



## 2040 COMPREHENSIVE PLAN

## ACKNOWLEDGEMENTS

*This guiding document was made possible by the input garnered from many resident volunteers, elected officials, appointed committees, staff, and consultants. Thank you.*

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CITY OF DAYTON  
2040 COMPREHENSIVE PLAN  
Chapter 1: Introduction

## Introduction

The City's Comprehensive Plan is a long-range planning document to guide the future of Dayton. The document identifies the City's vision, goals, objectives, guidelines and strategies for growth and development in the City. The Plan serves as a guideline for use in decision making relating to land use, park development, public facility planning and much more.

The Plan guides the location, timing, and intensity of various types of development across the City such: residential, commercial, industrial, parks, and more. The Plan is based on a composition of concepts, patterns and relationships that together integrate the social and physical aspects of our community to better plan for our future. Unlike the Zoning Ordinance, the Comprehensive Plan is a *future based* document which guides decisions that have yet to be made. The Plan is comprehensive in nature; it deals with many aspects of community life and seeks to answer the question "where do we want to go?"

## Purpose

The 2040 Comprehensive Plan update was prepared in accordance with the Metropolitan Land Planning Act (Minnesota Statutes, sections 473.851 through 473.871) and the policies of the Metropolitan Council. The Plan was also created to:

- serve and engage Residents of Dayton;
- guide City Council, Advisory Committees and Staff;
- provide information to Landowners and Developers about legislative goals;
- better inform Metropolitan Planning Agencies of population, traffic, land use and utilities projections;
- collaborate with the Watershed Districts, MN DNR to conserve important natural resources;
- and finally, to better the planning processes cross jurisdictional boundaries to better plan for regional issues.

## Plan Scope

The 2040 Comprehensive Plan expands upon the 2030 Comprehensive Plan. Dayton's 2040 Comprehensive Plan represents a community-based planning effort intended to shape Dayton's future. The planning process involved a wide range of stakeholders including Dayton Residents, local business owners, Dayton's City Council, Planning Commission and Park Commission, a Comprehensive Plan Steering Committee, City Staff and consultants, and other local, regional, and state government agencies. The stake holders worked cooperatively throughout the comprehensive planning process to develop goals and policies that serve the needs of Dayton's residents and business owners while also meeting agency requirements.

## Planning Period

Dayton last updated the Comprehensive Plan in 2014. Cities are required by State Statute to update their Comprehensive Plan every 10 years to plan for the next decade of growth. This plan update shifts the plans horizon from 2030 to 2040.

## Regional/Historical Setting

The City of Dayton is a suburb of the Twin Cities and is located at the confluence of the Crow and Mississippi Rivers and is shared between Hennepin and Wright County. The City spans approximately 30 square miles and is located along the I-94 corridor. We are 30 miles from downtown Minneapolis and 40 miles from downtown St. Paul. Dayton is bordered by Maple

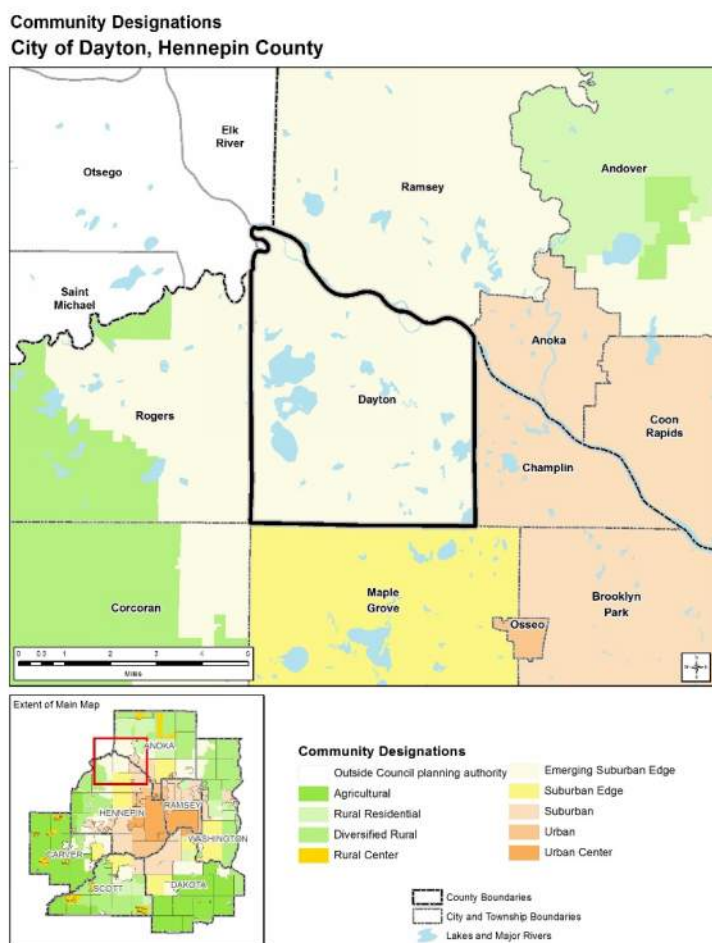
Grove to the south, Hassan Township, Rogers and Otsego to the west, Ramsey to the north, and Anoka and Champlin to the east.

### Community Designation and Metropolitan Council

The Metropolitan Council has designated Dayton as an Emerging Suburban Edge community, or a community that is experiencing a slow shift from rural qualities to more development. Emerging Suburban Edge communities offer connections to urban amenities and proximity to open spaces that characterizes a rural lifestyle. A large portion of Dayton is a part of the Elm Creek Park Reserve and will be preserved as open space indefinitely. The Metropolitan Council determines different development strategies for communities based on land use changes and community designation.

Metropolitan Council's ThriveMSP2040, the regional comprehensive plan, has determined that communities like Dayton, Emerging Suburban Edge communities, are expected to plan and stage development for forecasted growth through 2040 and beyond at overall average net densities of at least 3 to 5 units per acre. Additionally, Emerging Suburban Edge communities shall target higher-intensity developments in areas with better access to regional sewer and transportation infrastructure, connections to local commercial activity centers, transit facilities, and recreational amenities.

**Figure 1.1. Met Council Community Designation – Emerging Suburban Edge**



## Outreach and Public Participation

The City endeavored to have a transparent process for residents, business owners, commission and City Council to provide input and guide the Comprehensive Plan process. The planning process started in 2017. City Council, Planning and Parks commission discussed multiple aspects of the plan and an appointed Steering Committee held a series of meetings. A Strengths, Weaknesses, Opportunities and Threats (SWOT) Analysis combined with a visioning session with residents, outreach to our aging community and engagement with business owners guided the City planning process for Dayton's 2040 Comprehensive Plan update. Residents recognized the need for additional city services and infrastructure, but expressed concern over the cost of services and infrastructure to Dayton residents and the associated financial strain of higher tax assessments if no large commercial/industrial tax base is present to offset these concerns. A survey to residents and a strengths, weaknesses, opportunities, and threats analysis from the Comprehensive Plan Steering Committee was used to better understand opinions of residents. This discussion is summarized in Figure 1 – SWOT (Strengths, Weaknesses, Opportunities, and Threats) Analysis.

**Figure 1.2. SWOT Analysis**

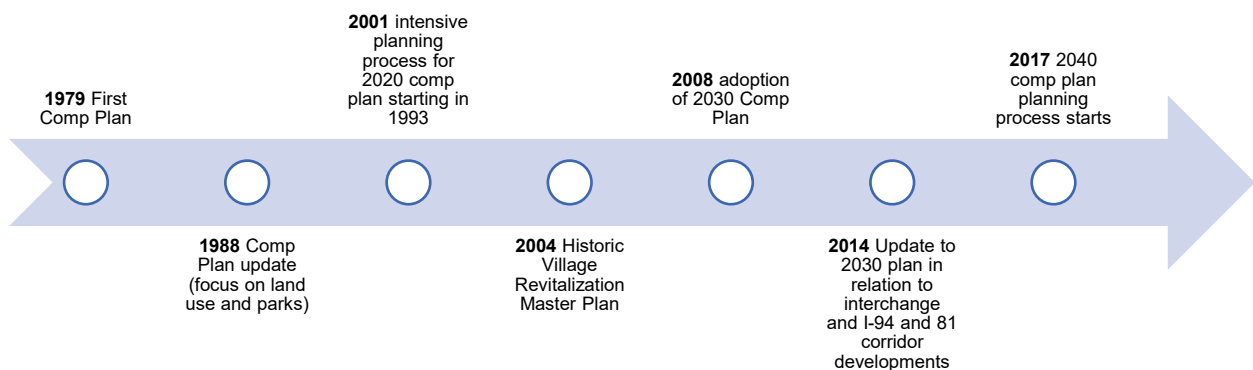
Strengths	Threats
<ul style="list-style-type: none"><li>• Mississippi River and Crow River</li><li>• Elm Creek Park Reserve</li><li>• Natural amenities</li><li>• Mixture of high and low-density housing</li><li>• Friendly community/neighborhood feel</li><li>• Development Potential</li><li>• Proximity to Twin Cities</li></ul>	<ul style="list-style-type: none"><li>• Poor Planning</li><li>• Financial strain of high tax assessments</li><li>• Clear cutting land</li><li>• Opposition to change</li><li>• Staffing needs to maintain services</li><li>• Lack of connection</li><li>• Development/Community Character lack of balance</li></ul>
Weaknesses	Opportunities
<ul style="list-style-type: none"><li>• Minimal infrastructure in place</li><li>• Lack of city services</li><li>• Cost of infrastructure to residents and businesses</li><li>• Lack of connectivity to parks</li><li>• Concern about police and fire</li><li>• Minimal commercial and professional services/employment</li><li>• High cost of housing</li><li>• High tax burden on residential</li></ul>	<ul style="list-style-type: none"><li>• Branding identity</li><li>• Expanding access to the river and giving people a reason to go and enjoy them</li><li>• Underdeveloped, open land area that is still convenient to the Metro.</li><li>• Outdoor recreational opportunities</li><li>• Dayton Pkwy Interchange, and open land near it</li><li>• Open space</li></ul>

<ul style="list-style-type: none"> <li>• Lack of large community playfields</li> </ul>	<ul style="list-style-type: none"> <li>• Learning from other communities who are developed</li> <li>• Attractive to development</li> </ul>
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Based on the SWOT analysis above, Dayton has great potential for growth and improvement. The City has several qualities which will increase the demand for development: proximity to the Twin Cities, developable land, large park amenities, and proximity to I-94 and the Dayton Parkway Interchange. Demand for housing in the metro as a whole has been increasing demand for developable land in Dayton. Additionally, the opening of the Dayton Parkway Interchange in 2021 will attract commercial and industrial businesses to the City. More commercial opportunities will shift tax burden away from residential properties, provide tax base and revenue for services, and create more park and trail opportunities from land dedication. Future land usage potential is a major opportunity and strength for the city. This Comprehensive Plan is focused on guiding the future development to improve our City.

## Planning History

**Figure 1.3. Planning History Timeline**



## 2008 Planning

In May of 2007 the planning process started for the Dayton. Residents, Comprehensive Plan Task Force, Committee members and Council Members collaborated to envision Dayton through the year 2030. The 2030 Comprehensive Plan focused on open space and natural resource protection, preservation of Dayton's rural character, managing growth and efficient services extension, and expanding the City's tax base through additional commercial and industrial development. The 2030 plan was adopted in 2008.

## 2014 Planning

In 2014 the City updated the 2030 comprehensive plan. The intent for this update was to increase industrial and business park areas along the Interstate 94 and Highway 81 corridors. Locations for medium and high-density development was reevaluated. Commercial areas and key transportation nodes were identified around the interchange. The staging plan was amended in response to the amendments.

## 2017 Planning

Since 2017, the City of Dayton has been working on the 2040 comprehensive plan to accommodate a future that best fits the needs of a developing city. A main objective of this has been growth management including aspects such as managing expansion of urban services such as roads, sewers, water, and internet to support densities necessary to accommodate regionally forecasted residential growth, and desired business and industrial expansion. During this planning process the city has approved ten new residential developments spread between south Dayton and northeast Dayton. The city also focused on the final design and construction plans of the Dayton Parkway Interchange for approvals by MnDOT and received all final funding.

## Outline of 2040 Plan

The Comprehensive Plan consists of the following Chapters:

**Chapter 2: Community Background.** Community overview, physical, economic and social factors that influenced the process of updating the process of updating the Comprehensive Plan.

**Chapter 3: Natural Recourses.** Plan, programs and tools to protect, enhance and provide greater opportunity for enjoyment of Dayton's natural environment.

**Chapter 4: Housing.** Demographics, goals, policies and programs to meet the housing needs for Dayton's existing and future residents.

**Chapter 5: Land Use.** Goals, plans and policies to guide the timing and use of land in Dayton.

**Chapter 6: Economic Development.** Demographics, goals, policies and tools to sustain existing businesses and attract new economic growth to support a healthy local economy, expansion of the tax base and creation of new jobs.

**Chapter 7: Parks, Trails and Open Space.** Summary of the updated Parks, Trails and Open Space plan.

**Chapter 8: Transportation.** Plans, goals, and policy and discussion of important regional issues to guide the future development of Dayton's transportation system.

**Chapter 9: Waste Water (Sanitary Sewer).** Summary of Dayton's Comprehensive Sewer Policy Plan.

**Chapter 10: Water Supply and Distribution Plan.** Summary of Dayton's Water Supply and Distribution Plan.

**Chapter 11: Surface Water.** Summary of Dayton's Surface Water Management Plan.

**Chapter 12: Implementation.** Tools and strategies that Dayton will use to achieve goals and implement objectives identified in the Comprehensive Plan.

**CITY OF DAYTON  
2040 COMPREHENSIVE PLAN  
Chapter 2: Community Background**

## Introduction

Dayton is a growing community that rests at the confluence of the Crow and Mississippi River. Dayton remains a largely rural area, but as the Metropolitan Area continues to grow, Dayton has experienced increased suburban type development, especially over the past six years. Due to the size of Dayton it is likely that rural characteristics will persist through 2040 and after as urban utility services slowly extend to center of Dayton. In the past several years, Dayton has experienced an increase in sewerage, residential development. Dayton continues to serve as a suburban bedroom community for an increasing number of residents. Many residents find employment outside of the community in Minneapolis/St. Paul, or nearby Maple Grove.

Dayton residents appreciate the rural atmosphere of the community, as well as the convenience of its proximity to the more urbanized areas of the metropolitan area. Dayton also provides a wide variety of recreational opportunities for residents. The Elm Creek Park Reserve makes up a large portion of Dayton and will remain as open space indefinitely. The Mississippi and Crow rivers, as well as the 8 lakes within the City, provide additional recreational and natural amenities. The key challenge for the City is to achieve a balance between the need for suburban growth as well as conserving open space and rural characteristics.

Residents also value Dayton's rich history. The Village of Dayton, where the Old Village exists today, was settled in the 1850s by the French, American, Irish, Scotch and Germans. The Village was an established Trading Post used by settlers and Native Americans. Lyman Dayton, land owner and Dayton's namesake, was extremely influential in platting and developing the old Village of Dayton. The St. John the Baptist Church was built in 1904 and continues to be an important historical landmark for the City and is a surviving artifact which connects residents to the City's past.

## Population and Household Trends

One of the first steps in the planning is updating the City's demographic information. This step was an important part in the planning process, as the demographic information is used to inform planning decisions and strategies through the planning process. The demographic information in Table A below was collected using the 2030 Comprehensive Plan, Metropolitan Council forecasts, and Census data. The Metropolitan Council estimated Dayton's population to be 6,072 in 2018 with 2,158 households.

**Table 2.1. Population, Households, and Employment**

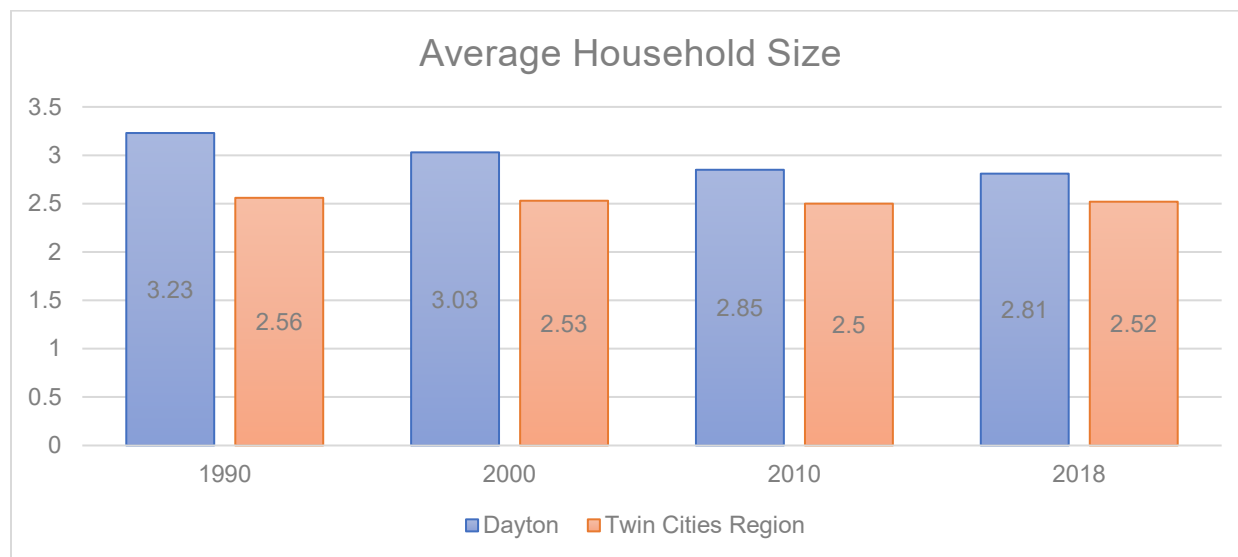
Forecast Year	Population	Households	Employment
2010	4,617	1,619	921
2018	6,072	2,158	1,230
2020	5,900	2,000	2,000
2030	7,900	3,200	2,490
2040	10,400	4,400	3,000

Source: Metropolitan Council, Community Profiles and Annual Population Estimate

Dayton grew by just more than 300 people from 1990 to 2000. In the past several years, the City has experienced more rapid growth. The Metropolitan Council forecasts the City to have a population of 5,900 in 2020, 7,900 in 2030 and 10,400 in 2040. The City is currently outpacing Met Council forecasts for 2020.

Household sizes in the region have been falling since 1990. Dayton is similar in this regard. While Dayton has historically had larger average household sizes than the region as a whole, lifestyle changes, and growing number of older residents has contributed to a fall in household size through the years. See the figure below.

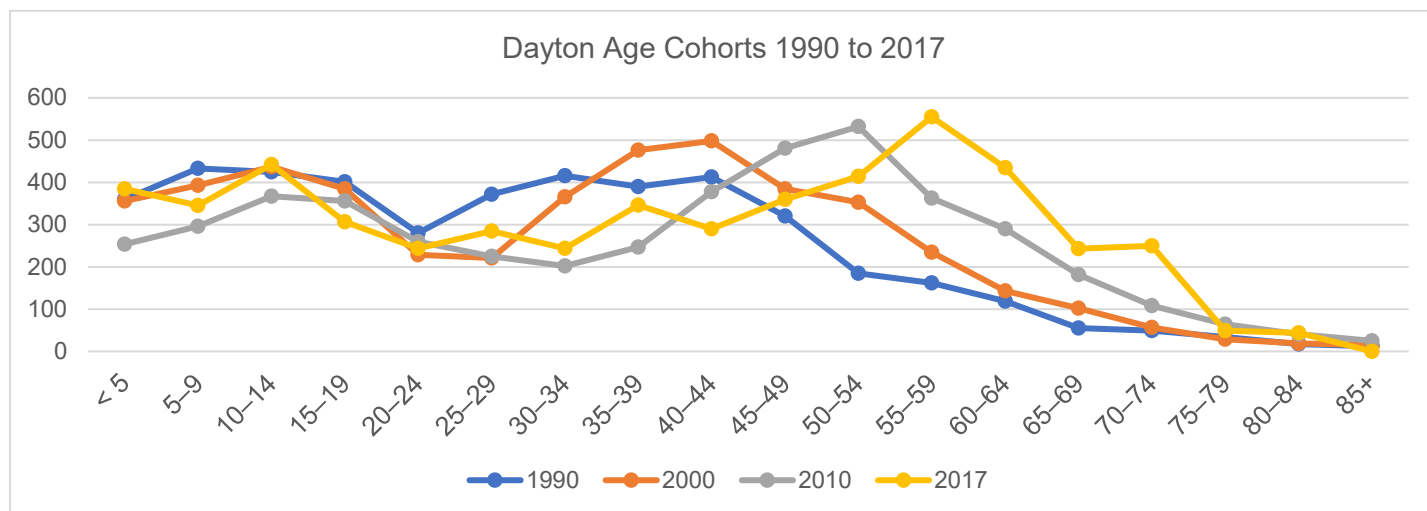
**Figure 2.1. Average Household Sizes in Dayton and the Region 1990 to 2018**



Source: Metropolitan Council, Community Profiles and Annual Population Estimate

Dayton has seen an increase in retirement aged residents and a decline in age cohorts below the age of 25 since 1990. The growth in population of older adults may contribute to differing housing and service needs. See figure below to see the age trends graphically.

**Figure 2.2. Age of Population in Dayton 1990 through 2017**



Source: Census 1990, 2000, 2010, and ACS 2013-2017.

## Residential Development Growth

Dayton has seen an influx of residential development and subdivision due to the prevalence of

developable land, and proximity to the Twin Cities metropolitan area. The table below shows single-family home permit activity for years 2015 to 2019 year to date (YTD). Dayton has seen a consistent growth in households as the City continues to see new single-family home developments being approved and constructed. Dayton's most prevalent housing type is the single-family home.

**Table 2.2. Single-Family Home Permit activity**

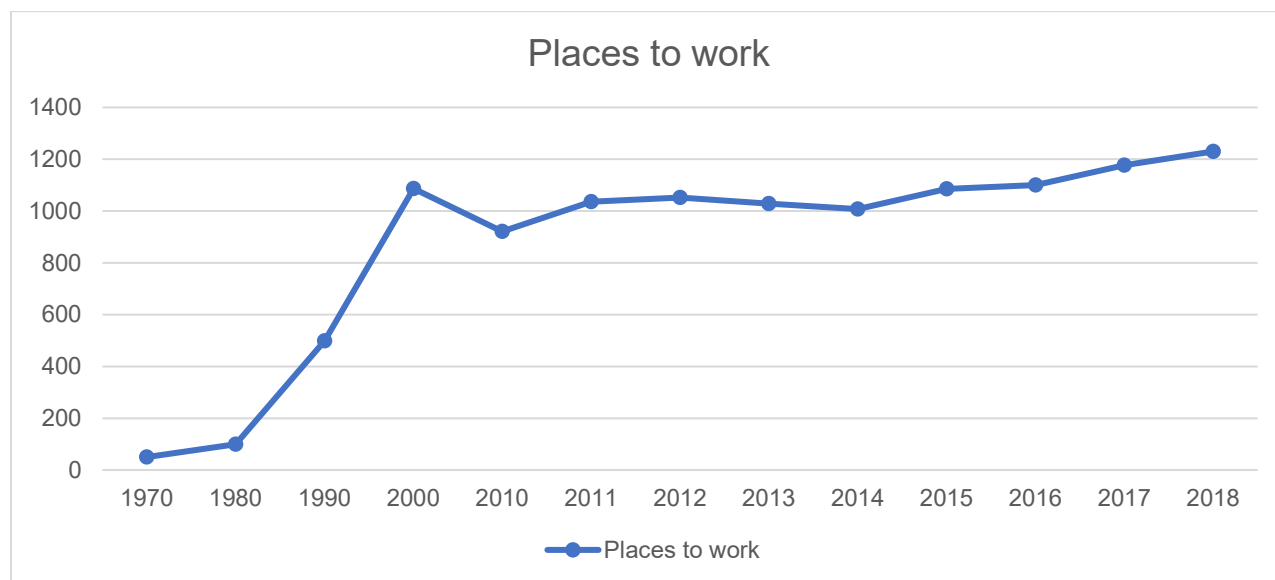
Permit type by year	2015	2016	2017	2018	2019 (YTD)
Single-family detached	74	122	189	152	237
Multi-Family (5+ Units)	0	0	49	0	0
<b>Total</b>	<b>74</b>	<b>122</b>	<b>238</b>	<b>152</b>	<b>237</b>

Source: City Permit Data as of October 31, 2019.

## Economic indicators, Employers and Employees

The economic health of a community plays a critical role to encourage and maintain a high standard of living and a desirable place to live for existing residents. Employment also makes Dayton an attractive place for new residents and a destination for visitors. Table 3 below shows the employment trends and forecasts for 2020, 2030, and 2040. Dayton's employment numbers are low relative to its population, which indicates that a significant portion of Dayton's residents work outside of the City of Dayton. Many of Dayton's residents' commute to jobs in other communities which can strain regional transportation systems. Encouraging more local employment could reduce trips on already inundated regional and state transportation routes. The construction of the I-94 interchange in Dayton could create an upward shift in employment opportunities.

**Figure 2.3. Employment in Dayton Historical Trends**



Source: Metropolitan Council, Community Profiles and Annual Population Estimate

**Table 2.3. Employment Forecast**

Employment Trends	2010	2020	2030	2040
Employment	921	2,000	2,490	3,000

Source: Metropolitan Council, Community Profiles and Annual Population Estimate

## Conclusion

The information presented in this chapter sets the stage for the remaining chapters of the comprehensive plan. The plan chapters will be developed within in the context of Dayton's history and planning context, community characteristics, and demographic and economic trends to ensure that the community's planning needs and issues, including growth management, natural resources protection, changing demographics, and preservation of its rural atmosphere, are addressed.

CITY OF DAYTON  
2040 COMPREHENSIVE PLAN  
Chapter 3: Natural Resources

## Introduction

Dayton's natural resources are among the defining features of the city. Balancing preservation of these resources with future growth is a corner stone of this plan, and was articulated as a priority by residents during the comprehensive planning process.

## Goals and Policies

**Goal 1:** Preserve natural areas for multiple uses including wildlife habitat, lake and wetland restoration, fishing, parks and other recreational uses.

**Goal 2:** Maintain Dayton as a “dark-sky” community (public and private property), minimizing unnecessary outdoor lighting through educational efforts and effective exterior lighting ordinances.

**Goal 3:** Conserve rural vistas, viewsheds, open spaces, wetlands and other environmental features and reduce the impacts of future growth and development activities.

**Policy 1:** Preserve, as undeveloped open space the following environmental sensitive areas to the extent consistent with the reasonable utilization of land and in accordance with applicable federal, state and local regulations:

- Unique and/or fragile areas in Section 404 of the Clean Water Act, as amended, and as delineated on National Wetland Inventory maps, prepared by the US Fish and Wildlife Service, field verified on on-site inspection.
- Groundwater and aquifer recharge areas.
- Lands in the floodplain.
- Drainage ditches and their adjacent lands.
- State and federal threatened and endangered plants and animals and well as their habitats as identified on federal and/or state lists.
- Significant trees or stands of trees or species of clumps of trees that are of particular horticultural or landscape value.
- High quality natural areas defined in sites mapped as A, B or C quality in the 2003 Natural Resource Inventory

**Policy 2:** Encourage development to be designed so as to preserve and be compatible with the important natural features of the site and minimize or avoid impact to high quality resources.

**Policy 3:** Create incentives for developers to preserve or dedicate prime natural areas within developments for parks, trails and open space.

**Policy 4:** Establish conservation requirements for new development including enforced buffer requirements for areas near water, low-impact development, rain gardens and swale stormwater run-off programs.

**Policy 5:** Promote the use of plant species native to Hennepin County and/or central Minnesota in landscape plans to help enhance habitat value. This is especially relevant

for properties within greenway corridors or adjacent to high quality natural areas.

**Goal 4:** Continue to conserve greenways that link unique or ecologically significant natural areas.

**Policy 1:** Review and amend our greenway corridor plan and subdivision ordinance to ensure that the ordinances purposefully protect resources that are otherwise unprotected from federal or state rules.

**Policy 2:** Continue to follow the Greenway Corridor Plan that identifies key links and establish greenways that residents can utilize and enjoy as property is developed.

**Goal 5:** Utilize waterfront areas to make the best use of the land with the least impact to the natural state of the lakeshore, river and stream banks, and critical areas to keep the land beautiful and natural for generations to come.

**Policy 1:** Acquire any available lands (if financially practical) in the Mississippi River corridor or near lakes for preservation. Investigate the availability of grant funds to help with acquisition.

## Land and Water Resource Inventory

Dayton's landscape has gone through many changes due to human activity. Before European settlement, the area was part of the "Big Woods" ecoregion where oak woodland and maple-basswood forests were the dominant vegetation types. The notes of the Public Land Survey conducted in 1856 describe the Dayton area as being 'extremely timbered,' generally level, and with many lakes and marshes. During settlement, much of the landscape was converted to agricultural land. Since then, a portion of the landscape has remained in agricultural use while some has been developed primarily for residential use.

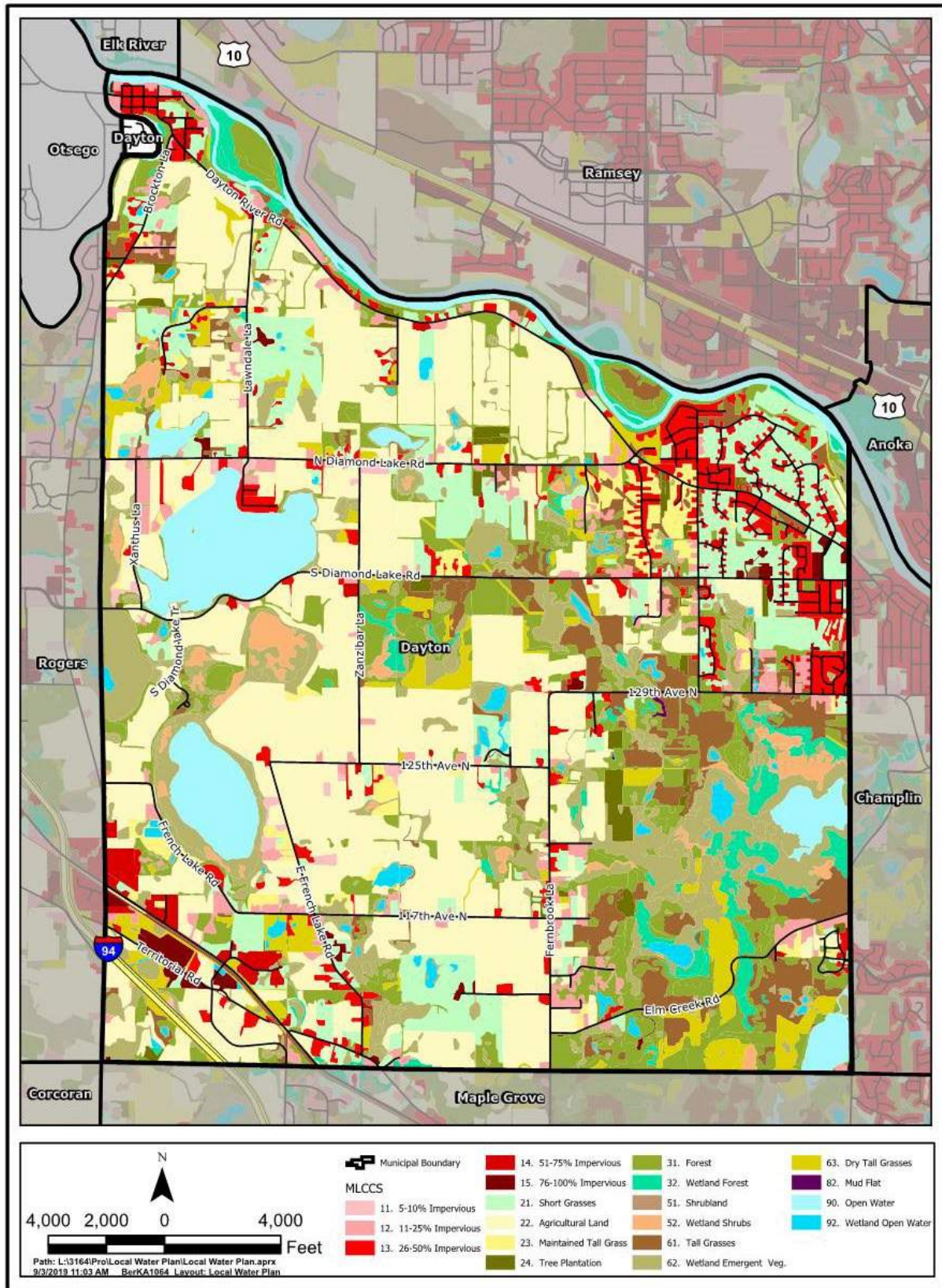
Elm Creek Park Reserve, the Mississippi River, and the French and Diamond Lakes and its tributaries are among the most dominate natural features of the city. Elm Creek Park Reserve, managed by Three Rivers Parks District, occupies the southeast corner of the city, and extends south into Maple Grove and east into Champlin. Elm Creek Park Reserve covering 4,900 acres across the cities of Dayton, Champlin and Maple Grove, and features picnic grounds, a large creative play area, a swimming pond, a winter sports area, and an extensive bicycle/pedestrian trail system that allows users to view the park's lakes, wetlands, and Elm and Rush Creeks. The Eastman Nature Center in far southern Dayton features quiet reading and observation rooms, large classrooms, a professional exhibit area with wildlife watching, and outdoor learning facilities such as display gardens, a floating boardwalk, pond observation blind, amphitheater, orienteering courses, and demonstrative plantings for wildlife.

The section of the Mississippi River bordering Dayton is included in the Mississippi River National River and Recreation Area, a 72-mile stretch of the river protected and managed by the United States National Park Service. Dayton's section of the Mississippi River is additionally protected by the MPCA as an Outstanding Resource Value Water, which can limit discharges to the river.

French and Diamond Lakes and the wetland complex to the west define the west-central portion of the City. Diamond Lake, at over 400 acres, provides a popular shallow lake fishery. The following map illustrates the Minnesota Land Cover Classification System (MLCCS). The MLCCS is the main source of field verified land cover information available. As illustrated,

agricultural land is still the predominate land cover classification throughout much of western and northern Dayton. The bulk of Elm Creek Park Reserve is a mixture of grasses, wetlands and forest cover.

Figure 3.1. Land Cover Map



Some notable natural areas within the Elm Creek Park Reserve, and the French and Diamond Lake complexes, include some high-quality wetland areas within and adjacent to the Elm Creek Park Reserve and around French and Diamond Lakes. Two wetland areas are of special interest. One is a very high-quality tamarack swamp in the Elm Creek Park Reserve; tamarack swamps approach the southern limit of their range here and are uncommon in Hennepin County. The second is a high-quality wetland that is partially within Elm Creek Park Reserve and partially privately owned.

Between 2003 and 2005, the Hennepin County Department of Environmental Services contracted with consulting experts to conduct a land cover classification mapping and a natural areas assessment in Dayton. The purpose of the project was to classify land cover within the city and to assess the relative ecological quality of the city's remaining natural areas by performing in field surveys.

The details of the Natural Resources Inventory and MLCCS Mapping project go beyond the scope of the Comprehensive Plan; however, some areas of interest are referenced as follows:

- Three Black Ash Swamps (Sections 20 to 21, Sections 26, 27, and 34)
- One Cattail Marsh (Section 26)
- One Mixed Emergent Marsh (Section 34)
- One Floodplain Forest (Section 10)
- One Hardwood Swamp (Section 26)
- Three Lowland Hardwood Forests (Sections 20, 21, 34, and 35)
- Seven Maple-Basswood Forests (Sections 16, 17, 20, 21, 27, and 34)
- One Tamarack Swamp (Section 34)
- Two Wet Meadows (Section 16 and 17)

The following graphic is from the Natural Resources Inventory and MLCCS Mapping project, noting some of the references above.

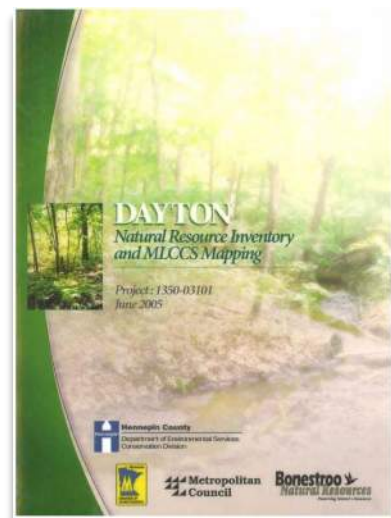
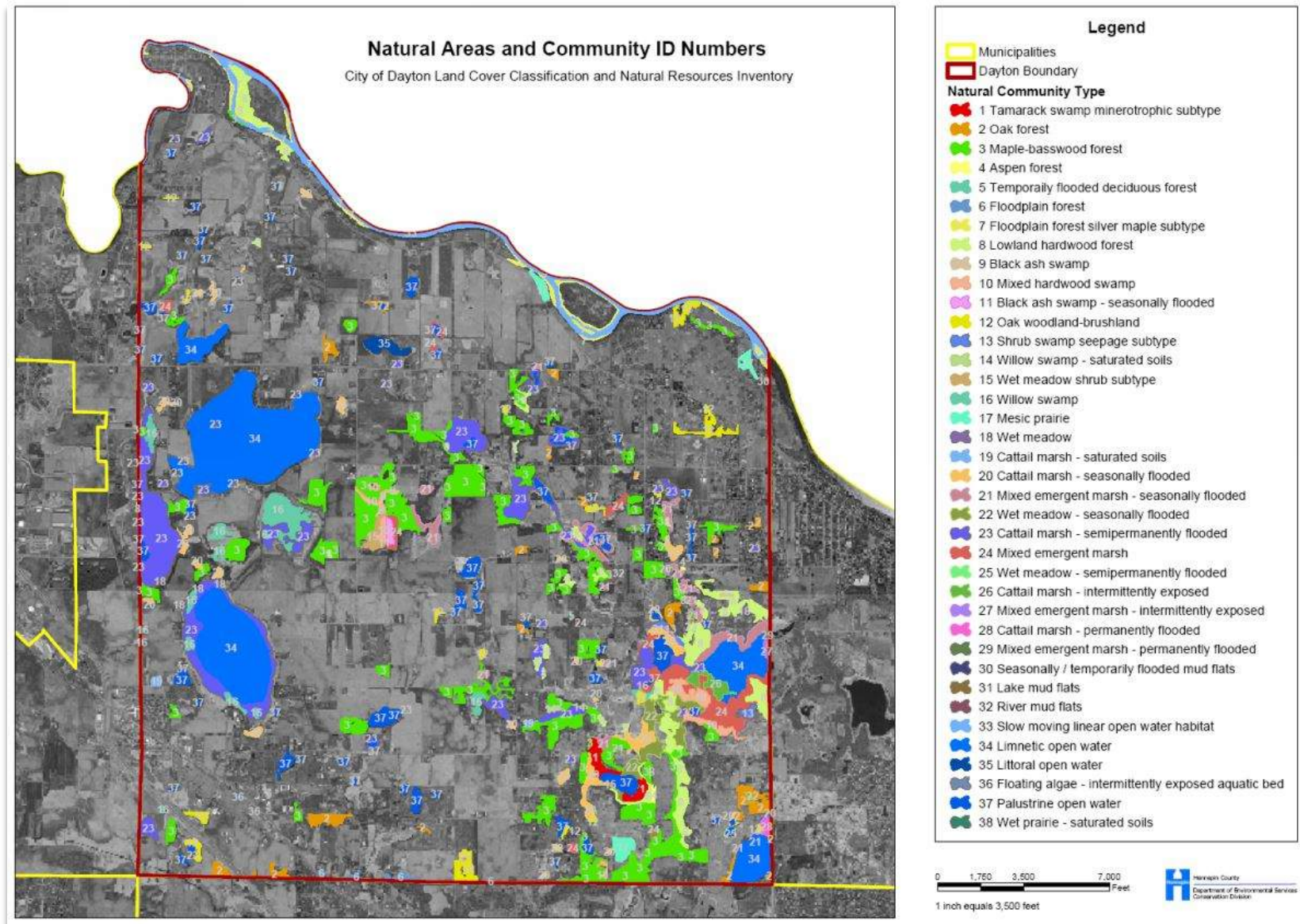


Figure 3.2. Natural Resources Inventory



## Geology and Soils

The bedrock underlying Dayton is part of the St. Lawrence and Franconia formations consisting of dolomitic siltstone and shale. The surficial geology is predominantly loamy till with scattered sandy till and lacustrine deposits. The Hennepin County Geologic Atlas has more information regarding the geology and hydrogeology in Dayton, and can be found online at [purl.umn.edu/58491](http://purl.umn.edu/58491).

The soils in Dayton are predominantly fine textured silt loams and clay loams (Figure 3.2), which tend to support mesic native plant communities in the uplands (such as mesic oak forest, maple basswood forest, and mesic prairie). The Hennepin County Soil Survey has more information regarding soil units within Dayton, which can be viewed online at the Natural Resources Conservation Service's Web Soil Survey at [websoilsurvey.nrcs.usda.gov/app/HomePage.htm](http://websoilsurvey.nrcs.usda.gov/app/HomePage.htm).

City of Dayton 2040 Comprehensive Plan – Natural Resources

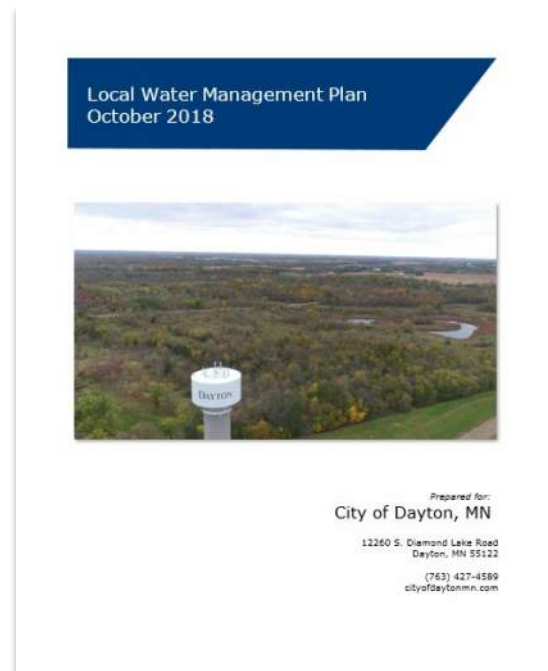


## Surface Water

The Metropolitan Council's Water Resources Management Policy Plan is a framework to integrate water resources management and protection with planning for the Metro region's growth. In 1995, the Metropolitan Land Planning Act was amended to require that each city and township's comprehensive plan include a local water management plan. These local plans need to be consistent with Minnesota Statutes 103B and Metropolitan Land Planning Act requirements. Local water management plans are reviewed by the Metropolitan Council as part of the local comprehensive planning process prior to approval by the watershed management organization and adoption by the city or township.

In addition to the local stormwater plan elements required in statute and administrative rule, the Policy Plan expects communities to show that they are committed to the Metropolitan Council's goal of no adverse impact (nondegradation) for area water resources. Local plans should include actions such as writing ordinances that runoff water quality treatment, limiting the rates and volumes of runoff, adopting BMPs for development and redevelopment, and planning for wetland management.

The City of Dayton completed a Local Water Management Plan in 2018. The Local Water Management Plan describes how the City of Dayton will fulfill the requirements of Minnesota Statutes 103B.235 and Minnesota Rules 8410 in the management of the water resources within the City. It is a summary of the City's management goals and policies, and strategies, including a capital improvement program and review of local policies and ordinances.

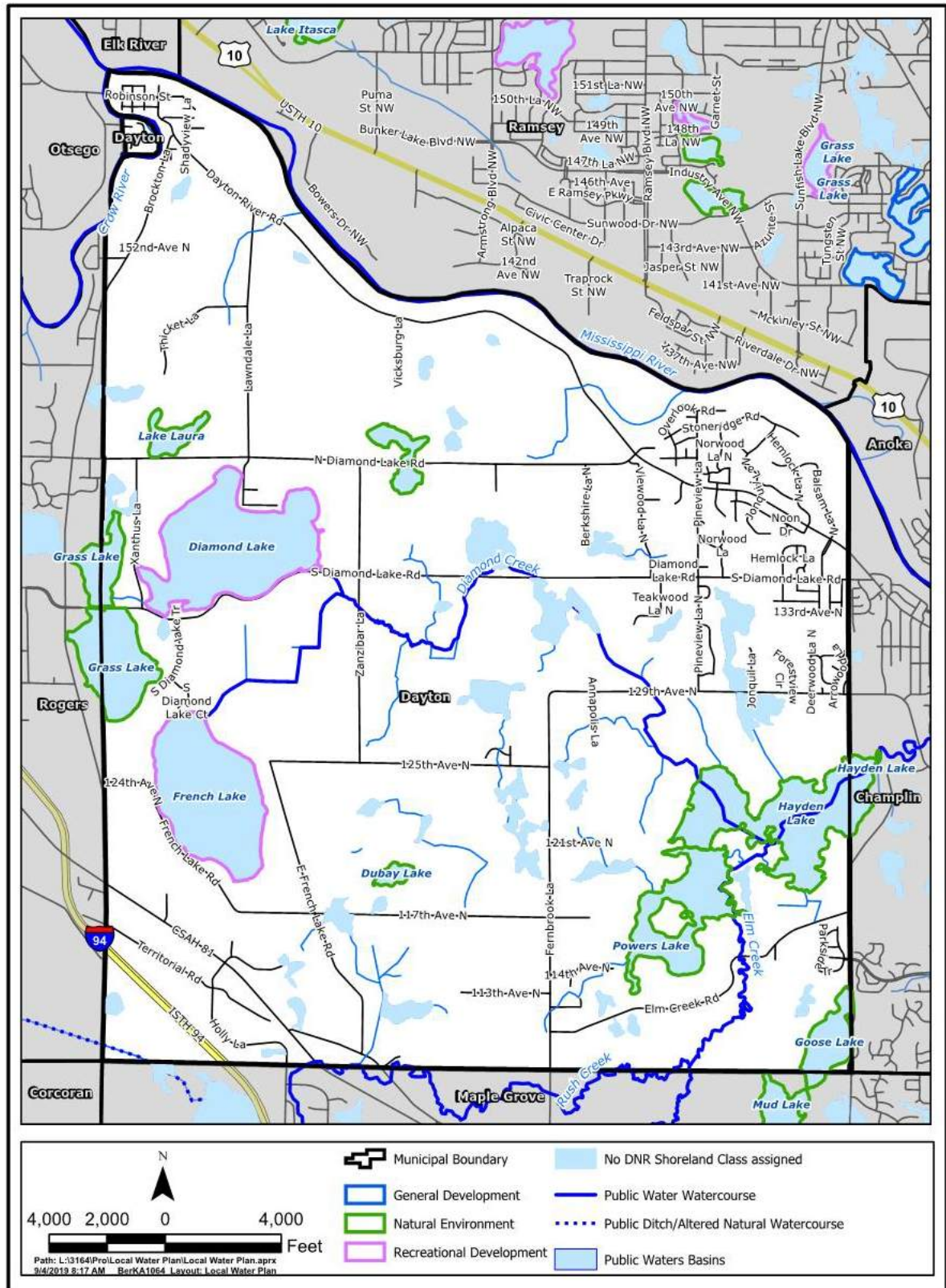


## Lakes

There are seven lakes in Dayton. Diamond and French Lakes are the largest lakes and the only two lakes with public access ramps. Diamond Lake is listed as impaired on the MPCA's draft 2016 303(d) list for excess nutrients due to elevated total phosphorus levels.

The map below is a public waters layer with the associated shoreland classification. The map illustrates the lakes and streams within Dayton and includes the corresponding shoreland classification for each waterbody. Shoreland rules are the associated land use restrictions are outlined in City code, based on the DNR model shoreland ordinance.

Figure 3.4. Public Waters Map



## Water Quality Standards for Lakes

Minnesota's standards for lake water quality vary depending on the depth classification of the lake. Shallow lakes are defined by having a maximum depth of 15 feet deep or less or having 80 percent or more of lake area 15 feet or less (i.e., shallow enough to support rooted aquatic plants). All of Dayton's lakes are defined as shallow. The following table is an excerpt from the October 2018 Local Water Management Plan and provides a summary of information regarding the lakes in Dayton.

### Characteristics of Dayton Lakes

Lake	DNR ID#	Surface Area (ac)	Max Depth (ft.)	Public Access	DNR Class <sup>1</sup>	10-year Summer Average			Depth Class
						TP (µg/L)	Chl-a (µg/L)	SD (m)	
Diamond Lake	27-0125-00	406	8	Ramp	RD	170	68	0.8	Shallow
DuBay Lake	27-0129-00	15	n/a	No	NE	n/a	n/a	n/a	Shallow
French Lake	27-0127-00	217	6	Ramp	RD	214	152	0.5	Shallow
Goose Lake	27-0122-00	59	6	No	NE	175	111	0.3	Shallow
Hayden Lake	27-0128-00	93	n/a	No	NE	n/a	n/a	n/a	Shallow
Lake Laura	27-0123-00	35	n/a	No	NE	n/a	n/a	n/a	Shallow
Powers Lake	27-0130-00	15	n/a	No	NE	n/a	n/a	n/a	Shallow

Source: DNR LakeFinder, MPCA Environmental Quality Information System (EQIIS). Note: TP= total phosphorus; Chl-a= chlorophyll-a, a measure of algal density; SD= Secchi depth or clarity; RD = Recreational Development; NE = Natural Environment, n/a = Not Applicable.

