waterford	30	100	191	60*	684*
Dakota County	31,100	62,134	106,029	148,261	175,702

Source: Metropolitan Council; DEED; (* unsubstantiated/questionable)

B. Existing Land Use

Current land use in southern Dakota County is primarily agricultural land, either productive, tilled land or pasture land. This predominant land use, with scattered single family residences typically found on one to five acre lots, reflects local policies to preserve agricultural land. This is accomplished primarily through implementation of density standards that limit consumption of agricultural land for non-agricultural uses, while still allowing for the ability to provide opportunities for some residential growth in the rural area. Existing land use is illustrated in **Figure 1**.

The collaborative townships are primarily agricultural, with the exception of Empire and Ravenna. Approximately one-quarter of the land in Empire is consumed by the University of Minnesota, Wildlife Management Areas, Metropolitan Council wastewater treatment facility and Dakota County land. The majority of household growth in Empire is included in the Metropolitan Urban Service Area (MUSA). The majority of Ravenna is developed as rural residential and a large portion of the township is located in the Mississippi River bottoms and included in Wildlife Management Areas.

The city of Vermillion has a private wastewater treatment facility and urban levels of residential and commercial development; yet, two-thirds of Vermillion plan remain agricultural. The cities of Coates and Miesville have clusters of residential and commercial development on small

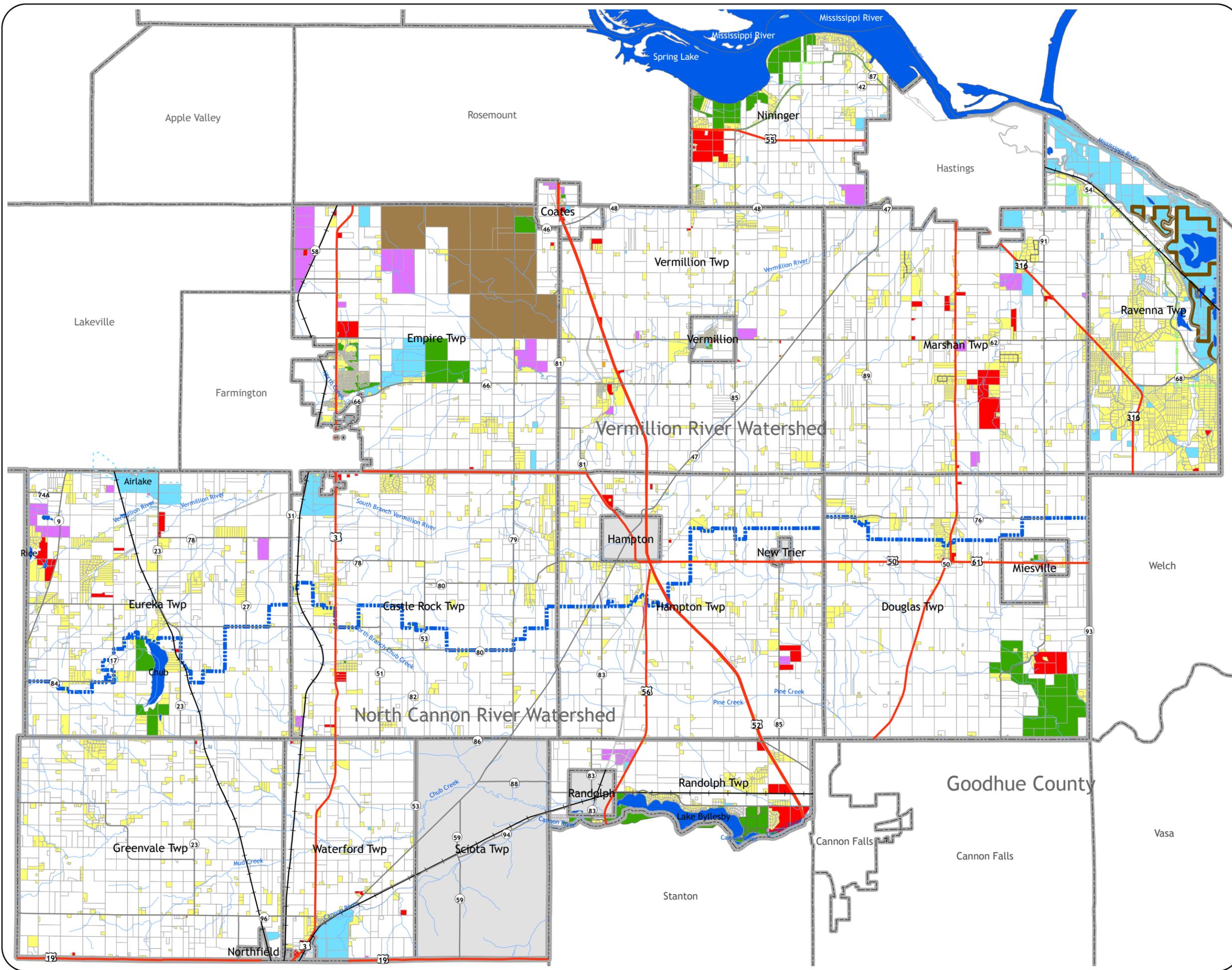
Dakota County, MN

Figure 1 2007 Existing Land Use

Land Use Category

-  Agriculture/Vacant
-  Single Family Residential
-  Multiple Family Residential
-  Industrial (includes mining)
-  Commercial (includes golf)
-  Public/Institutional
-  Public Park, Recreation and Open Space
-  UMORE (Univ. of MN)

-  Watershed Boundary
-  Lakes
-  MNRRRA Boundary
-  WMA Area
-  Streams



acreage at the traditional downtown or crossroads within each community. Both communities also have significant agricultural land (over 75%) within each city. **Table 4** summarizes land use acreages for the Rural Collaborative communities.

Residential development consists primarily of scattered rural residences on lots ranging from one to five acres in size. Some areas are platted with smaller lots and higher densities, but these are nonconforming developments, approved prior to 1980. As would be expected, there are few multiple family uses in the rural area, due to the lack of available public sewer and water.

Commercial and industrial development consists of a mix of uses, ranging from limited convenience retail, restaurants and taverns to agricultural services, implement sales and service, trucking, construction and trade services, mining and extraction, and private golf courses.

Public/institutional uses include town halls, city halls, fire departments, utilities, churches, private schools, the University of Minnesota, retreat centers, and wildlife management areas. Local parks are included in several communities. Three regional parks are found in southern Dakota County: Lake Byllesby Regional Park (Randolph Township), Miesville Ravine Park Reserve (Douglas Township), and Spring Lake Park Reserve (Nininger Township). Land for a new regional park has been acquired for development in Empire Township but is not illustrated.

Table 4
Existing Land Use

Land Use Category	Total Acres		Total Acres	
	Gross	Percentage	Net	Percentage
Agriculture/Vacant	171,824.68	79.7%	147,891.39	68.6%
Single Family Residential	18,775.68	8.7%	17,076.35	7.9%
Multiple Family Residential	36.48	0.0%	34.52	0.0%
Commercial (inc. mixed commercial/industrial)	2,223.43	1.0%	2,010.28	0.9%
Industrial	2,160.84	1.0%	1,890.64	0.9%
Park	3,443.95	1.6%	2,467.63	1.1%
Public/Institutional/Utility	5,847.89	2.7%	2,728.37	1.3%
UMORE (Empire Township)	4,528.48	2.1%	3,985.63	1.8%
ROW (inc. railroads)	2,394.84	1.1%	2,358.62	1.1%
Water	4,354.06	2.0%	4,354.06	2.0%
Wetland/Floodplain			30,792.84	14.2%
Total	215,590.33	100.0%	215,590.33	100.0%

C. Agricultural Land Identification (2000)

Local governing bodies in southern Dakota County continue to commit to a strong policy of preservation of agricultural land. Approximately 80% of the land in the collaborative plan is designated for long-term use at a density not to exceed one unit per 40 acres. Agricultural land is an important land use in southern Dakota County, and is considered to be a legitimate and permanent land use in those areas designated as such in the composite growth management plan. All local comprehensive plans address agricultural land through existing goals and policies that support actions to preserve the agricultural base and the rural character of the area.

In order to document and verify the viability of designating land for agricultural use, the joint planning process incorporated a process established by the Metropolitan Council that allows local governments to identify permanent agricultural land. The goals of the process, as established by the Metropolitan Council Task Force, are as follows:

- ◆ Identify and preserve land best suited for agricultural use, based upon land suitability criteria, economic viability, and growth management goals.
- ◆ Promote and maintain a diversity of agricultural production, including food, feed, forage, fiber, horticulture and oil seed crops.
- ◆ Maintain a critical mass of suitable agricultural land, regardless of ownership, to sustain agriculture, agri-business and agricultural support services.
- ◆ Discourage land speculation in agricultural areas by distinguishing land use designations for urban, rural and agricultural areas.
- ◆ Promote land use planning and growth management to prevent the premature conversion of high value agricultural land to non-farm uses.

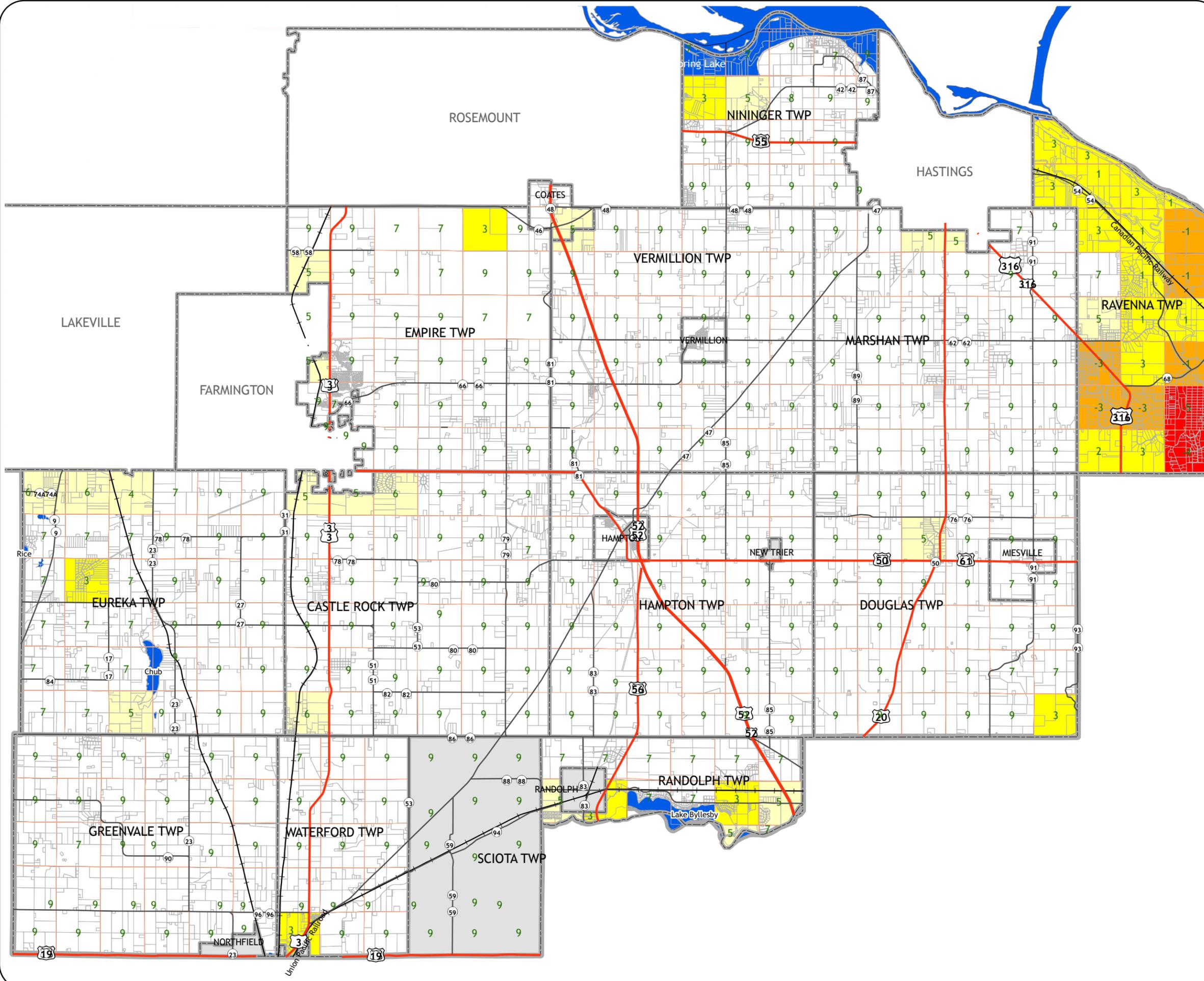
The identification process initially required that each section of land be assessed using criteria identified in the following table.

Site Assessment Criteria (Yes = +1; Not applicable or not available = 0; No = -1)	Value (+1, 0, -1)
a. Land suitable for agriculture (Land Evaluation results)	
b. Land in agricultural tax classification	
c. Land in current agricultural use	
d. Adjacent land in current agricultural use	
e. Land zoned agriculture (1:20 density or less dense)	
f. Land made up of parcels at least 20 acres in size.	
g. Land is outside Future Urban Area (1)	
h. Adjacent land zoned agriculture (1:20 density or less dense)	
i. Land designated agriculture by County	
j. Land designated agriculture by Metropolitan Council	
Total Site Assessment Score	
Site Assessment Value (+, 0 or -) (2,3)	
(1) Future Urban Area is land within an urban transition area, land within an orderly annexation area, land within the 2020 MUSA or land within the 2040 Urban Reserve.	
(2) Site Assessment Value will be positive, negative, or zero, based upon the above total. Simply note a +, 0, or -.	
(3) A Section with a Site Assessment Value of 0 or above would rank as candidate land for permanent agriculture.	

If at least 50% of the section met a criteria, it received a “+”; if it did not meet the 50% threshold, it received a “-“, if it was neutral or did not apply, it received a “0”. This was completed for every section of land in the southern part of Dakota County. The cumulative score results are illustrated on **Figure 2**. The higher the score, the stronger the case is for preserving land in that section for permanent agricultural use.

Dakota County, MN

Figure 2
Permanent Agricultural
Land Identification Process
(2000 Assessment)



Criteria Score

	7 to 9 (320)
	4 to 6 (20)
	0 to 3 (21)
	-3 to -1 (6)
	-5 to -4 (2)

(Possible scores range from -9 to 9.
Positive scores represent candidates
for preservation.)

9 Score



The agricultural land identification process (completed in 2000 and not updated in this Plan) indicates, the majority of the land should be targeted for agricultural preservation. Exceptions are Ravenna Township, which already has a number of areas that are developed at rural densities that are higher than those townships with soils and topography more suitable for long term agricultural use. Other areas indicated as less likely for long term agricultural protection are located on the fringes of incorporated cities (Hastings, Farmington, Northfield, Lakeville), or have other non-agricultural/urban uses located in the section, e.g. county parkland.

In summary, the identification process confirmed the townships' and cities' prior commitment to protect agricultural land. Due to the relatively minor changes in most communities since the 2000 Plan, the agricultural identification process remains valid within the Collaborative area as a whole and is consistent with the 2030 Land Use Plan for the jurisdictions.

D. NATURAL AREAS AND CORRIDORS STUDY (2000)

1. Introduction and Purpose

The *Natural Areas and Corridors Study* is a planning framework for the use, protection, preservation, and enhancement of natural resources in townships and cities in rural Dakota County. The purpose of this Element is to identify roles and responsibilities of townships and cities in addressing the identification and ongoing protection of natural areas and corridors.

“Natural resources” include undeveloped habitats, surface water and ground water resources, undeveloped open space, significant scenic and scientific areas, and, in some cases, agricultural land. “Natural areas” are areas of natural resources that are largely unaltered by modern human activity, where native vegetation is distributed in naturally occurring patterns. Rural communities in southern Dakota County have a strong history of commitment to protecting agricultural land and other natural resources in order to preserve the rural character of the area. This commitment is reflected in existing local comprehensive plans that were approved almost twenty years ago. As a result, a great majority of the land in southern Dakota County is still protected for agricultural use, where development cannot exceed one residence per 40 acres. This long-standing policy has provided an opportunity to further protect natural resources and the rural character of the area.

