EUREKA TOWNSHIP 2040 COMPREHENSIVE PLAN

Eureka Township, Minnesota

Draft Plan November, 2016
TKDA Project No. 15944.000

TKDA

Table of Contents

CHAPTER 1. VISION AND CONTEXT
2040 Township Vision 1-2
Regional Setting 1-4
Early History 1-6
Demographics, Economy and Growth Forecasts 1-7

CHAPTER 2. NATURAL, AGRICULTURAL, AND CULTURAL RESOURCES
Water Resources 2-2
Natural Areas 2-3
Topography and Geology 2-4
Agricultural and Cultural Resources 2-4
Natural Resource Issues and Priorities 2-13
Aggregate Resources 2-16
Solar Resources 2-18
Agricultural Resource Issues and Priorities 2-19
Goals and Policies 2-21

CHAPTER 3. LAND USE PLAN
Existing Land Uses 3-2
Land Use Issues 3-4
Housing—Housing Needs and Affordable Housing 3-8
Aggregate Extraction 3-9
Solar Resources and Protection 3-9
2040 Planned Land Use 3-10
Goals and Policies 3-12

CHAPTER 4. PARKS, TRAILS AND RECREATION
Existing Facilities 4-2
Future Parks and Trails 4-3
Goals and Policies 4-8

CHAPTER 5. TRANSPORTATION
Existing Surface Transportation Facilities 5-2
Future Surface Transportation System 5-5
Transportation and Township Land Use 5-7
Multimodal Transportation Facilities 5-12
Aviation 5-13
Goals and Policies 5-16

CHAPTER 6. WATER RESOURCES
Water Supply Plan 6-2
Water Supply Goals and Policies 6-8
Wastewater 6-9
Surface Water Planning 6-11

CHAPTER 7. IMPLEMENTATION
Official Controls 7-2

Capital Improvements 7-2
Additional Planning 7-2

ATTACHMENTS

Local Surface Water Management Plan
Comment Letters from Affected Jurisdictions and Neighboring Communities

FIGURES

Community Designation 1-5
Surface Water Features 2-6
Native Plant Communities 2-7
Natural Areas 2-8
Prime Agricultural Soils 2-9
Steep Slopes and Topography 2-10
Agricultural Lands and Preserves 2-11
Cultural Resources 2-12
Natural Resource Corridors 2-15
Sand and Gravel Resources 2-17
Existing Land Use 3-3
2040 Planned Land Use 3-11
Parks, Trails and Recreation 4-5
Roadway Characteristics 5-3
Transportation System 5-4
Existing Traffic and Traffic Forecasts 5-10
Transportation Analysis Zones 5-11
Airport Safety Zones 5-15
Surface Water Features 6-3
Hydrogeological Zones 6-5
Observation Wells 6-6
Regulatory and Management Areas 6-7
Regional Interceptors 6-10
Water Management Organizations 6-12
Township Zoning Map 7-5
Water Management Organization Boundaries and Water Resources A-3
Existing Land Use A-5
2040 Planned Land Use A-6
Surface Water Features A-11
Natural Areas A-15
Natural Resource Corridors A-16

TABLES AND GRAPHS

Population and Households 1-7
Population by Age and Gender 1-8
Employment 1-9
Growth Forecasts 1-10
Existing Land Use 3-4
Existing and Future Housing Units 3-6
Planned Land Use 3-10
Growth Forecasts by TAZ 5-7
Protected Waters A-7
Impaired Waters A-8

ACKNOWLEDGEMENTS

Thanks to the many residents of Eureka Township who participated in community meetings during the Comprehensive Plan update process, worked on related planning documents, and who otherwise contribute to the quality of life in the community.

The Eureka Township 2040 Comprehensive Plan was prepared under the guidance of the Planning Commission, and was reviewed and approved by the Town Board.

Planning Commission

Nancy Sauber, Chair
Fritz Franna
Ralph Fredlund
Donovan Palmquist
Randy Wood

Town Board

Brian Budenski, Chair
Cory Behrendt
Carrie Jennings
Lu Barfknecht
Dan Rogers

CHAPTER 1.

VISION AND CONTEXT

Introduction

The Vision and Context chapter is the starting place for Eureka Township's 2040 Comprehensive Plan. It presents the local and regional context, the findings of Eureka's recent planning efforts, and data and descriptions of existing conditions.

This chapter includes:

- 2040 Township Vision
- Why Plan?
- Regional Setting
- Early History
- Demographics, Economy and Growth Forecasts

2040 Township Vision

In 2007, the Township completed an extensive community process to develop a vision for the Township's future. The Strategic Vision was undertaken specifically as a prelude to the 2030 Comprehensive Plan update process. The Strategic Vision document continues to express the Township's vision of its future for the year 2040.

> *In the year 2040, Eureka Township will be a rural and agricultural environment characterized by farms, private and public open space, very low density non-farm housing with private utilities, and a small number of businesses including home occupations and agricultural-related enterprises. Residents will continue to enjoy a high quality of life due to the Township's natural beauty and tranquility.*

Why Plan?

For the Town

A Comprehensive Plan is general in nature and long range. The Eureka Township 2040 Comprehensive Plan identifies the goals, policies and implementation strategies that guide the Town's decision-making.

Goal: A statement that broadly describes a desired future condition for Eureka Township.

Policy: A statement that guides decisions or the actions the Township will take to implement the goals.

The Town's objective for comprehensive planning is: to make sound public decisions through a structured and transparent process for the wise long-term use of land, water and financial resources in Eureka Township. The Plan is the basis for regulating land use, including the zoning ordinance. It is to be used in reviewing land use applications, guiding investment of Township resources, and coordinating with other units of government.

The Strategic Vision document communicates the importance of using, amending, and maintaining the Eureka Township Comprehensive Plan.

> *Using the Comprehensive Plan: Use the comprehensive plan to guide all zoning changes to ensure consistent development policy.*
>
> *Maintaining the Comprehensive Plan: Review the comprehensive plan from time to time and amend it as necessary to ensure its usefulness as a practical guide for current and future development. Formulate and enforce ordinances to ensure development in accordance with the comprehensive plan.*

Amending the Comprehensive Plan: The Eureka Township Planning Commission may propose amendments to the comprehensive plan from time to time as circumstances warrant. The public should be notified of these major proposed changes and allowed an opportunity to become informed of the change and comment.

These strategies will ensure that the Plan continues to be a relevant policy document over the years, maximizing the investment in time and resources spent in updating the Plan through 2040. Like all other communities in the Metropolitan Region, Eureka Township will go through a process to update its comprehensive plan every ten years.

For the Region

The comprehensive plan update also serves to meet the Town's requirements under the Metropolitan Land Planning Act. In 1967, the Minnesota Legislature created the Metropolitan Council to plan and coordinate the orderly development of the Twin Cities Metropolitan Area. Minnesota law requires every municipality and county within the metro area to prepare and submit a comprehensive plan to the Metropolitan Council every ten years. The local plan is required to be consistent with the Council's *2040 Regional Development Framework* (called *Thrive MSP*) and with the regional system plans.

Planning Process

Eureka Township's Planning Commission and Town Board created its 2040 Comprehensive Plan. Planning Commission meetings were open to the public. Information was shared through the Township website and the Township held public meetings to share draft planning elements with the community. The Planning Commission held a public hearing on _____ and the Town Board approved the Plan on _____.

Regional Setting

Location

Eureka Township is located in the southwestern corner of Dakota County, Minnesota, on the fringe of suburban development in the Minneapolis-St. Paul metropolitan region. Eureka Township includes nearly thirty-six square miles, an area established through the U.S. Public Land Survey System (PLSS). The PLSS was a method used to survey lands in the Midwest and Western United States during the mid-1800s.

Unlike many townships in the metropolitan region which have had boundary changes over the years as nearby cities annexed land, Eureka Township's political boundaries largely remain along the PLSS boundaries.

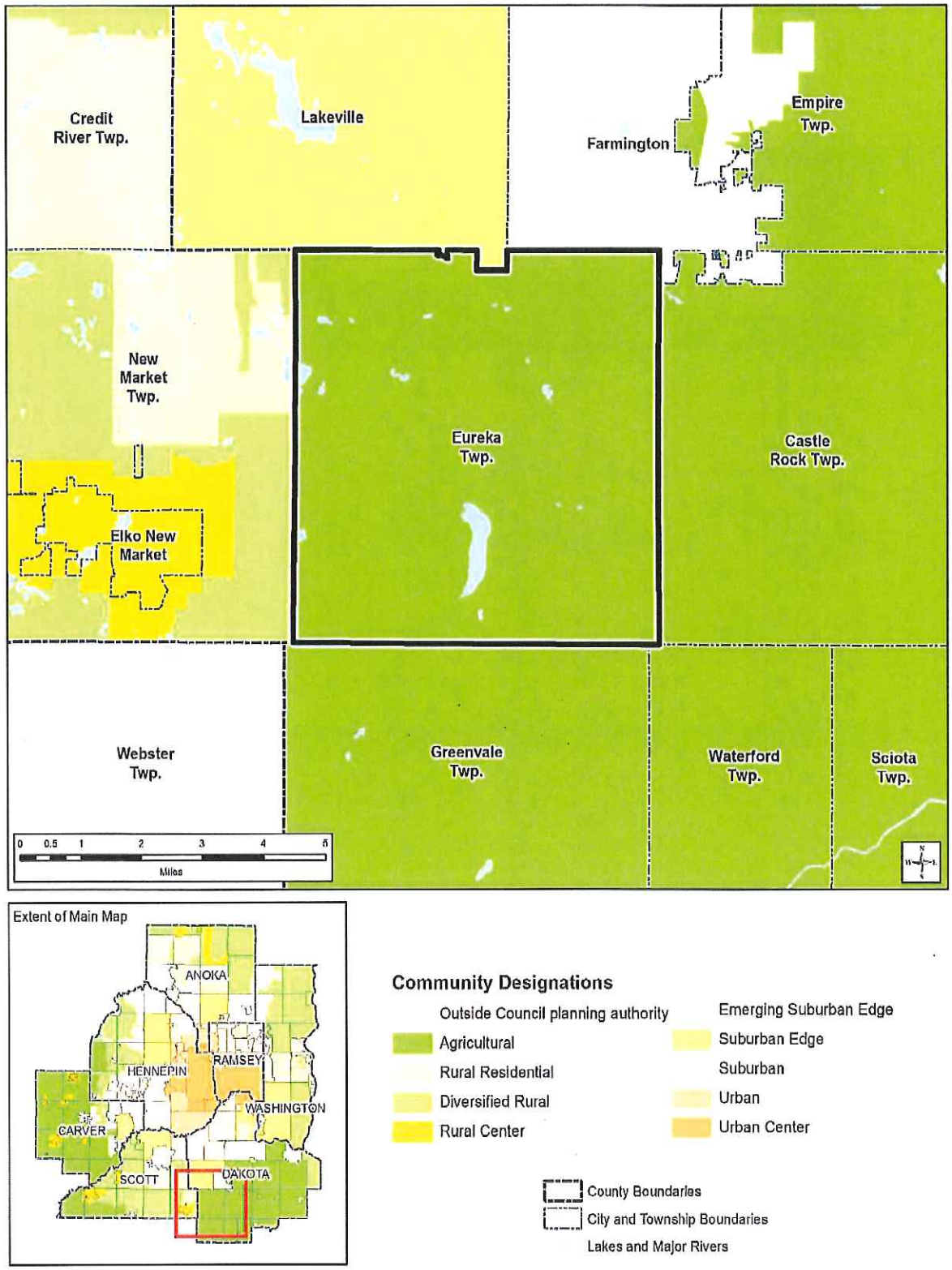
Regional Planning Designation

Thrive MSP designates Eureka Township as an Agricultural community (Figure 1). Agricultural communities include areas with prime agricultural soils that are planned and zoned for long-term agricultural use. Regional policies expect Agricultural communities to limit residential development and adopt zoning ordinances and land use controls to maintain residential densities no greater than 1 housing unit per 40 acres on average. Agricultural communities are expected to manage land uses to prevent the premature demand of extension of urban services, so that existing service levels will meet demands.

Eureka Township's Zoning Ordinance limits density to one single-family dwelling unit per each quarter-quarter section. The Township has adopted this density standard to be consistent with its classification as an Agricultural community and to preserve eligibility for the Agricultural Preserves program for parcels in the Agriculture District.

The Agricultural community designation is consistent with the Township's Strategic Vision, Zoning Ordinance and its goals and policies included in this 2040 Comprehensive Plan Update.

Figure 1. Eureka Township Community Designation



Early History

The first claim in Eureka Township was made by C.M. Kingsley in the early 1850's. He was a friend of Captain William Kingsley Dodd, a well-known figure in the history of Minnesota. In 1854, the U.S. government commissioned Captain Dodd to build a military road from Fort Atkinson, Iowa, to Fort Snelling in Minnesota, which is still known as Dodd Road. C.M. Kingsley developed a claim stake in the Township for Dodd, who admired the land area north and east of Rice Lake while working on the extension of old Dodd Road. Dodd forgot about the claim but Kingsley did not, and he and a friend, Benjamin Cashey, settled on the Dodd claim in the spring of 1854.

Also in July of 1854, Peter Sampson, Ole Torrison and Ole Oleson led a group of Norwegian families to the shores of Chub Lake in south central Eureka Township. They quickly cleared the land and set up farming operations. Later that year and during 1855, many more settlers arrived to make claims in the Township. A large group of immigrants from the State of Indiana settled in the north central part of the Township at this time. It is said that this group, which became known as the "Hoosier" settlement, is responsible for the name of the Township. They were on the move from Indiana, in search of a better life, and when they arrived at the place where they settled, they cried "Eureka", meaning, "I have found it".

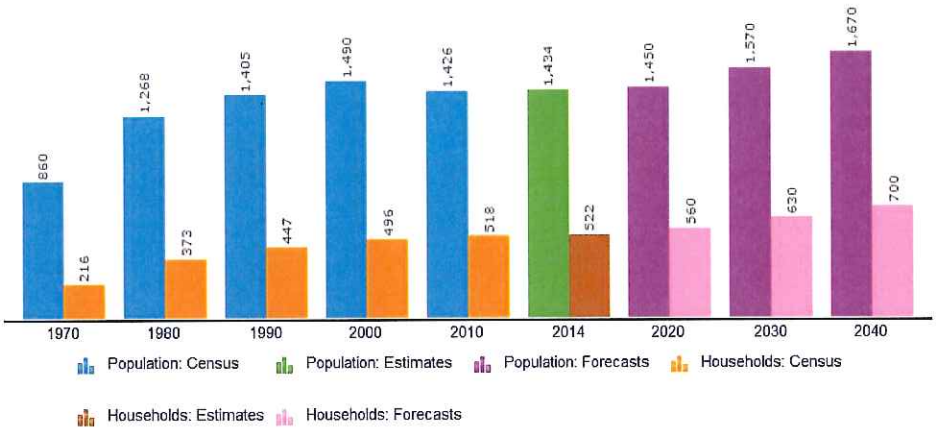
While some of Eureka's early records have been lost, it is believed that the first meeting for the organization of the Township government was held in the barn of Isaac VanDoren sometime in the mid 1850's. The Township was officially created by the Board of Dakota County Commissioners in May of 1858. Garrick Mallery was the first chairman of the Town Board, and Cornelius Wager and Joseph Bean were the other two supervisors. James Pool was the first Township clerk and Isaac VanDoren the first treasurer.

Demographics, Economy and Growth Forecasts

Historic Trends

The first European settlers arrived in the Township in 1854. By 1870, the population had reached 924; after that time it slowly and steadily declined until it reached a low of 600 in 1950. This decline was a result of the rural to urban migration that characterized many farm areas in the early part of the twentieth century. After 1950, however, improved highway access, inexpensive energy and the suburban growth boom put Eureka Township on the fringe of suburban growth in the Twin Cities metropolitan area. Population began to grow again in the 1950s and 1960s and continued in the decades that followed. Between 1990 and 2000, the Township's population grew by 6 percent. Between 2000 and 2010, the Township's population declined slightly from 1,490 people to 1, 426. The Metropolitan Council estimated that a small number of people and households have been added to the Township since 2010.

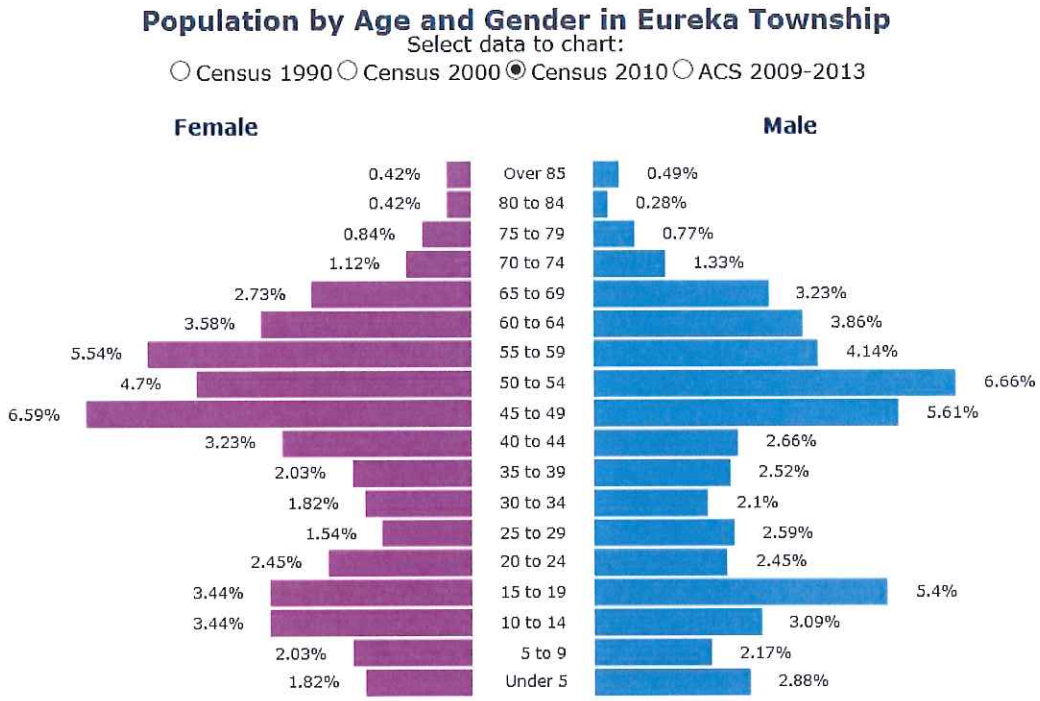
Population and Households in Eureka Township



Sources: U.S. Census Bureau Decennial Census, Metropolitan Council Annual Estimates, and Metropolitan Council Forecasts.

Current Population Profile

In 2010, the U.S. Census reports that Eureka Township's population was 1,426 persons. The Census showed that the Township's population was nearly equally split male/female. Looking at the adult population, the largest age group cohorts are baby-boomers (people in their later 50s and 60s in the year 2010). There is also a significant population of 10 to 19 year-olds in the Township. Similar to other suburban and town communities, there are relatively fewer young adults living in Eureka Township. Seniors age 65 and up make up a growing portion of the community and the County as a whole.



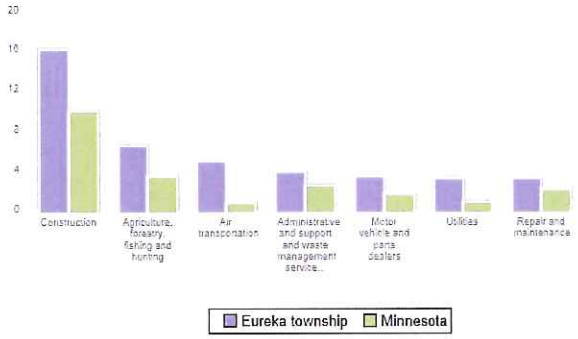
Source: U.S. Census Bureau Decennial Census or American Community Survey.

The Township's racial and ethnic population is characterized as homogenous. For the 2010 Census, 97 percent of the population identified themselves as white, with the other three percent identifying as Asian, multiple, or other racial groups. Approximately 1.5 percent of the population identified as Latino.

Economy

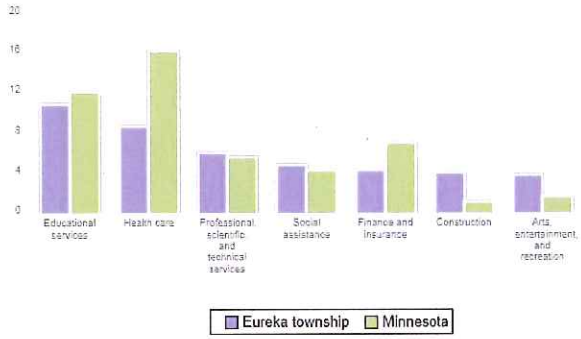
While farming is still the predominant use of land in Eureka Township, it is no longer the major employer that it once was. State of Minnesota data indicates that construction and educational services are now the most common employment industries for men and women in Eureka Township, respectively. Agriculture, air transportation, and health care also employ significant numbers of Township residents.

Most common industries for males (%):



- Construction (16%)
- Agriculture, forestry, fishing and hunting (7%)
- Air transportation (5%)
- Administrative and support and waste management services (4%)
- Motor vehicle and parts dealers (4%)
- Utilities (4%)
- Repair and maintenance (4%)

Most common industries for females (%):



- Educational services (11%)
- Health care (9%)
- Professional, scientific, and technical services (6%)
- Social assistance (5%)
- Finance and insurance (4%)
- Construction (4%)
- Arts, entertainment, and recreation (4%)

Employment concentrations in and near the Township include the Airlake Industrial Park, located in the Township and Lakeville, and businesses along Cedar Avenue in the northwest portion of the Township.

Growth Forecasts

The Metropolitan Council forecasts population, household, and employment growth for all local communities in the region. The forecasts for Eureka Township through 2040 are:

Table 1-2
Growth Forecasts

	2010 (actual)	2014 (est.)	2020	2030	2040
Population	1,426	1,434	1,450	1,570	1,670
Households	518	522	560	630	700
Employment	460	237	460	460	460

Source: Eureka Township System Statement, Metropolitan Council

The Council forecasts growth in order to protect the efficiency of wastewater, transportation and other regional system investments. The forecasts for Eureka Township show a nearly steady population between 2010 and 2020, and predict approximately 8% population growth between 2020 and 2030 and 6% population growth between 2030 and 2040. The Council forecasts predict that household growth rates will parallel population growth, and employment in the Township will remain at 2010 levels through 2040. The Township believes that the predicted growth is consistent with the Township's Agricultural classification and proposed land use plan for 2040.

CHAPTER 2.

NATURAL, AGRICULTURAL, AND CULTURAL RESOURCES

Introduction

Residents of Eureka Township prize their community's rural character. Farms, waterways and water bodies, woods and forests, high quality natural habitat, rural historic and cultural sites, and wide open spaces are defining features of Eureka's rural character. These attributes can be considered the Township's natural, agricultural, and cultural resources.

This chapter:

- Identifies Eureka's natural, agricultural, and cultural resources;
- Identifies issues and priorities for protecting these resources; and
- Sets out goals and policies to guide local decision-making.

Overview

Data from state, regional, and county agencies, combined with direct local knowledge, provides a snapshot of Eureka's resources today. Large blocks of high quality natural resources and agricultural lands remain in the Township. This is unusual in township areas within the Twin Cities metropolitan region. The presence of well connected-habitat, large blocks of contiguous agricultural land, and lands rich in aggregate resources that are largely undeveloped, allow for the Township to pursue a range of options in protecting its resources.

Water Resources

Surface water features in the Township include:

- Vermillion River
- Rice Lake
- Chub Lake
- Chub Creek
- unnamed creeks and streams
- unnamed wetlands

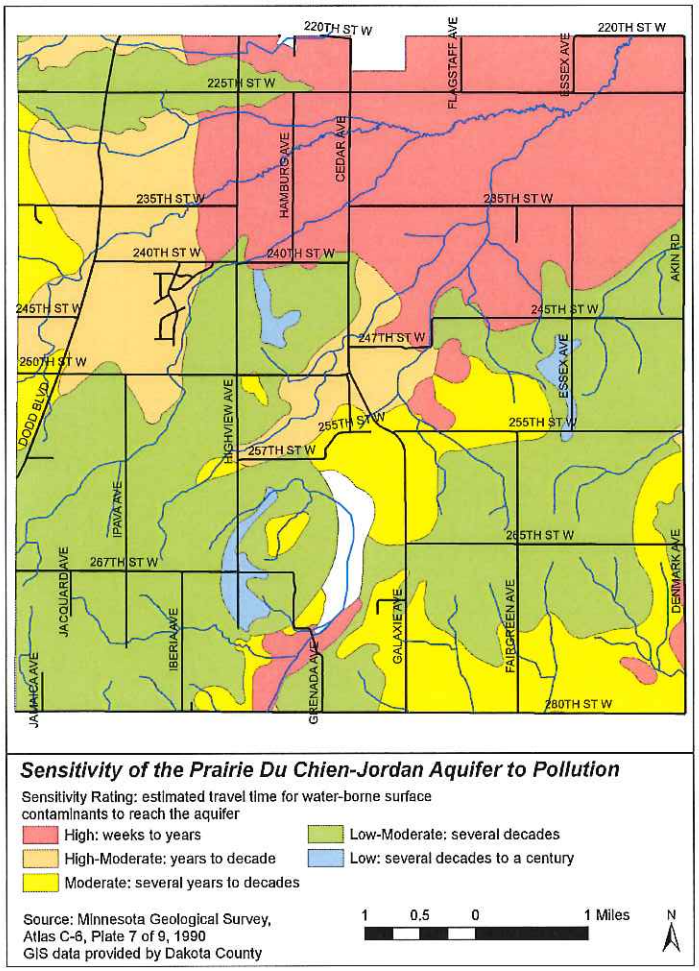
The Water Resources map shows these surface water features. Data from the National Wetland Inventory (NWI) show the extent and approximate boundaries of wetlands. The NWI was created from aerial photography and is not intended to be used as a precise locator of wetland boundaries.

The Eureka Township Ordinances, the Dakota County Shoreland Ordinance and the rules of the Cannon River Watershed Management Organization and Vermillion River Joint Powers Organization provide the existing regulatory framework to protect these resources.

Further discussion of surface water resources is included in Chapter 6--Water Resources, and in the Township's *Local Water Resource Management Plan*, included in the attachments.

Groundwater sensitivity is a concern in the Vermillion River area where soils and bedrock are highly permeable. Under these conditions, surface pollutants can seep quickly to the groundwater.

Further discussion of groundwater sensitivity is included in Chapter 6, Water Resources, including the Township's *Water Supply Plan*.



Natural Areas

Native Plant Communities are identified in the Minnesota County Biological Survey (MCBS), conducted by the Minnesota Department of Natural Resources (DNR). These locations are shown on the Native Plant Communities map. They are examples of Minnesota's pre-settlement vegetation communities and are significant in terms of their natural quality.

Natural areas include locations of ecological significance identified by the DNR in a study completed for the metropolitan region in 2003. These areas are significant because they provide habitat, biological diversity, connectivity, water recharge areas, or contain high quality natural communities. These areas include the native communities identified by the MCBS.

Woods and forests are another natural resource important to the community, whether considered part of Eureka's pre-settlement vegetation or more recently planted trees. Woods and forests, and areas of ecological significance, are shown on the Natural Areas map.

Topography and Geology

Prime agricultural soils are found in most of the Township.

Steep slopes are found primarily near the shores of Chub Lake and in the Rice Lake area. Steep areas identified on the map were derived from secondary data sources and show general, rather than precise, locations.

Sand and gravel resources generally coincide with the Vermillion River corridor and its tributaries.

Agricultural and Cultural Resources

Agricultural land and farmsteads make up approximately sixty-eight percent (15,625 acres) of the Township's area. Farming in Eureka includes row crops, produce, livestock, and nurseries.

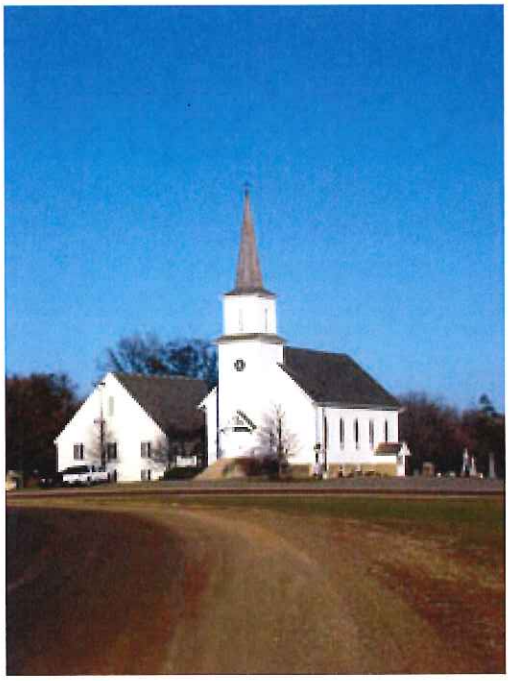
Lands enrolled in the **Metropolitan Agricultural Preserves** program are identified on the Agricultural Lands map, below. Metro Council 2016 data shows that there are 7,033 acres within the Township that are enrolled in the program.

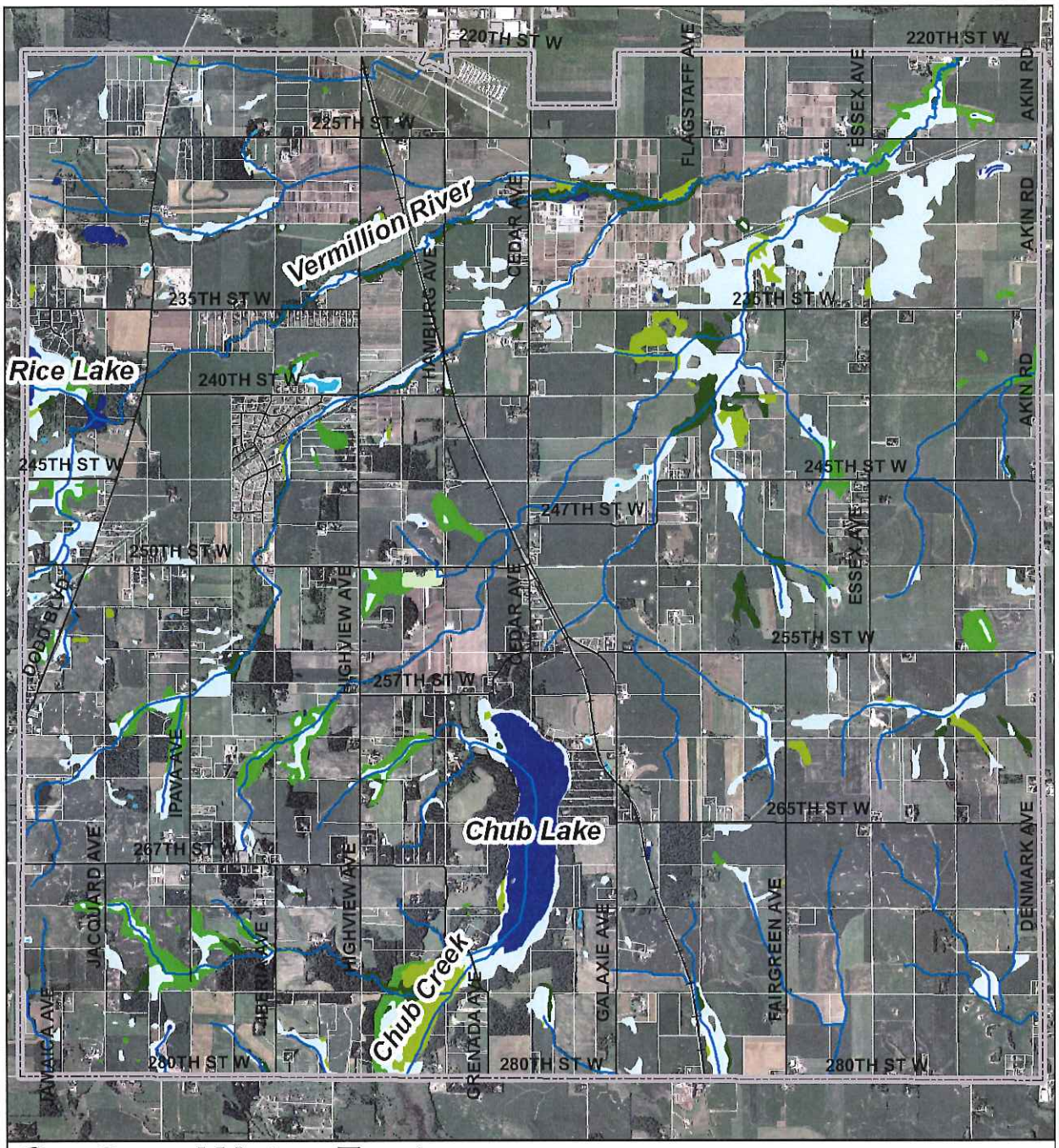
The intent of the program is to help protect farmers located in the metropolitan region from development pressures and to enable them to more equally compete in the marketplace with farmers located outside the metropolitan area. To be eligible, local government must zone or certify land at a maximum density of one housing unit per 40 acres. Enrolled land must have a restrictive covenant limiting its use to agriculture.