## Streams

Diamond Creek, Elm Creek and Rush Creek and their tributaries drain the majority of Dayton. Small portions of Dayton also drain directly to the Mississippi River (north) and to the Crow River (northwest). Diamond Creek, Elm Creek, Rush Creek, the Crow River and the Mississippi River are all listed as impaired on the MPCA's draft 2016 303(d) list for various pollutants including excess nutrients, excess *Escherichia coli*, low fish integrated biotic integrity, low macroinvertebrate integrated biotic integrity, high turbidity, low dissolved oxygen, excess chloride, mercury in fish tissue and PCBs in fish tissue.

### Major Streams and Rivers in Dayton

Stream Name	Reach #	Length (mi)
Crow River	07010204-502	1.1
Diamond Creek	07010206-525	5.1
Elm Creek	07010206-508	3.1
Mississippi River	07010206-805	5.8
Rush Creek	07010206-528	1.2

Lakes and streams that do not meet state water quality standards are listed as “Impaired” by the State of Minnesota. These lakes, streams and rivers require additional analysis in the form of a Total Maximum Daily Load (TMDL) study. A TMDL is the maximum amount of a pollutant a waterbody can receive and still meet water quality standards. The TMDL study identifies the sources and magnitude of pollutant loading and establishes a numeric load reduction that must be made for each source. The following map illustrates the impaired waterbodies in Dayton.

## City of Dayton 2040 Comprehensive Plan – Natural Resources



## Wetlands

Wetlands provide a number of valuable services to the community including natural flood control, filtering, cleaning and supplying water for both downstream waterbodies and groundwater sources, while also providing valuable habitat for fish, amphibians, waterfowl, birds and other wildlife. They are an economic amenity in many developments and can provide visual and special buffers between homes. The State of Minnesota and the Federal Government recognize the values that wetlands provide and have created a series of rules that protect wetlands. In the state of Minnesota, nearly all wetlands are protected by the Wetland Conservation Act.

Wetlands are common throughout the City with higher concentrations in Elm Creek Park Reserve, near French Lake, and along the creek corridors. There are several sources of information that can help in a preliminary determination of whether wetlands are present on a site, as described below. In all cases a review by an experienced wetland professional is recommended and, in some cases, required to make a final determination regarding the presence or absence of a wetland and to determine the legal boundaries of any wetlands. Appropriate permits are required prior to any activities which fill, drain, or otherwise impact a wetland.

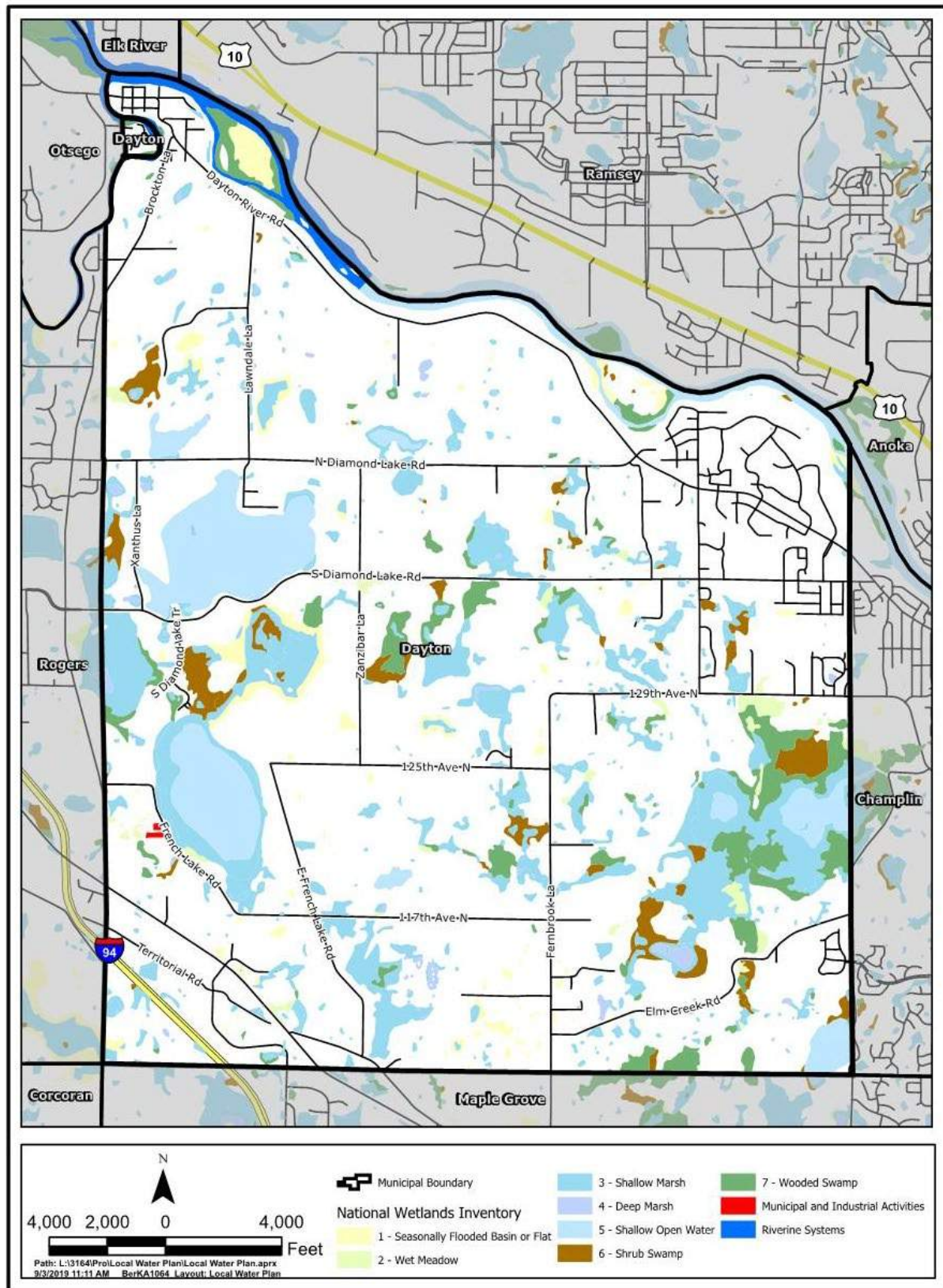
The City of Dayton is the Local Governmental Unit (LGU) for the Wetland Conservation Act of 1991 (WCA) within the City's subdivision authority. Wetland LGU responsibilities include:

- Review and approve wetland delineations and determinations
- Review and approve wetland exemption / no-loss applications
- Review and approve wetland replacement plan applications
- Coordinate Technical Evaluation Panel (TEP) meetings
- Send Notices of Application and Decision to the TEP
- Enforce wetland replacement monitoring requirements, review monitoring reports and certify replacement wetlands
- Work with MDNR and Hennepin County to enforce WCA violations

The National Wetlands Inventory (NWI) is a national assessment of wetland resources, conducted by the United States Fish and Wildlife Service between 1988 and 1992 within the state of Minnesota. The NWI survey was based strictly on aerial photography reconnaissance and interpretation and may be less accurate than some of the other sources. However, the NWI coverage is useful in giving an estimate of the extent (i.e., approximate geographic location) and type (i.e., system, hydrologic regime, and predominant vegetation types) of wetlands within the City. The 2003-2005 MLCCS Mapping and Natural Resource Inventory is the main source of field-verified wetland information on a City-wide scale. Limitations of the data include that wetlands below approximately 1 acre in size are not captured in this system, nor are many temporary wetlands in agricultural fields, pastures, or forests.

There are approximately 12,400 acres of wetland in Dayton. Wetland in Dayton is dominated by shallow open water and shallow marsh. There are also several seasonally flooded basins, especially surrounding Hayden Lake and Elm Creek, and scattered shrub swamp. The following map illustrates wetlands based on the National Wetlands Inventory.

Figure 3.6. Wetlands Inventory Map



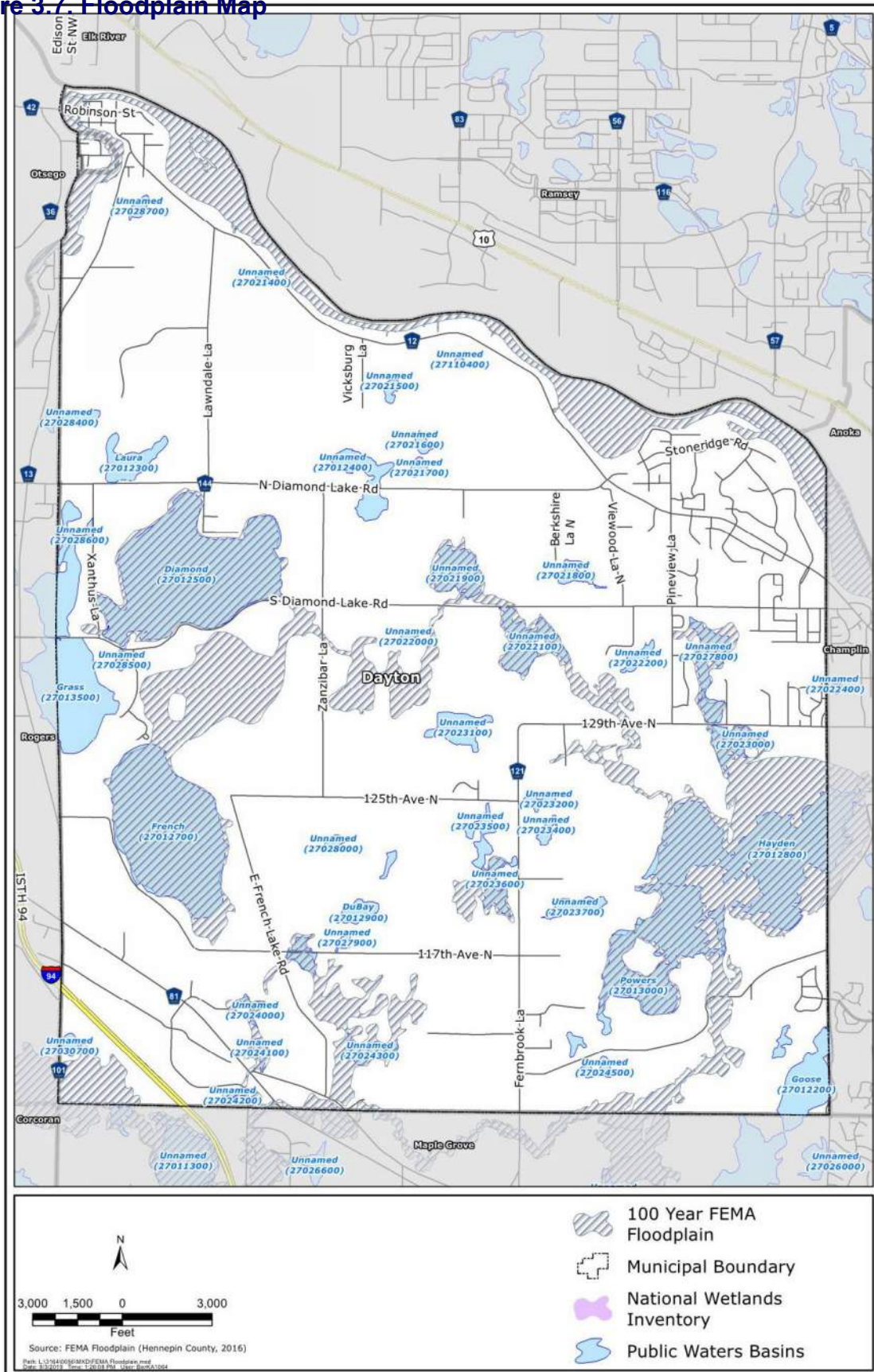
## Floodplain

Floodplain allowed to maintain its natural hydrologic and hydraulic functions provides a variety of functions including natural flood and erosion control, surface water quality maintenance, groundwater recharge opportunities, biological productivity, fish and wildlife protection and recreational opportunities. In 1968, Congress created the National Flood Insurance Program (NFIP) to make flood insurance available to property owners at federally subsidized rates. Community participation in the NFIP requires adoption and administration of a local floodplain ordinance based on Flood Insurance Rate Maps (FIRMs) and a corresponding Flood Insurance Study (FIS) that identifies floodplain boundaries and elevations of floodplain depths (where available). Under the Floodplain Management Act, the MnDNR establishes floodplain regulations. From the beginning of the program in 1969, Minnesota has had regulatory standards greater than the minimum federal program requirements. Floodplain regulations throughout Minnesota and the City of Dayton help preserve flood-prone areas as passive public open space.

Land use regulations define the floodplain as the area covered by the flood that has a one percent chance of occurring each year, also known as the 100-year flood. The floodplain is divided into two zoning districts: the floodway and flood fringe. The floodway includes the river channel and nearby land areas which must remain open to discharge the 100-year flood. The flood fringe, while in the floodplain, lies outside the floodway.

Hennepin County recently completed a County-wide Floodplain Restudy and thereby the City of Dayton has updated FIRMs and FIS. The individual map panels and insurance study can be viewed at City Hall, Hennepin County Environmental Services or through FEMA's online Flood Map Service Center. The following figure shows the 100-year floodplain in Dayton, or the parts of Dayton that annually have a 1 percent chance of flooding. Please be apprised that the City of Dayton's floodplain models will be updated again through a FEMA grant administered by the MnDNR. The modeling efforts and the final products will not be completed until 2020-2021.

### Figure 3.7. Floodplain Map



## Groundwater

Dayton relies on groundwater for municipal water, currently operating two wells drawing from the Franconia-Ironton-Galesville aquifer. Groundwater is managed through the City's Wellhead Protection Plan. Part 2 of the Plan was just completed in 2019. This plan provides comprehensive guidance to protect wellhead areas from contamination while meeting the requirements of the Safe Drinking Water Act and the Minnesota Groundwater Protection Act. The Wellhead Protection Plan details measures to protect the groundwater entering and flowing through the Wellhead Protection Area to protect the drinking water supply from contamination. The following items are included in the Plan:

- A delineation of the Wellhead Protection Area (WHPA) and Drinking Water Supply Management Area (DWSMA) for the public water supply system.
- Identification of potential sources of contamination to the DWSMA, such as unsealed wells, Class V wells and underground storage tanks, and establish strategies and actions to manage risk and to minimize impacts to the DWSMA.
- A spill response plan in coordination with other cities in the DWSMA.
- Information and guidelines and policies for the use of infiltration BMPs for stormwater management.

Further the DNR provided a groundwater technical review of the Water Supply Plan (Permit 2001-6076 City of Dayton) in early 2019. The technical review including a summary of the current impacts, potential future impacts and recommendations on how to manage growth and its influence on groundwater and water supply for Dayton.

## Mississippi River Corridor Critical Area (MRCCA)

Dayton is within the MRCCA area, and as such, is required to submit a plan meeting the DNR's requirements for river protection for this federally protected watercourse. Dayton's MRCCA Plan can be found in the [appendix A](#) and per the Metropolitan Council and DNR requirements.

## City Code and Zoning Ordinances

Protection of natural resources has been an important consideration throughout the City's development history. Existing water resource and natural resource related policies and local controls (City Code sections) include:

- ▲ Wastewater, Sanitary Sewer System (Chapter 51)
  - Sanitary Sewer Discharges (Chapter 51.01-51.06)
  - Individual Sewage Treatment Systems (Chapter 51.20-51.30)
  - Wastewater Treatment and Collection Facilities (Chapter 51.40-51.99)
- ▲ Water System (Chapter 52)
  - General Provisions (Chapter 52.001-52.015)
  - Water Usage (Chapter 52.050-52.056)
- ▲ Storm Water Management (Chapter 151)
  - Storm Water Pollution Prevention Plan Submittal Procedures (Chapter 151.07)
  - Storm Water Pollution Prevention Plan Review Process (Chapter 151.08)
  - Minimum Construction Site Best Management Practices (Chapter 151.09)

- ▲ Public Property; Improvements and Excavations (Chapter 153)
  - Excavations (Chapter 153.15-153.21)
- ▲ Land Usage (Chapter 1000)
- ▲ Zoning (Chapter 1001)
  - Mississippi River Corridor (Chapter 1001.07)
  - Shoreland Zoning (Chapter 1001.08)
  - Floodplains (Chapter 1001.09)
  - Landscaping and Screening (Chapter 1001.24)
  - Tree Preservation and Replacement (Chapter 1001.25)
  - Steep Slopes (Chapter 1001.26)
  - Wetlands (Chapter 1001.27)
  - Construction Site Runoff Control (Chapter 1001.33)
  - Storm Water Illicit Discharge and Illicit Connection (Chapter 1001.34)
- ▲ Subdivisions (Chapter 1002)
  - Growth Management (Chapter 1002.14)
  - Conservation Subdivision (Chapter 1002.15)

These ordinances and policies have provided the City and the private development sector with the means to protect the City's natural resources through limiting wetland filling, establishing minimum setbacks, requiring steep slope and shoreline buffers, managing floodplain areas, and implementing BMPs to prevent pollution, manage stormwater runoff and protect water resources. After the adoption of the 2040 Comprehensive Plan, the City will update all regulatory codes and adopt necessary changes per requirements of the Metropolitan Council and the State's regulatory agencies.

CITY OF DAYTON  
2040 COMPREHENSIVE PLAN  
Chapter 4: Housing

## Introduction

Housing is an integral component to a city's landscape. Dayton is a growing community that provides a variety of housing types in unique neighborhoods. As a developing community, Dayton has great opportunity to provide housing to meet the needs and life-cycle housing choices of all its current and future residents. Life-cycle housing refers to the mix of housing types that meet the housing demands of individuals and families throughout their lives, such as single-family detached homes, townhomes, condominiums, apartments, and senior housing.

Through the Comprehensive Plan public input process, the City has developed a Future Land Use plan to respond to the changes and demands that urban sewer will bring to the community over the next 20 years (and beyond). Using this plan, Dayton will provide housing opportunities for our workforce (young professionals, families, special needs, and senior residents) through a variety of residential land uses and densities including medium, high density, and mixed use (near future transportation/transit and job corridors) and ample area for traditional single-family neighborhoods. This will accommodate a wider variety of styles such as rental, condominiums, and townhomes. Single family options will range from entry-level single family, move up for growing families, and "executive housing" to meet the needs of a changing population. This shift to provide a more diverse housing supply supports future economic development by retaining existing residents and attracting new residents from all social and economic backgrounds, and is an essential component for sustainable growth. Businesses need housing and housing needs businesses, especially in a growing community like Dayton.

The following sections will provide general background information on existing housing; future housing needs and goals, policies and housing tools that can be used to meet future housing needs.

## Housing Goals

**Goal 1:** Provide and encourage a variety of housing types, styles, densities and choices to meet life-cycle housing needs of current and future residents.

**Policy 1:** Maintain a balance in types, quantities, and densities of housing units available throughout the community including continuous single-family growth and new opportunities for multiple family and senior housing developments.

**Policy 2:** Protect low density and rural residential areas from incompatible or higher density uses or maintain adequate buffering (use of green corridors) from such uses.

**Policy 3:** Ensure that all new housing including high density and rental housing adheres to the highest possible standards of planning, design, and construction.

**Goal 2:** Improve the availability of affordable housing and senior housing.

**Policy 1:** Use redevelopment tools to revitalize aging residential properties made possible from federal, state, and county agencies and grant programs.

**Policy 3:** Complete an assessment of senior housing needs in the community.

**Policy 4:** Develop partnerships with non-profit and private sector groups in the creation of new senior housing.

**Goal 3:** Promote housing rehabilitation.

**Policy 1:** Connect residents with information regarding rehabilitation programs and funding offered by federal, state, county and other public or private grant opportunities.

**Policy 2:** Effectively communicate building code requirements for remodeling and other home improvements.

**Policy 3:** Continue administering rental licensing to maintain a safe rental housing stock.

**Policy 4:** Evaluate and re-evaluate fee structures to reduce financial impacts of permit fees for improving existing housing stock that is over 20 years old.

**Goal 4:** Expand neighborhood services.

**Policy 1:** Connect residents to neighborhood watch programs to increase neighborhood safety.

**Policy 2:** Connect residents of various ages to resources which provide services to those in need.

## Housing Inventory

The following section provides a summary of existing housing conditions in Dayton. The data used has been obtained from a number of sources including the Metropolitan Council, the 2010 Census, the American Community Survey (ACS), Hennepin County Assessor's Office, and City Building Permit information.

### Housing Supply

In 2018, the City of Dayton had an estimated total household count of 2,158 and estimated population of 6,018. In 2017 a new multifamily apartment complex was constructed adding 49 units. The table below shows the existing housing unit types in Dayton provided by the Metropolitan Council in 2018.

**Table 4.1. Housing Units by Type**

Housing Type	1990	2000	2010	2018
Single-family detached	1,125	1,313	1,418	1,895
Townhomes (single-family attached)	9	13	10	10
Duplex/triplex/quadplex	4	4	2	2
Multi-Family (5+ Units)	8	7	8	57
Accessory dwelling units (ADU)	0	0	0	0
Manufactured homes	228	223	242	236
Other units (boat, RV, ect.)	3	0	0	0
Total	1,377	1,560	1,680	2,200

Source: 1990, 2000, 2010 Census; and Metropolitan Council, 2018.

The table below shows single-family home permit activity for years 2015 to 2019 year to date (YTD). Dayton has seen a consistent growth in households as the City continues to see new

single-family home developments being approved and constructed. Dayton's most prevalent housing type is the single-family home.

**Table 4.2. Single-Family Home Permit activity**

Permit type by year	2015	2016	2017	2018	2019 (YTD)
Single-family detached	74	122	189	152	237
Multi-Family (5+ Units)	0	0	49	0	0
<b>Total</b>	<b>74</b>	<b>122</b>	<b>238</b>	<b>152</b>	<b>237</b>

Source: City Permit Data as of October 31, 2019.

### Housing Tenancy

According to the ACS projections, approximately 93% of housing units in Dayton were owner-occupied, whereas 7% were renter-occupied and 1% were vacant. The table below presents the number of housing units which are owner-occupied, rental, or vacant in the City of Dayton.

**Table 4.3. Housing Tenure**

Tenancy	Number of Units	Percent
Owner-occupied housing units	1,688	92.9%
Renter Occupied housing units	108	5.9%
Vacant units	21	1.2%
<b>Total Units</b>	<b>1,817</b>	<b>100%</b>

Source: American Community Survey, 2013-2017

### Housing Stock Age

Dayton's housing units consists of relatively new stock. Roughly 36% of homes have been built since 2010. Nearly 60% of units have been built since 1960. The Table below details age of housing stock in Dayton.

**Table 4.4. Housing Age**

Year	Total Units	Percent
2010 and later	899	36.2%
2000 – 2009	104	4.2%
1990 – 1999	252	10.2%
1980 – 1989	240	9.7%
1970 – 1979	551	22.2%
1960 – 1969	205	8.3%
1950 – 1959	54	2.2%
1949 or earlier	175	7%
<b>Total Units</b>	<b>2480</b>	<b>100%</b>

Source: American Community Survey, 2013-2017 for units 2009 and earlier; City Permit Data for units 2010 and later

### Housing Costs

Affordability of housing in any given city is a function of the percentage of the Area Median

Income (AMI) goes towards housing. The Metropolitan Council dictates that cities communicate the affordability of housing based on three levels of affordability.

- At or below 30% AMI
- Between 31 and 50% AMI
- Between 51 and 80% AMI

The table below shows the Metropolitan Councils 2016 data on purchase prices affordable to the three affordability levels above.

**Table 4.5. Purchase prices of housing at the three levels of AMI**

	At 30% AMI	At 50% AMI	At 80% AMI
<b>Affordable purchase price (2016)</b>	\$85,500	\$153,500	\$243,500

Table 6 shows the number of units by affordable based on percentages of AMI according to Metropolitan Council findings as of 2016. Nearly 50% of housing is over 80% of AMI. More recent data, as shown in Table 7, pulled from Hennepin County's MetroGIS indicates that market values have risen. This may be contributed not only with increased valuations of existing homes, but also introduction of newer, more expensive homes permitted since Metropolitan Council published data in 2016.

**Table 4.6. All Affordable units by percentage of AMI**

Affordability	Total Units	Percent
<b>30% and below AMI</b>	193	10.4%
<b>31% – 50% AMI</b>	133	7.2%
<b>51% – 80% AMI</b>	656	35.4%
<b>Over 80% AMI</b>	872	47%
<b>Total Units</b>	<b>1,854</b>	<b>100%</b>

Source: Metropolitan Council Existing Housing Assessment, 2016

**Table 4.7. Owner-Occupied Housing Values and affordability (2019 Data)**

Affordable Purchase Prices/AMI	Total Units	Percent
<b>\$1 – \$85,500 (30% and below AMI)</b>	120	6.4%
<b>\$85,501 – \$153,500 (31% – 50% AMI)</b>	62	3.3%
<b>\$153,501 – \$243,500 (51% – 80% AMI)</b>	500	26.7%
<b>More than \$253,501 (Over 80% AMI)</b>	1190	63.6%
<b>Total Units</b>	<b>1,872</b>	<b>100%</b>

Source: Estimated Market Values provided by Hennepin County – MetroGIS, 2019

Table 8 shows all rental units *known* to be within affordability ranges (does not show other rental units which affordability is unknown as shown in Table 3 above). Dayton is home to one apartment complex which is considered publicly subsidized due to it being developed through a Tax Increment Financing (TIF) district. The TIF district has allowed the apartment complex to offer rents which are slightly below market rate. The Metropolitan Council data shows no other publicly subsidized housing units.

**Table 4.8. Rental Units - Affordability**

Affordability	Total Units
30% and below AMI	0
31% – 50% AMI	49
51% – 80% AMI	0
Over 80% AMI	0
<b>Total Units</b>	<b>49</b>

Source: HousingLink Streams, 2016

**Table 4.9. Publicly Subsidized Units**

Subsidized Units	Total Units
Publicly subsidize senior units	0
Publicly subsidized units for people with disabilities	0
All other publicly subsidized units	49
<b>Total Subsidized Units</b>	<b>49</b>

Source: Metropolitan Council Existing Housing Assessment, 2016

Households whose housing costs exceed 30% of their income are considered cost-burdened. Housing costs include rent and utilities for renters; and includes mortgage principal and interest, property taxes, property insurance, utilities and other fees for owners. Table 10 below shows the number of housing cost-burdened households by percentage of AMI.

**Table 4.10. Housing Cost-Burdened Households in 2016**

Percent Income of AMI	Households
Income at or below 30% of AMI	97
Income 31% - 50% of AMI	67
Income 51% - 80% of AMI	119

Source: Metropolitan Council Existing Housing Assessment, 2016

Table 11 breaks out homeowner and rental households who are cost-burdened. Based on known data from the 2010 Census it appears there has been an increase since 2000 in Owner and Renter spending more than 30% of their income on housing and decrease in owner and rental households spending less than 30% of their income on housing. Market factors may have played a roll in this fluctuation. Based on projections from ACS for 2017, it appears some stabilization in owners spending less than 30% of their income on housing has occurred, yet a further increase in renters spending more than 30% of their income on housing since 2010.

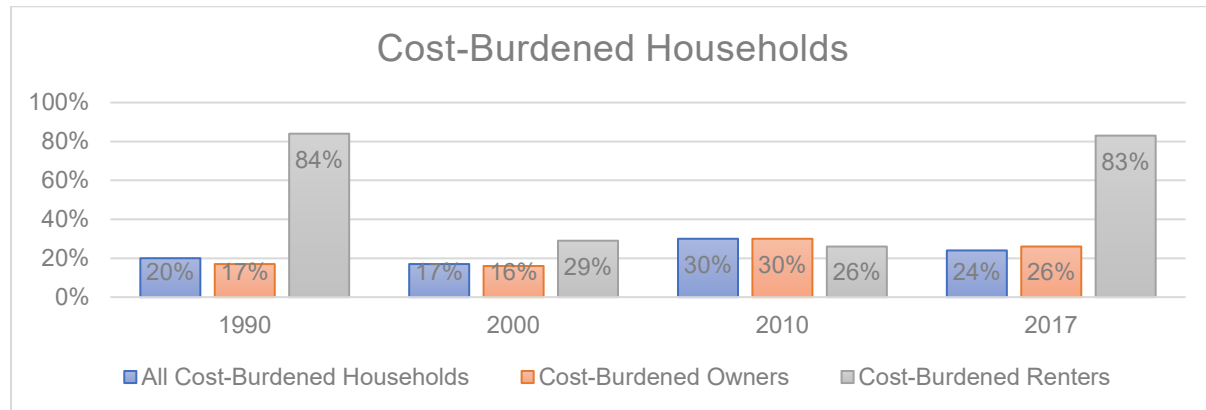
**Table 4.11. Owner and Renter Households Experiencing Housing Cost Burden**

Households	1990	2000	2010	2017
Owners spending less than 30% on housing	732	911	1029	1346
Owners spending more than 30% on housing	147	178	439	342
Renters spending less than 30% on housing	7	34	82	18

<b>Renters spending more than 30% on housing</b>	36	14	29	90
<b>Total</b>	<b>922</b>	<b>1137</b>	<b>1579</b>	<b>1796</b>

Source: 1990, 2000, 2010 Census; and 2013-2017 ACS

**Figure 4.1. Cost-Burdened Households in Dayton**



Source: Census 1990, 2000, 2010; and ACS 2013-2017

Figure 2 on the following page is a map showing owner-occupied housing by estimated market value. This data was available from Hennepin County parcel and utilized homesteaded parcels and market values estimated by the Hennepin County assessors office. Hennepin County Assessor's data clearly shows a steady increase in the median home value over the past several years. See table 12 detailing median home prices.

**Table 4.12. Estimated Median Home Values – 2000 to 2019**

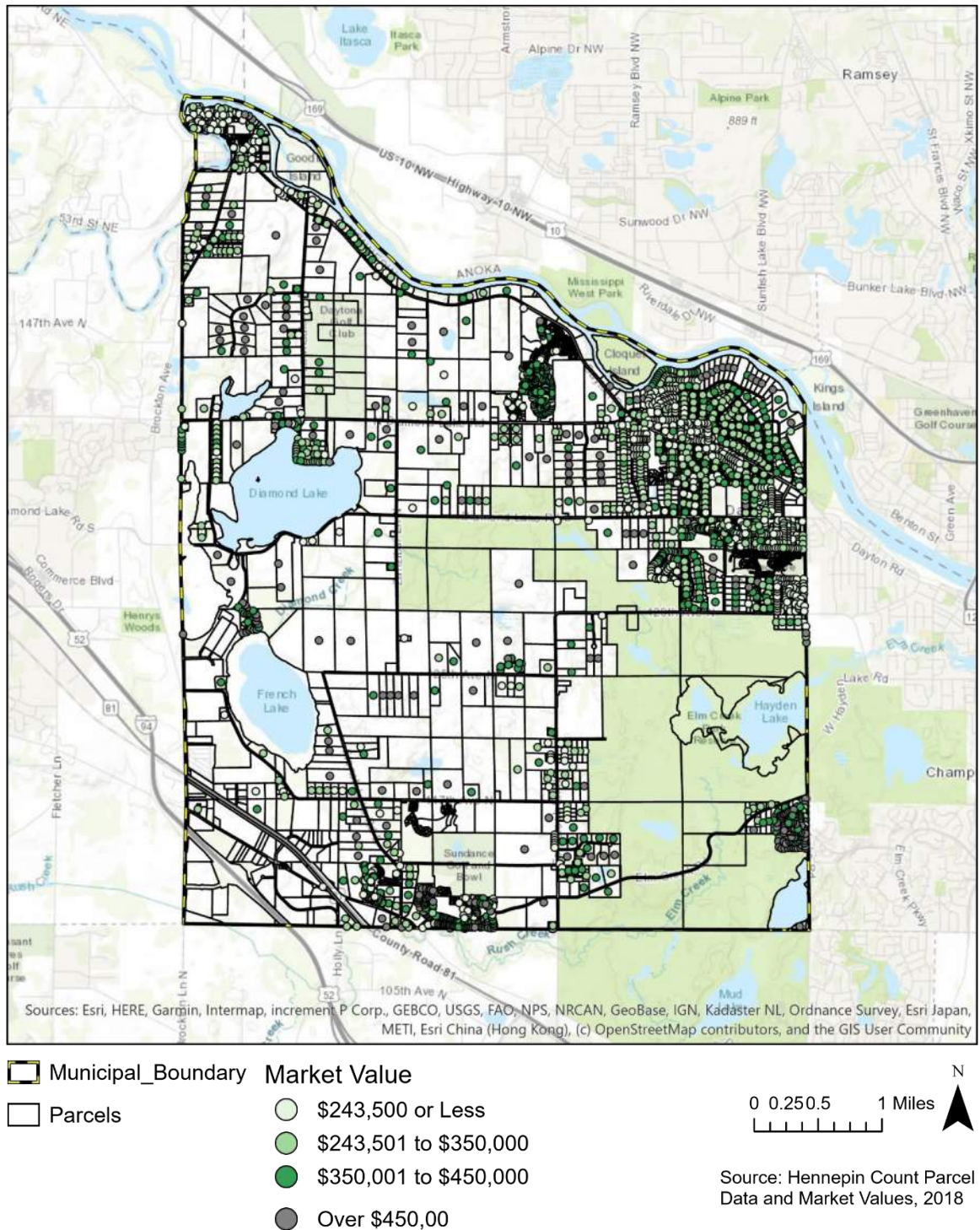
Year	Dayton	Suburban Hennepin County
2000	\$145,000	\$145,300
2001	\$159,000	\$165,500
2002	\$181,000	\$187,900
2003	\$204,000	\$206,100
2004	\$225,000	\$227,000
2005	\$243,000	\$246,000
2006	\$260,000	\$263,000
2007	\$272,000	\$270,000
2008	\$271,000	\$264,500

2009	\$261,000	\$252,800
2010	\$245,000	\$236,700
2011	\$229,000	\$229,600
2012	\$194,000	\$217,500
2013	\$195,000	\$217,000
2014	\$219,000	\$234,800
2015	\$224,000	\$248,000
2016	\$237,000	\$256,000
2017	\$276,000	\$256,000
2018	\$307,000	\$294,000
2019	\$331,000	\$312,000

Source: Hennepin County Assessor's Reports (2007, 2019)

**Figure 4.2. Map of Owner-Occupied Housing**

**Owner-Occupied Housing by Estimated Market Value  
Dayton**



## Population and Demographics

The Metropolitan Council has provided population and household estimates for the next two decades to better coordinate the allocation of services for our growing city. By the year 2040, Dayton may have an estimated 4,400 households and 10,400 residents. Estimations for future decades are provided in the following table. According to available Metropolitan Council data, 2018 population and housing growth

**Table 4.13. Population estimates**

Forecast Year	Population	Households	Employment
2010	4,617	1,619	921
2018	6,072	2,158	1,230
2020	5,900	2,000	2,000
2030	7,900	3,200	2,490
2040	10,400	4,400	3,000

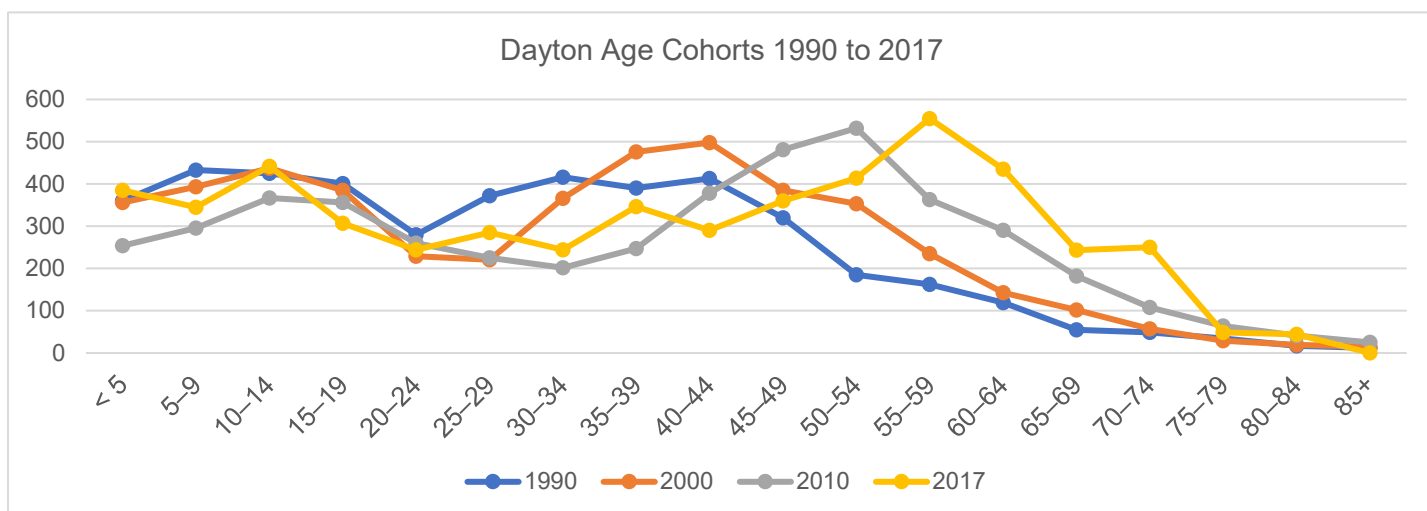
Source: Metropolitan Council, Community Profiles and Annual Population Estimate

The population distribution by age of the City of Dayton is fairly comparable to the Twin Cities overall. In 2018, national and state data indicated that the population share of Baby Boomers (born between 1946 and 1964) and Millennials (people born between 1981 to 1996) were trending towards equal. Research from the Pew Research Center showed that the Millennial population would overtake the Baby Boomer population by 2019.

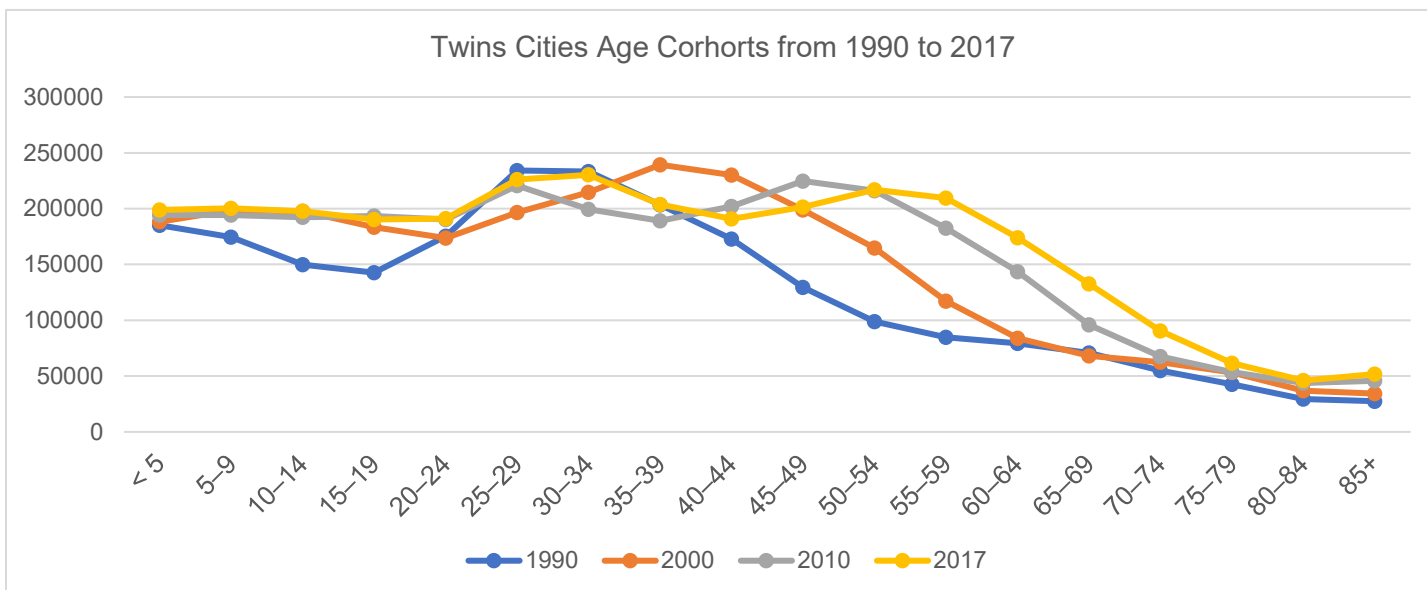
The two generations have fairly distinct housing preferences and needs. According to Pew Research Center, more Millennial households are renting, less likely to own their own home, as well as have a relatively high poverty rate compared to Baby Boomer populations. With half the population between the ages of 18 and 54, the need for an increase in apartments, townhomes, entry-level and move-up housing to satisfy the preference and affordability needs of these population groups is evident.

As a generation grows older, housing, health, and services needs begin to change. As people reach retirement age, incomes become fixed, and accessibility needs are more evident. Having all the necessities on the main level of the house, or one level housing may be more preferable. As people become elderly, more assisted or age restricted living may be necessary. Ensuring a wide range of housing types, affordability ranges, and amenities and services will open housing up to a wider range of ages and needs. Figures

**Figure 4.3. Age of Population in Dayton 1990 through 2017**



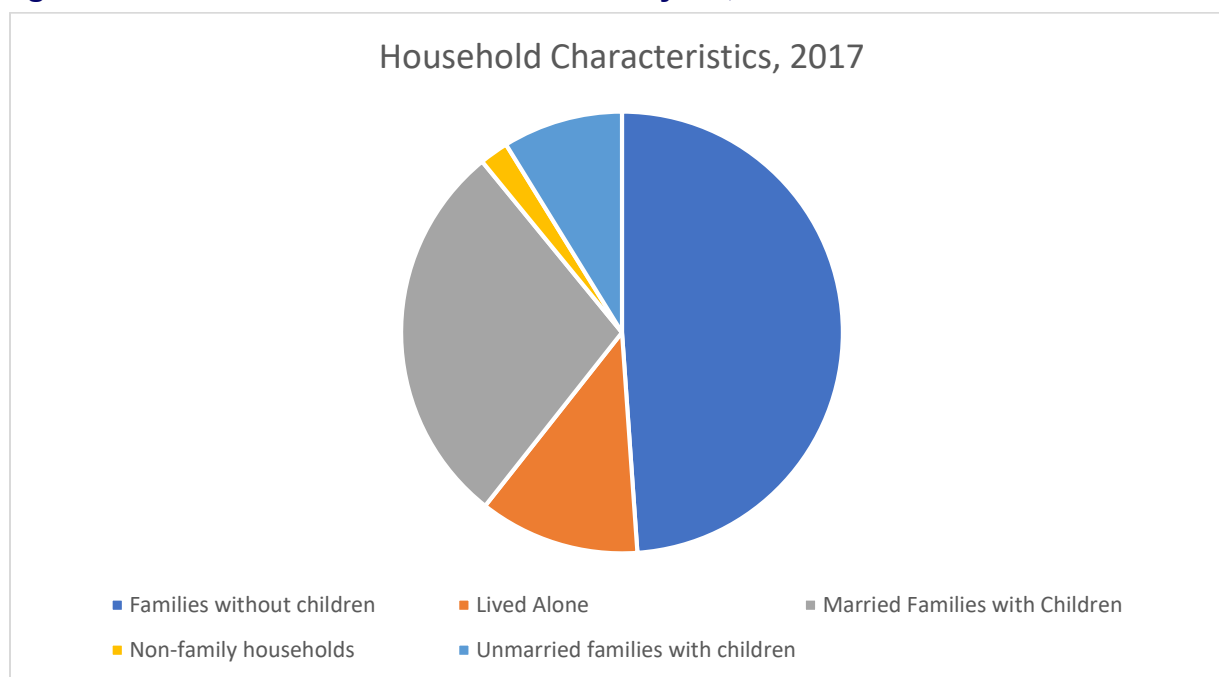
**Figure 4.4. Age of Population in the Twin Cities 1990 through 2017**



Source: Figures 3 and 4 come from Census 1990, 2000, 2010, and ACS 2013-2017.

Nearly half of Dayton residents are families without children, with the next largest section being married families with children, then individuals living alone, unmarried families with children, and non-family households. This information indicates that a large portion of Dayton residents are either younger couples, or parents of adult children that have moved out on their own. The city has approved developments of large areas for single-family homes, which has been marketable for the demographics of Dayton today. However, given the fact that demographics change through time, the City should continue to approve a variety of housing types (single-family, attached, multi-family) in order to provide lifecycle housing for existing and future residents. The pie chart below gives visual representation of the household types in Dayton. The graphic was provided by the American Community Survey (ACS) for the years 2013-2017.

**Figure 4.5. Household Characteristics in Dayton, Minnesota in 2017**



Source: American Community Survey 2013-2017 Estimates

## Projected Housing Need

The Metropolitan Council has identified affordable housing needs for all cities and townships for the region for 2021-2030. The housing element of each local comprehensive plan is required to reflect each community's share of this regional need for affordable housing. The Metropolitan Council has calculated the City of Dayton's share of the 2021-2030 regional affordable housing need to be 333 units. The table below indicates the expected need for affordable units in Dayton by specific affordability level, with affordability based on percentage of Area Median Income (AMI).

**Table 4.14. Number of housing units affordable in relation to AMI for Dayton, Minnesota from 2021-2030**

Affordable Housing Need Allocation	
At or below 30% AMI	112
From 31 to 50% AMI	103
From 51 to 80% AMI	118
Total	333

Source: Metropolitan Council Housing Assessment

## Housing Implementation Strategies and Recommendations

It is intended that the City will use the following strategies and implement them as new development occurs. In terms of regulatory methods, the City's Zoning Ordinance and Subdivision code will be updated to ensure appropriate use and design standards are in place for all residential districts. Part of this update will include a review of options to create incentives such as density bonuses and flexibility concerning site requirements for the development of

affordable housing. Putting these options into ordinance or Residential PUD format provides a stronger regulatory tool to effectively work with developers to create affordable housing. Using the powers of the Economic Development Authority (EDA) and/or Housing and Redevelopment Authority (HRA) to create funds aimed at affordable housing is another method the City would have direct control over. Funds could be provided to developers to help offset the cost of affordable housing units or to preserve the long-term affordability.

Other efforts include advertising and promoting the programs available through the county and state, to local residents desiring to make home improvements. Maintenance code enforcement is another way to ensure that existing affordable housing remains viable and in good repair

### Addressing Dayton's affordable housing need through Land Use

Dayton will address Metropolitan Council affordable housing allocation by guiding sufficient land at minimum residential densities to provide units affordable at 50% or less AMI and units affordable at 51% to 80% AMI.

Dayton has guided sufficient land at a minimum of 12 units an acre to satisfy the combined allocation of less than 30% AMI, 31% to 50% AMI, and 51% to 80% AMI which equates to 333 required units. In the 2020 to 2030 staging decade, Dayton has guided 182 acres as High Density Residential with a minimum density of 12 units an acre netting nearly 576 units which could be affordable at 80% or less AMI.

Table 15 breaks out the approximate units counts for residential Land Use designations for staging years between Current, 2020 to 2030.

**Table 4.15. Sewered Residential Staging**

Staging Decade	Current		2020-2030	
Land Use	Net Developable Land	Units	Net Developable land	Units
Low Density Residential (2-5 units/acre)	343	686	26	52
Medium Density Residential (5-8 units an acre)	21	105	58	290
High Density Residential (12+ units/acre)	34	409	48	576
Master Planned Devel. (3.01 Units/acre)	0	0	182	547
<b>Total</b>	<b>398</b>	<b>1200</b>	<b>266</b>	<b>890</b>

Source: City of Dayton Land Use Data, See Land Use Chapter

### Tools for implementing affordable housing initiatives

The following are tools which the City can either manage or connect residents or support developers to utilize.

1. *Incentivize revitalization existing housing stock and neighborhood improvement*

The City could research and provide opportunities and incentives for residents to improve their homes. This could include connecting residents with private or public loans, grants or funding for small improvements (such as energy efficient appliances) or

larger improvements like remodels or basement finishes.

The City will continue to implement its Rental Licensing Program which ensures that rental homes are maintained and necessary life/safety improvements are done so renters and landlords have safe homes.

## *2. Explore projects which fall under the Livable Communities Act (LCA)*

The LCA was developed to encourage investment into the local economic and affordable housing. The Metropolitan Council review housing initiatives in municipalities and provides scoring. The City should continue to increase its competitiveness by establishing programs for affordable housing or revitalization. Increasing scores and competitiveness could increase the likelihood of being awarded funding from the Metropolitan Council for unique projects to make our community more livable.

## *3. Utilize or support existing programs and funding sources*

The City should continue to stay educated with existing programs to facilitate affordable housing. The City could utilize funding from the Minnesota Housing Finance Agency (MHFA), the Department of Housing and Urban Development, or local initiative funds. Local funding could come from:

- Tax Increment Financing (TIF) to write down land costs, like the Sands building on Balsam Lane. The City will encourage, possibly through the use of TIF, the construction of Work Force housing near the Dayton Parkway Interchange where the city has the highest concentration of medium and high density land uses.
- Community Development Block Grant (CDBG). The City could utilize CDBG allocations to assisting in rehabilitation projects or support other entities utilizing these funds to make infrastructure improvements.
- Housing revenue bonds are tax exempt bonds which can be used to fund multi-family development which set aside at least 20% of units for households earning 50% or less of AMI.
- The City could apply or support developer applications to the Affordable Housing Incentive Fund (AHIF), a Hennepin County program.
- The City could apply for the use of Home Investment Partnerships Program (HOME), a U.S. Department of Housing and Urban Development Program.
- The City could apply or support applications for Consolidated Request for Proposals – The State Legislative, Minnesota Housing Finance Agency

## *4. Land Use and Zoning*

Land Use and Zoning regulations are fundamental legislative tools the City can use to guide housing development and are designed to protect health, safety and welfare of existing and future residents. The City can encourage a diversity of housing through the following:

- Planned Unit Developments (PUDs) are a regulatory tool which can provide approvals for deviations from zoning code to encourage innovative site plans and a multitude of housing types affordable to a range of income and age groups.
- Districts which allow zero lot lines developments can provide for an efficient use of land and allow denser developments with a combination of connection to amenities.
- Districts that allow reduced lot sizes by right such as the current R-3 district already in place.