Providing for the protection of natural areas and corridors is directly related to the preservation of the rural character and economy of rural Dakota County. For example, the tools available to protect agricultural land are similar in many respects to those available to protect other natural resource areas. Currently, each community uses official controls to limit density of development in order to protect agricultural land. Other tools are also being investigated in various forums, including the possibility of using purchase of development rights (PDR), transfer of development rights (TDR) and conservation easements. These tools are also useful for protection of areas that are sensitive to development, such as wetlands, wooded areas, prairies and unique wildlife areas.

Apart from its intrinsic economic and habitat value, agricultural land can serve as a “buffer” for sensitive natural areas, as well as function as corridors that connect natural areas. An agricultural “buffer” may serve to protect small natural areas from the encroaching impacts of development.

Agricultural land also provides an opportunity for wildlife to travel between natural areas. For these reasons, the cities and townships in southern Dakota County feel it is important to include agricultural land in this discussion of natural areas and corridors.

Development and population growth may impact the remaining natural areas in the rural part of Dakota County. By 2030, the population in rural Dakota County is expected to increase by an estimated 6,000 people. If current land use trends continue, approximately 3000 acres of farmland and other natural areas are expected to become residential, commercial, or industrial uses. As the population grows and Dakota County continues to develop, more pressure will be put on natural resources, including farmland, in southern Dakota County.

While there are only a few federally-protected or threatened plants or animals in Dakota County, there are a greater number of plants and animals in the County that are classified by the State of Minnesota as “threatened” or of “special concern”. There are limited amounts of natural areas in the southern part of the County. Protected or threatened species are not restricted to these areas; rather, they are found throughout the southern part of the County. Opportunities for protection available for these species is declining as properties that are not under public ownership that have a unique scientific, cultural, or open space value are subject to future development.

Local units of government can protect natural resources with land use controls such as zoning, platting, and growth management. Efforts to protect these lands are often limited by lack of funding and development pressures; also, cities and townships can only implement land use controls within their boundaries. Generally, they have little influence to implement programs on a regional or watershed level.

2. Process

Development of the Natural Areas and Corridors Element relied upon input from residents and local officials throughout rural Dakota County. A preliminary identification of potential natural areas was completed during an initial workshop with residents, local officials, the Department of Natural Resources and other interested individuals. Based upon input from the workshop, a preliminary map identifying potential natural areas and corridors was developed. The workshop also resulted in the identification of some preliminary criteria to be used in identifying general categories of natural areas or resources that should be given consideration for protection. These included:

Type of Area/Resource	Criteria for Identification
Productive Farmland	Aesthetic Value
Farmland/Natural Area	Imminent to Develop
Unique Natural Area	Environment Sensitivity/Ecological Value
Significant Natural Community	Historic/Cultural Value
Recreation Corridor	Significance of Location
Open Space Corridor	
Wildlife Corridor	

Following is a description of each area or resource type that was identified by workshop participants for consideration to be protected:

Productive Farmland: A farm of 40 or more acres, in one ownership that has been devoted primarily and consistently to the production of farm crops or raising of farm animals.

Farmland/Natural Area: land in agricultural use that has not been largely disturbed by humans, including pastureland.

Unique Natural Area: land largely undisturbed by human activity where native vegetation is distributed in naturally occurring patterns.

Significant Natural Community: a place where a unique, threatened or endangered species of plants or animals live, including its surrounding environment.

Recreation Corridor: an area of continuous land or water that may be used for recreational purposes, including trails and other recreation-related routes, to provide a connection of natural areas, public open spaces or recreational areas.

Open Space Corridor: an area of continuous undeveloped open land or water designed for open space use and to connect natural areas.

Wildlife Corridor: an area of continuous native vegetation designed to promote connectivity of wildlife between isolated natural areas, or a series of patches of natural vegetation that may serve as “stepping stones” that promote connectivity and movement of wildlife between natural areas.

At a subsequent meeting with local officials and at a second citizen’s workshop, the preliminary criteria and potential natural areas and corridors were discussed. More specific information was obtained regarding the rationale for identifying natural areas and the tools that may be appropriate for use in protecting natural areas. The results of this final workshop included a map identifying potential natural areas and corridors for further study and consideration (**Figure 4**). General strategies were also developed as a result of input from the workshops and meetings with local officials. These include:

- Encourage individual landowners and businesses to protect the environment and natural resources through public education and voluntary programs.
- Identify and develop strategies to protect environmentally sensitive areas (such as ground water recharge areas, wellhead protection zones, rare or endangered natural communities, and prime agricultural land) from land use activities or practices that may be detrimental to long term environmental health of residents.
- Develop official controls, support programs, and incentives that support the protection of natural areas.
- Participate in joint natural resource preservation efforts with other cities and townships, Dakota County, non-profit organizations, state and federal agencies.

3. Native Vegetation

Natural areas are sites where native vegetation is distributed in naturally occurring patterns across the landscape. These patterns change over time under the influences of natural processes such as windstorms, drought, flooding cycles, and wildfires, as well as interactions between plants and wildlife that inhabit or periodically use sites. Although only a small percentage of the land in cities and townships in rural Dakota County remains in its natural state, these areas support much of the remaining native vegetation and high value wildlife habitat. **Figure 5** identifies specific natural community areas in southern Dakota County. The natural communities can be classified into five general categories: upland forests, deciduous woodlands/savannas, forested wetlands, prairies, and shrub and open wetlands.

Upland Forests: Upland forests consist of deciduous, mixed deciduous and coniferous vegetation. Upland forests prefer well-drained soils and consist primarily of oak, aspen, and maple-basswood vegetation. *Oak forests, both mesic and dry sub-type*, are predominant throughout the County and have attracted much development. The mesic subtype is often found on north to east-facing slopes and with a canopy dominated by one or two oak species. The dry subtype is found in outwash areas. *Maple-basswood forests* and *white pine-hardwood forests* are located in Douglas Township, including the Miesville Ravine area. *Mixed deciduous and coniferous forests* in southern Dakota County consist mostly of white pine, oaks, maples, and basswood. Although only relatively minor assemblages remain (approximately 50 acres remain in the entire county), these stands of white pine are unique natural communities found on steep slopes and ravines along the Mississippi River and in the bedrock outcrops and cliffs in the Miesville Ravine area.

Deciduous Woodlands/Savannas: *Deciduous woodlands* are scattered throughout south and central areas in the southern part of the County, and *oak savannas* exist primarily in Ravenna and Douglas Townships. Savannas are found on outwash, while deciduous woodlands are generally on south to west-facing slopes.

Forested Wetlands: Forested wetlands include *floodplain forests, hardwood swamp forests, and conifer swamp forests*. Floodplain forests consist mostly of silver maples, green ash, cottonwoods, willows, and numerous shrubs, and woody climbers. These types are found in abundance in the “bottoms” of the Mississippi and Vermillion Rivers in Ravenna Township. *Hardwood swamp forests* are quite rare in the County and are not found in the rural area. They consist of black ash, basswood, and green ash. There are no *conifer swamp forests* in the rural area of Dakota County.

Until recently, forested wetlands have remained relatively intact because they were largely undesirable areas to develop, consisted of plant species of little economic value, and had only marginal value as cropland. Although state-mandated wetland, shoreland and floodplain regulations help to mitigate impact to forested wetlands, they are becoming desirable places to live. Some shorelands and floodplains that may have been pastureland or natural areas twenty years ago have now been filled, developed, or turned into back yards. Forested wetlands have also been lost because of development and increase in the amount of impervious surfaces in upland areas. Storm water that used to infiltrate or collect in swales and depressions prior to development is now routed into nearby wetlands, streams, or other water bodies. Water levels

have increased steadily in many of these water bodies; killing many of the trees and other plant species unable to tolerate saturated conditions. Although the pressures of development are impacting forested wetlands, they represent much of the intact natural corridors that remain in southern Dakota County.

Prairies: Prairies and shrub lands were the dominant land-cover in Dakota County prior to beginning of settlement. Although small remnants of prairies exist in the southern part of Dakota County, most prairie land has been converted to cropland or pastureland. *Dry prairies* on outwash sand or on thin loess over bedrock in the eastern townships, primarily the “sand coulee” area in Marshan Township. Prairies on sand and gravel or on hilltops are also found in the eastern townships. *Mesic prairies*, located on glacial till, loess or terrace deposits are limited to very small areas in Empire, Vermillion and Douglas Townships.

Shrub and Open Wetlands: **Figure 3** shows the location of wetlands in the collaborative area as identified in the National Wetland Inventory database. These wetlands range from seasonally flooded ponds to large lakes, and vary from very high quality to having more limited value as a natural resource amenity. *Shrub swamps* are found in the Chub Lake area and parts of Empire Township in shallow basins or along lake or stream margins. *Emergent marsh* is limited to the river bottoms in Ravenna Township, with standing water much of the year. *Wet and seepage meadows*, consisting of open wetlands on mineral or organic soils, are found in significant numbers throughout the rural areas.

Modern human activities such as residential, commercial, and industrial development, agriculture, roads and dams have had major impacts on the natural areas that once occurred continuously across the landscape. As a result, vegetation in Dakota County ranges from pristine to somewhat degraded conditions, to highly altered. The fragmentation of these natural areas makes it more difficult for natural processes to continue to operate and their long-term viability is threatened. About one-half of the remaining natural areas in Dakota County are located on steep slopes, in parks and wildlife refuges, or in other areas not likely to be developed. Many of the remaining areas will likely be developed within the next 10-20 years if no actions are taken. While the County’s few remaining natural areas should have the highest priority for protection, moderately degraded natural areas can also be improved with proper management, and should also be protected when possible.

Highly disturbed natural areas, such as those located in cities or developed rural settings, may not have the ecological value as the more pristine natural areas, but may nevertheless be greatly valued by the community and may be enhanced through management and restoration efforts. The value a city or township places on these areas is related to the community’s desire to protect open space, provide buffers from different land uses, or to screen undesirable views. These natural areas may also be preserved because of their aesthetic qualities, cultural importance, and economic benefits.

4. Wildlife and Habitat

Over the years, much of the native prairie has been tilled for cropland, forests have been harvested for their timber, and wetlands have been filled or drained to provide for cropland, pastureland, or housing. Wildlife, which at one time played an important role in the County’s

early economy and provided a stable source of food, is found in significantly reduced numbers. In the few cases where wildlife has adapted to human activities, many people feel that this wildlife has become a nuisance when they damage crops and property. This often occurs when there is pressure on remaining natural areas. Loss and fragmentation of habitat, pollution, and other impacts from human activity have reduced the diversity of wildlife in rural Dakota County and, if current development patterns continue, will continue to affect wildlife populations.

4. Endangered or Threatened Plants and Animals

Currently, there are 39 plant species and 30 animal species on the State endangered and threatened plant and animal species list. *State endangered* plants and animals include species threatened with extinction throughout all or a significant portion of its range. *State threatened* plants and animals are species likely to become endangered within the foreseeable future throughout all or a significant portion of its range. *State special concern* are species, although not endangered or threatened, that are extremely uncommon in Minnesota or have unique or highly specific habitat requirements that deserves careful monitoring of its status.

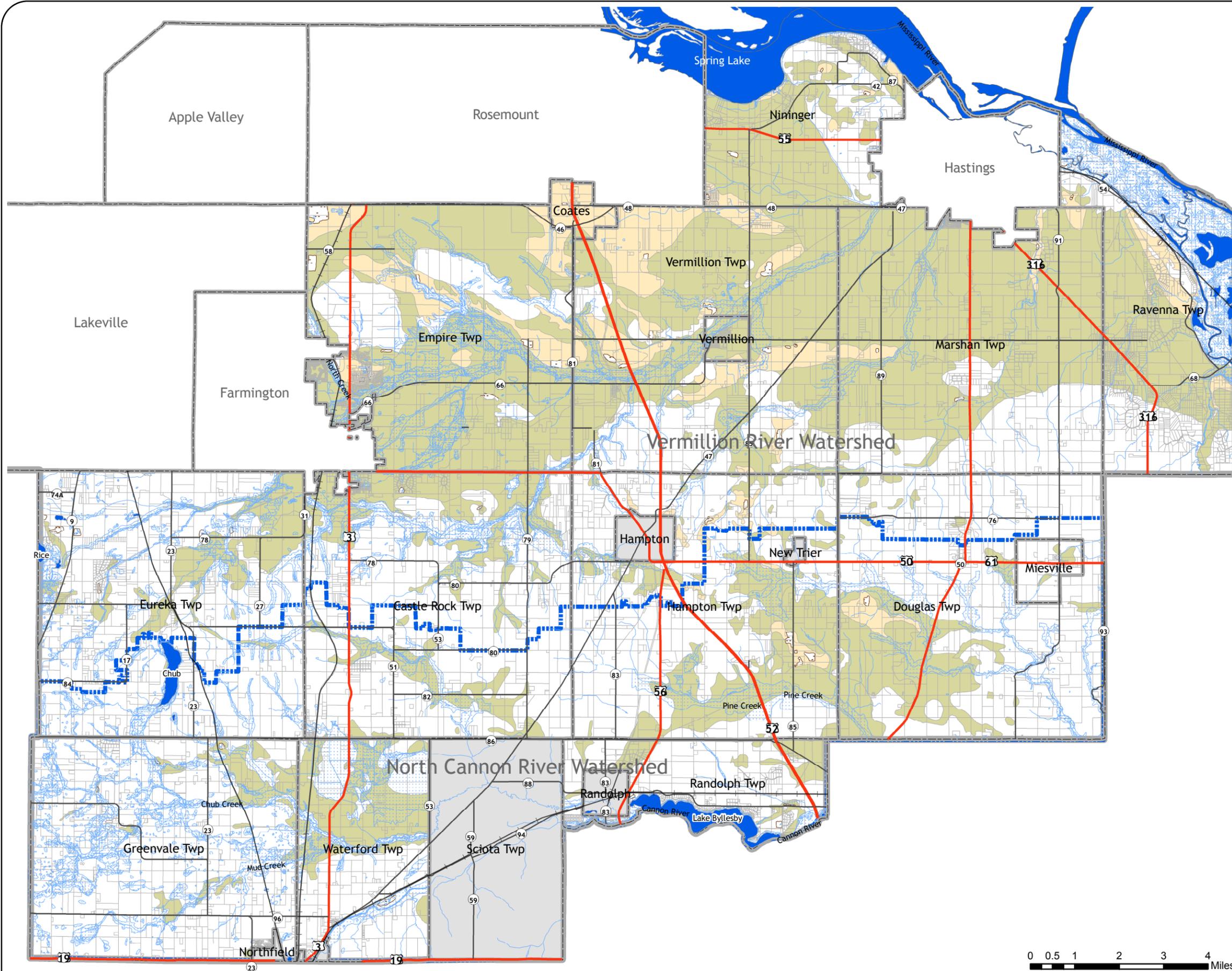
There is one plant and four animal species found in Dakota County that are listed as federally endangered or threatened. *Federally endangered* status is assigned to species that are threatened with extinction throughout all or a portion of its range. *Federally threatened* status is assigned to species that are likely to become endangered in the foreseeable future. Following is a list of endangered, threatened or special concern and non-listed rare plants and animals found in Dakota County.