The Dakota County **Farmland and Natural Areas Program** (FNAP) is one method for local property owners to protect the rural character of Eureka Township. Properties enrolled and land eligible for the program are shown on the Cultural Resources map.

The **Chub Lake Wildlife Management Area** held by the Minnesota Department of Natural Resources offers the public opportunity for hunting and outdoor recreation.

Historic sites in Eureka Township include Highview Christiania Church, the Vermillion Presbyterian Church site (1856-1977), Stuckmayer Farm, and three cemeteries. Some of these properties participate in Dakota County's Farmland and Natural Areas Program (FNAP) which helps to protect agricultural and natural landscapes in the County. The Township supports this program. Other sites are in private ownership. The locations of the historic sites are shown on the map that follows in this chapter. The active non-historic cultural sites include the current **Town Hall**, schools, and multiple **places of worship**.





Surface Water Features

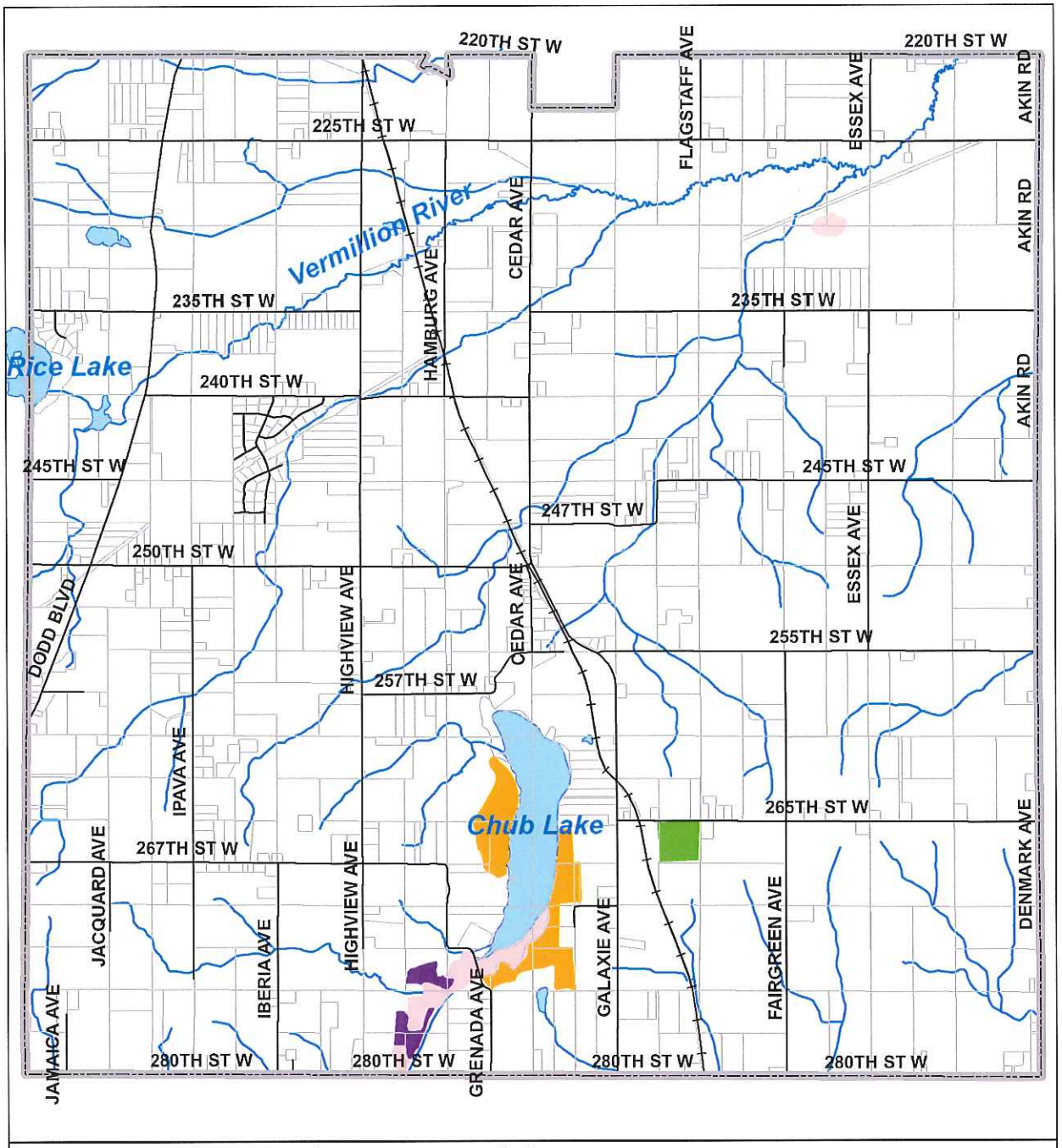
Rivers and Streams

National Wetlands Inventory

- Type 1 - Seasonally Flooded Basin or Flat
- Type 2 - Wet Meadow
- Type 3 - Shallow Marsh
- Type 4 - Deep Marsh
- Type 5 - Shallow Open Water
- Type 6 - Shrub Swamp
- Type 7 - Wooded Swamp
- Type 8 - Bogs

5,000 2,500 0 5,000 Feet

N



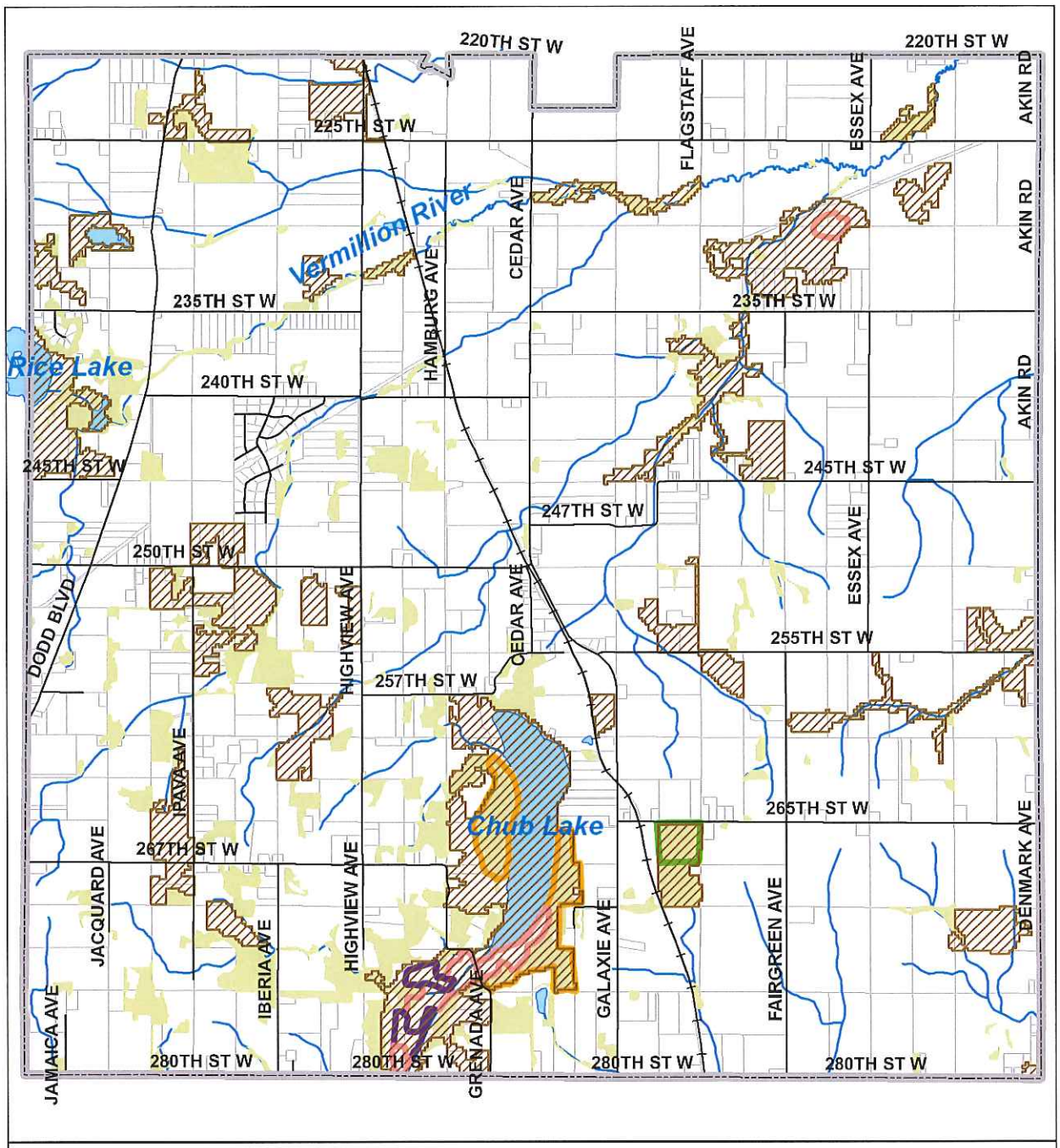
Native Plant Communities

MN County Biological Survey

- OAK FOREST (BIG WOODS) DRY SUBTYPE
- OAK FOREST (BIG WOODS) MESIC SUBTYPE
- WET MEADOW (WETLAND)
- WILLOW SWAMP (WETLAND)

5,000 2,500 0 5,000 Feet

N



Natural Areas

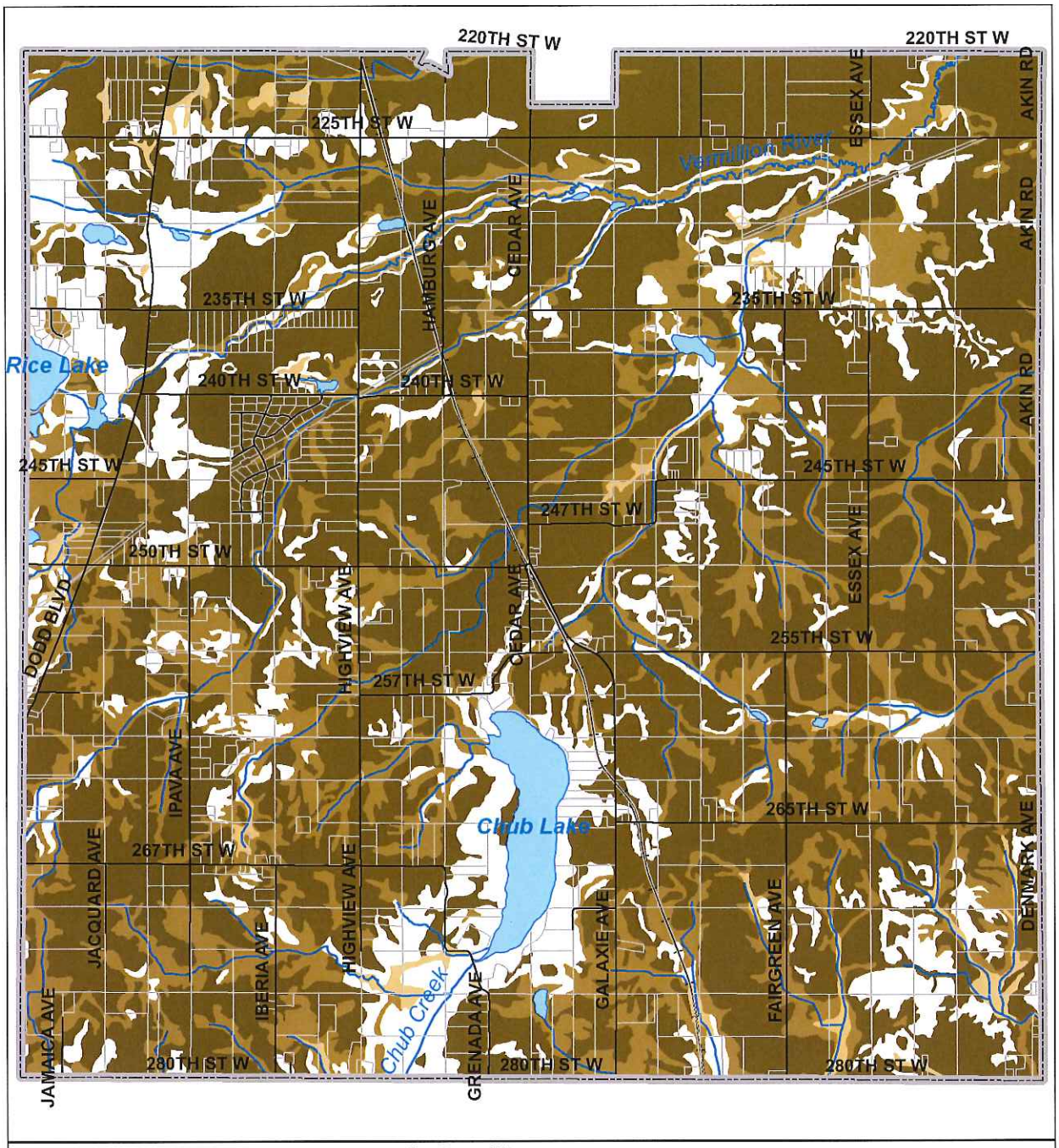
County Biological Survey

- OAK FOREST (BIG WOODS) DRY SUBTYPE
- OAK FOREST (BIG WOODS) MESIC SUBTYPE
- WET MEADOW
- WILLOW SWAMP

- Regionally Significant Ecological Areas (DNR)
- Forests and Woodlands

5,000 2,500 0 5,000 Feet

N



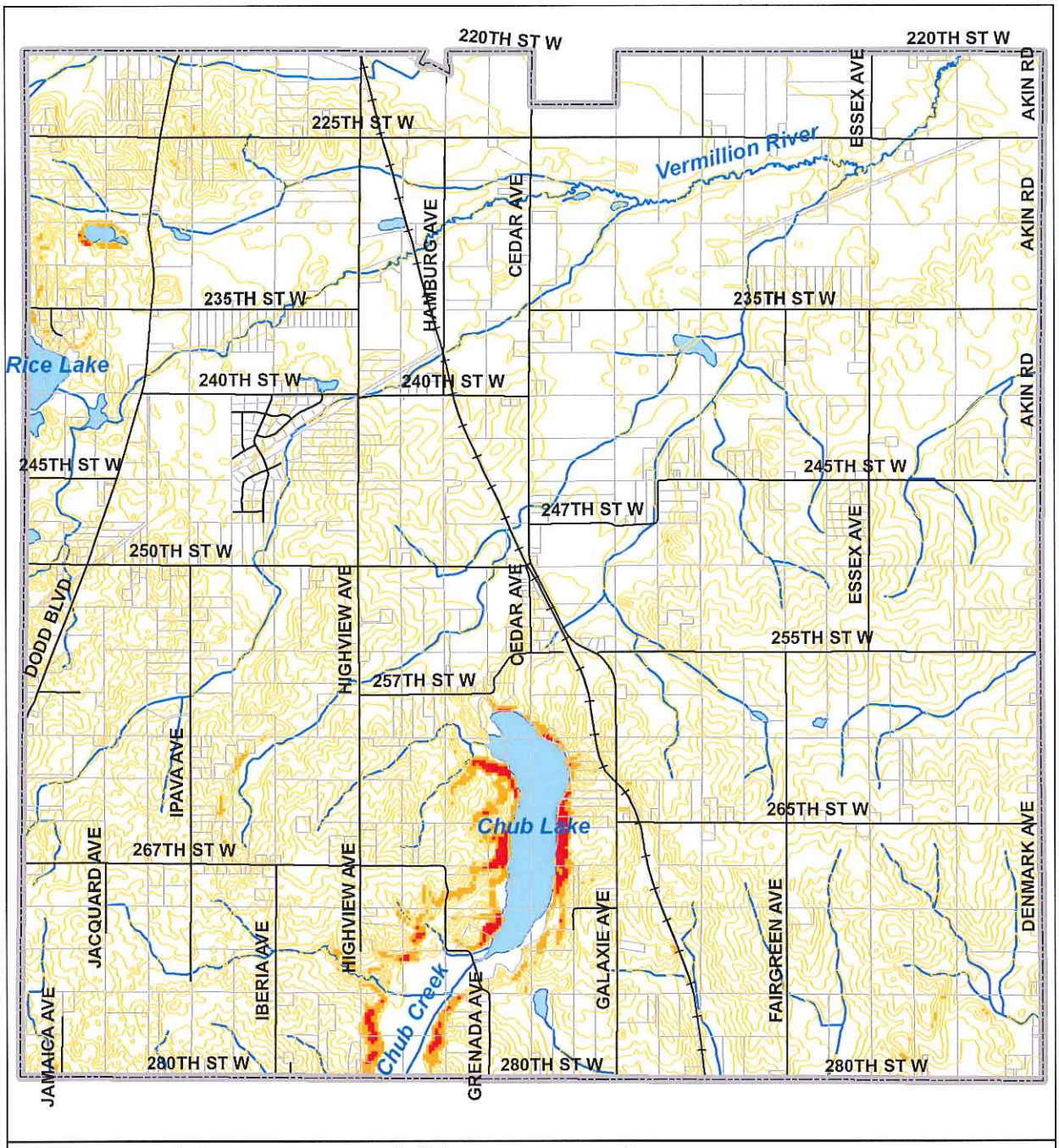
Prime Agricultural Soils

- Parcels
- All Areas are Prime
- Only Drained Areas are Prime
- Only Areas Not Frequently Flooded are Prime

5,000 2,500 0 5,000 Feet

N

Source: Metropolitan Council



Steep Slopes and Topography

Areas where slopes of 12% to 18% are more likely to be found

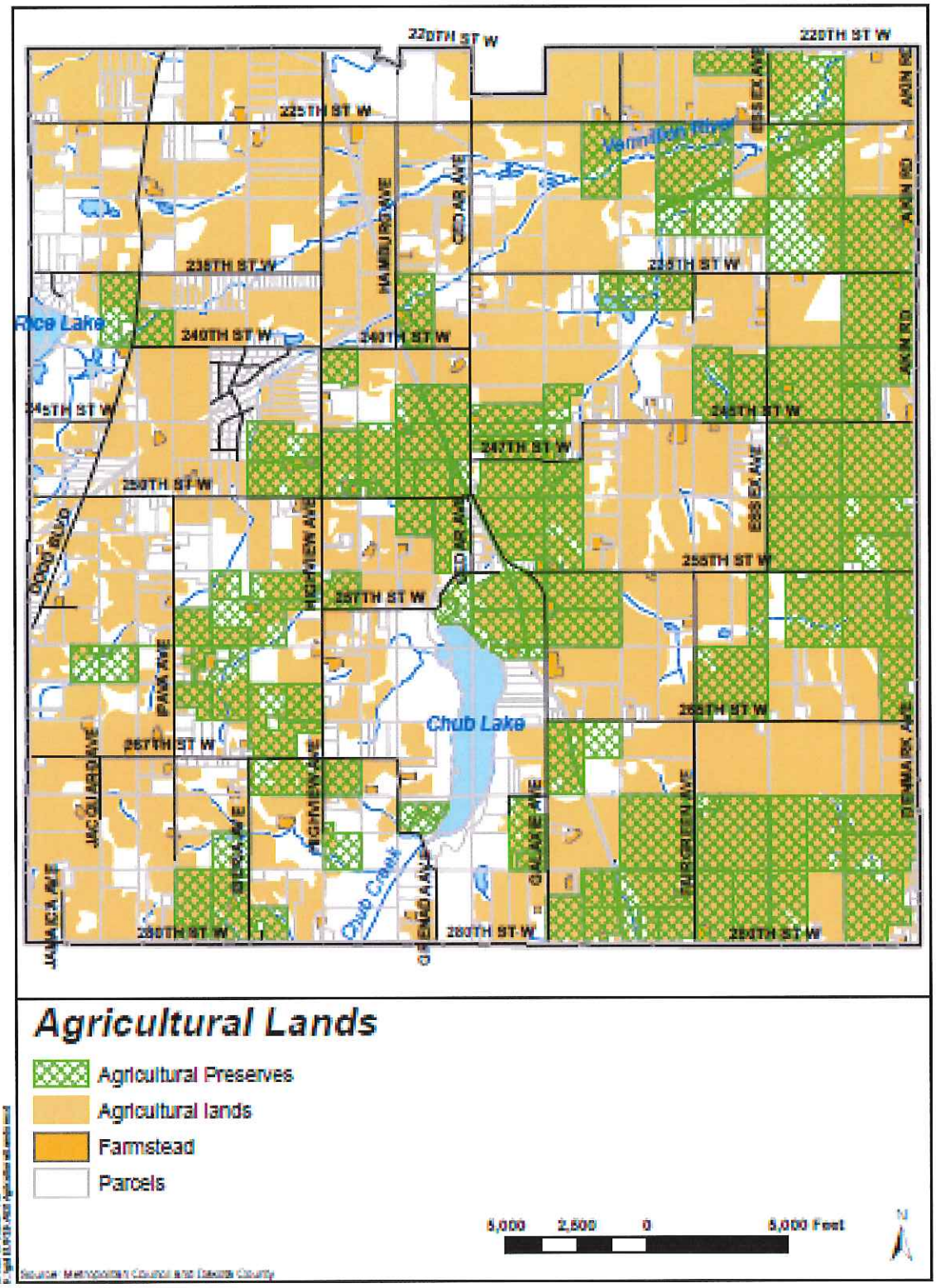
Areas where slopes greater than 18% are more likely to be found

10 foot contours

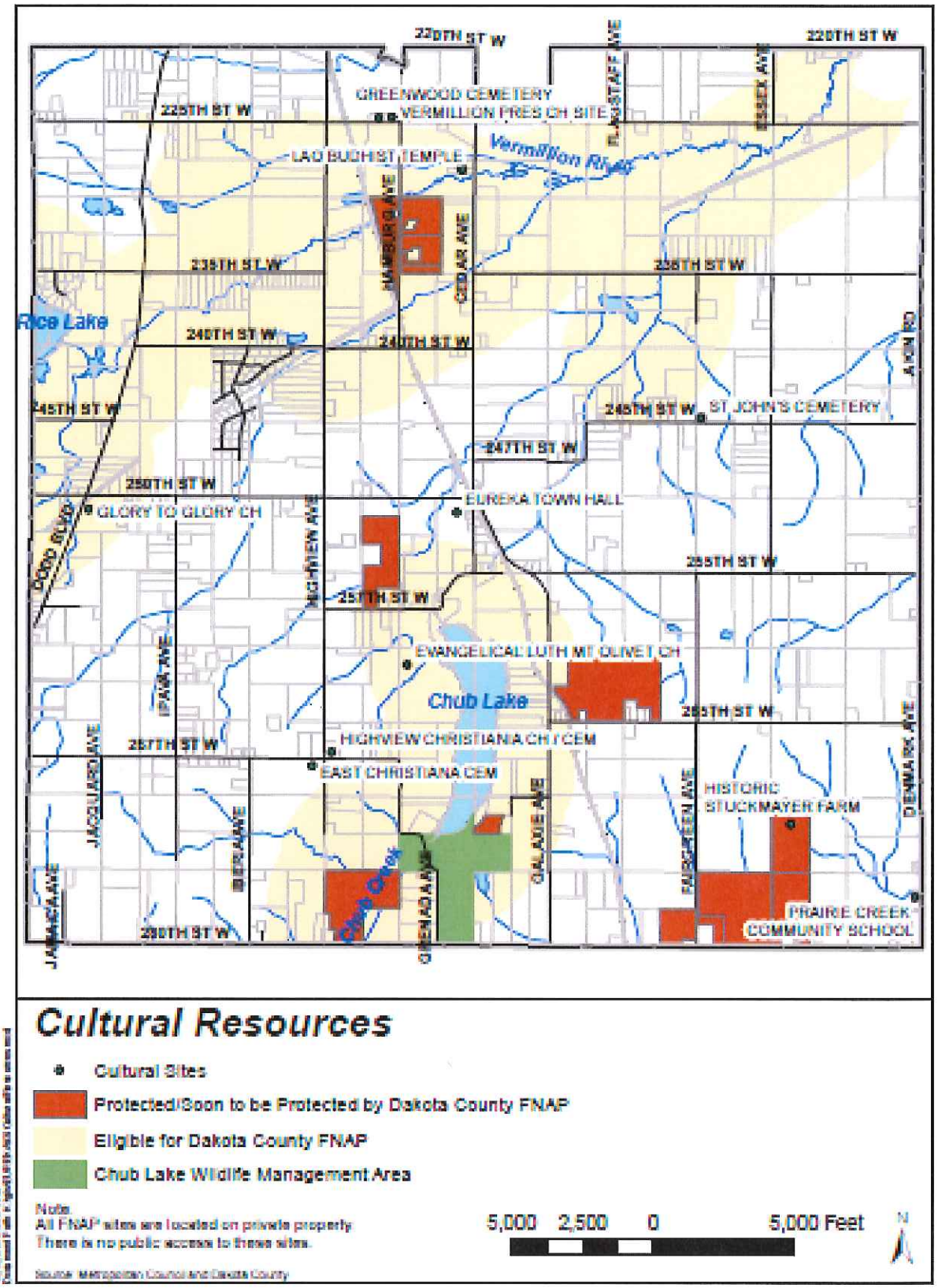
5,000 2,500 0 5,000 Feet

N

Source: Metropolitan Council and Minnesota Department of Natural Resources



220TH ST W
225TH ST W
235TH ST W
240TH ST W
245TH ST W
247TH ST W
250TH ST W
255TH ST W
257TH ST W
265TH ST W
267TH ST W
280TH ST W
Rice Lake
Chub Lake
Chub Creek
Vermillion River
HAMBURG AVE
CEDAR AVE
ESSEX AVE
AKIN RD
HIGHVIEW AVE
DODD BLVD
IPAVA AVE
JACQUARD AVE
GERA AVE
GALAXIE AVE
FURGREEN AVE
DENMARK AVE
JAMAICA AVE
GRENADA AVE
Agricultural Lands
Agricultural Preserves
Agricultural lands
Farmstead
Parcels
5,000 2,500 0 5,000 Feet
N
Source: Metropolitan Council and Dakota County


220TH ST W
220TH ST W
225TH ST W
GREENWOOD CEMETERY
VERMILLION PRES CH SITE
LAO BUDHIST TEMPLE
Vermillion River
FLAGSTAFF AVE
ESSEX AVE
HAMBURG AVE
CEDAR AVE
235TH ST W
236TH ST W
Rice Lake
240TH ST W
240TH ST W
AKIN RD
245TH ST W
245TH ST W
ST JOHN'S CEMETERY
247TH ST W
250TH ST W
GLORY TO GLORY CH
EUREKA TOWN HALL
DODD BLVD
HIGHVIEW AVE
255TH ST W
257TH ST W
EVANGELICAL LUTH MT OLIVET CH
IPAVA AVE
Chub Lake
255TH ST W
257TH ST W
HIGHVIEW CHRISTIANA CH / CEM
EAST CHRISTIANA CEM
JACQUARD AVE
IBERIA AVE
GALAXIE AVE
FAIRGREEN AVE
HISTORIC
STUCKMAYER FARM
DENMARK AVE
Chub Creek
GRENADA AVE
JAMAICA AVE
260TH ST W
PRAIRIE CREEK
COMMUNITY SCHOOL
Cultural Resources
Cultural Sites
Protected/Soon to be Protected by Dakota County FNAP
Eligible for Dakota County FNAP
Chub Lake Wildlife Management Area
Note:
All FNAP sites are located on private property.
There is no public access to these sites.
5,000 2,500 0 5,000 Feet
N
Source: Metropolitan Council and Dakota County

Natural Resources Issues and Priorities

Natural areas and systems are key elements to quality of life in Eureka Township. They contribute a number of benefits. Ecologists suggest the following principles that help to identify priorities for natural resource protection.

- Maintaining or restoring natural diversity is important to the long-term health of natural communities and landscapes. In turn, these natural landscapes contribute to Eureka Township's unique sense of place.
- Biodiversity is an important indicator of the quality or health of a natural area. Larger natural habitat patches are usually more diverse than smaller patches.
- Natural resource corridors provide connections among habitat patches. Corridors are contiguous, linear natural areas that allow for species movement to obtain food, find breeding areas, escape predators or disease or escape to a new area if an existing habitat is destroyed.
- Maintaining viable natural connections among the patches is critical. Human actions often divide or "fragment" natural habitats, which reduces their diversity. A connected mixture of habitat types is beneficial for diversity. Many species require both upland and wetland habitat types during their lifecycle.
- Natural areas can help protect ground and surface water quality through natural filtering of stormwater.
- Vegetation and water features can provide buffers between land uses.
- Natural resources are important for aesthetic and recreational purposes.