CITY OF DAYTON  
2040 COMPREHENSIVE PLAN  
Chapter 5: Land Use

## Introduction

The City of Dayton's Land Use Plan plays a key role in guiding growth for Dayton. The Future Land Use Plan identifies the location and intensity of future development with the City, and establishes a framework in which future development will occur. This plan is intended to guide future development and growth to achieve the community objectives for balanced and efficient growth.

## Land Use Goals and Policies

### Community Image

**Goal 1:** Enhance community identity and sense of place through well designed community gateways, signage, high-quality infrastructure and attractiveness of properties.

**Goal 2:** Work with providers and developers to expand cost effective high-speed internet to existing and new-residential areas across the City.

### Growth Management

**Goal 3:** Manage expansion of urban services (roads, sewer, water, internet) to support densities necessary to accommodate regionally forecasted residential growth, and desired business and industrial expansion.

**Goal 4:** Develop at a sustainable pace balanced with capacity of city service provisions, transportation capacity and wastewater and water supply available to the City.

**Goal 5:** Require appropriate land use transitions and buffers to ensure new development and or redevelopment is compatible with existing areas and abutting roadways.

### Agriculture and Rural Residential

**Goal 6:** Preserve the rural character by maintaining a balance between the expanding urban area and rural nature of the community.

- **Policy 1:** Preserve rural view shed on major roads, open spaces and natural areas to promote the rural character of Dayton.
- **Policy 2:** Encourage infill development that demonstrates compatibility with existing neighborhood characteristics in terms of quality, density, building height, placement, scale, and architectural character.
- **Policy 3:** Discourage "leap frog" development patterns of new subdivisions that prematurely expand City's service delivery areas.
- **Policy 4:** Conserve agricultural uses outside of the current staging areas.
- **Policy 5:** Encourage conservation practices on agricultural land to prevent erosion and conserve natural resources.

### Residential Land Use

**Goal 7:** Promote residential growth in well-planned neighborhoods connected through roads and trails to parks and other key community and natural amenities.

- **Policy 1:** Establish and update development guidelines for including adequate green

spaces, paths, sidewalks, and trails and connections throughout the community.

- **Policy 2:** Continue to link residential neighborhoods via trails to city parks, Elm Creek Regional Park, lakes, schools, Historic Village, the mobile home park, and important neighborhood commercial nodes.
- **Policy 3:** Incorporate the conservation of natural resource corridors.
- **Policy 4:** Encourage innovation in subdivision design such as clustering techniques to conserve open space and/or natural resources.

**Goal 8:** Provide a healthy variety of housing types, styles, densities and choices to meet the life cycle housing needs of residents.

- **Policy 1:** Maintain a balance in the types, quantities, and densities of housing units available throughout the community including continued single-family growth, and new opportunities for multiple family and senior housing developments.
- **Policy 2:** Protect low density and rural residential areas from incompatible uses by maintaining adequate buffering, or transition densities from such uses.
- **Policy 3:** Ensure new housing, including high density and rental housing, adheres to high standards of planning, design, and construction.

**Goal 9:** Improve the availability of affordable housing and senior housing.

- **Policy 1:** Use redevelopment tools to revitalize aging, residential properties made possible from federal, state, county, and grant programs.
- **Policy 2:** Incentivize rehabilitation of older homes, and/or streamline the development process to reduce impacts on the price of entry-level homes.
- **Policy 3:** Develop partnerships with non-profit and private sector groups in the creation of new senior housing.
- **Policy 4:** Utilize our senior needs assessment to improve service delivery and expand services to our aging populace.

**Goal 10:** Promote efforts to upgrade, enhance and maintain existing housing stock.

## Neighborhoods

**Goal 11:** Create a common sense of community pride for Dayton by encouraging strong neighborhood organizing through community building activities, community safety and promoting neighbors knowing one another and integrating into the larger community.

- **Policy 1:** Increase recreation opportunities for residents.
- **Policy 2:** Continue to encourage Neighborhood Watch and other community safety programs.

## Commercial Land Uses

**Goal 12:** Expand and diversify the City's tax base by encouraging new commercial development and that complements the residential areas of Dayton.

- **Policy 1:** Create cohesive identities for Dayton commercial areas. Create and improve performance standards for all commercial areas including building and signage design guidelines, street scaping, and inclusion of green space, paths, and sidewalks to connect commercial areas to neighborhoods.
- **Policy 2:** Provide for commercial land uses that are dispersed appropriately through the community. Create neighborhood commercial nodes which provide goods and services for nearby neighborhoods.
- **Policy 3:** Support and promote existing business and new businesses that are viable and responsive to the needs of the Community. Explore programs to provide financial assistance to retain existing businesses and attract new business.
- **Policy 4:** Rehabilitate, or where necessary, redevelop substandard and/or functionally obsolete commercial development through private means or, if necessary, public assistance.
- **Policy 5:** Require all new commercial uses utilize public utilities.
- **Policy 6:** Encourage business owners to remodel, rehabilitate, and enhance building exteriors.
- **Policy 7:** Allow home businesses provided that they are accessory to the residential use, adhere to the Zoning Ordinance, and do not negatively impact nearby properties.
- **Policy 8:** Maintain and promote the Historic Village as an important commercial opportunity.
- **Policy 9:** Work with the area's Chamber of Commerce to attract new business to Dayton.

## Industrial Land Uses

**Goal 13:** Attract and encourage new light industrial, office/industrial, high tech and professional services and maintain and expand existing businesses in Dayton.

- **Policy 1:** Encourage high-end business park developments that attracts medical, technological, and other similar industrial uses which provide a range of quality employment wages.
- **Policy 2:** Work with property owners to redevelop existing industrial sites that are in disrepair, are obsolete with respect to site design, have environmental concerns, or are incompatible with neighboring land uses.
- **Policy 3:** Develop a market plan and strategy aimed at creating industrial identity that will help recruit business and industry to Dayton.

- **Policy 4:** Establish light industrial and business park locations that offer a full range of activities in a manner that is compatible with surrounding land uses.
- **Policy 5:** Require all new industrial areas to be connected to city sewer and water.
- **Policy 6:** Create and improve building, signage, and landscaping design guidelines that will result in high quality building and site development.
- **Policy 7:** Encourage use of “green,” or environmentally-responsible building and site development techniques that reduces impact on city, regional, and private utility systems.
- **Policy 8:** Encourage site upkeep and quality maintenance through code enforcement to maintain and promote a positive image of industrial areas.

### Historic Village

**Goal 14:** Identify opportunities and challenges in Historic Village area related to land use, utilities, parking, design standards, transportation and access which enable this area to become a key Dayton focal point.

- **Policy 1:** Promote a range of land uses and activities including commercial, residential, service, office, and public spaces to revitalize the Village.
- **Policy 2:** Update and utilize the existing Historic Village Plan as the design guidelines for redevelopment and new development within the Village.
- **Policy 3:** Develop a strategy to rehabilitate, replace, and/or remove buildings that have deteriorated and detract from the general attractiveness of the area.
- **Policy 4:** Identify significant historic building and/or sites and implement appropriate historic preservation methods.
- **Policy 5:** Identify and improve or plan for a new park and riverfront access or other public gathering areas.

### 2030 Land Use Plan Accomplishments

The 2030 comprehensive plan was adopted in 2008 and updated in 2014. Many changes have occurred and developments have advanced since the plans were adopted:

- Industrial users have recently completed projects in our expanded industrial area. The French Lake Industrial Master plan was approved in 2015.
- Upon creation of the Mixed-Use designation in northeast Dayton a 49-unit workforce apartment building and new streetscaping was completed in 2017.
- Prepared a corridor plan for southwest Dayton transportation network. This study has expanded into a market research and small area plan for southwest Dayton to be completed in 2020.
- The city is anticipating the start of construction of the Dayton Parkway Interchange

spring 2020.

- Twelve new single-family subdivisions have been approved and are at various stages of development.
- Conducted a senior needs assessment.
- Adopted Ordinance amendments including mixed use districts, landscaping, tree preservation, accessory dwelling units (ADU's) and residential design standards.

## Existing Land Use

Dayton's existing land use contains a variety of uses including historic residential and commercial areas, large agricultural tracts, large-lot suburban development, and a park reserve. While communities neighboring Dayton have seen substantial suburban development in recent years, development in Dayton has been limited, and the City consists mainly of rural residential and agricultural areas. The City also contains significant wetlands, woodlands, and forests which are distributed across the City. Many lakes and water features are present in the City including Diamond and French Lakes and the Mississippi River. See the definitions of existing land uses below, and Table 1 shows the land area of Existing Land Uses.

### Existing Land Use Definitions

**Agriculture/farm:** Agricultural purposes, including farming, dairying, pasturage, horticulture, floriculture, viticulture, and animal and poultry husbandry and accessory uses including farmstead or rural residence

**Commercial:** Provision of goods or services, may also include office (predominately administrative, professional, or clerical services).

**Essential Service:** Primarily areas dedicated to utility services (well house, water storage, etc.)

**Golf Course:** Area identified for existing or planned golf course facilities.

**Industrial:** Primarily manufacturing and/ or processing of products; could include light or heavy industrial land use, or large warehouse facilities.

**Mobile Home Park:** This area consists of manufactured homes within Dayton.

**Multi-Family Residential:** Residential purposes including duplexes, triplexes, townhomes, apartment buildings, and condominiums. May include open space within or adjacent to or related to a residential development.

**Park and Recreation:** Primarily for public active recreation activities improved with playfields/ground or exercise equipment, zoos, or other similar areas.

**Public/Institutional:** Primarily religious, governmental, educational, social, or healthcare facilities.

**Rail Road:** Parcels owned and maintained as rail lines.

**Rural Residential:** Residential purposes including mostly one-family homes and manufactured

homes may include some two-family homes and land used for agricultural purposes.

**Single Family Residential:** Residential purposes including mostly one-family homes and manufactured homes. May include some two-family homes and open space within or adjacent to or related to a residential development.

**Vacant:** Undeveloped areas that do not serve a commercial, industrial, institutional, agriculture, or residential purpose.

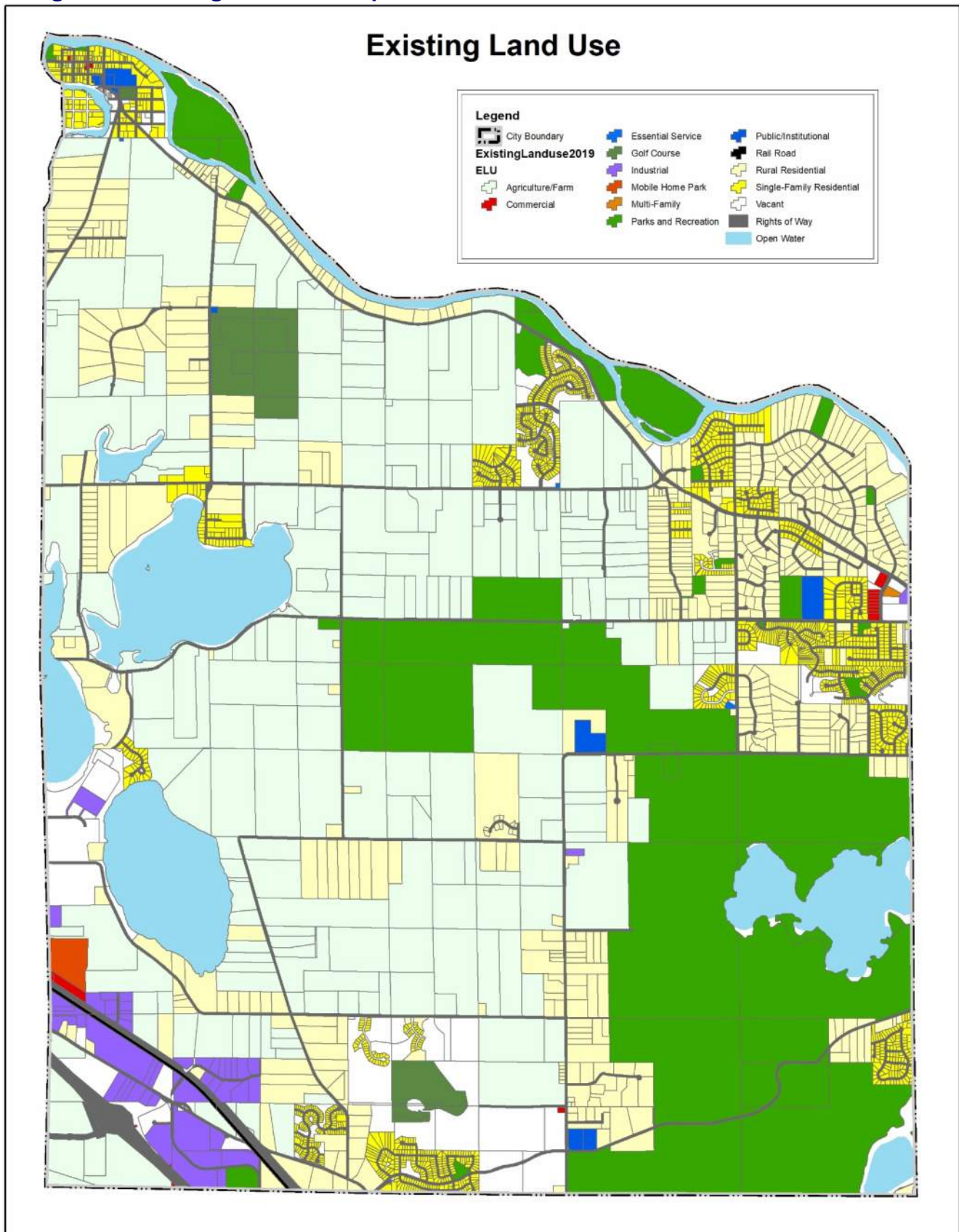
**Open Water:** Permanently flooded open water, rivers, and streams, not including wetlands or periodically flooded areas.

**Right-of-Way:** Public or private vehicular, transit, and/or pedestrian rights-of-way.

**Table 1. Existing Land Uses**

Land Use	Acres	Percent
Agriculture/Farm	5767	35.93%
Commercial	20	.12%
Essential Service	2	.01%
Golf Course	172	1.07%
Industrial	284	1.77%
Mobile Home Park	32	.20%
Multi-Family	3	.02%
Parks and Recreation	3,143	19.58%
Public/Institutional	61	.38%
Rail Road	22	.14%
Rural Residential	2,679	16.69%
Single-Family Residential	748	4.66%
Vacant	825	5.14%
Open Water	1,556	9.69%
Right-of-Way	739	4.60%
<i>Total</i>	16,052	100%

Figure 1. Existing Land use Map



## Community Designation

The Metropolitan Council designates Dayton as an Emerging Suburban Edge community which is characterized as a community transitioning from rural to developed (see Figure 2).

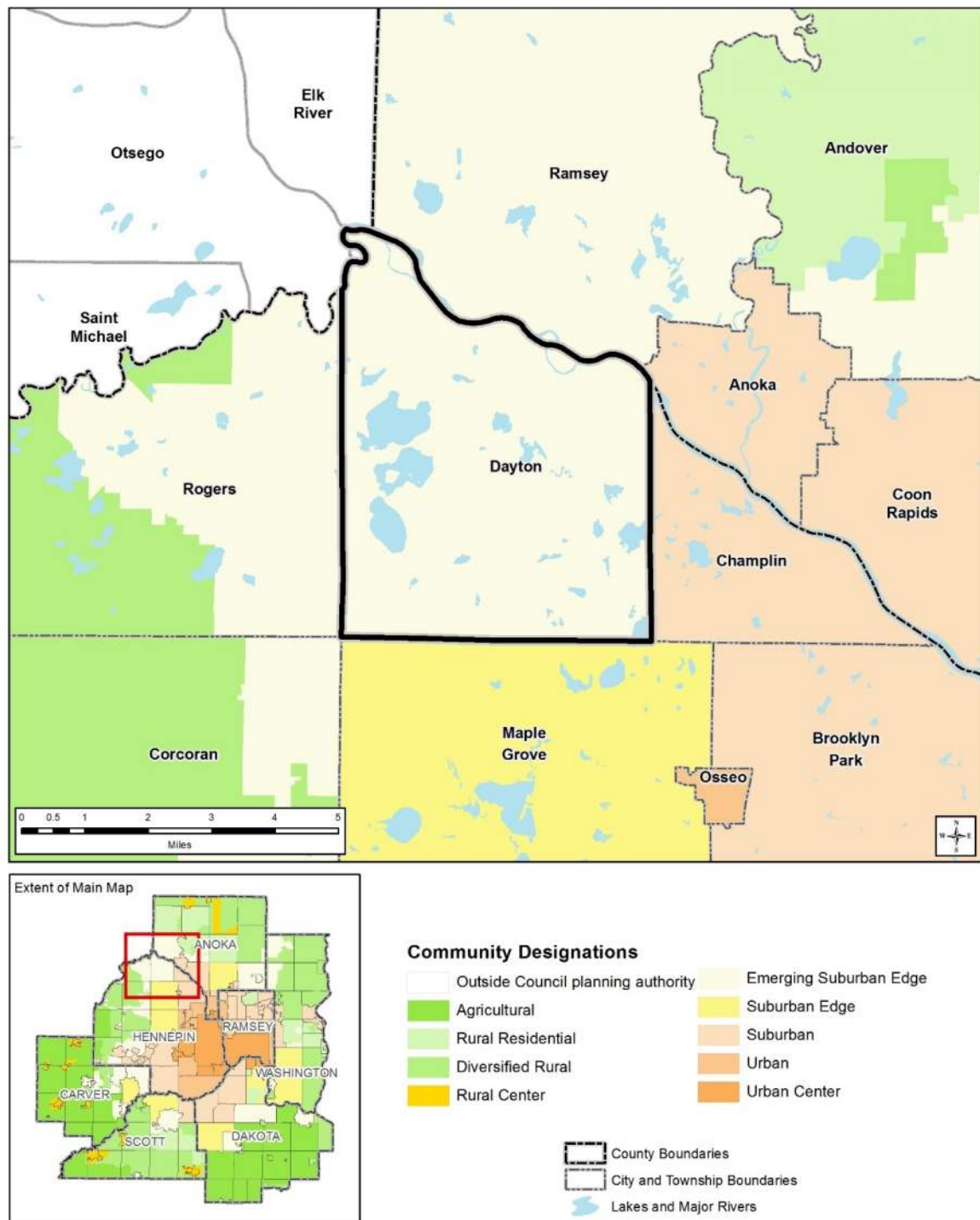
Communities designated as Emerging Suburban Edge are expected to plan for forecasted population and household growth at average densities of at least 3-5 units per acre for new development and redevelopment. See the figure on the following page depicting the community designation and surrounding community's designations.

The Future Land Use Plan has been prepared to respond to community goals and future needs of the region in the following ways:

- The plan identifies areas of high-density residential uses at densities of 12 units per acre or more to provide a mix of housing options for residents and to create opportunities for affordable housing in the City. The plan provides for approximately 1,140 additional units at a density of 12 units per acre or more within the Current, 2020-2030, and 2030-2040 staging decades.
- The plan designates areas for mixed-use development to accommodate retail, commercial/office, and housing which will improve access to jobs and other services and opportunities. The Future Land Use Plan includes 233 net acres of mixed-use.
- The plan designates higher density housing opportunities along major transportation corridors and in close proximity to the new Dayton Parkway Interchange (to be constructed in 2020) For example, the City has planned a large area of mixed-use south west of the interchange (that would support higher density housing) and medium and high density residential uses along the I-94/Hwy 81 corridor which will also provide opportunities for future transit supported residential.
- The plan achieves a minimum net density of 3.0 units/acre to ensure the region's infrastructure capacity matches the City's Community Designation of Emerging Suburban Edge.
- The plan provides for commercial and industrial land uses in close proximity of the Dayton Parkway Interchange and major roadways. These land uses will increase opportunity for local job growth and provide for a more balanced land use as non-residential uses are constructed therefore relieving the tax burden on residential properties.

**Figure 2. Community Designations**

**Community Designations  
City of Dayton, Hennepin County**

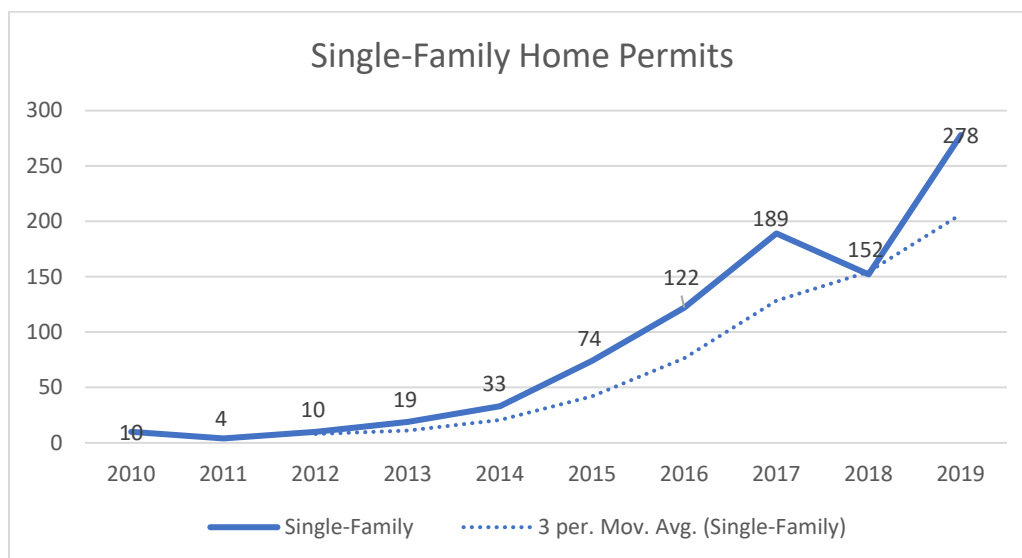


## Forecasts

Together with community designations the Metropolitan Council provides forecasts for growth for all communities. These forecasts are issued in 2015 at the very beginning of the 10-year comprehensive update process therefore forecasts for Dayton are behind compared to how actual development has progressed.

**Table 2: Community Forecasts**

Forecast Year	Population	Households	Employment
2010	4,617	1,619	921
2018	6,072	2,158	1,230
2020	5,900	2,000	2,000
2030	7,900	3,200	2,490
2040	10,400	4,400	3,000



Based on table 4 below, Dayton can demonstrate more than sufficient net acres are guided for residential through 2040 to accommodate Metropolitan Council's forecasts. What is more important to city policy makers is to control the timing and progression of growth in a manner that is suitable so that the city can provide all necessary resources to support growth.

## Future Land Use Plan

Dayton's Future Land Use Plan will provide a guide for managing future development pressure and growth by determining future land uses, development intensity, and areas for environmental protection. This chapter will incorporate growth management strategies for the City to ensure that adequate infrastructure is in place to accommodate new growth. The City supports new development but wants to ensure that growth can be accommodated wisely and in an orderly fashion, while protecting the many natural resources that make Dayton a unique location.

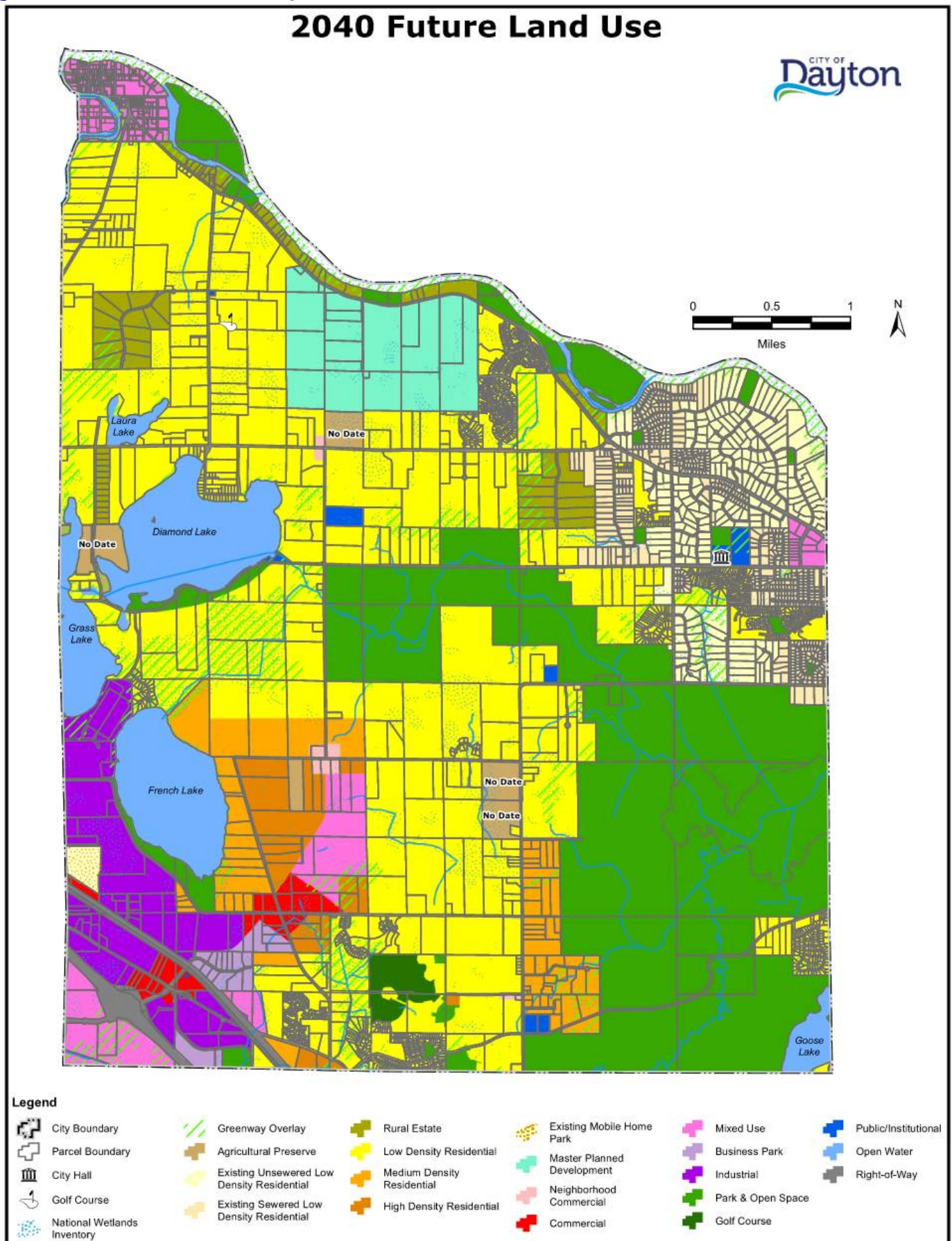
The Future Land Use Plan includes guidance for all land use types including a variety of residential. Each residential land use category has an associated density, which was multiplied by the number of net acres to determine potential growth in household units. The land use plan must have enough land to meet forecasted growth. It is to the City's benefit to plan for a variety of land uses and densities to ensure the greatest opportunity in housing choice, along with new commercial and industrial growth. This is the City's opportunity to express its plan for growth. However, it is important to understand that these numbers represent the total potential in units if all land areas develop at the minimum densities permitted. When related to future regional system capacity, the Metropolitan Council bases their maximum forecast potential review to ensure that growth can be accommodated, particularly when forecasting for sanitary sewer needs.

The table below describes the planned land uses for the 2040 Comprehensive Plan. Figure 2 below illustrates the planned future land uses for the 2040 plan horizon.

**Table 3: Land Use Categories**

Land Use Category	Description
<b>Commercial</b>	This category is intended to accommodate general commercial and highway-oriented businesses such as fast food restaurants, convenience stores, gas stations, big box retail, and other auto-oriented businesses. Limited office and service uses are also appropriate, depending on scale and location.
<b>Business Park</b>	This category is intended to accommodate larger office buildings and corporate campus development, as well as light-industrial and office-warehouse development that require larger sites.
<b>Industrial</b>	This category is intended to provide areas for industrial related businesses including manufacturing, warehousing, automotive, trucking, office, and other related industrial uses.
<b>Public Institutional</b>	This category is primarily intended to provide religious, governmental, and/or education facilities.
<b>Mixed Use</b>	This category is intended to provide a mix of residential, commercial, office, service (hotel, restaurants, etc.) and light industrial land uses depending on the location of each mixed use area. The Mixed Use area southwest of the interchange will allow for the greatest variety of users to respond to the market and new access to I-94. Typically, mixed-use development will include townhomes, low- and high-rise apartments, retail buildings, and offices. Development is often stacked (but not required), consisting of main floor retail space with office or housing units located above. Residential density shall occur at an average of 12 units/acre. Each mixed-use area will have a corresponding ordinance that address the specific goals and uses for each unique mixed use area.
<b>Existing Sewered Low Density Residential</b>	This category accounts for existing residential development in the City of Dayton at lower densities in the northeast quadrant of the City that is served by sewer. The average density for this area is approximately 1.18 units/acre
<b>Existing Unsewered Low Density Residential</b>	This category accounts for existing residential development at very low densities in the northeast quadrant of the City. Before providing wastewater to any of these parcels, the City will need to submit a Comprehensive Plan Amendment.
<b>Low Density Residential</b>	This category identifies areas for single-family residential development at a minimum density of 2 units/acre up to 5 units/acre. The city encourages developments with a variety of lot sizes and housing styles to meet life-cycle housing demands.
<b>Medium Density Residential</b>	This category is intended to provide for townhome development, multiplex development, and row-homes at minimum density of 5 units/acre up to 12 units/acre
<b>High Density Residential</b>	This category is intended to accommodate the development of multiplex and low- to high-rise apartment buildings or condominiums. Development will occur at a density of 12 units/acre or greater. Architecture and landscaping is important in high density residential areas to ensure that development is appropriate and consistent with the community's character.
<b>Master Planned Development</b>	This unique land use will allow the city to work with a developer to create master planned community of approx. 500 acres. The master plan is expected to include a mix of residential density and types coupled with neighborhood commercial uses. The City will be expecting the development to provide unique community amenities and dedicated park land. A specific zoning district will be created for the master plan development and the minimum residential density will be at least 3 units/acre.
<b>Rural Estate</b>	This designation is applied to existing neighborhoods that have developed as larger estate lots on private septic. These platted developments were approved with the intention of providing for a rural style unsewered lot and neighborhood. The development pattern is not well suited to expand sewer and water infrastructure efficiently due to the lot size, presence of wetlands, woodlands, location of principle building and in some areas proximity of existing sewer. As these lots are on private septic they will not be included in overall density calculations.
<b>Agricultural Preserve</b>	These parcels are enrolled in the Agricultural Preserve program. Density in this district is limited to 1 unit per 40 acres.
<b>Manufacture Home Park</b>	This category identifies an existing manufactured home park with approximately 246 units at 7.68 net units/acre. It is anticipated that if the park were to ever change use that the future use would be industrial consistent with surrounding future land uses. This change would be accomplished through a comprehensive plan amendment.
<b>Park and Open Space</b>	This category is intended to provide areas of public or private ownership that will remain undeveloped or with limited development serving a recreational purpose that will be permanently preserved for the important recreational or ecological benefits provided to the region. This area includes the Elm Creek Park Reserve.
<b>Golf Course</b>	This category area is intended to identify existing and/or planned golf course facilities.
<b>Open Water</b>	This category provides permanently flooded open water, rivers and streams, not including wetlands or periodically flooded areas.

Figure 3: Future Land Use Map



## Average Net Residential Density

As mentioned previously the Metropolitan Council has designated Dayton as an Emerging Suburban Edge community. Residential land use densities planned for new development shall average a net density of at least 3-5 units per acre. The average net density planned for sewerer residential development is 3.05 units per acre as described in Table 3 below.

**Table 3: Future Land Uses**

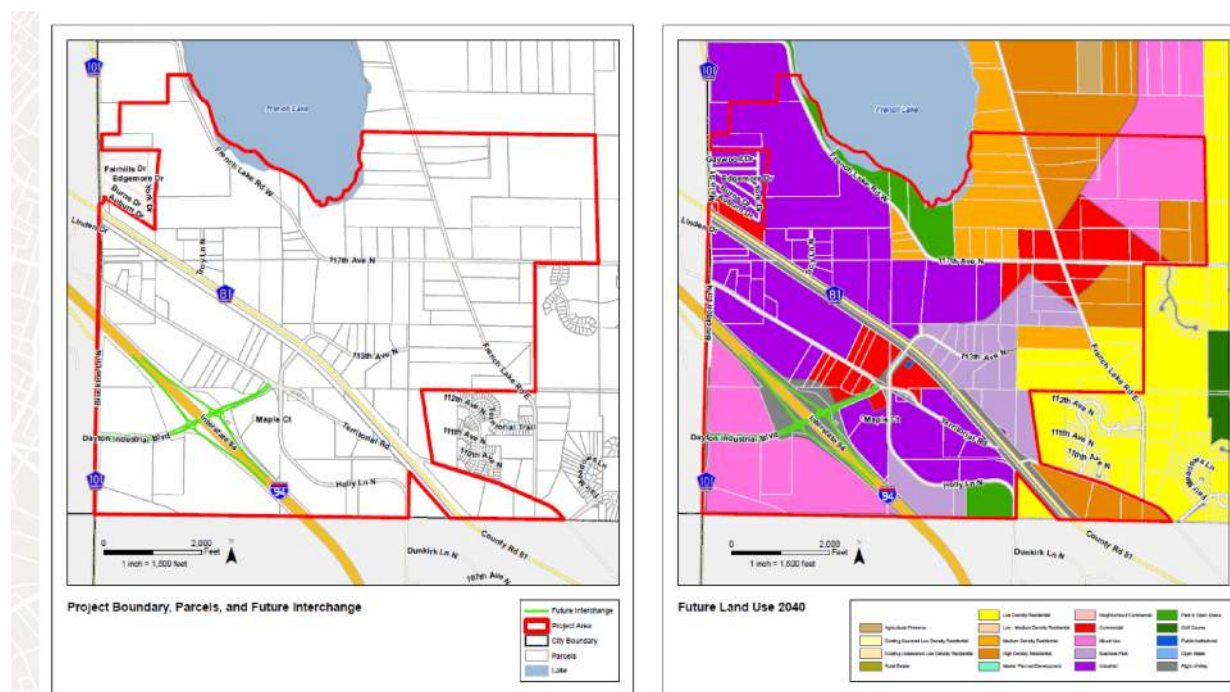
FLU	GROSS ACRES	DEVELOPABLE ACRES	Minimum Density	Unit Capacity
<b>SEWERED RESIDENTIAL</b>				
Low Density Residential	5,675	3,965	2.0	7,929
Critical Area - Low Density Residential	156	122	2.0	244
Medium Density Residential	606	469	5.0	2,345
High Density Residential	265	197	12.0	2,352
Master Planned Development	575	476	3.01	1,434
Mixed Use	411	244	12.00	2,923
Critical Area - Mixed Use	70	46	2.00	92
Existing Sewered Low Density Residential	394	374	1.18	441
Critical Area - Existing Sewered Low Density Residential	48	40	1.18	47
Existing Mobile Home Park	32	32	7.60	246
<b>Units Total</b>				<b>18,063</b>
<b>Avg. Density</b>				<b>3.03</b>
<b>UNSEWERED RESIDENTIAL</b>				
Agricultural Preserve	183	112	-	-
Existing Unsewered	672	493	-	-
Rural Estate	379	230	-	-
<b>NON RESIDENTIAL</b>				
Neighborhood Commercial	29	28	-	-
Commercial	127	99	-	-
Business Park	102	83	-	-
Industrial	630	513	-	-
Golf Course	85	37	-	-
Park and Open Space	3,529	1,651	-	-
Public Institutional	71	65	-	-
Open Water	1,300	-	-	-
Notes: The calculations take all approximate land use by acres its corresponding minimum density regardless of whether or not it has been platted. The staging table below takes into account plats. Developable acres in Sewered and Unsewered Residential areas nets out approximate wetlands and park land. Non Residential nets out wetlands only.				

The Metropolitan Council requires communities to assume development at the minimum density of each land use when projecting net residential density. In reality, some development may occur within the allowed range, higher than the minimum. This will result in the ability to allow other development to be lower than minimum in areas where natural resources are located and future development patterns are designed to protect these resources.

The existing Manufacture Home Park in southwest Dayton has a unit capacity of approximately 246 units with an overall net density of 7.68 units per acre. This area may have limited ability for expansion.

### Southwest Dayton Small Area Plan

The City is currently working on a small area plan (study area outlined below) and market research study for southwest Dayton. Upon completion of the study some adjustments may be considered to land use to help Dayton reach its competitive advantage when the interchange opens.



### Redevelopment Priority Areas

The city has three high priority areas where development and redevelopment opportunities will be encouraged in order to expand the tax base and create opportunity for local jobs. Southwest Dayton will be an area of change over the next planning period for new development and possible redevelopment of older industrial properties with the opening of the Dayton Parkway Interchange in 2021. As mentioned above this area is being studied and a small area plan will be created. This will be followed by preparation of a Mixed-Use zoning district specific to SW Dayton. Updates to other districts are also possible to allow for uses based on market study while ensuring standards result in the highest quality development.

Balsam Lane is another area of redevelopment potential. This area was re-guided Mixed Use in in previous updates. Vacant land as well as older commercial spaces occupy the district. The Balsam Lane Apartments were constructed in 2017 as the first redevelopment under the mixed-

use zoning. Streetscaping was completed at the same time. The city will encourage a mix of uses within this development area.

Finally, the Historic Village in northwest Dayton is a focus area. This enclave was studied in the 2030 plan and will remain a focus for future redevelopment once available extension of sewer and water are possible to expand uses including residential and village oriented commercial uses. The city will consider purchase of key properties on the riverfront for future redevelopment.

## Future Land Use Plan Principles

The Future Land Use Plan guides the development of Dayton through 2040 (and beyond) and will be used to implement the City's goals, strategies and policies. The Plan is guided by goals listed earlier in this chapter and furthered by the following principles:

### Development Patterns and Neighborhood Form

- Encourage open spaces, parks and trails in all neighborhood developments. Community input and surveys indicate that a high quality of life is found when residents have visual access to green spaces and close proximity to a variety of park experiences.
- Create neighborhoods with a variety of housing types that are well connected with roads, trails or sidewalks. Even in low density land use areas new developments can meet life-cycle housing needs with a mix of small lot single family and villas, more traditional larger two -story single family and even attached townhomes within a single neighborhood.
- Recognize neighborhood characteristics and promote new development compatible in scale, architectural quality and style with existing neighborhoods.
- Guide density to areas with proximity to existing infrastructure and future infrastructure availability.
- Concentrate higher density development near major roadways and service-oriented businesses to help promote walkability.
- Consider planned development in surrounding communities when making land use decisions in the City.

### Open Spaces and Natural Resources

- Preserve natural resources throughout the community and provide educational opportunities to residents to help them understand the value of natural areas.
- Preserve open spaces and natural resources.
- Protect wooded areas through implementation of the tree preservation ordinances and encourage improvement of existing resources and reforestation.
- Support the guidelines identified in the Natural Resources chapter to preserve the City's natural systems and the Mississippi River Corridor Critical Area Plan.

### Business Districts and Commercial Areas

- Focus service businesses and development near urban residential densities and along primary transportation corridors.

- Provide connections between residents and commercial areas and promote businesses within mixed-use areas.
- Work to create job opportunities in the community within commercial and industrial guided areas for Dayton residents to reduce traffic and commuting demands.
- Emphasize service and retail uses which serve the needs of the local community and provide opportunities for the community to gather.

## Staging

The Metropolitan Council requires Emerging Suburban cities to provide the anticipated rate of growth based on ten-year increments. Development of such a staging plan provides several benefits to the City.

- A staging plan creates orderly logical growth pattern based on development patterns and availability of infrastructure
- Allows for a connected transportation network
- Clearly defines timing at which land is available for development
- Allows the City greater control over the pace and location of new development combined with providing necessary services where each staged development will occur and when it occurs
- Provides greater ability to plan, budget, and set goals for future development based on the Staging Plan

The Staging Plan was developed to guide the contiguous pattern of growth (Figure 4 Staging Plan below) based on current development patterns and availability of infrastructure. The Staging Plan illustrates the city's "serviced areas" or parcels with sewer. In the 2030 plan these parcels were included in "current". The staging plan identifies "developing" parcels which have already received concept plan, preliminary or final plat approval. The "Current" staging category is all remaining developable land in closest proximity of sewer service. It is the city's desire that this land be developed prior to opening the next staging area. Since the 2030 plan, Dayton has chosen to create a more realistic staging plan with fewer acres in the 2020, and 2030 staging areas.

The ten-year staging areas are patterned by how the city is developing from three corners with, northeast and south being most active. While a majority of the City will eventually be served by Metropolitan Council sewer interceptors, a small area in the northwest corner of Dayton has been served by Otsego service, as reflected on the Staging Plan. This northwest area is not planned for sewered development beyond what has been served by Otsego until both water and sewer capacity is available.

The Staging Plan translates to a development pattern in the northeast corner of the City occurring from east to west and north to south as infrastructure is constructed. Conversely, development in the south/southwest corner of the City is planned to occur from south to north and west to east as infrastructure is constructed.

The goal of the Staging Plan is to manage growth and guide the orderly and cost-effective provision of infrastructure at a rate that is consistent with forecasted growth, while responding appropriately to market conditions. The plan indicates the sequence of growth and anticipated timing while balancing development pressure between north and south Dayton. The City will assess market conditions and land capacity to determine when the next

staging area will be open for development. The Staging Plan cannot force development to occur, but can be used as a tool to guide development appropriately. It should be clear that while there are legitimate reasons why cities should stage and time growth in an orderly and contiguous manner, there is nothing about adopting a staged growth plan that forces any private property owner to sell their land before they wish to do so.

Future land uses are broken down by staging areas and presented in Table 4 (Forecast By Staging). Density assumptions were also included to estimate the potential number of units to be accommodated in each staging area. It is important to note that like the Future Land Use Plan, the Staging Plan forecasts are based on total potential units. Table 4 represents the City's best estimate of the timing of future growth.

Figure 4: 2040 Staging Plan

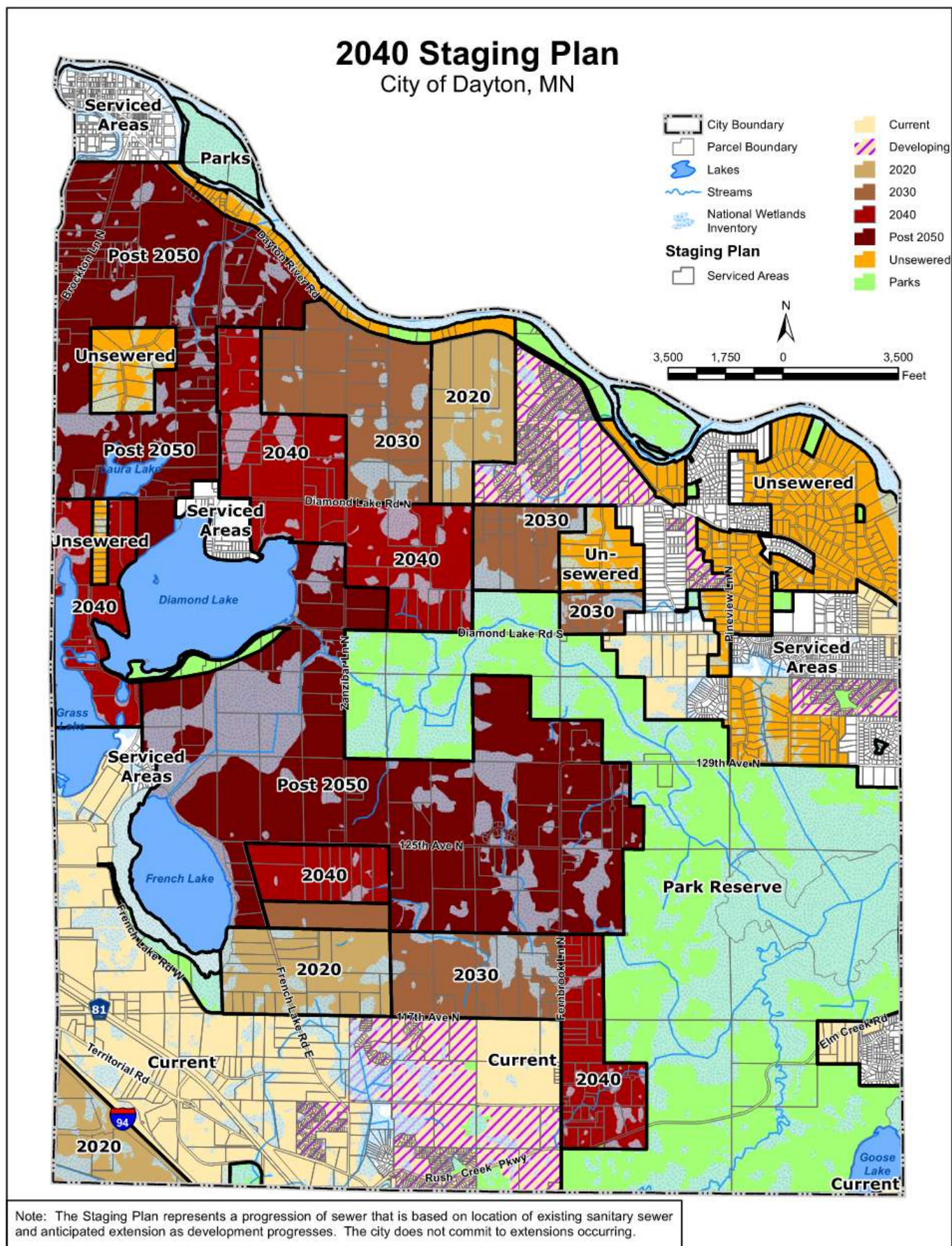


Table 4: Staging and Sewered Residential Land Use

Staging	2040 Land Use	Gross Acres	Net Acres	Park Dedication*	Net Developable Acres	Minimum Density (units/acres)	Unit Capacity
Current	Existing Sewered Low Density Residential	7	7	0	7	1.18	7
	Existing Mobile Home Park	32	32	0	32	7.64	246
	Low Density Residential	474	381	38	343	2.00	686
	Medium Density Residential	39	36	4	33	5.00	163
	High Density Residential	50	25	3	23	12	271
	Mixed Use	61	46	5	42	12.00	251
Sub Total		663	527	50	480	-	1,624
2020-2030							
	Low Density Residential	38	29	3	26	2.00	51
	Medium Density Residential	86	64	6	58	5.00	291
	High Density Residential	71	53	5	48	12.00	575
	Master Planned Development	222	202	20	182	3.01	547
	Mixed Use	227	122	12	110	12.00	662
Sub total		644	470	46	424	-	2,129
2030-2040							
	Low Density Residential	651	502	50	452	2.00	903
	High Density Residential	43	42	4	38	12.00	458
	Master Planned Development	315	291	29	262	3.01	788
	Mixed Use	29	29	3	26	12.00	155
Sub total		1,038	864	86	778	-	2,306
2040-2050							
	Low Density Residential	784	630	63	567	2.00	1,134
	Medium Density Residential	243	212	21	191	5.00	957
	High Density Residential	97	95	10	86	12.00	1,028
	Master Planned Development	38	36	4	32	3.01	98
	Mixed Use	40	32	3	29	12.00	172
Sub total		1,202	1,005	101	904	-	3,389
Post 2050							
	Low Density Residential	2783	2090	209	1,881	2.00	3,762
	Medium Density Residential	239	207	21	187	5.00	933
Sub total		3,022	2,297	230	2,067	-	4,695
Developing**							
	Low Density Residential	835	721	72	649	2.3	1823
	High Density Residential	4	3	0	3	12.00	36 – 100
Sub total		839	724	72	651	-	1,859
Served***							
	Existing Sewered Low Density Residential	430	403	40	362	1.18	428
	Low Density Residential	266	187	38	149	2.5	343
	Mixed Use	124	92	9	82	12.00	495
Sub total		820	681	87	594	-	1,266
Total		8,228	6,568	672	5,898	3.00	17,268
Notes: *Park dedication is based on requiring 10% of land dedicated to public purposes. This is an estimate and park needs are likely to fluctuate based on park search areas and changing park needs or the City acquiring park land outright. **The Developing category are those areas which have been recently platted and utilizes actual unit counts. *** The Served area is an approximation of neighborhoods which have been sewerred and are developed to their potential within the 2040 planning horizon, however some infill development may be possible outside of the 2040 planning scope.							

## Growth Management

During the preparation of the Comprehensive Plan update, the City, along with the Comprehensive Plan Steering Committee, City Council, and Planning Commission, thoroughly considered how best to implement many of its new plans for sewer expansion, major transportation initiatives, park expansions/ improvements, and accommodation of forecasted growth in an efficient manner. Through this analysis, the City has determined that managing growth through the orderly provision and expansion of infrastructure and other means is in the best interests of the public to ensure growth is orderly, efficient, and environmentally sound.

The purpose of a growth management policy is to ensure adequate staff and administrative capacity to conduct the permitting and construction supervision processes. During these processes, staff is responsible for ensuring that the purposes of the Comprehensive Plan and the standards and requirements contained in supporting codes and ordinances are met, that all of the necessary public infrastructure and services are either in place or shall be built concurrently, and that the proposed development shall not place a disproportionate economic burden on the community. These essential tasks require a significant amount of time and effort, and it is essential that City Staff has adequate capacity and expertise to ensure that these items are completed effectively and consistent with City policies and regional and state laws, policies, and regulations.