BIRDS AND MAMMALS			
Scientific Name	Common Name	MN Status	Fed. Status
<i>Bartramia longicauda</i>	Upland Sandpiper	Rare, but not legal status	
<i>Buteo lineatus</i>	Red-shouldered hawk	Special Concern	
<i>Falco peregrinus</i>	Peregrine Falcon	Threatened	Endangered
<i>Haliaeetus leucocephalus</i>	Bald Eagle	Special Concern	Threatened
<i>Lanius ludovicianus</i>	Loggerhead Shrike	Threatened	
<i>Bartramia longicauda</i>	Upland Sandpiper	Rare, but not legal status	
<i>Dendroica cerulea</i>	Cerulean Warbler	Special Concern	
<i>Empidonax vireescens</i>	Acadian Flycatcher	Special Concern	
<i>Vireo bellii</i>	Bell's Vireo	Rare, but not legal status	
<i>Wilsonia citrina</i>	Hooded Warbler	Special Concern	
<i>Spilogale putorius</i>	Eastern Spotted Skunk	Threatened	

Dakota County, MN

Figure 3

Water and Aggregate Resources



- Water Resources**
-  Floodplain
 -  NWI Wetlands
 -  Watershed Boundary
 -  Streams
 -  Lakes

- Aggregate Reserves**
-  Borrow Pit
 -  Class 3
 -  Class 4

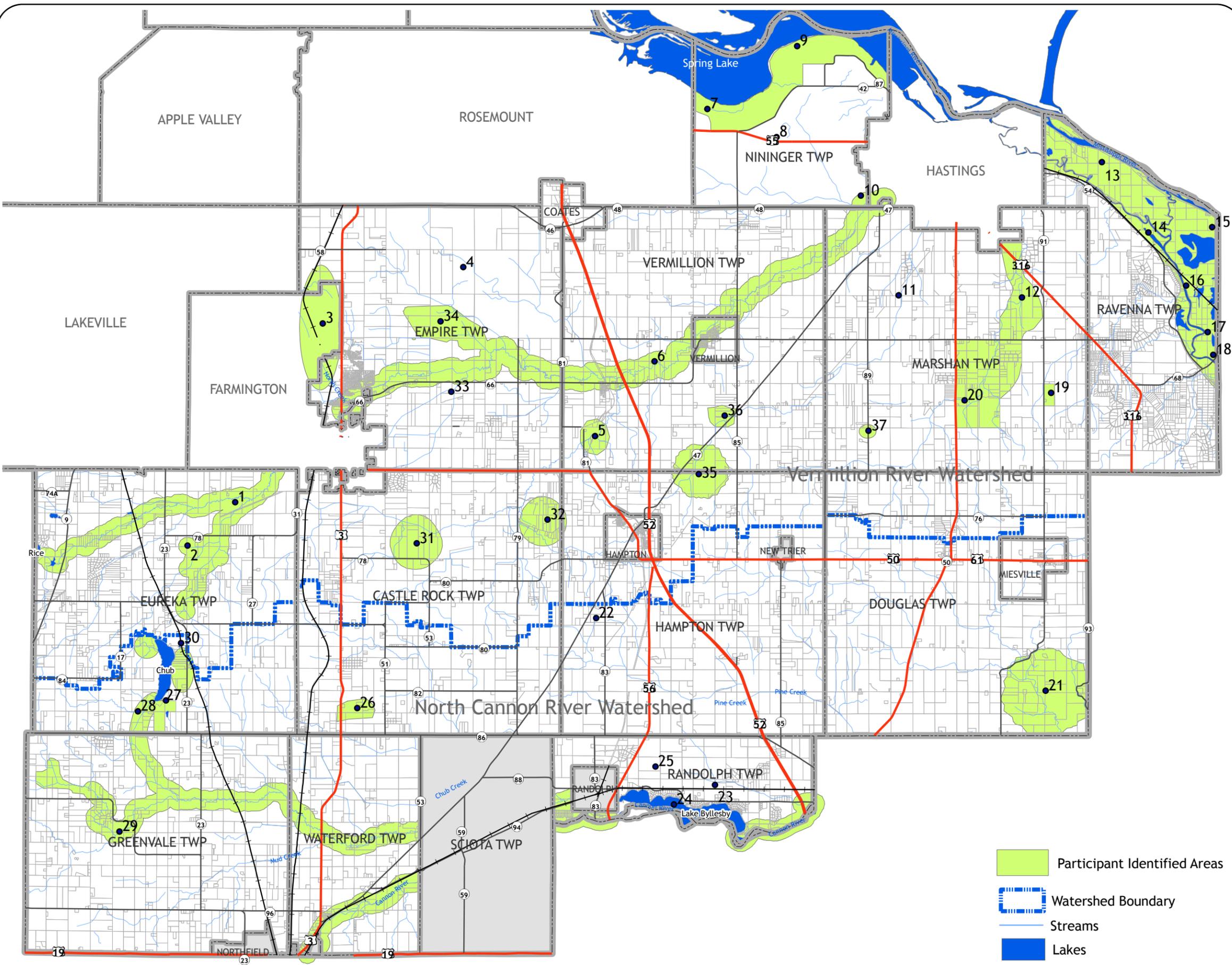


Source: Metropolitan Council, Dakota County GIS and MnDNR April 2009



Dakota County, MN

Figure 4 Natural Features Community Mapping Project



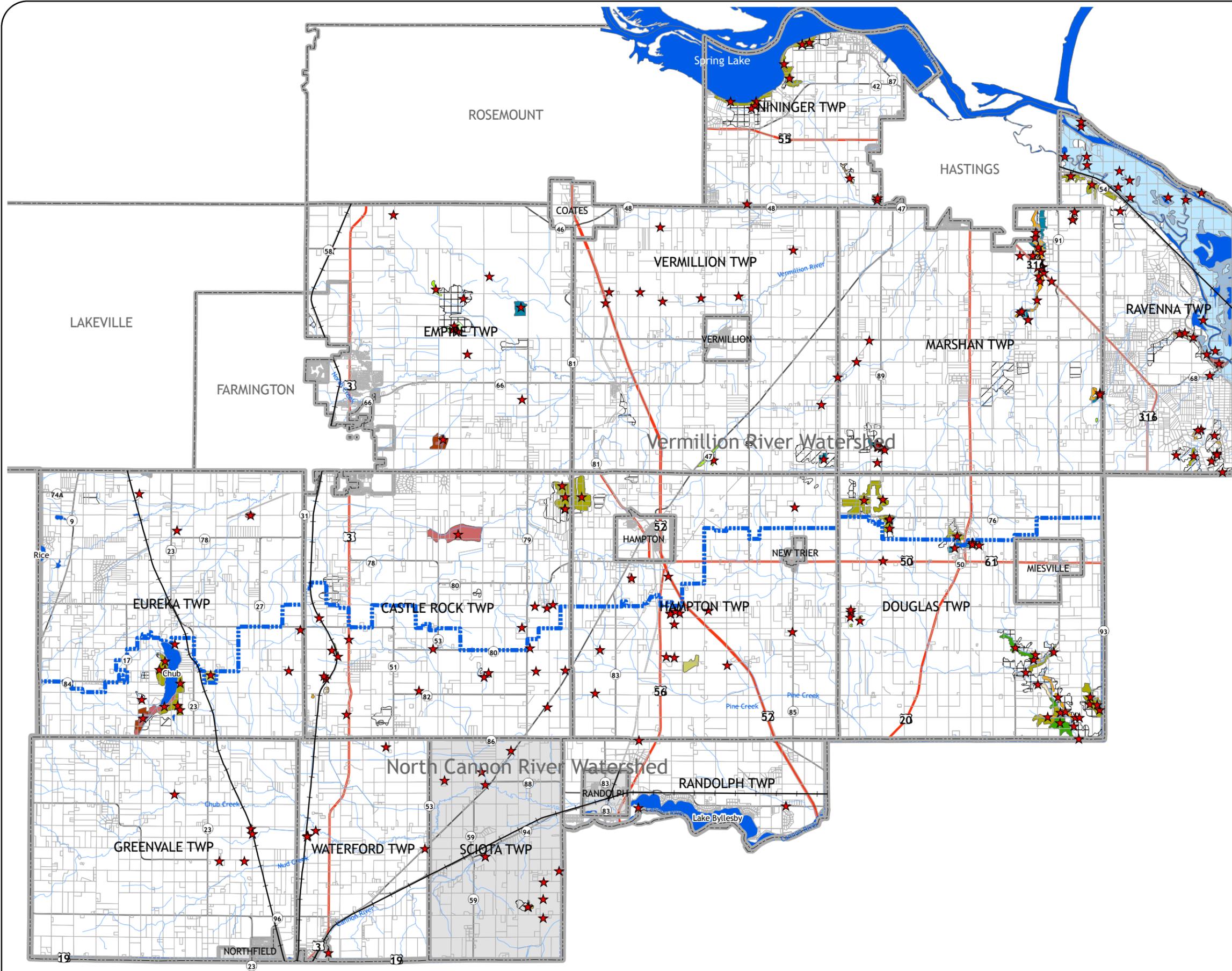
1. Natural waterway, clearing and wildlife.
2. Retreat center owns 160 acres.
3. Wetland/peatland; highly sensitive and high watertable. Not suitable for development.
4. Marsh and woodland; trust land. Not suitable for development.
5. Wooded area. Former mill and dam. South Branch of Vermillion River.
6. Vermillion River corridor for habitat migration. Clean water.
7. Greenway corridor along Mississippi River.
8. Coyote population throughout Nininger.
9. Indian Mounds Cave. Mike's Mini Mill.
10. Dry limestone prairie. Plant diversity.
11. High productive farmlands. Preserve forever.
12. Sand coulee. Dry prairie, wildlife areas and natural drainage area.
13. Floodplain forest and emergent marsh.
14. River access site.
15. Waterfowl management area.
16. Reuter's Pond.
17. Warm Springs Lake.
18. River access site.
19. Caniff's Woods/Virgin oak.
20. State game refuge.
21. Trout Brook/Miesville Ravine.
22. Agriculture Preserve area. 1/40 density throughout county.
23. Impending development.
24. High-density development around lake. Water quality concerns.
25. Rural residential development near lake.
26. Castle Rock and woods. Sandstone sensitive to erosion.
27. Natural hardwood forests. Blandings turtle, wildflowers, Loggerhead Shrike, prairie areas & unique geologic features vulnerable to development.
28. Headwaters of Chub Crk. Wetlands recharge area. Surface water resources. Flows to Cannon Rvr.
29. Mudd Creek. Wildlife, birds, fish, woodduck houses and trapping.
30. Narrow lots.
31. Wetland areas.
32. Hampton Woods area.
33. Concerns for runoff and pollution into Vermillion River.
34. Wetlands.
35. Rattlesnake Muster.
36. Wetlands.
37. Chimney Rock. Unique natural area.

- Participant Identified Areas
- Watershed Boundary
- Streams
- Lakes



Dakota County, MN

Figure 5 MLCCS Biologic Survey



Plant Communities

- ASPEN FOREST & WOODLAND
- SEEPAGE SUBTYPES: BLACK ASH SWAMP, CALCAREOUS FEN (SE PRAIRIE) & MEADOW
- DRY OAK SAVANNA SUBTYPES
- DRY PRAIRIE SUBTYPES
- EMERGENT MARSH
- FLOODPLAIN FOREST SILVER MAPLE SUBTYPE
- MAPLE-BASSWOOD FOREST (SOUTHEAST)
- MESIC PRAIRIE (SOUTHEAST)
- OAK FOREST - DRY SUBTYPES
- OAK FOREST - MESIC SUBTYPES
- OAK WOODLAND-BRUSHLAND
- WET MEADOW
- WET PRAIRIE (SOUTHEAST)
- WHITE PINE-HARDWOOD FOREST SUBTYPES
- WILLOW SWAMP

Biodiversity Significance Levels

- Below
- High
- Moderate
- Outstanding

★ Dakota Rare Species_point

- Watershed Boundary
- Streams
- Lakes



Source: Dakota County GIS and MnDNR MLCCS April 2009



Scientific Name	Common Name	MN Status	Fed. Status
AMPHIBIANS AND REPTILES			
<i>Chelydra serpentina</i>	Snapping Turtle	Special Concern	
<i>Clemmys insculpta</i>	Wood Turtle	Threatened	
<i>Coluber constrictor</i>	Racer	Special Concern	
<i>Crotalus horridus</i>	Timber Rattlesnake	Threatened	
<i>Elaphe vulpina</i>	Fox Snake	Rare, but not legal status	
<i>Emydoidea blandingii</i>	Blanding's Turtle	Threatened	
<i>Lampropeltis triangulum</i>	Milk Snake	Special Concern	
<i>Pituophis catenifer</i>	Gopher Snake	Special Concern	
FISH AND MOLLUSKS			
<i>Cycleptus elongatus</i>	Blue Sucker	Special Concern	Threatened
<i>Polyodon spathula</i>	Paddlefish		
<i>Elliptio crassidens</i>	Elephant-ear Mussel	Endangered	
<i>Fusconaia ebena</i>	Ebony Shell Mussel	Endangered	
<i>Lampsilis higginsii</i>	Higgins Eye Mussel	Endangered	Endangered
<i>Actinonaias ligamentina</i>	Mucket Mussel	Threatened	
<i>Arcidens confragosus</i>	Rock Pocketbook Mussel	Endangered	
<i>Lampsilis teres</i>	Yellow Sandshell Mussel	Endangered	
<i>Ligumia recta</i>	Black Sandshell Mussel	Special Concern	
<i>Quadrula nodulata</i>	Wartyback Mussel	Endangered	
<i>Tritogonia verrucosa</i>	Pistolgrip Mussel	Threatened	
PLANTS			
<i>Agalinis auriculata</i>	Eared False Foxglove	Endangered	
<i>Aristida tuberculosa</i>	Sea-beach Needlegrass	Special Concern	

<i>Asclepias amplexicaulis</i>	Clasping Milkweed	Special Concern	
<i>Asclepias sullivanti</i>	Sullivant's Milkweed	Threatened	
<i>Baptisia bracteata - glabrescens</i>	Wild Indigo	Special Concern	
<i>Besseyia bullii</i>	Kitten-tails	Threatened	
<i>Cacalia plantaginea</i>	Tuberous Indian-plantain	Threatened	
<i>Carex sterilis</i>	Sterile Sedge	Threatened	
<i>Cirsium hillii</i>	Hill's Thistle	Special Concern	
<i>Cladium mariscoides</i>	Twig-rush	Special Concern	
<i>Cristatella Jamesii</i>	James's Polanisia	Endangered	
<i>Cypropedium candidum</i>	Small White Lady's-slipper	Special Concern	
<i>Desmodium cuspidatum-longifolium</i>	A species of tick-trefoil	Special Concern	
<i>Ecinochloa walteri</i>	Walter's Barnyard Grass	Rare, but not legal status	
<i>Eryngium yuccifolium</i>	Rattlesnake-master	Special Concern	
<i>Lespedeza leptostochy</i>	Prairie Bush Clover	Threatened	Threatened
<i>Minuartia dawsonensis</i>	Rock Sandwort	Special Concern	
<i>Oenothera rhombipetala</i>	Rhombic-petaled Evening Primrose	Special Concern	
<i>Orobanche fasciculata</i>	Clustered broom-rape	Special Concern	
<i>Orobanche uniflora</i>	One-flowered broom-rape	Special Concern	
<i>Panax quinquefolium</i>	Ginseng	Special Concern	
<i>Platanthera flava-herbiola</i>	Tubercled rein-orchid	Endangered	
<i>Polanisia jamesii</i>	James's Polanisia	Endangered	
<i>Rhynchospora capillacea</i>	Hair-like Beak-rush	Threatened	
<i>Scieria triglomerata</i>	Tall nut-rush	Endangered	
<i>Scleria verticillata</i>	Whorled Nut-rush	Threatened	
<i>Scutellaria ovata hill-verescolor</i>	Ovate-leaved Skullcap	Threatened	
<i>Triglochin palustris</i>	Marsh Arrow-grass	Rare, but not legal status	

Trillium nivale	Snow Trillium	Special Concern	
Valeriana edulis ssp. Ciliata	Valerian	Threatened	
Amoglossum plantagineum	Tuberous Indian-plantain	Threatened	
Helianthemum canadense	Canada Frostweed	Rare, but not legal status	
Hieracium longipilum	Long-bearded Hawkweed	Rare, but not legal status	
Hudsonia tomentosa	Beach-heather	Special Concern	
Juniperus horizontalis	Creeping Juniper	Special Concern	
Linaria canadensis	Old Field Toadflax	Rare, but not legal status	
Liparis lilifolia	Lilia-leaved Twayblad	Rare, but not legal status	
Minuartia dawsonoensis	Rock Sandwort	Special Concern	
Oxpolis rigidor	Cowbane	Rare, but not legal status	

E. NATURAL AREAS AND CORRIDORS GOALS AND POLICIES (2000)

The goals and policies outlined in this Natural Resources and Corridors Element are intended to be the foundation for furthering a number of programs, actions and decisions regarding natural resource protection in southern Dakota County. Goals and policies are official statements that provide the basis for growth management strategies. Goals identify the various objectives that have been identified toward protecting natural resources. Policies represent official positions with respect to implementation of goals. The individual local growth management plans and official controls reinforce the goals and policies included in this Element.