Natural Resource Corridors

The Township identified natural resources corridors that connect water resources and natural areas in the community in its 2030 Comprehensive Plan. The map that identifies the corridors is included in this chapter. Significant natural resources within the corridor network include:

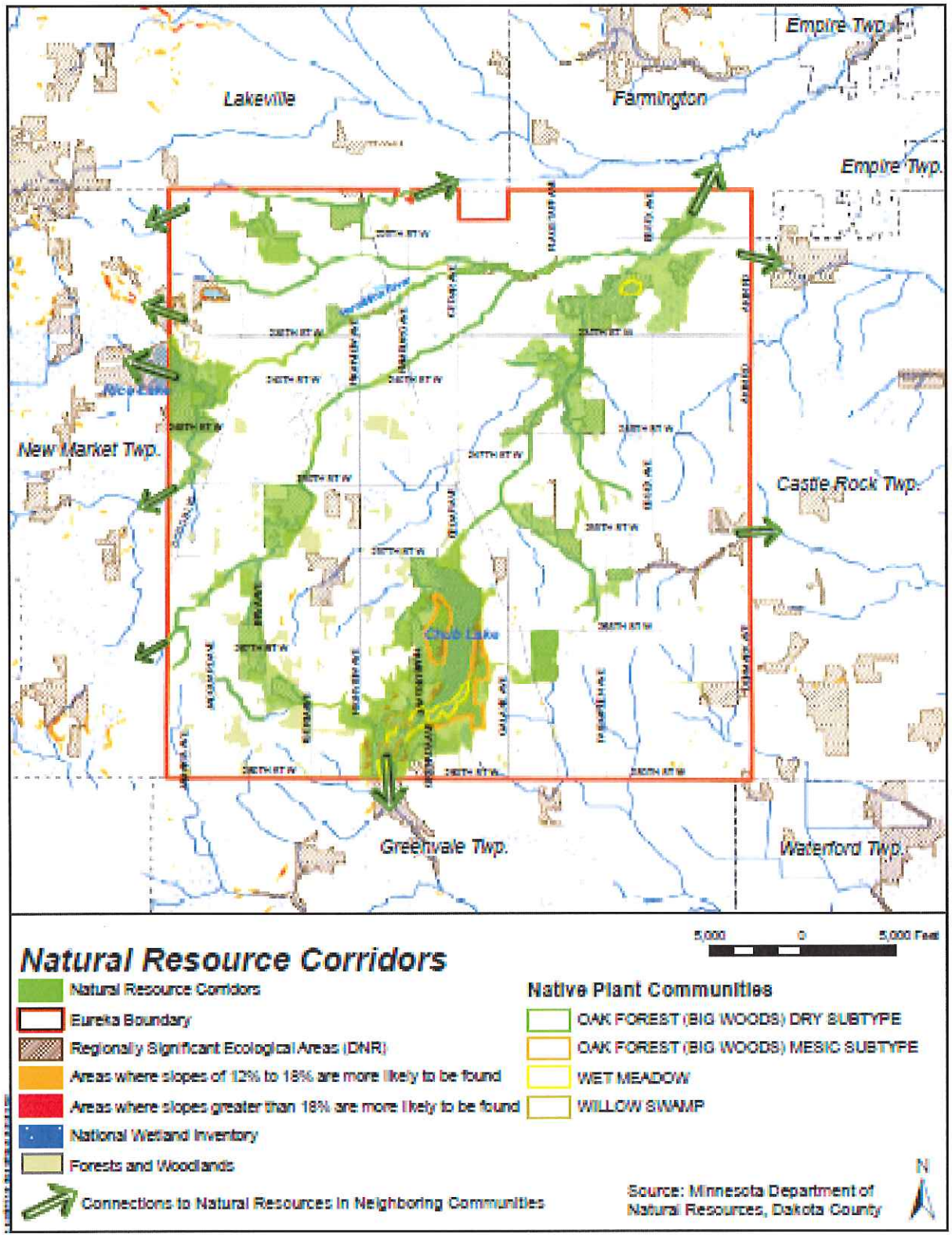
- Chub Lake and Chub Creek area
- Vermillion River corridor
- Rice Lake area
- Woods and forests
- Steep slopes
- Areas with native species and plant community.

The Natural Resource Corridors provide habitat connections among the remaining large patches of natural areas within and outside of Eureka Township's boundary. The connections and priority locations are shown on the Natural Resource Corridors map.

Dakota County has also identified a network of natural corridors within the County and Township. The location of the corridors is similar to those that the Township has identified. County staff indicated that the County's corridors within the Township are primarily natural resource corridors, and the County has not located proposed trails or recreational facilities within the corridors in the Township.

Preserving and Protecting Natural Resources

The Township's goals include protection of natural resources. The Township seeks to encourage preservation and protection of natural resources throughout the community by implementing its land use plan, zoning ordinance, and ordinances regulating subsurface septic systems and water resources.


Empire Twp.
Lakeville
Farmington
Empire Twp.
New Market Twp.
Castle Rock Twp.
Greenvale Twp.
Waterford Twp.
Natural Resource Corridors
5,000 0 5,000 Feet
Natural Resource Corridors
Eureka Boundary
Regionally Significant Ecological Areas (DNR)
Areas where slopes of 12% to 18% are more likely to be found
Areas where slopes greater than 18% are more likely to be found
National Wetland Inventory
Forests and Woodlands
Connections to Natural Resources in Neighboring Communities
Native Plant Communities
OAK FOREST (BIG WOODS) DRY SUBTYPE
OAK FOREST (BIG WOODS) MESIC SUBTYPE
WET MEADOW
WILLOW SWAMP
Source: Minnesota Department of Natural Resources, Dakota County
N

Aggregate Resources

Aggregate resources also constitute a natural resource. Regional policies for protection of aggregate resources recommend considering options for mining before development occurs. Areas rich in sand and gravel aggregate resources, if not mined before urban development occurs, cannot be feasibly accessed once urbanization has occurred. Therefore, resource areas are protected and buffered from development until the resource has been utilized. The Sand and Gravel Resources map identifies primary and secondary resources, as identified by the Minnesota Geological Survey. These resources are also identified on the Township's Future Land Use Map in Chapter 3.

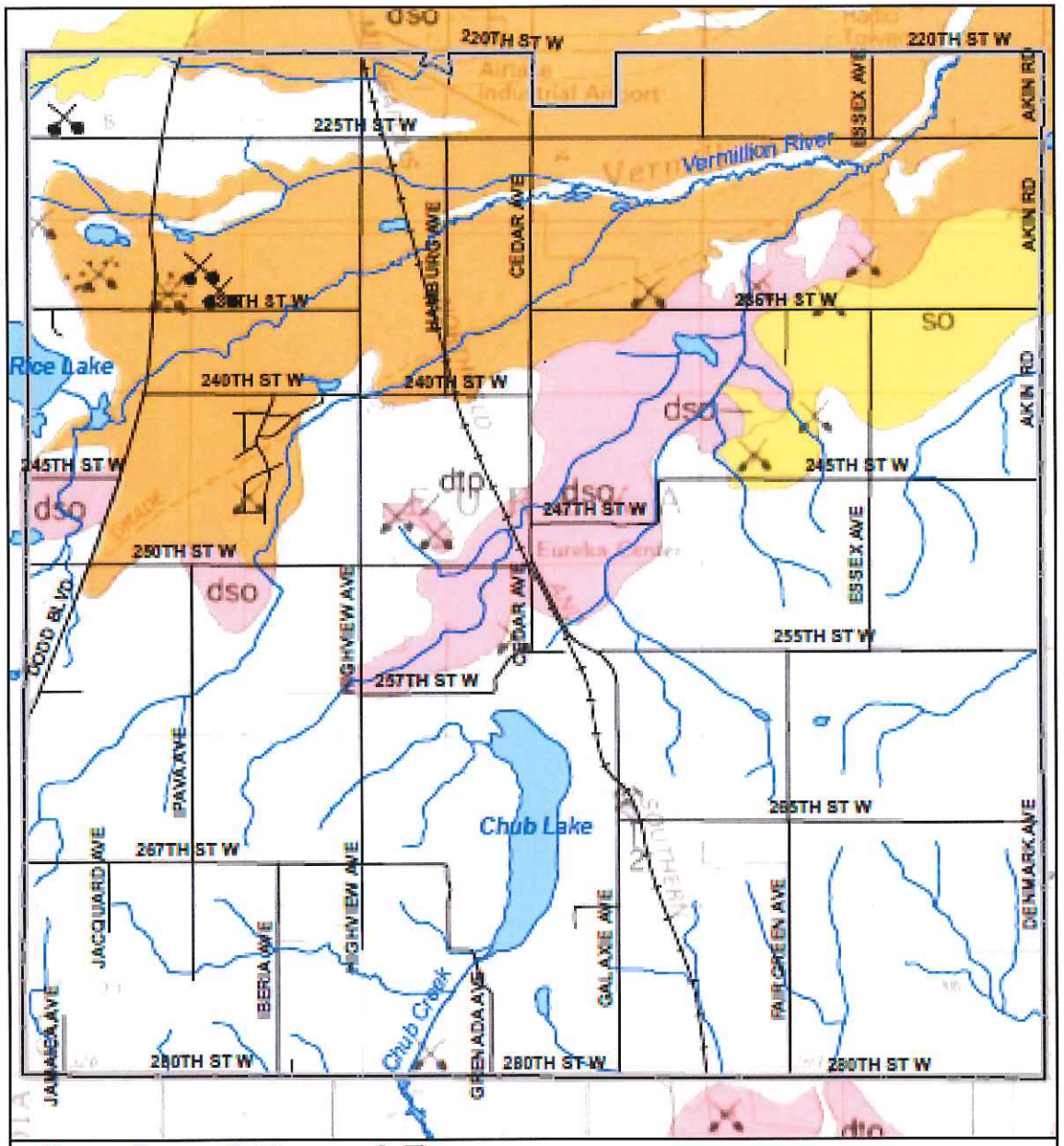
The portion of the Township rich in aggregate resources also contains other natural resources important to the Township. Aggregate resources coincide with the highest level of groundwater sensitivity along the Vermillion River corridor. The Vermillion River is a designated trout stream fed by groundwater, and is included within the Natural Resource Corridors. It is important to the Township to allow for mining of aggregate materials, while protecting against adverse environmental impacts.

The Township uses its **Mining Ordinance (Ordinance 6)** to permit and regulate extraction of aggregate resources and to provide safeguards and controls. The Ordinance contains water resource protection measures, including:

- a minimum separation between mining and the water table
- stormwater management and erosion control standards
- reclamation standards for wetland or lake end uses
- dewatering is prohibited

The Township land use plan and zoning do not permit urban uses, and no urban development is anticipated through 2040. Aggregate mining that meets the ordinance requirements will continue to permit mineral extraction prior to urbanization. Areas with aggregate mining resources are located in the Agriculture Zoning District. The performance standards in the zoning ordinance minimize conflicts with surrounding agricultural and rural residential land uses.

The Township will work with land owners, mine operators, and the Vermillion Watershed Joint Powers Organization to understand potential effects of mining on groundwater and other natural resources, and to identify options to protect those resources when it considers mining permit requests.



Sand and Gravel Resources

Primary: water table > 20 feet deep

Primary: water table < 20 feet deep

Secondary

dso Mixed Des Moines and Superior

so Superior lobe outwash

5,000 2,500 0 5,000 Feet

N

Source: Minnesota Geological Survey
County Atlas Series, Atlas C-6, Plate 9 of 9, 1990

Managing Solar Resources

A 1978 amendment to the Metropolitan Land Planning Act requires all local governments in the Metropolitan Area to include "an element for protection and development of access to direct sunlight for solar energy systems" in their comprehensive plans. In recent years, design and implementation of solar systems has become more common in Minnesota.

There are two kinds of solar energy systems: passive and active. In a passive energy system, the building structure itself collects and stores energy at the point of use. In an active solar energy system, solar energy is collected at one location (such as a roof or ground-mounted solar panels) and then transferred to the point of use or storage by mechanical power.

In Eureka Township, solar access protection is not a major problem because most existing homes are situated on large lots, and new development will continue at low densities. The large lot sizes and setback requirements in the Zoning Ordinance ensure that solar access is protected for all parcels. Variance criteria also require that solar access be provided if the Township grants variances from dimensional standards in the ordinance.

In 2016, the Township amended its Zoning Ordinance to permit accessory solar energy systems for agricultural and residential uses. The new ordinance identifies the permits needed and performance standards required for those systems.

Agricultural Resources Issues and Priorities

Loss of farmland near urban areas is a national phenomenon, and the Twin Cities metropolitan region is no exception. Farmland is a finite natural resource, and once lost is difficult to reclaim. Eureka Township seeks to continue being a rural community, and recognizes that farms are an important part of that identity.

Commercially viable farms are necessary in order for Eureka Township to maintain its rural character. Farming is a business activity that also provides public benefit.

- Farming is part of the rural lifestyle, local economy, and heritage of Eureka Township.
- Agricultural land can offer environmental benefits including wildlife habitat and groundwater recharge.
- Studies show that privately owned and managed agricultural land generates more in local tax revenues than it costs in services.
- Public health depends on the quality and availability of the food supply.

The nature of farming is changing. For row crops and larger scale operations, land is being consolidated under the operation of fewer farmers. Large blocks of agricultural lands are needed for such operations. In addition, markets are shifting in part due to the biofuel market. Traditional, larger scale farming operations have contributed to the Township's rural landscape and continue to be an asset to the community.

Another trend in farming is growing interest in locally supported agriculture and organic products. According to the Minnesota Department of Agriculture, demand for organics has outpaced supply. An increase in awareness of and demand for locally grown food has joined the public's interest in organic products. Farms that produce these higher value, direct-marketed products are generally of a smaller scale and have different needs and attributes than larger scale row crop farms and livestock operations. Eureka Township seeks to be supportive of smaller scale as well as larger scale farms.

As a component of public health and safety, local food systems are capturing the attention of local government across the country. Fresh food, as opposed to processed food, helps combat the obesity epidemic. A local food supply contributes to the security of the metropolitan area, in the event of a natural or other disaster that would cut off transportation routes and access to national and global food products. Local food systems connect farmers to residents of the cities and suburbs, to the benefit of both parties. For example, Community Supported Agriculture allows farmers to share the risks of farming with shareholders, while shareholders gain cultural connections to farms as well as fresh food.

Eureka Township is strategically positioned to serve the growing demand for local agricultural products.

- Eureka's convenient location within the metropolitan region is a natural fit for the local foods movement.
- The Township has a diversity of farms already growing food for Twin Cities farmers' markets and grocery stores.
- As the metropolitan area becomes more culturally diverse, farmers from immigrant communities are introducing their cultures' farming methods, crops, and markets. This diversity in farming contributes to Eureka Township's agricultural character..
- Nurseries are growing trees and other landscaping materials, serving local as well as wider markets.

Eureka's location at the edge of the metropolitan region presents challenges as well as assets for farmers. Potential barriers for farmers of small scale and large scale operations alike include:

- High land and housing costs for new-entry farmers
- Active farmers reaching retirement age without a "next generation" farmer to take over the farm
- Lack of nearby processing facilities and farm-related services
- Lack of housing for seasonal workers and intern/apprentice housing
- Limited options for sale of products within Eureka Township (roadside stands or local market)
- Conflicts between agricultural and residential land uses.

The Township seeks to support farms as viable businesses in Eureka Township, while also protecting the general health, safety and welfare of the community. The Township's land use regulatory authority can be used to help farmers capitalize on opportunities and overcome challenges. At the foundation of the Township's endorsement of farming is the agricultural zoning of one dwelling unit per quarter-quarter section. As changes in the agricultural industry unfold, the Township will examine its policies and ordinances to avoid unintended or overly-burdensome restrictions that hinder the economic viability of farming.

Animal feedlots are part of Eureka Township's agricultural base and contribute to the continued economic viability of agriculture in the Township. The Township plans to continue to allow for animal feedlots in Eureka while ensuring that feedlots are properly managed to protect public health and to maintain compatible land use relationships. Eureka Township's Zoning Ordinance contains standards for feedlot operations, including setbacks and animal waste management practices.

Very large or intensive feedlots can raise concerns of potential impacts on air quality, surface and groundwater quality, the transportation system, property values, and overall public health. To address public health and quality of life issues that can become concerns with feedlot operations, the Township will consider updating the feedlot regulations within the Zoning Ordinance. Performance standards such as setbacks, maximum number of animal units, and operational standards will be considered. Standards would apply to new operations or significant expansion of existing operations. The Ordinance update will also address a mutual setback requirement for feedlots and homes. New homes should be separated from existing feedlots by the same distances that feedlots are required to be separated from existing homes.

While the majority of land within Eureka is classified as prime agricultural soils, Eureka's policy regarding preservation of farmland is to *not* create special protection for lands classified as prime soils. This is because the agricultural industry is not solely dependent on the use of "prime" farmlands. Eureka has not provided protection only to "prime" farmlands because it is believed that such action would, in effect, promote development on non-prime lands.

Goals and Policies

The following goals and policies will guide local decision-making in protecting Eureka Township's natural, agricultural, and cultural resources.

Natural Resource, Aggregate Resource, and Solar Resource Goals

1. Protect priority water resources and natural areas for future generations to enjoy.
2. Preserve open space for the benefits of public health, property values, and rural community character.
3. Protect surface waters and wetland areas to promote recreation opportunities, aesthetic qualities, natural habitat areas, surface water quality, and ground water recharge.
4. Protect the habitat and biodiversity of the area.
5. Provide for the economic availability, removal, and processing of sand, gravel, rock, soil, and other aggregate materials, while protecting against adverse impacts.
6. Protect access to direct sunlight for solar energy systems and permit development of accessory solar energy systems to utilize solar resources.

Policies

To achieve these goals, the Township will:

1. Encourage minimal tree loss to home sites and roads, and encourage protection of high quality woodlands.
2. Recognize land stewardship practices by private property owners that protect natural areas. An example of recognition would be an article in the Eureka Township newsletter.
3. Encourage enrollment of priority natural areas in preservation programs.

4. Cooperate with the watershed management organizations in efforts to protect water resources, including enforcement of the Township's comprehensive surface water management ordinance (Ordinance 9), appropriately regulating land use and public works, and promoting use of the technical assistance programs of the watershed management organizations.
5. Encourage that land uses that could have adverse impacts on groundwater quality are located away from groundwater sensitive areas and are located in other, better protected parts of the Township.
6. Encourage minimal use of salts, fertilizers and herbicides in groundwater sensitive areas.
7. Cooperate with Dakota County on groundwater protection requirements for on-site sewage treatment systems in sensitive areas by enforcing the Township's septic system ordinance.
8. Cooperate with Dakota County regarding the enforcement of the County Shoreland and Floodplain Management Ordinance.
9. Provide safeguards and controls to minimize environmental and aesthetic impacts of aggregate mining on adjacent properties and the Township as a whole.
10. Work with land owners, mine operators, and the Vermillion Watershed Joint Powers Organization to understand potential effects of mining on groundwater and other natural resources, and to identify options to protect those resources when the Township considers mining permit requests.
11. Implement the Township's Mining Ordinance to allow extraction of aggregate resources while protecting natural resources and surrounding properties.
12. Implement the Township's Solar Energy Systems Ordinance to permit development of accessory solar energy systems in the Township and provide performance standards for this use.

Agricultural Resources Goals

1. Protect the Township's rural and agricultural character.
2. Promote the economic viability of farming operations.
3. Protect agriculture and farm operators from development that may contribute to the loss of farmland, land use conflicts and/or nuisance complaints.
4. Promote agricultural operations that grow products for local consumption.

Policies

To achieve these goals, the Township will:

1. Maintain Eureka Township's agricultural zoning of one housing unit per quarter-quarter section.

2. Continue to support the Right To Farm when using generally accepted agricultural practices. The Township recognizes that with farming come smell, noise, dust, and slow-moving vehicles.
3. Limit the subdivision of the Township's farmland for housing and other non-farm land uses. Allow limited non-farm development provided that the impact on other land uses is minimized.
4. Provide information to residents of the potential conflicts or incompatibilities that can arise between development and agricultural uses.
5. Provide for adequate separation of new non-farm houses from existing confined animal feedlots or manure storage facilities.
6. Use local ordinances to support the commercial viability of farming.
7. Work with County and State officials to improve programs that assess farmland at a lower tax rate.
8. Encourage enrollment in farmland preservation programs.
9. Encourage units of government, institutions, or other entities doing business in Eureka Township to consider local agricultural products when making purchasing decisions.
10. Be receptive to adjusting local ordinances so that local farms can adapt to new trends in farming.
11. Avoid fragmentation of farmland in order to support a "critical mass" of farms, making farming activity more viable in the Township through the zoning ordinance requirement for a minimum of one single-family dwelling unit per each quarter-quarter section.
12. Utilize Township Ordinances to properly manage animal feedlots in order to protect public health and to maintain compatible land use relationships.

Cultural Resources Goal

1. Encourage the preservation of historic sites, including structures that contribute to the rural character of the Township.

Policies

To achieve this goal, the Township will:

1. Encourage private owners to restore historically significant buildings.
2. Encourage the preservation and/or rehabilitation of structures that contribute to the rural character of the Township, such as barns and silos.

CHAPTER 3.

LAND USE PLAN

Introduction

The Land Use Plan is a critical element of the 2040 Comprehensive Plan. The Land Use Plan represents the desired future condition of the Township in the year 2040 and is the basis for the Township's zoning ordinance. The Land Use Plan indicates that the Township intends to remain a rural, Agricultural area through 2040. The plan allows for incremental growth consistent with the Township's 2040 Vision and the Metropolitan Council's growth forecasts through 2040, included in Chapter 1, and its zoning ordinance.

This chapter:

- Summarizes the existing land uses in the Township;
- Examines land use issues important to the Township's future;
- Sets out goals and policies to guide land use decisions; and
- Presents the 2040 Planned Land Use map.

Existing Land Uses

The Existing Land Use Map depicts the current land use pattern in Eureka Township. The Metropolitan Council supplied the 2010 land use data shown on Table 3-1, following the map. The Eureka Township Planning Commission reviewed and updated the map so that it is current, to the best of that group's knowledge, through the first quarter of 2016.

The land use categories shown on the map are:

- **Agricultural:** land used for agricultural purposes, including farming, dairying, pasturage, horticulture, floriculture, viticulture, and animal and poultry husbandry and accessory uses.
- **Farmstead:** land containing the dwelling and associated buildings of a farm.
- **Single Family Residential:** land containing a single dwelling unit.
- **Multifamily:** land containing a multiple-family dwelling, such as a duplex, triplex, townhome, or apartment building.
- **Mixed Use Residential:** land containing a building with multiple uses in combination with at least one residential unit.
- **Extractive:** land used to quarry sand and gravel.
- **Airport:** in Eureka Township, land used for the Airlake Airport.
- **Park, Recreational, or Preserve:** land used for park and recreational activity or passive open space. In Eureka Township, this classification is used for the Wildlife Management Area.
- **Industry and Utility:** land containing manufacturing, transportation, construction companies, communications, utilities or wholesale trade. In Eureka Township, this classification describes portions of local nurseries.
- **Institutional:** land used primarily for religious, governmental, educational, social, cultural or major health care facilities. Local examples include various places of worship, the Town Hall, and cemeteries.
- **Retail and Other Commercial:** land used for the provision of goods or services.
- **Water and wetlands:** open water, rivers and streams, and wetlands included in the National Wetland Inventory.
- **Undeveloped:** land not currently used for any defined purpose that may or may not contain buildings or other structures or has no discernable use based on the aerial photos or available data. Includes woods, natural areas, and maintained areas such as lawns and yards.

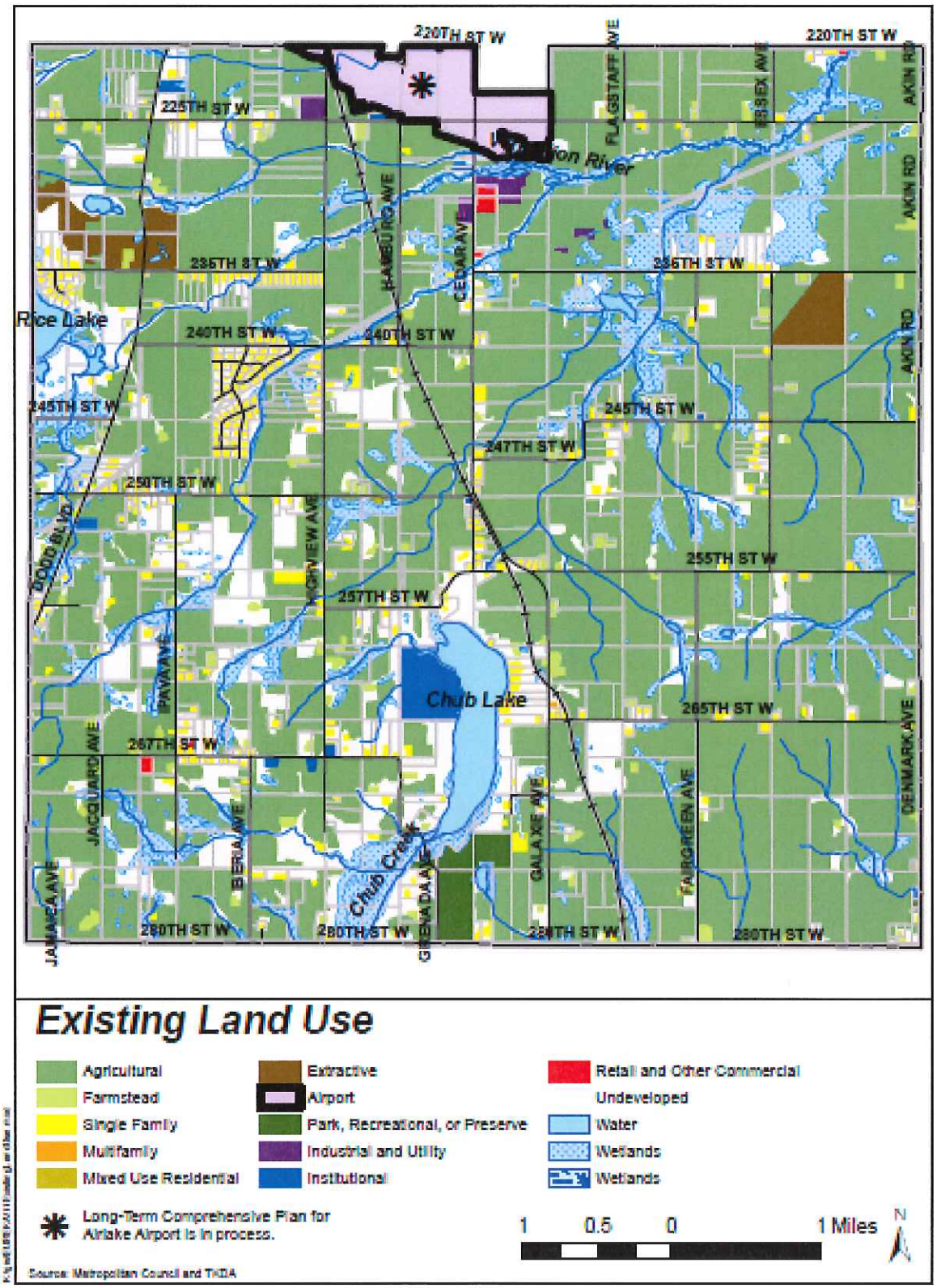

220TH ST W
225TH ST W
235TH ST W
240TH ST W
245TH ST W
247TH ST W
250TH ST W
255TH ST W
257TH ST W
260TH ST W
265TH ST W
280TH ST W
Rice Lake
Chub Lake
Chub Creek
HAMBURG AVE
CEDAR AVE
HIGHVIEW AVE
PAVAVE
JACQUARD AVE
BERIA AVE
GRENADA AVE
GALAXE AVE
FAIRGREEN AVE
DENMARK AVE
JAMAICA AVE
FLAGSTAFF AVE
ESSEX AVE
AKIN RD
Existing Land Use
Agricultural
Farmstead
Single Family
Multifamily
Mixed Use Residential
Extractive
Airport
Park, Recreational, or Preserve
Industrial and Utility
Institutional
Retail and Other Commercial
Undeveloped
Water
Wetlands
Wetlands
Long-Term Comprehensive Plan for Airlake Airport is in process.
1 0.5 0 1 Miles
N
Source: Metropolitan Council and TKDA

Table 3-1
Existing Land Use

Year	Land Use	Acres	Total Acres	Percent of Total
2010	Agriculture	15,625	22,811	69 %
2010	Airport	235	22,811	1 %
2010	Extractive	125	22,811	1 %
2010	Farmstead	323	22,811	1 %
2010	Industrial and Utility	71	22,811	0 %
2010	Institutional	53	22,811	0 %
2010	Mixed Use Residential	35	22,811	0 %
2010	Multifamily	2	22,811	0 %
2010	Open Water	379	22,811	2 %
2010	Park, Recreational or Preserve	358	22,811	2 %
2010	Retail and Other Commercial	35	22,811	0 %
2010	Single Family Attached	2	22,811	0 %
2010	Single Family Detached	729	22,811	3 %
2010	Undeveloped Land	4,838	22,811	21 %

Source: Metropolitan Council

Issues

The predominant existing land use in the Township is Agriculture. The Township also includes areas of residential, commercial-industrial, and extractive land uses, and a significant area classified as "undeveloped" lands, which include natural areas and other vegetated areas that are considered undeveloped.

The Township's 2030 Comprehensive Plan identified land use issues for study prior to the 2040 Plan Update, including a study of potential Commercial/Industrial zoning, and a study of the Township's Transfer of Building Rights program. The Township appointed Task Forces to complete the studies, and involved the Town Board and local residents in reviewing the Task Force findings and recommendations. The study results are summarized below, and have been considered in completing the update to the Land Use map, goals, and policies in this plan update.

Agriculture Land Use

The Township's land use goals and policies place priority on protecting its rural and agricultural character and promoting the economic viability of farming operations in the Township. The Land

Use Plan guides the long-term land use in Eureka to continue as Agriculture through 2040. The goals and policies in the Natural, Agricultural and Cultural Resources chapter are consistent with the goals and policies for Land Use.

Residential Land Use

Density

Eureka Township is designated as an Agricultural Area for regional planning purposes by the Metropolitan Council. Regional policy includes guidance that the Agricultural areas should develop at a density of no greater than one dwelling unit per 40 acres. Eureka Township's 2040 Land Use Plan and agricultural zoning of one unit per quarter-quarter section are consistent with this policy.

It is important to note that there are residential lots in Eureka Township that were created before the 1 unit per quarter-quarter zoning came into effect. Some of these lots have existing housing units while others do not. The Township and Metropolitan Council have recognized that there are lots of record in Eureka Township that do not meet the density standards of today's zoning ordinance, but that such lots may still have grandfathered housing rights. The Township's zoning and land use policies support an average maximum density of 1 dwelling unit per quarter-quarter section, and are consistent with Regional policies.

Regional Growth Forecasts—Township's Land Use Plan Consistent with Forecast Growth

Through its Strategic Vision process completed in 2007, the Township made considerable efforts to identify the number of unused housing rights in order to understand the Township's growth potential. The Strategic Vision report identified were approximately 280 unused housing rights available in the Township. The Housing Eligibilities Transfer Task Force (2013) completed a follow-up inventory, and found that there are at least 200 eligible housing rights remaining in the Township.

In addition, there are lots of record that may have grandfathered housing rights. Each right must be verified using County property records. Verification will occur as needed if a transfer is proposed. The Township has identified 217 such parcels, and has estimated that the majority may qualify as grandfathered. The cut-off date for grandfathering is April 12, 1982. Including these grandfathered rights, there may be as many as 480 total available housing rights in the Township.

Table 3-2 summarizes Eureka Township's estimated residential development potential under its Land Use Plan and agricultural zoning, and compares the estimate with the Metro Council's growth forecast. The Metropolitan Council estimated 518 households in Eureka Township in 2010, and estimated that there were 522 households in 2014. (The Housing Affordability Table that follows in this section identifies 530 housing units in the Township.) The Township estimated that there were approximately 525 households in the Township in 2007. With 200 additional eligible "development rights", Eureka Township estimates that its build-out would be around 725 households. The 2040 growth forecasts provided by the Metropolitan Council, include a forecast of 700 households by 2040. The Township's estimate of its build-out potential

is generally consistent with the Metro Council's household growth forecast for 2040. At 700 units in 2040, the density in the Township would slightly exceed 1 unit per quarter-quarter section. This is due to the smaller lots that were created prior to 1982, before the current zoning ordinance that permits development at 1 unit per quarter-quarter section. The Township's current zoning ordinance requires development at a maximum of 1 housing unit per quarter-quarter section.