To help control the progression of growth, the City will create a Growth Management Policy, as a comprehensive plan implementation step, that will manage pace of development that can occur annually in each staging year. The City recognizes that certain areas of the City may develop at a faster rate than others; therefore, the City wants to ensure that future guidelines are in place to help assess when it is appropriate to open the next staging area, regardless of the stated year on the staging plan. The development of the policy is intended to reinforce the Staging Plan and also provide for flexibility to market conditions. The policy will provide a tool to ensure that adequate infrastructure is in place and adequate services can be provided to meet growth demands.

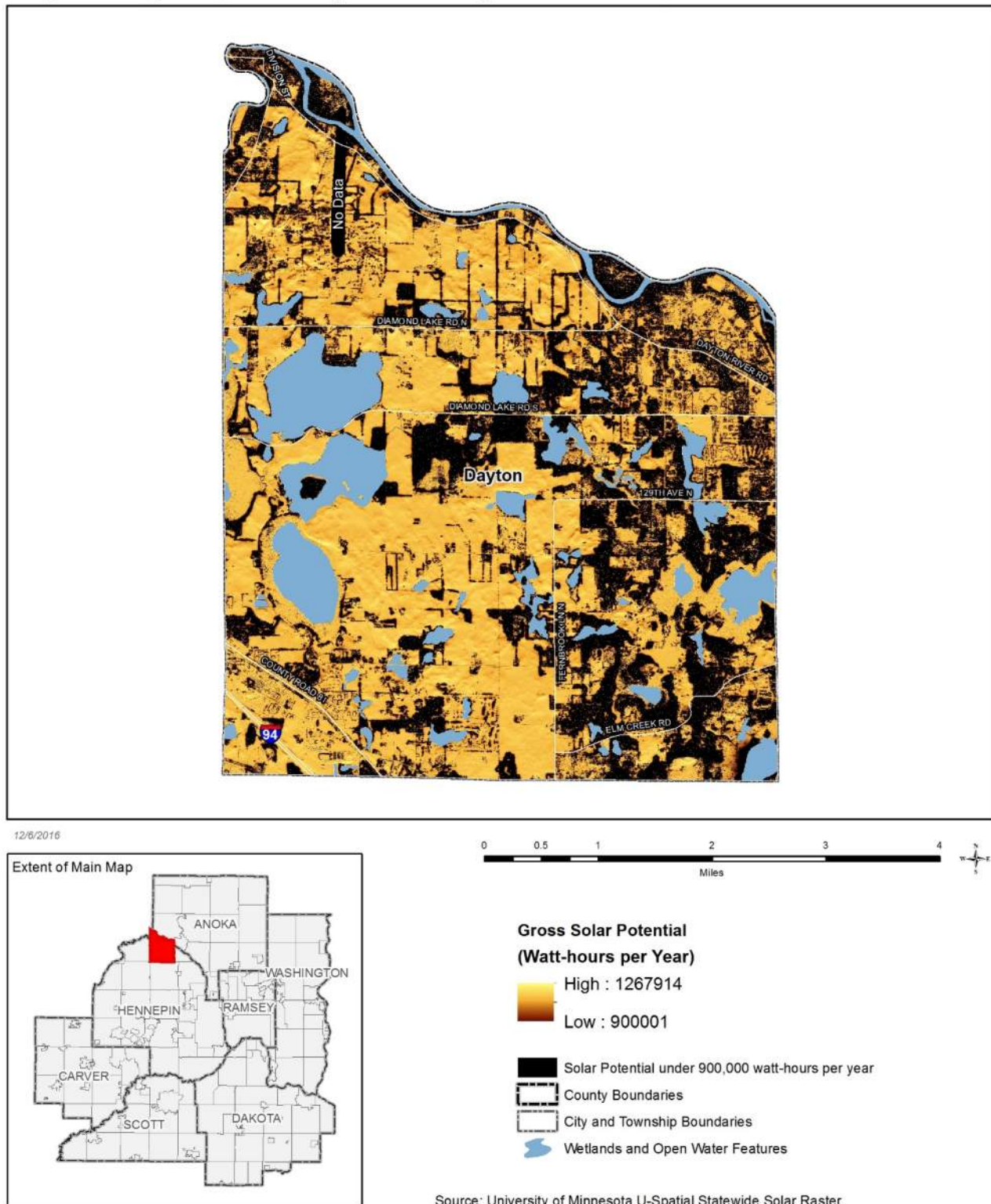
As required by state statute, a municipality's Comprehensive Plan must also include strategies for protection of special resources including solar access, historic preservation, aggregate, and Critical Area. These strategies are discussed below.

## Solar Access

Minnesota Statutes require an element for the protection and development of access to direct sunlight for solar energy systems. The purpose of this legislation is to prevent solar collectors from being shaded by adjacent structures or vegetation and to ensure that development decisions do not preclude the possible future development and use of solar energy systems. To ensure the availability of solar access, the City of Dayton will, whenever possible, protect access to direct sunlight for solar energy systems on principle structures and to ensure that the zoning code provides means for residents to utilize solar for their home use. The City of Dayton will consider solar access in the review of site plans and planning decisions. The figure below shows Dayton has high solar potential.

Figure 5: Solar Potential in Dayton

## Gross Solar Potential City of Dayton, Hennepin County



## Aggregate Resources

The Metropolitan Council requires cities to identify the location of aggregate resources within the community based on the Minnesota Geological survey within the Comprehensive Plan. No aggregate resources were identified in the City of Dayton.

## Natural Resources

The City contains many ecologically significant natural resource areas that provide value to all residents by providing natural beauty and wildlife habitat, improving water quality and adding to land values. These natural areas are described in further detail in the Natural Resource chapter but merit discussion from a land use and development perspective.

The City has an extensive network of wetlands and lakes that significantly impact the developable areas in the City. Woodland areas are located throughout the community, including a number of remnants of the Big Woods along with many other significant stands. The community has made conscious choices to preserve and protect the natural areas and to improve their quality. Because a large percentage of the land area in Dayton is comprised of lakes and wetlands (nearly 12,400 acres) and many of these areas are under private ownership, it is critical for the City to educate residents about the importance of maintaining healthy wetlands, woodlands and lakes.

These natural features comprise the City's green infrastructure system; the City's natural support system that promotes healthy sustainability of the community. As the City grows, the natural areas will be a critical element of every decision-making process. The City undertook an extensive natural resource and open space planning effort in 2008 that has been a foundation for land use decisions. The Natural Resource Chapter indicates the ecologically significant areas that require protection and the areas that will be conserved as development occurs are shown on the Land Use map as the Greenway Corridor. Where possible, the City seeks to connect new development areas to the natural resources to better connect residents to nature. Additionally, the City's Natural Resources goals (found in the Natural Resources Chapter), outline how the City will conserve high value natural resources as development occurs.

Dayton is also within the Mississippi River Corridor Critical Area (MRCCA). See the appendix for the City's plan to conserve this important resource through its MRCCA Plan.

CITY OF DAYTON  
2040 COMPREHENSIVE PLAN  
Chapter 6: Economic Development

## Introduction

The purpose of this chapter is to identify strategies to increase commercial and industrial development in the City of Dayton. The City is beginning to see an increase in commercial and industrial growth and interest due to the imminent construction of the Dayton Parkway Interchange. However, there are still relatively few commercial and industrial businesses located in the City of Dayton compared to surrounding communities. Major employers in the City of Dayton include ADESA Auto Auction (wholesale vehicle sales), King Solutions (warehouse/distribution), ICA Corporation, and the Anoka-Hennepin School District (Dayton Elementary School). Additional commercial and industrial development will provide additional revenue for the City which currently must rely largely on residential property taxes for revenue. The additional tax base provided by commercial and industrial areas will provide funds for additional City services that will be required as the City grows and reduce the tax burden on residential properties.

## Goals and Policies

**Goal 1:** Increase economic growth and development to encourage services and job growth in the community.

**Policy 1:** Encourage new development and redevelopment within southwest Dayton around the Dayton Parkway Interchange.

**Policy 2:** Explore marketing and communication to attract new industrial/commercial development.

**Policy 3:** Expand neighborhood and mixed-use commercial to support growing residential areas.

**Goal 2:** Expand and diversify the City's tax base by encouraging new commercial/industrial development.

**Policy 1:** Directly recruit businesses.

**Policy 2:** support and promote existing businesses and new businesses that are viable and responsive to the need of the community. Create programs to provide financial assistance to retain existing business and attract new business.

**Policy 3:** Encourage business owners to remodel, rehabilitate, and enhance building exteriors.

**Policy 4:** Allow home businesses provided that they are an accessory to the residential use, adhere to the Zoning Ordinance, and do not negatively impact nearby properties.

**Policy 5:** Maintain and promote the Historic Village as an important commercial opportunity.

**Policy 6:** Work with the area's Chamber of Commerce to attract new business to Dayton.

**Goal 2:** Be responsive to market changes and regularly review Land Use Designations to ensure we are flexible to these changes.

**Policy 1:** Complete a market study in the interchange area and update market studies when necessary to update the City's data and be responsive to market change trends.

## Economic Assessment

This section is designated to analyze the current economic status for the city and to provide insight into potential advancement for the City's economic future. The Dayton Parkway I-94 Interchange will provide access to job opportunities in Dayton, and future land use designations will accommodate more positions for career advancement, financial growth, and economic gain.

### Population

**Table 6.1. Population, Households, and Employment**

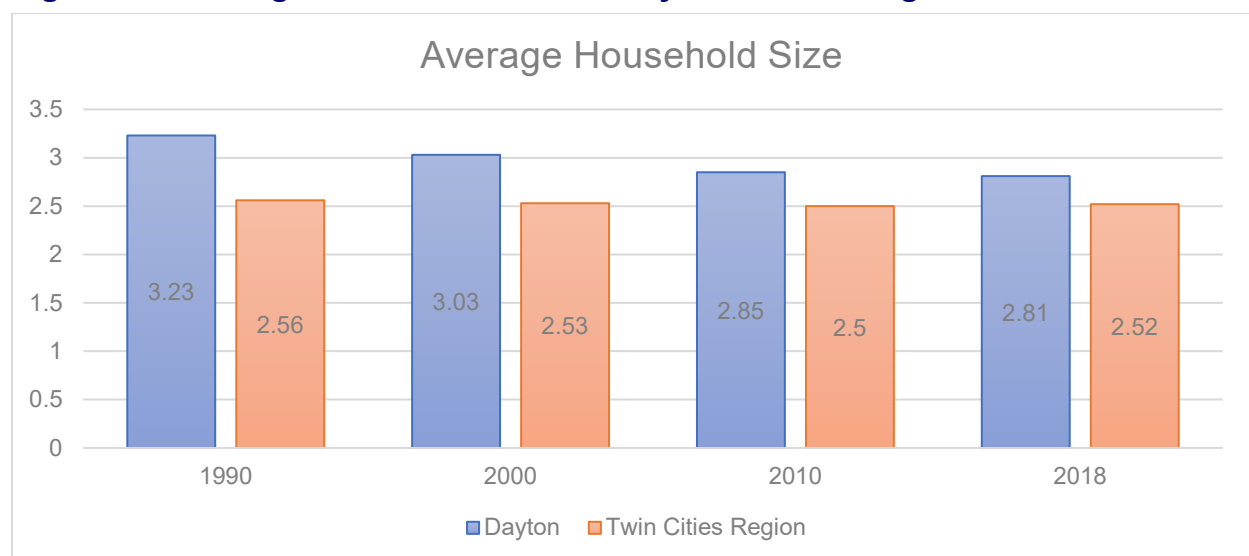
Forecast Year	Population	Households	Employment
2010	4,617	1,619	921
2018	6,072	2,158	1,230
2020	5,900	2,000	2,000
2030	7,900	3,200	2,490
2040	10,400	4,400	3,000

Source: Metropolitan Council, Community Profiles and Annual Population Estimate

Dayton grew by just more than 300 people from 1990 to 2000. In the past several years, the City has experienced more rapid growth. The Metropolitan Council forecasts the City to have a population of 5,900 in 2020, 7,900 in 2030 and 10,400 in 2040. The City is currently outpacing Met Council forecasts for 2020.

Household sizes in the region have been falling since 1990. Dayton is similar in this regard. While Dayton has historically had larger average household sizes than the region as a whole, lifestyle changes, and growing number of older residents has contributed to a fall in household size through the years. See the figure below.

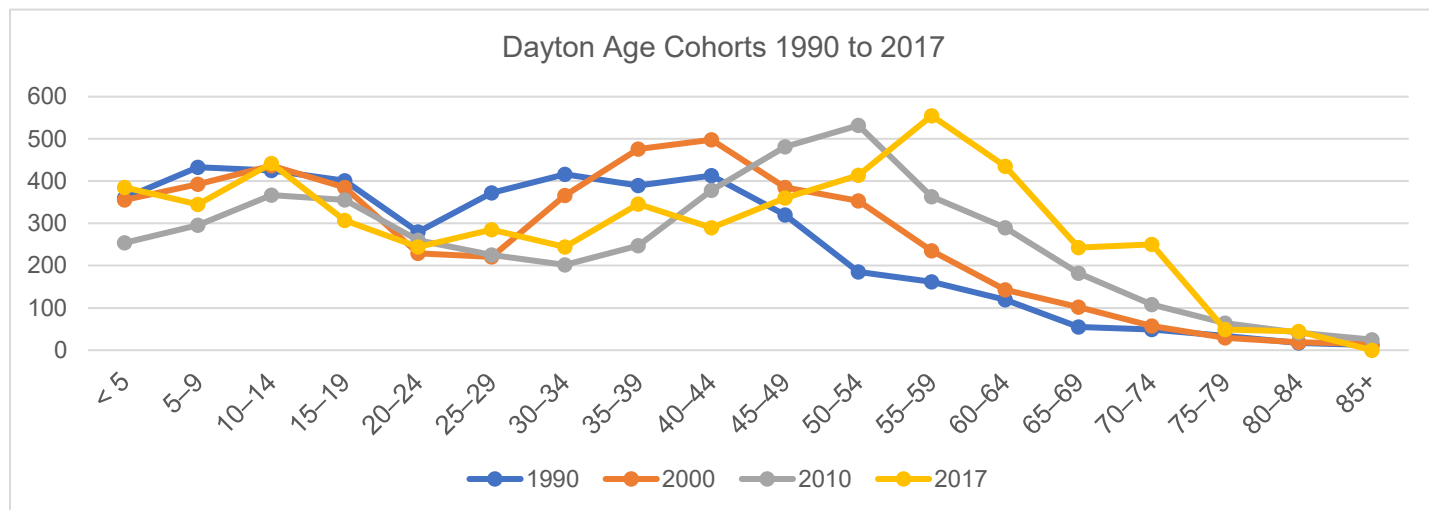
**Figure 6.1. Average Household Sizes in Dayton and the Region 1990 to 2018**



Source: Metropolitan Council, Community Profiles and Annual Population Estimate

Dayton has seen an increase in retirement aged residents and a decline in age cohorts below the age of 25 since 1990. The growth in population of older adults may contribute to differing housing and service needs. See figure below to see the age trends graphically.

**Figure 6.2. Age of Population in Dayton 1990 through 2017**



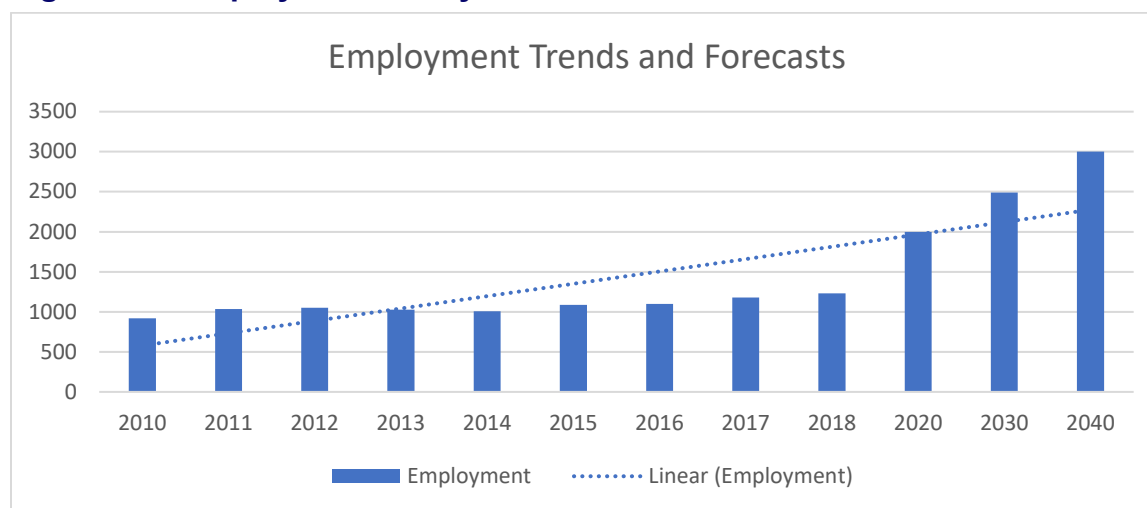
Source: Census 1990, 2000, 2010, and ACS 2013-2017.

As population and households grow, it is important to facilitate economic growth to continue to expand services to a variety residents and household characteristics.

## Employment

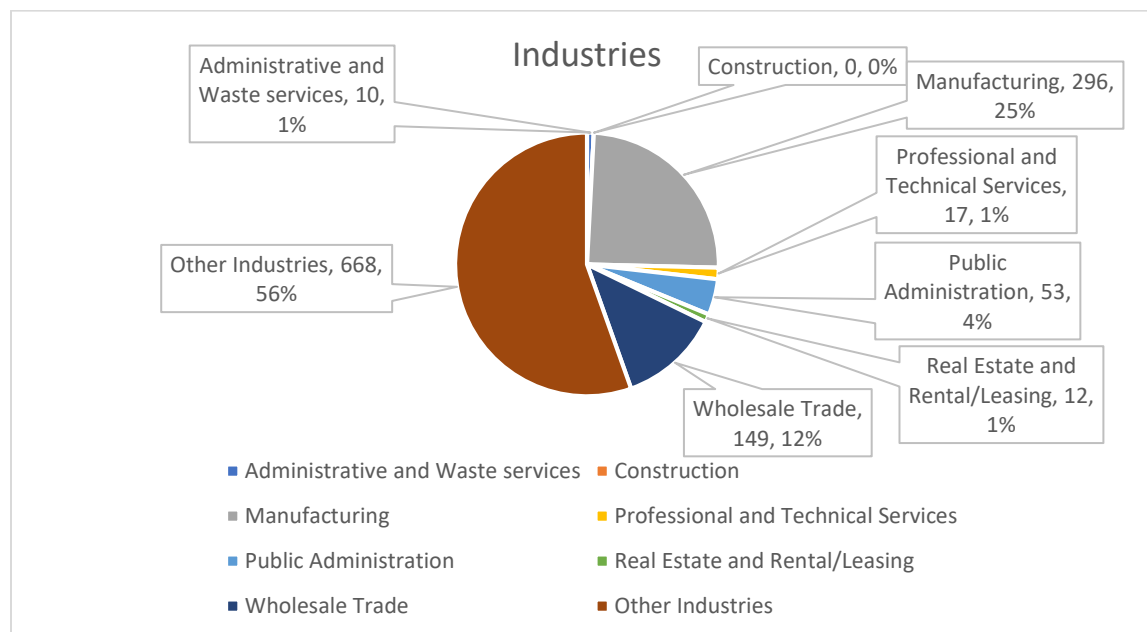
Employment in the City of Dayton has been steadily on the rise for the last two decades, but employment is expected to spike with the development of new industrial and commercial properties. As population rises and the Dayton Parkway Interchange area becomes more attractive to future businesses, the City will experience growth in industrial and commercial tax bases. Figures 1 shows a relatively stable employment number near 1000. Since 2016 Dayton has seen expansion in industrial businesses and a growth.

**Figure 6.3. Employment in Dayton**



The largest employers in Dayton are in wholesale trade and manufacturing following by public administration. Most retail and professional service employment opportunities exist in developed cities such as Maple Grove and Champlin. Figure 2 shows the percentage of employment by industry within Dayton.

**Figure 6.4. Employment by Industry**



### Daily Commute

Many of Dayton's residents commute to their jobs outside of the community, while only approximately 85 employees reside and work in the City. A large portion of other employees live in nearby communities such as Maple Grove, Rogers, and Champlin. Table 1 below provides insight into the city's workforce and their residences. The majority of Dayton residents have a commute distance of between 10 and 24 miles, most commuting to Minneapolis. Dayton could be considered an exporter of workers.

**Table 6.2. Commuting**

Top 10 Work Places of people who live in Dayton	
Work Places	Workers
Minneapolis	330
Maple Grove	188
Plymouth	175
Rogers	134
Brooklyn Park	126
Dayton	85
Anoka	83
St. Paul	81
Eden Prairie	68
Coon Rapids	65
Other	905

Top 10 Residences of people who work in Dayton	
Residences	Workers
Dayton	85
Maple Grove	77
Brooklyn Park	65
Champlin	50
Rogers	49
Minneapolis	44
Coon Rapids	43
Blaine	35
Ramsey	30
Plymouth	29
Other	280

Source: Metropolitan Council and US Census Bureau, 2017

As Dayton's population continues to grow, the City can expect to see a gradual increase in services and retail which cater to residents in Dayton.

## Economic Development Strategies

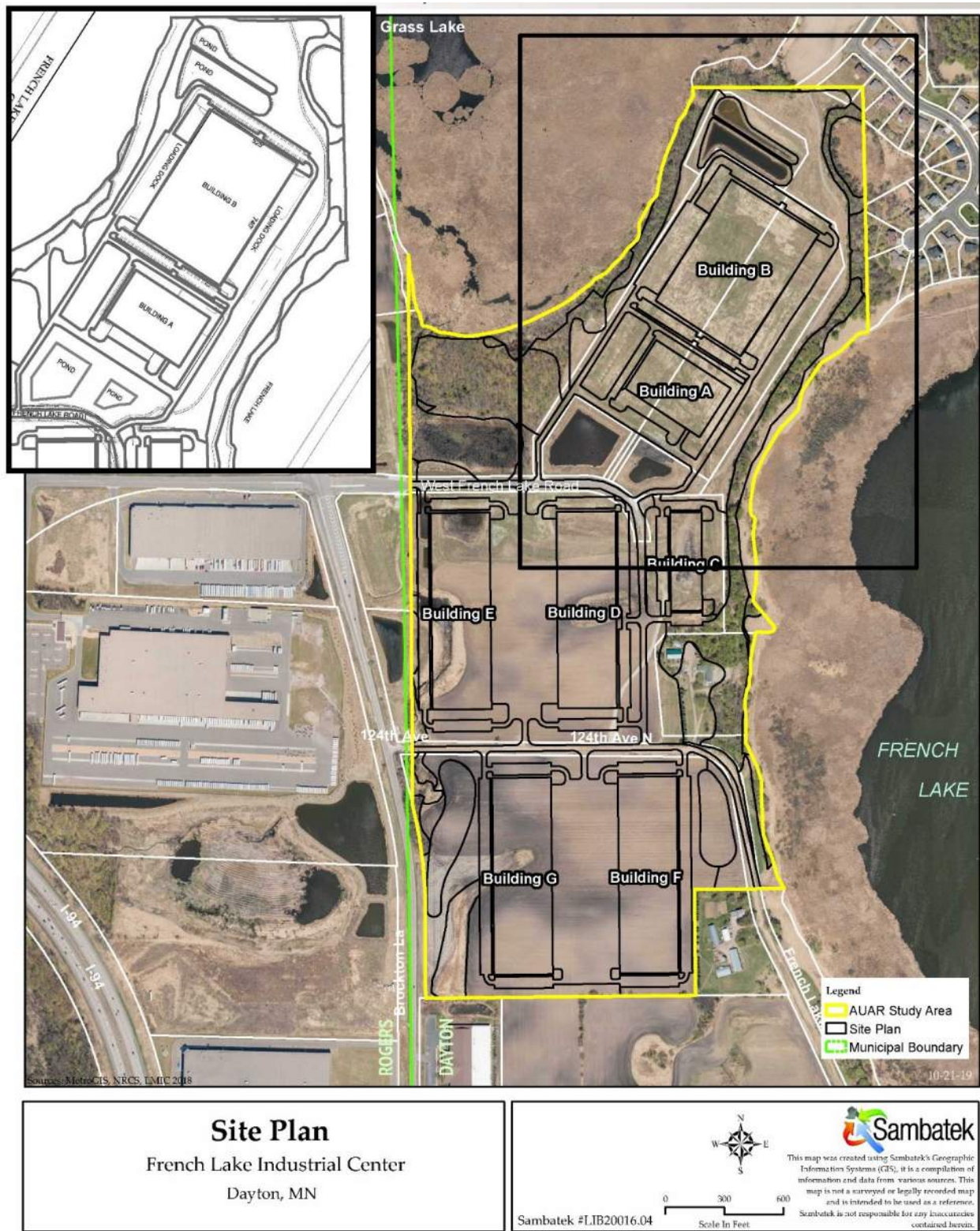
As the City of Dayton grows, demand for commercial and industrial development will increase to promote economic growth. The construction of the Dayton Parkway Interchange will significantly improve access to the city making it a more desirable location for commercial and industrial development. The city has already zoned the much of the surrounding area for industrial, mixed use and business park land uses. Several industrial users have recently located at the Wicht Industrial Park. The French Lake Industrial Park development has also seen increased development with the relocation of Spears Manufacturing to a new facility. The proximity to I-94, available developable land, and need for new industrial spaces in the North West region puts Dayton in a positive position to provide for residents and the region with an industrial space (construction, manufacturing, warehousing).

### Recent Business Development

#### French Lake Industrial Center:

The industrial complex being development by Liberty has an approximate buildout of 1.84 million square feet of industrial/warehousing space. Spears Manufacturing was the first user of the development moving in in 2019. Spears is constructing building A. See Figures 3 and 4 below showing the site and building.

**Figure 6.5. French Lake Industrial Center Site Plan**



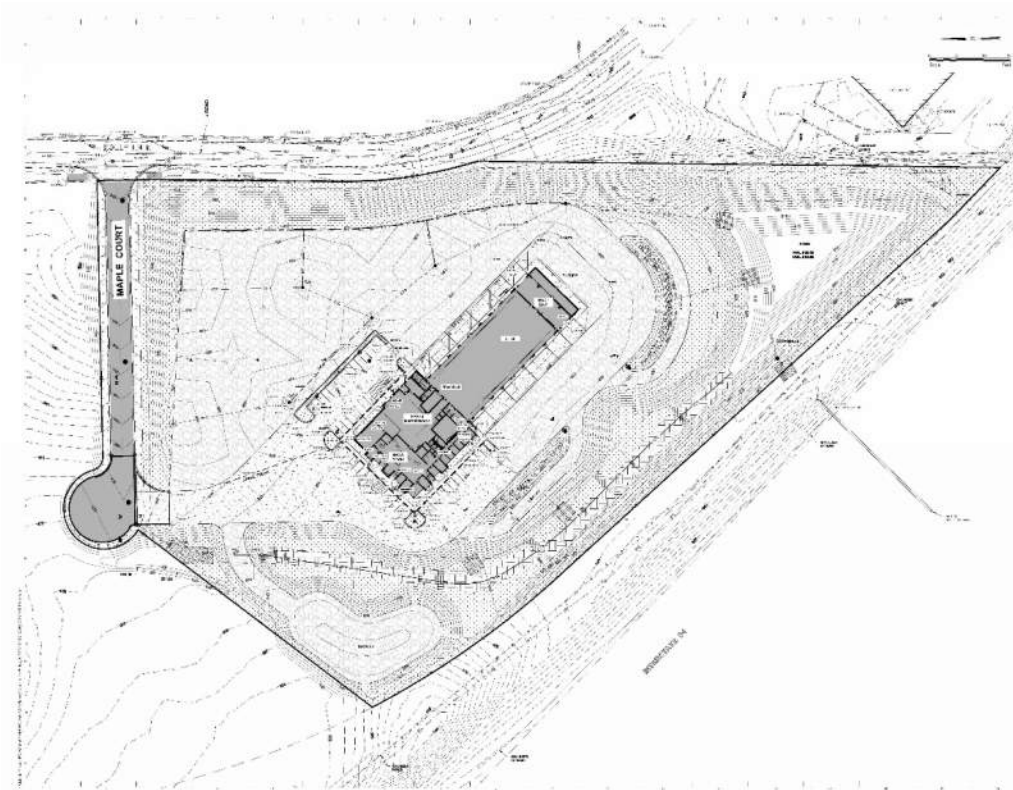
**Figure 6.6. Spears Manufacturing**



**RDO Equipment Co.**

RDO has started construction adjacent to the Dayton Parkway interchange. RDO is a construction equipment repair and sales facility for John Deere and Vermeer. The building is approximately 44,000 gross square feet. See figure 5 to see the site plan for the RDO Complex.

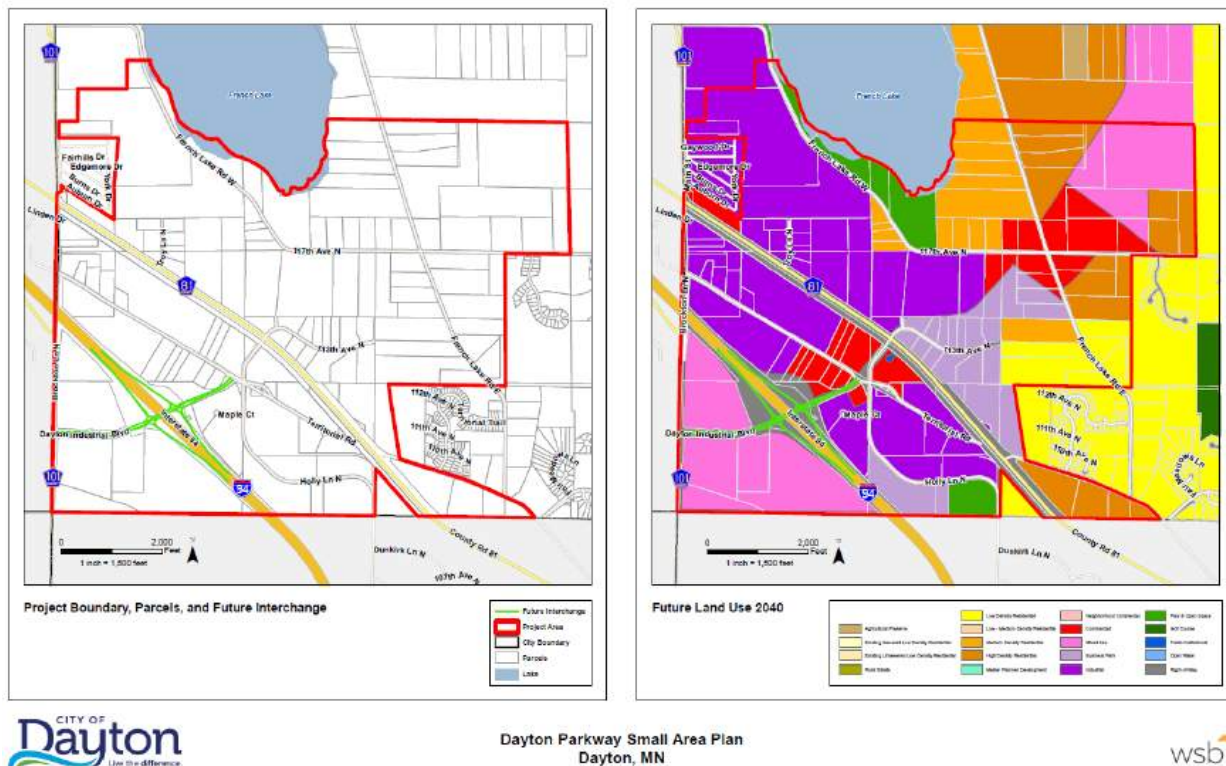
**Figure 6.7. RDO Site Plan**



## Future Development

The City endeavored to have a transparent process for residents, business owners, commission to prepare for the anticipated changes due to this new access the City is completing a market study and small area plan of southwest Dayton to be completed summer of 2020. Based on results of this planning small adjustments in land use may be necessary to best position Dayton for new development. See figure 6 depicting study area.

### Figure 6.8. Market Study Area



Increased industrial development will diversify the city's tax base, decreasing the tax burden on residential properties. An increased tax base will also allow the city of Dayton to provide the level of services residents expect. Additionally, the provision of municipal sewer and water services will provide for increased housing opportunities in the city. The increase in housing units will create additional demand for commercial growth. Commercial opportunities could include convenience store, grocery, and professional services.

## Future Land Use

The City's Future Land Use Plan identifies appropriate locations for business park, industrial, and mixed uses to accommodate these target markets and to respond to the city's goals to create areas for industrial and commercial expansion within the city's growth areas that are accessible to public infrastructure and transportation and to attract and encourage new light industrial, office-industrial, high tech, and professional services. Dayton also include opportunities within a town center, and a Park and Ride near Dayton Parkway. Additional provision of mixed-use areas near the I-94 corridor is intended to provide the City flexibility in attracting a mix uses and to be responsive to market changes. All of these features will provide residents greater access to the metro area, and create tax revenue for the city.

The City will continue to ensure that the Land Use Plan and Zoning Ordinances accommodate economic development markets. The City should continually evaluate market conditions and update the Land Use Plan and Zoning Ordinances periodically in response to updated market information.

### Promote Quality Development

After the Comprehensive Plan is finalized, the city will update its Zoning Ordinance to be consistent with the Comprehensive Plan. The revised ordinance will update design standards for new business development including: architectural guidelines for retail development, standards for quality building materials for commercial and industrial development, and site planning requirements that incorporate quality landscape features for both commercial and industrial development as well. These design standards will address plan policies for commercial and industrial areas such as creating a cohesive identity for Dayton commercial areas, creating performance standards for all commercial areas including building and signage design guidelines, street scaping, and inclusion of green space, paths, and sidewalks to connect commercial areas to neighborhood. Ordinances will also help to maintain and promote a positive image of industrial and commercial areas.

### Marketing the City of Dayton

As Dayton grows, the City will continue to expand services related to Economic Development. The City should continue to evaluate its employment needs to ensure that experts in Economic Development are contract or hired to continue to attract new economic growth to the City. The City will continue to market strengths and opportunities to potential businesses.

In the short-term (prior to creating an Economic Development department), information on infrastructure improvements and the availability of commercial and industrial land will be shared on the city's website and through other means, such as periodic written reports on economic activity in the City. The city's Economic Development Authority, I-94 Chamber of Commerce, and city staff and leadership should work together to share information and develop additional marketing opportunities. These groups should work together to identify and capitalize on existing opportunities and identify additional opportunities for the community. These marketing efforts will also address the city's policy to develop a marketing plan and strategy aimed at creating an industrial identity that will help recruit business and industry to Dayton.

### Establish Financial Incentives

There are a number of financial incentives available to the City of Dayton to offer potential businesses who may locate within the City and to retain existing businesses looking to expand or invest in their property. Several options available to the City are identified below. The City's Economic Development Authority should evaluate which options would be most appropriate for the City of Dayton. This strategy responds to the City's policies and goals to support and promote existing business and new business that are viable and responsive to the needs of the community and to identify or create programs to provide financial assistance to retain existing business and attract new business. The following financial tools can be used or encouraged by the City:

**Table 6.3. Finance Tools**

<b>Tool</b>	<b>Uses</b>
<b>Tax Increment Financing (TIF)</b>	Land acquisition, site prep, parking, public improvements through GO Bonds. Can be used for redevelopment, renewal and renovation, housing, and economic development
<b>Tax Abatement</b>	Simpler than TIF, acts like a rebate where the property owner can retain its property tax revenue for key development activities through GO Bonds. May be best suited for existing properties and redevelopment or rehabilitation.
<b>City Revolving Fund</b>	The city could create a revolving loan fund for new and expanding businesses to finance equipment and/or real estate with the purpose of increasing the local tax base
<b>Grants</b>	Livable Communities Grants (LCA): used to link transportation, housing, and tax base revitalization. DEED Grants to fund infrastructure and rehab, or redevelop.

### Support Existing Businesses

The city recognizes the importance of maintaining its many valuable existing businesses located within the community. These businesses provide important services and jobs to Dayton residents and the region. The city will work with the Dayton EDA to identify the needs of existing businesses to achieve and maintain a healthy business climate. Open communication between the city and business owners is essential to establishing a strong and mutually beneficial relationship between the city and businesses owners. The city should pursue ongoing communication efforts with Dayton businesses owners to understand the needs and issues facing business owners and better understand barriers to business expansion and assist businesses to overcome these barriers. Additionally, financial assistance options discussed above for new businesses will also be made available to existing businesses where appropriate to encourage business investment and expansion in the City.

CITY OF DAYTON  
2040 COMPREHENSIVE PLAN  
Chapter 7: Parks, Trails, and Open  
Space

## Introduction

The City's park system is designed to provide health benefits, community gathering spaces, as well as an aesthetically pleasing outdoor experience. The City of Dayton's goal is to connect residents with a range of options within the Parks and Trails network and to improve their quality of life.

## Purpose

Dayton is a vibrant, growing community with a strong conservation ethic that values its unique natural resources and cultural heritage. Dayton's lakes, rivers, creeks, wetland complexes, forests, woodlands and prairies together form the community's natural resource system. As the community experiences major population growth and land development, it is important that the city identify its significant natural resources, cultural and historic preservation areas in order to guide future development to the most appropriate locations. Protection of natural areas supports healthy habitats for wildlife and vegetation, preserves Dayton's natural and rural character, strengthens citizens' sense of community, and enhances the quality of the community's parks, trails and open space system.

Dayton's parks and trails system will be a collection of interrelated elements that preserve natural areas and provide recreational opportunities. Parks will provide a range of recreational opportunities, including community parks, small neighborhood parks, special use parks, public access to lakes/waterways, and natural and historic areas. A community-wide trails system will provide connections to parks, natural open spaces, cultural/historic sites, community destinations and trails of surrounding communities. Open spaces will preserve significant natural areas, cultural/historic areas, major viewsheds and the community's natural/rural character. Together, these elements will form a park and trail system that will be enjoyed by residents not only today, but long into the future, and will be a source of pride and identity for the citizens of Dayton.

## Goals and Objectives

Goals and Objectives are important factors to consider for community development. They ensure that a City continues to grow, thrive, and accomplishes the desires of residents. The City of Dayton has a long-term plan to develop a connected park and trail system, to provide year-round recreation, and to create opportunities for residents to connect with nature. The City's complete list of goals include:

- Annually budget to provide a system of trails interconnecting neighborhoods to parks, schools, businesses, scenic areas, lakes, rivers and Elm Creek Park reserve.
- Prioritize and budget the development of new parks serving growing areas and redevelopment of existing facilities to meet a variety of recreational demands.
- Commission park designs and playgrounds that are unique to provide a wide range of amenities throughout the city.
- Explore options for securing private funding of parks and trails such as providing naming rights, soliciting individual donations, establishing a charitable trust or through other means approved by the City Council.
- Partner with recreational organizations within and adjacent to the city in order to provide recreational facilities and activities in a cost-effective manner.

- Promote public gathering places and civic events that serve the entire community.

Short term objectives to accomplish these goals include:

- Annual Capital Improvement funding for park and trail development (with prioritization of trail construction)
- Development of park and trail standards
- The implementation of a kayak rental facility
- Construction of Phase 1 of the Stephens Farm Master Plan
- Construction of Elm Creek park access points
- Acquire or accept donation of land for community park
- Develop a tree farm to produce stock trees for city parks and parkways
- Create a legacy donation request letter to mail to large land owners
- Seek grant opportunities for park and trail development
- Develop plan for future trail and park land around Diamond Lake

The objectives outlined above are scheduled for completion over the next few years. However, the City of Dayton also has long-term objectives:

- Full construction of Stephens Farm
- Explore purchase of lakeside park land
- Construction of West Mississippi Regional Trail in coordination with Three Rivers Park District Developing footrail access to the Elm Creek Park Reserve
- Explore use of a park referendum for future park development including community playfield complex
- Continued city-wide trail development

## Existing Local Parks and Trails

### Existing Trails

Trails are an important piece of a developing city that provide safety for residents in an area for activities such as walking, running, or biking. The city of Dayton has a growing system of trails which will eventually connect residents to important amenities (like the Elm Creek Park Reserve).

Trail construction occurs in a variety of methods. First, all new development is responsible to construct trails based on the city's plan and in a manner that connects to community amenities, major roadways and to neighboring developments. Second, trails are constructed when roadways are reconstructed, either locally or by the county. Finally, regional trails are built by Three Rivers and may also occur in partnership with the city.

Elm Creek Park Reserve is an important amenity in Dayton that does not currently have a direct pedestrian/bike local connection. Creating direct connections into the park reserve has been an important goal for the city. Connector trails are planned for construction in 2020 that will lead into the Elm Creek Regional Park. This will occur at Pineview Lane and Co. Rd 121; Jonquil

Lane and Co. Rd 121 and at Rush Creek Parkway and Fernbrook Lane into Elm Creek Park Reserve.

Dayton has several existing trails within the City which have been developed through recent residential developments including: The Pines at Blesi, River Hills, the Enclave at Hayden Hills, Sundance Woods, Sundance Greens, Territorial Trails, and Brayburn Trails. Additionally, the Elm Creek Park Reserve has a large trail network. The City has approximately 18 miles of existing trails within City limits. In 2020 the City, in partnership with Three Rivers Park District, will be constructing a trail on the west side of Pineview Lane between South Diamond Lake Road and Co. Rd. 121. This trail will cross through a roundabout into Elm Creek Park Reserve and will be part of the Medicine Lake Regional Trail. Figure 4 shows all existing trail links (not including sidewalks).

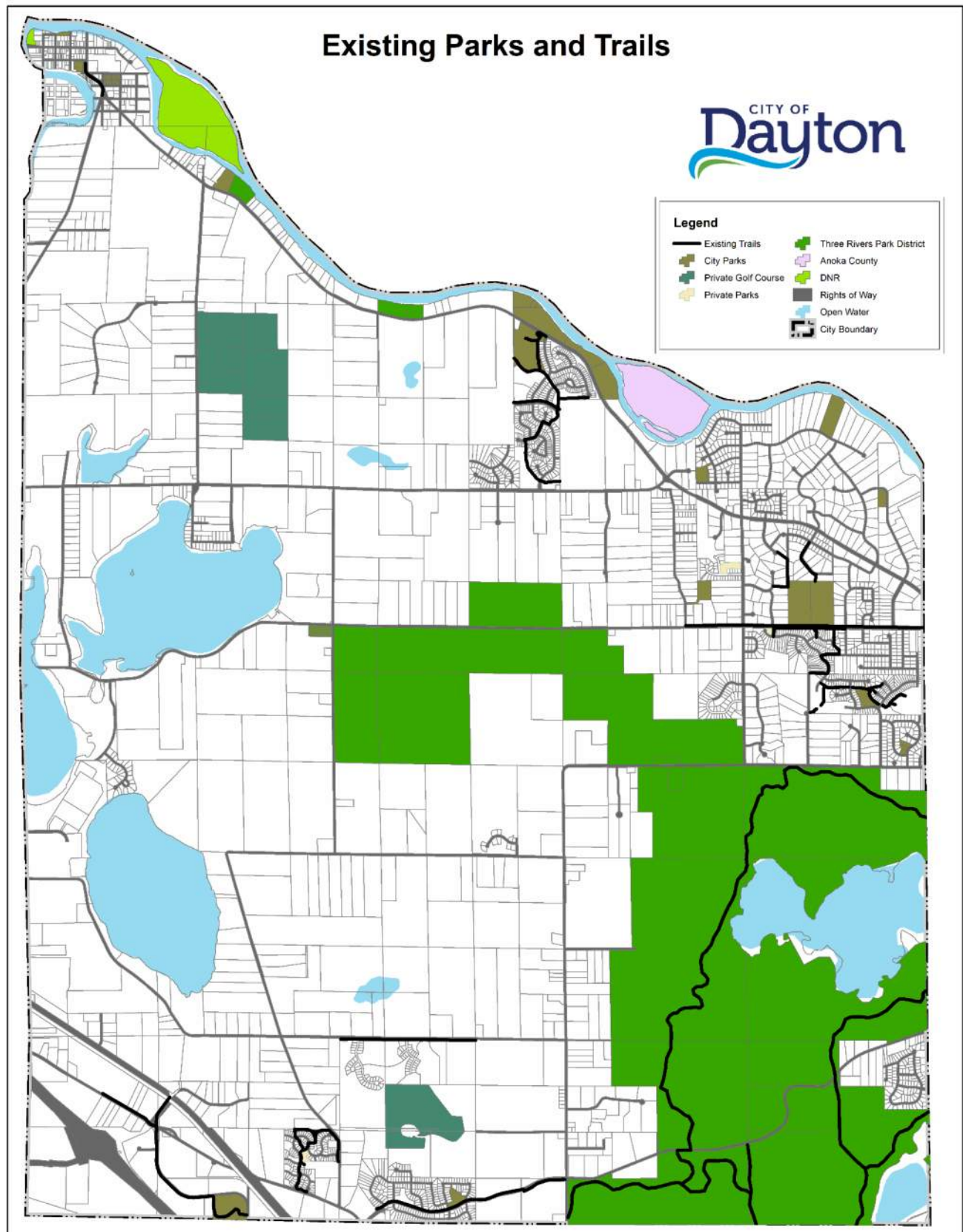
### Existing Local Parks

The City of Dayton has many local parks, with future projects also being planned for residents. Table 1 below details existing parks and recreation parcels and a description of amenities present. Figure 1, below, shows all park land within Dayton and jurisdictions. Similar to trails, developers either dedicate land, or pay park dedication fees which end up paying for new park improvements. Over time, the City develops new parks, or redevelops old parks on a every other year timeline. There are approximately 3,800 acres of public park land and open space within Dayton owned by multiple jurisdictions.

**Table 7.1. Existing Parks**

	Upland Acres	Wetland Acres	100-Year Floodplain Acres	Total Acres	Play Equipment	Picnic Tables and/or Grills	Picnic Shelter	Trail	Basketball Court	Ballfields	Restrooms	Parking Lot	Boat Launch	Signage	Wetland	Woods	Notes
<b>CITY OF DAYTON PARK LAND</b>																	
<b>Developed Neighborhood Parks</b>																	
Diamond Lake Diamonds	3.1	-	0.3	3.4						1	•	•					
Donahue Dells Park	0.6	1.4	-	2.0	•	•									•		
Goodin Park	1.4	-	3.6	5.0		•		•				•		•	•	•	Grills, adjacent to Mississippi River, landscaping
McNeil Park	3.2	-	-	3.2	•	•				1	•			•			Lights, Football, Baseball Field
Riversbend Park	3.3	-	-	3.3	•	•				1	•	•		•			
Sundance Woods Park	2.1	1.7	-	3.8	•	•	•	•	•	•					•		1/2 basketball court, ballfield, trail, playground, leisure rink; 2020 finished
<b>Undeveloped Parks</b>																	
Leather's Park	2.6	-	-	2.6								•		•			
Old Orchards Park	2.0	3.0	-	5.0											•		Ponding/Wetlands; future boardwalk/trail
River Hills Park	14.7	7.5		22.2	•			•	•						•		Pickleball court, storm pond, playground, possible future parking lot
Elsie Stephens Farm	21.0	-	-	21.0				•				•		•		•	Under development. Future launch, trail system, rec facilities
<b>SCHOOL PARKS</b>																	
Central Park	39.2	0.8	-	40.0				•		4	•	•		•			Soccer field, running track, ice hockey, shared with elementary school
<b>SPECIAL USE PARKS</b>																	
Cloquet Overlook Park	11.2	-	4.8	16.0		•	•	•			•	•		•		•	
Sue McLean Park	0.5	-	0.0	0.5		•	•							•			
Wildwood Springs Park	4.1	-	6.0	10.1										•		•	Mississippi River Location, Disc golf course
<b>TRAILS</b>																	
Rolling River Estates Trail																	Potential undeveloped trail easement
Crow River Regional Trail				32 mi				•									32 mile trail through multiple cities and counties to the west
West Mississippi River Trail				15 mi				•									15 mile trail through following Mississippi River to the east
Dayton Rolling Acres Trail				1.0				•									Noon Drive to Central Park
Nicole Lachinski Trail				0.5				•									Hemlock Lane to Central Park; Norwood Lane to Central Park
Natures Crossing Trail								•									Trail connection to Elm Creek Park reserve
<b>NON-CITY FACILITIES</b>																	
<b>DNR</b>																	
DNR Boat Launch, Crow and Mississippi Rivers				1.9								•	•				
DNR Boat Launch, Diamond Lake				0.3										•			
DNR Boat Launch, French Lake				1.0										•			Open only during hunting season
Goodin Island				89.8													
<b>Anoka County Parks</b>																	
Cloquet Island				83.5													
<b>Three Rivers Park District</b>																	
Elm Creek Park Reserve				3200	•	•	•	•			•	•	•		•	•	Horseback riding, dog off-leash area, camping, mountain biking, swimming pond, archery, downhill and cross country skiing, winter tubing, snowmobiling, snowshoeing
<b>Private Golf Courses</b>																	
Daytona Golf Course				169.3													
Sundance Greens 9-Hole				66													Redevelopment of Sundance Greens to 9-hole course

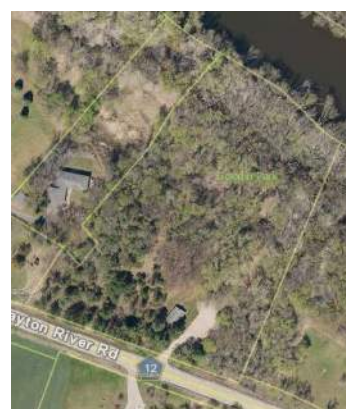
Figure 7.1. Existing Parks and Trails Map



**Central Park and Brianna Scurry Park**, Classification: Community Playfield, 40 acres, picnic tables/shelter, trails, ballfields, ice hockey, soccer field, running track, restrooms, and parking. School facilities are adjacent to park (includes school playground, basketball court)



**Goodin Park**, Classification: Neighborhood Park, 5 acres, on Dayton River Road, has grills, benches, and a trail down to the Mississippi River, picnic tables, trails, wetlands, woods, parking.