Community Benefits

Protection of natural areas and corridors is important because of the roles they play in the social and physical health of a community, their value as wildlife habitat and a storehouse of biologic diversity, and the overall contribution they make to the quality of life. Natural areas also play a positive role in a local economy, providing many functions that a community would otherwise need to replicate by other costly means.

The economic benefits that natural areas provide can be realized at the same time the community receives the social, public health, wildlife habitat, quality of life, and other benefits intrinsic to these areas. These benefits can be realized at relatively modest cost to a community's operating budget, in contrast to the ongoing expenses associated with urban development that become the responsibility of the local taxpayers. These include infrastructure improvements, maintenance for roads, utilities, schools, fire and police services, pollution abatement, and waste management.

When all factors are taken into consideration, a community may experience a net economic benefit from maintaining a balance of both developed and natural areas. Most importantly, it is an economic benefit that can be sustained over the long term and should be viewed as an investment in a community's future. In general, healthy and vital natural areas are a benefit to the local economy, particularly in an area that wants to retain its rural character.

Economic benefits that can be achieved by protecting natural areas include:

Low Cost Storm Water Management and Flood Control

Natural areas reduce the rate and volume of storm water run-off, thereby reducing the incidence and severity of flooding and erosion. When development or certain agricultural practices replace natural areas and other areas of vegetated groundcover, communities either must undertake the expense of installing and maintaining elaborate storm water management systems or it will sustain repeated episodes of property damage related to flooding and loss of agricultural production due to topsoil erosion.

Purification system for drinking water and surface waters

Natural areas safeguard the quality of surface and ground water (drinking water sources) by reducing the sediment load that enters waterways and filtering out toxins and excess nutrients. When natural areas are lost to development and excessive concentrations of nitrates, ground water may become increasingly contaminated over time, creating a public health concern for rural areas that are reliant upon wells for drinking water.

Preservation of Rural Character

Natural areas are an amenity to a rural community in the sense that they contribute to maintaining the rural, undeveloped character that residents enjoy. By protecting natural areas, communities also have the opportunity to design neighborhoods in clusters that will retain their property values and that are desirable places to invest in a home.

Natural areas also have many intrinsic and unique values that are of benefit to society, wildlife, and to the well being of individuals. Many of these benefits may not be realized immediately, but nevertheless should be protected to maintain the long-term rural character of an area. These include:

Storehouses of biological diversity

Pristine natural areas are irreplaceable storehouses of biological diversity. A diversity of species safeguards important genetic material needed to develop new food and fiber sources, disease tolerant plants, and advances in medical research. Additionally, they provide opportunities for research to better understand the essential and symbiotic relationships that exist in a functioning ecosystem.

Community appeal and aesthetics

Protection of natural areas, including agricultural land, promotes the overall livability and vitality of the rural area, offering not only quality air and drinking water, but also scenic beauty, aesthetics and an opportunity for low impact recreation (bird watching, hiking). Communities with ample natural areas and open space generally offer a higher quality of life to all residents. Protecting local natural areas offers the opportunity to escape to a quiet and naturally diverse landscape on a regular basis. This provides significant opportunities to those who cannot afford or do not have the time to travel greater distances to enjoy natural areas on a regular basis.

OVERALL NATURAL AREAS AND CORRIDORS GOAL

A system of natural areas and corridors that contributes to the protection of natural resources and preservation of the agricultural heritage and rural character of southern Dakota County, and provides the following benefits:

- **Protection of sensitive areas from development and agricultural intensification**
- **Buffering and management of natural areas and corridors**
- **Maintenance and enhancement of the native biological diversity found in natural areas and corridors.**

1. Natural Area Protection

Protection of natural areas relates directly to protection of natural resources. Natural resource programs and policies for cities and townships in southern Dakota County currently emphasize the soil and water resources needed to maintain a viable agricultural economy. This section outlines goals and policies that will provide direction toward the protection of the remaining high quality natural areas in the rural area of Dakota County. Meeting these goals will require a combination of official controls, incentives, and public awareness programs. Opportunities for natural areas are shown in **Figure #4**.

GOAL: Protection and restoration of natural areas in order to maintain a dynamic, functioning natural landscape that provides ecological, aesthetic, and economic benefits.

Policies:

- Enforce provisions in local ordinances that provide for and promote the protection of regionally and locally-important natural areas, including:
 - Protection of undisturbed natural areas in southern Dakota County;
 - Protection of natural areas with scientific, cultural, or local significance;
 - Protection and enhancement of the ecological diversity of southern Dakota County.

- Involve citizens and stakeholders in the planning process and in programs for managing and restoring natural areas.
- Work with Dakota County and Dakota SWCD to identify, evaluate, and map locally important natural areas.
- Develop and implement a protection and management plan for natural areas that includes:
 - A cohesive system of natural areas connected by natural corridors
 - Areas identified and prioritized for preservation, protection, or restoration
 - A functional classification of natural areas based upon appropriate use, including recreation, preservation, hunting, agricultural, private.
 - Land protection strategies for targeted areas, including voluntary conservation plans, donation or purchase of conservation easements, transfer of development rights, purchase of development rights, acquisition.
 - Strategies and standards for the long-term management of natural areas.
 - A description of partnerships with other units of government to protect shared natural areas.
 - Innovative and appropriate natural area agricultural practices.
 - Funding and funding sources.
- Encourage permanent set-aside programs to create and protect open space, create wildlife habitat, protect surface and ground water quality, and reduce erosion and sedimentation in streams.
- Use park dedications or cash-in-lieu donations in new cluster developments to acquire high quality natural areas.
- Encourage the use of native species in plantings where soil disturbance requires long-term erosion control, through local ordinance regulation and WMO standards, on public lands, reclamation projects on private land, natural areas, and similar projects.
- Actively seek funding to acquire priority areas

2. Natural Corridor Protection

Natural corridors typically follow land and water features, such as ridges or rivers, or human landscape features, like abandoned railroad corridors. Natural corridors link natural areas, parks, cultural and historic sites, and population centers. They also may include publicly owned linear parks or recreational “greenways”, as well as privately owned tracts of high quality farmland through voluntary easements.

The benefits of natural corridors include ecological, economic and social. By conserving native ecosystems and landscapes, natural corridors can be an important component in a long-term conservation and open space strategy. As land continues to develop, open areas for wildlife are becoming fewer, smaller, and disconnected. Natural corridors can connect areas of open land that have been identified as a priority to protect. These corridors can play a key role in the survival of many plant and animal species, serving to preserve biodiversity in certain areas.

Natural corridors may also serve in a similar capacity as “buffers” to protect resources such as rivers, lakes, and wetlands from potentially harmful adjacent land uses. Vegetated buffer strips can help prevent pollutants from entering water systems. Water quality can be maintained or improved where proper vegetation is provided along water resources.

In some instances, natural corridors may be compatible with recreational opportunities, such as trails and transportation networks. Existing trail corridors, fence rows, utility rights of way, and stream banks are examples of natural corridors that may be considered for recreational uses, subject to local desires and interests. To protect ecological health, many conservation-oriented corridors will need to remain in their natural state.

The Mississippi, Vermillion, and Cannon Rivers, as well as other perennial/intermittent streams provide natural corridors that can be protected through voluntary conservation practices, easements, or the purchase or transfer of development rights. Through long range planning and local community support, these resources can be protected before development pressures increase the cost of protection and decrease the likelihood that these corridors will be available, or to function as corridors. **Figure 4** identifies potential opportunities for natural corridors in Dakota County.

GOAL: A system of natural corridors that connects natural areas and is compatible with a countywide greenways and natural areas network.

Policies:

- Connect and enhance existing open spaces, outdoor recreational amenities, and cultural resources by supporting a county-wide corridors and natural areas network.
- Develop and implement a corridors protection and management plan that includes:
 - Key linkages in a countywide natural corridor system.
 - Linkages that are missing or degraded.
 - Locations of existing or restorable natural corridors, ecologically significant areas, and important open space in a countywide natural areas network.
 - A functional classification of corridors (e.g., natural, farmland, recreational, private preserve)
- Coordinate natural corridor planning and development with Dakota County, other cities, townships, watershed management organizations and nonprofit organizations in southern Dakota County.
- Utilize regional and state resources, incentives, and other non-regulatory methods to develop linkages.
- Investigate integrating recreational opportunities within corridors through consideration of:
 - Natural and recreational corridors’ functions.
 - Designs for recreational facilities that are compatible with a multi-functional corridor system.

3. Education And Public Awareness

An understanding of how natural systems function can help to build public support for policies and programs to protect natural resources as part of a natural areas and corridors plan. Knowledge of the role of natural resources in the local and regional economy, and how they contribute to the well being of individuals and communities, can help generate the commitment and motivation needed to protect natural resources on individual properties and throughout communities.

Most agencies and organizations involved with natural resource management are active in some level of natural resources education. The educational efforts of these agencies and organizations are often directed towards a specific goal, such as protection of trout streams, adoption of agricultural best management practices, restoring or protecting natural areas, or protection of agricultural land. Generally, most of these programs are implemented independent of each other with minimal coordination.

GOAL: An informed population in southern Dakota County that is sensitive to the importance of protecting natural resources and aware of the factors that impact the quality of natural areas and corridors.

Policies:

- Support education of residents to increase the knowledge, skills, motivation, and commitment to work individually and collectively toward protecting natural resources.
- Work cooperatively with Dakota County and other organizations that support the goals of protecting natural areas and corridors in southern Dakota.

III. 2030 Land Use Plan

A. Regional Development Framework

The Metropolitan Council's *Development Framework* is a growth strategy for the region that identifies future areas for development and investments in regional infrastructure, such as highways, sewers, parks, and airports. The *Development Framework* divides the region into geographic planning areas. The primary planning area designation for the rural collaborative communities is "Agricultural." The Agricultural area includes all or parts of all townships, except Ravenna, which is designated "Diversified Rural." Portions of the City of Vermillion are also designated Agricultural, while the developed portion is designated as a "Rural Center." The City of Miesville is designated Diversified Rural. The City of Coates and a portion of Empire are designated "Developing Areas." The cover of this Plan depicts the geographic planning areas of the rural collaborative communities.

The Agricultural area is intended to remain long term agricultural, with residential densities not exceeding one home per 40 acres. The Diversified Rural area may consist of long term agricultural areas but generally includes higher rural residential densities and a variety of rural commercial and industrial uses. Rural Growth Centers are older communities with local wastewater treatment facilities and central business districts that serve surrounding agricultural areas. Diversified Rural cities may resemble Rural Centers but are not served by public utility systems. Developing Areas include communities located within or may have access to the Metropolitan Urban Service Area (MUSA).

Upon completion of the *Development Framework*, the Metropolitan Council prepared "System Statements" for all communities. The System Statements identify local planning issues of relevance to the four Metropolitan Systems: sewer, transportation, airports and parks. Among the information included in the System Statements are 2010-2030 forecasts for population, households, and employment. The Metropolitan Council's forecasts are illustrated in Tables 5-7, with exception of the forecasts prepared by Empire Township and the City of Vermillion.

Table 5 includes the 2000 population census, the 2006 Metropolitan Council population estimates, and the 2010, 2020, and 2030 Metropolitan Council population forecasts for all communities except Empire (higher) and the City of Vermillion (lower). The population in the collaborative communities is expected to increase by 7403 persons between 2000 and 2030. Empire Township is forecast to add 4862 persons over the three decades, which is two-thirds of the total collaborative community increase. The annual rate of population growth in the collaborative area is 1.7%, which is very similar to the previous 30 years.

Dakota County is expected to add 161,106 persons in the 30-year period. This is a 1.5% annual growth rate, which is down from the 1970-2006 annual rate of 5.0%. The collaborative community percentage of total county population in 2030 is 4.25%, which is slightly higher than the 4.0% estimated in 2006.

In several instances, as illustrated in **Table 5**, the 2006 population estimates have already exceeded subsequent period forecasts. While overall growth in the collaborative area is expected to be modest, it is evident that some communities have outpaced and may continue to outpace Metropolitan Council forecasts. Because of the relatively minor increases that may occur, there will be no Metropolitan System impacts.

Table 5

2000 – 2030 Population Trends and Forecasts

	<u>2000</u>	<u>2006</u>	<u>2010</u>	<u>2020</u>	<u>2030</u>
Castle Rock	1495	1382	1500	1550	1650
City of Coates	163	181	170	190	200
Douglas	760	814	820	850	880
Empire*	1638	2247	2500	5600	8490
Eureka	1490	1485	1500	1650	1800
Greenvale	684	804	730	790	880
Hampton	986	966	1000	1050	1200
Marshan	1263	1325	1300	1350	1400
City of Miesville	135	164	150	150	150
Nininger	865	933	940	990	1050
Randolph	536	639	620	630	670
Ravenna	2355	2429	2500	2600	2800
Vermillion	1243	1315	1250	1350	1500
City of Vermillion#	437	451	452	448	442
Waterford	517	538	540	560	570
Subtotal	14,567	15,673	16,320	18,960	21,970
Dakota County	355,904	391,613	421,960	480,150	517,010

Source: US Census; Metropolitan Council; *Empire Township (2010-2030 forecasts); #City of Vermillion (2010-2030 forecasts)

Household growth from 2000 to 2030 is depicted on **Table 6**. The collaborative communities are expected to add 3419 new households in the 30-year period, which is a 72% increase. Of the 3419 new households, 1785 are forecast in Empire, which is over half of the collaborative community total. The annual rate of increase in households from 2000-2030 in the collaborative area is 2.4%, which is down from the previous 30-year period.

Dakota County is expected to add 77,949 new households over the three decades, which is a 59% increase. The county-wide annual rate of increase for the 30-year period is 1.98%, which is down dramatically from the previous three decades. The collaborative community percentage of total county households in 2030 is 3.92%, which is slightly higher than the 3.53% rate in 2006.

Similar to the 2006 population estimates, some household estimates for 2006 have already exceeded subsequent period forecasts. It is evident that some communities have outpaced and

may continue to outpace Metropolitan Council forecasts. Because of the relatively minor increases that may occur, there will be no Metropolitan System impacts.

Table 6

2000 – 2030 Household Trends and Forecasts

	<u>2000</u>	<u>2006</u>	<u>2010</u>	<u>2020</u>	<u>2030</u>
Castle Rock	514	481	550	600	650
City of Coates	64	65	70	80	90
Douglas	235	253	270	300	320
Empire*	515	755	850	1925	3000
Eureka	496	509	550	630	700
Greenvale	227	265	260	300	340
Hampton	320	324	360	400	450
Marshan	404	427	450	490	520
City of Miesville	52	53	60	60	60
Nininger	280	302	330	370	400
Randolph	192	232	240	260	280
Ravenna	734	767	840	920	1000
Vermillion	395	423	430	500	550
City of Vermillion#	160	164	165	168	170
Waterford	193	195	210	230	240
Subtotal	4781	5215	5770	6980	8200
Dakota County	131,151	147,824	161,990	190,790	209,100

Source: US Census; Metropolitan Council; *Empire Township (2010-2030 forecasts); #City of Vermillion (2010-2030 forecasts)

Employment estimates and forecasts from 2000-2030 are illustrated in **Table 7**. As noted in Section II, the employment estimates in several communities seem erroneous or questionable. The 2000 and 2006 employment figures are often dramatic departures from prior or subsequent periods. The 2010-2030 forecasts are sequential estimates, but are often high in relation to historical trends and modest forecasted household and population growth. There are also relatively few areas within the collaborative that are designated for future commercial or industrial development.