Table 3-2: Existing and Future Housing Units

Metro Council Existing Housing Units (2010)	Housing Units Estimated 2014	Unused Housing Rights	Township Estimated Build-out Potential	Metro Council 2030 Households Forecast	Metro Council 2040 Households Forecast
518* (Township estimate: 525**)	522*	200** units	725**	630* units	700* units

Source: Metropolitan Council and Eureka Township

Eureka Township Transfer of Building Rights Program

The Township completed a *"Transfer of Building Rights Program Study"* in 2013. The Program expanded on its "Clustering" program that had been in place since 1990. The program does not create new or additional housing rights in the Township, or change the underlying Agricultural zoning (one housing unit per quarter-quarter section in the Township). It allows landowners some flexibility in developing individual parcels.

The program allows the transfer of existing "development rights" from one parcel to another in the Township through private transfer. The program maintains the overall existing number of "development rights" and densities within the Township. The study estimated that there are approximately 480 unused "development rights" in the Township. The study Task Force held two public open houses to discuss potential changes to the Development Rights ordinance, and gather public input on the proposed changes. The Task Force completed a map of transfers that have been completed in the Township to date, and recommended ordinance changes to the Town Board. The Township adopted the following changes to its ordinance based on the Task Force recommendations:

- The Clustering program expanded to allow transfers between properties that are not contiguous and do not have the same owner. (the Township's previous ordinance required that transfers occur within a single ownership, on parcels at least 80 acres in size, and only between contiguous properties).
- The Township eliminated the requirement that the landowner must own at least 80 acres in order to participate; there is no longer a minimum ownership requirement for participation.
- Developers and property owners are not allowed to buy up eligibilities and "bank" or hold them. The transfer to a specific destination parcel needs to be completed within 90 days after the application is complete.

- Some quarter-quarter sections already have 4 or more housing eligibilities, including existing housing and verified grandfathered eligibilities. These quarter-quarter sections are not eligible for additional transfers, unless some of the existing "development rights" are transferred elsewhere.

The goals for a Eureka Township transfer program will continue to be the same through 2040:

- The program should be useful in achieving the goals of the Comprehensive Plan.
- The program should help relieve development pressure on large blocks of agricultural property.
- The program should allow property owners to gain revenue by selling housing rights.
- The program should be compatible with the Metropolitan Ag Preserves Program. Property owners should continue to have choices to use their land in ways that maintain eligibility in Ag Preserves.
- The program should protect opportunities for efficient and cost-effective land development for a time when public sewer and water services may become available. Such opportunities include the creation of a suitable commercial/industrial area in the Township.
- The program should be understandable by citizens.
- The program should respect landowners' rights to use their land in a way that does not significantly harm others' property nor the community's health, safety, welfare and morals.
- Administration of the program should not create an undue burden on Township government.

Housing

The tables below summarize available data about the existing housing in Eureka Township:

Table 1 Affordability [2]

Units affordable to households with income at or below 30% of AMI	Units affordable to households with income 31% to 50% of AMI	Units affordable to households with income 51% to 80% of AMI
2	4	95

Table 2 Tenure [3]

Ownership units	Rental units
508	30

Table 3 Type [1]

Single-family units	Multi-family units	Manufactured homes	Other housing units
530	8	0	0

Table 4 Publicly Subsidized Units [4]

All publicly subsidized units	Publicly subsidized senior units	Publicly subsidized units for people with disabilities	Publicly subsidized units: All others
0	0	0	0

Table 5 Housing Cost Burdened Households [5]

Income at or below 30% of AMI	Income 31% to 50% of AMI	Income 51% to 80% of AMI
26	8	42

Housing Needs and Affordable Housing

The housing stock in Eureka Township is single-family housing, ranging from century-old farm houses to newly constructed homes. The types of housing in the Township will not change with its classification as an Agricultural community and its proposed Land Use Plan through 2040. Eureka Township is not included in the Metropolitan Council's requirements for developing communities to provide for a share of the region's affordable housing. Eureka Township supports Dakota County's housing programs that are available to assist residents with their housing needs. The Township enforces applicable requirements within its Ordinances to ensure housing quality.

Commercial-Industrial Land Use

Existing Provisions and Studies

Some Agricultural/Horticultural service establishments are now allowed in Eureka Township with a Conditional Use Permit. Eureka Township does not have a Commercial-Industrial zoning district.

In 2011, Eureka Township convened a task force to consider the potential need to designate areas in the township for commercial and industrial uses. The Task Force completed a Market Study for commercial and industrial uses in the Township, completed a Township-wide survey of landowners to determine interest in zoning areas for those uses, and met with representatives of the Metropolitan Council to discuss regional policies and requirements for designation of new zoning districts. The Task Force findings and recommendations included the following:

- The Market Study found little interest in commercial and industrial development in the Township in the near-term. This is due in part to the availability of over 300 acres of land that is ready for sale or lease for commercial and industrial development that has existing sewer and water services in nearby Lakeville and Farmington.
- The Township will need to identify its own "market niche" if it intends to compete for new commercial and industrial land uses with neighboring communities.
- The Task Force noted that the landowners that identified interest in potential development of new commercial and industrial uses are scattered throughout the Township. There is no concentration of interest that would allow identification of a potential zoning district for new commercial and industrial uses.
- Based on the study findings, the Task Force recommended that the Township not proceed at this time to identifying areas to zone for commercial and industrial development. The Task Force recommended that this could be studied in the future as market conditions and interests change.

Aggregate Extraction

Aggregate resources are part of Eureka Township's natural resource base, and are discussed in the Natural Resources section of the Comprehensive Plan (Chapter 2). Mining of aggregate is allowed in the Township with an Interim Use Permit. The Eureka Township Mining Ordinance provides the standards for mining operations.

Land use staging in areas with aggregate resources- to first consider the potential of an area for aggregate mining before urban development occurs - may become of greater importance in the future if the Township moves forward with planning for a future commercial-industrial area. Under the 2040 Land Use Plan and existing agricultural zoning, aggregate resources are adequately protected.

The Natural Resource Goals and Policies in Chapter 2, as well as the Land Use Goals and Policies of this chapter, provide guidance to the Township in its decision-making related to aggregate resources.

Solar Resources and Protection

A 1978 amendment to the Metropolitan Land Planning Act requires that local comprehensive plans address the protection of solar access for solar energy systems. The Township's large lot sizes and setback requirements its Zoning Ordinance provide protection from potential shading of solar energy systems by neighboring structures or trees.

The Township adopted a Solar Ordinance in 2016 that permit the development of accessory residential and accessory agricultural solar energy systems in the Township, and includes performance standards for those accessory uses. The Township recognizes the growing interest in utilizing renewable resources to meet Minnesota's energy needs, and the Solar Ordinance would permit development of accessory solar energy systems to serve residential and agricultural properties, while regulating development to be consistent with the rural character and Agricultural land use in the Township.

2040 Planned Land Use

The 2040 Planned Land Use Map identifies the land use in the Township as Agricultural. The proposed use is consistent with regional policies and with the Township's Agriculture zoning district. The Agriculture District is applied throughout the Township. In addition to Township zoning, the Dakota County Shoreland and Floodplain Management Ordinance is applicable in Eureka Township.

The Township's Zoning Ordinance allows the following uses in the Agriculture District: agriculture, horticulture, single family homes, farm buildings, forestry, grazing, gardening, accessory structures, historic sites, home occupations, private stables, private dog kennels, and cellphone towers and wireless communication facilities that meet the performance standards that do not require a conditional use permit.

The Zoning Ordinance sets the maximum density in the Agriculture Zoning District as 1 single-family dwelling unit per quarter-quarter section (approximately 40 acres).

The Zoning Ordinance allows the following uses in the Agriculture District with a conditional use permit: churches, airports, schools, local government buildings and facilities, government-owned maintenance facilities for road and highway maintenance, agricultural service establishments, public utility and public service structures, wind energy conversions systems and other alternative energy systems, and cell-phone towers and wireless communication facilities.

The Zoning Ordinance allows the following uses in the Agriculture District with an interim use permit: mining and extraction operations and airstrips for personal use.

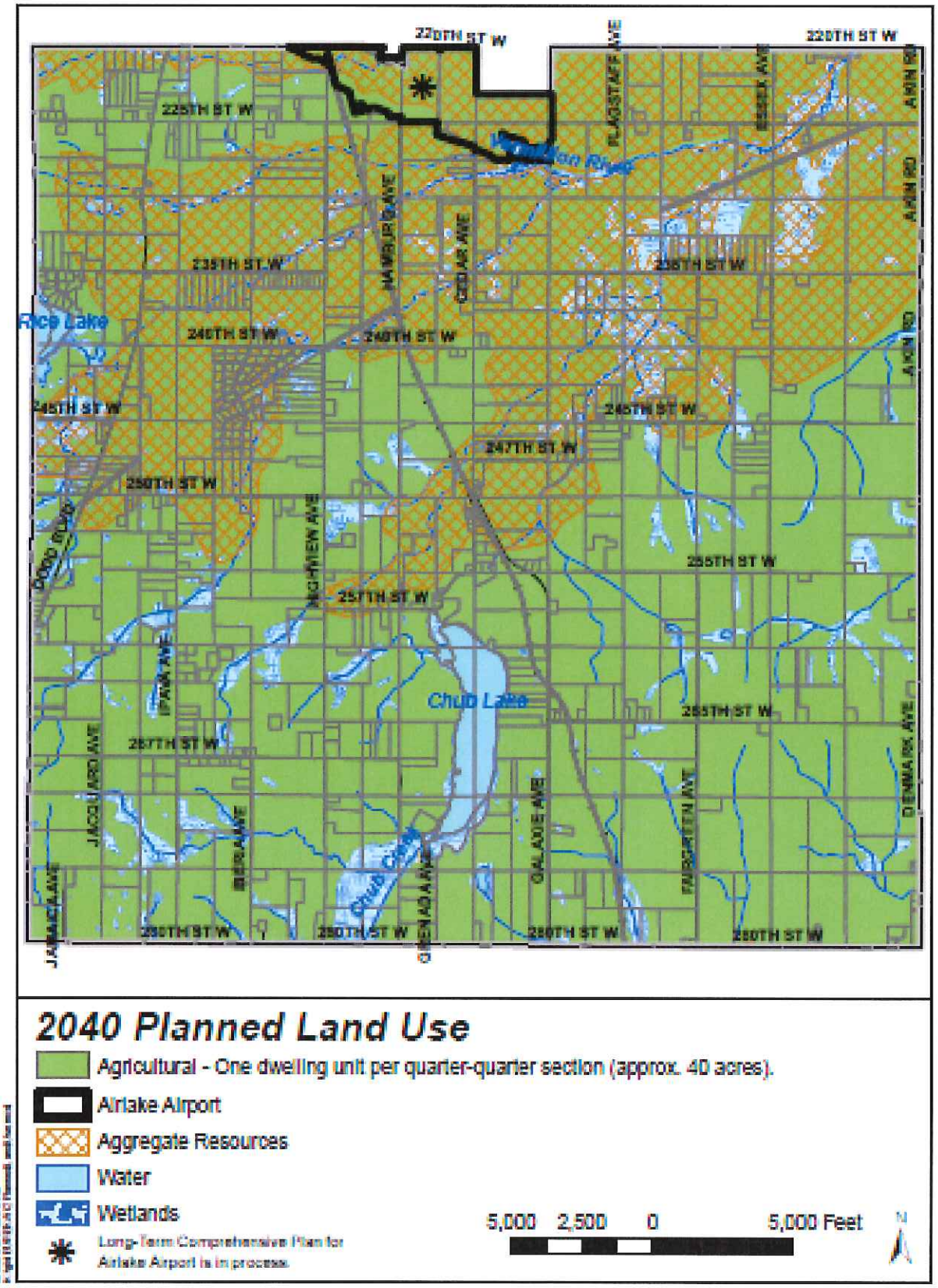
In addition to Agricultural land use, the map includes areas that are occupied by open water, such as lakes, and wetlands.

2020-2040 Planned Land Use

Land Use	Acres	Percent
Agricultural	20,182	88.5
Open Water	363	1.6
Wetlands	2,268	9.9

Source: Metropolitan Council, TKDA

Proposed land use is expected to remain consistent from 2020 through 2040. The map shows proposed land use and the aggregate resource locations in the Township.


220TH ST W
225TH ST W
235TH ST W
240TH ST W
245TH ST W
247TH ST W
250TH ST W
255TH ST W
257TH ST W
265TH ST W
267TH ST W
280TH ST W
Rice Lake
Chub Lake
Chub Creek
HAMBURG AVE
CEDAR AVE
FLAGSTAFF AVE
ESSEX AVE
AKIN RD
HIGHVIEW AVE
DODD BLVD
IPAVA AVE
JACQUARD AVE
BERLIN AVE
GRENADA AVE
GALAXIE AVE
FAIRGRIFFIN AVE
DENMARK AVE
JAMAICA AVE
2040 Planned Land Use
Agricultural - One dwelling unit per quarter-quarter section (approx. 40 acres).
Airlake Airport
Aggregate Resources
Water
Wetlands
Long-Term Comprehensive Plan for Airlake Airport is in process.
5,000 2,500 0 5,000 Feet
N

Goals and Policies

The following goals and policies will guide local decision-making related to land use.

Land Use Goals

1. Allow land uses that will maintain Eureka Township's rural character.
2. Encourage protection of priority natural areas and natural resource corridors through local land use decisions.
3. Promote the continuation of agriculture as the primary land use.
4. Allow limited non-farm development provided that the negative impacts are minimized.
5. Maintain the geographic boundaries of the Township.
6. Provide for the economic availability, removal and processing of sand, gravel, and other aggregate materials vital to the economic well-being of the region.
7. Protect solar resources and permit and regulate development of accessory residential and agricultural solar energy systems in the Township.

Policies

To achieve these goals, the Township will:

1. Maintain Eureka Township's agricultural zoning of one housing unit per quarter-quarter section.
2. Discourage pipelines, power lines, and other utility uses which fragment the Township's agricultural land, natural resources, aggregate resources, or that would otherwise be in conflict with the goals of the Comprehensive Plan.
3. Maintain the Township's transfer of housing rights program to achieve the following goals:
   a. The program should be useful in achieving the goals of the Comprehensive Plan.
   b. The program should help relieve development pressure on large blocks of agricultural property.
   c. The program should allow property owners to gain revenue by selling housing rights.
   d. The program should be compatible with the Metropolitan Ag Preserves Program. Property owners should continue to have choices to use their land in ways that maintain eligibility in Ag Preserves.
   e. The program should protect opportunities for efficient and cost-effective land development for a time when public sewer and water services may become available. Such opportunities include the creation of a suitable commercial/industrial area in the Township.

f. The program should be understandable by citizens.

g. The program should respect landowners' rights to use their land in a way that does not significantly harm others' property nor the community's health, safety, welfare and morals.

h. Administration of the program should not create an undue burden on Township government.

4. Use Township Ordinances to minimize the visual and environmental impacts of development.

5. Continue to allow agricultural/horticultural businesses and home occupations in a manner consistent with the Comprehensive Plan.

6. Conduct thorough study before guiding land for commercial-industrial use. Any future updates to the zoning ordinance that would affect commercial-industrial land use shall utilize the Commercial-Industrial Land Use Policies:

   a. The type and location of new commercial-industrial development should not substantially change the rural-agricultural character of the Township or jeopardize existing agricultural enterprises in the Township.

   b. New commercial-industrial development should occur in a manner that allows the Township to retain control over zoning and permitting, to include control over the type, size, and location of such businesses.

   c. New commercial-industrial development should minimize the conflict between commercial-industrial uses and other land uses.

   d. New commercial-industrial development should serve the needs of Eureka Township residents.

   e. New commercial-industrial development should be aesthetically pleasing. Strict performance standards must be created and enforced for building exteriors, parking, landscaping, ingress/egress routes, signage, screening/buffering, and other considerations.

   f. New commercial-industrial development must pay for the costs of its development, including public infrastructure necessary for the development.

   g. New commercial-industrial development must provide financial benefit to the Township through gained tax revenue.

   h. New commercial-industrial development should not have an adverse impact on the quality of life of Eureka residents. In determining quality of life impacts, such things as traffic congestion, noise, light pollution, objectionable odors, health risks, and safety risks should be considered.

   i. New commercial-industrial development should not have an adverse impact on environmental quality. In determining environmental quality impacts, such things as air pollution, water quality, and wildlife habitat should be considered.

7. Consider opportunities for aggregate extraction as part of orderly and staged land use planning when considering land use changes that would preclude future access to those resources.
8. In areas with significant aggregate resources, consider a comprehensive evaluation of land use and resource management.
9. Consider opportunities for the extraction of aggregate prior to approving requests for nonagricultural land uses.
10. Require that after aggregate mining, land is restored to a usable, attractive condition.

CHAPTER 4.

PARKS, TRAILS, AND RECREATION

Introduction

Eureka Township provides limited public services that are necessary to support agriculture and limited residential development. In planning for parks, trails, and recreation, the Township expects that investments will be of a scale consistent with other public facilities and services. Today, there is not a strong demand for park and trail facilities in the Township because of the rural development pattern and prevalence of private open space to meet recreation needs.

Yet the Township recognizes that high quality park and trail systems require long-range planning to ensure that facilities are well-sited, include interesting natural features, and are interconnected. The Township does not plan to create a park and trail system within the 2040 planning period. The Comprehensive Plan provides guidance as the Township works with other jurisdictions on park and trail issues, and guides how the Township will consider the potential for local facilities in the long-term.

This chapter:

- Describes the Chub Lake Wildlife Management Area;
- Addresses the Metropolitan Council's *2040 Regional Parks Policy Plan* as it relates to Eureka Township;
- Identifies the proposed regional trails within the Township;
- Identifies opportunities to plan for potential parks and trails in the future; and
- Provides the goals and policies addressing parks, trails, and recreation.

Existing Facilities

Chub Lake Wildlife Management Area

Today there is one property in Eureka Township that provides outdoor recreation opportunities to the general public: the Chub Lake Wildlife Management Area.

The Chub Lake Wildlife Management Area (WMA) is approximately 200 acres of marsh, woodland, and fields at the south end of Chub Lake. The property is held by the Minnesota Department of Natural Resources (DNR). The northern portion of the WMA contains oak forest and wet meadow native plant communities, as well as a portion of Chub Lake's shoreline. The WMA has a small non-paved access point off Grenada Avenue. There is an improved parking area but no restroom facilities are provided at the WMA.

The Chub Lake WMA was established in 2000. When a private property owner put the property on the market, Eureka Township community members formed a committee to seek ways to protect this natural area. The local effort led to public-private partnerships and the purchase of the land as a WMA. The DNR Metro Greenways program, Ducks Unlimited, a special legislative appropriation, Dakota County, RIM, Koch Refinery, Eureka Township, the National Wild Turkey Federation, and the Chub Lake Greenway Committee collectively contributed the one million dollars needed to purchase the WMA property[1].

The DNR identifies that Wildlife Management Areas are intended to: protect wildlife habitat for future generations; provide citizens with opportunities for hunting, fishing and wildlife watching; and promote important wildlife-based tourism in the state. The Township and DNR share the goal of protecting wildlife habitat, and the Township will seek to work with the DNR to accomplish shared goals.

The Chub Lake WMA is an attractive outdoor recreation destination for Township residents and the general public. The Township works with the DNR to identify existing and future needs of the WMA, such as parking and restroom facilities. The Township supports use of the WMA for habitat protection and for the outdoor recreation activities of hunting, fishing and wildlife watching.

The Township promotes that the WMA be managed in ways that minimize negative impacts to neighboring properties, such as keeping parking off of the public road, removing litter and waste from the property. The WMA should not place a burden on Township roads and other services.

---

[1] Source information about the Chub Lake WMA includes the Minnesota Department of Natural Resources publications *Fish and Wildlife Today* (September 2000) and *Minnesota Conservation Volunteer* (September 2001).

Future Parks and Trails

Regional Parks and Trails

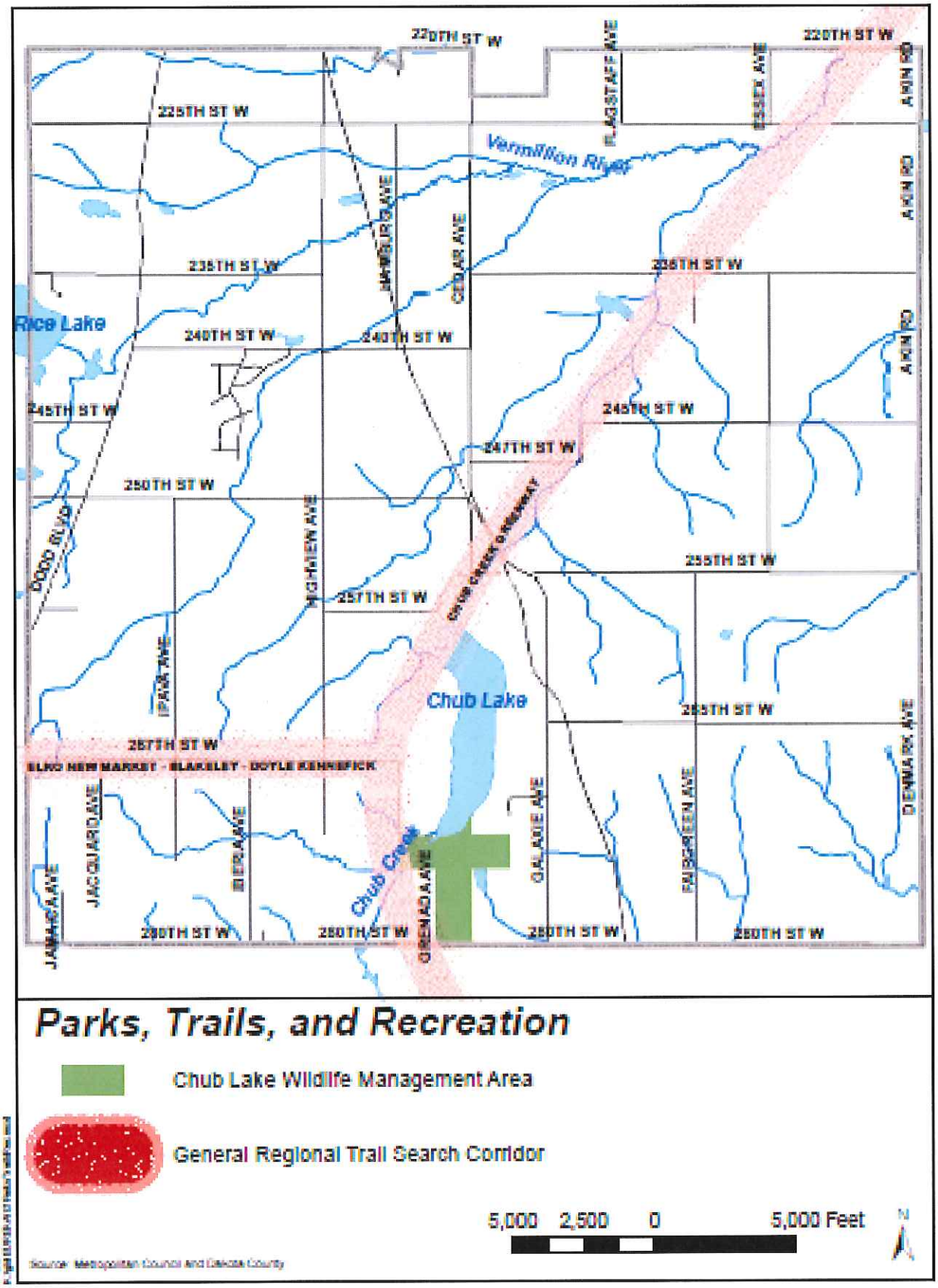
The Metropolitan Council's *2040 Regional Parks Policy Plan*, published in 2015, identified two planned regional park system features within Eureka Township:

- The Elko New Market –Blakely-Doyle Kennefick Regional Trail Search Corridor
- The Chub Creek Greenway Regional Trail Search Corridor.

The trail search corridors are shown on the Parks, Trails, and Recreation Feature map included in this chapter.

Dakota County's Park System Plan, adopted in April, 2008, provides a vision for a regional greenway system that is intended to provide benefits such as water quality, habitat, and recreation for the County. The greenway vision includes two potential corridors within Eureka Township. The corridors are general search areas, and no master plans have been created to date. The corridors are intended to provide habitat connections and natural resource benefits. Some corridors may include recreational trails in the future, but paved recreational trails are not included as components of the corridors in Eureka Township at this time. The Greenways Vision map is shown below.

Dakota County proposes in its Park System Plan that an intergovernmental, collaborative process should be used for planning, building, and managing greenways. Eureka Township may take an active role in planning for the regional trails, greenways, and any other future recreation facilities proposed within the Township. Eureka Township desires to retain local management of facilities located within the community. Eureka Township will work with Dakota County to involve local property owners in greenway planning. Dakota County staff confirmed for this plan that no paved trails are included in the County's plans for the greenways identified within Eureka Township, and that the corridor areas are considered habitat corridors.


220TH ST W
225TH ST W
235TH ST W
240TH ST W
245TH ST W
247TH ST W
250TH ST W
255TH ST W
257TH ST W
265TH ST W
280TH ST W
Vermillion River
Rice Lake
Chub Lake
Chub Creek
FLAGSTAFF AVE
ESSEX AVE
AKIN RD
HAMBURG AVE
CEDAR AVE
DODD BLVD
HIGHVIEW AVE
IPAVA AVE
JACQUARD AVE
IBERIA AVE
GRENADA AVE
GALAXIE AVE
FAIRGREEN AVE
DENMARK AVE
JAMAICA AVE
ELKO NEW MARKET - BLAKELEY - DOYLE KENNEFICK
Parks, Trails, and Recreation
Chub Lake Wildlife Management Area
General Regional Trail Search Corridor
5,000 2,500 0 5,000 Feet
N
Source: Metropolitan Council and Dakota County

Local Parks and Trails

Eureka Township Park and Trail Facilities

Examples of trails corridors

The Eureka Township Livability Ordinance provides the Town authority to regulate the use, operation and protection of Township parks and other public recreation areas. Though there are not Township parks or trails today, the Ordinance indicates that there is a potential for future facilities.

The 2030 Eureka Township Comprehensive Plan indicated that while there was not a current demand for local parks, there may be a need in the future. It stated, "Because of the rural atmosphere and largely undeveloped state of Eureka Township, the need to acquire park land has not been felt;" and, "In the years to come, as Eureka becomes more developed, the need for parks may become more evident, and the Township should begin to examine various locations within its borders."

The approach to park planning expressed in the 2030 Plan remains appropriate for Eureka Township in this 2040 Comprehensive Plan. As a rural and agricultural community, there is not a strong existing demand for facilities. Planning for future facilities will preserve options if local demand grows.

Eureka Township will consider acquiring park and trail facilities in the future if there is a local demand for such facilities. The Township will consider creating a park and trail plan and map to identify locations for future Township facilities. If a park and trail plan is created, the Township will consider creating a park dedication ordinance as a mechanism to create future Township-owned park, trail and recreation facilities. The Township will consider accepting land donations for park, trail or recreational purposes, if such opportunity arises.

Privately-Owned Park and Trail Facilities

Eureka Township's Ordinances do not allow for privately owned, commercial recreation facilities such as golf courses, paint ball facilities, or shooting ranges. Such uses are generally out of character in a rural environment because of the potential for traffic, noise, and environmental harm.

The Township may wish to consider meeting future local demand for parks and trails through non-commercial, privately owned facilities. For example, the Township may choose to allow for a privately owned playground that is located on private property.

whether at the local level or in working with Dakota County on the Chub Creek Greenway Regional Trail planning process.

- **Natural Resources Corridor:** In some instances, creation of parks and trails is one method that can be used to achieve Eureka Township's goals to protect natural resources and preserve open space. As development occurs, there may be opportunities to weave trails through parts of the Natural Resource Corridor identified in the Natural, Cultural, and Agricultural Resources chapter, where compatible with natural resource protection. Parkland can be used to protect natural areas, with proper management for the ecological health of the resource and adequate separation from active recreation areas.

- **Utility and Transportation Corridors** may offer opportunities for future trails. The Township could explore partnerships to create trails within existing and planned pipeline corridors. A trail created in conjunction with a utility corridor could be an amenity that, in a small part, offsets the burden of the utility on the community. Reconstruction of roadways presents opportunities to create trails, whether under the jurisdiction of the County or Town.

- **Town Hall:** Rural communities that have a single, local park facility tend to attach it to Town Hall property. If local demand grows in Eureka Township for active park facilities, such as a ball field or playground, the Township may wish to consider creating a park at or near the Town Hall. This would allow for indoor/outdoor community events or recreation programming, and would make efficient use of restroom facilities, water supply, and parking.

Example of a Town Hall park

- **The property owned by the Minnesota Department of Natural Resources,** located north of 235th Street and west of Dodd Boulevard, may have the potential to be reclaimed as a natural and/or recreational area. The Township could consider requesting that the DNR prepare a reclamation plan for the site. The Township could work with the DNR to plan for a future use that is consistent with the Township's natural resource and recreation goals and policies.

- **Future neighborhoods:** Housing clusters may benefit from local park or trail facilities. The Township may wish to consider creating a park and trail plan and a park dedication ordinance. If, in the future, the Township plans for a mixed-use area in the village

center that would combine commercial and residential land uses, parkland could be considered for the area.

- **Park, trail, and recreation facilities, regardless of their specific location, should be carefully planned.** The Township will be actively involved in the planning and management of facilities located within the community. Facilities should be distanced appropriately from existing homes to limit impacts of park and trail users on private properties. Facilities should be designed in harmony with natural resources, so that priority natural resources are not harmed through construction or use of the facility. Trails should connect to each other and to destinations in the community. Trails should be considered as options for pedestrian and bicycle modes of travel, as well as serving recreational purposes.

Goals and Policies

The following goals and policies will guide local decision-making related to parks, trails, and recreation facilities in Eureka Township.

Parks, Trails, and Recreation Goals

1. Continue to support use of the Chub Lake Wildlife Management Area for habitat protection and for the outdoor recreation activities of hunting, fishing and wildlife watching.
2. Actively participate and take leadership in planning for regional recreation facilities proposed within Eureka Township.

Policies

To achieve these goals, the Township will:

1. Work with the Minnesota Department of Natural Resources (DNR) to accomplish shared Township-DNR goals for the Chub Lake Wildlife Management Area.
2. Work with the Minnesota Department of Natural Resources to identify existing and future needs of the Chub Lake Wildlife Management Area.
3. Encourage that the Chub Lake Wildlife Management Area be managed in ways that minimize negative impacts to neighboring properties.
4. Actively participate in planning processes for the two regional trail search corridors.
5. Monitor local demand for parks, trails, and recreation facilities.
6. Consider creating a local park and trail plan and map to identify locations for future facilities, and a park dedication ordinance as a mechanism to create future Township facilities.
7. Discourage commercial park and recreation facilities that degrade natural resources or harm the Township's rural character.

CHAPTER 5.

TRANSPORTATION

Introduction

The transportation system in Eureka Township includes County roads, local gravel roads, local paved roads, a rail corridor, and Airlake Airport: a diverse system for a Township.