**Cloquet Overlook Park**, Classification: Conservancy Lands and Linear, 16 acres, shelter, trails, restroom, parking, on Dayton River Road, has walking trails, benches and picnic tables, grills, children's playground equipment, and a viewing area overlooking the Mississippi River.



**Donahue Dells Park**, Classification: Neighborhood Park, 2.5 acres, playground, picnic tables, pond, and wetland.



**Leathers Park**, Classification: Neighborhood Park, 2.6 acres, underdeveloped, wetlands.



**McNeil Park**, Classification: Neighborhood Park, 3.2 acres, in the historic Village, has a ball field, picnic tables, children's playground equipment, and football field.



**Rivers Bend Park**, Classification: Neighborhood Park, 3.3 acres, picnic table, parking lot found at the end of 141st Ave N, has a ball field and new children's playground equipment installed in 2017 with a zip-line.



**Stephens Farm**, Classification: Special Use Park, 21 acres picnic tables, runs along the Mississippi River, in development. A Master Plan was prepared in 2016 with a first phase plan prepared in 2019 for possible construction in 2020.



**Old Orchard Park**, Classification: Neighborhood Park, 5 acres, underdeveloped, wetlands. Currently this park is underdeveloped and predominantly consists of wetlands. A future boardwalk is currently being planned for this park and will likely be the only improvements feasible at this site.



**Sue McLean Park**. Classification: Special Use Park, 0.88 acres, in the historic village, has great views of the Mississippi River. The City recently constructed a park shelter at this site.



**Diamond Lake Diamond**, Classification: Neighborhood Park, 3 acres, ball field, and parking.



**Wildwood Springs Park** (Now Wildwoods 9 Disc Golf Course) Classification: Special Feature, 10.4 acres. The City constructed a single tee disc golf course at this site. The City may also utilize this area as a possible tree nursery.



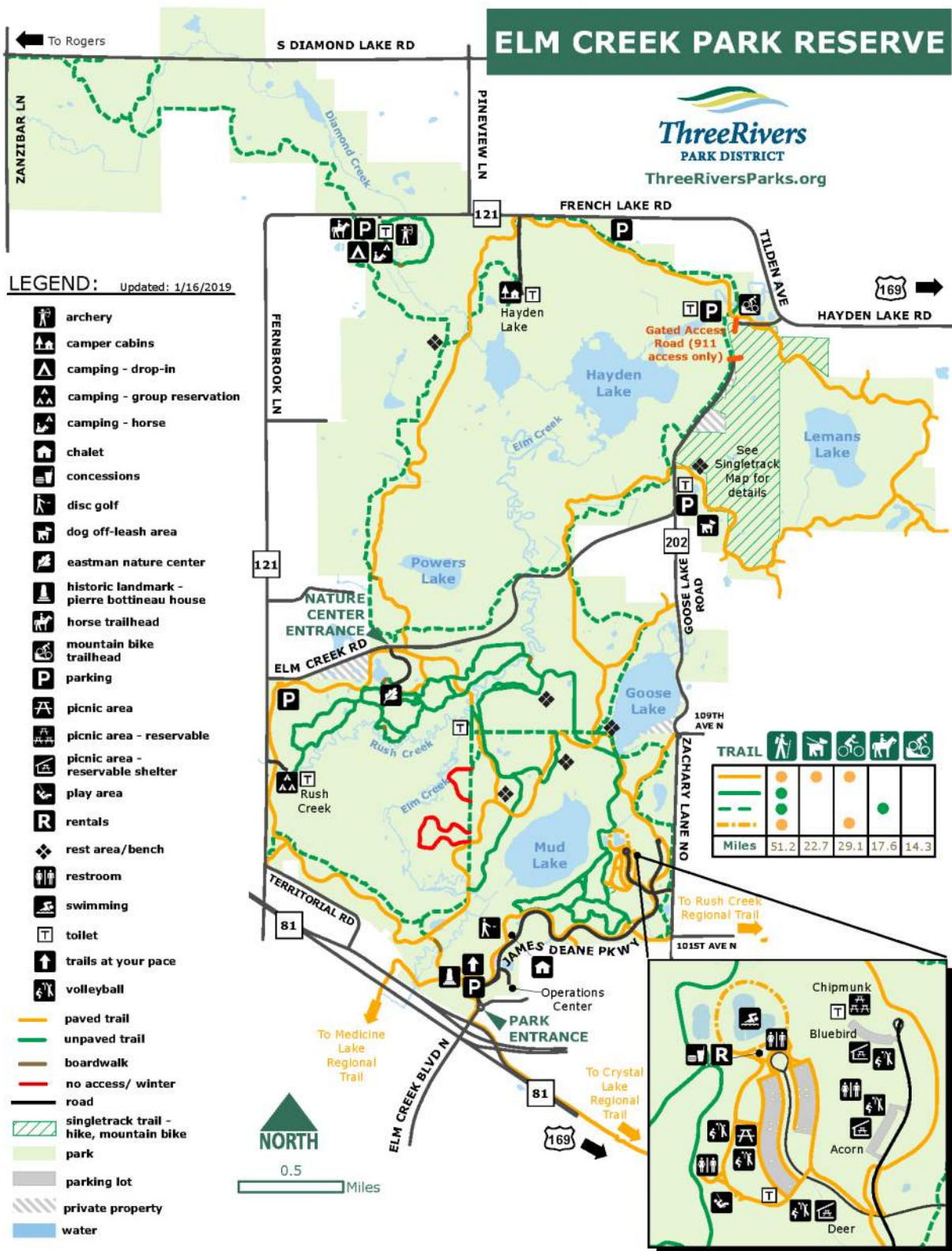
## Existing Regional Parks and Trails

Dayton is home to Three Rivers Park District's Elm Creek Park reserve, as well as multiple connection to ongoing regional trail systems. The City will continue to partner with Three Rivers to ensure our residents benefit from the parks and trail systems developed by the district.

### Regional Parks

The Elm Creek Park Reserve is the only regional park in the municipal boundaries of Dayton. The approximate area of the Elm Creek Park Reserve is over 3,200 acres and include an assortment of amenities for public use such as multiple trails, archery range, disc golf course, off-leash dog park, swimming pond, winter recreational area, nature center, and an historical center. The map in figure 2 below shows all of the trails and amenities. The Elm Creek Park Reserve has the most prominent regional trail system in Dayton. There are approximately 12.7 miles of trails within the borders of the Park Reserve. The trails are split into different sections of pathways for hiking and mountain biking based on designation, difficulty, and length.

Figure 7.22. Elm Creek Park Reserve Map



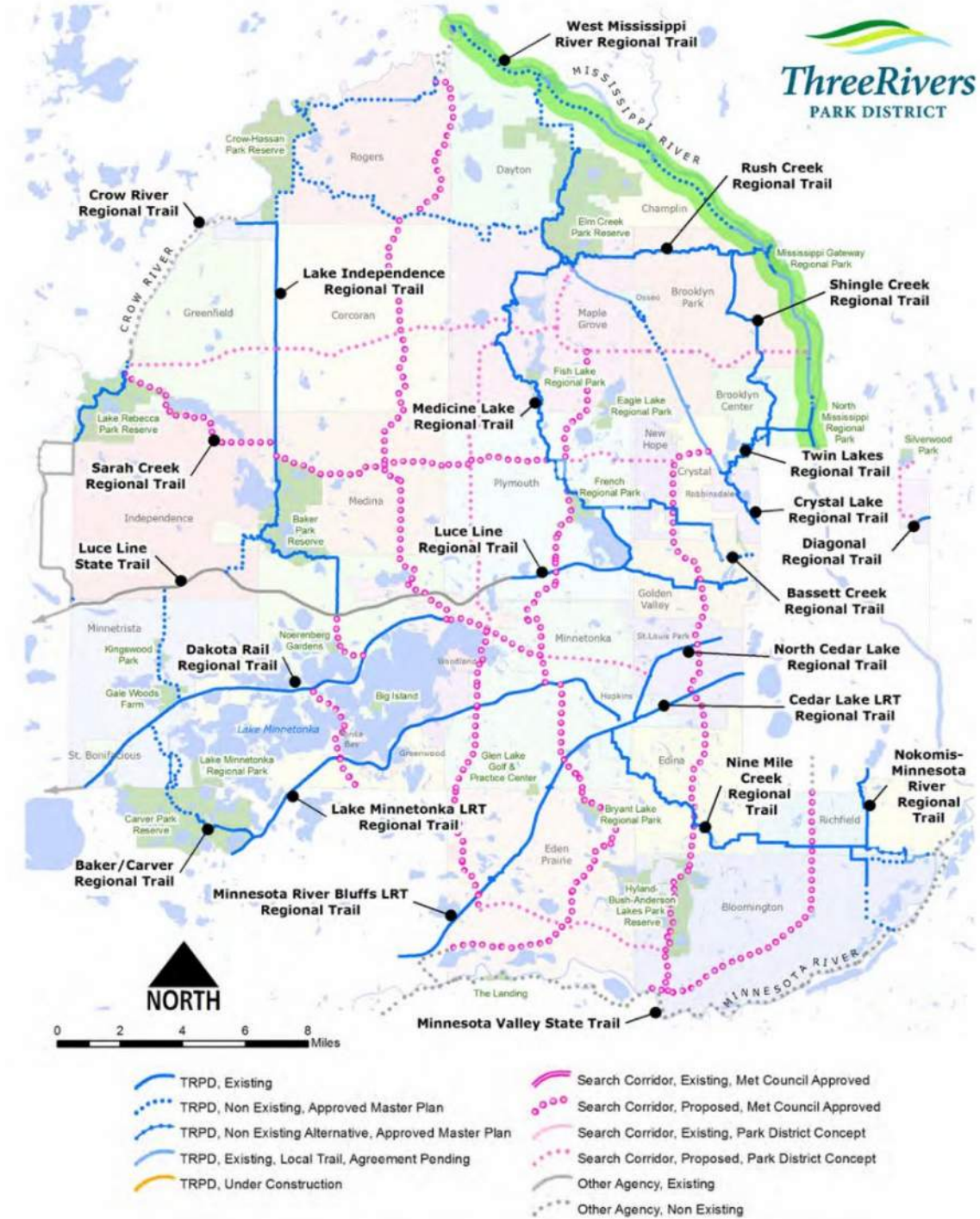
## Regional Trails

There are three regional trails planned in Dayton. The West Mississippi River trail begins in the Historic Village area of Dayton, and extends southeast following the Mississippi River into Champlin, Brooklyn Park, and Brooklyn Center, before finishing in North Minneapolis. The trail is approximately 15 miles long, with multiple connections to notable areas in Dayton like Elm Creek Park, Goodin Park, Stephens Farm Park, and Cloquet Overlook Park. Important connections to other cities' areas include Mill Pond and the school in Champlin, Rush Creek and the Coon Rapids Dam Regional Park in Brooklyn Park, and access to a boat launch south of I-94, and North Mississippi Regional Park in Minneapolis. The first leg of the trail will be constructed in 2020 connecting Cloquet Overlook Park and Stephens Farm which will also connect via an underpass to the River Hills neighborhood. See figure 3 below.

**Figure 7.3. West Mississippi Regional Trail Corridor**

**Map 1: West Mississippi River Regional Trail | Hennepin County Context**

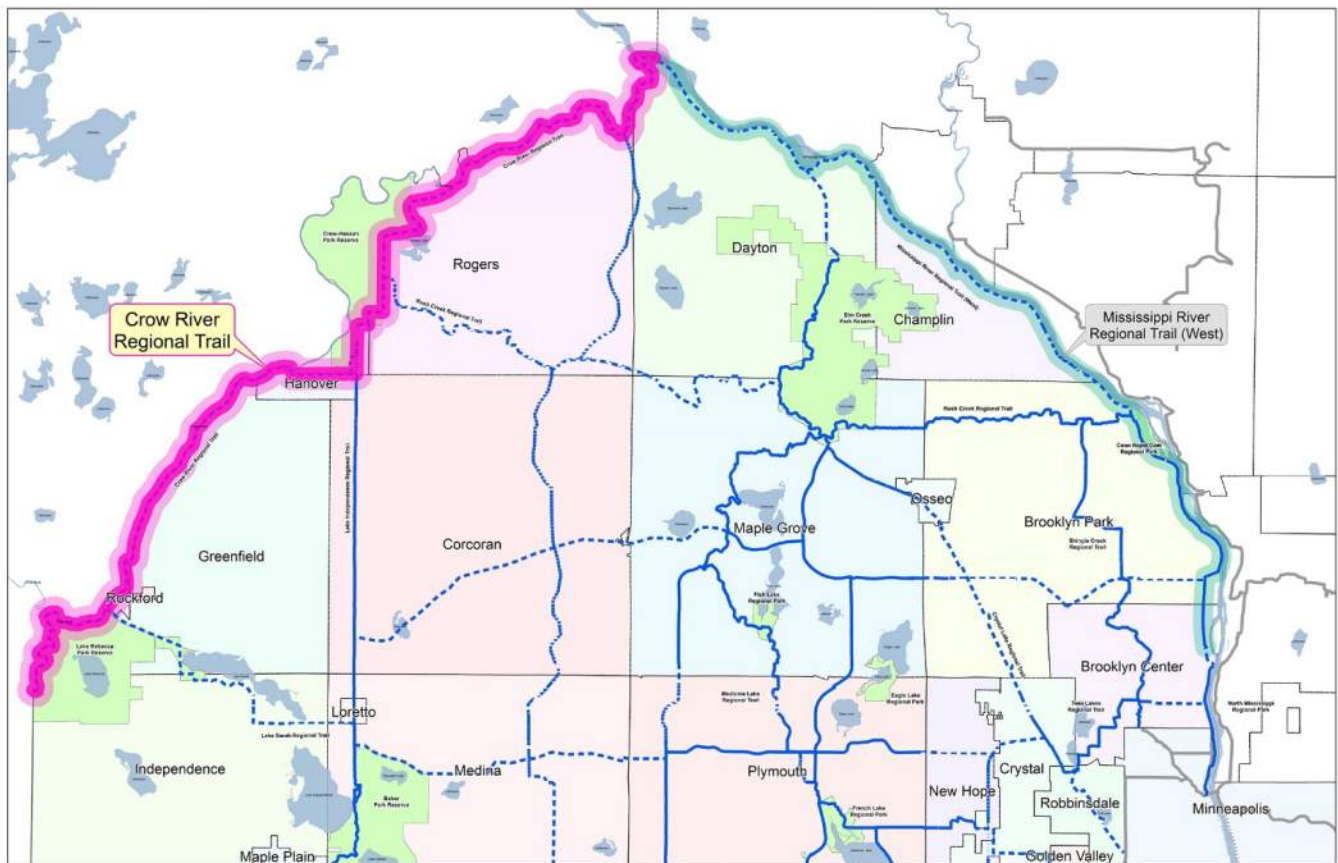
Source: Three Rivers Park District



Another significant regional trail is the Crow River Regional Trail. This 32 mile long trail also begins in the Historic Village portion of Dayton, but extends southwest through cities in Hennepin County such as Rogers, Greenfield, Minnetrista, and Independence. The trail also passes outside of Hennepin County such as Wright County townships of Franklin and Rockford, and cities such as Delano, Rockford, Hanover, and Otsego. Carver County township of Watertown is also part of the trail. See figure 4 below.

Finally, a leg of the Medicine Lake Regional Trail will be constructed in 2020 along Pineview Lane between South Diamond Lake Road and Co. Rd. 121 with direct access into the northern portion of the Elm Creek Park Reserve. See Figure 5.

**Figure 7.4. Crow River Regional Trail Corridor**



**Crow River Regional Trail | Proposed Corridor**

0 0.75 1.5 3 4.5 6 Miles

This map is a compilation of data from various sources and is provided "as is" without warranty of any representation of accuracy, timeliness, or completeness. The user acknowledges and assumes the limitations of this data, including the fact that the data is dynamic and is a snapshot copy of information, corrections, and updates.

Department of Planning  
Map Created: 02/19/2015  
Revised Date: 2/20/2015  
Created by: AR

Conceptual TRPD Regional Trail System

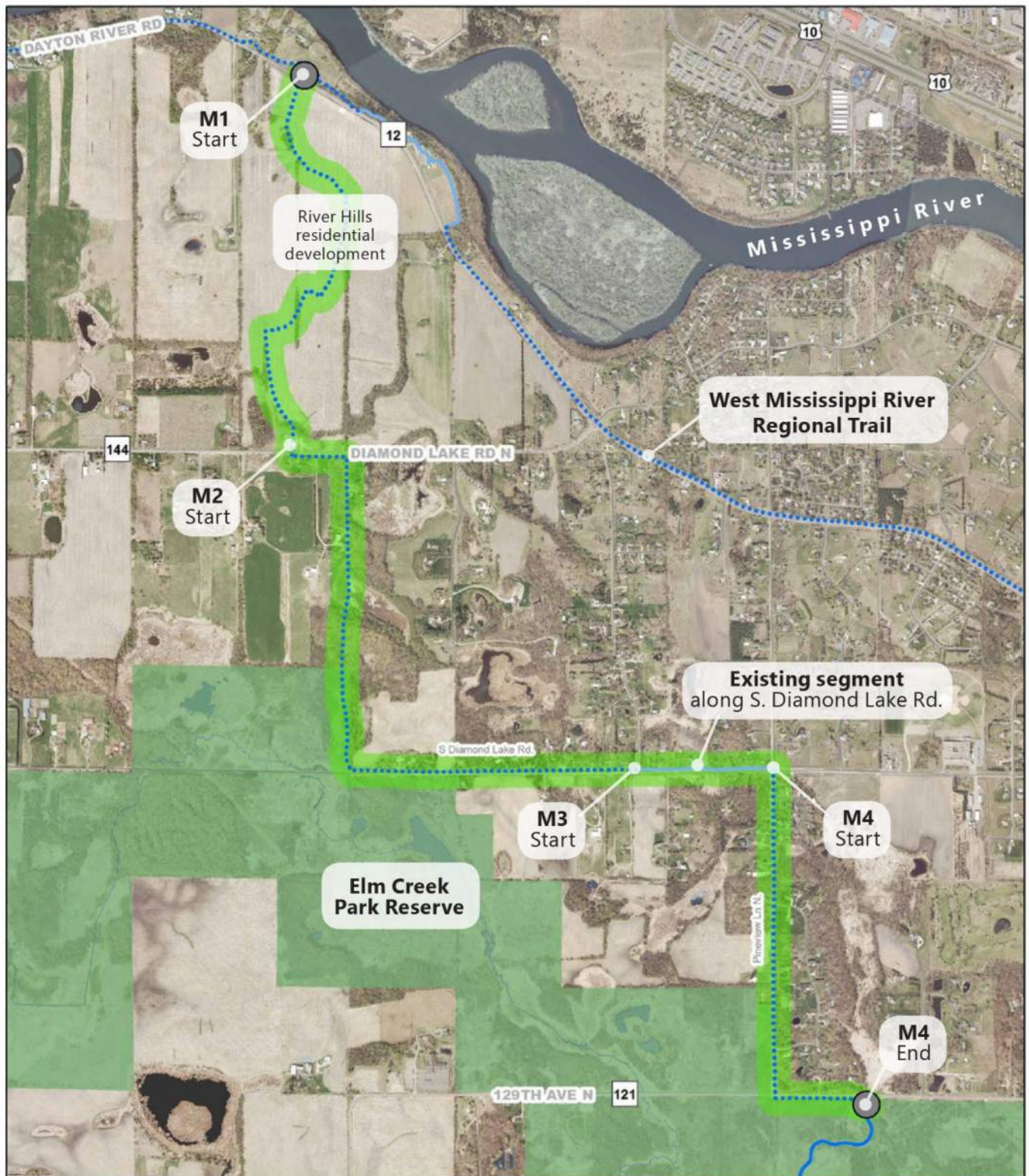
— Existing Trail  
- - - Proposed/Planned Trail



Finally, a leg of the Medicine Lake Regional Trail will be constructed in 2020 along Pineview Lane between South Diamond Lake Road and Co. Rd. 121 with direct access into the northern portion of the Elm Creek Park Reserve.

**Figure 7.5. Medicine Lake Regional Trail Leg to Elm Creek Park Reserve**

Source: Three Rivers Park District



## Future Parks and Trails Plan

### Comprehensive Parks Plan

The park plan, as shown on Figure 6 Comprehensive Park Plan, displays locations of existing parks and proposed neighborhood and community parks as “search areas”. The park plan is also divided into service areas to appropriately distribute new parks based on land use and future need for park land. The park search areas are identified as circles in growth areas to ensure parks are built to serve new neighborhoods. Specific parcels are not called out at this level of planning. Therefore, this plan is an important tool to be used by the City to ensure land dedication needs are met for future parks as development occurs. As park land is dedicated, or acquired, the city prepares plans and budgets for the development of the park. These acquisitions and park development are included in the Capital Improvement Plan. Figure 7 shows park services areas through the city.

### Immediate Park Plans

In 2020 the City will be constructing the River Hills Neighborhood park on 20 acres of land dedicated by the developer of the River Hills neighborhood. The City is also scheduled to construct the first phase of Stephens Farm Park just north of the River Hills Park.



Stephens Farm is expected to begin development in 2020 with the first phase of improvements. After the initial phase, Stephens Farm will have a wide variety of attractions for residents and the community as a whole. Notable amenities in the current plan include a garden, kayak and canoe boat launch, playground, picnic area, trail, amphitheater, docks and fishing piers and eventually a year-round event center. Trails will also connect to existing Cloquet Overlook Park to the east and River Hills Park to the south.



Additional Parks will be scheduled through the City's Capital Improvements Plan as budget and future park dedication allows.

Figure 7.6. Comprehensive Park Plan

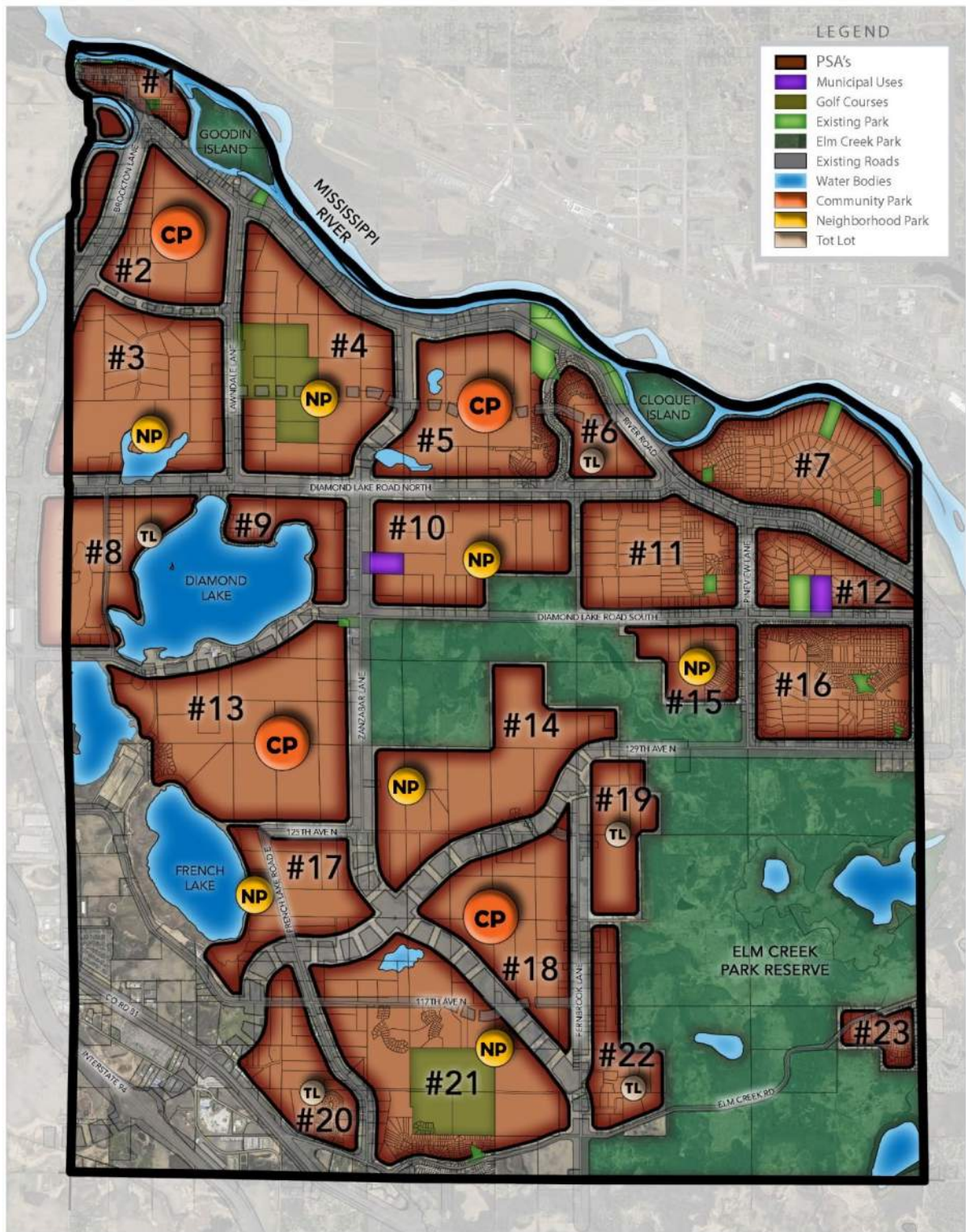
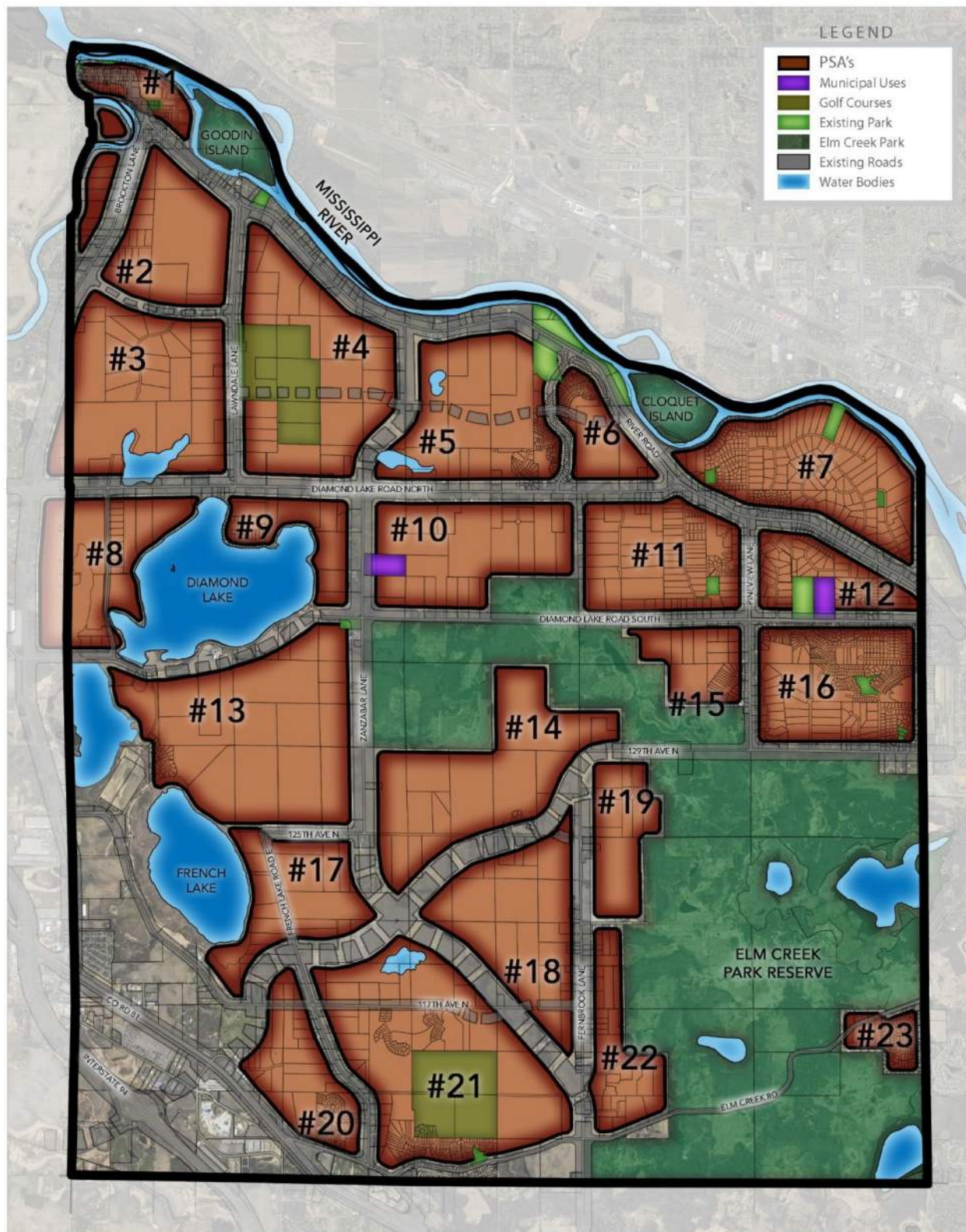


Figure 7.7. Park Service Area

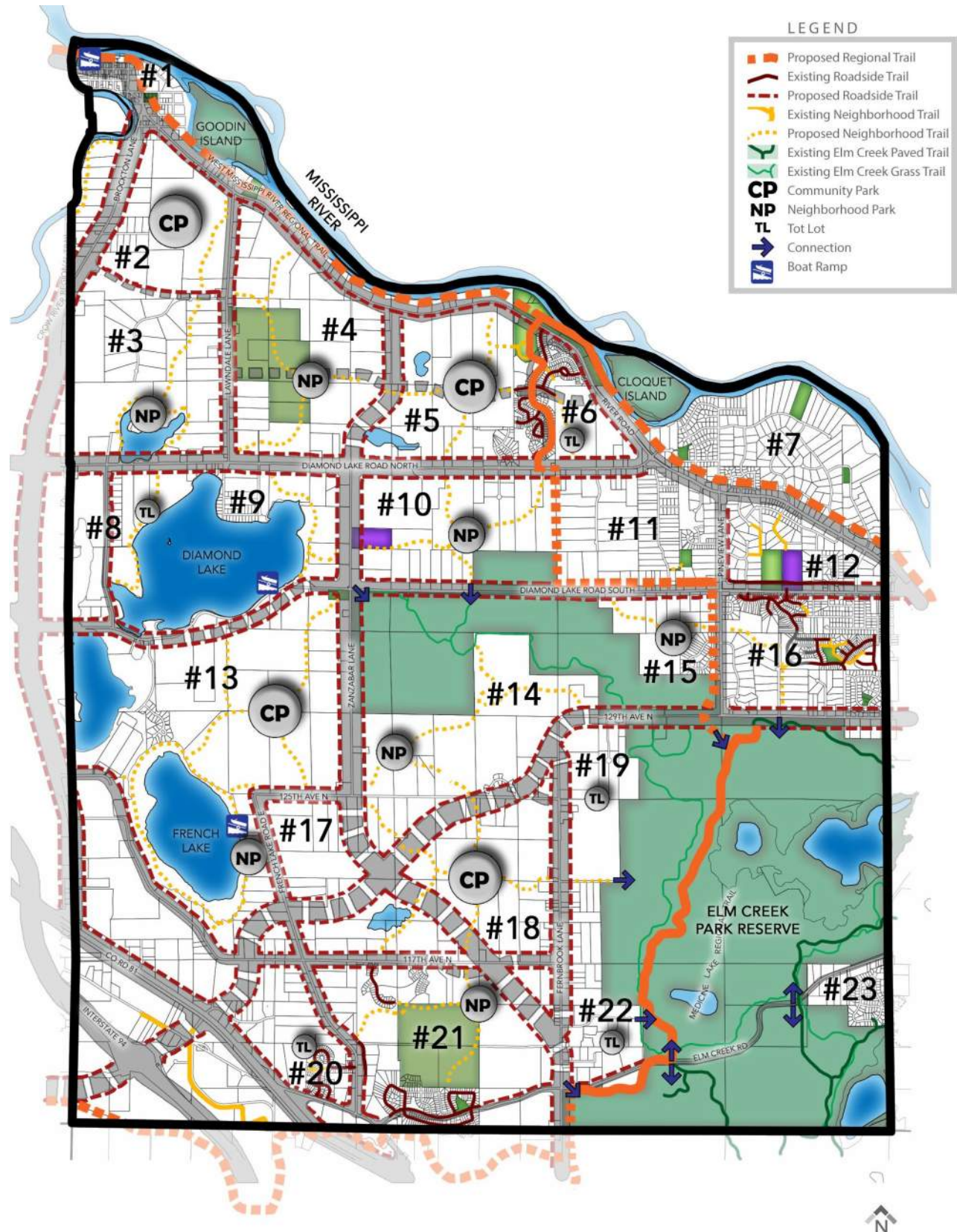


## Comprehensive Trail Plan

The Comprehensive Trail Plan, as shown on Figure 8, proposes a network of multi-purpose trails. Existing trails, existing parks and future park search areas are also displayed to present the full system of connected amenities. Although many of the trails are identified along road corridors, the City's objective is to separate the trails from the roadway where possible. The plan identifies existing trails and proposed trails (dashed lines), regional trails, roadside trails and proposed neighborhood trails (constructed at time of development). Roadside trails are shown on both sides of future roads but may not be constructed on both in the future. Access points into Elm Creek Park Reserve are identified on the plan, with three of these connections to be constructed in 2020 as mentioned earlier in this chapter.

Proposed Regional trails are identified on the plan including the West Mississippi Regional Trail and the Crow Hassen Regional Trail. Existing trails in Elm Creek Park Reserve are shown as existing regional trails.

Figure 7.8. Comprehensive trail plan



## Standards for Park Designation

Below is a table of the standards of park designations from the Metropolitan Council. This information is used to determine the classifications for the local parks in the city of Dayton.

**Table 7.2. Park Standards**

Component	Use	Service Area	Size	Site Attributes	Site Location
<b>Local Facilities</b>					
Mini-Park	Specialized facilities that serve a concentrated or limited population or specific group such as tots or senior citizens	Less than ¼ mile radius.	Less than 1 Acre		May be publicly or privately owned and/or incorporated into a development site, such as apartment.
Neighborhood Park/Playground	Area for intense recreational activities such as field games, court games, crafts, apparatus area, skating, and neighborhood centers.	¼ mile to ½ mile radius to serve a population of 200 to 1,000 (neighborhood).	5-25 acres	Physical geography suited for intense development.	Proximity to elementary schools or residential neighborhoods.
Community Playfield	Area for intense recreational facilities such as athletic fields and swimming pools; could include neighborhood use.	3-5 neighborhoods (community).	25-50 acres	Physical geography suited for intense development.	Proximity to secondary schools and other public facilities.
Community Park	Area of natural or ornamental quality for outdoor recreation such as walking viewing, sitting, picnicking; could have some field and court games.	3-5 neighborhoods (community).	25-100 acres	Affords natural features with varied physiographic interest.	Proximity to community facilities and resources.
Conservancy Lands	Area of natural quality such as watercourses and wetlands that are preserved for environmental or aesthetic benefits to the community and/or because of the negative environmental or economic effects of development in them.	Municipality, township, county.	Variable, based on extent of resources	Natural resources that merit preservation and would be negatively affected by development.	Where resource occurs.
<b>Regional Facilities</b>					
Regional Park	Area of natural or ornamental quality for nature-oriented outdoor recreation such as picnicking, boating, fishing, swimming, camping, and trail uses.	3-5 communities.	200-500 acres (100 acre minimum)	Complete natural setting contiguous to water bodies or water courses where possible	Where natural resource occurs – particularly water.
Regional Park Reserve	Area of natural quality for nature oriented outdoor recreation such as viewing and studying nature, wildlife habitat, conservation, swimming, picnicking, hiking, boating, camping, and trail uses.	County, multi-county area.	1000+ acres; sufficient area to encompass the resource envisioned for preservation.	Diversity of unique resources, such as topography, lakes, streams, marshes, flora, fauna.	Where resource occurs.
<b>Local or Regional</b>					
Linear Park (Trails, corridors, parkways)	Area developed for one or more varying modes of recreational travel such as hiking, biking, snowmobiling, horseback riding, cross-country skiing, canoeing and driving.	Local (municipalities, townships) or regional (county-multi county area).	Sufficient width to provide protection of resource and	Utilize human-made and/or natural resources such as utility corridors, right-of-way, drainage ways, bluff lines,	Where linear resource occurs. Link components of recreation system. Link other community facilities such as

			maximum use.	vegetation patterns and roads.	schools, library and commercial areas.
Special Feature	Area that preserves, maintains and provides specialized or single-purpose recreational activities such as golf course, nature center, zoo, arboretum, arena, downhill ski area, and sites of historic or archaeological significance.	Metropolitan Area	Specific standard application to desired feature.	Appropriate to particular special feature.	Where most advantageous for the special feature and the overall park system.

## Park Classifications and Standards

Dayton's parks are classified according to their use and function. This section defines the classifications and presents standards for new parks. The classification system is intended to act as a general guide to park planning, acquisition, and to be used in conjunction with the park, trail, and open space system. The standards are designed to ensure that residents have convenient access to parks that the community has a range of active and passive recreation facilities to meet current and future needs. Active recreation refers to sports like baseball, softball, soccer, basketball, and tennis. Passive recreation refers to activities such as picnicking, nature study, walking, and bird watching.

### Neighborhood Parks

Neighborhood parks provide residents with places for active recreation close to home and are designed to provide day-to-day recreation facilities for residents within a 10 to 15 minute walk, from their home. This distance should be free of barriers such as busy roads, wetlands, or water bodies. Neighborhood parks should be 5 to 25 acres in size and may contain a children's play area, picnic areas, a basketball court, internal trails, a small parking area, and ballfields (softball, soccer, etc.). Ball fields are typically used for informal use but may also be used for youth athletic leagues. Some neighborhood parks may contain a hockey rink, skating area, tennis court or other similar recreation facility. Neighborhood parks may also include small areas with natural resources such as wetlands or wooded areas.

### Community Parks

Community parks provide facilities for community-scale recreation, and are typically multi-field athletic complexes or contain special facilities, such as picnic shelter rental, aquatics, skate parks, multiple tennis courts, destination playgrounds, and programmed ice hockey that serve the entire community. Concentrating these facilities gives the community control over the quality of facilities, use, scheduling and impact on surroundings. Community parks serve a 1-2 mile service radius or more, depending on accessibility and facility draw. Users typically drive to the parks, although some community parks may also function as a neighborhood park for adjacent residents. Community Parks should meet the following site criteria:

- Opportunities to share park facilities with future schools, a future community center or other public buildings should be explored.
- Land shall be easily accessed by pedestrian or bike and provide convenient and safe vehicle access to a collector or arterial street.
- Since these parks are heavily used and often are lit, adjacent land uses should be considered to avoid conflicts.
- Land shall have a continuous area ideally of 40-60+ acres of usable upland.

- Areas desired for active recreation shall be usable upland. This land shall be of solid subgrade, and have well drained subsoils suitable to support the growth of healthy turf and athletic field use. Land should have slopes of less than 6%. Excessive slopes can hinder recreational use and development.
- Community Parks should include off-street parking.

### School Parks

Opportunities for the City and School Districts to work cooperatively on recreation facility planning and park use should be explored. Shared school/parks, suitable for school and community or neighborhood park use, should be jointly selected by the School District and City and shall have the following characteristics:

- Land shall be contiguous area large enough to accommodate school site and acreage for the desired park type (neighborhood or community).
- Park land shall be located directly adjacent to a school site and shall be easily and safely accessed by pedestrian, bike, and automobile.
- Areas desired for active recreation shall be usable upland. This land shall be of solid subgrade, and have well drained subsoils suitable to support the growth of healthy turf and athletic field use. Land should have slopes of less than 6%. Excessive slopes can hinder recreational use and development.
- Land shall not include any areas of open water that could pose a safety hazard, but may have wetland areas which serve an aesthetic or environmental learning function.

### Special Use or Feature Parks

Special use parks and recreation areas such as community golf courses, arenas, gardens, plazas, historic sites, skate parks, BMX bike areas, disc golf, and off leash dog areas are based on the unique, cultural, historic, or community feature or recreation activity. Stephens Farm, for example, is a special use park. The size, configuration, and location of these parks will be determined by the City on an individual basis.

## Implementation Steps

1. Regularly update park and trail dedication fees to ensure appropriate funds are collected at time of development to meet park and trail demand from new neighborhoods
2. Prioritize trail construction, based on the comprehensive trail plan, including timing, cost estimates for segments to be built on annually basis, funding and partnerships
3. Develop park and trail standards to employ consistent level of construction
4. Continue to pursue acquisition of land for a future community park

### Capital Improvements Plan (CIP)

A Capital Improvements Plan is used to prepare for upcoming developments, and to prepare for additions or improvements to current parks and trails. The city of Dayton has created a Capital Improvements Plan (CIP). The CIP has planned for the next ten years to consistently build on the current parks and trails system. Upcoming improvements include:

- The development of parks for Sundance Woods, Hayden Hills, and River Hills neighborhoods.

- Improvements to Stephens Park, and River Hills Park.
- And the acquisition of land for a Community Playfield.

Park improvements are a major portion of Dayton's CIP, with improvements planned for the next ten years to multiple parks such as Stephens Farm, Sundance Woods Park, River Hills Park, Hayden Hills Park, and another prospective area for a future neighborhood park. A large portion of the CIP budget spanning the next nine years heavily focuses on the land purchase for a sports complex.

The City's CIP is updated yearly and can be found on our website.

CITY OF DAYTON  
2040 COMPREHENSIVE PLAN  
Chapter 8: Transportation



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Appendix A. Socioeconomic Data Allocation to Traffic Analysis Zones
Appendix B. City of Dayton Capital Improvement Program (2019–2028) ( <a href="#">see city website for CIP, which is updated yearly</a> )

## VISION FOR THE TRANSPORTATION SYSTEM

The purpose of the Transportation Plan is to provide the policy and program guidance needed to make appropriate transportation-related decisions when development occurs, when elements of the transportation system need to be upgraded, or when transportation problems need to be addressed. The Transportation Plan demonstrates how the City of Dayton will provide for an integrated transportation system that will serve the future needs of its residents and businesses, support the city's development plan, and complement the portion of the metropolitan transportation system that lies within the city's boundaries.

Maintaining and improving the multimodal transportation system throughout the city is important to the ongoing economic health and quality of life in Dayton; is necessary for people to travel easily and safely to work and other destinations; to support property development; and to assist in the movement of goods. To accomplish this, the Transportation Plan:

- identifies a functional hierarchy of streets and roads and defines their access to the regional system to ensure they support the existing and anticipated development of the area, serve both short trips to and from Dayton destinations as well as trips to adjacent communities, and complement and support the metropolitan highway system.
- establishes a system improvement program that ensures higher priority projects are constructed first, maintains a consistent and coherent process, and provides for adequate funding for all needed improvements.
- identifies appropriate transit services and travel demand management strategies for implementation in Dayton to increase the number and proportion of people who use transit or share rides and reduce the peak level of demand on the entire transportation system.
- identifies strategies and policies that need to be implemented to properly integrate the trail system, including pedestrian and bicycle, with the future roadway and transit system, to ensure the provision of trails in a sequence consistent with the development of the roadway system, and to create a rational network of sidewalks.

## GOALS AND POLICIES

### Summary of Regional Transportation Goals

Guidance for the development of the Transportation Plan is provided by the Metropolitan Council's 2040 Transportation Policy Plan (TPP), which identifies six broad goals for the regional transportation system. The six goals are paraphrased below:

1. **Transportation System Stewardship:** Providing sustainable investments in the transportation system which are protected by strategically preserving, maintaining, and operating system assets.
2. **Safety and Security:** Ensuring the regional transportation system is safe and secure for all users.
3. **Access to Destinations:** Allowing people and businesses to prosper by using a reliable, affordable, and efficient multimodal transportation system that connects them to destinations throughout the region and beyond.
4. **Competitive Economy:** Ensuring the regional transportation system supports the economic competitiveness, vitality, and prosperity of the region and State.
5. **Healthy Environment:** Confirming the regional transportation system advances equity and contributes to communities' livability and sustainability while protecting the natural, cultural, and developed environments.

6. **Leveraging Transportation Investment to Guide Land Use:** Leveraging the region's transportation investments to guide land use and development patterns that advance the regional vision of stewardship, prosperity, livability, equity, and sustainability.

### City of Dayton's Goals and Policies

The role of the Metropolitan Council, reflected above, is to coordinate large-scale transportation planning efforts to benefit the metropolitan region. As a metropolitan community, Dayton's role is to respond to Metropolitan Council's initiatives and coordinate with adjacent communities, while addressing its local responsibility to improve the quality of life for its residents. To respond to the above themes, as well as to serve economic activities and improve the quality of life in Dayton, the following goals and policies were established:

#### Goal 1: Develop an integrated transportation plan that fully promotes connectivity and is coordinated with neighboring cities and counties.

- **Policy 1:** Identify a transportation grid that efficiently moves traffic as development occurs and is consistent with MnDOT, Hennepin County, neighboring communities, and the land use plan.
- **Policy 2:** Residential areas are designed to ensure excess traffic is not traveling through residential neighborhoods.
- **Policy 3:** Use weight restrictions to minimize deterioration of roadways and enforce these restrictions.
- **Policy 4:** Incorporate the use of innovative traffic management options and technologies.
- **Policy 5:** Develop a pavement management program that ensures City roads are being maintained cost effectively as needed.
- **Policy 6:** Plan for expanded and improved road system to accommodate projected increases in traffic volume accompanying planned growth and development.

#### Goal 2: Encourage transportation methods other than individual automobile travel.

- **Policy 1:** Promote ride sharing by residents with the addition of park and ride lots in convenient locations.
- **Policy 2:** Work with the Metropolitan Council to increase transit services to Dayton and encourage use by residents.

#### Goal 3: Coordinate transportation planning and system improvements with other government jurisdictions.

- **Policy 1:** Work closely neighboring communities, Hennepin County, and MNDOT to ensure transportation needs are met including but not limited to: expansion of Dayton Parkway and capacity improvements to CSAH 81 (including intersection improvements) and extension of Co. Rd 117 east to connect to Co. Rd 116. Include developers in the area to assist in the design and implementation process. Actively explore and pursue all funding options.
- **Policy 2:** Identify all connections and alignments to MnDOT and Hennepin County corridors in and adjacent to Dayton.
- **Policy 3:** A Mississippi River Crossing is not identified in other jurisdiction's plans between the existing TH 169 and TH 101 river crossings. Identify the approach/options if a river crossing is included after 2040. In the 2040 Metropolitan Council Transportation Policy

Plan, a river crossing is not anticipated within the 2040 planning period. The I-94/ Dayton Parkway Interchange design should identify the impacts to its design if a river crossing is constructed. Dayton Parkway would intersect with Zanzibar Lane creating a connection between I-94 and a possible future river crossing.

## Major Trends and Influencing Factors

Several social, economic, environmental, and technological trends will affect the City of Dayton, as well as the entire Twin Cities metropolitan area, over the next 20 years. These include population growth, changes in household size, increases in the cost of conventional fuels coupled with transition to alternative fuel sources, the emergence of ride hailing and similar alternative modes, and various environmental efforts and concerns. With increased population growth and limited new or expanded transportation facilities, congestion on the regional highway system is expected to increase. Specific transportation issues the City of Dayton faces include:

### Need for I-94 Interchange

As the northwest Hennepin County area grows, increased access to I-94 is necessary to relieve current access points and to balance flows on the arterial roadway system. The NW Hennepin Study examined an interchange at the Brockton Lane area considering spacing with other I-94 access points as well as connections to the arterial roadway system. This proposed regional access to I-94 serves to relieve adjacent interchanges, increase system efficiency and safety, and relieve overloads on other local system linkages. The City has secured funding and final approved plans for a Diverging Diamond interchange to be known as the Dayton Parkway Interchange. The City has received Federal authorization to advertise for bids and construction is anticipated to begin spring 2020 with completion fall of 2021.

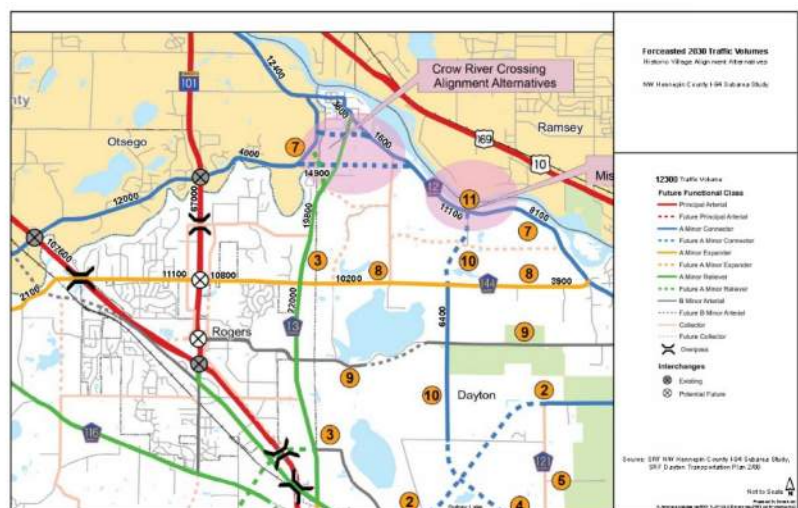
### Lack of Arterial Roadways

There is a lack of arterial roadways within Dayton, given the planned urbanization of the area over time and the construction of the Dayton Parkway Interchange. Improving system connectivity would provide better east-west and north-south flow in immediate growth areas as well as address current and future capacity issues at major intersections and interchanges and overloaded segments.