Table 7
2000 – 2030 Employment Trends and Forecasts

	<u>2000</u>	<u>2006</u>	<u>2010</u>	<u>2020</u>	<u>2030</u>
Castle Rock	200	387	230	250	270
City of Coates	254	84	280	300	320
Douglas	70	125	80	90	100
Empire*	174	241	300	390	480
Eureka	80	182	100	120	140
Greenvale	68	70	160	170	190
Hampton	88	94	90	100	110
Marshan	200	166	230	250	270
City of Miesville	121	115	130	140	160
Nininger	80	46	220	310	400
Randolph	88	98	90	100	110
Ravenna	103	56	120	130	140
Vermillion	60	376	80	90	100
City of Vermillion#	221	87	205	210	220
Waterford	270	684	320	350	370
Dakota County	148,261	175,702	179,210	199,340	214,150

Source: Metropolitan Council; DEED; *Empire Township (2010-2030 forecasts); #City of Vermillion (2010-2030 forecasts)

B. Rural Collaborative Goals and Policies

Goals and policies are official community positions that provide the basis for strategies to manage growth and change. Goals are general statements that reflect community values regarding the built and natural environments. Policies are more specific, official positions of communities that guide future planning decisions and implementation strategies. Policies are included with each future plan element of this Section. The goals for future growth management within the collaborative communities have been redefined and expanded since the 2000 Composite Comprehensive Plan and are outlined below. Additional goals and policies are also included in the Water Resource Protection plan.

Agricultural Goals

- ◆ Preserve agriculture as a primary land use and economic opportunity in the area.
- ◆ Minimize the conversion or disruption of agricultural land uses by limiting non-farm uses in long-term agricultural areas.
- ◆ Minimize the impact on long-term agricultural areas by maintaining very low density residential development.
- ◆ Minimize conflicts between land uses.
- ◆ Protect the rural atmosphere of the area.

Residential Goals

- ◆ Maintain the quality and character of existing residences.

- ◆ Support affordable housing opportunities for all age groups.
- ◆ Protect residential uses from potential impacts of incompatible uses.
- ◆ Limit non-farm residences in areas designated long-term agriculture.
- ◆ Educate non-farm residents on the potential impacts from normal farm practices and the support for long-term agriculture as a primary land use in the area.
- ◆ Maintain the rural atmosphere.
- ◆ Promote higher density housing, life-cycle housing, and affordable housing opportunities in the communities with public utilities.

Commerce/Industry Goals

- ◆ Promote the economic viability and vitality of long-term agricultural operations.
- ◆ Support agri-business expansion in the community and retain existing service industries.
- ◆ Limit non-farm business development to areas not designated for long-term agriculture and areas where the provisions for higher levels of service may be available.
- ◆ Promote the expansion of non-farm business development in area cities and designated rural centers.

Public Facilities and Services Goals

- ◆ Protect the health, safety, and welfare of area residents and businesses.
- ◆ Maintain a level of public services appropriate for the rural/agricultural nature of the area, the needs and desires of the community, and the priorities of the community.
- ◆ Maintain responsible fiscal management based upon limited tax values and government aids.
- ◆ Cooperate and coordinate with area communities and governments on issues that have the potential for affecting the long-term goals of the community.
- ◆ Ensure that residents have the opportunity to offer input and have access to local government activities.
- ◆ Promote solar access and sustainable energy alternatives for residents and businesses.
- ◆ Support the preservation of cultural heritage sites.

Environmental Resources Goals

- ◆ Protect the natural habitat qualities and biodiversity of the area.
- ◆ Ensure that all land use activities take place in harmony with natural systems.
- ◆ Protect and preserve natural systems for the collection and dispersion of stormwater and runoff.
- ◆ Protect existing woodlands throughout the area.
- ◆ Protect the open space quality
- ◆ Protect the quality and quantity of the groundwater supply.
- ◆ Protect surface waters and wetland areas to promote water quality, natural habitat areas, groundwater recharge, and recreational opportunities.
- ◆ Reduce instances of harmful erosion, sedimentation, and pollutants from affecting water resources.
- ◆ Protect high quality aggregate resources for future use.

Transportation Goals

- ◆ Promote a safe and efficient transportation system within the community and region.
- ◆ Promote opportunities for the development of regional trail corridors.
- ◆ Preserve opportunities for future highway expansion serving the region.

Recreation and Open Space Goals

- ◆ Support recreational opportunities that are not disruptive to long-term agriculture and are compatible with the rural character of the area.
- ◆ Preserve open spaces that enhance rural aesthetic values, protect natural habitat, allow recreational uses, and promote area-wide greenway corridor potential.
- ◆ Promote regional trails that provide connectivity between communities, regional parks, water resources, and significant natural features.
- ◆ Support active youth and senior recreational opportunities and facilities in area cities and schools.

C. Future Land Use

The future land use categories in this section identify the specific rationale for growth management in townships and cities in the Rural Collaborative. The land use categories are the framework upon which the official controls, such as the zoning ordinances and subdivision regulations, are based and provide implementation for future growth. The land use categories the regulatory concepts for agricultural protection, residential growth, commercial and industrial expansion, and conservation. The 2030 Land Use Plan (**Figure 6**) identifies the specific land use categories within townships and cities. **Table 8** summarizes future land use acreages for the collaborative area based upon the 2030 Land Use Plan.

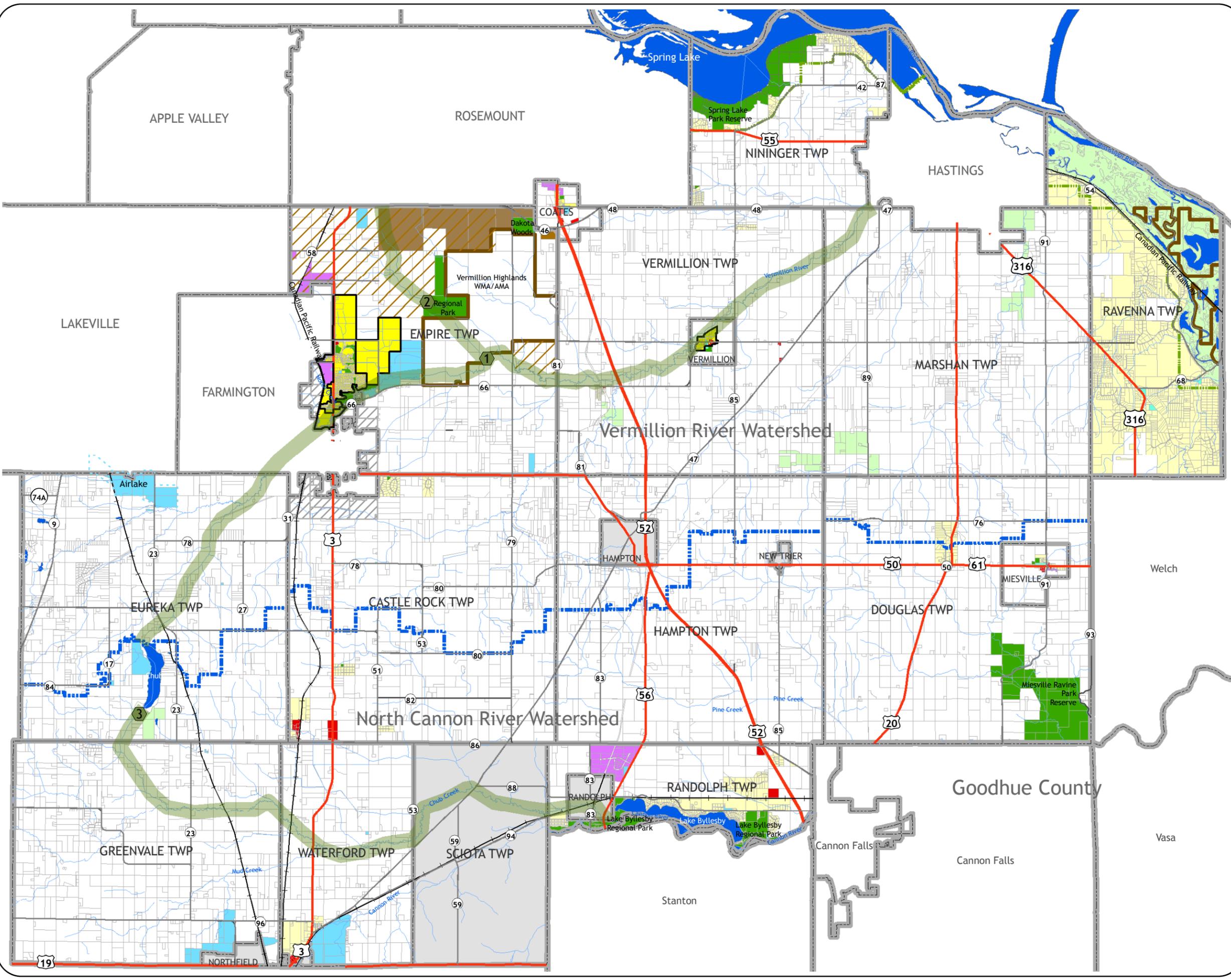
1. Agriculture

The natural landscape in the collaborative area includes a unique mix of prime farmland, pasture, forested areas, wetlands, and rivers. The Agriculture area represents a substantial, contiguous land base that has been predominantly used for agriculture. The cities within the agricultural area have served as rural service centers and are part of a rural lifestyle in southern Dakota County.

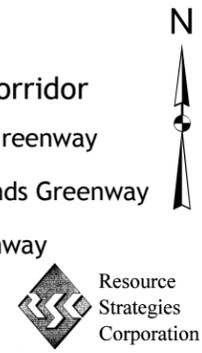
Collaborative area communities have consciously protected the economic and social value of farmland from the premature conversion of agricultural uses to non-farm uses for the past three decades. Since the late 1970s, area communities have limited non-farm residential development in designated agricultural areas to one home per quarter-quarter section or one home per 40 (1:40) acres. This residential development density limitation has been a significant factor in the preservation of agricultural land in the collaborative area. The area designated Agriculture on Figure 6 is the eligibility area for Metropolitan Agricultural Preserves.

The Agriculture area also includes limited farm-related service businesses. Most community zoning ordinances allow agricultural support industries, such as elevators, mills, supply centers, and implement sales and service, as conditional uses within the agricultural area. Churches, public and private schools, and public recreation uses are also typical conditional uses within the agricultural area. Sand and gravel and limestone extraction have been expanding in the collaborative area. Communities regulate extraction as conditional or interim uses within the agricultural area and regulate the intensity of such uses to minimize impacts on long term agricultural uses.

Dakota County, MN Figure 6 2030 Future Land Use Land Use Category



- Agriculture
 - Rural Residential
 - Low Density/Single Family Residential
 - Medium Density/Multiple Residential
 - Industrial
 - Commercial
 - Public/Institutional
 - Public Park, Recreation and Open Space
 - UMORE (Univ. of MN)
 - Conservancy
 - Mining Overlay Area (Empire Twp)
 - Orderly Annexation Area
 - 2030 MUSA
 - MNRRA Boundary
 - Wildlife Management Area (WMA)
 - Watershed Boundary
 - Streams
 - Lakes
-
- Regional Trail Search Corridor**
- 1 Vermillion River Greenway
 - 2 Vermillion Highlands Greenway
 - 3 Chub Creek Greenway



Source: Dakota County GIS April 2009

The close proximity of the collaborative area to the Twin Cities Metropolitan Area and Dakota County suburbs presents challenges for rural growth management. The collaborative member communities are committed to long term agricultural protection within the area to promote the economic and social values associated with farming. The area designated as Agriculture on the 2030 Land Use Plan maintains the 1:40 density limitation for non-farm residential development.

Several collaborative member communities have expressed the desire to allow clustering of non-farm residences in the Agriculture area, while maintaining the 1:40 density. Some communities currently have cluster provisions in their zoning ordinances that allow the “transfer” of eligible building rights under single ownership and contiguous property. This typically means allowing the building site of the “back 40” to be added to the “front 40,” which may already have a home on the quarter-quarter section. The Implementation section of this Plan includes the recommendation for preparing model clustering provisions for communities to add to their official controls.

Agricultural Policies:

- Promote right-to-farm provisions and protection in long-term agricultural areas.
- Support and encourage incentives that will maintain and enhance farming operations and agricultural land use.
- Support voluntary enrollment of land in the Agricultural Preserves Program in areas designated for long-term agriculture.
- Limit non-farm residential development densities in long-term agricultural areas to one home per quarter-quarter section.
- Prohibit development in the long-term agricultural area that requires public utilities or extensive public services.
- Limit business development in long-term agricultural areas to businesses that directly serve or support agriculture or are located in areas clearly planned and designated for business development.
- Limit home occupations from expanding into non-agricultural businesses that should be located in cities or areas with appropriate services and facilities.
- Promote MPCA’s and other related or appropriate agency’s “best management practices” for farmland to ensure that soils are protected and water quality standards are maintained.
- Encourage farm practices that are consistent with conservation methods.
- Enforce uniform feedlot standards.

2. Rural Residential

Rural Residential development is distinguished within the collaborative area as a separate and distinct use from agriculture. Not all communities permit rural residential development and choose to limit non-farm residential development to the 40-acre density standard throughout the community. The Rural Residential category is used in this Plan for several purposes. Some communities choose to identify existing (pre-1980s) residential developments exceeding the 40-acre density standard as Rural Residential. Other communities use Rural Residential as the land use category allowing future residential development at densities exceeding 1:40.

The majority of the collaborative communities do not identify areas for future Rural Residential development. The overwhelming future land use category in the collaborative area is Agriculture. In those communities where Rural Residential is a category for future development, such as Ravenna, Noinger, Castle Rock, and Waterford, the development density standard is one home per ten acres. The current Randolph Township Zoning Ordinance allows rural residential development at a density of one home per five acres. The Rural Residential area in Randolph is an expansion of the Lake Byllesby shoreland residential development area, which has significantly higher residential densities. The minimize lot sizes in the Rural Residential area range from one acre to 5.0 acres.

Table 8
2030 Land Use Acreages

Land Use Category	Total Acres		Total Acres	
	Gross	Percentage	Net	Percentage
Agriculture	177,696.2	82.2%	154,101.9	71.4%
Rural Residential	11,046.4	5.2%	10,766.0	5.1%
Low Density/Single Family Residential	1,525.2	0.7%	1,217.2	0.6%
Medium Density/Multiple Residential	1.1	0.0%	1.1	0.0%
Commercial (inc. mixed commercial/industrial)	245.4	0.1%	235.2	0.1%
Industrial (includes mining)	755.5	0.4%	755.1	0.4%
Public Park, Recreation and Open Space	3,585.1	1.6%	2,556.3	1.2%
Public/Institutional (includes utilities)	2,244.0	1.0%	1,721.8	0.8%
UMORE	1,695.2	0.8%	1,580.4	0.7%
Conservancy (includes WMA in Ravenna Twp.)	4,744.3	2.2%	4,670.1	2.2%
Empire Twp. Wildlife Management Area (WMA)	4,031.5	1.9%	2,798.1	1.3%
OAA	1,382.1	0.6%	911.9	0.4%
ROW (inc. railroads)	2,395.2	1.1%	2,345.4	1.1%
Water	4,354.1	2.0%	4,354.1	2.0%
Wetland/Floodplain			27,565.7	12.8%
Total	215,590.3	100.0%	215,590.3	100.0%

3. Low Density/Single Family Residential

Cities within the Rural Collaborative have Single Family Residential or Low Density Residential land use categories. These include higher density residential areas with and without public utilities. The City of Vermillion identifies its low density residential sewered area as Single Family Residential. Vermillion has an individual comprehensive plan which identifies all land use categories in more detail.

The cities of Coates and Miesville have smaller single family residential areas that have developed around the business centers. Neither community is served by central sewers and future single family residential development is limited to accommodate modest growth forecasts. Both communities have individual comprehensive plans which identify all land use categories in more detail.

4. Mixed Residential

A portion of Empire Township is located within the MUSA. Empire has a stand alone comprehensive plan which identifies all future land uses in more detail. The residential expansion area in Empire is designated Mixed Residential, which allows a combination of single family detached and single family attached residences within its public utility district. The average density allowed in the MUSA is three homes per acre; although, the density is higher through a Planned Unit Development (PUD) process. This category is included in Table 8 and on Figure 6 as Low Density/Single Family Residential.

5. Medium Density/Multiple Family Residential

Future multiple family residential land uses are limited to those communities with public sewer. The Medium Density Residential land use category is identified in the City of Vermillion Comprehensive Plan as the appropriate area for higher density residential uses served with public utilities. The Multiple Family Residential category is limited in all other communities to identify existing multiple family uses, typically attached single family residential structures.