The Township does not expect significant changes to its local transportation facilities through 2040. This chapter identifies current transportation facilities, expected growth in facility use, and transportation issues for the 2040 planning period. The Township obtained much of the data and mapped information included in this chapter from recent Dakota County and Metropolitan Council plans and maps. The Township reviewed the transportation goals and policies included in the 2015 System Statement and 2030 Dakota County Transportation Plan, and the Township has developed its goals and policies to be consistent with the regional and county goals and policies for transportation infrastructure. The Comprehensive Plan provides guidance as the Township plans for its local transportation system and works with other entities on transportation issues.

This chapter:

- Summarizes the existing surface transportation facilities in the Township;
- Identifies key issues for the future surface transportation system;
- Reviews existing and proposed aviation facilities; and
- Sets out goals and policies to guide transportation planning.

Existing Surface Transportation System

Roadway Characteristics

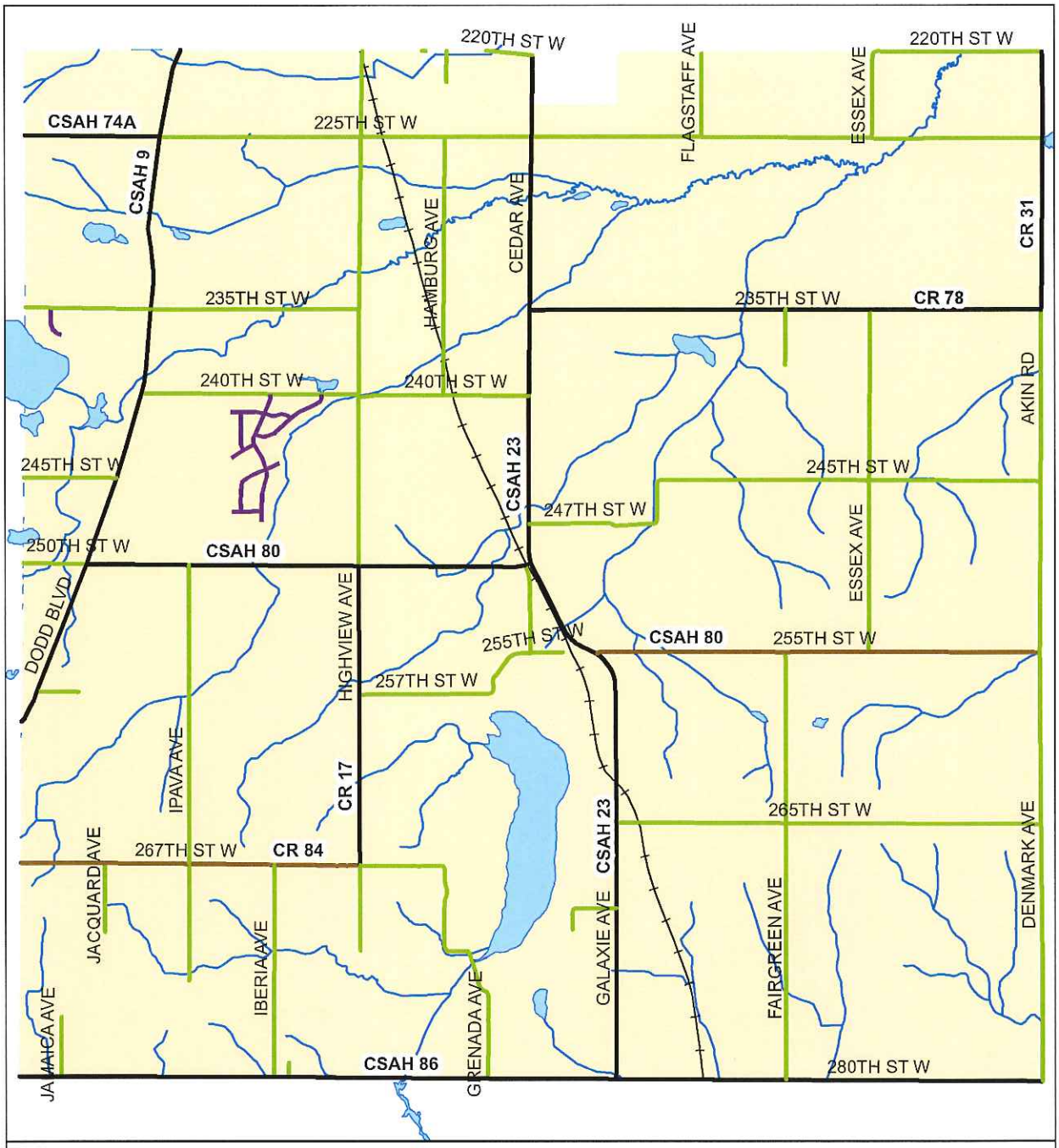
The surface transportation system within Eureka Township consists of Township roadways, County roadways, and a railroad corridor. With the exception of the paved Township roads in the Eureka Estates and Rice Lake Heights neighborhoods, Township roads consist of a gravel surface. The majority of Dakota County roadways in the Township are paved.

Local and County roadways generally follow section and half-section lines, providing connections every one to two miles. County State Aid Highway (CSAH) 9 and CSAH 23 are significant north-south routes in the Township. Township road 225th Street, CSAH 80, and CSAH 86 provide fairly direct east-west connections. Roadway jurisdiction and surface material are shown on the Roadway Characteristics map in this chapter.

Functional Classification System

The roadway system must balance the demand for local property access with the demand for mobility across greater distances, traveled at greater speeds. In creating a system that allows for both access and mobility, a functional classification system aids in determining appropriate roadway widths, safety precautions, accessibility, and maintenance priorities. The regional functional classification system for roadways located in Eureka Township is described here and shown on the Transportation System map.

- **Principal Arterial:** a highway which provides for high speed travel and connections among communities in Minnesota and other states; includes interstate highways and freeeways. The Principal Arterial closest to Eureka Township is Interstate 35.
- **A Minor Connector:** a street primarily oriented toward mobility to destinations within the metropolitan region. Mobility is generally prioritized over access to individual parcels. CSAH 9, CSAH 23, and CSAH 86 are classified as 'A' Minor Connectors.
- **Collector:** a street which functions to collect traffic from local streets and move it to Connector roadways and other Collectors. Collectors in Eureka Township are County Road (CR) 78, CR 31, and CSAH 80, and Township road 250th Street, west of CSAH 9.
- **Local:** other roads that are under the jurisdiction of Eureka Township. Much of the land in Eureka Township is served by gravel Township roads. Local roads provide access to individual properties and connections to the rest of the roadway network. They are generally not designed for long distance travel.



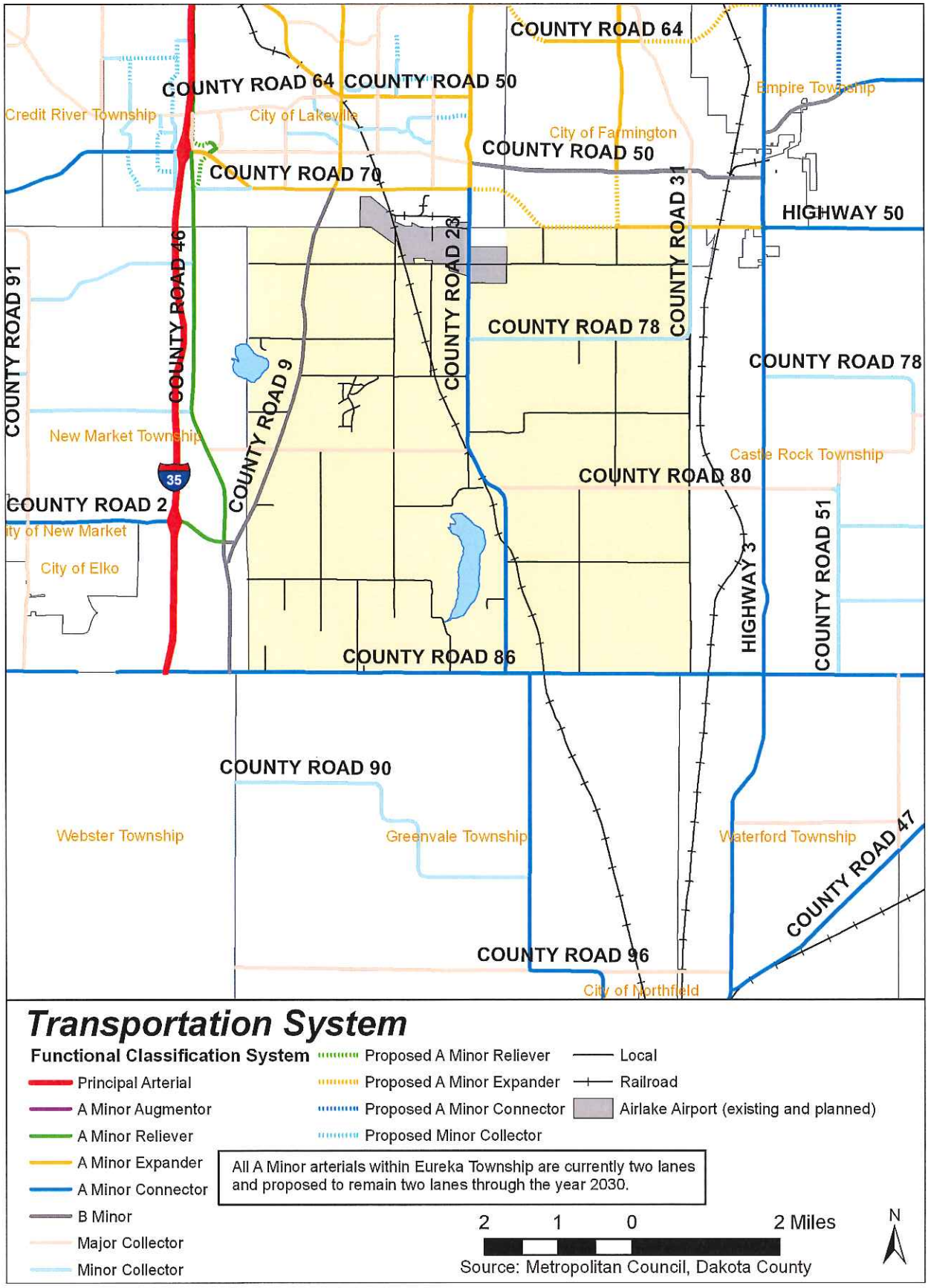
Roadway Characterisics

- Local, Paved
- Local, Gravel
- Dakota County, Gravel
- Dakota County, Paved

1 0.5 0 1 Miles

N

Source: Dakota County


COUNTY ROAD 64
COUNTY ROAD 64
COUNTY ROAD 50
Credit River Township
City of Lakeville
City of Farmington
Empire Township
COUNTY ROAD 50
COUNTY ROAD 70
HIGHWAY 50
COUNTY ROAD 91
COUNTY ROAD 46
COUNTY ROAD 23
COUNTY ROAD 31
COUNTY ROAD 78
COUNTY ROAD 78
COUNTY ROAD 9
New Market Township
Castle Rock Township
35
COUNTY ROAD 80
COUNTY ROAD 2
City of New Market
City of Elko
HIGHWAY 3
COUNTY ROAD 51
COUNTY ROAD 86
COUNTY ROAD 90
Webster Township
Greenvale Township
Waterford Township
COUNTY ROAD 47
COUNTY ROAD 96
City of Northfield
Transportation System
Functional Classification System
Principal Arterial
A Minor Augmentor
A Minor Reliever
A Minor Expander
A Minor Connector
B Minor
Major Collector
Minor Collector
Proposed A Minor Reliever
Proposed A Minor Expander
Proposed A Minor Connector
Proposed Minor Collector
Local
Railroad
Airlake Airport (existing and planned)
All A Minor arterials within Eureka Township are currently two lanes and proposed to remain two lanes through the year 2030.
2 1 0 2 Miles
N
Source: Metropolitan Council, Dakota County

Future Surface Transportation System

Access Management

Access management may be achieved through guidelines and regulations that affect where and how driveways and new streets connect to existing roadways. Typical access management strategies include aligning access points with other existing or potential access points, and establishing minimum distances between access points for different roadway types.

The Township's Ordinances and County policies regulate access management. Requirements include minimum spacing between driveways and public roadway intersections. The Ordinance supports Dakota County access management standards for access points on County roadways.

The 2040 Comprehensive Plan supports the same access management policies that were included in the 2030 Plan.

- House access may be via legal easement across another land owner's parcel. The shared driving surface must be suitable for emergency vehicle access.
- Typically, individual lots have no more than one access to a public road.
- Shared access to and from an existing road from clustered housing should be used when feasible. Particular emphasis on this strategy should be made for safety when County roads and high traffic Township roads are involved.

The 2040 Comprehensive Plan recommends that the Township continue to use access management standards in order to balance the need for mobility with the need for land access.

Planning for Capital Improvements and Maintenance for Local Roads

Improvements to Township roads are budgeted and planned for as part of the annual budget process. Transportation maintenance and improvement projects are identified annually after inspections of the Township's roads, identification of issues, and prioritization of projects. It is important to the Township to have a safe and maintained transportation system. The Township conducts two annual inspections, one by the Planning Commission in the fall and one by the Town Board in the spring, so it can assess local roadway conditions twice before committing funds to transportation improvements.

The Comprehensive Plan includes Natural Resources policies that encourage minimal use of salts, fertilizers and herbicides in groundwater sensitive areas. The Township will consider this policy in its maintenance of local roads, while providing for safe roadway conditions.

Dakota County Facilities and Planning for the Future

Northfield Area Corridor Study

Dakota County recently completed a planning study titled the Northwest Northfield Highway Corridor Study. The study examined the need for existing and future transportation improvements in the area northwest of Northfield based on anticipated population growth and

development. The study focused on Dakota County CSAH 23 and Rice County CSAH 43 alignments. It identified a future transportation network to link disconnected road system segments to improve mobility. The study findings included the following:

- Identified a recommended preferred alignment based on the proximity to planned development by the City of Northfield. The alignment presents the greatest opportunity to divert traffic from the existing CSAH 23/43 alignment. The future alignment included:
    - A connection of Garrett Avenue at North Avenue to CSAH 23 at CSAH 96 (320th Street) as a future new alignment, and
    - A future study of connection of CSAH 23 (Foliage Avenue alignment) with CSAH 23 (Galaxie Avenue alignment) at CSAH 86 to address turning movements and the shared common section of CSAH 86 for CSAH 23 north-south through movements.
    - Recommended that development of the project occur with land development activities.

Eureka Township wants to continue to be informed and involved in the CSAH 23 alignment study because the realignment has the potential to impact some Century Farms in the Township. This is included in the Township's transportation goals for this Comprehensive Plan update.

It is important that Eureka Township not carry an unfair share of the financial and quality of life impacts associated with regional transportation issues. The Township will work with other jurisdictions to make sure that improvements best serve Eureka and surrounding communities without unduly compromising the rural character and quality of life of Eureka Township.

County State Aid Highway 23 – Cedar Avenue

County State Aid Highway 23 (Cedar Avenue and Galaxie Avenue) is a heavily used A-Minor arterial, described by the Dakota County CIP as frequently at full capacity. Cedar Avenue directly connects Eureka Township to nearby cities such as Apple Valley and Bloomington, and to the region's network of highways. To the south, CSAH 23 connects Eureka Township to the City of Northfield. Located down the center of Eureka Township, CSAH 23's future is of high importance to the community. Potential changes to the corridor are described here.

- Bus Rapid Transit (BRT) is under development on Cedar Avenue. The BRT corridor will extend to 215th Street in Lakeville, just north of the Township boundary in its 3rd development phase. BRT on Cedar Avenue in Lakeville would serve as a transportation option for Eureka residents.
- In order to accommodate the Airlake Airport's planned runway extension, Cedar Avenue may be proposed to be relocated to the east of the new runway, in the area where it intersects 225th Street.

Eureka Township will continue to monitor planning processes for CSAH 23 and other County roadways, and communicate Township interests to the involved county, state, and local jurisdictions. Eureka Township encourages the State and County to work with local landowners in developing plans for realignments of CSAH 23.

Dakota County 2015-2019 CIP

Dakota County's 2015-2019 Capital Improvement Program includes the following items that affect roadways in Eureka Township

- A potential bituminous resurfacing project on CSAH 86 in Eureka, Castle Rock, Waterford and Greenvale Townships. This project has been completed.
- Potential intersection and roadway improvements on CSAH 80.
- Potential roadway reconstruction on CR 78 in Eureka and Castle Rock Townships
- A future study of East-West Principal Arterials in Eureka, Castle Rock, Hampton and Douglas Townships.

Transportation and Township Land Use

Township Growth Forecasts by Traffic Analysis Zones (TAZ)

Eureka Township was located within one Traffic Analysis Zone (TAZ) for the 2030 Comprehensive Plan, but is located within seven TAZ's for the 2040 Comprehensive Plan. The table below shows the forecasted population, household, and employment growth in each TAZ for 2010, 2020, 2030, and 2040. The map showing the location of the TAZ's in the Township follows the Existing Traffic and Traffic Forecast Map.

Table -- Growth forecasts by TAZ

TAZ	Forecast Type	2010	2020	2030	2040
676.00					
	Population	25	20	20	30
	Households	11	10	10	10
	Employment	323	10	10	10
694.00					
	Population	125	120	130	130
	Households	47	40	60	60
	Employment	16	20	20	20
695.00					
	Population	443	430	460	470
	Households	154	170	180	200
	Employment	331	270	270	270
696.00					
	Population	87	100	110	120
	Households	35	40	40	50
	Employment	16	30	30	30
699.00					
	Population	192	190	210	230
	Households	67	70	80	100
	Employment	8	20	20	20
700.00					

	Population	128	130	150	170
	Households	45	50	60	70
	Employment	57	80	80	80
701.00					
	Population	435	460	490	520
	Households	164	180	200	210
	Employment	22	30	30	30
Forecast Totals All TAZ					
	Population		1450	1570	1670
	Households		560	630	700
	Employment		460	460	460

The forecasts for 2020, 2030, and 2040 are consistent with the Metropolitan Council's population, household, and employment forecasts for those years, identified in Chapter One of this Comprehensive Plan update. The TAZ forecast data that the Metro Council provided for population and households in the 7 TAZ districts were generally consistent with the forecasts for Eureka Township. The TAZ data for employment in TAZ 676.00 included a significant employment area in the City of Lakeville. The Township has modified the employment forecasts to take out the Lakeville employment data.

The Township considers transportation implications when making land use decisions. The Township's policies include strategies to make sure that land uses are compatible with Township roads and level of services. The 2040 Comprehensive Plan supports these policies:

- Alternatives must be investigated in cases where the approval of a change in land use would raise traffic on a gravel road substantially above 200 average trips per day.
- Individual land uses that will generate high levels of traffic and/or heavy vehicle traffic will be required to participate in the upgrading of facilities.
- The Township will maintain existing roadways and rights-of-way to meet Ordinance standards. Any new Township roads must also conform to Township Ordinances. Standards promote a safe and efficient transportation system.

The 2040 Comprehensive Plan recommends that the Township continue its practices in managing improvements to the local transportation system. These practices include:

- Comprehensive inspection of Township roads on at least an annual basis
- Maintaining the existing transportation system
- Considering transportation implications when making land use decisions
- Requiring land use permit applicants to provide for transportation improvements needed to accommodate the change in land use
- Working with Dakota County and neighboring communities to address transportation issues facing Eureka Township and the region.

Traffic Volumes

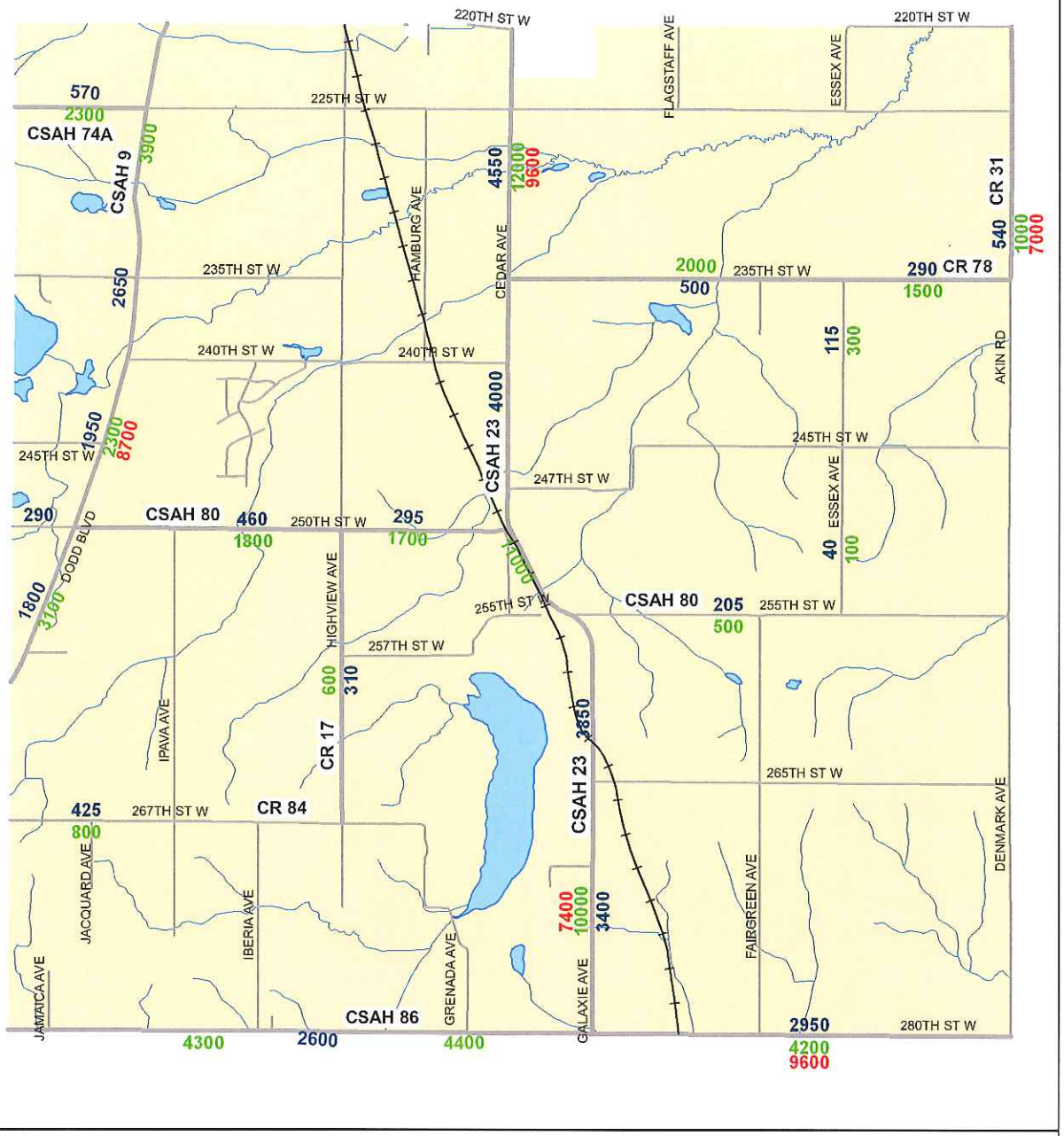
The Dakota County 2030 Transportation Plan reports existing and forecasted average daily traffic volumes for County facilities. Traffic volumes are expected to increase on all County facilities located in Eureka by 2030. High rates of increase are expected for CSAH 9 (Dodd Road), CSAH 23 (Cedar Avenue), CSAH 8 (250th and 255th Street West), and County Road 78 (235th Street West). The *Existing and Estimated Traffic Volumes* on major roadways in the Township based on The Dakota County 2030 Transportation Plan are shown on the map that follows this section.

Land use decisions affect the level of demand placed on the transportation system. With the majority of land in Eureka Township used and planned for agriculture, the increases in forecasted traffic volumes on roadway segments within the Township are largely attributable to growth outside the Township. The growth in traffic within Eureka Township will occur due to planned growth in surrounding communities and the region.

Safety

Transportation safety is important to the Township. As traffic volumes increase on County roadways located within Eureka, and with more traffic expected from surrounding communities due to their growth, steps must be taken to ensure safety. Traffic volume forecasts are especially high for CSAH 23. Transportation safety is important for all roadways, but of particular concern where traffic volumes are expected to increase so significantly.

Eureka will continue, and continue to encourage, frequent communication between the Township, Dakota County and the Minnesota Department of Transportation (Mn/DOT) to ensure that roadways are as safe as possible under current conditions and in the future. The Township encourages Dakota County and Mn/DOT to communicate early with the Township when considering changes to roadways in the community. Eureka Township will assist the County and State in identifying transportation and safety issues, and in communicating with local residents on transportation issues. The Township will work with the County and State on transportation safety efforts such as safety audits and implementation of safety audits.



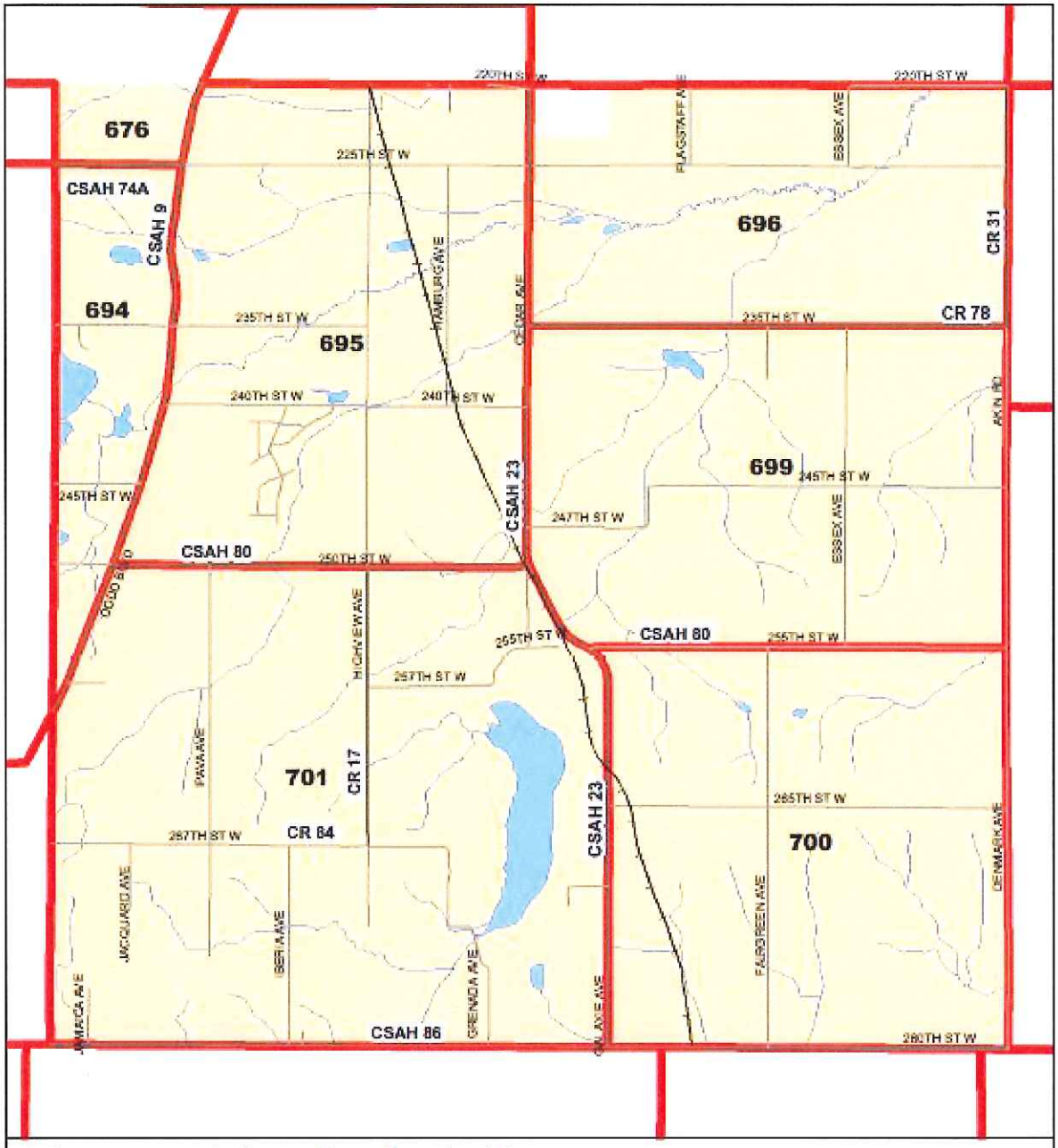
Existing Traffic and Traffic Forecasts

2000	Traffic Counts, Year 2000, Dakota County 2025 Transportation Plan
2025	Traffic Forecasts, Year 2025, Dakota County 2025 Transportation Plan
2030	Traffic Forecasts, Year 2030, Metropolitan Council Regional Model

1 0.5 0 1 Miles

N

Source: Dakota County, Metropolitan Council



Transportaion Analysis Zones

XXX Transportation Analysis Zone ID Number

Transportation Analysis Zone Boundary

Eureka Township Bondary

1 0.5 0 1 Miles

N

Source: Metropolitan Council

Multimodal Transportation Facilities

Pedestrian and Bicycle Facilities

Roadways in Eureka Township are shared by motorized vehicles, pedestrians and bicyclists. Eureka Township's rural transportation system does not include separate bicycle lanes, sidewalks, or trails today, and the Regional Bicycle Transportation Network does not include proposed facilities within the Township. Planning for future trails - discussed in the Parks, Trails and Recreation chapter - will consider trails as options for pedestrian and bicycle modes of travel. As part of its transportation planning for public safety, the Township should continue to consider pedestrian and cyclist safety when planning improvements and maintenance to local roads.

There are no Regional Bicycle Transportation Network corridors planned in Eureka Township.

Transit

Eureka Township is outside of the Metropolitan Transit Taxing District, and so there is no existing or planned transit service in Eureka. For the purposes of regional transit planning, Eureka Township is considered part of Market Area V. Transit Market Area V is characterized by very low population and employment densities and is located in rural and agricultural communities. Transportation options for Market Area IV include dial-a-ride, volunteer driver programs, and ridesharing. Dial-a-ride service for seniors and persons with disabilities is provided by Dakota Areas Resources and Transportation for Seniors (DARTS).

Aviation

There are two existing aviation system facilities within Eureka Township: the Airlake Airport and the Farmington VOR (VHF Omnidirectional Range navigation system).

Airlake Airport

Airlake Airport is located in Sections 3 and 4 on the northern border of the Township and the city of Lakeville. The airport is owned and operated by the Metropolitan Airports Commission (MAC). This airport is classified as a "Minor" airport in the regional airport system, functioning as a general aviation airport and a designated reliever airport to Minneapolis-St. Paul International Airport. Airlake Airport accommodates air taxi service, flight training, ambulance helicopter service, and personal, professional and corporate usage.

Airlake Airport Comprehensive Plan

The current Airlake Airport Comprehensive Plan, created in 2007, proposes new facilities at the Airport through the year 2025. The Airlake Plan identifies the Airport's preferred expansion plans. The preferred alternative described in the Plan is to extend the runway 902 feet to the southeast, which would require relocation of Cedar Avenue and 225th Street to accommodate the expansion. The Airlake Plan also recommends development of additional hangar space, which may be served by municipal water and sewer services in the future.

The Metropolitan Airports Commission (MAC) is currently working on an update to the Airlake Airport Comprehensive Plan. The updated plan is not expected to be completed prior to Township adoption of this Comprehensive Plan update in 2018. The new plan may affect Eureka Township, but the potential effects may not be known until after the Township's plan is adopted in 2018. The airport is identified on the land use and transportation maps in this plan, and the status of the airport's comprehensive plan update is noted.