### River Crossings

The potential need for a new Crow River crossing was raised by the Wright County Transportation Plan in 1994, but was identified as beyond the study period in the previous Hennepin County Transportation Systems Plan (HC-TSP). The ultimate arterial roadway alignment with a new river crossing has not yet been determined and will require further detailed study.

A Mississippi River crossing is not included in the 2040 Transportation Policy plan. Future planning of a corridor and right-of-way protection will be considered as Dayton develops. Future corridor alignment between a future crossing and I-94/Dayton Parkway Interchange would be Vicksburg Lane/Zanzibar Lane to Dayton Parkway.



## Emerging and Developing Technologies

In addition to the issues cited above, several emerging technologies are anticipated to impact Dayton and the rest of the Twin Cities metropolitan area within the 20-year planning horizon of this Transportation Plan update. Emerging technologies include electric vehicles, connected vehicles, automated vehicles, and continued development of ride hailing systems such as Uber and Lyft. As a growing community located within an expanding metropolitan economy, Dayton will experience some degree of impacts from these technologies in the next 20 years.

## ROADWAY SYSTEM

The roadway network in the City of Dayton is a significant component of its transportation system and continues to expand to accommodate growth and redevelopment within and outside the City. The City of Dayton features efficient access to the regional transportation roadway system with major corridor routes passing through the City. Industrial areas and economic centers in the City of Dayton are located with nearby access to the metropolitan highway system, which reduces the impact of truck traffic on local roadways and minimizes the potential for disruption of neighborhoods. This section of the Transportation Plan addresses key features of Dayton's roadway system including the jurisdictional and functional classifications, roadway system improvements, traffic volumes, congestion, safety, and additional transportation components and policies.

### Jurisdictional Classification

Ownership of the City's roadway system is shared among the Minnesota Department of Transportation (MnDOT), Hennepin County, and the City of Dayton. MnDOT maintains the interstate and trunk highway system on behalf of the State of Minnesota, Hennepin County maintains the County State Aid-Highway (CSAH) and County Road (CR) systems, and the remaining public roadways within the City are owned and maintained by the City of Dayton including Municipal State Aid Streets (MSAS). The three jurisdictions coordinate in the planning and improvement efforts of the roadway system in Dayton. The existing jurisdictional classification map is shown in **Figure 1**.

The jurisdictional classification system is intended to maintain a balance of responsibility among the three governing agencies. It is organized around the principle that the highest volume and limited access roadways that carry regional trips are primarily maintained by MnDOT, the intermediate volume roadways that carry medium length trips are maintained by Hennepin County, and the local street system that provides access to individual properties is maintained by the City of Dayton. Occasionally, due to growth and development, changes in travel patterns or construction of new facilities, the jurisdictional classification needs to be adjusted to reflect changes in the way certain roadways are utilized.

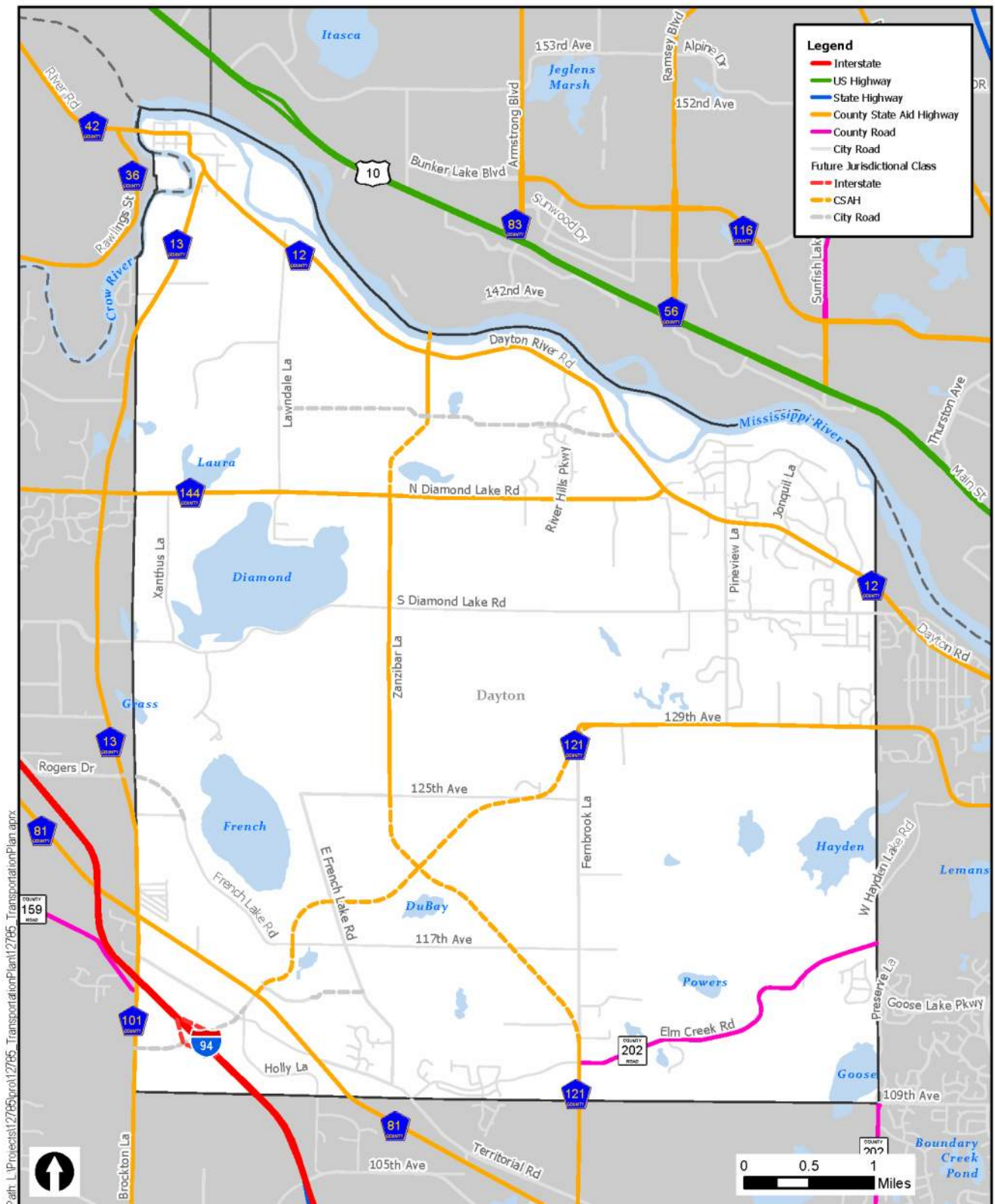
### Jurisdictional Transfers and New Roadways

Below is a list of new roadways within the City of Dayton and their respective proposed jurisdictional ownership

- Pioneer Parkway from Lawndale Lane to Dayton River Road (City Owned)
- French Lake Road redirect to connect to Rogers Drive (City Owned)
- Existing Fernbrook Lane from new redirect to 129<sup>th</sup> Avenue (City Owned)
- Zanzibar Lane from Mississippi River to existing Fernbrook Lane (County Owned)
- 113th Avenue extension to French Lake Road (City Owned)
- Dayton Parkway from west City limits to 129th Avenue (County Owned)

- Interchange at I-94 and Dayton Parkway (MNDOT Owned)

**Figure 1. Existing and Future Roadway System**



**Existing and Future Roadway System**  
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**Figure 1**

## Functional Classification

Roadway functional classification categories are defined by the way roadways serve the flow of trips through the overall roadway system. Within the Twin Cities metropolitan area, the Metropolitan Council has established detailed criteria to define roadway functional classifications, which are presented in **Table 1**. The following is a detailed discussion of each functional classification category.

**Table 1. Metropolitan Council Roadway Functional Classifications**

Criteria	Principal Arterial	Minor Arterial and Other Arterial	Collector	Local Street
<b>Place Connections</b>	Connect regional job concentrations and freight terminals within the urban service area.	Provide supplementary connections between regional job concentrations, local centers, and freight terminals within the urban service area.	Connect neighborhoods and centers within the urban service area.	Connect blocks and land parcels within neighborhoods and within commercial or industrial developments.
<b>Spacing</b>	Urban communities: 2 to 3 miles. Suburban communities: Spacing should vary in relation to development density of land uses served, 2 to 6 miles.	Regional job concentrations: 1/4 to 3/4 mile. Urban communities: 1/2 to 1 mile. Suburban communities: 1 to 2 miles.	Job concentrations: 1/8 to 1/2 mile. Urban Communities: 1/4 to 3/4 mile. Suburban Communities: 1/2 to 1 mile.	As needed to access land uses.
<b>System Connections</b>	To interstate freeways, other principal arterials, and select A-Minor arterials. Connections between principal arterials should be of a design type that does not require vehicles to stop. Intersections should be limited to 1 to 2 miles.	To most interstates, principal arterials, other minor arterials, collectors and some local streets.	To minor arterials, other collectors, and local streets.	To a few minor arterials. To collectors and other local streets.
<b>Trip-Making Service</b>	Trips greater than 8 miles with at least 5 continuous miles on principal arterials. Express and highway bus rapid transit trips.	Medium-to-short trips (2 to 6 miles depending on development density) at moderate speeds. Longer trips accessing the principal arterial network. Local, limited-stop, and arterial bus rapid transit trips.	Short trips (1 to 4 miles depending on development density) at low-to-moderate speeds.	Short trips (under 2 miles) at low speeds, including bicycle and pedestrian trips. Longer trips accessing the collector and arterial network.
<b>Mobility versus Land Access</b>	Emphasis is on mobility for longer trips rather than direct land access. Little or no direct land access within the urbanized area.	Emphasis on mobility for longer trips rather than on direct land access. Direct land access limited to concentrations of activity including regional job concentrations, local centers, freight terminals, and neighborhoods.	Equal emphasis on mobility and land access. Direct land access predominantly to development concentrations.	Emphasis on land access, not on mobility. Direct land access predominantly to residential land uses.
<b>System Mileage</b>	5-10%	10-15%	5-15%	60-75%

**Table 1. Metropolitan Council Roadway Functional Classifications (continued)**

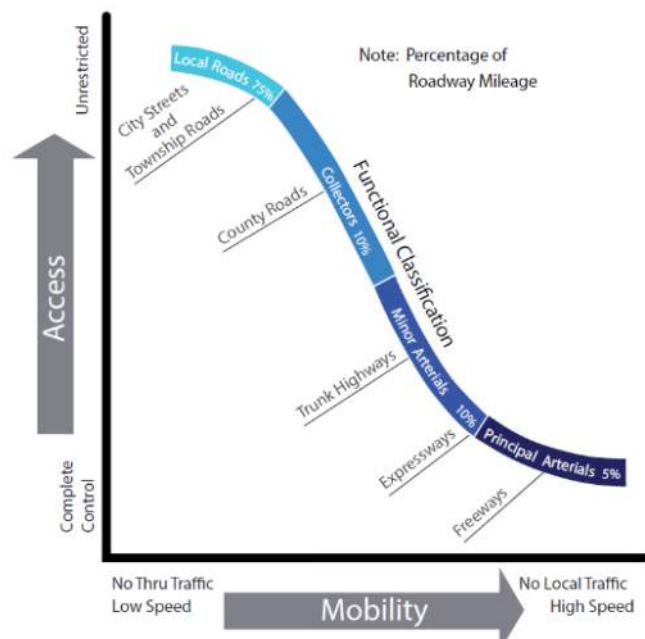
Criteria	Principal Arterial	Minor Arterial and Other Arterial	Collector	Local Street
<b>Percent of Vehicle Miles Traveled</b>	15-35%	15-25%	10-25%	10-25%
<b>Intersections</b>	Grade separated desirable where appropriate. At a minimum, high-capacity controlled at-grade intersections.	Traffic signals, roundabouts, and cross-street stops.	Four-way stops and some traffic signals.	As required.
<b>Parking</b>	None	Restricted as necessary.	Restricted as necessary.	Permitted as necessary.
<b>Large Trucks</b>	No restrictions.	Candidates for local truck network, large trucks restricted as necessary.	May be candidates for local truck network, large trucks restricted as necessary.	Permitted as necessary.
<b>Management Tools</b>	Ramp metering, preferential treatment for transit, access control, median barriers, traffic signal progression, staging of reconstruction, and intersection spacing.	Traffic signal progression and spacing, land access management and control, preferential treatment for transit.	Number of lanes, traffic signal timing, land access management.	Intersection control, cul-de-sacs, and diverters.
<b>Typical Average Daily Traffic Volumes</b>	15,000 to 100,000+	5,000 to 30,000+	1,000 to 15,000+	Less than 1,000
<b>Posted Speed Limit</b>	40 to 65 mph	30 to 45 mph	30 to 40 mph	Max. 30 mph
<b>Right-of-Way</b>	100 to 300 feet	60 to 150 feet	60 to 100 feet	50 to 80 feet
<b>Transit Accommodations</b>	Transit advantages that provide priority access and reliable movement for transit in peak periods where possible and needed.	Transit advantages for reliable movement where needed.	Regular-route buses, transit advantages for reliable movement, where needed.	Normally used as bus routes only in nonresidential areas.
<b>Bicycle and Pedestrian Accommodations</b>	On facilities that cross or are parallel to the principal arterial with greater emphasis along transit routes and in activity centers. Crossings should be spaced to allow for adequate crossing opportunities.	On facilities that cross or are parallel to the minor arterial with greater emphasis along transit routes and in activity centers. Crossings should be spaced to allow for adequate crossing opportunities.	On, along, or crossing the collector with higher emphasis along transit routes and in activity centers. Crossings should be spaced for adequate crossing opportunities.	On, along, or crossing the local road.

Source: Metropolitan Council, 2040 Transportation Policy Plan, Adopted January 14, 2015.

The intent of the functional classification system is to create a hierarchy of roads that collect and distribute traffic from neighborhoods to the metropolitan highway system. Roadways with a higher functional classification, such as arterials, generally provide for longer trips, have more mobility, have limited access, and connect to larger economic and industrial centers. Roadways with a lower functional classification, such as collectors and local streets, generally provide for shorter trips, have lower mobility, have more access, and connect to higher functioning roadways. A balance of all functions of roadways is important for effective operation of the City's transportation network.

The roadway functional classification is based on several factors, including:

- Trip characteristics such as length of route, type and size of activity centers, and route continuity;
- Access to regional population centers, activity centers, and major traffic generators;
- Proportional balance of access, ease of approaching or entering a location;
- Proportional balance of mobility and ability to move without restrictions;
- Continuity between travel destinations;
- Relationship with neighboring land uses;
- Eligibility for State and Federal funding.



The existing roadway functional classification within the City of Dayton is shown in **Figure 2A**. The functional classification system represents the system that has been approved by the Metropolitan Council and is in place at the writing of this document.

Further information on Metropolitan Council functional classification criteria can be found in Appendix D of the Council's 2040 Transportation Policy Plan.

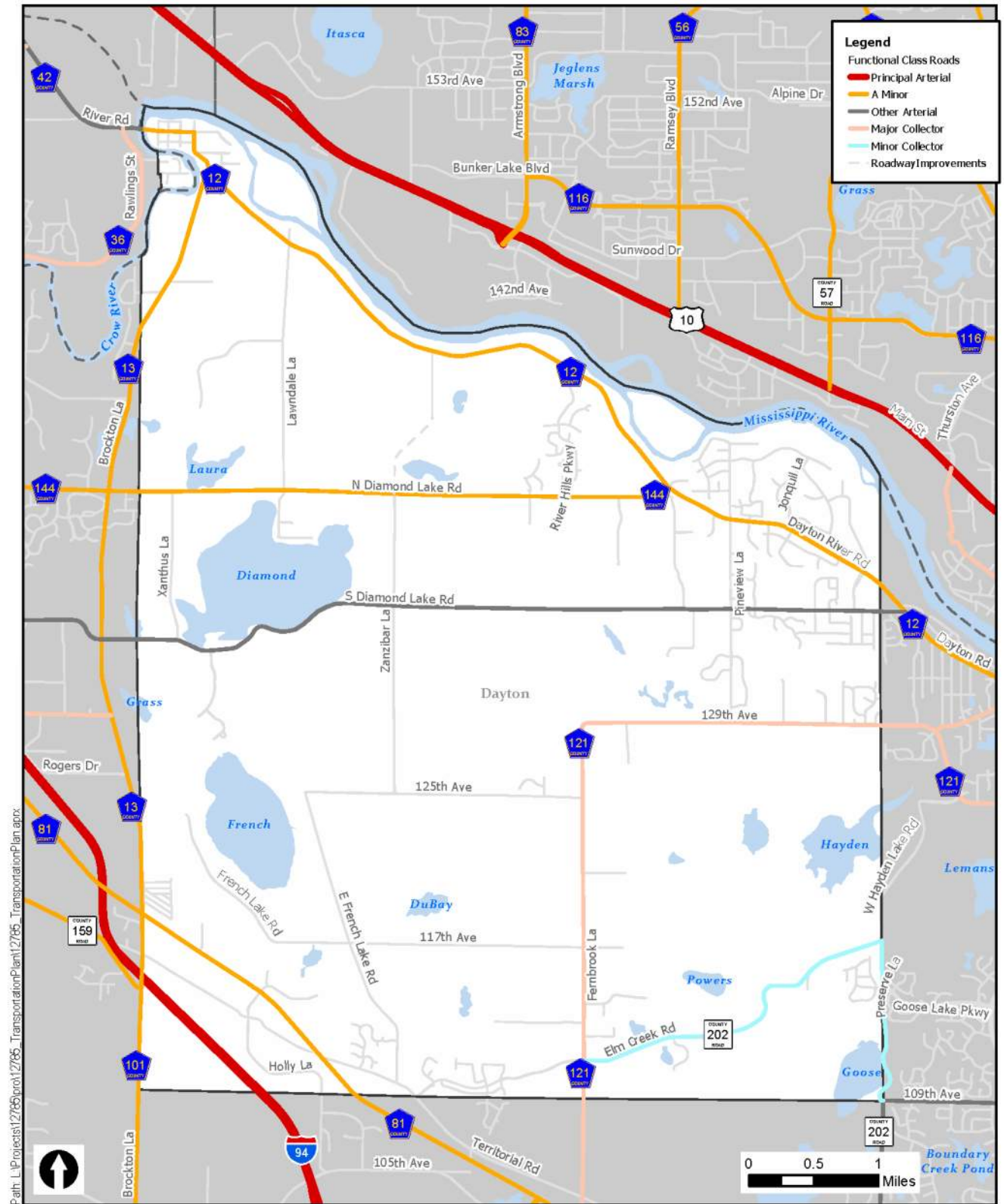
### Principal Arterials

Principal arterials are part of the Metropolitan Highway System and provide high-speed mobility between the Twin Cities and important locations outside the metropolitan area. They are also intended to connect the central business districts of the Twin Cities along with other regional business concentrations in the metropolitan area. Principal arterials are generally constructed as limited access freeways in urban areas and may also be constructed as multiple-lane divided highways.

### A-Minor Arterials and Other Arterials

Minor arterials also emphasize mobility over land access, serving to connect large cities with adjacent communities and the metropolitan highway system. Major business concentrations and other important traffic generators are usually located on minor arterial roadways. In urban areas, one- to two-mile spacing of minor arterials is considered appropriate, and most locations within the City of Dayton are within one mile of a minor arterial.

**Figure 2A. Existing Functional Classification**



**Existing Functional Class**  
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**Figure 2A**

A-Minor arterials are defined by the Metropolitan Council as roadways of regional importance as they serve to relieve, expand or complement the principal arterial system. Consistent with Metropolitan Council guidelines,

A-Minor arterials are categorized into four types and are described in further detail below:

- Relievers – Roadways that provide direct relief for metropolitan highway traffic;
- Expanders – Roadways that provide a way to make connections between urban areas outside the I-494/I-694 beltway.
- Connectors – Roadways that provide safe connections to communities at the edge of the urbanized area and in rural areas.
- Augmenters – Roadways that enhance principal arterials within the I-494/I-694 beltway.

A well-planned and adequately designed system of principal and minor arterials will allow the City of Dayton's overall roadway network to function properly and discourage through traffic from travelling on residential streets. Volumes on principal and minor arterial roadways are expected to be greater than volumes on collector or local roadways.

### Collectors

Collectors are designed to serve shorter trips that occur within the City and to provide access from neighborhoods to other collector roadways and the arterial system. Collector roadways are expected to carry less traffic than arterial roadways and intended to provide access to some local properties. Collectors are typically categorized as major and minor, with major collectors linking other collectors to minor arterials, and minor collectors linking local streets to other collectors or minor arterials.

### Local Streets

Local streets provide access to adjacent properties and neighborhoods. Local streets are generally low speed and designed to discourage through traffic. All remaining roadways in the City of Dayton that were not listed under the previous functional classifications fall under the local street designation.

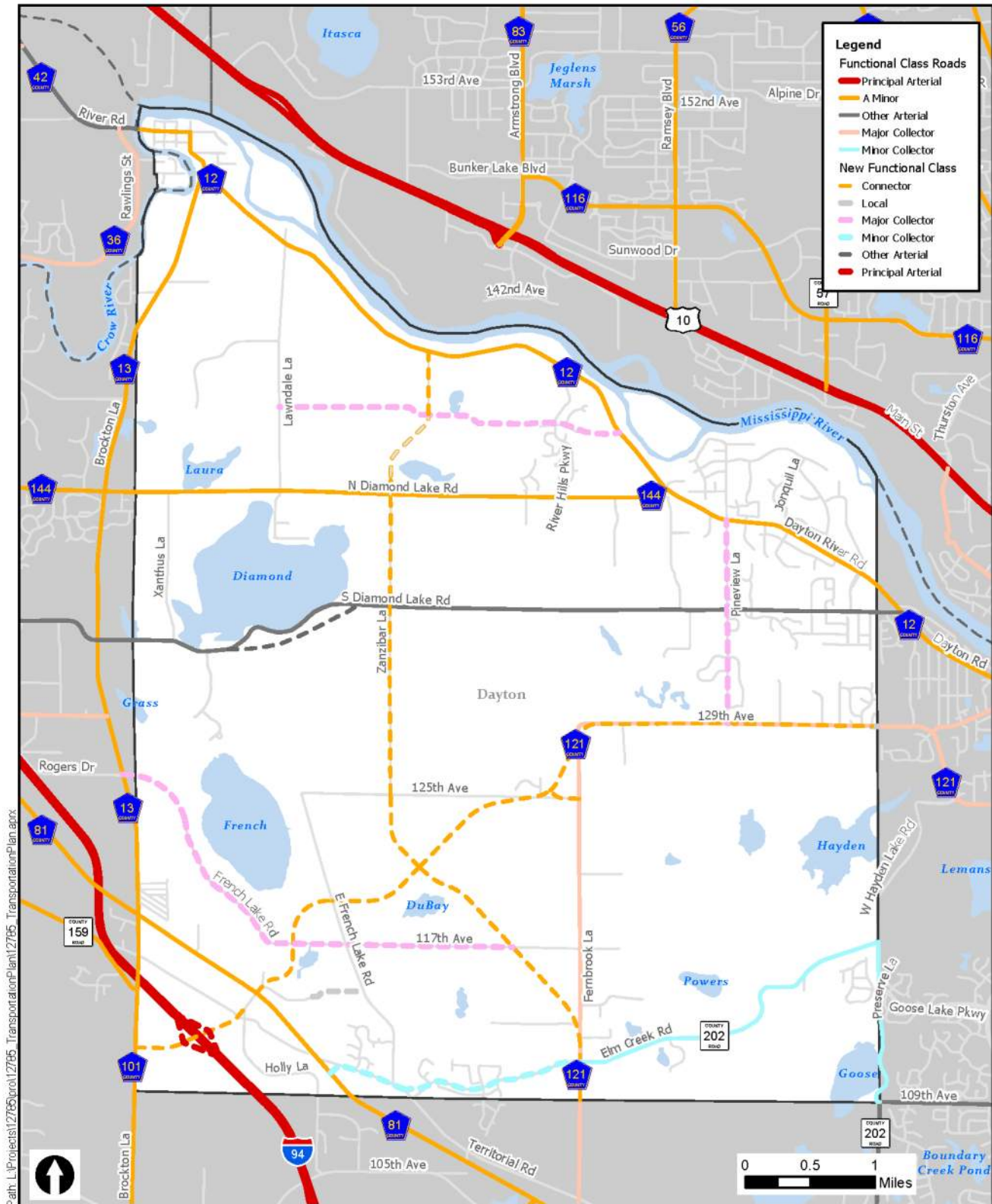
### Proposed Functional Classification Changes

The future functional classification within the roadway system is important for determining access and long-term land use. Occasionally, due to growth and development, changes in travel patterns or construction of new facilities, the functional classification needs to be adjusted to reflect changes in the way certain roadways are utilized. Future functional classification changes as indicated in the Hennepin County 2040 Transportation Plan within the City of Dayton are listed below (major collector shifting to an A-minor arterial):

- CSAH 121 (Fernbrook Lane) – South Dayton Border to East Dayton Border
- Zanzibar Lane extension
- Dayton Parkway

There are no additional recommended functional classification changes to the principal or A-minor arterial systems as part of this plan. There are a couple of major and minor collector recommended changes to the functional classification system as well. These recommended changes, along with all others, are shown in **Figure 2B**.

**Figure 2B. Future Functional Classification**



**Future Functional Class**  
Dayton Transportation Plan Update  
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**Figure 2B**

## Programmed and Planned Improvements

**Table 2** identifies programmed roadway improvements from the City of Dayton's Capital Improvement Program (CIP), the Hennepin County CIP and MnDOT's 10-Year Statewide Capital Highway Improvement Plan (CHIP). Programmed improvements have advanced through the project funding programming process and have funds committed to the improvement in a designated year. Planned projects have also been identified that can reasonably be considered within the planning horizon. These planned projects have been formally studied and/or included in a transportation plan, but typically no commitments to fund the improvement have been made. The anticipated timeframe is also identified within the table, along with the responsible jurisdictional agency.

## MnPASS System Study

In 2018 MnDOT developed the MnPASS System Study Phase 3 to assist in updating the MnPASS system vision and prioritized list of MnPASS corridors in the Metropolitan Council's 2040 TPP. The MnPASS System Study Phase 3 builds on the first MnPASS System Study (2005) and MnPASS System Study Phase 2 (2010). The system Scenario 3 represents the optimal MnPASS system evaluated in the study and identifies I-94 (from TH 101 to I-494) as a potential future MnPASS corridor in the City of Dayton.

## Coordination with Other Jurisdictions

The City of Dayton strives to coordinate with adjacent jurisdictions, such as the Cities of Rogers, Corcoran, Maple Grove, Brooklyn Park, Champlin, Coon Rapids, Ramsey, Otsego, Elk River, as well as Hennepin County, Sherburne County, Wright County and MnDOT when planning future transportation improvements. Coordination among jurisdictions will provide opportunities for collaboration that could benefit all agencies, City residents, and the public. Additionally, effective coordination may result in financial and time savings through economies of scale, and potentially reducing construction impacts to residents.

**Table 2. List of Programmed and Planned Improvements**

Roadway	Extents		Timeframe	Jurisdiction
I-94 Interchange	Interchange Area		2020	Dayton/MnDOT/ Hennepin Co
Dayton Parkway	Brockton Lane (CR101) to CSAH 81	4-Lane Construction	2020	Dayton/MnDOT/ Hennepin Co
Dayton Parkway	CSAH 81 to 117th Avenue	4-Lane Construction	2025	Dayton/Hennepin Co
113th Avenue	113th Avenue existing to East French Lake Road	3-Lane Construction	2025	Dayton
French Lake Road	Rogers Drive to Dayton Parkway	2-Lane Construction	2025	Dayton
Pioneer Parkway	Lawndale Lane to Dayton River Road (CR12)	2-Lane Construction	2030*	Dayton
Dayton Parkway	117th Avenue to Fernbrook Lane Extension	4-Lane Construction	2035	Dayton/Hennepin Co
Fernbrook Lane	Fernbrook Lane existing to 125th Avenue	4-Lane Construction	2035	Dayton/ Hennepin Co
Zanzibar Lane	125th Avenue to North Diamond Lake Road	Roadway Extension	2040	Dayton/ Hennepin Co
Dayton Parkway	Fernbrook Lane Extension to 129th Avenue	4-Lane Construction	2040**	Dayton/Hennepin Co
Dayton Parkway	129th Avenue to East City Limits	4-Lane Construction	2040**	Dayton/Hennepin Co
Zanzibar Lane	North Diamond Lake Road to Vicksburg Lane	Roadway Extension	2040	Dayton/ Hennepin Co
Vicksburg Lane	Zanzibar Lane Extension to Dayton River Road (CR12)	3-Lane Reconstruction	2040	Dayton/ Hennepin Co
Pineview Lane	129th Avenue to Dayton River Road	4-Lane Construction	2040	Dayton

\* Development driven for roadway completion

\*\* Construction of this roadway network is highly dependent on development growth and jurisdictional coordination

## 2040 Travel Demand Forecasts

The pattern and intensity of travel within the City of Dayton is directly related to the distribution and magnitude of households, population, and employment within the community, in neighboring communities and in the overall region.

Land use, travel patterns, population, and employment change over time affect the efficiency and adequacy of the transportation network. Expected changes in the City's land use pattern, households, population, and employment will be the basis for estimating future travel demand within the City of Dayton.

## Land Use

The City of Dayton has a community designation of emerging suburban edge located within the Metropolitan Council's urban service area. Existing land use within the City of Dayton is identified in the City's Comprehensive Plan.

As the metropolitan area moves forward with a greater focus on multimodal transportation, new development and redevelopment in Dayton will be constrained by the existing and future transportation system. The Transportation Plan is designed to assist the City in developing a transportation system that supports land use and provides safe and efficient movement of people and goods throughout the City.

## Socioeconomic Data

The Metropolitan Council prepared estimates for the overall regional growth in terms of population, households, and employment for the years 2020, 2030, and 2040, allocating an appropriate portion to each municipality. Historic and estimated future population, households, and employment levels for the City of Dayton are shown in **Table 3**.

**Table 3. Summary of Socioeconomic Data for Dayton**

Year	Population	Households	Employment
2020	5,900	2,200	2,000
2030	7,900	3,200	2,490
2040	10,400	4,400	3,000

Source: Metropolitan Council, 2018.

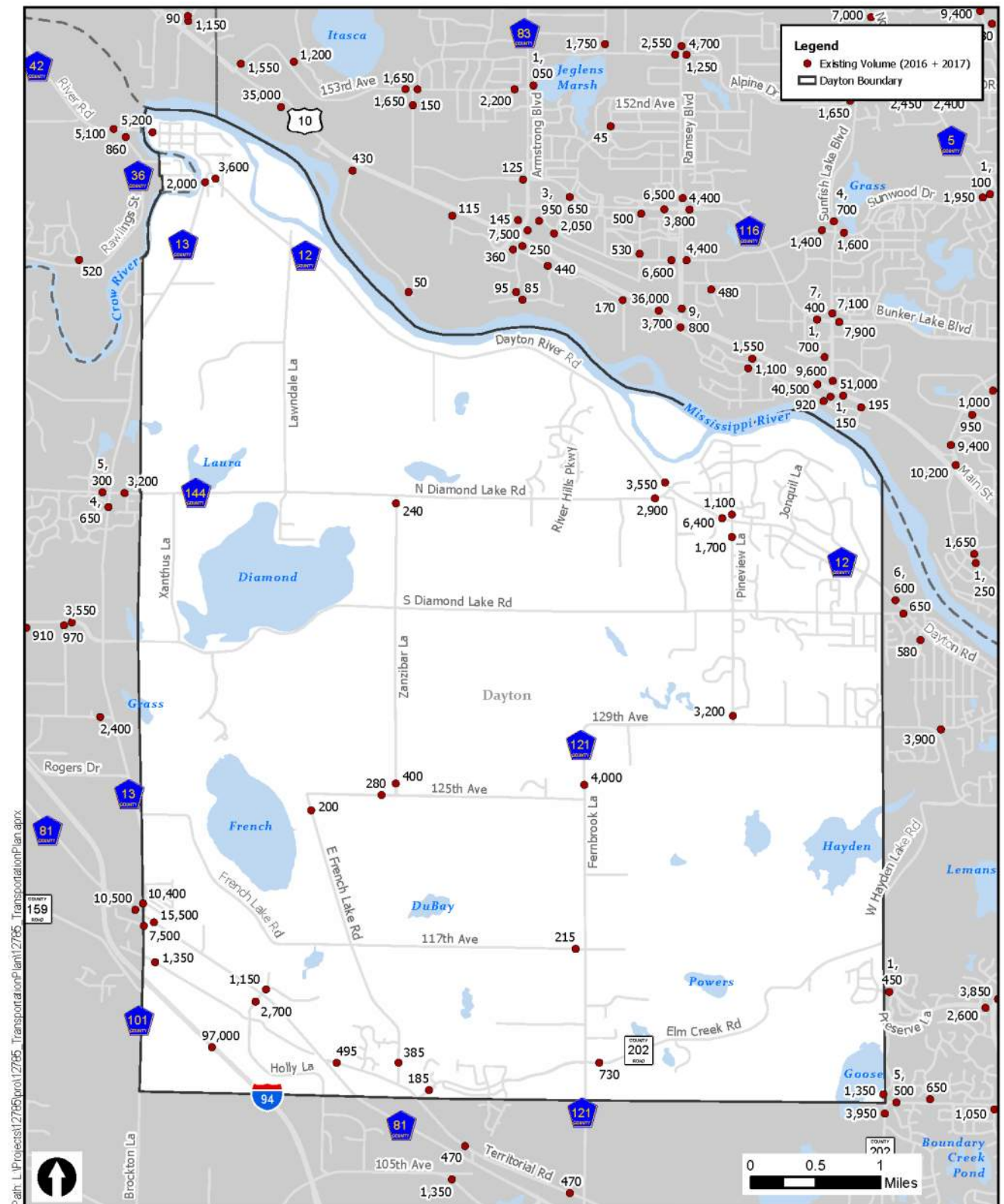
Dayton, with the assistance of the Metropolitan Council, has estimated existing and future population, households, and employment levels for sub-areas within the City known as Traffic Analysis Zones (TAZs). This information was required to complete the traffic forecasting procedures used to estimate future roadway traffic volumes. A map identifying the location of each TAZ within the City and a table summarizing the allocation of socioeconomic data to each TAZ for the year 2020, 2030, and 2040 are provided in **Appendix A**.

## Forecast 2040 Traffic Volumes

Estimated 2040 traffic forecasts for the City of Dayton were prepared using the future population, households, and employment data outlined above. These forecasts are an essential analytical tool to determine the adequacy of the roadway system to handle future development, as anticipated by the City of Dayton and the Metropolitan Council. In addition to the programmed and planned roadway projects identified in **Table 2**, the traffic forecast model accounts for future planned improvements that are in the Metropolitan Council's 2040 TPP for

regional highways outside Dayton. The existing traffic volumes are shown in **Figure 3** and results of the 2040 traffic forecasts are shown in **Figure 4**.

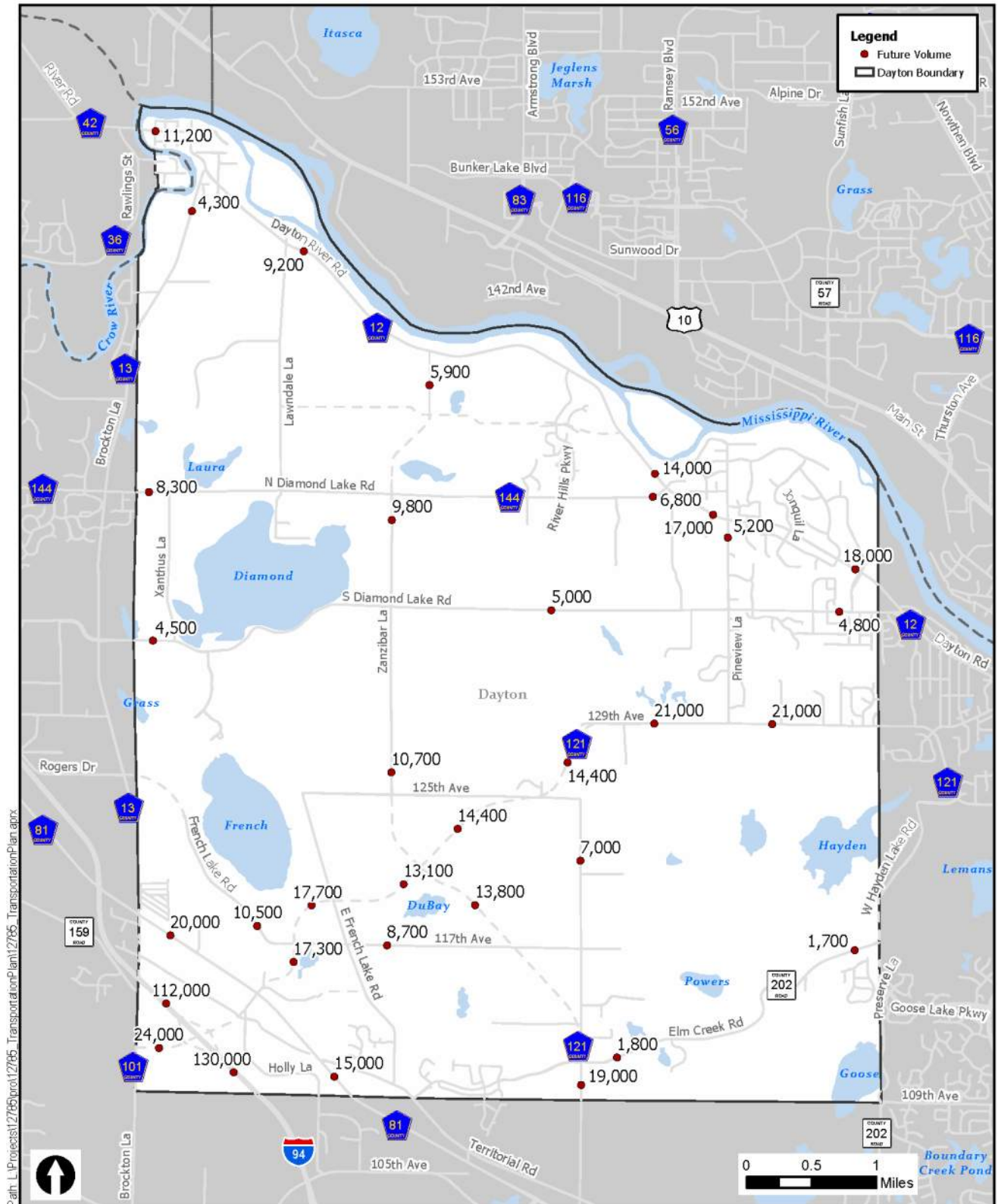
Figure 4. Existing Traffic Volumes



**Existing Traffic Volumes**  
Dayton Transportation Plan Update  
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Figure 3

**Figure 5. Future (2040) Forecast Traffic Volumes**



**Future (2040) Forecast Traffic Volumes**  
 Dayton Transportation Plan Update  
 City of Dayton

**Figure 4**

## Existing and Anticipated System Deficiencies

Congestion on the roadway system is judged to exist when the ratio of traffic volume to roadway capacity, or Volume Capacity (v/c) ratio, approaches or exceeds 1.00. The v/c ratio provides a measurement of congestion along a stretch of roadway and can help determine where roadway improvements, access management, transit services, or travel demand management strategies could be implemented. It does not, however, provide a basis for determining specific intersection improvements.

## Planning-Level Capacity Thresholds

**Table 4** provides a method to evaluate roadway capacity. For each facility type, the typical planning-level annual AADT capacity ranges and maximum AADT volume ranges are indicated. These volume ranges are based on guidance from the Highway Capacity Manual, discussions with the Metropolitan Council and professional engineering judgment. A range is used since the maximum capacity of any roadway design ( $v/c = 1$ ) is a theoretical measure that can be affected by its functional classification, traffic peaking characteristics, access spacing, speed, and other roadway characteristics. Further, to define a facility's "daily capacity," it is recommended that the top of each facility type's volume range be used. This allows for capacity improvements that can be achieved by roadway performance enhancements. This planning-level assessment does not supersede the potential need for detailed operational analysis; nor does it preclude the city from making decisions with respect to the transportation system that are more context based than this planning-level may accommodate.

**Table 4. Planning-Level Roadway Capacities by Facility Type**

Facility Type	Planning Level Daily Capacity Ranges (AADT)	Under Capacity				Approaching Capacity		Over Capacity
		LOS	A	B	C	D	E	F
		V/C	0.2	0.4	0.6	0.85	1.0	>1.0
Two-lane undivided urban	8,000 – 10,000	2,000	4,000	6,000	8,500	10,000	> 10,000	
Two-lane undivided rural	14,000 – 15,000	3,000	6,000	9,000	12,750	15,000	> 15,000	
Two-lane divided urban (Three-lane)	14,000 – 17,000	3,400	6,800	10,200	14,450	17,000	> 17,000	
Four-lane undivided urban	18,000 – 22,000	4,400	8,800	13,200	18,700	22,000	> 22,000	
Four-lane undivided rural	24,000 – 28,000	5,600	11,200	16,800	23,800	28,000	> 28,000	
Four-lane divided urban (Five-lane)	28,000 – 32,000	6,400	12,800	19,200	27,200	32,000	> 32,000	
Four-lane divided rural	35,000 – 38,000	7,600	15,200	22,800	32,300	38,000	> 38,000	
Four-lane expressway rural	45,000 – 55,000	9,000	18,000	27,000	38,250	45,000	> 45,000	
Four-lane freeway	60,000 – 80,000	16,000	32,000	48,000	68,000	80,000	> 80,000	

<b>Six-lane freeway</b>	90,000 – 120,000	24,000	48,000	72,000	102,000	120,000	> 120,000
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### Level of Service

Level of Service (LOS), as related to highways and local roadways, categorizes the different operating conditions that occur on a lane or roadway when accommodating various traffic volumes. It is a qualitative measure of the effect of traffic flow factors such as speed and travel time, interruption, ability to maneuver, driver comfort and convenience, and is an indirect measure of safety and operating costs. LOS is expressed as levels “A” through “F,” with level “A” being a condition of free traffic flow with little or no restriction in speed or maneuverability caused by the presence of other vehicles, and level “F” being a forced-flow condition at low speed with many stoppages resulting in the roadway acting as a storage area. Further definition of LOS is described in **Table 5**.

**Table 5. Level of Service Definitions**

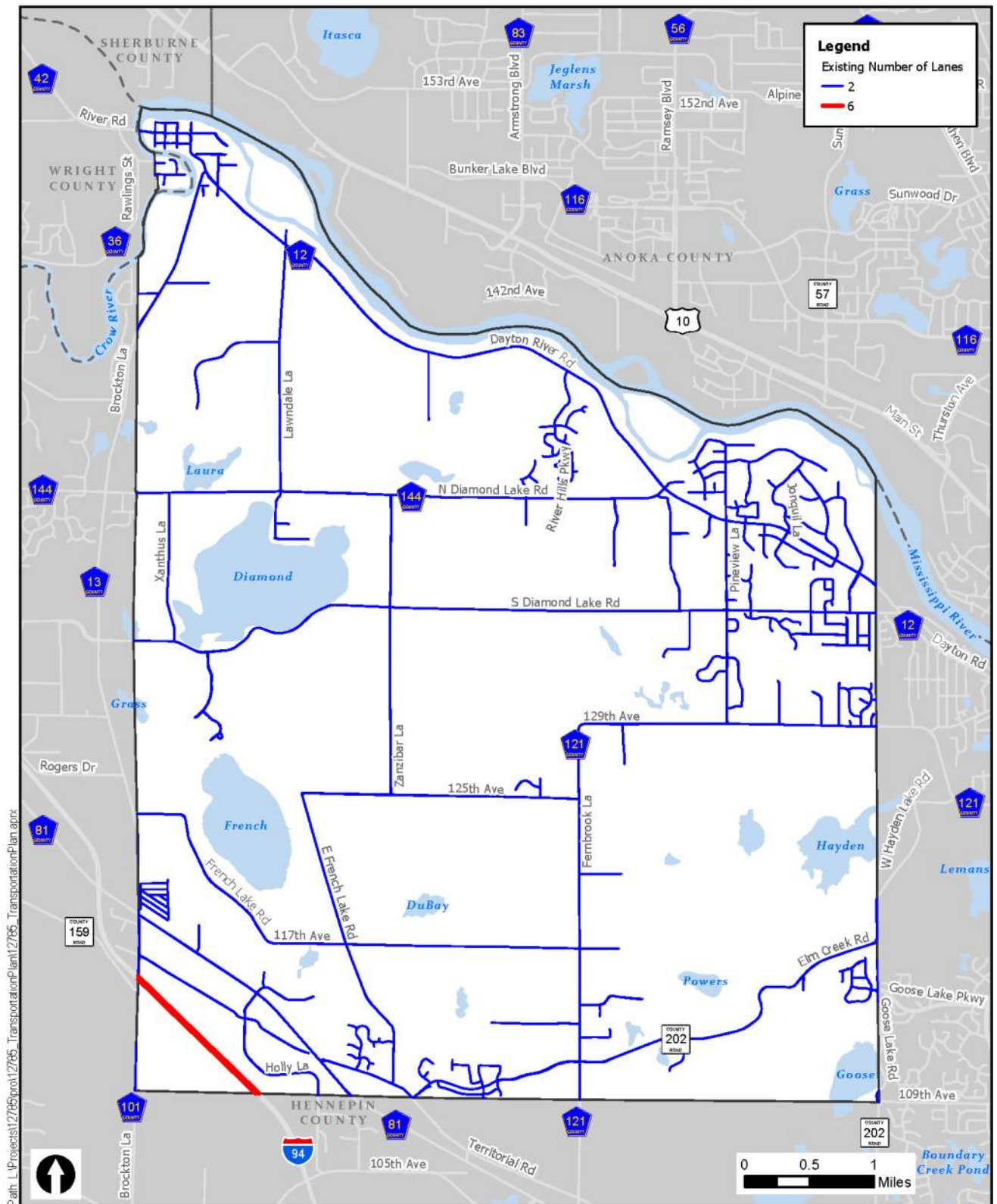
Level of Service (LOS)	Traffic Flow	Volume/Capacity Ratio	Description
<b>A</b>	Free Flow Below Capacity	0.20	Low volumes and no delays.
<b>B</b>	Stable Flow Below Capacity	0.40	Low volumes and speed dictated by travel conditions.
<b>C</b>	Stable Flow Below Capacity	0.60	Speeds and maneuverability closely controlled due to higher volumes.
<b>D</b>	Restricted Flow Near Capacity	0.85	Higher density traffic restricts maneuverability and volumes approaching capacity.
<b>E</b>	Unstable Flow Approaching Capacity	1.00	Low speeds, considerable delays, and volumes at or slightly over capacity.
<b>F</b>	Forced Flow Over Capacity	>1.00	Very low speeds, volumes exceed capacity, and long delays with stop-and-go traffic.

### Existing and Year 2040 Capacity Deficiencies

The existing and year 2040 traffic volumes were analyzed against the existing and future number of lanes (see **Figure 5** and **Figure 6**). The results of this analysis were mapped to identify roadways that currently exhibit capacity deficiencies (see **Figure 7** and **Figure 8**).

The methodology described above is a planning-level analysis that uses average daily traffic volumes and is not appropriate for all traffic conditions. For example, traffic conditions that do not fit the average daily traffic criteria (e.g., weekend travel, holiday travel, special events, etc.) are likely to produce different levels of congestion. Additionally, factors such as the amount of access and roadway geometrics may influence capacity. Roadway segments are defined as overcapacity if the volume-to-capacity ratio is at or above 1.0, which signifies that a segment of road has observed volumes which exceed its design capacity. Roadway segments are defined as near capacity if the volume-to-capacity ratio is at or above 0.85.