6. Housing Plan

With the exception of portions of Empire Township and the City of Vermillion, there are no municipal sewer services available in the Collaborative area. Existing and proposed housing densities in the majority of the Collaborative area will remain low, reflecting rural rather than urban housing opportunities. The Metropolitan Council has identified affordable housing needs in Empire Township (100 new units) between 2010 and 2020. The individual housing plan for Empire is identified in its individual comprehensive plan. Affordable housing opportunities in the Collaborative area will primarily occur through rehabilitation of and resale of existing homes.

Residential Policies:

- Protect and maintain the quality of existing housing stock.
- Participate in or promote county and state programs for housing maintenance and rehabilitation assistance to sustain and improve existing housing quality and retain affordable housing options.
- Limit residential development and densities consistent with planned land use designations and local ordinances.
- Minimize conflicts between residential and non-residential uses through appropriate land use designation and official controls.
- Require development agreements for all platted subdivisions to ensure that the regulations of the community are met.
- Promote minimum residential densities of three units per acre in new developments with access to public utilities.
- Require that the staging of new residential development in communities with public utilities is consistent with utility staging plans.
- Promote life cycle housing choices and affordable housing opportunities in communities with access to public utilities.

7. Commercial/Industrial

Commercial and industrial areas in the collaborative area are typically limited to existing developed areas. There is very little planned commercial or industrial development, with the exception of modest expansion areas in the City of Coates and Empire Township. Coates has also distinguished the town center commercial area as the Central Business District. There are existing commercial/industrial areas in Castle Rock, Waterford and Randolph with vacant land to support additional limited non-farm business opportunities.

Other commercial and industrial development opportunities are limited to agri-business, service industries, and private golf courses, which are allowed in the Agriculture area rather than separate commercial or industrial land use categories.

Commercial and Industrial Policies:

- Evaluate business development opportunities that are consistent with local land use designations and zoning regulations.
- Require adequate lot size, site coverage, setback, parking, access, environmental controls, screening and landscaping standards for business development in order to provide safe and convenient access, and compatibility with adjoining land uses.
- Ensure that business developments are designed in a manner that is compatible with adjacent land uses, functional, safe and aesthetically pleasing.

8. Public/Institutional – Public Services

Public and institutional land is generally limited within the Collaborative area, but some individual uses are rather large land areas, such as UMore Park in Empire, Airlake airport and Mount Olivet Retreat Center in Eureka, St. Olaf College in Greenvale, Carleton College in Waterford, wildlife management areas in Ravenna, Marshan and Empire, and local and regional wastewater treatment facilities. UMore Park and the wildlife management areas are highlighted separately within this category. Typical public and institutional uses also include government facilities, churches, and schools. These uses are identified in a separate land use category for illustrative purposes; although, most communities allow such uses in other land use and zoning categories, such as agriculture or residential.

Municipal sewer and water services, located only in Empire Township and Vermillion City, are discussed in the individual comprehensive plans of those communities and are not discussed in any further detail in the Rural Collaborative Plan.

Public Facilities and Services Policies:

- Provide cost effective delivery of services through periodic analysis and updates of services, operating budgets, and capital improvement needs.
- Evaluate public safety needs and service options as the community grows.
- Ensure the proper functioning of individual sewage treatment systems through proper installation and periodic inspections through programs established in cooperation with Dakota County.

- Cooperate with the watershed management authority on area-wide capital improvement needs.
- Identify and plan for cost-effective improvements to public facilities as needs arise.
- Identify ongoing administrative requirements as the community grows.
- Maintain and improve existing public utility systems consistent with permitting standards. Accommodate provisions for the delivery of essential services that are consistent with need and the protection of public health, safety, and welfare.
- Evaluate cooperative service delivery options with adjacent communities and appropriate agencies.
- Implement existing and proposed plans, ordinances, and regulations to promote and protect the public health, safety, and welfare.

9. Conservancy

Some communities have identified areas within their boundaries that are considered to be environmentally sensitive or unique and warrant separate identification. The Conservancy land use category illustrates some of those areas and is consistent with the community-identified natural areas shown on **Figure 4**. Some conservancy areas are owned and used as public open space while others are private land holdings. Some areas previously identified as conservancy areas have become wildlife management areas. Currently, Eureka, Marshan, Vermillion, and Ravenna include Conservancy areas within their communities.

Conservancy areas include regulations for non-farm residential development consistent with the Agriculture density of 1:40. Individual ordinances include separate Conservancy zoning districts and generally limit other non-farm uses, including fewer provisions for allowable commercial or industrial uses.

10. Aggregate Resources

Portions of the collaborative area are identified with commercial grade aggregate deposits, including sand and gravel and limestone (see **Figure 3**). There are several existing commercial mining operations, as well as borrow pits throughout the collaborative area. Local communities regulate mining operations individually as part of zoning regulations or separate mining ordinances. With exception of existing development areas and planned growth areas, the majority of the aggregate reserves in the Collaborative area is protected for future use by the limited development density allowed in the Agriculture area and, to a certain extent, within the Rural Residential area. As the regional supply of commercial aggregate decreases and the value of aggregate increases, additional interest in and pressure for mining will occur throughout the Collaborative area.

11. Solar Access

The collaborative communities acknowledge the importance of protecting solar access from potential interference by adjacent structures. Due to the rural, low-density characteristics of the majority of the collaborative area, it is unlikely that solar energy systems would be precluded by structure interference. Zoning provisions within individual ordinances also regulate density, height, and structure setback in higher density residential areas and in commercial and industrial

areas to provide adequate protection for solar energy access. *It is the policy of the collaborative communities to protect solar access through adequate zoning standards.*

12. Historic Preservation

There are only two sites within the rural collaborative that are identified in the National Historic Register: the current Nininger Town Hall (Good Templars Hall, 1858) and the current Waterford Town Hall (District No. 72 School, 1882). Collaborative communities support historic preservation as a part of retaining the rural atmosphere and small town values throughout the area. The current low density and modest forecasted growth in the rural area assist in the preservation of all cultural resources. *It is the policy of the collaborative communities to work with the Dakota County Historical Society, the State Historic Preservation Office, the Preservation Alliance of Minnesota, and the National Park Service in efforts to preserve cultural heritage.*

D. Parks, Trails and Open Spaces

The primary local parks and trails in the collaborative area are located in the rural cities, rural residential areas (Ravenna and Castle Rock), and the urban service area in Empire Township. These areas are identified in the individual comprehensive plans of those communities. Open space and recreation opportunities are provided in the collaborative communities in university-owned lands, wildlife management areas, and other public land. There are also three existing and one planned regional parks in the collaborative area.

1. Regional Parks and Trails

Dakota County owns and operates several regional parks in the County, including three parks located in the collaborative area. **Lake Byllesby Regional Park** is a 462-acre park located on the east end and west end of Lake Byllesby in Randolph. The developed areas include a swimming beach, boat launch, campground, picnic area, playground, hiking and cross country ski trails. Over 90,000 visitors used the park in 2006. The hydroelectric dam on the Cannon River that created the lake in 1910 is still operating. Future expansion includes an additional acquisition of 148 acres.

Miesville Ravine Park Reserve is a 1405-acre natural area, located in Douglas, featuring hiking trails and trout fishing in Brook Creek, a tributary to the Cannon River. By definition a park “reserve” is a regional recreation area in which no more than 20% of the land area is developed. Miesville Ravine includes a 200-foot deep ravine along Brook Creek through oak forests. The park reserve also includes a picnic area and canoe launch. The Cannon River forms the southerly boundary of the regional park. An additional 262 acres have been identified for future acquisition. Over 15,000 people used the park in 2006.

Spring Lake Regional Park Reserve is located in Nininger along the Mississippi River. The park reserve is 928 acres in area and features hiking, cross country ski, and nature trails, a boat launch, picnic area, playground, and campground. Future acquisitions for the park include an additional 231 acres. Spring Lake is a “pool” in the Mississippi River created by Lock and Dam

No. 2 in Hastings. 109,000 people used the park in 2006. Part of the Mississippi River Regional Trail is designated within the park reserve.

Vermillion Highlands Open Space Collaboration includes a 460-acre unnamed regional park in Empire. Park acquisition was completed in 2008. The proposed regional park is adjacent to the 2800-acre UMore Park/Vermillion Highlands Modified Wildlife Management Area and the 800-acre Miles Wildlife and Aquatic Management Area. The Vermillion River main stem and North Branch Vermillion River traverse the combined open space and recreation areas. “Butler Lake” is located within the planned regional park which will feature trails, picnicking, and water-oriented activities.

Dakota County also owns and operates the Dakota Woods Dog Park, a 16-acre off-leash dog run area in Empire (120-acre County-owned site). The park also features walking trails and a picnic area for human patrons. Initially opened as a pilot facility in 2004, the park was used by 13,500 visitors in 2006 and has become a permanent park in the county system.

Existing trails in the collaborative area are primarily on-road (shoulder) bikeways. Existing bikeways include portions of state highways 3 and 56 and county highways 42, 47, 62, 66, 68, 78, 85, 88, 88, and 91. Future trail corridors have been identified by Dakota County as part of a “Greenways” network, primarily located along the major rivers in the rural area, including three regional trail corridors, noted below:

- ◆ Vermillion River Greenway Regional Trail (Eureka, Empire, Vermillion, and Marshan)
- ◆ Chub Creek Greenway Regional Trail (Eureka, Greenvale, Waterford, Randolph)
- ◆ Mill Towns State Trail – Cannon River (Waterford, Randolph)
- ◆ Cannon Valley Trail (Randolph, Goodhue County, Douglas)
- ◆ Mississippi River Greenway (Nininger, Ravenna)
- ◆ North Creek Greenway (Empire)
- ◆ Vermillion Highlands Greenway Regional Trail (Empire)

The County has also identified several “Rural Greenway and Conservation Corridors” in the collaborative area. These corridors cover many of the tributaries to the Vermillion River and Cannon River. The Regional Greenways and several Rural Greenways were identified by the collaborative community members in the 2000 Natural Areas and Corridors Study (See **Figure 4**). **Appendix A** is the Dakota County Parks, Lakes, Trails & Greenways 2030 Vision.

2. Dakota County Farmland and Natural Areas Program

In the late 1990s Dakota County initiated the Farmland and Natural Areas Program (FNAP). FNAP goals included the evaluation and prioritization of unique natural areas in the county and farmland preservation in conjunction with natural areas. The county identified areas eligible for farmland and natural areas protection and asked voters to support a \$20,000,000 bond referendum to implement the program. In 2002 county voters approved the referendum.

FNAP is a voluntary program in which landowners may submit requests for the county to acquire permanent natural area or agricultural conservation easements, or to work with partners to acquire properties for natural area protection and other public benefits. Between 2003 and 2008, the county approved or acquired permanent agricultural easements on 28 separate

properties totaling 3537 acres of land. The majority of this land is located within collaborative member communities along the Vermilion River, Dutch Creek, Pine Creek, and the Cannon River.

During the same time frame, the county approved acquisition funding for fee title or permanent, natural area easements on 28 properties totaling 2510 acres. Sixteen of these properties are located in collaborative member communities. To date the county has expended and committed \$14,700,000 in the program. This investment has resulted in successfully leveraging more than \$73,000,000 in federal, state, and other non-county funding and landowner donations for these land protection projects.

Parks, Recreation, Trails, and Natural Areas Policies:

- Periodically evaluate community parks, trails, and recreation needs and opportunities.
- Coordinate regional parks planning and regional trail opportunities with Dakota County and adjacent communities.
- Review and evaluate opportunities to implement the Dakota County Farmland and Natural Areas Program.
- Identify the potential for trail corridors in the community that link local and regional trails, parks, natural features, and community destinations.
- Evaluate regional greenway concepts in cooperation with Dakota County and local participation opportunities.
- Evaluate potential land gifts, conservation easements, and property forfeitures in areas with recreational development opportunities or natural resource protection that benefit the community and region.
- Monitor local land use development activities for compatibility with existing and proposed parks and recreation areas, natural features, and trails.
- Design and maintain local parks to ensure public and property safety.

E. Water Resource Protection

1. Water Resources

Surface water features and watershed boundaries in southern Dakota County are identified in **Figure 3**. Dakota County has primary responsibility for enforcement of zoning regulations to protect rivers, streams and lakes in the unincorporated townships through administration of the County Shoreland and Floodplain Management Regulations, while the responsibility within incorporated areas lies with each individual city. The County regulations are in conformity with the shoreland and floodplain regulations established by the Department of Natural Resources.

The Wetlands Conservation Act of 1991 provides each local unit with the responsibility for administration of the Act relating to wetlands protection. Most local units in southern Dakota County have informal agreements to receive technical assistance in terms of wetland evaluation, which is required under the Act, from the Dakota County Soil and Water Conservation District (SWCD). All communities have the alternative of formally conveying WCA review and permitting authority to the SWCD.

The most important functions of wetlands are their ability to act as groundwater recharge zones, and provide storage for runoff from storms or snowmelt. If development is allowed in wetlands, more severe flooding of the watershed is likely and water quality may be diminished. Wetlands also serve as unique habitat areas.

All townships and cities in the rural collaborative are located within either the Vermillion River Watershed or the North Cannon River Watershed. The North Cannon River Watershed organized in 1984 as a watershed management organization (WMO) and adopted a watershed plan in 2003. The Vermillion River Watershed was also organized as a WMO in 1984, but was dissolved in 2000 and reorganized through a joint powers agreement (Dakota and Scott counties) as the Vermillion River Watershed Joint Powers Organization (VRWJPO). The VRWJPO adopted its watershed plan in 2005.

The primary purpose of the watershed organizations is to protect and preserve natural drainage systems, surface water quality, and groundwater quality. The organizations are also responsible for insuring that jurisdictions properly and consistently implement local water management plans, unless permitting jurisdiction has been relinquished to the watershed authority. Where issues concerning more than one jurisdiction cannot be resolved through efforts at the local level, the JPO and WMO will act to settle such issues at the request of the jurisdictions.

Vermillion River Watershed

Twelve northerly rural collaborative communities are located within the Vermillion River Watershed. Four of these – Eureka, Castle Rock, Hampton and Douglas – are also located within the North Cannon River Watershed. The VRWJPO adopted its Watershed Plan (VRW Plan) in October, 2005. The VRWJPO amended the VRW Plan in October, 2006 with the adoption of the VRWJPO Standards. The Standards include a policy statement, basic regulation, and specific criteria to be met for each regulation in the following categories:

- ◆ Floodplain Alteration Standards
- ◆ Wetland Alteration Standards
- ◆ Buffer Standards
- ◆ Stormwater Management Standards
- ◆ Drainage Alteration Standards
- ◆ Agricultural Standards

In March, 2007 the VRWJPO adopted Rules, which govern situations where the JPO may act to implement the VRWJPO Standards when a local unit of government has failed to prepare or implement a local water management plan, permitting actions are inconsistent or at variance with a local water management plan, or when a local unit of government has relinquished permitting authority to the JPO. In February, 2008 the JPO amended the VRW Plan, again, by adopting revised Standards, revised Goals, Policies, Objectives, and Actions, and revisions to the Implementation Program.

The twelve rural collaborative communities (includes the City of Hampton) in the Vermillion River Watershed adopted joint resolutions to participate in the joint preparation of a rural collaborative local water management plan, to satisfy statutory requirements for local water

management planning and implement the VRW Plan. The Rural Collaborative Local Water Management Plan has been prepared independent of this Collaborative Comprehensive Plan and forwarded to the VRWJPO and Metropolitan Council for review. The VRWJPO Board approved the Rural Collaborative Local Water Management Plan on October 23, 2008.

Eleven collaborative member communities have adopted the Rural Collaborative Local Water Management Plan (Eureka Township declined approval). A collaborative Water Resources Management Ordinance has been prepared and approved by the VRWJPO. Public hearings were held in March and all communities have adopted the collaborative ordinance.