The Township participated in the public involvement process for the 2007 Airlake Airport Comprehensive Plan, and will continue to be involved in Airlake Airport expansion and land use planning issues for the current Comprehensive Planning process. The Township will work with the Airlake Airport to identify public improvements needed in the area due to airport expansion, and follow the Airport's plan update. The Township believes that resources to make necessary improvements should be provided by Airlake Airport.

Airspace protection

Eureka Township supports general airspace protection provisions. Because the MAC owns property within the immediate vicinity of the runway, and because of the height and use standards in the Eureka Township ordinances, airspace is adequately protected by existing regulations.

The Township reviews all applications for development. If proposed structures would trigger notification to the Federal Aviation Administration (FAA) and Minnesota Department of Transportation (Mn/DOT), applicants will be required to notify these agencies. Notification must occur if the proposed structure is 200 feet above the ground and could affect navigable airspace. Notification and federal regulations are found in CFR - Part 77, using the FAA Form 7460-1 "Notice of Proposed Construction or Alteration".

Airport Safety Zones

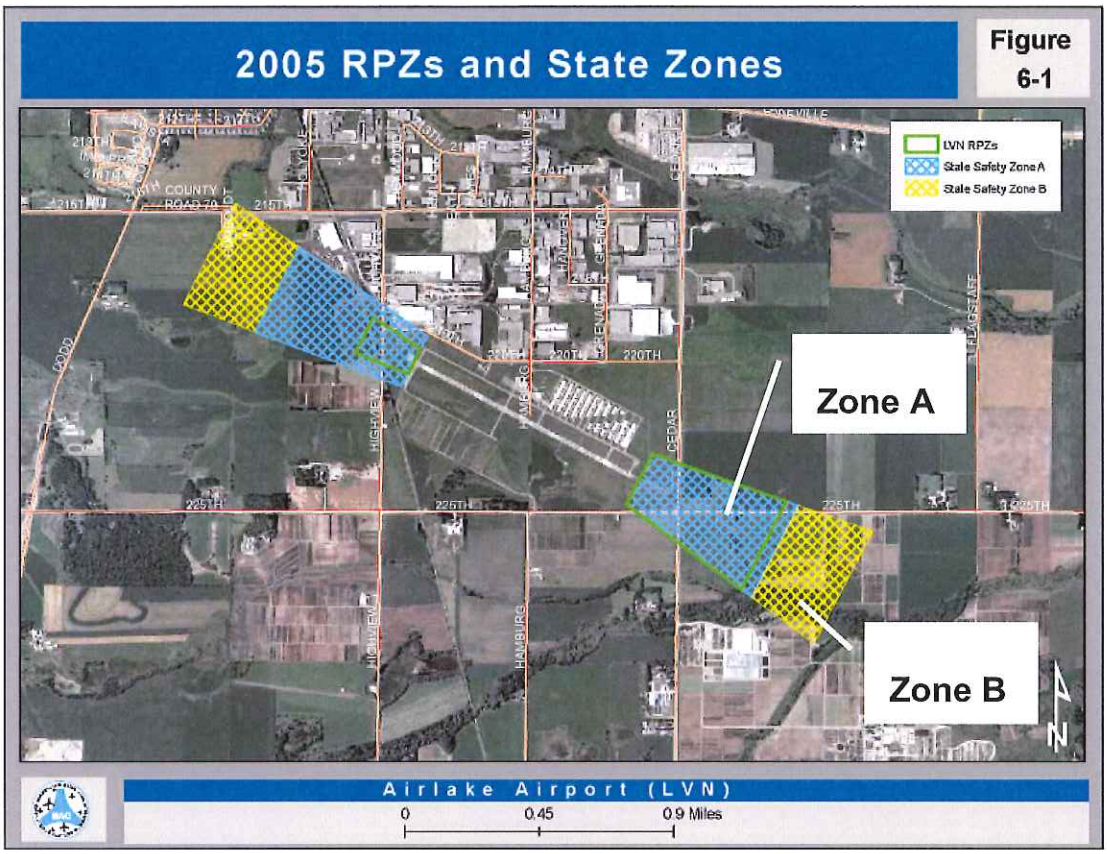
Mn/DOT airspace protection regulations include creation of "Safety Zones" for the land area off runway ends in order to prevent incompatible development. State airspace protection requirements include formation of a joint airport/community zoning board, defining an airport zoning district, and implementing an airport zoning ordinance including land use safety zoning.

Eureka Township participates in planning issues related to the Airlake Airport and will continue to be involved. The Township encourages the creation of the joint airport/community zoning board. The Eureka Township Comprehensive Plan illustrates Safety Zones A and B shown in the Airlake Airport Comprehensive Plan and briefly describes the Zones for informational purposes, should development requests in the area come before the Township.

- Safety Zone A does not allow any buildings or temporary structures, places of public assembly or transmission lines. Permitted uses include agriculture, livestock, cemeteries and auto parking areas.

- Safety Zone B extends outward from Safety Zone A a distance equal to one-third the runway length. Density of development should be kept low in this zone.

Runway Protection Zones (RPZs) and Safety Zones A and B for Existing Airlake Airport Runway



VOR Facility

The VOR facility, which provides an air navigation reference point and directional guidance to an airport runway, is located on the border of the Township and the City of Farmington near 220th Street and Essex Avenue in Section 2 of the Township. The Federal Aviation Administration owns the VOR.

The FAA usually owns or controls property within 1,000 feet of the facility. The 1,000-foot protection zone cannot include any structures and should be included in the future development of a local airspace protection ordinance.

The Township recognizes the importance of protecting the area in the Township that is around the VOR facility. The Township reviews all applications for development and will require applicants to notify the FAA of any development proposal within a half-mile of the VOR facility that could create potential hazards to air navigation, including electronic interference. Notification and federal regulations are found in CFR - Part 77, using the FAA Form 7460-1 "Notice of Proposed Construction or Alteration" (FAA form 7460-8 and MCAR 8800.1200 Subpart 3).

Transportation Goals and Policies

The following goals and policies will guide local decision-making related to transportation.

Transportation Goals

1. Maintain a transportation network at reasonable cost that meets the safety, health, and welfare needs of the community.
2. Provide a transportation system to complement the existing and planned rural land uses in Eureka Township.
3. Work with other jurisdictions to plan and update the transportation system, including participation in the County's CSAH 23 Alignment Study.
4. Support general airspace protection provisions for the Airlake Airport and VOR facilities.

Policies

To achieve these goals, the Township will:

1. Encourage a transportation system that balances land access and transportation mobility.
2. Use access management to promote a safe and effective road network.
3. Provide for the highest possible degree of road safety through roadway design, maintenance, and access management.
4. Maintain existing Township roads.
5. Require that new roads are surfaced appropriately, either gravel or paved, for cost effective maintenance.
6. Consider transportation impacts when making land use decisions.
7. Require land use permit applicants to provide for transportation improvements needed to accommodate the change in land use.
8. Consider the protection of natural, cultural, and agricultural resources in the design of new roads and maintenance of existing roads.
9. Work with Dakota County and neighboring communities to assure that appropriate roadway improvements are constructed to best serve Eureka Township and the surrounding communities without unduly compromising the rural character and quality of life of Eureka Township.
10. Encourage regular communication among Dakota County, Minnesota Department of Transportation, and Eureka Township regarding realignment of roadways, transportation planning, and transportation safety.

11. Require notification to the Federal Aviation Administration and the Minnesota Department of Transportation of any structure 200 feet above the ground that could affect navigable airspace, or of any development proposal within a half-mile of the VOR facility, or of any proposed personal airstrip that could create potential hazards to air navigation, including electronic interference.

12. Work with the Metropolitan Airports Commission and Metropolitan Council on planning for the future of Airlake Airport.

CHAPTER 6.

WATER RESOURCES

Introduction

Water resource planning is conducted to protect, maintain, or improve the quality and quantity of surface water and groundwater. The Water Resources chapter of the Comprehensive Plan is organized by three sub-topics: water supply, wastewater, and surface water. Surface water planning is fully addressed in Eureka Township's Local Surface Water Management Plan, included as an attachment to the Comprehensive Plan.

This chapter and attachments include:

- The Township's Water Supply Plan
- Wastewater System
- Local Surface Water Management Plan

The Township will remain an Agricultural community through 2040 with no urban services. The forecasts for population, housing, and employment growth reflect the community's Agricultural classification and expectation of limited growth:

	2010 (actual)	**2014 (est.)**	**2020**	**2030**	**2040**
Population	1,426	1,434	1,450	1,570	1,670
Households	518	522	560	630	700
Employment	460	237	460	460	460

Eureka Township's Water/Wastewater Systems

The Metropolitan Urban Service Area (MUSA) is the boundary that identifies communities served by regional water and sewer services. Eureka Township is outside the MUSA boundary. The System Statement for Eureka Township notes that centralized wastewater services, either through a regional or centralized local wastewater system, will not be provided in the Township through the 2040 planning period. The community does not own or operate a community public water supply system. Eureka's needs for water and wastewater will be met through private wells and wastewater treatment systems through 2040.

Water Supply Plan

Water Supply Plan Requirements—Communities without Municipal Public Water Supplies

Eureka Township does not have a municipal water supply system. Township residents rely on private wells for their water supply. The Metropolitan Council requires that the Township include the following items in the Water Supply Plan that is included in the Township's 2040 Comprehensive Plan:

- Information about surface water features and their interaction with the regional groundwater system
- The location of groundwater level monitoring and aquifer testing
- The presence of any regulatory and management areas
- Goals and policies for protecting private water supplies and water sources.

This chapter will serve as the Township's 2040 Water Supply Plan, and includes the information that the Metropolitan Council requires for the plan.

General Groundwater Supply Characteristics and Issues in Eureka Township

Water is a valuable natural resource. Eureka has an ample supply of groundwater, and all residents rely on wells for their water supply.

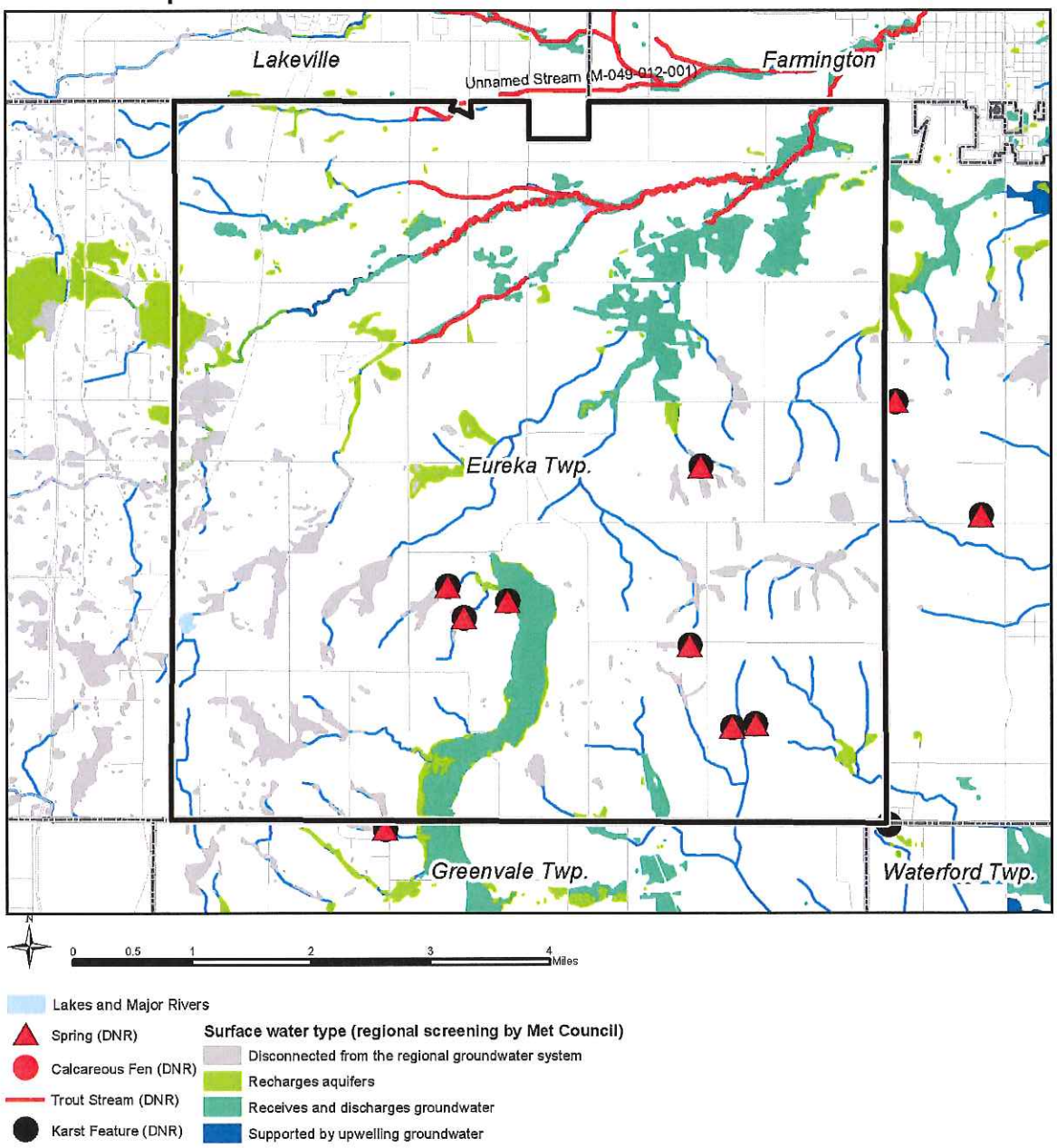
Dakota County completed its most recent *Ambient Groundwater Quality Study* ***(AGQS)*** *in January, 2006.* The study includes detailed information about groundwater resources in the County and Eureka Township. A summary of the Study's information about the water supply for Eureka Township includes:

- The Prairie du Chien-Jordan aquifer provides drinking water for Eureka Township. These aquifers are a single aquifer in some parts of Minnesota, in Dakota County they behave as two separate aquifers.
- Glaciers shaped the landforms in the Township and Dakota County (AGQS Figure 5). These landforms affect shallow groundwater flows and susceptibility to groundwater contamination from the surface. The northern portion of the township is included in glacial outwash plains around the Vermillion River. These areas are the most sensitive to pollution. The landforms in the southern part of the Township are dominated by glacial moraines. These areas have low to moderate sensitivity to pollution.

Surface Water Features and Interaction with Groundwater Resources

The Metropolitan Council's *2040 Water Resources Policy Plan* notes that the Vermillion River, Chub Lake, and a large number of wetlands in the Township both receive and discharge groundwater. Other wetlands in the Township act primarily to recharge groundwater aquifers. The map below shows the locations of those features, and notes that the locations of several springs related to creeks in the Township as well.

Eureka Twp.



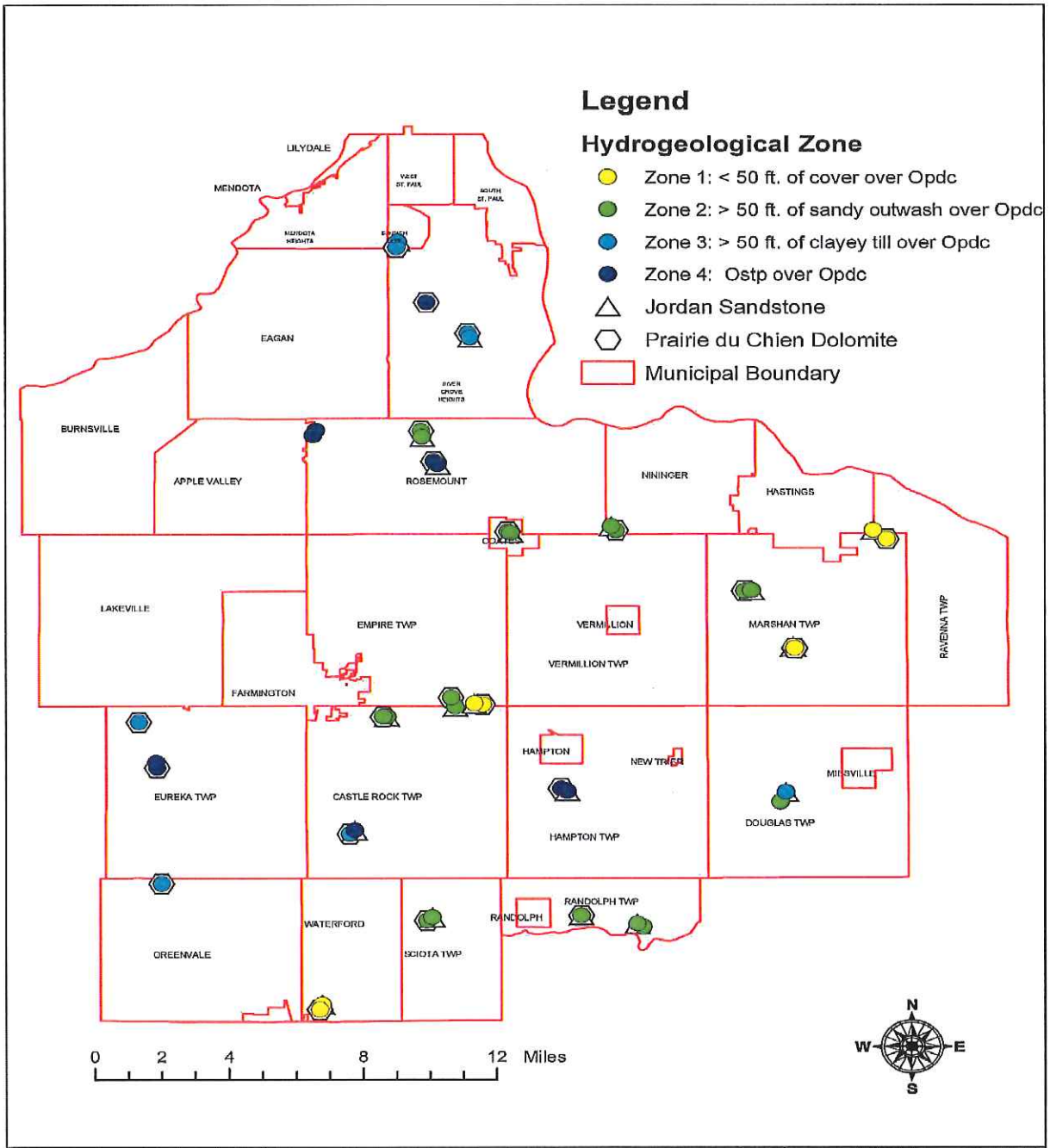
Groundwater Monitoring and Aquifer Testing

Dakota County's AGQS includes a map that shows the location of the County's groundwater monitoring wells in the County (AGQS Figure 12, below). Two wells are located in Eureka Township. Both wells are located in the Prairie du Chien aquifer. The DNR also has an observation well located in Eureka Township, identified on the second map, below.

The County's summary of monitoring analysis from the County's wells notes the following concerns:

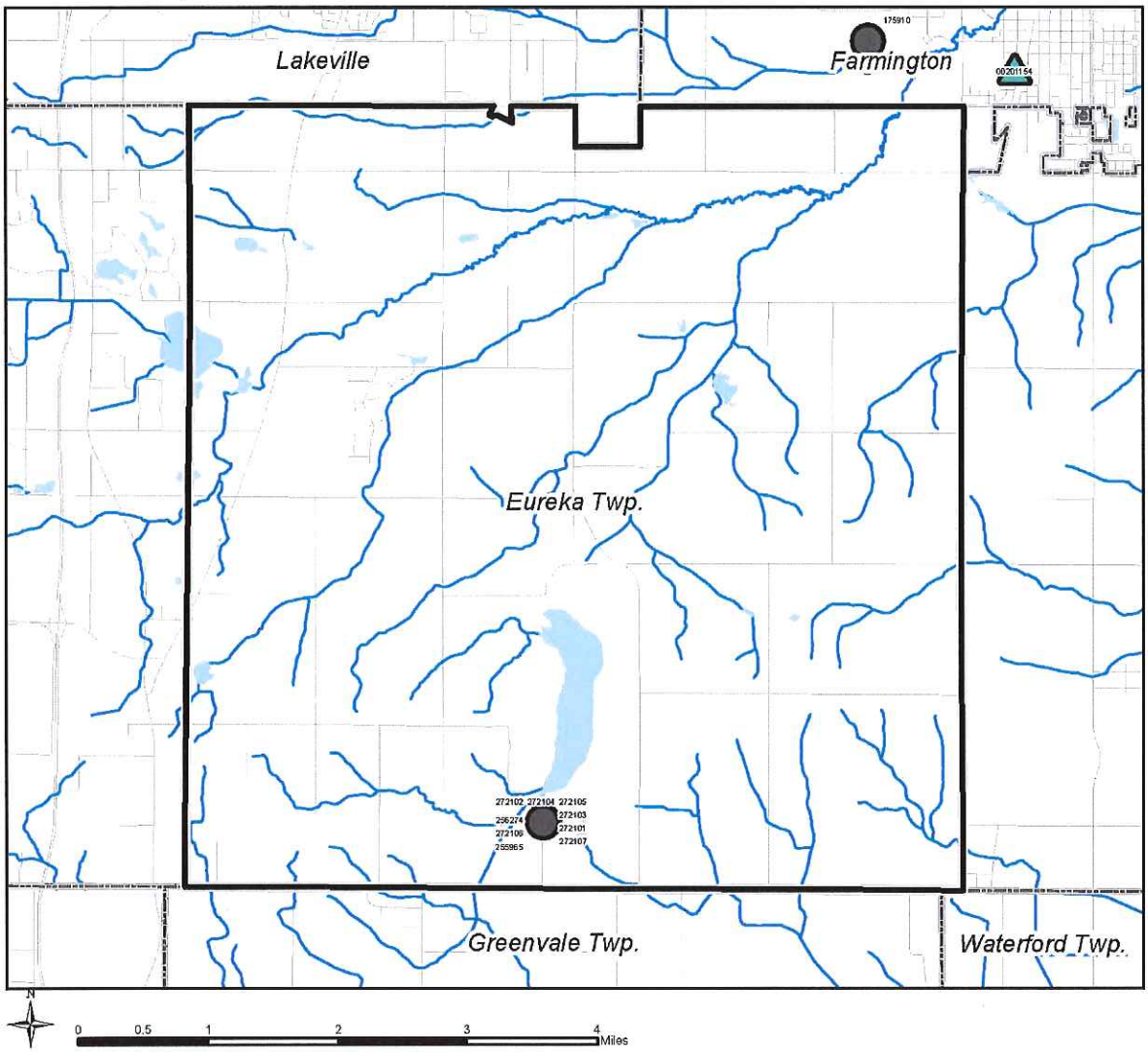
- The most common groundwater contaminant found in well monitoring in Dakota County is nitrate. The AGQS report notes that "nitrate is not dangerous at natural levels, but can pose health risks at elevated levels. With the increased use of fertilizers, especially in geologically-sensitive areas, nitrate levels are becoming an increasing problem in groundwater."
- The Minnesota Department of Health's drinking water standard for nitrate is 10 milligrams per liter (mg/L). Dakota County implements a policy of notification at 3 mg/L and makes recommendations for treatment at 5 mg/L. Figure 14 shows the average nitrate results in the wells tested for the AGQS within Eureka Township.
- Dakota County also analyzed well samples for pesticides commonly used in corn and soybean farming. While pesticides were present in many well samples, the wells tested for the AGQS generally did not exceed drinking water standards. The presence of two types of agricultural pesticides was noted in the southern well located in Eureka Township (Alachlor and Metolachlor).
- The AGQS notes that unlike municipal drinking water, there is no state requirement to test drinking water in private wells. The County recommends that it would be prudent for all private well owners to test their water for the presence of nitrate. (The Township has included this recommendation as a policy in this plan.)

The DNR observation well showed no trends in annual minimum values.



Dakota COUNTY	**AGQS Wells: Hydrogeological Zones**	**AGQS Figure 12**

Eureka Twp.

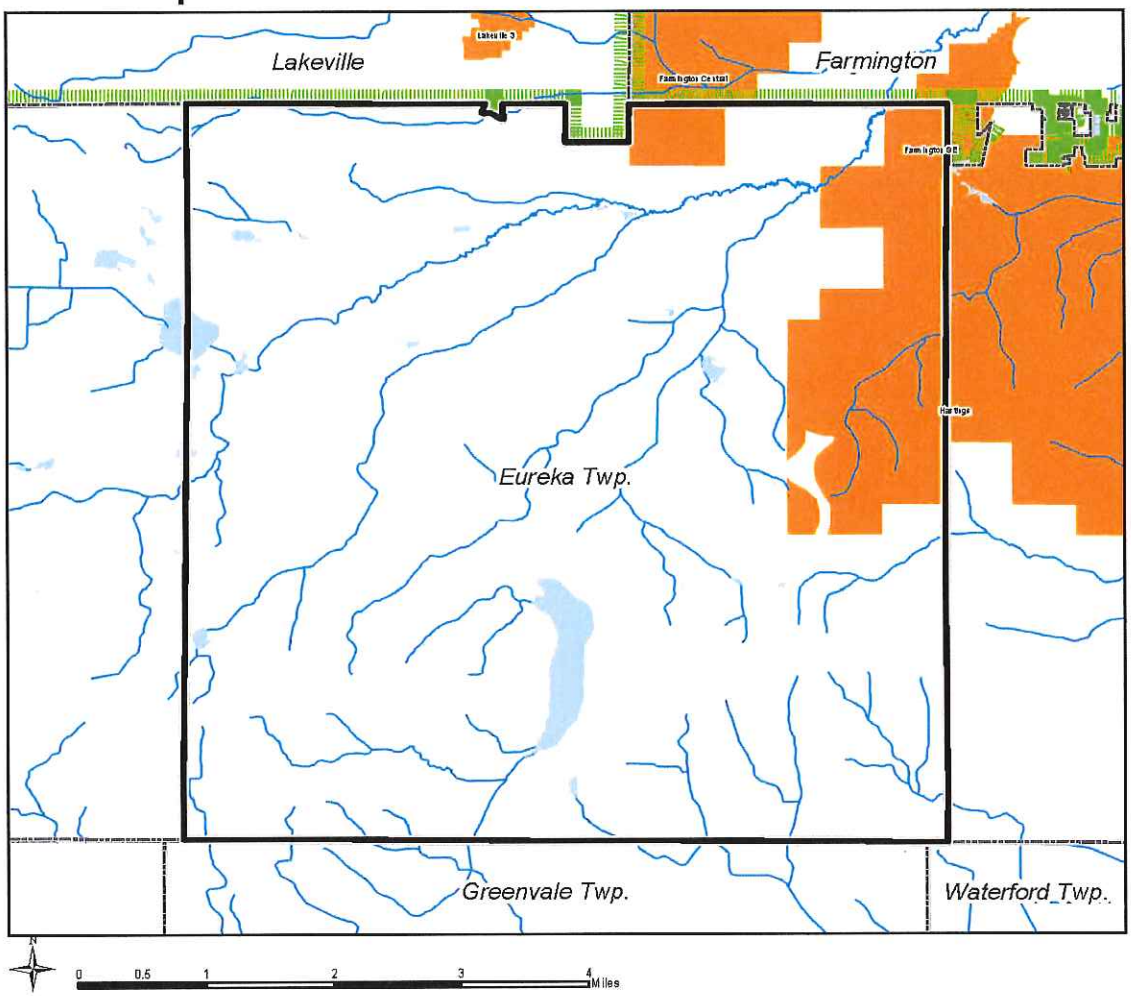


Regulatory and Management Areas

The Minnesota Department of Health has identified the area around the Vermillion River is identified as a *Moderately High Vulnerable Drink Water Supply Management Area.* Groundwater sensitivity to pollution is a concern in the Vermillion River area where soils and bedrock are highly permeable. Under these conditions, surface pollutants can seep quickly to the groundwater.

The Township's goals and policies to manage land use, require permits that require adherence to State standards, and recommending private well testing and sealing are included in this plan to protect groundwater resources in the Township, including resources in the areas where drinking water supplies are vulnerable to pollution.

Eureka Twp.



Lakes and Major Rivers
The community's most recent local water supply plan reports that the public water supply system has no interconnections
The community's most recent local water supply plan reports that the public water supply system has one or more interconnections
Special Well and Boring Construction Area (MDH)
North and East Metro Groundwater Management Area (DNR)
Moderate to Highly Vulnerable Drinking Water Supply Management Area (MDH)
Drinking Water Supply Management Area for Minneapolis/St. Paul

Water Supply Goals and Policies

The goals and policies in this Water Supply Plan recognize that individual wells provide for water supply in the Township.

The Minnesota Department of Health regulates construction of new wells and sealing of wells and borings. Eureka Township's building permits require that State well code requirements are met.

Goals

1. Protect groundwater and water supply for its multiple values including public health, the economy, the natural environment, and overall quality of life.
2. Protect groundwater and surface water resources to help the Twin Cities metropolitan region attain its goal of no adverse impacts to water resources in the area.

Policies

To achieve these goals, the Township will:

1. Require that applicants for building permits meet State of Minnesota well code requirements.
2. Manage land use and land use permits to protect groundwater.
3. Recommend that Township residents regularly test private wells.
4. Recommend that Township residents seal unused wells.
5. Recommend that Township residents maintain their wells in accordance with the Minnesota Department of Health *Well Owner Handbook.* The Township will provide a link to the handbook on its website.

Wastewater

On-site septic systems are used for wastewater treatment in Eureka Township. While an MCES interceptor travels through the northwest portion of the Township (see map on the following page), centralized wastewater services through this regional system are not provided to the Township, and are not scheduled to be provided to homes and businesses in the Township through 2040. Residential and commercial properties provide their own wastewater services thorough subsurface sewage treatment systems (SSTS).

Eureka Township has adopted a management program for SSTS that is consistent with State of Minnesota rules. On-site systems must conform to the requirements of The Township's Ordinance 2010-3 with adopted standards and permit requirements governing the installation, maintenance and management of subsurface sewage treatment systems (SSTS). The Septic Inspector for the Township administers the ordinance. A copy of the ordinance is included in the attachments to this plan.

There are no community wastewater treatment systems currently in Eureka Township. Under current zoning and land use guidance, it is unlikely that community systems would be utilized in Eureka Township. Single or group SSTS that have a design flow greater than 10,000 gallons per day must obtain permits from the MPCA rather than the Township.