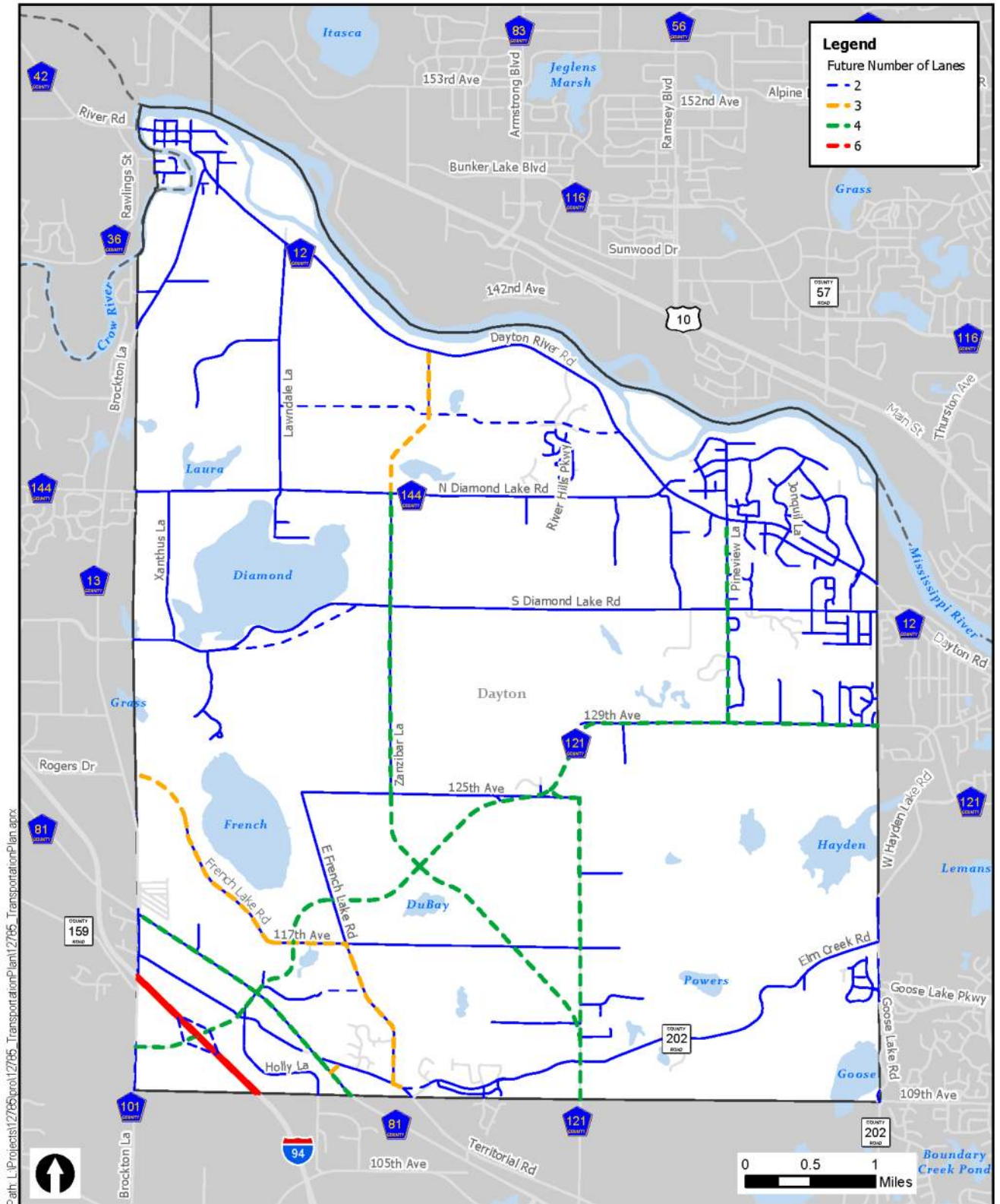
**Figure 6. Existing Number of Lanes**



**Existing Number of Lanes**  
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**Figure 5**

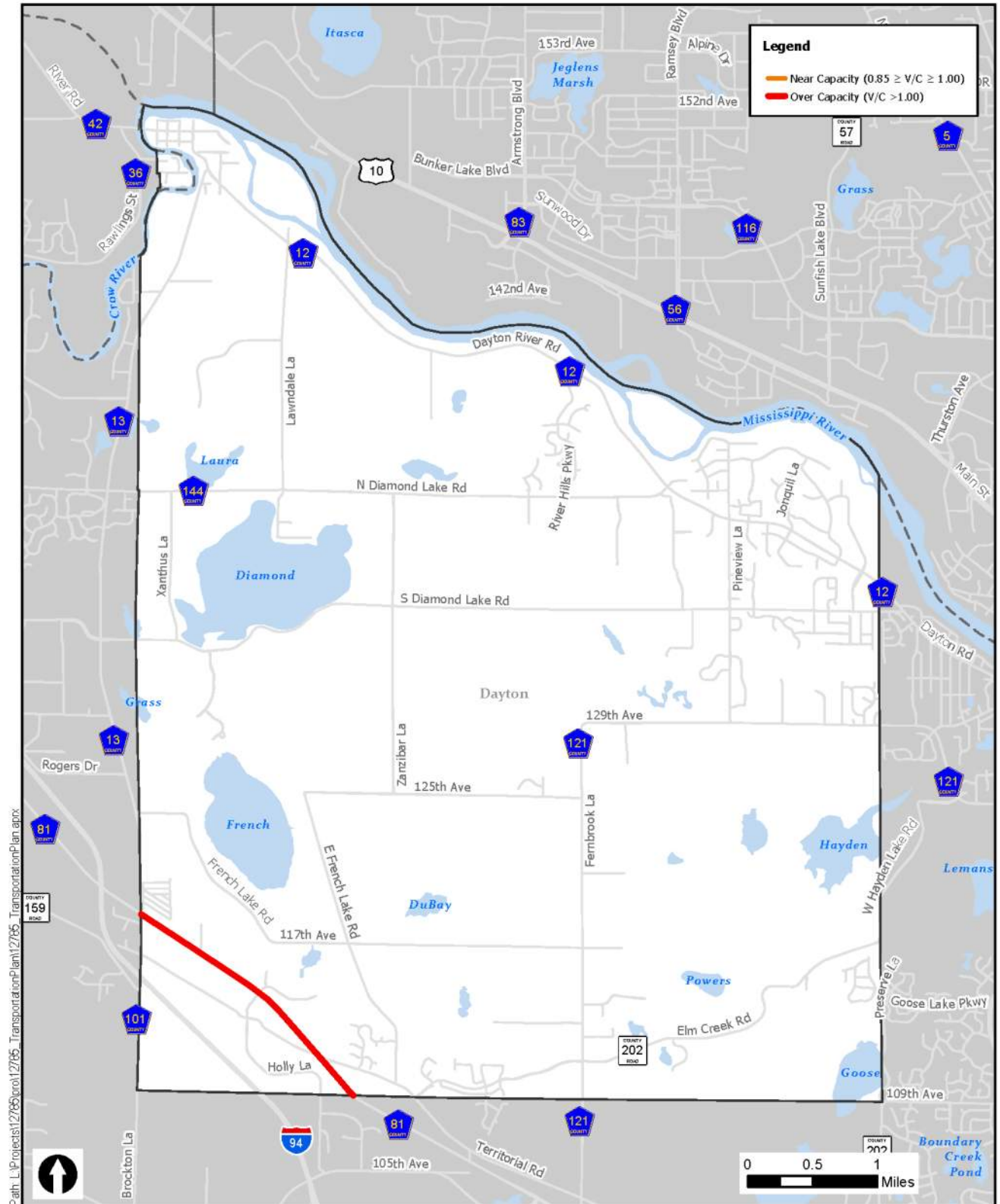
**Figure 7. Future Number of Lanes**



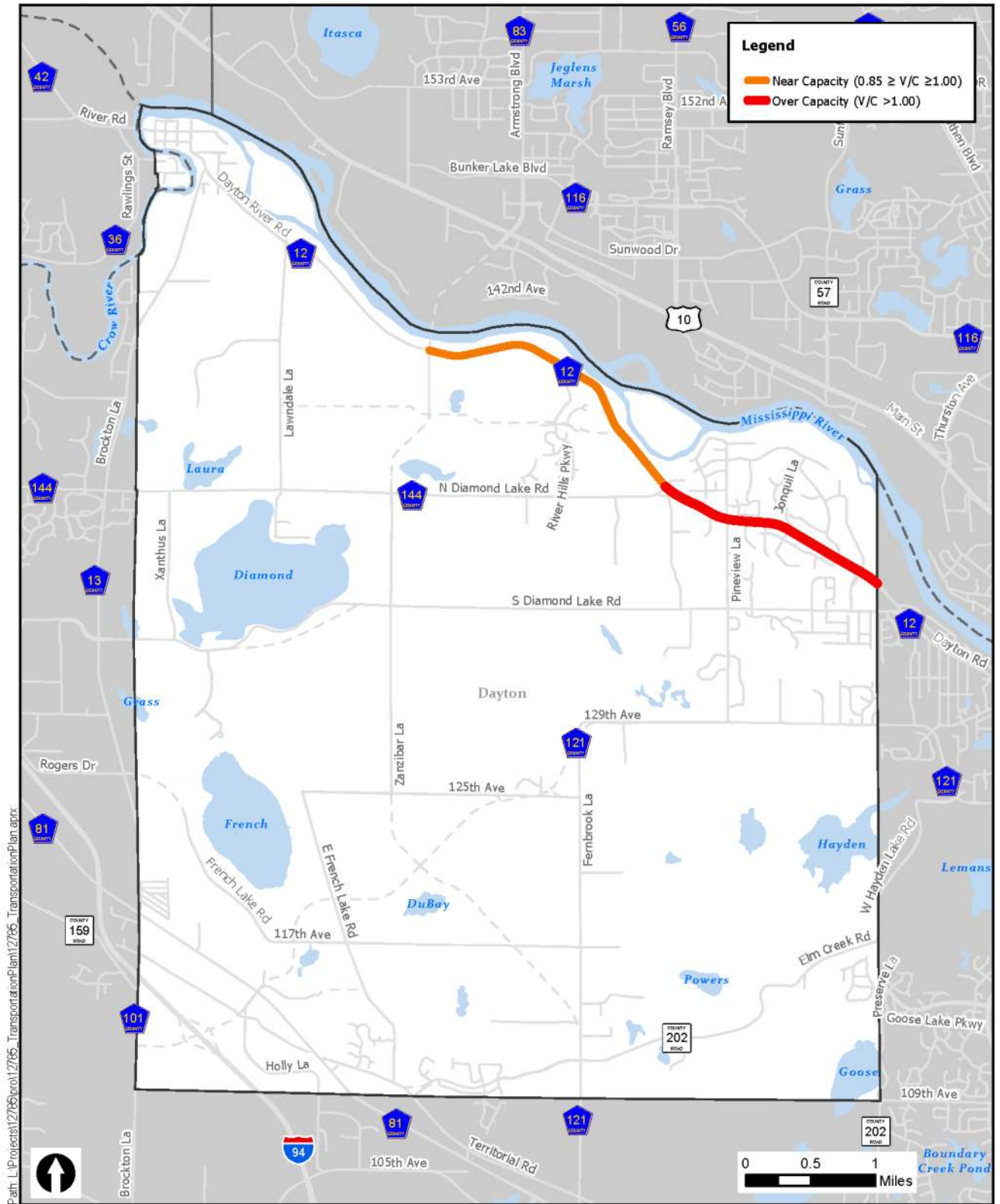
**Future Number of Lanes**  
Dayton Transportation Plan Update  
City of Dayton

**Figure 6**

**Figure 8. Existing Capacity Deficiencies**



**Figure 9. Future Forecasted (2040) Capacity Deficiencies**



**Future Forecasted (2040) Capacity Deficiencies**  
 Dayton Transportation Plan Update  
 City of Dayton

**Figure 8**

## Roadway Safety

Dayton reviewed safety as part of the transportation system assessment. To assist in the evaluation of crashes, MnDOT maintains a database of crash records throughout the State of Minnesota. These records identify the location, severity and circumstances associated with each crash. As shown in **Table 6**, this dataset was reviewed to identify the quantity, location, and severity of crashes in the City of Dayton for years 2011 to 2015. This timeframe was chosen due to data availability; 2016-2018 data is not readily available in the Minnesota Crash Mapping Analysis Tool (MnCMAT).

**Table 6. Motor Vehicle Crashes in Dayton (2011 to 2015)**

Year	Fatal	Personal Injury Crashes			Property Damage	Total Crashes
		Type A Incapacitating Injury	Type B Non-Incapacitating Injury	Type C Possible Injury		
2011	0	2	5	13	46	66
2012	0	1	7	7	46	61
2013	1	2	5	17	48	73
2014	0	3	11	6	59	79
2015	0	3	5	12	46	66
Totals	1	11	33	55	245	345

These crashes were generally widely distributed throughout the City with most locations accounting for only one or two incidents, suggesting that a crash at that location was a random event. However, several of these crashes were concentrated at a limited number of locations. The 10 intersection locations with the highest frequency of crashes between 2011 and 2015 are listed in **Table 7** and illustrated in **Figure 9**. These intersections were also evaluated for the critical index using MnDOT's crash rate methodology, also indicated in **Table 7**. Following MnDOT guidelines, a critical index of 1.00 or less indicates performance within statewide trends, and a critical index above 1.00 indicates that the intersection operates outside the normally expected range.

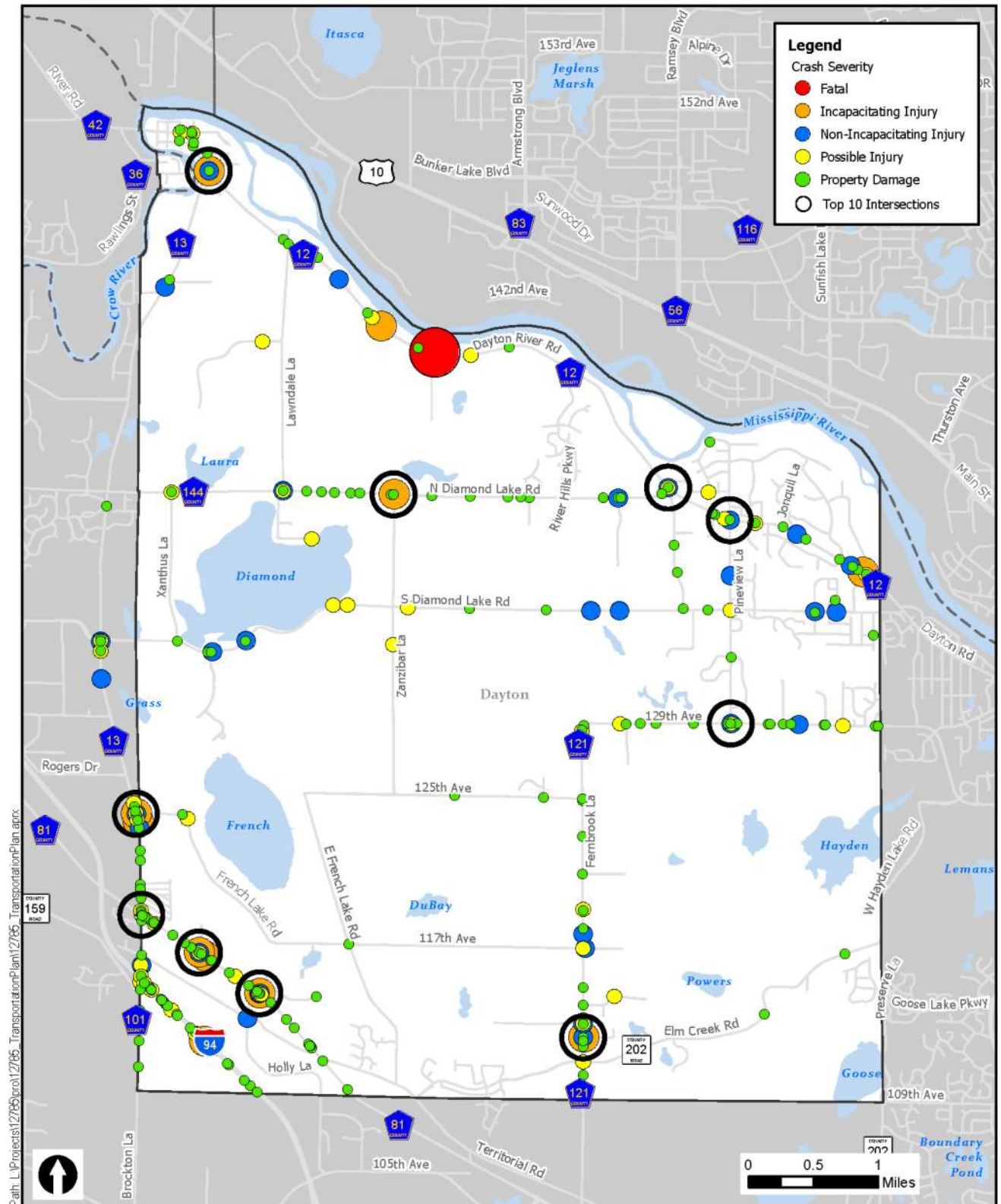
## Critical Index

The critical index is the ratio of the observed crash rate to the critical crash rate. Critical indexes above 1.00 indicate there is likely an existing safety concern at the intersection. Additional analysis and observation of the intersection should be completed to determine the cause of the high critical index. Based on this conclusion, further investigation is recommended at the crash locations with a critical index above 1.00 as identified in **Table 7** to determine the types of crashes occurring and identify mitigation approaches to increase safety.

**Table 7. Top 10 Intersection Crash Locations in Dayton (2011 to 2015)**

Intersection	Severity					Traffic Control	Critical Index	Severity Index
	Fatal	Type A	Type B	Type C	Property Damage			
1. Dayton River Road / N Diamond Lake Road / 142nd Avenue N	0	0	3	1	6	Thru Stop	1.20	0.00
2. Holly Lane / CSAH 81 / 113th Avenue N	0	1	2	5	13	Signal	0.86	0.87
3. 129th Avenue N / Pineview Lane	0	0	1	2	3	Thru Stop	0.83	0.00
4. N Diamond Lake Road / Zanzibar Lane	0	1	0	0	3	Thru Stop	0.78	1.14
5. Brockton Lane / CSAH 81	0	0	0	2	18	Signal	0.68	0.00
6. CSAH 13 / 124th Avenue / Brockton Lane	0	1	1	1	4	Thru Stop	0.63	0.78
7. Fernbrook Lane / 112th Avenue N	0	1	1	0	2	Thru Stop	0.51	0.94
8. Dayton River Road / Brockton Lane	0	1	1	0	1	Thru Stop	0.42	0.98
9. CSAH 81 / Troy Lane	0	1	1	2	2	Thru Stop	0.41	0.66
10. Dayton River Road / Pineview Lane	0	0	0	1	2	Thru Stop	0.33	0.00

Figure 10. Crash Data (2011 to 2015)



**Crash Data (2011 to 2015)**  
Dayton Transportation Plan Update  
City of Dayton

Figure 9

As shown above, most crash hotspots occurred at thru-stop intersections within the City. The overwhelming crash types occurring at these intersections include: right turn into traffic, right angle, and left turn into traffic.

## Right-of-Way

Right-of-way (ROW) is a valuable public asset that needs to be protected and managed in a way that respects the intended function of the adjacent roadway, while serving the best interest of the public. The City of Dayton will likely construct new roadway segments to meet future capacity and connectivity demands due to the City's current and anticipated growth. Such improvements will require adequate ROW be maintained or secured. The City will coordinate with MnDOT and Hennepin County for ROW acquisition along County or State routes.

All planned and programmed improvements (**Table 2**) and recommended roadway improvements (**Figure 10**) will allow the minimum right-of-way requirements below in **Table 8**.

**Table 8. Dayton Right-of-Way Guidelines**

Functional Classification	Min. Roadway Width	ROW Widths <sup>1, 2</sup>
Arterial Street	44 feet	80 feet
Collector Street	36 feet	66 feet
Commercial Street	36 feet	60 feet
Local Roadways	32 feet	50 feet

Note: <sup>1</sup> Due to certain development conditions or physical features of the site or highway, the City may require additional ROW width greater than shown in the guidelines. At intersections, ROW widths may be greater to accommodate additional geometric configurations such as signals, turn lanes, and roundabouts.

<sup>2</sup> For any parkway constructions or reconstruction projects, consult the parkway plan.

## Right-of-Way Preservation

When future expansion or realignment of a roadway is proposed, but cannot immediately be constructed, the City may consider ROW preservation strategies to reduce costs and maintain the feasibility of the proposed improvement. Several strategies may be implemented to preserve ROW for future construction, including advanced purchase, zoning and subdivision dedication techniques, official mapping, and corridor signing. Before implementing any ROW preservation programs, local agencies should consider the risks of proceeding with ROW preservation without environmental documentation, as MnDOT policy requires environmental documentation prior to purchase. If environmental documentation has not been completed, agencies risk preserving a corridor or parcel that has associated environmental issues.

## Direct Purchase

One way to preserve ROW is to purchase it. Unfortunately, agencies rarely have the necessary funds to purchase ROW in advance, and the public benefit of purchasing ROW is not realized until a roadway or transportation facility is constructed. In most cases, local jurisdictions utilize various corridor preservation methods prior to roadway construction and then purchase the ROW, if it is not dedicated, at the time of design and construction.

## Planning and Zoning Authority

Local agencies have the authority to regulate existing and future land use. Under this authority, agencies have several tools for preserving right-of-way for transportation projects. These tools include:

- Zoning – If the property has a very low-density zoning classification, local agencies should try to maintain its existing zoning classification. A low zoning classification limits the risk for significant development and can help preserve land for potential ROW until funding becomes available for roadway construction.
- Platting and Subdivision Regulations – Local platting and subdivision regulations give local agencies authority to consider future roadway alignments during the platting process since most properties must be platted before development. The City of Dayton can use their authority to regulate land development to influence plat configuration and the location of proposed roadways. In most instances, planning and engineering staff work with developers to formulate a plat that meets development objectives and conforms to a long-term community vision and plans. Most local agencies require ROW dedication as part of the platting and subdivision process.
- Official Mapping – A final strategy to preserve ROW is to adopt an Official Map. An Official Map is developed by the local governmental unit and identifies the centerline and ROW needed for a future roadway. The local agency then holds a public hearing showing the location of the future roadway and incorporates the Official Map into its thoroughfare or community facilities plan. The mapping process allows agencies to control proposed development within an identified area, and to influence development on adjacent parcels. However, if a directly affected property owner requests to develop property, agencies have six months to initiate acquisition and purchase of the property to prevent its development. If the property is not purchased, the owner can develop it in conformance with current zoning and subdivision regulations. As a result, this process should only be used for preserving key corridors in areas with significant growth pressures.

### Corridor Signing Program

In addition to land use regulations, some jurisdictions have used a corridor signing program to identify arterial roadways that are planned for expansion projects. This signage program notifies residents and potential developers that the roadway is planned to be upgraded or a new roadway is planned to be constructed. This often streamlines negotiations with residents and developers since they have been given advanced notice of major roadway expansion projects. Further, this advanced information aids developers in planning coordinated land uses and access management measures into their subdivisions. Signs are generally placed along section line roads on the urban fringe near the City limits or within a City's extraterritorial expansion area.

### Access Management

Access management is an important aspect of providing a safe and efficient roadway network. Control of access to roadways, both in terms of cross-street spacing and driveway placement, is a critical means of preserving or enhancing the efficient operation of the roadway system and improving safety by reducing crash exposure. Access control guidelines are used to preserve the public investment in the roadway system and to give direction to developers for plan preparation. The guidelines are intended to balance the public interest in mobility with the property owners interest in access. Access refers to providing roadway access to properties and is needed at both ends of a trip. Mobility is the ability to get from one place to another freely or easily. Most roadways serve both functions to some degree based on their functional classification. Effective control of driveway access on the entire roadway system requires the cooperation of City, County, and State officials.

MnDOT has developed a policy on access management and guidelines for access spacing. MnDOT's Highway Access Category System and Spacing Guidelines can be found at: <https://www.dot.state.mn.us/accessmanagement/resources.html>

### Access to Principal Arterials

The City of Dayton should follow MnDOT guidelines for access to principal arterials. These guidelines recommend limiting cross-street access to one-half mile spacing within urbanized areas, with one- to two-mile spacing being optimal. No new driveway access is permitted to principal arterials.

### Access to Minor Arterials

The City of Dayton strives to meet Hennepin County guidelines for access to the minor arterial system. These guidelines generally call for one-quarter mile spacing of all access points such as cross streets and driveways.

### Driveway Access on City Streets (Collectors and Local Roads)

Driveways contribute to crashes and reduced traffic flow on major streets in local communities as they add to the number of locations where vehicle conflicts can occur. Therefore, it is desirable to have guidelines in place that:

- Limit the number of driveways to those that are needed to safely accommodate the traffic generated by each development;
- Provide adequate spacing between driveways so conflicts and resulting crashes between vehicles maneuvering at adjacent driveways are avoided;
- Ensure proper design to accommodate driveway traffic and minimize vehicle conflicts without significantly reducing roadway capacity.

Occasionally topographic features of an individual site or the needs of a unique land use may require special access features in a proposed development. The City of Dayton may wish to withhold approval of such developments or site changes until a study has been made of the potential impacts on the affected roadways and the adequacy of the proposed access design determined. The City may require that the following steps be included in the traffic study for the site:

- Estimate site traffic generation and future non-site traffic;
- Determine directional distribution of trips;
- Estimate turning movements at driveway and the resulting level of service;
- Analyze current and future access requirements;
- Provide necessary geometric and operational improvements to safely accommodate access requirements without negative impacts to traffic operation on the adjoining roadways.

The City of Dayton will continue to support MnDOT and Hennepin County's access management guidelines on the principal and minor arterial roadway network in the City through the measures listed above. In addition, the City utilizes Hennepin County's access spacing guidelines to guide access decisions on the City's arterial and collector roadway network.

## Traffic Management Strategies

### Traffic Signals

A well-coordinated traffic signal system will promote the efficient flow of traffic along the A-minor arterials in the City of Dayton, as this type of system reduces the likelihood of through traffic diverting to local streets. The City will work with Hennepin County to periodically monitor the progression of traffic signals on key County roadways to ensure efficient system operation.

Operational refinement of the signal system will take place on an ongoing basis. New traffic signals will be built at intersections where specific signal warrants are achieved, and funding is available. Intersection improvements will be considered on a site-by-site basis and will be constructed consistently with the warrants identified in the Minnesota Manual on Uniform Traffic Control Devices (MUTCD) when funding is available. Warrants include specific thresholds relating to traffic volumes and considerations of safety and pedestrian activity.

### Stop Signs

The City of Dayton receives numerous requests for the installation of stop signs to manage speed and other perceived traffic safety problems in residential neighborhoods. City traffic engineers will evaluate each stop sign request by utilizing MnDOT's uniform traffic warrant criteria.

### Traffic Calming

The primary function of minor collector and local streets is to provide access to residences and other uses along the roadway. However, these streets may also provide routes for traveling to and from or passing through a neighborhood. Conflicts arise between these latter functions when residents become concerned about traffic volumes, speeds and pedestrian safety.

Traffic calming generally refers to strategic physical changes made to streets to reduce vehicle speeds, improve safety, discourage through traffic on residential streets, and decrease the automobile's visual dominance in a neighborhood setting. There are several activities that may be referred to as traffic calming, examples of which include raised intersections and crosswalks, roundabouts, curvilinear streets, street narrowing, raised medians and islands, pedestrian treatments, and streetscaping. These traffic calming treatments are considered for low volume local and minor collector streets where excessive speeds pose a safety problem. The City of Dayton will consider requests for traffic calming devices on a case-by-case basis.

### Recommended Roadway System Improvements

Future roadway improvements designed to address system connectivity, continuity, congestion and safety issues are planned and recommended for the roadway system in the City of Dayton. Recommended roadway improvements are shown in **Figure 10** and are derived from the combination of system needs and the intended function of each roadway as it relates to the adjacent supporting land use. It should be noted that improvements discussed in this section do not include spot intersection improvements or trails.

The determination of which projects will be built, and their proper sequencing, will be determined through each jurisdiction's programming process that considers the estimated cost of each project, available financing and coordination with other projects.

### MnDOT and City Roadways

1. Territorial Road realignment at CSAH 81 (and intersection improvements)
2. Rush Creek Parkway/Territorial Road intersection realignment/reconfiguration. Make Rush Creek Pkwy-Territorial (to the west) the "through street" and tie Territorial (to the east) in perpendicularly, with a stop sign. This creates an improved east west collector along south Dayton, and discourages 81 bypass traffic on Territorial
3. South Diamond Lake Road realignment to the south from Zanzibar to Diamond Lake Trail.

### Hennepin County Roadways

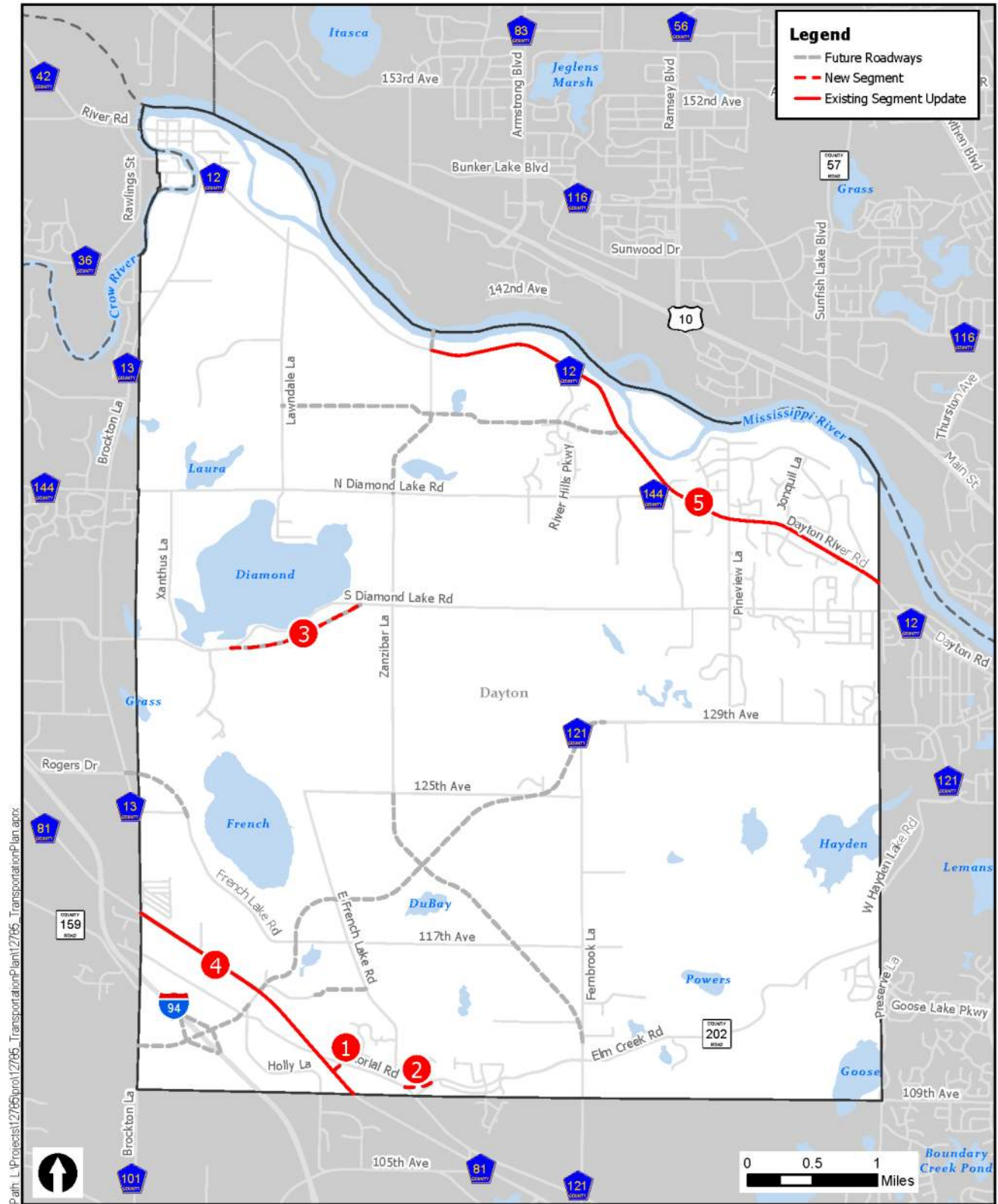
The following projects are on the County roadway system and are the County's responsibility, although the City may participate financially and therefore must include them in the City's Plan

and the City's CIP.

4. CSAH 81 – Consider 4-lane from Brockton at the West border of the City to the Dayton Parkway intersection. Ideally 4-lane to the South border of the City.
5. County Road 12 (Dayton Road) - consider three-lane/four-lane roadway from Zanzibar Lane to East city limit

All improvement considerations should account for safety and access improvements as well.

**Figure 11. Recommended Roadway Improvements**



## Recommended Roadway Improvements

Dayton Transportation Plan Update  
City of Dayton

**Figure 10**

## TRANSIT SYSTEM

As more people choose to live, work, and travel in Dayton, public transit is a key component of meeting mobility needs and linking the City's residents to regional job centers and activities. Transit systems, both fixed route and demand-response, provide for the varied transit needs of the City. Affordable and convenient transit is an essential characteristic of an urban community.

Transit is an important element in the overall transportation network as it offers access to medical care, shopping, and government services for those who cannot access or operate a vehicle, provides opportunities for people who prefer an alternative to automobile travel, and removes a portion of existing or future automobile traffic from the roadway, reducing travel time and congestion for other vehicles on the roadway.

The City of Dayton is committed to seeking ways to implement transit opportunities for residents, employees, and visitors. The City can support transit service by promoting more transit supportive land use patterns as sections of the community continue to develop.

This section of the Transportation Plan identifies the existing transit-related services, facilities, and programs within the City of Dayton, suggests improvements, and discusses the City's role in supporting the transit system.

Public transit is being considered in Dayton as part of the Trailblazer Transit Service. As growth and development occur in the community it will be important to include transit options in designs. Park and Ride or carpool areas should be accommodated in site development or on public sites. One parcel directly north of the Dayton Parkway interchange area has been identified by the City as a possible Park and Ride Station. Streets or parking lots can be designed with pull over locations to accommodate bus stops that do not impede traffic flow. The City is collaborating with Hennepin County, Wright County, and Metro Transit to integrate transit into its transportation network.

### Transit Market Areas

There are five existing transit service areas for all communities within the Twin Cities metropolitan area as identified by the Metropolitan Council<sup>1</sup>. The market service areas are defined by:

- Population density
- Employment density
- Automobile availability
- Intersection density

**Table 9** describes community, land use, ridership potential, and transit service characteristics for the two transit market areas within the City of Dayton. The northern third of the City is in Metropolitan Transit Market Area V with the remainder of the City in Transit Market Area IV. Transit Market Area V has very low population and employment densities and tends to be primarily rural communities and agricultural uses. General public dial-a-ride service may be appropriate here, but due to the very low-intensity land uses these areas are not well-suited for fixed-route transit service.

Transit Market Area IV has lower concentrations of population and employment and a higher rate of auto ownership. It is primarily composed of Suburban Edge and Emerging Suburban

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<sup>1</sup> Metropolitan Council 2040 Transportation Policy Plan, 2015.

Edge communities. This market can support peak-period express bus services if a sufficient concentration of commuters likely to use transit service is located along a corridor. The low-density development and suburban form of development presents challenges to fixed-route transit. General public dial-a-ride services are appropriate in Market Area IV. Additionally, **Figure 11** displays the transit market areas within Dayton along with the City's existing transit system.

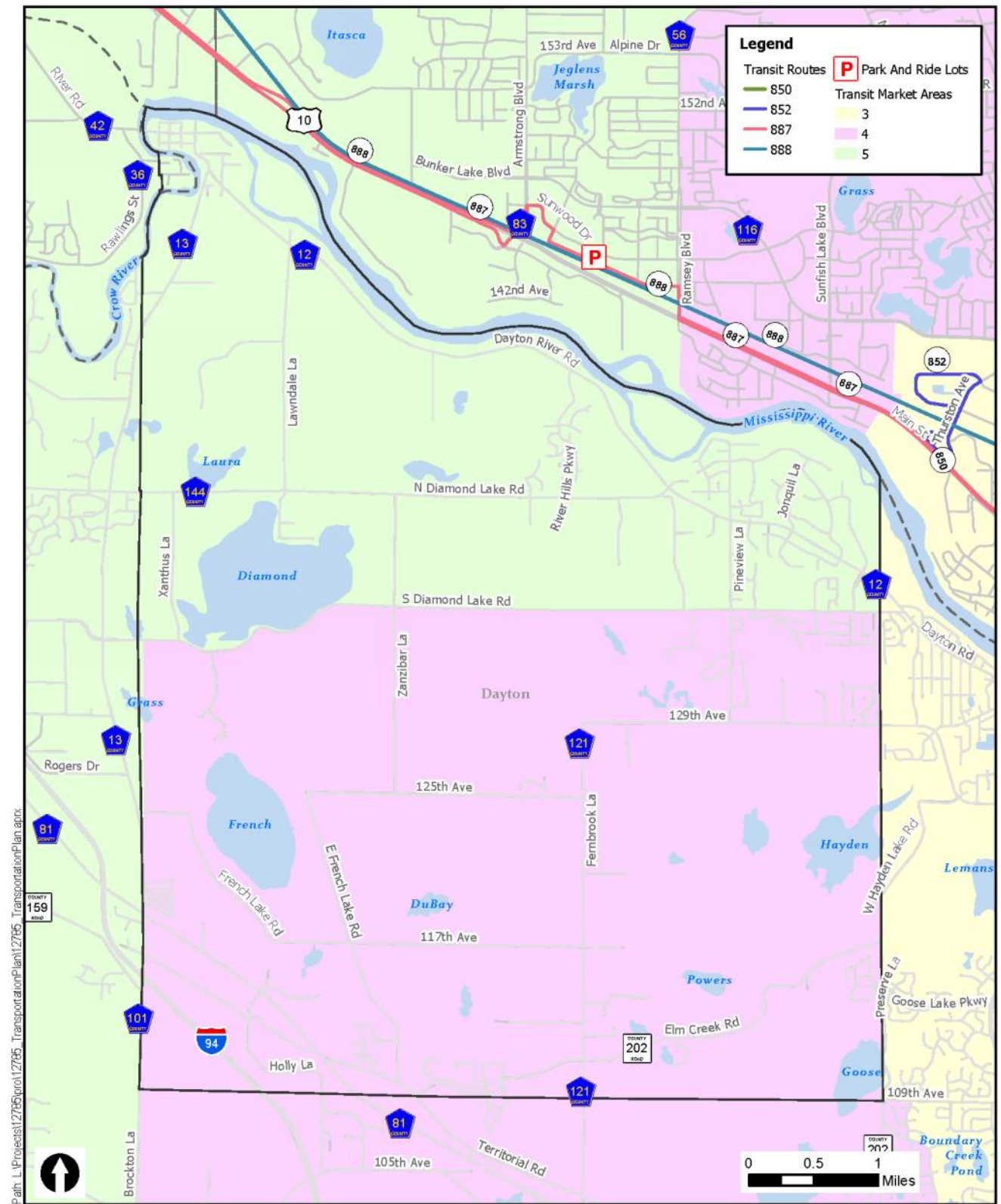
**Table 9. Metropolitan Council Transit Market Areas in Dayton**

Transit Market Area	Propensity to Use Transit	Market Area Description and Typical Transit Services	Presence in Dayton
IV	Approximately half ridership potential of Market Area III.	Transit Market Area IV has lower concentrations of population and employment and a higher rate of auto ownership. It is primarily composed of Suburban Edge and Emerging Suburban Edge communities. This market can support peak-period express bus services if a sufficient concentration of commuters likely to use transit service is located along a corridor. The low-density development and suburban form of development presents challenges to fixed-route transit. Public dial-a-ride services are appropriate in Market Area IV.	Southern two-thirds of Dayton
V	Lowest potential for transit ridership.	Transit Market Area V has very low population and employment densities and tends to be primarily Rural communities and Agricultural uses. Public dial-a-ride service may be appropriate here, but due to the very low-intensity land uses these areas are not well-suited for fixed-route transit service.	Northern third of Dayton

### Transit Services

There are currently no public transit services operating within the City of Dayton. Trailblazer Transit Service may provide service within Dayton in the future.

**Figure 12. Existing Transit System**



**Existing Transit System**  
Dayton Transportation Plan Update  
City of Dayton

**Figure 11**

## BICYCLE AND TRAIL SYSTEM

### Planning for a Connected Pedestrian and Bicycle System

The City of Dayton is an emerging suburban edge community that has experienced significant growth over the last decade. Throughout this expansion, the City has been implementing a plan for park and trail development that provides residents with recreational amenities. These amenities include trails and sidewalks that provide important enhancements to the City's transportation system and allow residents and visitors an alternative approach for travelling to work, school, employment centers and in the future to transit centers. The City of Dayton continues to improve its trail system and future multimodal planning will focus on filling gaps in the existing local trail system and connecting the local system to the regional parks and trail systems, regional employment clusters and the regional transit system.

### Existing Trail System

The City of Dayton has a developing local trail system including connections to City Parks, Elm Creek Regional Park, regional trails, and regional search corridors that extend through the City. As the City's trail system continues to expand, it will be important to identify gaps in the existing system and implement enhancements to the future system to improve connections and provide additional access to regional parks and trails and connections to regional employment clusters. See the Park and Trail Chapter for more details on existing and future park and trail plans.

### Connections to Regional Employment Clusters

The Metropolitan Council has not identified regional destinations such as regional job and activity centers with the City, however the City of Dayton has identified a local employment cluster that are characterized by industrial development. There is one identified employment cluster in Dayton

- CSAH 81 in the southwest corner of the City.

Creating strong multi-modal connections to regional employment clusters outside of the City with trails and sidewalks will enhance the trail network within Dayton by providing residents and visitors alternatives to driving to frequently utilized services. The regional employment clusters are commonly located at the intersection of major highways and can create obstacles for local trails often due to the presence of large bridges and expansive intersections nearby or within the regional employment cluster locations. Planning for trail connections to regional employment cluster locations is an important first step in ensuring that future development includes multi-modal facility enhancements, such as off-road trails, independent pedestrian bridges, and ADA compliant roadway crossings.

Another important element of the City's trail system is its relationship to the local transit system. As transit facilities are developed within Dayton, the City will need to ensure adequate pedestrian and bicycle trail connections are available.

### Regional Parks System Components

Regional parks system components such as regional parks, park reserves, special recreation features, and regional trails are identified in the 2040 Metropolitan Council Regional Parks Policy Plan. The regional park within and adjacent to the City of Dayton is the Elm Creek Park Reserve. Additionally, the regional trail within the City of Dayton is the West Mississippi River Regional Trail. Further information regarding this regional trail is listed below:

- West Mississippi River Regional Trail – This is a regional trail that includes segments that are open to the public as well as planned segments that will be developed in the future. The West Mississippi River Regional Trail serves as a compliment to local and non-regional County trails by crossing municipal boundaries and acting to connect cities, townships, and other regional destinations.

Additionally, Elm Creek Park Reserve is in Dayton. The park consists of over 20 miles of paved biking and walking trails. There are other amenities such as turf hiking trails, a chlorinated pond, children's play area, nature center, picnic pavilions, archery ranges, dog park, tubing hill, ski trails, and ski/snowboarding hill.

## Regional Bicycle Transportation Network (RBTN)

The RBTN was developed as part of the to the Metropolitan Council 2014 Regional Bicycle System Study, which highlights important regional transportation connections for cyclists. The RBTN serves as framework for designated regional corridors and alignments and defines critical bicycle transportation links to help municipalities guide their bikeway planning and development. The RBTN is subdivided into two tiers for regional planning and investment prioritization:

### RBTN Tier 1

These corridors and alignments have been determined to provide the best transportation connectivity to regional facilities and developed areas and are given the highest priority for transportation funding. RBTN Tier 1 corridors and alignments within Dayton include:

- CSAH 81 in southwest Dayton
- Parts of northern Dayton along the Mississippi River

### RBTN Tier 2

These corridors and alignments are the second highest priority for funding. They provide connections to regional facilities in neighboring cities and serve to connect priority regional bicycle transportation corridors and alignments. Currently, there are no Tier 2 corridors or alignments in Dayton.

## Linking Local Trails to the RBTN

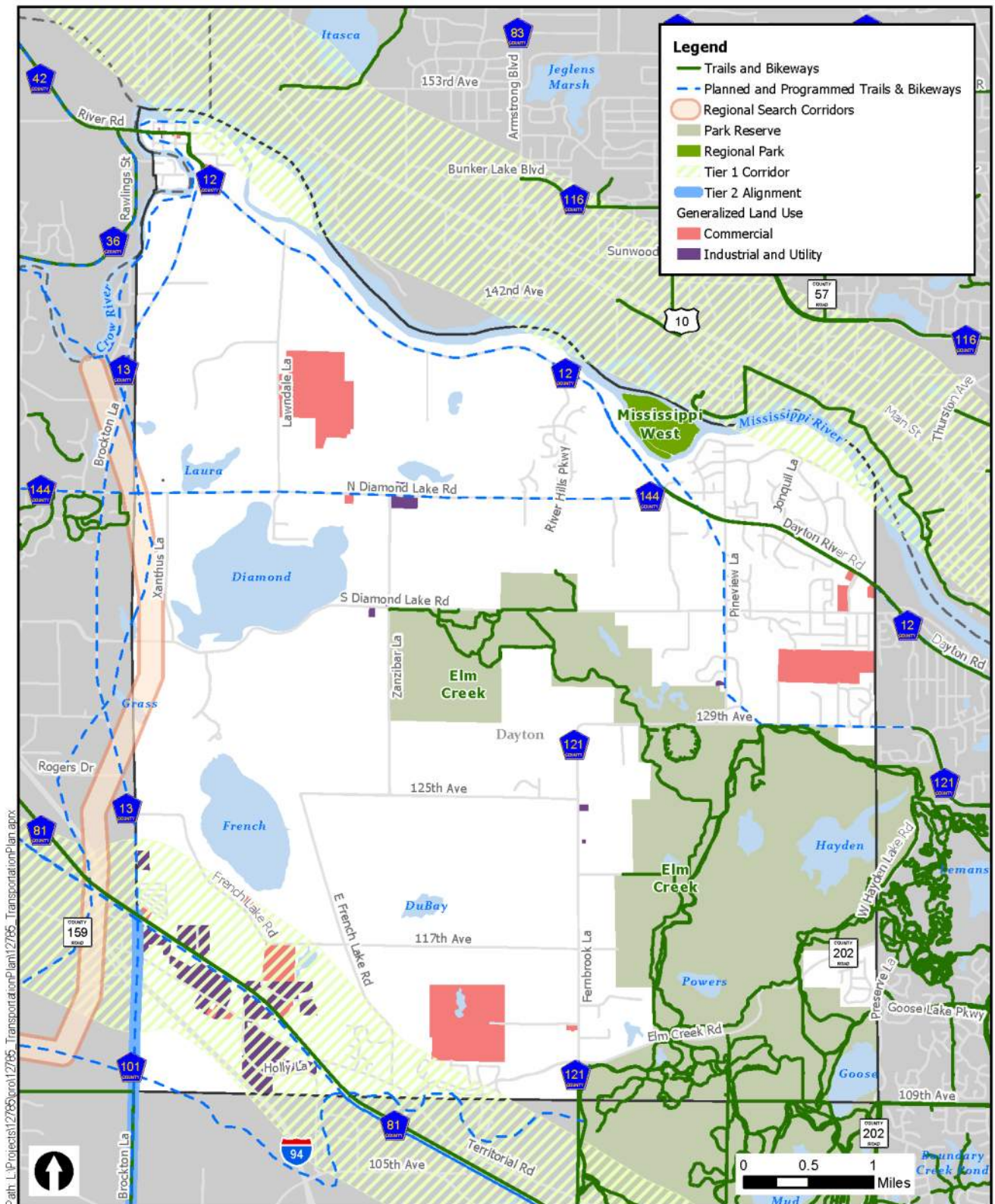
The goal of the RBTN is to develop an integrated seamless system of on-street bikeways and off-road trails that complement each other to most effectively improve conditions for bicycle transportation at the regional level. Cities, such as Dayton, are encouraged to plan for and implement future bikeways within and along these designated corridors and alignments to support the RBTN vision.

The RBTN corridors and alignments make up the trunk arterials of the overall system of bikeways that connect to regional employment and activity centers. These are not intended to be the only bicycle facilities in the region, and local municipalities, such as Dayton, are encouraged to consider planning for any additional bike facilities desired by their communities. RBTN corridors are shown where more specific alignments within those corridors have not yet been designated, so the City of Dayton is encouraged to use their comprehensive planning process to identify suitable alignments within the RBTN corridors.

In addition, it is recommended for the City of Dayton to consider planning local on- and off-road bikeway networks to connect to the designated Tier 1 and Tier 2 alignments, as well as any new network alignments within RBTN corridors to be proposed in future comprehensive plans. Currently, local trails in Dayton provide important connections to the existing West Mississippi

River Regional Trail. Details of the RBTN in Dayton are indicated in **Figure 12**.

**Figure 13. Existing and Future Bicycle and Trail System**



**Existing and Future Bicycle and Trail System**

Dayton Transportation Plan Update  
City of Dayton

**Figure 12**

## FREIGHT SYSTEM

Freight transportation is the movement of goods and products from one point in the production process to another. This includes raw commodities such as corn and soybeans and finished products such as clothing and electronics. Freight transportation is not a mode of transportation but includes several modes that focus on the movement of goods instead of people. The most significant transportation modes utilized by freight haulers in the City of Dayton and the surrounding Hennepin County region include trucks on highways, followed by waterways and rail.

### Existing Freight System

A major component of Dayton's freight system is the existing roadway network as identified in **Figure 13**. The key freight corridor within Dayton is I-94. The I-94 corridor serves the industrial uses in the southwest corner of Dayton as well as connecting freight traffic to Rogers and other nearby communities. A BNSF railroad is also aligned through the southwest corner along I-94.

### Regional Freight System

The Metropolitan Council's Regional Truck Highway Corridor Study, completed in 2017, identified and prioritized the improvement of the most significant regional truck highway corridors. The study identified I-94 through Dayton as a Tier 2 regional truck corridor. Brockton Lane running along the border of Dayton has been classified as a Tier 1 corridor. The study notes that while the Interstate Highway System is the region's freight backbone, it is supported by a critical network of principal and minor arterials that serve as relievers to the Interstate system, as well as providing door-to-door access to manufacturing facilities, distribution centers, intermodal freight hubs, and ultimately retailers and customers.

Railroads in Hennepin County serve regional agriculture and industrial uses. The three carriers that currently operate in Hennepin County are the Union Pacific Railroad, Canadian Pacific Railroad, and the BNSF Railroad. If any railroad line is up for abandonment, the County will evaluate preservation of the corridor for multiple transportation needs. The BNSF rail line from Golden Valley to outstate Minnesota passes through the southwestern corner of Dayton.