North Cannon River Watershed

Seven southerly rural collaborative communities are located within the North Cannon River Watershed. The NCRWMO adopted its Watershed Management Plan in October, 2003. The Dakota County Soil and Water Conservation District (SWCD) acts as administrator and technical advisor to the NCRWMO. The NCRWMO Watershed Management Plan includes the following goals:

- Natural Area Protection: To promote the protection, expansion, and restoration of high quality natural areas throughout the watershed including wetlands, woodlands, prairies, and riparian corridors (preferably in large contiguous tracts of land) for the betterment of water-based recreation, fish and wildlife habitat, and water quality.
- Wetlands: To protect wetlands from destruction or deterioration due to development, drainage, agriculture, and other adverse activities.
- Groundwater: To protect groundwater quality and quantity.
- Soil Erosion: To reduce soil erosion throughout the watershed.
- Surface Water and In-stream Habitat Quality: To protect and improve the surface water quality and in-stream habitat of streams, rivers, and lakes such that each water body is "fully supporting" for its use designation according to Water Quality Standards (MN Rules Chapter 7050) and MPCA's "Water Quality Criteria - Aquatic Life Use Support in Rivers and Streams."
- Surface Water Quantity: To decrease the rate and volume of water that may contribute to flooding or non-point source pollution from overland runoff and/or dewatering activities.
- Development: To protect groundwater, surface water, wetlands, and natural areas from accelerated development pressures.
- Information and Education: To inform landowners, children, and local units of government, about the watershed and human impacts on water quality and quantity, and to invite public participation in watershed management processes.
- Evaluation: To evaluate the NCRWMO and its member communities on their progress towards meeting the goals and performing the strategies outlined in this plan. While the strategies associated with these goals include some ordinance requirements for individual member communities, the WMO will not act as a permitting authority.

The SWCD prepared a model stormwater ordinance for NCRWMO communities in November, 2005. The stormwater ordinance includes permitting thresholds and responsibilities; standards for erosion and sedimentation control; standards for stormwater discharge rates, volume, and treatment; wetland setbacks and buffers; and surety requirements.

All collaborative member communities in the NCRWMO have formally adopted the NCRWMO Watershed Management Plan by reference as the local water management plan. All collaborative member communities in the NCRWMO have formally adopted the model stormwater ordinance prepared by the WMO.

Among the concerns identified in the NCRWMO Plan are levels of bacteria, nutrients, and sediment in the surface waters in the watershed. The Minnesota Pollution Control Agency (MPCA) has identified impaired waters within the North Cannon River Watershed since adoption of the 2003 Plan. The impairments include four waterways and two lakes identified in **Table 9** below.

Table 9

Impaired Waters

<u>Stream / Lake</u>	<u>Reach / Location</u>	<u>Impairment</u>
North Branch Chub Creek	Sec. 19 (Castle Rock) to Chub Creek	Fecal coliform
Mud Creek	Unnamed creek (Greenvale) to Chub Cr.	Fecal coliform
Cannon River	Northfield Dam to Lake Byllesby inlet	Turbidity
Trout Brook	Unnamed creek (Douglas) to Cannon R.	Turbidity
Chub Lake	Eureka	Total phosphorous
Lake Byllesby	Randolph	Total phosphorous

The SWCD installed three automated monitoring stations in the watershed in 2008 to improve water quality monitoring upstream from Lake Byllesby. The new equipment allows continuous flow measurements for better analysis of load calculations and for comparison with base line data collected in four previous sampling periods from 1999 to 2005. The 2008 monitoring data suggests possible trends in lower historical phosphorous levels and lower bacteria levels. The SWCD also has monitoring stations on Pine Creek and Trout Brook which allow staff and volunteer sampling.

Other concerns identified in the NCRWMO Plan include the loss of wetlands, channel alterations, and streambank erosion. The SWCD recently completed a wetland inventory within the North Cannon River Watershed and has developed a model wetland management ordinance, including wetland and waterways buffer component. The NCRWMO Plan adopted by all member communities requires the preparation and adoption of a wetland management ordinance. The collaborative member communities have also passed resolutions committing them to adopt an ordinance when reviewed by member communities and recommended for adoption by the WMO.

The draft wetland management ordinance requires wetland delineations to be completed where land disturbances may impact any wetland. The ordinance also requires a Minnesota Rapid Assessment Methodology (MnRAM) functional assessment of wetlands, or other accepted methodology under the Wetland Conservation Act. The draft wetland management ordinance currently classifies wetlands and buffer easement requirements based upon exceptional, high, medium, and low quality wetland functions.

Dakota County received a \$160,500 grant from the MPCA in 2005 for identification and upgrading of failing septic systems within shoreland areas of Chub Creek and the Vermillion River. The NCRWMO received a \$30,000 MetroEnvironment Partnership Grant through the Metropolitan Council in 2006 for sediment reduction in the Trout Brook sub-watershed. In 2008, the SWCD facilitated seven filter strip/grassed waterway improvements, two sediment control projects and one feedlot runoff control project in the NCR watershed, valued at \$40,250, through the Incentive Payment Practice Program and State Cost Share Program. The NCRWMO members annually update watershed priorities and approve the budget for the WMO.

2. Water Resources Goals And Policies

Water Resources Goals. It is the goal to:

- Protect water resources from improper land use resulting in unnecessary impacts.
- Maintain and enhance natural systems and water resources for future generations to enjoy.
- Protect surface waters and wetland areas to promote water quality, recreation opportunities, aesthetic qualities, natural habitat areas, and ground water recharge.
- Protect the habitat and biodiversity of the area.
- Work with local watershed organizations to improve water resources.

Water Resources Policies. It is the policy to:

- Adopt and enforce wetland alteration and mitigation requirements consistent with the Wetlands Conservation Act.
- Cooperate and coordinate actions with Dakota County regarding the enforcement of the County Shoreland and Floodplain Management Ordinance.
- Require, as part of any proposed subdivision, that the natural drainage system remain intact to the extent practicable.
- Approval of land disturbance activities will be consistent with the Rural Collaborative Water Resources Management Ordinance, NCRWMO model Erosion Control and Stormwater Management Ordinance and pending NCRWMO model wetland management ordinance.
- The natural drainage will be protected and used to the extent possible for storage and flow of runoff. Wetlands should be used as natural recharge areas. Pre-settling of runoff will be required prior to discharge to wetlands.
- Temporary storage areas and pre-sedimentation ponds will be required to accommodate peak flows of water runoff. Newly constructed stormwater sedimentation ponds will be required to meet pond design standards of the Nationwide Urban Runoff Program (NURP).

- Monitor actions of the Vermillion River Watershed JPO and North Cannon River WMO to insure that local interests are addressed in a coordinated and equitable manner.
- Develop goals and policies related to the prevention of agricultural runoff and water quality, including educational programs in cooperation with the Dakota Soil and Water Conservation District.
- Use MPCA's urban "Best Management Practices" (currently titled "Protecting Water Quality in Urban Areas") for all new or redeveloped land developments.
- Incorporate stormwater management practices and regulations through amendments to local zoning ordinances or separate ordinances, consistent with watershed plans and standards.
- Require and review Stormwater Pollution Prevention Plans (SWPPP) that provide preventive measures for erosion and sedimentation related to proposed development.
- Require and review NPDES Construction Permit documentation for all land disturbances exceeding one acre in area.
- Require development proposals to include measures for preventing erosion, minimizing site alteration, minimizing and improving the quality of runoff, and addressing view impacts during and after construction.
- Prohibit development on slopes greater than 18%.
- Encourage development to conform to the natural limitation of the topography and soil so as to create the least potential for soil erosion.
- Proposed extraction operations shall be required to submit permit documentation and land reclamation plans consistent with standards outlined in local ordinances.
- If erosion is resulting from an agricultural operation, the Soil and Water Conservation District should be consulted regarding possible corrective or preventive measures.
- Work with the Vermillion River Watershed JPO and the North Cannon River WMO and member communities to adopt, implement, and update local water management plans and ordinances.
- Work with the Dakota Soil and Water Conservation District to enhance education and programs related to the prevention of agricultural runoff and water quality.
- Utilize services through the Soil and Water Conservation District to review predevelopment in steep sloped areas, wet soils, and high water table areas.
- Wet soils and high water table areas will be regulated through the Zoning Ordinance.
- Establish and enforce standards and regulations restricting the clear cutting of woodland areas.

3. Individual Sewage Treatment Systems

The townships are not served by public sewer systems, with the exception of a portion of Empire Township. The cities of Coates and Miesville and portions of the cities of Hampton and Vermillion are not served with public sewers. Hence, the vast majority of households and businesses in the collaborative area are dependent upon individual sewage treatment systems (ISTSs). It is estimated that there are approximately 5,000 residential and commercial individual sewage treatment systems in the collaborative area.

Minnesota Pollution Control Agency Rules Chapter 7080 (now amended to incorporate Chapters 7081-7083), require that certain standards be met for all ISTS installers, pumpers, haulers,

designers and inspectors, as well as administration and enforcement of the Rules by local units of government. Dakota County Ordinance #113 governs ISTS regulations in areas of its jurisdiction. The ordinance provides standards, guidelines and regulations for the compliance and enforcement of the proper siting, design, construction, installation, operation, maintenance, repair, reconstruction, inspection and permanent abandonment of ISTSs.

Many of the provisions in Dakota County Ordinance #113 are more restrictive than MPCA Rules Chapter 7080, including requirements to submit “as-built” records by local installers, prohibiting repair or modification of cesspools, seepage pits and dry wells into septic tanks, requiring a State-licensed inspector, and requiring a seller of property to have a sewage system compliance inspection. Dakota County is currently working with area building officials to review amendments needed to Ordinance #113 and to develop a local model ordinance that will incorporate new provisions of MPCA Rules Chapters 7080-7083.

The collaborative member communities have adopted Ordinance #113 and are responsible for the review, permitting, and inspections of new and existing ISTSs. All ISTS designers, installers, inspectors, and pumpers must be licensed by the MPCA. Dakota County maintains authority for permitting and inspections within shoreland and floodplain areas.

The collaborative member communities and Dakota County have established a cooperative 3-year inspection program for ISTS monitoring and maintenance. The County provides notification to approximately one-third of the ISTS owners in each community every year. The notification includes the requirement for the pumping of septic tanks and visual inspection of the system.

ISTS owners are required to contract with licensed pumpers for the maintenance and inspection program. Pumpers are required to submit pumping and inspection records to the County. If the inspection reveals necessary or potential repairs to a system the County refers the action to the local unit for appropriate enforcement. If ISTS owners do not respond to the maintenance and inspection requirement after a third notice, the County refers the matter to the local unit for enforcement. Inspection violations, complaints, and potential repairs are referred to local Building Officials for enforcement. If the Building Official cannot remedy violations and repairs through normal enforcement procedures, the matter is turned over to the Township Attorney or City Attorney for prosecution.

Individual Sewage Treatment System Policies. It is the policy to:

- Maintain the joint management program for individual sewage treatment systems that includes:
 - ◆ Design, construction, and inspection of new systems;
 - ◆ Record keeping of existing systems;
 - ◆ Pumping and inspection of systems every three years;
 - ◆ Repair or replacement of systems found to be an imminent public health threat or failure.
- Require ISTS inspectors to maintain adequate training and certification regarding updated installation techniques and regulations relating to individual sewage treatment systems.

- Require existing individual sewage treatment systems that need to be expanded or replaced to meet the standards of MPCA Rules Chapters 7080-7083, as amended, and Dakota County Ordinance #113 standards and regulations. Only alternative systems identified in MPCA Chapter 7080 will be allowed in the communities.
- Update local ordinances to incorporate amended MPCA Rules Chapters 7080-7083 standards.

F. Transportation

1. Functional Classification

Road functional classifications for major roads in southern Dakota County are shown in **Figure 7**. All primary highways are under the jurisdiction of either Dakota County or the Minnesota Department of Transportation (MnDOT). There are two Principal Arterials that traverse the collaborative area: US trunk highway (TH) 52 and state trunk highway (TH) 316. The balance of major roadways include A Minor Arterials, B Minor Arterials, and Collectors.

2. Traffic Counts/Projections and Deficiencies

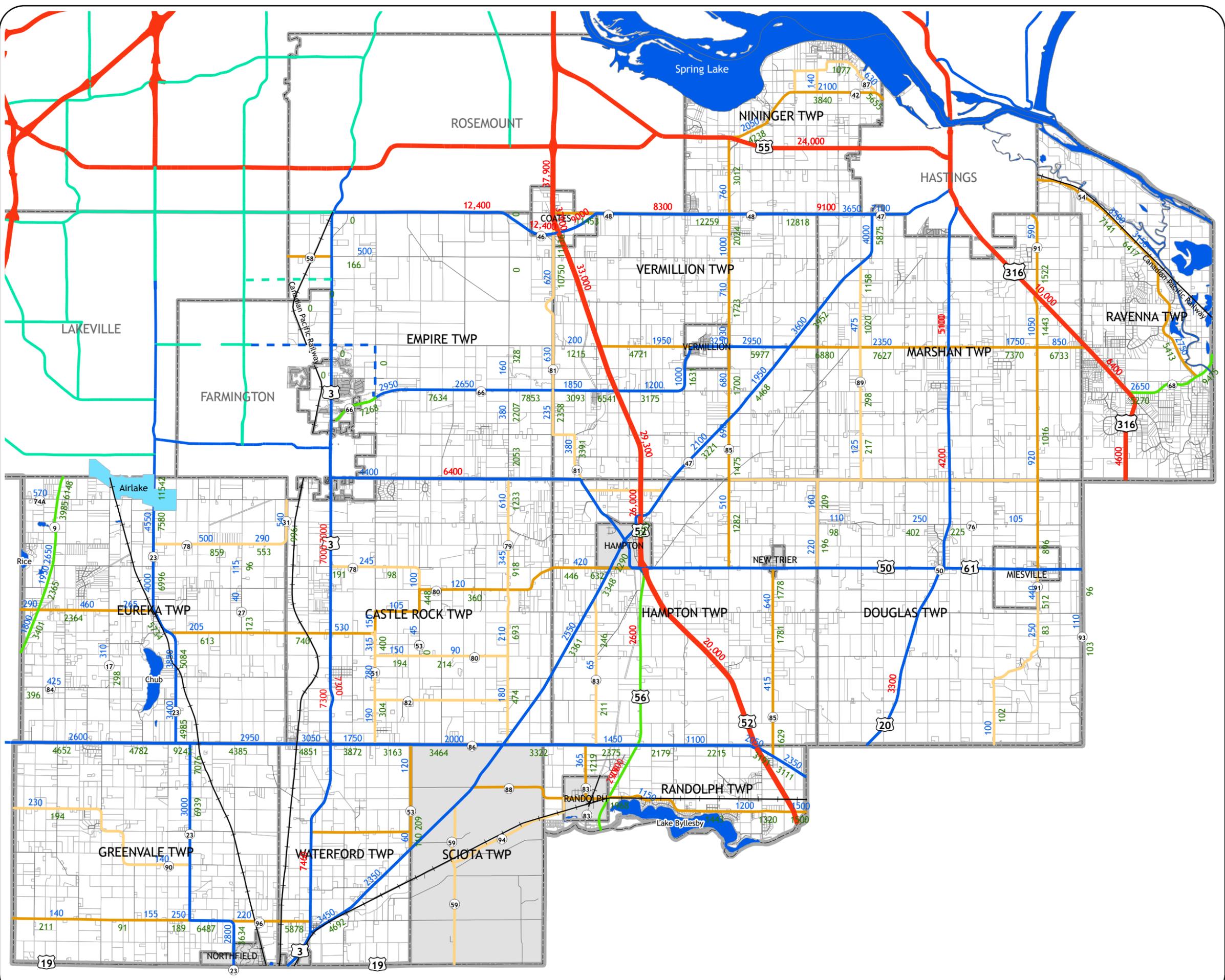
Average daily traffic counts for 2000 and projections for average daily trips in 2030 are illustrated on **Figure 7**. The 2030 projections by Dakota County were extrapolated from 2025 projections. 2030 projections were also modeled by the Metropolitan Council. Existing and forecasted traffic counts assist in determining current and future deficiencies in the highway system. There are no current deficiencies in the highway system in the Collaborative area identified by Dakota County. The only 2030 forecasted deficiencies in the Collaborative area, identified in the Dakota County 2025 Transportation Plan, as amended, include CSAH 48 in Vermillion, Nininger and Marshan Townships and TH 52 intersections in Vermillion, Hampton and Randolph Townships.