Goals

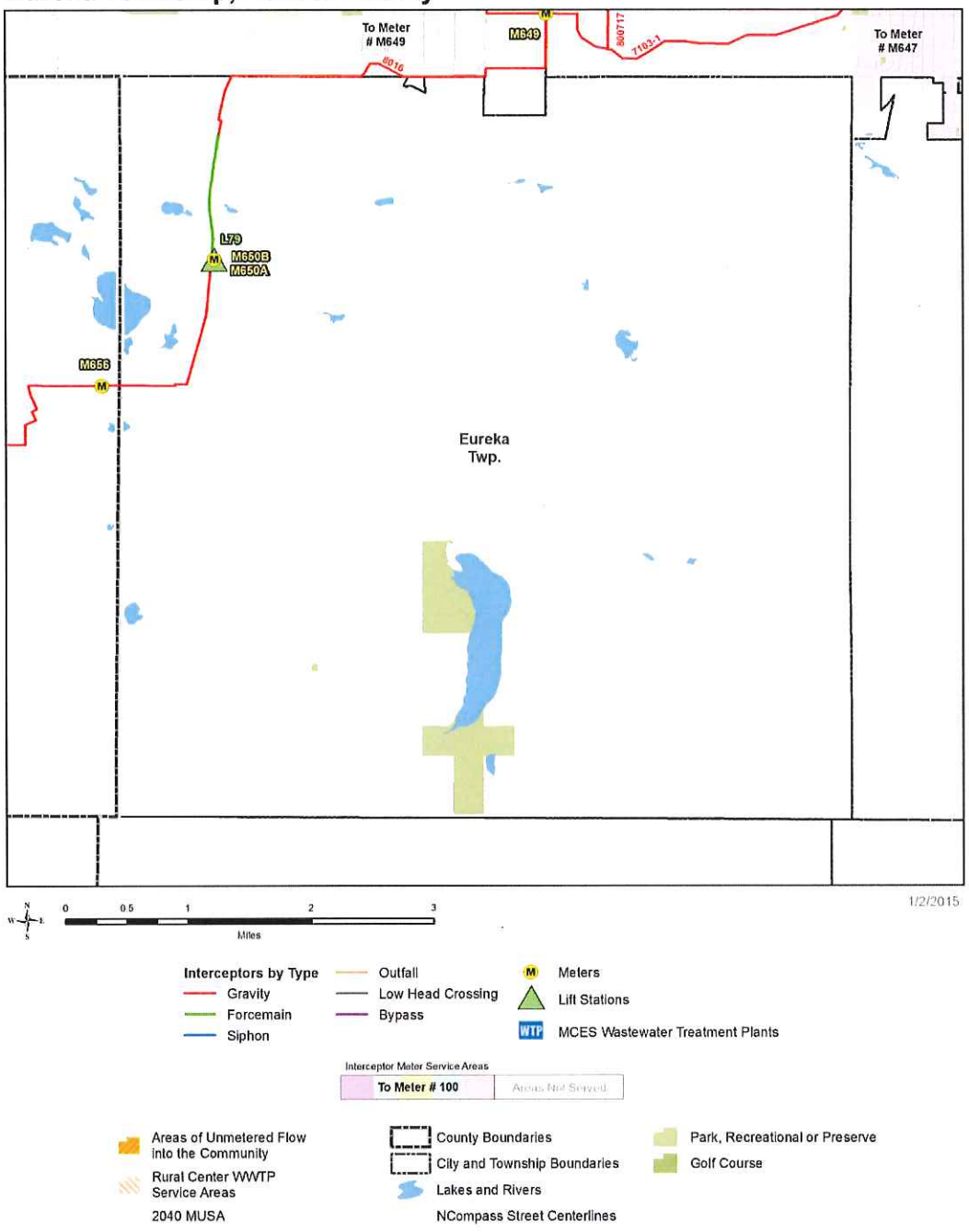
1. Manage subsurface sewage treatment systems to protect surface and groundwater resources.

Policies

To achieve these goals, the Township will:

1. Enforce Ordinance 2010-3 including the standards and permit requirements for SSTS.

Eureka Township, Dakota County



Surface Water Planning

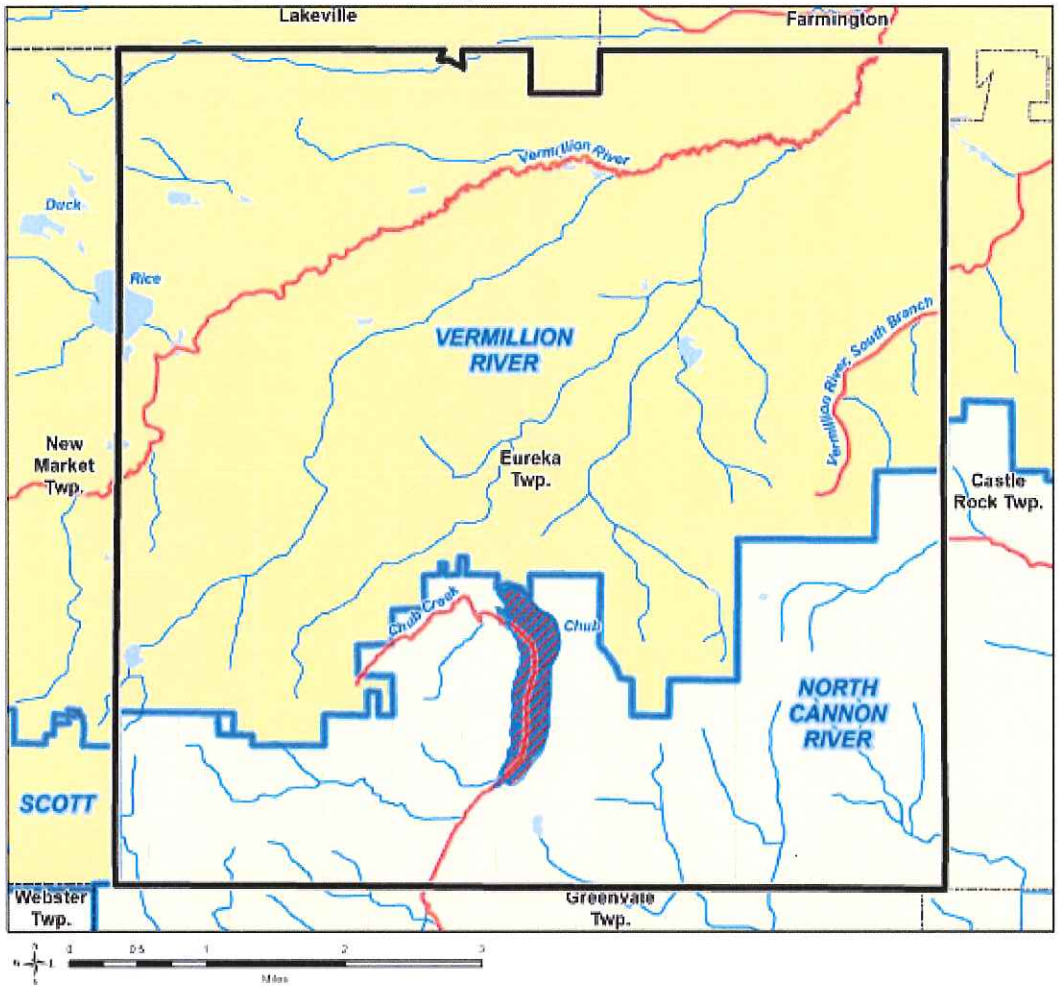
Watershed Management Organizations

There are two watershed management organizations located within Eureka Township: the Vermillion River Watershed Joint Powers Organization and the North Cannon River Watershed Management Organization. Watershed organizations are established by state statute to protect surface water resources. The Watershed Organizations map shows the relationship of Eureka Township's boundary and the watersheds.

The Vermillion River Watershed Joint Powers Organization (VRWJPO) adopted its Surface Water Plan in 2005, and amended it in 2008. VRWJPO also adopted Watershed Standards in 2006 (amended in 2008), and Watershed Rules in 2007. The Standards are a companion piece of the Plan. The Rules are requirements used to implement the Standards. The North Cannon River Watershed Management Organization (NCRWMO) adopted its Surface Water Management Plan in 2003 and does not have rules.

Eureka Township is a member community in both VRWJPO and NCRWMO, and contributes to the funding of the organizations. As a member, Eureka Township will continue to participate in funding the Capital Improvement Projects of its watersheds.

Eureka Township, Dakota County



Watershed Management Organization Boundaries

Watershed Management Organization Type

- County
- Watershed District
- Watershed Management Organization

- Impaired Lakes (2014 Draft MPCA 303(d) List)
- Impaired Rivers & Streams (2014 Draft MPCA 303(d) List)
- 2014 Priority Lakes
- County Boundaries
- City and Township Boundaries
- Other Lakes and Major Rivers
- Other Streams
- NCompass Street Centerlines

Local Water Management Plan

Eureka Township's *Local Water Management Plan* is included in the attachments to this 2040 Comprehensive Plan.

The Local Water Management Plan includes the Township's goals, policies, and implementation plan for surface water resources.

CHAPTER 7.

IMPLEMENTATION

Introduction

The Comprehensive Plan is a policy document to guide Township decisions. Implementation of the Comprehensive Plan is an ongoing process and occurs through review of land use applications, ordinance updates, prioritization of capital expenditures, and additional study of planning issues. The Township may also need to review and amend the Comprehensive Plan as conditions change during the next 20 years.

The Implementation chapter addresses:

- Official Controls
- Capital Improvements
- Additional Planning
- The Plan amendment process

Official Controls

The Eureka Township Ordinances are the official controls used to implement the Comprehensive Plan.

Ordinance 1: General Provisions
Ordinance 2: Township Administration
Ordinance 3: Zoning
Ordinance 4: Public Safety
Ordinance 5: Livability
Ordinance 6: Mining
Ordinance 7: Fees
Ordinance 8: Enforcement of Ordinances
Ordinance 9: Watershed Management
Ordinance 2010-3: Standards and Permit Requirements for Subsurface Sewage Treatment Systems
Ordinance 2010-5: Regulating Subdivisions

After the 2040 Comprehensive Plan is adopted, the Township will review the Zoning Map and evaluate its land use controls contained in the Ordinances for consistency with the Comprehensive Plan and Local Surface Water Management Plan. The Township will consider Ordinance amendments to implement the Plan, and if amendments are proposed, will use its adopted process for changing Ordinances. The Township will review and update its official controls within 9 months of adopting the 2040 Comprehensive Plan.

The Zoning Ordinance is the primary land use control. The underlying zoning in all of Eureka Township is Agriculture District.

Capital Improvements

The Township does not have a formal, five-year capital improvement program, as capital improvements are infrequent. The Township plans for any capital improvements as it establishes its annual budget, and as needed throughout the year. The Comprehensive Plan does not identify any specific capital improvements needed for its implementation. The Township will review capital expenditures that may arise as a result of implementing the Comprehensive Plan and Local Surface Water Management Plan. This may include investments in new infrastructure, infrastructure repair and replacement, building maintenance and repair, and other planned capital expenditures.

Additional Planning

The Comprehensive Plan identifies planning efforts for the Township to consider after the Comprehensive Plan is adopted. The Township will consider completing the following studies between 2018 and 2028:

1. Commercial/Industrial Land Use Study

In 2011, the Township completed Phase I of a Commercial/Industrial Land Use Study. The study included a market study of the potential for commercial and industrial land uses in the Township, a resident survey, discussions with the Metropolitan Council staff, and open house meetings to discuss proposed changes to the Township's land use plan. Based on the work completed in Phase I, the Task Force for the study recommended that the Township not move forward with Phase II of the study in 2011, based on the following finding:

- There was no concentration of interest in commercial/industrial development that would allow identification of a potential zoning district for new commercial and industrial uses.

The Task Force recommended that the Township review the findings of the Phase I study and seek input from landowners on this issue during the 2040 Comprehensive Plan.

Some landowners expressed interest in considering the designation of a commercial/industrial district during the development of the 2040 Comprehensive Plan. The Township may consider moving forward with Phase II of the land use study during 2018-2028. The tasks would include:

- Review the Phase I study and update the Market Study.
- Complete a fiscal impact study.
- Identify potential locations and boundaries of a Commercial/Industrial Zoning District, including analysis of environmental issues, transportation and access, potential uses to be allowed or permitted, infrastructure needs, potential impacts, permitting, strict performance standards, and fiscal and regulatory issues for the new zoning district.
- Discuss the options and issues with landowners and residents to determine if there is support to move forward with the new zoning district.
- Determine the preferred location, boundaries, and ordinance requirements (including strict performance standards) for a new Commercial/Industrial Zoning District, and hold public hearings as needed.
- Complete a Comprehensive Plan Amendment to change the Agriculture zoning classification to the new zoning classification.

2. Boundary Protection Study

The Metroplitan Airports Commission will not complete its new Comprehensive Plan for Airlake Airport until 2018, so the final plan could not be considered for the Township's Comprehensive Plan. One of the options that the Metropolitan Council is considering is extension of municipal sewer and water services to the airport. The services would come from the City of Lakeville. The Township is concerned that this would result in the annexation of the airport area to Lakeville.

The Township will complete a study to look at options to preserve its boundaries if the extension of municipal services to the airport occurs. The study will identify the positives and negatives of several options: a joint powers agreement with Lakeville to provide services while the airport remains in the Township; municipal incorporation of the Township; orderly annexation; and other options to preserve the historic Township boundary.

The Township's Planning Commission will complete the study and provide its findings to the Town Board.

Comprehensive Plan Amendments

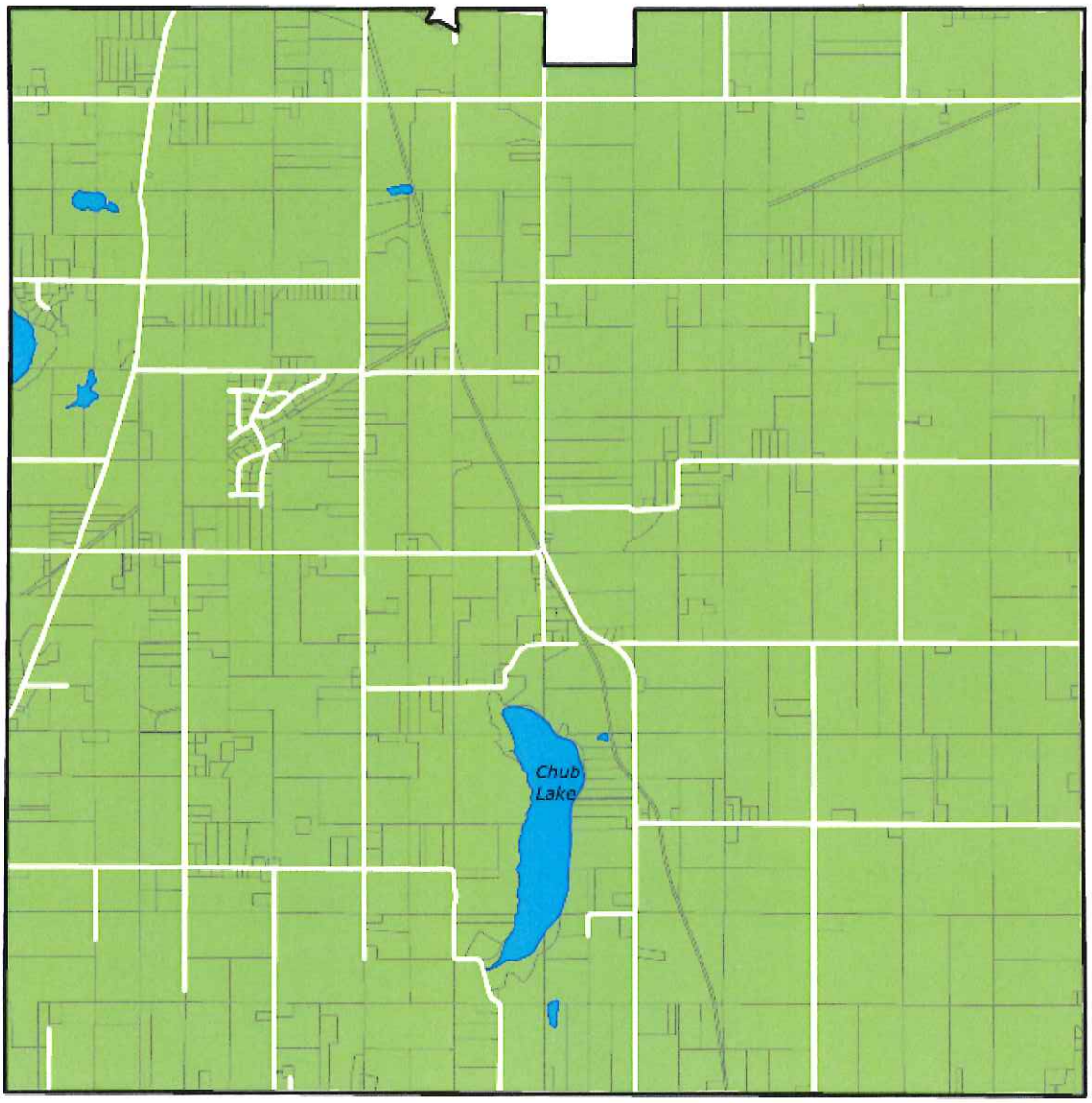
The Comprehensive Plan is intended to be general and flexible. However, formal amendments to the Plan will be required if land use or growth policies are revised. Plan amendments may be initiated by the Planning Commission, Town Board, or land owners. Periodically, the Township will review the Plan to determine if amendments are needed.

If a Plan amendment is pursued, the process will include opportunity for public comment. The Plan amendment process will meet requirements per state statute, including submittal of the amendment to the Metropolitan Council.

Zoning Map

The Township will adopt a new zoning map consistent with the land use map in the 2040 Comprehensive Plan to implement the plan.

Eureka Township Zoning Map



Legend

AG - Agricultural District

Attachments

EUREKA TOWNSHIP
LOCAL WATER MANAGEMENT PLAN

A CHAPTER OF THE TOWNSHIP'S 2040 COMPREHENSIVE PLAN

Eureka Township, Minnesota

November 2016
TKDA Project No. 15944.000

TKDA

EUREKA TOWNSHIP
LOCAL WATER MANAGEMENT PLAN

TABLE OF CONTENTS

I. Executive Summary 1

II. Water Resource Management Plan Purpose and Agreements 2

III. Physical Environment and Land Use 4

1. Land Use 4
2. Key Water Resource and Designations 7
3. Impaired Waters 8
4. Descriptions of Water and Natural Resources 9

IV. Existing and Potential Water Resource Problems 17

V. Local Goals and Policies 20

VI. Implementation Plan 21

VII. Plan Timeline and Amendment Procedures 212

Appendices:

1. Eureka Township Ordinances
2. Metro Council Approval of LWMP

LIST OF ACRONYMS USED IN THE PLAN

(listed in alphabetical order)

AGQS	Ambient Groundwater Quality Study (Dakota County, 2006)
DNR	Department of Natural Resources
FEMA	Federal Emergency Management Agency
IBI	Index of Biological Integrity
GIS	Geographic Information System
LWMP	Local Water Management Plan
MCBS	Minnesota County Biological Survey
MCES	Metropolitan Council Environmental Services
MPCA	Minnesota Pollution Control Agency
MS4	Municipal Separate Storm Sewer Permit
NCRWMO	North Cannon River Watershed Management Organization
NWI	National Wetland Inventory
Opdc	Prairie du Chien groundwater aquifer
SSTS	Subsurface Sewage Treatment Systems
SWCD	Soil and Water Conservation District
TMDL	Total Maximum Daily Load
VRWJPO	Vermillion River Watershed Joint Powers Organization
WCA	Wetland Conservation Act
WMA	Wildlife Management Area
WMO	Water Management Organization

I. Executive Summary

This Local Water Management Plan (LWMP) for Eureka Township contains the elements that Minnesota Statutes 103B and Minnesota Rules 8410 require in local water management plans for communities that are not designated as MS4 (Municipal Separate Storm Sewer Permit) communities. The LWMP includes the following sections:

- The **Water Resource Management Plan and Agreements** with other organizations for water resource management.
- The **Description of the Township's Physical Environment and Land Use** summarizes available data regarding the existing and proposed land use in Eureka Township, and the water resources and natural resources in the Township.
- The **Existing Water Resource Problems** section summarizes the water resource issues identified by each of the Water Management Organizations' Watershed Management Plan.
- **Water Resource-Related Agreements** describes the Township's existing water resource-related agreements with other units of government.
- The **Local Goals and Policies,** section lists the Township's goals and policies adopted to address surface and groundwater management issues.
- The **Implementation** section summarizes the actions the Township will take to address the identified goals and policies.
- The **Amendment Procedures** outlines the process by which plan amendments will be incorporated into the plan.
- The Plan also includes figures and attachments that support the analysis.

This LWMP updates the plan that was included in the Township's 2030 Comprehensive Plan Update, and will be applicable until the Township is required to update its comprehensive plan for 2050. Periodic amendments may be required to incorporate changes made to the Watershed Management Plans of the watershed management organizations with jurisdiction in the Township.

II. Water Resource Management Plan Purpose and Agreements

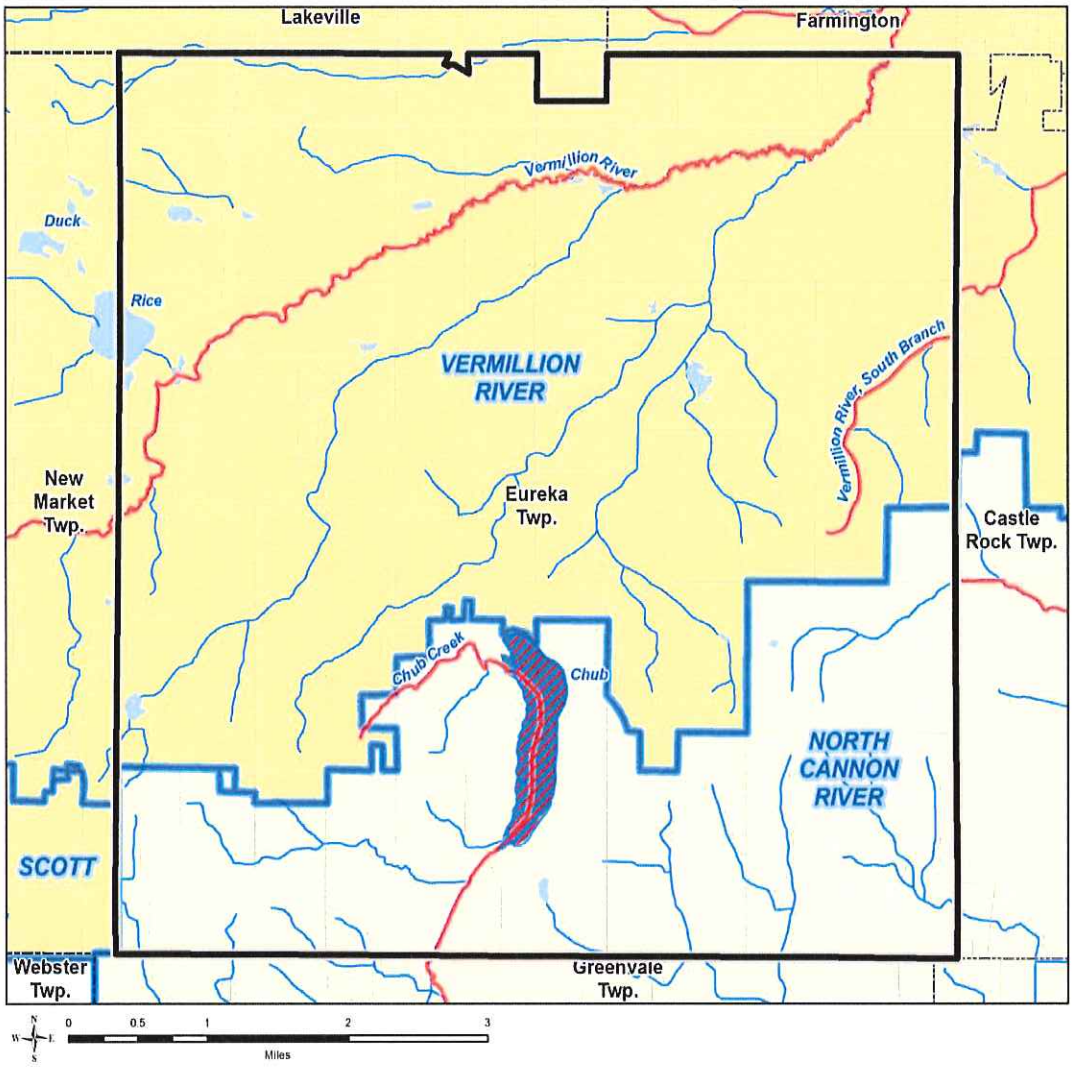
This LWMP has been prepared to guide the Township in conserving, protecting, managing and improving its surface water resources. The plan meets the requirements described in Minnesota Statutes 103B and Minnesota Rules 8410. The plan is also consistent with the goals and policies of the Metropolitan Council's 2040 Water Resources Policy Plan and the plans and rules of the watershed management organizations with jurisdiction in Eureka Township.

Eureka Township is located primarily within two water management organizations: the North Cannon River Watershed Management Organization (NCRWMO) and the Vermillion River Watershed Joint Powers Organization (VRWJPO). The current *North Cannon River WMO Watershed Management Plan* was adopted in 2013, and the *Vermillion River Watershed Management Plan* was adopted in June, 2016.

The Township is one of the eight townships and three cities in southern Dakota County that is part of the Joint Powers Agreement (2000) that created the North Cannon River Watershed Management Organization (NCRWMO).

The Township is also part of the Joint Powers Agreement between Dakota and Scott Counties that created the Vermillion River Watershed Joint Powers Organization (VRWJPO) in 2002.

Activities within the shoreland and floodplain areas in the Eureka Township (and other Townships in Dakota County) are regulated by the County through Shoreland and Floodplain Management Ordinance 50.



Watershed Management Organization Boundaries

Watershed Management Organization Type

- County
- Watershed District
- Watershed Management Organization

- Impaired Lakes (2014 Draft MPCA 303(d) List)
- Impaired Rivers & Streams (2014 Draft MPCA 303(d) List)
- 2014 Priority Lakes
- County Boundaries
- City and Township Boundaries
- Other Lakes and Major Rivers
- Other Streams
- NCompass Street Centerlines

Figure 1. Watershed Management Organization Boundaries and Water Resources

III. Physical Environment and Land Use

1. Land Use

Eureka Township is a rural township in southern Dakota County. Land uses in the Township are dominated by agriculture and rural residential uses on large lots.

Existing land uses in the Township are identified in the Tables below and on Figures 2 and 3.

Table 1:
Existing Land Use in Eureka Township

Land Use	Acres	Percent
Agricultural	15625	69
Farmstead	323	1
Single Family	731	3
Multifamily	2	<1
Mixed Use Residential	35	<1
Extractive	125	1
Airport	235	1
Park, Recreational, or Preserve	358	2
Industry and Utility	71	<1
Institutional	53	<1
Retail and Other Commercial	35	<1
Open Water	379	2
Undeveloped	4838	21
TOTAL	22,811	100

Metropolitan Council, Community Profile for EurekaTownship

The Township's 2040 Comprehensive Plan includes goals to maintain the current types and patterns of Land Use in the Township through 2040. Land use in the Township is dominated by agricultural and residential uses. The Township is classified as an Agricultural Township by the Metropolitan Council, and its 2040 Land Use and Zoning maps designate the Township for Agricultural Use, with a developed overall density of no more than 1 dwelling unit per quarter-quarter section.

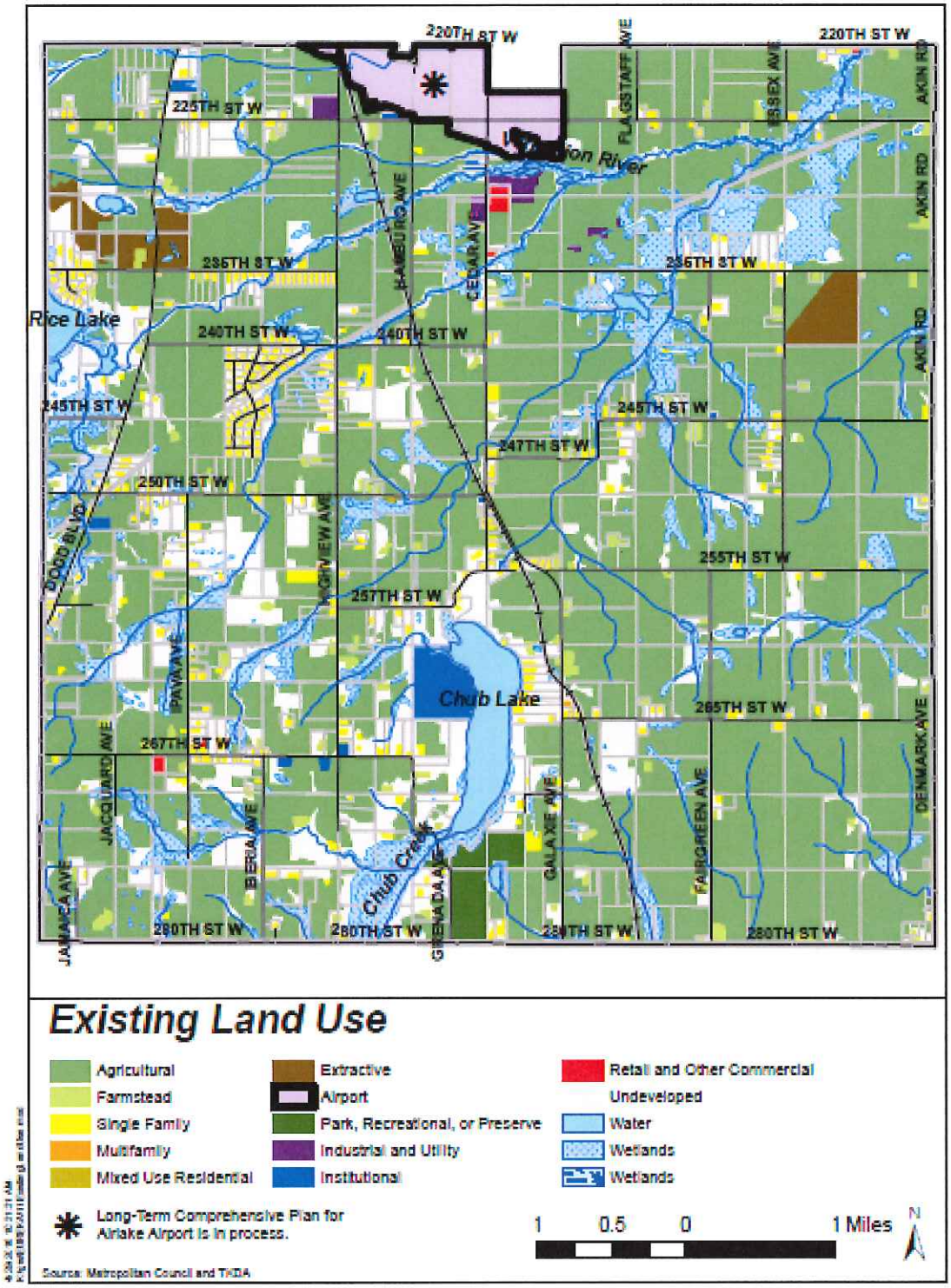


Figure 2. Existing Land Use

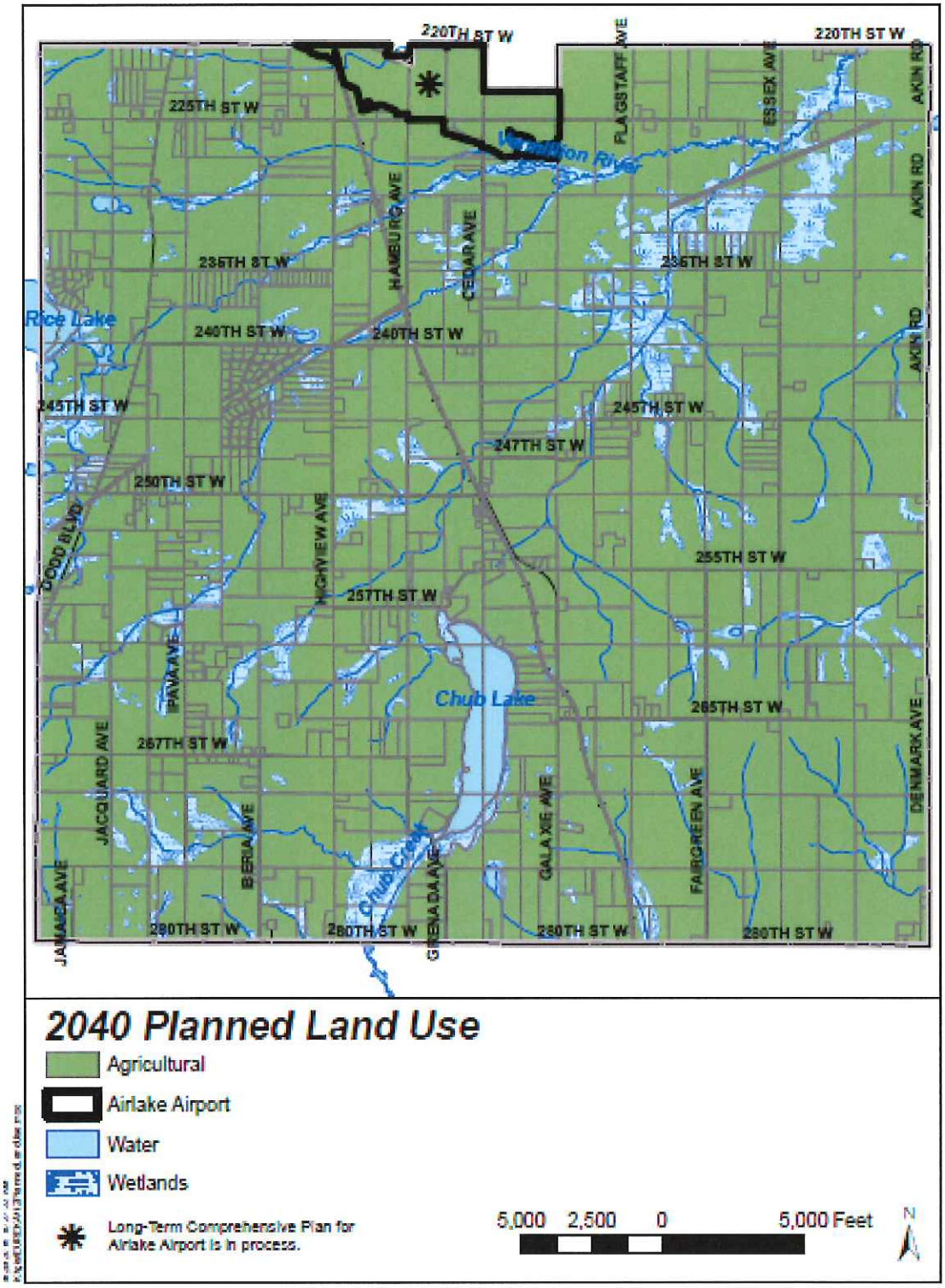


Figure 3. 2040 Planned Land Use

2. *Key Water Resources and Designations*

Eureka Township includes or drains to several significant water resources that are identified on Figure 1:

- Chub Creek – the creek drains to the Cannon River, a state-designated Wild and Scenic River
- Chub Lake – a natural 274-acre lake with a maximum depth of 10 feet, with a large adjacent wetland
- Vermillion River – a designated trout stream
- Vermillion River, South Branch – a designated trout stream
- Rice Lake – the eastern portion of the lake is located within the Township

Public Waters

The Minnesota DNR designates "public waters" based on criteria in Minnesota Statutes Section 103G.005, Subd. 15. Public Waters wetlands include all type 3, 4 and 5 wetlands that are 10 acres or more in size in unincorporated areas or 2.5 acres or more in size in incorporated areas, as well as lakes and streams. Public Waters within the Township are identified on the following table and on Figure 1. The DNR also classifies stream for Shoreland District management.

Table 3:
DNR Protected Waters in Eureka Township

Protected Waters Number	Name of Resource
19-20 p	Chub Lake—Natural Environment Lake
70-1 p	Rice Lake – Natural Environment lake

3. *Impaired Waters*

Under the federal Clean Water Act (33 U.S.C.) the Environmental Protection Agency (EPA) requires the Minnesota Pollution Control Agency (MPCA) to set standards and assess Minnesota waters for impairments. The standards are set on a wide range of pollutants, including bacteria, nutrients (phosphorus, for example), turbidity and mercury. A water body is listed as impaired by the MPCA if it fails to meet one or more water quality standard. If a water body is listed as impaired, a Total Maximum Daily Load (TMDL) standard is established for the pollutant. The MPCA or the local watershed organization must complete a TMDL plan to identify actions to reduce the pollutant loading to meet the TMDL. Townships and Cities are required to participate in the implementation of TMDL plans for the water bodies within their communities.

The water bodies listed in Table 4 and shown on Figure 4 are the impaired waters within Eureka Township.

Table 4:
Impaired Waters

Water Body	Type of Impairment	Watershed
Chub Lake	Nutrients	NCRWMO
Chub Creek	Bacteria	NCRWMO
Vermillion River	Aquatic Life (Invertebrate & Fish IBI, Dissolved Oxygen, and Turbidity) Aquatic consumption (Mercury) Aquatic recreation (Fecal coliform)	VRWJPO
Vermillion River, South Branch	Aquatic Recreation (Fecal coliform)	VRWJPO

4. Water and Natural Resources in Eureka Township

Each of the Watershed Districts has completed extensive inventories of the water and natural resources within their districts in their Watershed Plans. The Township has included a summary of natural resources based on DNR data and maps in its 2040 Comprehensive Plan. This LSWMP includes a summary of the information included in those plans that describes the resources of Eureka Township

Surface Water Resources

The significant surface water features in the Township include the following:

Chub Creek. Chub Creek originates in Chub Lake. It drains a portion of Dakota County and Rice County. The hydrology of the creek has changed substantially since European settlement in the area due to the loss of wetlands and ditching of tributary streams. Historically, the creek emptied into Lake Byllesby, but the channel was altered to empty into the Cannon River when Highway 56 was constructed. The creek is not a trout stream, but it offers some game fish such as Northern pike and largemouth bass. The riparian areas of the creek offer wildlife habitat and viewing opportunities.

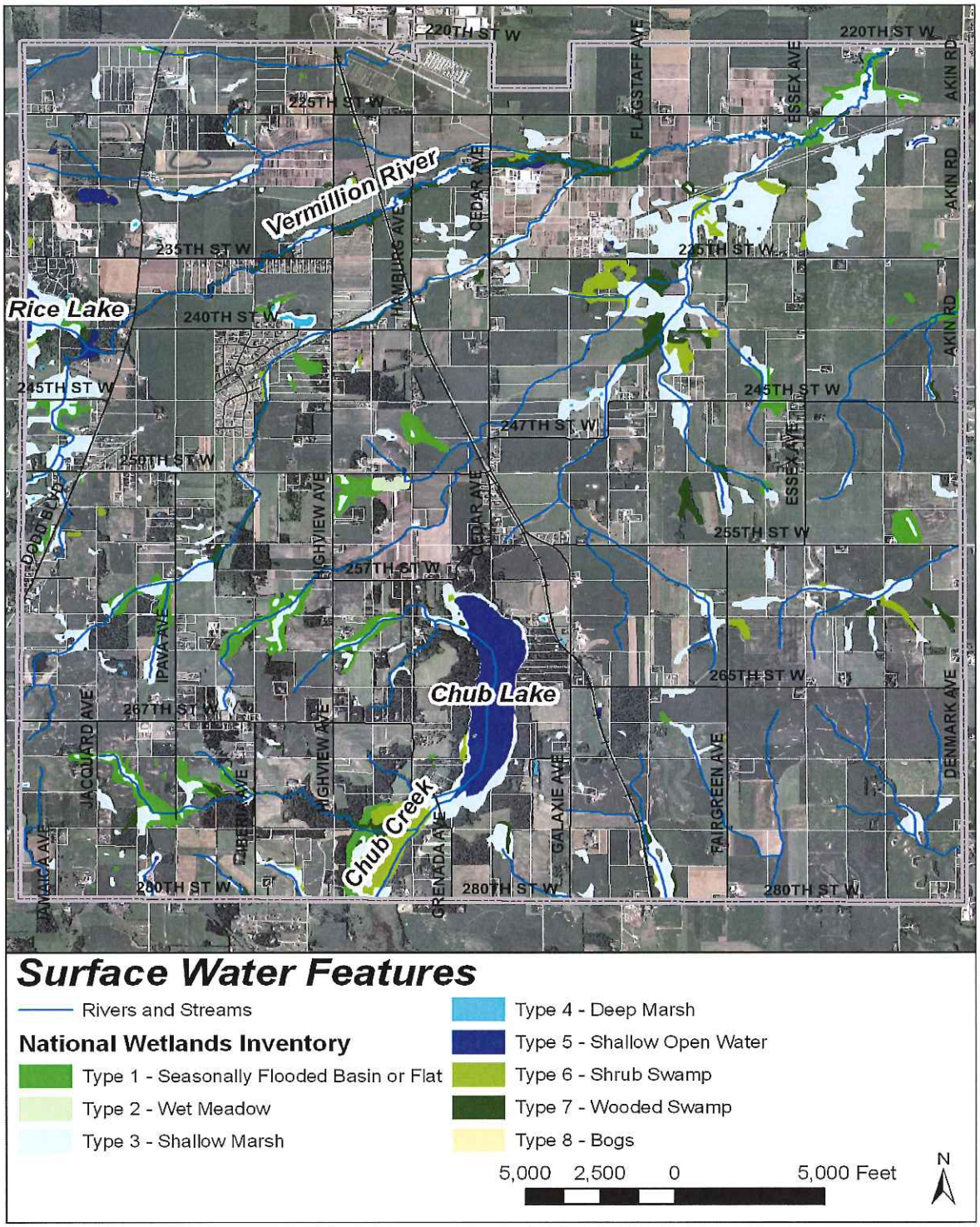
Chub Lake. Chub Lake is a natural 274-acre lake with a maximum depth of 10 feet and a large adjacent wetland. Public access is available at a Minnesota DNR Wildlife Management Area (WMA) on the south shore of the lake. The lake is only 2.5 meters deep, and its average water clarity is 0.5 meters. The lake is on the impaired-waters list for excess nutrients. The lake offers opportunities for canoeing, duck hunting, trapping, and fishing for non-game species.

Vermillion River. The majority of reaches of the Vermillion River and its tributaries were identified as DNR-designated trout streams between 2000 and 2010. Until recently, the MPCA followed the DNR trout stream designation and classified all designated trout streams as 2A cold-water resources. Stringent regulations apply to waters classified as 2A to protect sensitive cold-water species. The VRWJPO has requested that the MPCA consider a site-specific standard for the Vermillion River and its tributary trout streams, which have conditions intermediate to the 2A and 2B (warm-water trout streams) classifications.

Wetlands. The wetlands identified in the National Wetlands Inventory (NWI) are in Eureka Township are shown on Figure 4. In 2007 and 2008, the Dakota County SWCD completed the Wetland and Watercourse Inventory (WWIA) throughout the Vermillion and North Cannon River Watersheds. The project inventoried and remotely assessed the conditions of wetlands and streams within the watersheds. Characteristics of each wetland basin were recorded and mapped,

and high, medium and low value rankings were assigned to each wetland. The information is housed in a GIS database at the SWCD.

Figure 4. NWI Wetlands in Eureka Township



Shoreland Areas. The lakes and streams in the Township include Shoreland areas that are regulated by Dakota County through the Shoreland and Floodplain Management Ordinance. Each of the protected waters listed in the Protected Waters table above and the streams with the Township includes a shoreland management area.

Floodplain Areas. Dakota County recently completed a county-wide floodplain re-study including flood-prone regions in Eureka Township. The study was adopted by Dakota County in 2011 as an amendment to Ordinance 50, and by the Federal Emergency Management Agency (FEMA) in December, 2011. New floodplain maps are available for review at the Dakota County Water Resources Department, at the Town Hall, and on the FEMA website, www.fema.gov.

Other Natural Resources

Local Geology. The surface geology of the Township was shaped by glacially-derived and deposited materials and some non-glacial deposits. The non-glacial deposits include floodplain, colluvium, and organic deposits. Sand and gravel deposits in the Township are associated with glacial outwash areas. These deposits also allow for the formation of surface aquifers. Aquifers that are close to the surface are particularly susceptible to contamination.

The bedrock underlying the Township was formed during the Paleozoic Era (225-600 million years ago). The formations consist of marine sedimentary rock that includes dolomite, limestone, sandstones, and shales.

Groundwater Resources. Groundwater resources are discussed in detail in the Townships *Water Supply Plan* chapter that is included in the Township's 2040 Comprehensive Plan. The Prairie due Chien Dolostone Aquifer and Jordan Sandstone Aquifer are the primary water supplies for domestic and high-capacity irrigation wells in the area.

Dakota County's *Ambient Groundwater Study* (2006) included an extensive analysis of groundwater supplies and issues in the County. While no specific concerns related to groundwater quality or quantity were noted in Eureka Township, the study noted that the most common groundwater contaminant found in well monitoring in Dakota County is nitrate. The AGQS report notes that "nitrate is not dangerous at natural levels, but can pose health risks at elevated levels. With the increased use of fertilizers, especially in geologically-sensitive areas, nitrate levels are becoming an increasing problem in groundwater." The study recommended that private well owners complete regular testing of their wells to identify potential nitrate contamination.

The *NCRWMO Management Plan* notes that "Groundwater quantity and quality have not been limiting in either the Prairie du Chien or Jordan aquifer, though there is evidence that quality is becoming a concern in the Prairie du Chien."

Quality concerns are related to increases in nitrates noted in some monitoring wells. The *Vermillion River Watershed Management Plan* also noted general concerns related to water quantity in some areas of the Watershed, and quality concerns related to nitrate pollution.

The Minnesota Geological Survey maps for Dakota County (1990) note that there are several know springs within Eureka Township. The Vermillion River and its tributaries are also connected to groundwater resources. Maps in the Township's *Water Supply Plan* note the known areas of surface and groundwater interaction within the Township.

Soils. Eureka Township has well-drained to somewhat poorly-drained soils formed in loam and silt sediments and loamy glacial till. The well-drained loam soils are typically found on gently sloping to moderately-steep hills, and poorly-drained soils are found in depressional areas between the slopes. Hydric and predominantly hydric soils are found in small, scattered depressional pockets or along rivers and streams. The soils have a moderately high susceptibility to channelized erosion due to their texture, slope and permeability. Some highly-erodible soils exist on the steeper slopes adjacent to Chub Lake.

Ecoregions. The Minnesota DNR and U.S. Forest Service developed a statewide Ecological Classification System that is used to identify, describe and map areas with similar ecological features. The western half of Eureka Township is included in the North Central Hardwoods/Big Woods Ecoregion, and the eastern half of the township is included in the Western Corn Belt Plains/Lower St. Croix and Vermillion Valley.

The Big Woods ecoregion included a large area of deciduous forest at the time of European settlement. The topography of the area is gently rolling. Northern red oak, sugar maple, basswood, and American elm were common in this forested area. Most of the area is currently dominated by cropland and pasture. Only about 10-15 percent of the ecoregion remains forested.

The Western Corn Belt Plains is largely a cultivated area with row crops. At the time of settlement, the land cover was primarily tall-grass prairie, with forested riparian areas, floodplains, and wetlands.

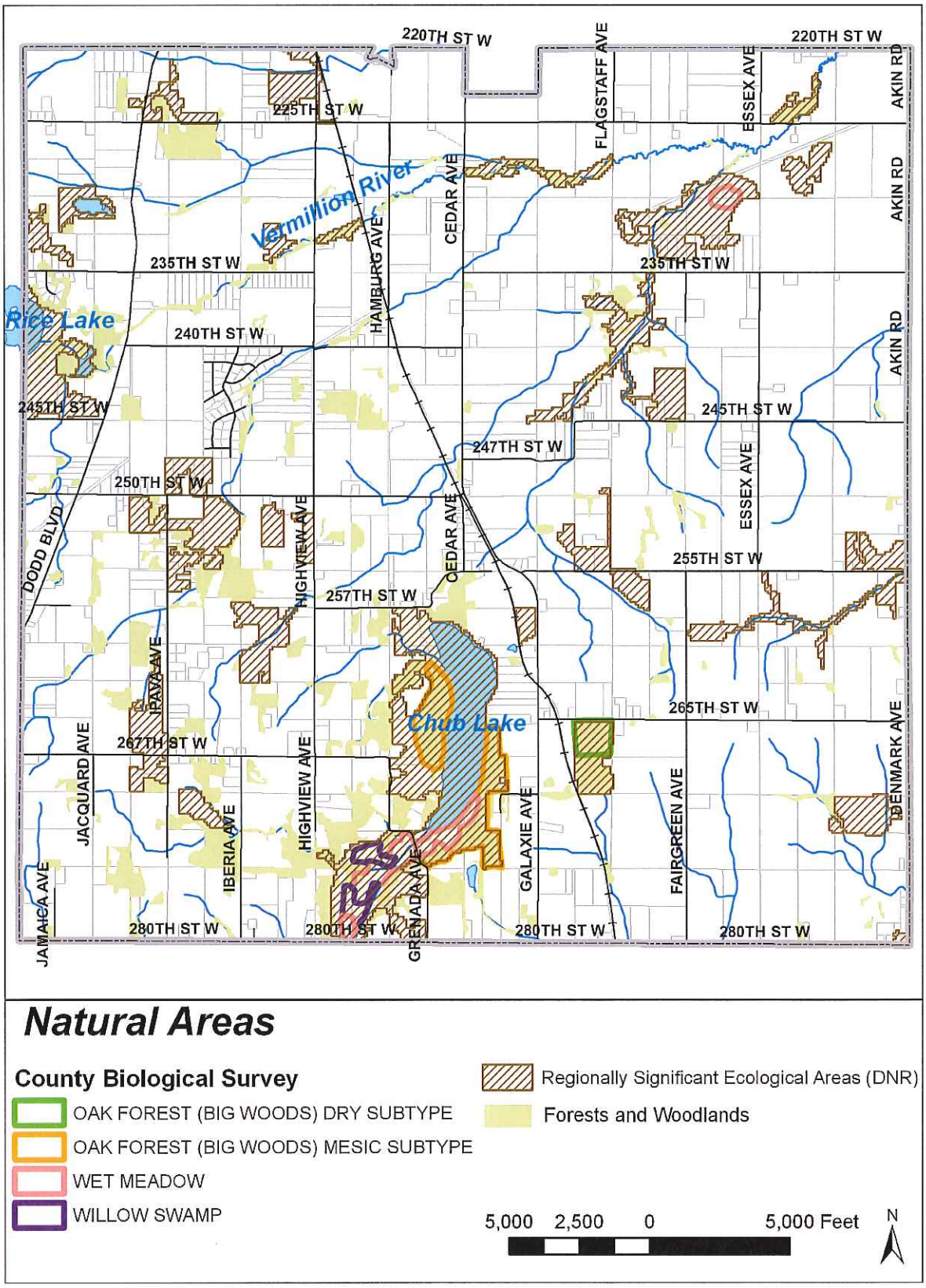
Natural Areas in the Township. The Minnesota DNR identified the native plant communities and natural areas that remain in the township in the Minnesota County Biological Survey (MCBS) and in a later study of areas of ecological significance in 2003. The WMO plans also include lists of rare species located within each watershed area. The remaining native plant communities and natural areas in the Township are significant because they provide habitat, biological diversity, connectivity, and ground water recharge areas. The Natural Areas map included in this plan (Figure 5) shows the remaining natural areas in the Township.

Natural Resource Corridors. The Township identified natural resource corridors that connect water resources and natural areas in the community in its 2030 Comprehensive Plan. The map is included in the 2040 plan and in this Local Surface Water Management Plan (Figure 6). Significant natural resources within and connected by the corridor network include:

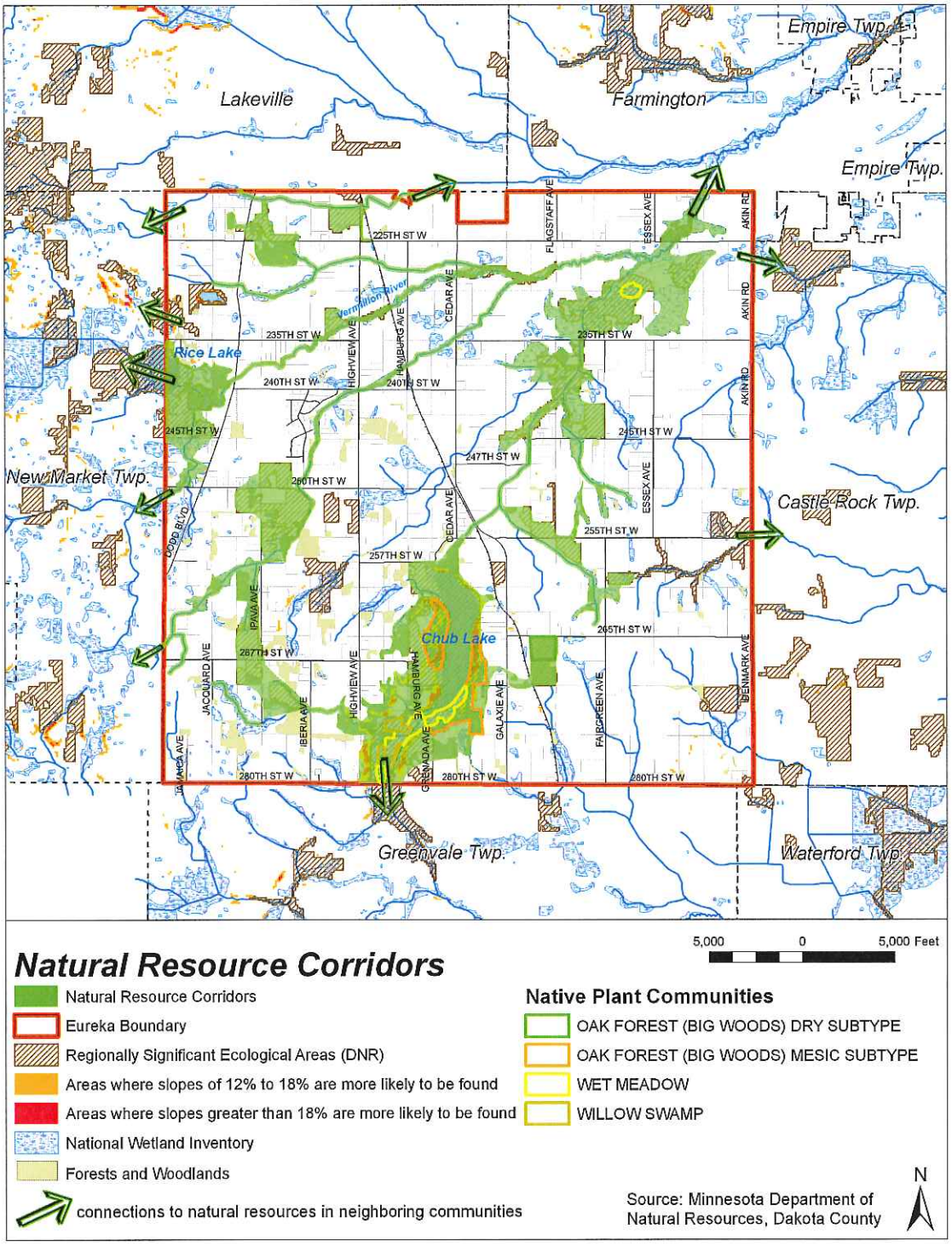
- Chub Lake and Chub Creek and associated wetlands
- The Vermillion River corridor
- Rice Lake Area
- Wooded and forested plant communities
- Areas with native species and plant communities

Natural Resource Corridors provide habitat connections among the remaining large patches of natural areas within and outside the Township's boundaries. Dakota County has also identified a network of natural corridors within the County and Township. The location of corridors is similar to those that the Township has identified. County staff indicated that the County's corridors within the Township are primarily natural resource corridors, and the County has not located proposed trails or recreational facilities with the corridors in the Township.

Figure 5. Natural Areas in Eureka Township Identified by the Minnesota County Biological Survey



6. Natural Resource Corridors in Eureka Township



IV. Existing and Potential Water Resource Problems

1. North Cannon River WMO

The North Cannon River WMO Watershed Management Plan (2013) discusses the major water quality issues within the watershed, including Eureka Township. The District has been monitoring water quality and quantity since 1999. Issues include:

- Bacteria and nitrate concentrations

  Chub Creek is on the impaired waters list for bacteria. Potential bacteria sources include failing septic systems, runoff from agricultural fields, livestock in streams, and wildlife. Sediments in water bodies may serve as a reservoir for bacteria. The NCRWMO was included in a region-wide bacteria Total Maximum Daily Load (TMDL) study in 2006. The study identified bacteria sources and possible practices to alleviate that pollution throughout southeast Minnesota.

- Turbidity

  Turbidity is a measure of water clarity and is affected by suspended particles in the water. Common turbidity sources include agricultural runoff, in-stream erosion and algae.

The NCRWMO Plan notes that other water quality concerns may exist, but data are not currently sufficient to determine if conditions meet water quality standards. Dissolved oxygen concentrations are frequently near water quality standards, and may drop below levels needed to sustain aquatic life during periods of low flow and high summertime temperatures.

Chub Lake is a shallow, eutrophic lake. The lake was monitored by Metro Council staff in 2010 and 2011. The lake water quality was characterized by high nutrient concentrations and high chlorophyll-concentrations. The lake received a lake grade of F on the Metropolitan Council's lake Grading system in 2010 and 2011.

2. Vermillion River Watershed Joint Powers Organization

The VRWJPO has implemented a baseline monitoring program on the Vermillion River and its tributaries for more than a decade. A monitoring station is located just west of the Township boundary in New Market Township, and another is located on the boundary between Eureka Township and the City of Farmington. The Minnesota DNR identified most reaches of the Vermillion River as DNR-designated trout streams between 2000 and 2010.

The VRWJPO Watershed Management Plan notes the following trends in monitoring in recent years:

- Phosphorus and nitrate concentrations in the river were dramatically reduced when the MCES Empire Treatment Plant effluent was redirected.
- Nitrate concentrations have been steadily rising in the South Branch Vermillion River subwatershed, though levels do not exceed the state standard. The subwatershed has porous soils, agricultural land use, and artificial drainage systems that are the likely cause of the above-average nitrate concentrations in the South Branch.

The VRWJPO Plan identifies the following WMO-wide issues for water resource management:

- Surface water quality is threatened or impaired.
- Water quality improvement complete with other public, private, and individual priorities.
- Groundwater quality is at risk with known contamination above health risk limits for nitrates in some parts of the Watershed.
- Increasing consumption of groundwater threatens future water supply.
- Changing precipitation patterns, decreasing rainwater infiltration, and increased stormwater runoff have contributed to more intense fluctuations in river flow rate and volume.
- Public awareness and specific knowledge on the impacts of daily activities and appropriate stewardship is lacking.
- Several federal, state, and local agencies manage specific aspects of water protection, and limited coordination and communication among these agencies can create inefficiencies and cause confusion.
- Minnesota's climate is getting warmer and wetter, which poses a threat to water quality, wildlife, and infrastructure.
- The VRWJPO is a "young" organization in a dynamically changing landscape, and has not always been able to fill gaps and address new opportunities.
- Sensitive biological resources – plants fish, insects, and wildlife – in the Vermillion River are not as healthy as those in reference rivers.

Each WMO covers a larger geographic area than Eureka Township. All of the issues identified in the plans do not apply within the Township. The Township understands that management of land uses and activities has impacted water resources in the Township in

the past, and that management is required to protect the surface and groundwater resources of the Township. The next sections include the Township's goals, policies, and implementation plan to protect water resources consistent with the vision and land use plan proposed in the Township's 2040 Comprehensive Plan.

V. Local Goals and Policies

The following are the adopted *Surface Water Management Goals and Policies* for Eureka Township:

Goal 1: **Eureka Township is committed to a goal of no adverse impacts to water resources in the area.**

Policies:

- The Township will work cooperatively with local Watershed Management Organizations, state agencies, and landowners to protect local wetlands, lakes, streams and groundwater to preserve the values of these resources for future generations.
- The Township concurs with and adopts the NCRWMO and VMWJPO surface water plans and rules by reference through this LWMP.
- The Township will manage land use to support protection of surface and ground waters within the Township through its Zoning Ordinance (Ordinance 3), SSTS Ordinance (Ordinance 2010-3), and Watershed Management Ordinance (Ordinance 9).
- The Township will cooperate with the WMOs and Dakota County in managing land use to protect ground water resources, Shoreland and Floodplain areas.
- The Township will continue its current road maintenance policies that minimize impacts to water resources. Storm water runoff from road surfaces drains to and through the Township's grassy roadway drainage swales. The majority of the storm water is absorbed by vegetation. The established vegetation along the roadways prevents mobilization of roadway pollutants. The Township minimizes the use of sand and salt to the degree possible to maintain safe roadways and intersections.
- As the Township reviews Agricultural Preserves applications, it will include a review of potential erosion problems on the sites, as recommended by Dakota County.
- The Township will use its newsletter and website to periodically provide information and education to residents about surface and groundwater resources and stewardship.

VI. Implementation Plan

Eureka is a rural place. It is not an MS4 (Municipal Separated Storm Sewer System) community and therefore not subject to those rules of the Minnesota Pollution Control Agency. Instead, to achieve the goals established in this Plan, the Township will continue to manage land use to remain a rural community and will work cooperatively with other agencies, evaluating opportunities as they arise.

The Township adopted the WMO plans and its own surface water management ordinances that are consistent with the watershed organization plans and rules, and enforces the ordinances. A copy of the Watershed Management Ordinance and other ordinances listed below are included in the Appendices.

The Township will complete the specific actions listed below to implement this Local Water Management Plan:

1. The Township concurs with and adopts the Watershed Management Organizations' Watershed Management Plans, standards and rules.

2. The Township has adopted Ordinance 9: Watershed Management, and will enforce the ordinance for erosion control, surface water management, and land disturbance within the Township. The Township will update the ordinance as needed to be consistent with the WMO Management Plans.

3. The Township will continue to manage land use and subdivision to support protection of surface and ground waters through implementation of its Zoning Ordinance, Subdivision Ordinance, Mining Ordinance, and other ordinances.

4. The Township supports the cost-share and monitoring projects included in the WMO Plans and will provide information about these programs to Township residents.

5. The Township will implement its road maintenance policies, including the use of vegetated swales along its roadways to filter and absorb storm water and associated pollutants, and minimizing the use of salt and sand.

Capital Improvement Plan

The Township makes financial commitments through its annual budget process and its Comprehensive Plan, and does not have a formal capital improvement plan.

The Township does not own or maintain any storm water drainage facilities.

VII. Plan Timeline and Amendment Procedures

The Township's local surface water plan will be amended as needed with future updates to the District plans and the Township's Comprehensive Plan.

Appendices

Eureka Township Ordinances

1. Ordinance 9 --Watershed Management (attached)
   - North Cannon River WMO
   - Vermillion River JPO
2. Ordinance 3, Zoning (available on-line)
3. Ordinance 6, Mining (available on-line)
4. Ordinance 2010-3 Subsurface Septic Treatment Systems (available on-line)
5. Ordinance 2015-5 Subdivision (available on-line)
6. Dakota County Shoreland and Floodplain Management Ordinance (Ordinance 50-available on-line)

Metropolitan Council Approval of LWMP