CSAH 48 is identified to be expanded to a 4-lane highway west of Hastings to CSAH 47. The balance of CSAH 48, between CSAH 47 and TH 52 is expected to reach capacity by 2030. The intersection of CSAH 66 and TH 52 in Vermillion Township and the intersection of CSAH 86 and TH 52 in Hampton and Randolph Townships have been identified by Dakota County and MNDOT as deficient. Neither proposed interchange is funded. An CSAH 47 overpass on TH 52 in Hampton has been completed and the ramps and frontage roads for a new interchange are planned and funded.

The only existing 4-lane Principal arterial in the Collaborative area is TH 52. TH 55 and TH 316 are 2-lane highways. A Minor arterial highways in the Collaborative area are 2-lane highways with exception of a 4-lane segment of CSAH 46 in Empire. Dakota County has identified 2030 needs for upgrading a segment of CSAH 46 (Empire and City of Coates) from TH 3 to TH 52 to 4-lane and a segment of CSAH 48 (Nininger and Marshan) west of the City of Hastings to 4-lane. The Metropolitan Council has identified 2030 “unconstrained needs” to upgrade TH 3, TH 55, and TH 316 in the Collaborative area to 4-lane roadways.

Dakota County, MN

Figure 7 Transportation



2030 Functional Classification (Dakota County/Metropolitan Council Transportation Plans)

- Principal Arterial
- A Minor Expander
- A Minor Connector
- B Minor
- Major Collector
- Minor Collector
- - - Future A Minor Arterial - Expander
- - - Future A Minor Arterial - Connector

- 250 2000 Traffic Counts (Dakota County)
- 250 2030 Traffic Projections (Dakota County)
- 250 2030 Traffic Projections (Metropolitan Council)

- Railroad



There are 16 Traffic Analysis Zones (TAZs) in the Collaborative area. TAZs allow the transportation agencies to use planned land uses and development forecasts to assist in modeling future transportation needs based on geographic areas. The rural communities are generally included within a single TAZ, with the exception of Empire, Hampton, Marshan and Nininger townships, which have two TAZs. The 2010-2020-2030 forecasts for population, households and employment for the communities with one TAZ are illustrated in **Tables 5-7**. **Table 10** illustrates the estimated breakdown of 2010-2020-2030 population, household and employment forecast data within Empire, Hampton, Marshan and Nininger townships in their respective TAZs.

Table 10

2010-2020-2030 Forecasts for Multiple TAZ Communities

<u>TAZ/ Community</u>	<u>2010</u>			<u>2020</u>			<u>2030</u>		
	<u>Pop.</u>	<u>Hse.</u>	<u>Emp.</u>	<u>Pop.</u>	<u>Hse.</u>	<u>Emp.</u>	<u>Pop.</u>	<u>Hse.</u>	<u>Emp.</u>
161/Hampton	500	180	40	520	200	45	600	225	50
162/Hampton	500	180	50	530	200	55	600	225	60
165/Marshan	650	225	100	670	245	110	700	260	120
166/Marshan	650	225	130	680	245	140	700	260	150
168/Empire	420	140	40	400	140	40	375	140	40
169/Empire	2080	710	260	5200	1785	350	8115	2860	440
228/Nininger	740	260	110	765	290	150	800	310	190
229/Nininger	200	70	110	225	80	160	250	90	210

3. County Road Turnbacks and Improvements

The Dakota County 2025 Transportation Plan identifies existing county roads that are candidates for jurisdictional transfer or turnback to local units of government. Such turnbacks will add responsibilities for additional roadway maintenance to local communities. Roads located in the collaborative area that are turnback candidates include:

- CR 58 Empire (completed in 2008)
- CR 48 City of Coates
- CR 87 Nininger
- CR 81 Empire, Vermillion, and Coates
- CR 76 Douglas
- CR 93 Douglas
- CR 53N Castle Rock
- CR 80S Castle Rock
- CR 83 Hampton, Randolph
- CR 53 Waterford
- CR 94 Waterford, Randolph
- CR 90 Greenvale

Dakota County has a Capital Improvements Program (CIP) that identifies priorities for upgrading of County roads. The 5-year CIP is updated annually and subject to change based on needs and priorities. Local jurisdictions provide input into this process on an annual basis, and the County CIP reflects a balance of the needs of the jurisdictions and priorities for addressing system deficiencies.

4. Access Management

Dakota County has identified guidelines for access locations on all major roadways. Controlled access improves highway safety and congestion and may limit expenditures on future road improvements. In general, full street intersections are limited to half-mile spacing intervals and $\frac{3}{4}$ intersections are limited to quarter-mile spacing on all principal highways and divided highways with more than 35,000 average daily trips (ADT). Full street intersections are limited to quarter-mile spacing intervals and $\frac{3}{4}$ intersections are limited to eighth-mile spacing on all divided highways with more than 15,000 ADT. Full street intersections are limited to quarter-mile spacing intervals on all other highways with more than 15,000 ADT. Street intersections and private driveways are permitted at eighth-mile spacing on other highways with less than 15,000 ADT. Private access on roadways with less than 3000 ADT is determined on a case-by-case basis.

5. Transportation Corridor Studies

There are several corridor studies identified in the 2025 Transportation Plan located in the collaborative area. The 2006 Phase 2 East/West Corridor Study identifies a new east-west County road in Empire (CSAH 64 extension/190th Street), a new CSAH 66 alignment in Empire Township, and a new CSAH 66/TH 52 interchange in Vermillion Township. The 2008 Hastings Area Roadway System Study identifies potential transportation improvements on TH 55, TH 61, TH 316, CSAH 46 and CSAH 47 in Nininger, Vermillion and Marshan townships.

The 2008 Northwest Northfield Highway Corridor Study potentially impacts Eureka and Greenvale townships with the realignment of CSAH 23. A proposed North/South Principal Arterial Study will potentially impact Empire Township and Castle Rock Township. The proposed River to River (Minnesota River to Mississippi River) Corridor Study will potentially impact the southern tier of collaborative area communities (TH 50 and CSAH 86 principal arterial analysis). Collaborative communities will coordinate transportation issues identified in these studies with Dakota County.

The Highway 52 Freeway Partnership is an on-going collaboration between MnDOT, Dakota County, Goodhue County, and Olmstead County to improve safety and congestion on the TH 52 Interregional Corridor between the Twin Cities and Rochester. Recent improvements in the Collaborative area include a new interchange at TH 52/CSAH 46 in Coates and a new CSAH 47/TH 52 overpass in Hampton. Future improvements include a proposed realigned CSAH 66/TH 52 interchange in Vermillion Township, a proposed CSAH 47/TH 52 interchange in Hampton, and a proposed CSAH 86/TH 52 interchange in Randolph and Hampton townships.

Dakota County initiated a transportation study late in 2008 to evaluate transportation needs and alternative highway corridors in Empire and the City of Rosemount, resulting from the

University of Minnesota's 5000-acre UMore Park development concept and the Vermillion Highlands Open Space Collaboration. The study is evaluating north-south and east-west corridor needs based on planned growth in the two communities and growth potential of UMore, and analyzing potential limitations to normal highway spacing due to the locations of the new regional park, large WMA/AMA complex, the main stem and branches of the Vermillion River, and the MCES' Empire wastewater treatment facility. The study will be completed by December 2009.

6. Bikeways

Dakota County has responsibility as the major provider and planner for bikeways in the County, particularly in the rural area of the County. Designation of a bikeway by the County is an indication that if a road is to be improved, consideration will be given to the construction of shoulders to increase safety for biking. The County transportation plan includes a policy that off-road bikeways will be constructed, when appropriate, on all County roads to accommodate bicycles. Shoulder widening or paving may also be evaluated as road improvements or overlays are planned on County roads. The network of on-road trails in the Collaborative area is described in Section D.1. above.

7. Transit

The Collaborative area is located outside of the Metropolitan Transit Taxing District in Market Area IV. There are no existing transit facilities or services and no plans for transit services in the Collaborative area, with the exception of the continuation of service by the Dakota Area Resources and Transportation for Seniors (DARTS), a limited dial-a-ride service primarily for seniors and disadvantaged transit-dependent residents. There is a park and pool lot located near TH 52 at the TH 50/56 interchange in the City of Hampton.

8. Airports

Southern Dakota County is located in the region's critical airspace, where incoming and outgoing flights travel. Local policies and regulations will protect low altitude airways in the regional airspace from tall structures. Collaborative communities will require any applicant who proposes any construction or alteration exceeding a height of 200 feet above ground level, or any construction or alteration of greater height than an imaginary surface extending upward and outward at a slope of 100:1 from the nearest point of the nearest runway of a public airport, to notify the FAA at least 30 days in advance of any permit action.

Minneapolis-St. Paul (MSP) International Airport, Airlake Airport, and South St. Paul Airport are the nearest facilities within the regional system. Airlake is located in Eureka Township and the City of Lakeville, South St. Paul is located in South St. Paul, and MSP is located immediately north of Dakota County. Airlake and South St. Paul are classified as minor reliever airports within the regional system. St. Paul Downtown Airport, an intermediate reliever, is also located just north of Dakota County.

Transportation Policies. It is the policy to:

- Enforce county and state access spacing guidelines by limiting access to major roads in the community and encouraging shared access, frontage roads and local road intersection spacing guidelines.
- Coordinate transportation planning and system improvements with local, county, regional and state jurisdictions.
- Cooperate and coordinate with area communities, the county, and state for the development of regional trail corridors.
- Cooperate with county and state agencies in preserving right-of-way needs for future roadway improvements.
- Evaluate land use development standards that promote safety for both vehicles and pedestrians.
- Periodically review priorities to improve the local transportation system.
- Evaluate and coordinate available and potential transit programs and opportunities for residents and businesses, such as park and ride facilities, rideshare programs, and dial-a-ride services.
- Evaluate cooperative efforts and opportunities to preserve long-range potential transportation corridors needed to serve the region.
- Protect navigable airspace by limiting structure heights consistent with FAA rules.

IV. IMPLEMENTATION

This Plan has been prepared with the guidance and direction of the collaborative communities participating in the joint planning effort, and through financial assistance of the Metropolitan Council and Dakota County. The Plan has been adopted by resolution of the collaborative communities, subject to review by the Metropolitan Council.

The participating townships and cities believe that this Collaborative Plan will provide a strong basis upon which to review and implement official controls in order to protect the health, safety and welfare of the residents of the communities. The following describes the methods by which the townships and cities intend to implement this Plan.

A. Official Controls

The townships and cities in the Collaborative area will be evaluating their existing zoning and subdivision ordinances for consistency with the Rural Collaborative Plan. The collaborative communities have received a Community Development Block Grant to collectively review and prepare ordinance amendments that are of most importance to the joint participants. Potential amendments to local ordinances will reflect any revised policy directions as identified in this Plan and will eliminate any inconsistencies with this Plan. Preliminary interest in potential collaborative ordinance amendments include residential clustering provisions, subdivision standards, revised ISTS requirements, animal feedlot standards, and communication tower regulations.

Collaborative communities in the Vermillion River Watershed have completed an independent collaborative local water management plan. The VRWJPO approved the collaborative local water management plan on October 23, 2008. The communities which wish to retain water resources permitting must adopt the local plan by late February 2009 and must adopt a local water resources management ordinance by late April 2009. The collaborative communities have completed the Water Resources Management Ordinance, approved by the VRWJPO, to implement the local water management plan.

Collaborative communities in the North Cannon River Watershed have adopted a local water management plan and stormwater management ordinance. The communities are committed to adopting a model buffer and wetland management ordinance, prepared by the WMO in the Fall 2008, after review and any recommended revisions to the model ordinance.

Cities and townships are responsible for the adoption and enforcement of local zoning and subdivision ordinances. Dakota County administers the Shoreland and Floodplain Management Regulations in the townships. Subdivision and platting of land within the townships and cities will be required to conform to provisions of the local zoning and subdivision ordinances. Local zoning ordinances also have performance standards that address development requirements as they relate to densities, lot size, and other dimensional standards.

Dakota County administers the County Contiguous Plat Ordinance, which places requirements on residential development in unincorporated areas of the County and adjacent to County roads. The County Plat Commission is authorized to review plats of proposed subdivisions adjacent to County roads and to limit direct access to County roads. The Plat Commission reviews access requests according to a set of access spacing guidelines adopted by the County Board. The Plat Commission requires sub-dividers to place access restrictions on new plats as a condition of approval.

Dakota County administers Ordinance No. 113, which establishes provisions for ISTS permitting, monitoring and inspections in the County. The collaborative communities permit and inspect new ISTSs, while the County assists the communities in a 3-year inspection and maintenance program of existing ISTSs. The collaborative communities are responsible for enforcement of the inspection and maintenance program. The County also has ISTS permitting and land use management authority within shoreland and floodplain areas. Dakota County is currently considering amendments to Ordinance No. 113 for consistency with recent amendments to the Minnesota Pollution Control Agency Rules Chapter 7080, governing ISTSs.

New affordable housing opportunities in the Collaborative area are generally limited to the rehabilitation of and resale of existing homes. Median home values in the rural areas are typically lower than the metropolitan area median. Collaborative communities will cooperate with the Dakota County Community Development Agency and the Minnesota Housing Finance Agency for home improvement and weatherization grant and loan programs. Additional affordable housing opportunities are possible in a portion of Empire Township, which is located in the Metropolitan Urban Service Area.

B. Capital Improvements Plan

The collaborative communities have few capital expenditures outside of those periodically added to general operating budgets. The exceptions include a few of the communities which have developed independent comprehensive plans in addition to the Rural Collaborative Plan. Any Capital Improvement Plan adopted by those communities is included in their independent comprehensive plan.

C. Plan Amendment Process

The provisions of the zoning ordinances will be maintained and preserved through the term of the Comprehensive Plan, unless formally amended. Amendments to the local zoning ordinances will be consistent with the Comprehensive Plan.

When considering amendments to this plan, local units will use the following procedure:

1. Landowners, the Planning Commission, the Town Board/City Council or other interested parties may initiate amendments.
2. The Planning Commission will conduct a thorough analysis of the proposed amendment.
3. The Planning Commission will prepare a report analyzing the proposed changes, including their findings and recommendations regarding the proposed plan amendment.
4. The Planning Commission will hold a formal public hearing on the proposed amendment.

5. Following the public hearing, the Planning Commission will make a recommendation to the Town Board/City Council.
6. The Town Board/City Council will receive the recommendation from the Planning Commission and make a final decision on whether to adopt the amendment.
7. All amendments to the plan will be submitted to adjacent and affected jurisdictions and the Metropolitan Council for review prior to implementation, as required by State law.

APPENDIX A

Dakota County Parks, Lakes, Trails & Greenways 2030 Vision

Dakota County Parks, Lakes, Trails and Greenways Vision, 2030

What's New?

GREAT PLACES: Destination Parks

- New Vermillion Highlands Park
- More things to do in parks
 - Winter activity area
 - Gathering and celebration areas
 - Swimming and water play areas
- More popular "park basics"
 - Enhanced picnicking
 - Biking and accessible trail loops

CONNECTED PLACES: Greenway Trails

- "Bring parks to people" -- Linear parks connect parks, schools, lake trails, playgrounds, libraries, and the Minnesota and Mississippi Rivers.
- Walking, biking, and in-line skating
- Public agencies work together to create 200 miles of greenways using mostly publicly-owned land.

PROTECTED PLACES: Green Infrastructure

- Enhance and protect park resources
- Protect stream corridors in public/private partnerships
- Protect natural areas and open space in public/private partnerships

DAKOTA COUNTY PARK SYSTEM and COLLABORATIVE OPEN SPACE PROTECTION

- Dakota County Parks
- Planned Vermillion Highlands Regional Park
- Federal, State, and Other Regional Open Space
- Existing and Planned Regional Greenways
- Proposed Greenway (will seek regional status)
- Example City Greenways (route concepts)
- Stream Conservation Corridors and Greenways
- Destinations: City Parks, Schools, Lakes, Libraries
- Privately-Owned Protected Farmland (FNAP)
- Private/Public Protected Natural Areas (FNAP)
- Potential Rail to Trail Opportunities



Notes:
Regional greenways are intended to illustrate routes, not actual scale. City greenway routes are suggested. Greenway design standards and master plans will be developed through greenway partnerships.

Dakota County Office of Planning, 2008

Concepts for Greenways