### Heavy Commercial Vehicle Volumes

Existing heavy commercial annual average daily traffic (HCAADT) volumes are depicted in **Figure 13**. The high-volume corridor within the City of Dayton is I-94, which within the City of Dayton is estimated to carry between 10,000 trucks per day.

### Regional Freight Issues

Knowing where freight needs, and issues exist on significant highway corridors can inform policy and investment decision-making. The success of the County and the State's economic engine relates to the ability of the multimodal freight system to convey goods safely and efficiently.

No regional freight issues were identified in Dayton. However, a Top 30 hotspot for Truck Delay was noted in Rogers just outside of Dayton on Diamond Lake Road.

The way highways are designed or operate can also be a freight movement issue. Since 2000 Hennepin County and MnDOT have invested in roundabouts as a traffic safety solution in the growing and developing rural and residential areas. These safety features are perceived as difficult to maneuver by operators of heavy commercial vehicles. Increased prevalence of roundabouts and driver training have combined to reduce some concerns related to

roundabouts. However, concerns with roundabouts remain for oversized and non-professional drivers transporting raw agricultural products through roundabouts.

Hennepin County will continue to consider the installation of roundabouts as a highway safety solution and will include the freight community as part of outreach efforts. Previous freight studies in Minnesota have identified the lack of significant shoulders on rural roadways as a potential safety concern. The County will consider increased paved shoulder widths as part of pavement improvement projects and consider increased paved shoulder widths as a proactive safety project.

Hennepin County features significant rail facilities and conflicts between trains and vehicles at unprotected rail crossings are a concern. Unprotected railroad crossing are roadway crossings without both gates and lights. Many crossings in Hennepin County have stop signs with additional signs advising drivers to look both ways before continuing travel.

In understanding freight safety and capacity issues, it is important that commercial vehicle traffic from industrial, warehouse and commercial land uses be adequately considered. Increased traffic can be sufficiently accommodated through the following measures:

6. Locating freight-intensive land uses in areas that are proximal to the metropolitan highway system and with ample access to minor arterials;
7. Utilizing acceptable design standards on arterials, ensuring adequate turning radius, pavement depth, and space for commercial vehicles; and
8. Providing adequate signage and marking along roadways to minimize commercial vehicle traffic through residential neighborhoods.

### Future Considerations

The City of Dayton is continuing its development as a major hub of industrial centers, business locations, and commercial districts. Much of development along freight corridors within and adjacent to the City is driven by regional developments that are experiencing increased growth of commercial, industrial and warehouse businesses. Transportation system improvements recommended by the City accommodate these continually changing land uses and facilitate increased demand for efficient freight operations to serve these new and growing business developments.

In recent years, e-commerce and day-of deliveries have also become increasingly more important to the national economy and is reflected at a regional level throughout the greater Twin Cities area. The demands of customers to receive products within the shortest amount of time has, and will continue to, increase freight traffic on major and local roadways. Given the proximity of Dayton to the Twin Cities, it is imperative that these trends be planned for to maintain traffic flows and avoid congestion along roadways in Dayton.

More cost-effective strategies must be implemented to address regional mobility issues. One strategy proposed for implementation is strategic capacity enhancements. Projects in the form of new interchanges, non-priced managed lanes and limited general-purpose lanes may be needed to address corridor congestion and provide lane continuity for an existing facility or to complete an unfinished segment of the Metropolitan Highway System.

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**Existing Freight System**  
Dayton Transportation Plan Update  
City of Dayton

## City of Dayton 2040 Transportation Plan

## AVIATION SYSTEM

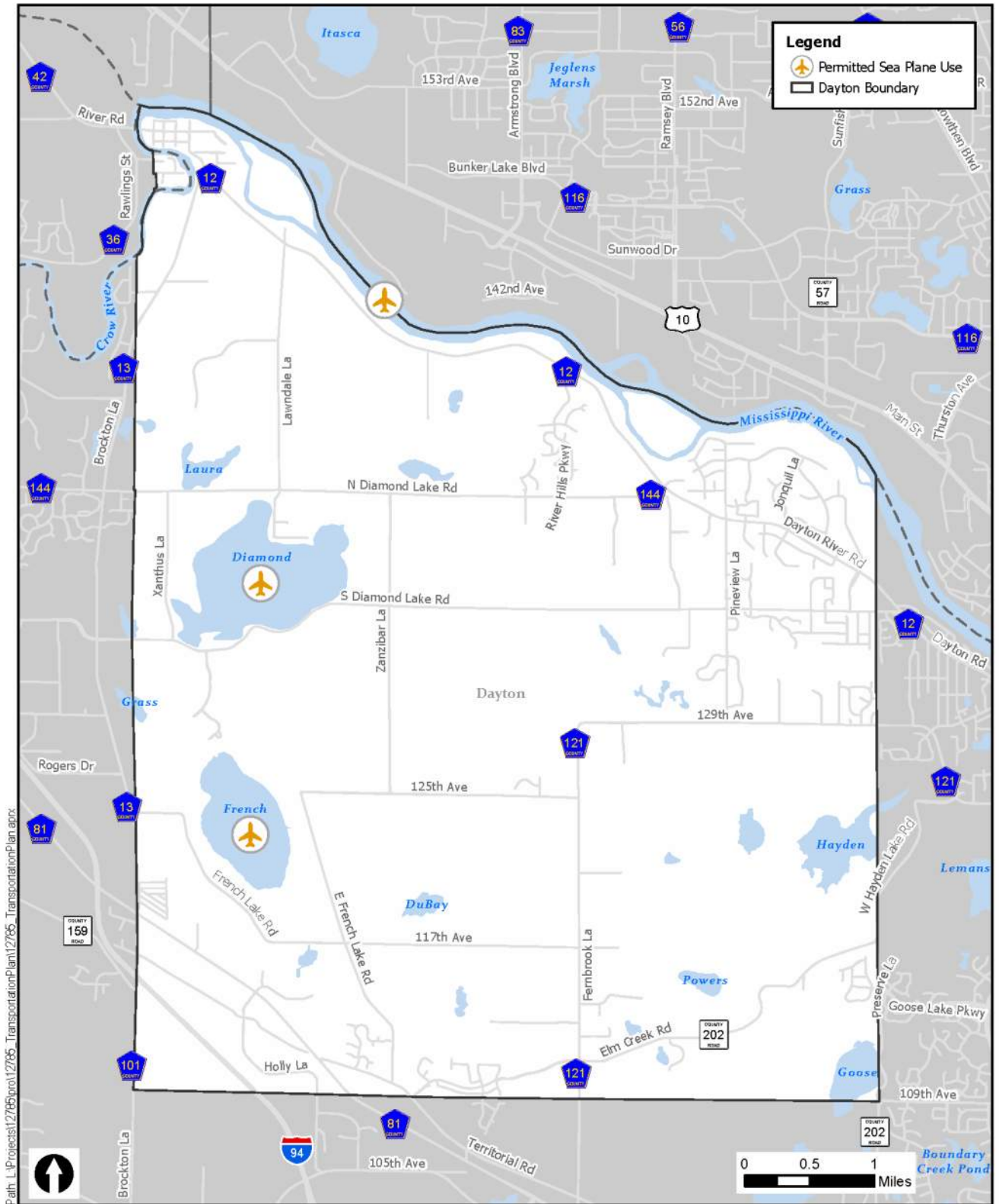
There are no existing or proposed local system airports located in the City of Dayton. Commercial flights are directed to the Minneapolis-St. Paul International (MSP) Airport, which is approximately 20 miles southeast of the City. The City of Dayton is outside the noise exposure zones and airport safety zones of MSP Airport.

Since all airports identified in this section have minimal impacts on the City of Dayton, airport safety zones have not been established in the City Zoning Ordinance. The City recognizes the need for airspace protection from potential electronic interference and obstructions where regular flight patterns have been established. Any proposed structure over 200 feet shall require notification to the Federal Aviation Administration (FAA) at least 30 days prior to construction, using FAA Form 7460-1 "Notice of Proposed Construction or Alteration," as defined under code of federal regulations CFR - Part 77. In addition, MnDOT must also be notified of the proposed development. The Minneapolis/St. Paul Airport Community Zoning Board's land use safety zoning ordinance should also be considered when reviewing construction within the City of Dayton that raises potential aviation conflicts.

### Seaplane Usage

For purposes of safe use of surface waters and compatible land use, certain public waters within the Twin Cities seven-county metropolitan area have been designated by the Minnesota Department of Transportation (MnDOT) Aeronautics for permitted seaplane use. Two lakes and the Mississippi River located in Dayton are designated as seaplane accessible. These two lakes are Diamond Lake and French Lake. **Figure 14** identifies locations of the existing seaplane accessible locations.

**Figure 15. Existing Aviation System**



# IMPLEMENTATION PLAN

## Funding Strategies

Roadways under City jurisdiction are maintained, preserved, constructed, and reconstructed by the City of Dayton Department of Public Works. Funding for these activities, including the administrative costs of operating the Department, are obtained from a variety of sources, including ad valorem taxes, special assessments, development fees, and tax increment financing. A major concern of the City is the availability of sufficient funds for maintenance and construction activities. If funds are unavailable, needed projects may be delayed or terminated and maintenance of existing facilities may fall short of acceptable standards. The following explains the existing sources of funding and potential new sources of revenue.

### State Aid

An important source of revenue to the City is State Aid. A network of City streets called Municipal State-Aid Streets (MSAS) are eligible for funding assistance with revenue from the State Highway User Tax Distribution Fund. This constitutionally-protected funding allocation is comprised of gasoline taxes and vehicle registration fees and is allocated based on a formula that considers the population of a City and the financial construction needs of its MSAS system.

### Pavement Management Levy and Franchise Fees

The City levy's for pavement management needs based on its CIP. In addition, a franchise fee was adopted in 2019 on gas and electric providers. Franchise fee revenue will be only be used for transportation improvements.

### Tax Increment Financing

Establishing a tax increment financing (TIF) district is a method of funding infrastructure improvements that are needed immediately using the additional tax revenue to be generated in future years by a specific development. Municipal bonds are issued against this future revenue, which is dedicated for a period of years to the repayment of the bonds or to other improvements within the TIF project area. TIF districts can accelerate economic development in an area by ensuring that the needed infrastructure is in place without requiring support from the usual funding.

### Grant Funding

There are many opportunities for metropolitan cities to take advantage of various grant funding initiatives. Regional Solicitation and Highway Safety Improvement Program (HSIP) are among grant solicitations for the Twin Cities metropolitan area. The City should monitor the grant funding opportunities available for applicable projects and submit applications when possible.

## Planning for the Future

Throughout the City of Dayton's comprehensive planning effort, the City will consider how to address existing transportation needs, while setting the stage for future growth. Items for consideration include the following:

- System Preservation
- Connected Vehicles and Autonomous Vehicles
- Travel Demand Management
- Complete Streets and Safe Routes to School

## System Preservation

Infrastructure systems such as roadways, bridges, culverts, and sidewalks have become expensive and challenging to maintain in today's environment with aging infrastructure, rising costs of materials, and stagnant or declining revenue. In fact, many local agencies are being forced to pause, and ask questions about the costs and benefits of continuing to maintain assets throughout their entire system, or if other approaches should be explored to better balance needs with available resources. Generally, approaches to be considered include:

### *Performance Standards and Measures*

A performance-based approach improves the accountability of local infrastructure investments, assesses risks related to different performance levels, and monitors progress and increases transparency.

### *Project Prioritization*

Project prioritization can help the City rank infrastructure needs in a manner that is consistent with preservation goals and objectives. This technique can help avoid the typical “worst first” approach to programming preservation projects that tends to invest limited resources in the most expensive improvements instead of directing maintenance funds to infrastructure that merely need rehabilitation, which will provide more cost-effective solutions in a timely manner.

### *New Revenue Sources*

There are methods to capture new revenue streams to close the financial gap in maintaining assets in a state of good repair. Exploring new revenue sources will allow the City to expand and accelerate preservation initiatives.

### *New Maintenance Techniques*

There are new maintenance techniques that can extend the lifecycle of an asset. For example, new maintenance techniques for roadway surfaces can provide longer service life and higher traffic volume thresholds, resulting in more stable road maintenance costs. Cost reduction of life cycle extension strategies which save money, or extend surface life, can directly benefit preservation needs, and minimize any identified financial gap.

### *Asset Management*

Tracking assets and their condition will provide a stronger outlook on lifecycle costs and replacement schedules. This will help establish funding plans and identified future funding gaps or shortfalls.

## Connected Vehicles and Autonomous Vehicles

Connected Vehicles (CVs) refers to vehicles that communicate with one another and with other elements of intelligent transportation infrastructure. Autonomous, automated, or self-driving vehicles (AVs) describes a spectrum of vehicles that require varying degrees of human control. Connected Automated Vehicles (CAVs) refers to both technologies, which are automated vehicles connected to other vehicles and the transportation system.

There is a wide range of forecasted adoption scenarios for CV and AV technology. Analysts from the automotive industry tend to provide more conservative forecasts, while analysts from the technology world tend to be less conservative, with some forecasting heavy adoption by as early as 2030. Before widespread adoption occurs, there will be an extended period during which the developing CV and AV platform must coexist with human-operated personal vehicles, as well as with public transit, pedestrian users, and other modes. In Metropolitan Council's 2040 TPP, it is noted that the implications of connected and automated vehicles need to be thoroughly examined. As with many new transportation technologies, automated and connected vehicles are likely to penetrate urban markets prior to expanding to the suburbs, especially if they are initially developed through a ride-hailing platform.

### *Highway Capacity Implications*

Many analysts predict that widespread adoption of connected and automated vehicles will increase road capacity initially. Connected and automated vehicles are anticipated to require narrower lane widths than are needed for non-connected and automated vehicles. Reduced vehicle headways are also anticipated. Each of these factors would decrease congestion, however deployment of CVs and AVs will also lead to an increase in the number of zero-occupancy trips. Furthermore, travelers will likely adjust their behavior in response to the new technology, which could increase congestion and vehicle miles traveled (VMT).

### *Parking Implications*

An increased share of autonomous vehicles could impact parking, both the amount needed and its location. With more AVs and fewer drivers, the location of parking could shift to the periphery of activity centers. Correspondingly, Dayton could see the need to expand parking in some areas and retrofit underutilized surface parking in others. Plans to significantly expand parking should be thoroughly reviewed, as communities which have issued large bonds to meet current and projected parking demand could be challenged to recoup investment costs if demand decreases.

### *Impacts to Other Modes*

In response to increased prominence of CV and AV technology, the role of regional and local transit providers could be reduced or become more specialized. Pedestrian and bicycle activity could become more regulated, so as not to interfere with automated systems on streets and sidewalks. As CV and AV technology is deployed in the Twin Cities, Dayton and other communities will be faced with policy considerations as they look to promote equity for all transportation users and continue to provide a balanced transportation system.

## Electric Vehicles

In October 2017, General Motors announced plans to release 20 electric vehicle models by 2023. This reflects a fundamental shift in the automobile industry vision of the future. While the first generation of electric vehicles remained expensive compared to their conventional vehicle counterparts, automakers aim to bring down the purchase price and increase profits by expanding electrical vehicle output. A growing fleet of electric vehicles would have implications for planning at all levels of government. For example, electric vehicles will require charging

stations, which should be considered at public and private facilities in Dayton's land use planning and zoning ordinance. The placement of these charging stations should complement existing infrastructure, encourage equitable resource development, and enhance intermodal connections. Widespread adoption of electric vehicles would require significant changes to highway funding programs. Most highway revenue is generated through fuel taxes. Widespread adoption of electric vehicles would necessitate changes to State and local revenue sources. Unlike other technologies discussed in this section, the proliferation of electric vehicles is not expected to be geographically dependent. Demand for electric vehicles in Dayton is expected to be similar as in other urban areas.

### Travel Demand Management

Research has shown that Travel Demand Management strategies are a useful technique in helping alleviate parking demands in a geographical area. TDM strategies are applied to help reduce the number of single occupancy vehicles traveling and parking in a certain area. Opportunities to encourage TDM strategies are highlighted throughout this section.

#### *Bicycle Amenities*

Actively promoting bicycling as an alternative means of travel to and from a destination can be achieved through information dissemination and the provision of bicycle storage facilities and adding on-street bicycle lanes and additional connections to trails. These actions can help decrease the demand for vehicle parking.

#### *Car Sharing Provisions*

Car sharing programs provide mobility options to a cross section of residents who would not otherwise have access to a vehicle. These programs encourage the efficient use of a single vehicle among multiple users, while reducing the amount of parking needed to accommodate each resident within a neighborhood. Zoning language can encourage or require new developments of a certain size to include off-street parking provisions for car sharing programs.

#### *Shared Mobility*

Shared mobility includes bikesharing, carsharing, and ridesourcing services provided by companies such as Uber and Lyft. Predictions indicate that by creating a robust network of mobility options, these new modes will help reduce car ownership and increase use of public transit, which will continue to function as the backbone of an integrated, multimodal transportation system.

#### *Travel Demand Management Plans (TDMP)*

A TDMP outlines measures to mitigate parking demand as part of the development permit process, which can result in innovative solutions that are tailored to the specific needs of a neighborhood or district. These types of plans may require specific strategies for reducing single-occupancy vehicle trips and promoting alternative modes of transportation.

### Complete Streets and Safe Routes to School

Complete Streets are commonly defined as roadways that accommodate all users such as pedestrians, bicyclists, vehicles and transit, regardless of age and ability. This is important to consider when recognizing the diversity of people traveling throughout the community.

The Transportation Plan's goals and policies embrace several elements of complete streets, such as safety for pedestrians and bicyclists. MnDOT has adopted a Complete Streets Policy, last updated in May 2016, and has committed to assessing opportunities for incorporating complete street design principles in all MnDOT projects. MnDOT's Complete Streets Policy can

serve as a resource to the City for incorporating complete street design standards into City projects.

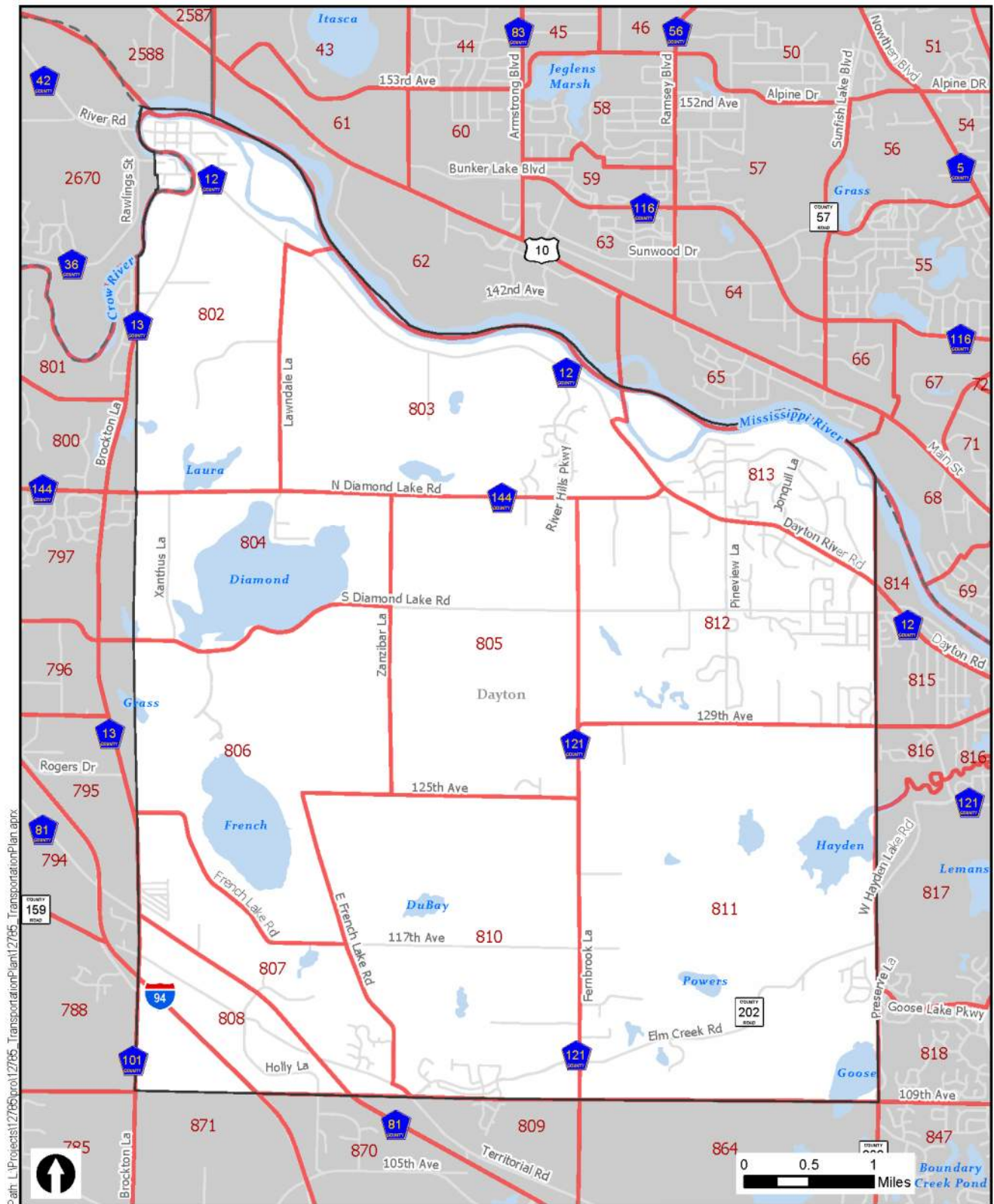
Safe Routes to School is a national initiative to increase safety and promote walking and bicycling for America's youth. The Safe Routes to school program will assist in providing infrastructure and non-infrastructure grants to build trails, paths, and safe connections to local schools.

Planning for safe routes to schools will require specific attention to certain elements such as bike routes, complete street treatments, sidewalk networks, pedestrian/bicycle amenities and wayfinding signage. Combined, these elements can create Safe Routes to Schools or Complete Streets.

Appendix A. Socioeconomic Data Allocation to Traffic Analysis Zones

TAZ	Existing (2014)					Year 2020					Year 2030					Year 2040				
	Population	Households	Retail Employment	Non-Retail Employment	Total Employment	Population	Households	Retail Employment	Non-Retail Employment	Total Employment	Population	Households	Retail Employment	Non-Retail Employment	Total Employment	Population	Households	Retail Employment	Non-Retail Employment	Total Employment
802	520	204	6	19	25	716	270	13	98	111	1,117	464	18	153	171	1,676	733	23	224	247
803	198	71	6	20	26	270	102	9	63	72	508	212	9	78	87	883	387	9	90	99
804	337	121	3	19	22	284	105	2	26	28	308	122	2	29	31	271	112	2	30	32
805	250	88	-	1	1	353	131	-	2	2	433	172	-	2	2	390	161	-	2	2
806	139	52	-	1	1	198	73	-	5	5	507	202	1	10	11	955	395	1	21	22
807	833	266	19	347	366	1,049	389	41	614	655	1,128	448	49	717	766	993	409	56	797	853
808	8	3	17	305	322	12	5	36	546	582	13	5	46	664	710	11	5	54	777	831
810	178	65	3	57	60	473	175	10	160	170	1,373	545	18	269	287	2,704	1,114	30	420	450
811	478	167	-	34	34	429	166	69	46	115	441	188	105	52	157	502	224	149	57	206
812	1,330	439	6	222	228	1,093	400	10	225	235	1,009	405	13	229	242	1,044	440	15	217	232
813	873	296	3	9	12	956	360	3	22	25	993	412	3	23	26	898	393	3	23	26
871	4	2	-	-	-	4	2	-	-	-	4	2	-	-	-	4	2	-	-	-
2670	60	21	-	-	-	63	22	-	-	-	66	23	-	-	-	69	25	-	-	-
Total	5,208	1,795	63	1,034	1,097	5,900	2,200	193	1,807	2,000	7,900	3,200	264	2,226	2,490	10,400	4,400	342	2,658	3,000

Figure 8A.1 TAZ Map



## Transportation Analysis Zones

Dayton Transportation Plan Update  
City of Dayton

**Appendix B. City of Dayton Capital Improvement Program (2019–2029) (See CIP on City Website, this is updated yearly)**

CITY OF DAYTON  
2040 COMPREHENSIVE PLAN  
Chapter 9: Wastewater

## Introduction

The Metropolitan Land Planning Act (amended 1995) requires local governments to prepare comprehensive plans and submit them to the Metropolitan Council to determine their consistency with the metropolitan system plans. The local Comprehensive Plan is to include a sanitary sewer element covering the collection and disposal of wastewater generated by the community. Similarly, the Metropolitan Sewer Act requires local governments to submit a Comprehensive Sanitary Sewer Plan (CSSP) which describes the current and future service needs required from Metropolitan Council Environmental Services (MCES).

In May 2015, the Metropolitan Council adopted the 2040 Water Resources Policy Plan (WRPP). The 2040 WRPP includes the metropolitan wastewater system plan with which local comprehensive plans must conform. The method Dayton has chosen to demonstrate its conformance is through a separate Comprehensive Sanitary Sewer Plan (CSSP). The Dayton CSSP updates previous sewer planning efforts and describes in detail the expansion of the City's sanitary sewer system to serve urban development.

The City last updated its CSSP in 2008 and described the expansion of the City's trunk system (in particular within the southwest portion) and the demands this expansion places on the Metropolitan Disposal System (MDS) operated by MCES. MCES also uses the CSSP to determine whether capacity upgrades will be needed at the Metropolitan Wastewater Treatment Plant (WWTP). This update is necessary to reflect land use changes that have occurred since the 2008 CSSP was prepared and to reflect land use changes in this Comprehensive Plan for the 2040 period.

## Household and Employment Forecasts

The population of Dayton totaled nearly 5,000 in 2010 and is projected to increase to approximately 10,400 by 2040, including both sewered and unsewered areas; these data are based on the 2010 Census and the Land Use Chapter of the Dayton Comprehensive Plan. Table 1.1 displays Dayton's forecasts for growth through 2040 as determined by the Metropolitan Council.

**Table 9.1 - Community Forecasts**

Forecast Year	Population	Households	Employment
<b>2010</b>	4,617	1,619	921
<b>2018</b>	6,072	2,158	1,230
<b>2020</b>	5,900	2,000	2,000
<b>2030</b>	7,900	3,200	2,490
<b>2040</b>	10,400	4,400	3,000

The expected ultimate population and density of Dayton at full build-out (including redevelopment of existing residential areas to their guided densities) is shown in Table 1.2 – Ultimate Population Per Units Per Acre Calculation.

**Table 9.2- Ultimate Population Per Units Per Acre Calculation**

LAND USE	NET DEVELOPABLE ACRES	UNITS/ACRE	UNITS	POPULATION
Agricultural Preserve	124	2.00	249	597
Low Density Residential*	5,894	2.00	11,787	28,289
Medium Density Residential	508	5.00	2,540	6,097
High Density Residential	232	12.00	2,779	6,669
Mixed Use	263	12.00	3,160	7,584
Total	7,021		20,515	49,235
<i>* Includes redevelopment of existing residential areas to their guided densities</i>				

Table 9.3 – Sewered Population Projections shows Dayton’s households and employment forecasts based on the 2040 Staging Plan and Future Land Use.

**Table 9.3 – Sewered Household and Employment Forecasts**

	2010	2020	2030	2040
Population - Unsewered	2,706	2,310	820	1,060
Population – Sewered to CAB (M306)	911	1,390	3,280	4,500
Population – Sewered to Elm Creek (M305)	0	1,200	2,800	3,840
Population – Sewered to Otsego	700	700	700	700
Population – Sewered to Champlin (M230)	300	300	300	300
<b>Population Total</b>	<b>4,617</b>	<b>5,900</b>	<b>7,900</b>	<b>10,400</b>
Households - Unsewered	961	860	320	440
Households – Sewered to CAB (M306)	258	510	1,340	1,920
Households – Sewered to Elm Creek (M305)	0	430	1,140	1,640
Households – Sewered to Otsego	300	300	300	300
Households – Sewered to Champlin (M230)	100	100	100	100
<b>Households Total</b>	<b>1,619</b>	<b>2,200</b>	<b>3,200</b>	<b>4,400</b>
Employment - Unsewered	724	600	400	450
Employment – Sewered to CAB (M306)	39	200	290	350
Employment – Sewered to Elm Creek (M305)	158	1,200	1,800	2,200
Employment – Sewered to Otsego	0	0	0	0
Employment – Sewered to Champlin (M230)	0	0	0	0

<b>Employment Total</b>	<b>921</b>	<b>2,000</b>	<b>2,490</b>	<b>3,000</b>
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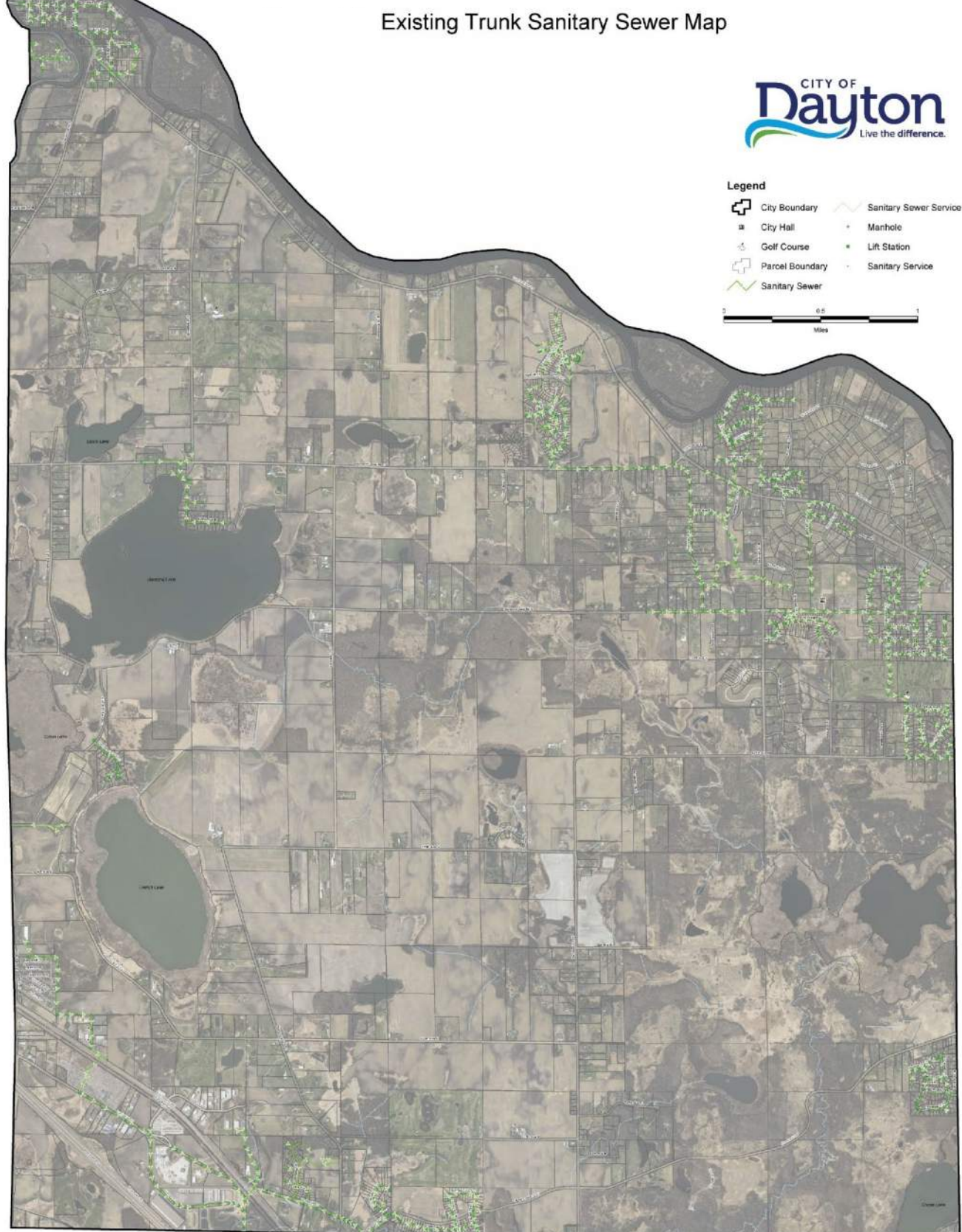
### Existing Sanitary Sewer Trunk System

The trunk sewer system layout for the City of Dayton is presented on the Figure 9.1 – Existing Trunk Sanitary Sewer map. This map shows the main sanitary sewer districts, existing and proposed trunk sanitary sewers, and existing and proposed lift stations and force mains. There are no public wastewater treatment plants located within the City of Dayton. One private community subsurface sewage treatment system is located within the City.

Dayton's sewer system connects to the Metropolitan Council interceptor at two locations. The north sewer district flows into meter station located upstream of the Dayton/Champlin extension of the Champlin/Anoka/Brooklyn Park (CAB) Interceptor. The meter is located off French Lake Road near the Dayton/Champlin border. The west sewer district flows through the Dayton/Hassan Township extension of the Elm Creek Interceptor. A meter is located off Holly Lane approximately 50 feet south of the Dayton/Maple Grove border. Ultimately sewage flowing in the Elm Creek Interceptor arrives at the Metropolitan WWTP in St Paul.

In addition to the connections to the Metropolitan Council interceptors, Dayton's sewer system also has intercommunity connections with Otsego and Champlin. The northwest sewer district flows into a lift station that pumps wastewater to the Otsego WWTP. The southeast sewer district flows by gravity to the Champlin sanitary sewer system. Dayton has not entered into any new intercommunity service agreements since December 31, 2008.

**Figure 9.1. Existing Trunk Sanitary Sewer**



## Sanitary Sewer Capacity and Design Flows

### Design Criteria

The future land use plan for the City of Dayton served as the basis for the development of the sanitary sewer flow projections and analysis of the trunk system. Using the future land use plan, the area of each land use was determined for each sewer subdistrict. Existing land uses used in this plan include rural; low density, low/ medium density, medium density, and high density residential; commercial/industrial; mixed use; and recreational/public. Two types of rural land use are proposed – agricultural preserve and rural estate. For the purposes of generating sewer flows, these are grouped into the urban reserve category. Several types of commercial and industrial land use are proposed, including business park, neighborhood commercial, commercial, and industrial. For the purposes of generating sewer flows, these are grouped into commercial/industrial.

Municipal wastewater is made up of a mixture of domestic sewage, commercial and industrial wastes, groundwater infiltration, and surface water inflows. With proper design and construction, groundwater infiltration and surface water inflows, often called infiltration/inflow (I/I), can be minimized. Flows from I/I are accounted for in the analysis and design of the trunk sewer system by incorporating an allowance for an average of 10 gallons per capita per day.

The anticipated average wastewater flows from the various subdistricts were determined by applying unit flow rates to each of the land use categories. The “system design” unit flow rates are presented in Table 9.4 – System Design Wastewater Unit Flow Rates.

**Table 9.4 – System Design Wastewater Unit Flowrates**

LAND USE TYPE	GALLONS/UNIT/DAY	UNITS/AC	GALLONS/AC/DAY
Agricultural Preserve	216	2.00	432
Low Density Residential/Master Planned Development	216	2.00	432
Medium Density Residential	192	5.00	960
High Density Residential	168	12.00	2,016
Commercial/Industrial	--	--	800
Mixed Use	200	12.0	2,400
Recreational/Public	--	--	250

For all land uses unit rates per acre were used to generate average flow projections. The units per acre assumptions for low, medium, and high density residential, mixed use, commercial and urban reserve were based in part on information from the City planning staff regarding projected number of units for each land use.

Dayton’s “system design” flow projections originate from the land use statistics based directly on the land use plan. Certain reductions in land use area are made to account for wetlands, right-of-ways, etc., and a net developable acreage for each land use category is thus created. The net acreage is multiplied by standard unit flow rates to obtain an average flow for each sewershed.

The unit flow rates used to generate average flows in part represent the “old economy” where commercial and industrial land use meant manufacturing and thus the potential for high sewage flows. In the “new economy” commercial and industrial land use means retail, offices, and warehousing which generate very little sewage compared to the old industrial facilities. Nonetheless, typical land use categories allow for a wide range of uses and the chance remains that localized heavy users of sanitary sewer capacity might locate in Dayton. To cover this possibility, Dayton continues to use the high design rates shown in Table 1.3 – System Design Wastewater Unit Flow Rates.

## Modeling

The modeling of the sanitary sewer system was based on a variety of parameters, such as: land use, population density, standard wastewater generation rates, topography, and future land use plans. Based on the topography of the undeveloped areas, the sewer subdistricts were created and the most cost-effective locations for future trunk line facilities were determined. The location of smaller sewer laterals and service lines are dependent upon future land development plats and cannot be accurately located from a study of this type.

Both the existing and proposed pipe systems were evaluated and broken up into design segments. Each end of a design segment has a node assigned to it. The nodes were designated for the following reasons:

1. Flow from a subdistrict entering the pipe network.
2. Significant grade change has occurred.
3. Change in pipe size.
4. Two or more trunks connect.
5. Manmade elements (roads, railroads, etc.) affecting location and installation costs for the trunk system or lateral service of the sub districts.

The proposed alignments shown on the Figure 9.2 – Ultimate Trunk Sanitary Sewer map generally follow the natural drainage of the land to minimize the use of lift stations and consequently provide the City with the most economical ultimate design sanitary sewer system. Minor adjustments in the routing and size of the trunk facilities will take place as determined by the specific land use and development conditions at the time of final design. Any such adjustments are expected to deviate minimally from this plan.

Each sub district contains at least one collection point where the subdistrict’s sewage is defined to enter the pipe network. Upstream of that collection point, a lateral network of 8-inch gravity lines can serve unserved areas.

The capacity and design flows for existing and ultimate system trunk sewers are presented in Tables 9.5, 9.6, and 9.7.

**Table 9.5. – Ultimate System Pipe Design (North District)**

From Point	To Point	Design Flow (MGD)	Exist./ Prop.	Pipe Size (in)	Pipe Material	Length (ft)	Avg Slope (%)	CAPACITY					Capac./ Design Flow
								Inlet Control		Outlet Control		Capacity (MGD)	
								(cfs)	(MGD)	(cfs)	(MGD)		
25	24	0.397	Prop.	6	PVC	2,300	N/A	Assumed a pumping rate of 5 fps				0.63	1.60
24	19	0.397	Prop.	10	PVC	2,000	0.280	1.7	1.10	1.2	0.75	0.75	1.89
23	19	0.278	Prop.	10	PVC	5,300	0.280	1.7	1.10	1.2	0.75	0.75	2.70
22	21	0.337	Prop.	8	PVC	4,400	0.400	1.4	0.90	0.8	0.49	0.49	1.47
21	20	0.597	Prop.	10	PVC	3,200	0.400	1.7	1.10	1.4	0.90	0.90	1.50
20	19	1.242	Prop.	15	PVC	1,650	0.160	4.1	2.65	2.6	1.67	1.67	1.35
19	15	1.747	Prop FM	12	PVC	7,550	N/A	Assumed a pumping rate of 5 fps				2.54	1.45
15	14	1.938	Prop.	21	PVC	2,700	0.100	9.1	5.88	5.0	3.24	3.24	1.67
14	13	2.366	Prop.	21	PVC	6,500	0.100	9.1	5.88	5.0	3.24	3.24	1.37
18	17	0.219	Prop.	8	PVC	1,500	0.400	1.4	0.90	0.8	0.49	0.49	2.26
17	16	0.483	Prop.	10	PVC	2,650	0.280	1.7	1.10	1.2	0.75	0.75	1.55
16	13	0.809	Prop.	12	PVC	5,500	0.220	2.2	1.42	1.7	1.08	1.08	1.34
13	12	3.134	Exist.	24	PVC	1,200	0.080	13.0	8.40	6.4	4.14	4.14	1.32
12	9	3.284	Exist.	24	PVC	2,800	0.080	13.0	8.40	6.4	4.14	4.14	1.26
11	10	0.235	Prop FM	6	PVC	2,250	N/A	Assumed a pumping rate of 5 fps				0.63	2.70
10	9	0.450	Exist.	10	PVC	3,300	0.280	1.7	1.10	1.2	0.75	0.75	1.67
9	7	3.632	Exist.	27	PVC	1,900	0.070	17.7	11.43	8.2	5.30	5.30	1.46
8	7	0.189	Exist.	8	PVC	3,200	0.400	1.4	0.90	0.8	0.49	0.49	2.62
7	6	3.909	Exist.	27	PVC	3,500	0.070	17.7	11.43	8.2	5.30	5.30	1.36
5	6	0.339	Exist. & Prop.	10	PVC	4,500	0.280	1.7	1.10	1.2	0.75	0.75	2.22
6	3	4.163	Exist.	27	PVC	1,800	0.070	17.7	11.43	8.2	5.30	5.30	1.27
4	3	0.256	Prop FM	6	PVC	1,800	N/A	Assumed a pumping rate of 5 fps				0.63	2.48
4	3	0.256	Exist.	8	PVC	3,600	0.400	1.4	0.90	0.8	0.49	0.49	1.94
3	2	4.443	Exist.	30	PVC	2,700	0.058	23.3	15.05	9.9	6.39	6.39	1.44
2	1	4.644	Exist.	30	PVC	2,700	0.058	23.3	15.05	9.9	6.39	6.39	1.38
1	C.A.B	4.644	Exist.	30	PVC	50	0.058	23.3	15.05	9.9	6.39	6.39	1.38

**Table 9.6. – Ultimate System Pipe Design (West District)**

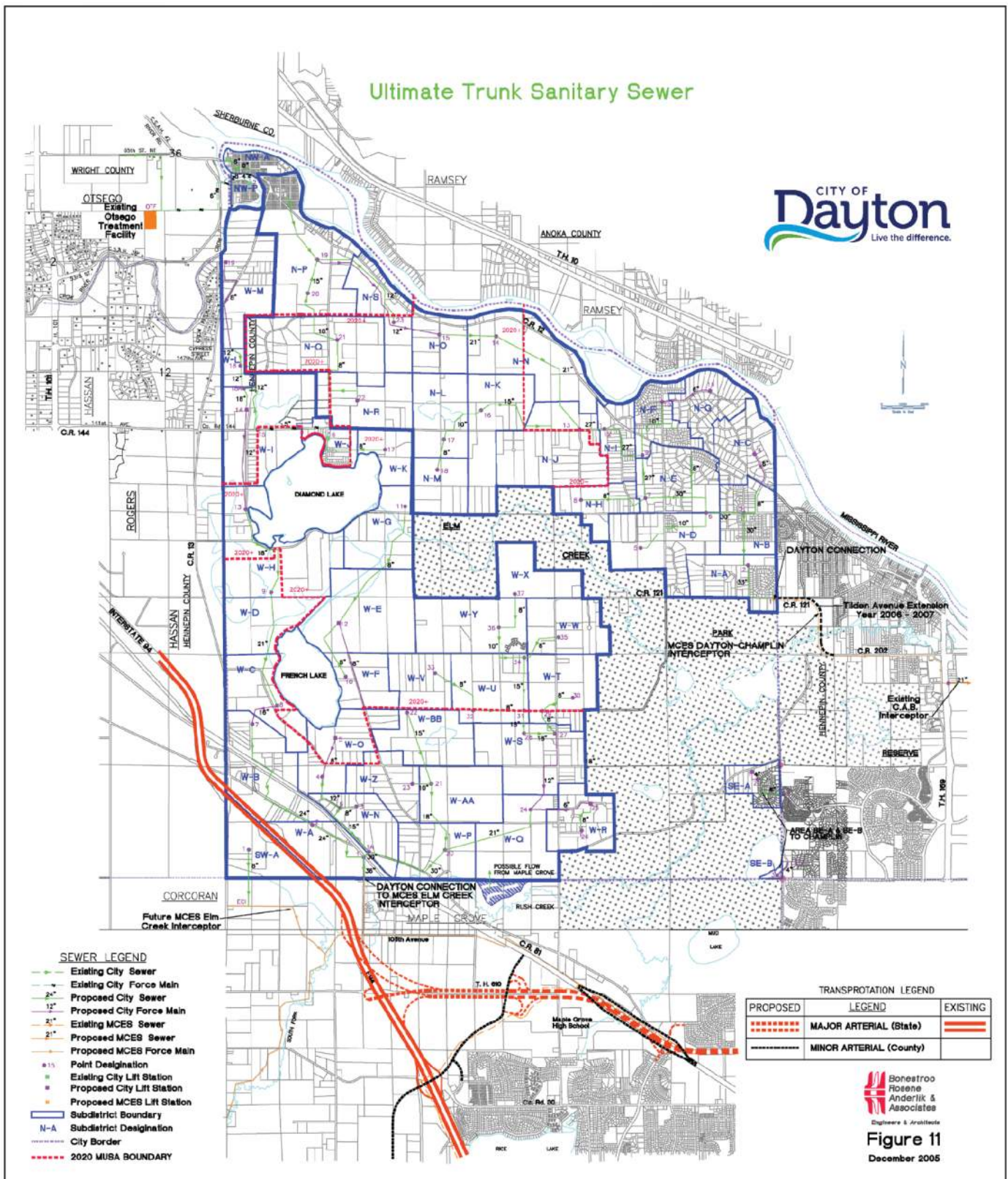
From Point	To Point	Design Flow (MGD)	Exist./ Prop.	Pipe Size (in)	Pipe Material	Length (ft)	Avg Slope (%)	CAPACITY					Capac./ Design Flow
								Inlet Control		Outlet Control		Capacity (MGD)	
								(cfs)	(MGD)	(cfs)	(MGD)		
19	18	0.397	Prop.	12	PVC	1,100	0.220	2.2	1.42	1.7	1.08	1.08	2.72
18	18A	0.051	Prop.	8	PVC	1,100	0.400	1.4	0.90	0.8	0.49	0.49	9.79
17	16	0.151	Prop.	8	PVC	3,200	0.400	1.4	0.90	0.8	0.49	0.49	3.27

16	15	0.273	Exist FM	5	HDPE	3,700	N/A	Upgrade Existing Pumps, 2@150 GPM				0.43	1.59
15	18A	0.738	Prop.	12	PVC	2,600	0.220	2.2	1.42	1.7	1.08	1.08	1.46
18A	14	0.768	Prop.	15	PVC	1,100	0.150	4.1	2.65	2.5	1.62	1.62	2.11
14	13	0.768	Prop FM	8	PVC	4,700	N/A	Assumed a pumping rate of 5 fps				1.13	1.47
13	9	1.007	Prop.	18	PVC	4,900	0.120	6.2	4.01	3.6	2.36	2.36	2.34
9	8	1.214	Prop.	18	PVC	5,500	0.120	6.2	4.01	3.6	2.36	2.36	1.94
8	7	1.478	Prop FM	12	PVC	1,650	N/A	Assumed a pumping rate of 5 fps				2.54	1.72
7	2	2.113	Exist.	24	PVC	6,300	0.080	13.0	8.40	6.4	4.14	4.14	1.96
2	1	2.364	Exist.	24	PVC	3,300	0.080	13.0	8.40	6.4	4.14	4.14	1.75
37	36	0.247	Prop.	8	PVC	2,350	0.400	1.4	0.90	0.8	0.49	0.49	2.00
36	34	0.708	Prop.	12	PVC	2,550	0.220	2.2	1.42	1.7	1.08	1.08	1.53
35	34	0.328	Prop.	10	PVC	2,550	0.280	1.7	1.10	1.2	0.75	0.75	2.29
34	31	1.259	Prop.	18	PVC	6,450	0.120	6.2	4.01	3.6	2.36	2.36	1.87
33	32	0.967	Prop.	12	PVC	2,600	0.280	2.2	1.42	1.9	1.22	1.22	1.26
32	31	0.967	Prop.	12	PVC	2,200	0.280	2.2	1.42	1.9	1.22	1.22	1.26
31	28	2.078	Prop.	18	PVC	1,050	0.120	6.2	4.01	3.6	2.36	2.36	1.13
28	27	2.518	Prop.	21	PVC	1,500	0.120	9.1	5.88	5.5	3.55	3.55	1.41
30	29	0.302	Prop.	8	PVC	1,600	0.400	1.4	0.90	0.8	0.49	0.49	1.64
29	27	0.302	Prop.	8	PVC	1,250	0.400	1.4	0.90	0.8	0.49	0.49	1.64
27	24	2.683	Prop FM	15	PVC	4,300	N/A	Assumed a pumping rate of 5 fps				3.45	1.29
26	25	0.519	Prop.	10	PVC	1,550	0.400	1.7	1.10	1.4	0.90	0.90	1.73
25	24	0.519	Prop FM	6	PVC	2,950	N/A	Assumed a pumping rate of 5 fps				0.63	1.22
24	20	3.302	Exist. & Prop.	21	PVC	4,900	0.120	9.1	5.88	5.5	3.55	3.55	1.08
10	12	0.333	Prop.	8	PVC	3,050	0.400	1.4	0.90	0.8	0.49	0.49	1.49
11	12	0.275	Prop.	8	PVC	6,500	0.400	1.4	0.90	0.8	0.49	0.49	1.80
12	22	1.075	Prop FM	8	PVC	6,300	N/A	Assumed a pumping rate of 5 fps				1.13	1.05
22	21	2.483	Prop.	18	PVC	3,250	0.170	6.2	4.01	4.3	2.80	2.80	1.13
23	21	0.416	Prop.	10	PVC	850	0.280	1.7	1.10	1.2	0.75	0.75	1.81
21	20	2.914	Prop.	21	PVC	3,350	0.120	9.1	5.88	5.5	3.55	3.55	1.22
20	1A	5.653	Exist.	30	PVC	4,200	0.100	23.3	15.05	13.0	8.40	8.40	1.49
5	4	0.685	Prop FM	8	PVC	1,950	N/A	Assumed a pumping rate of 5 fps				1.13	1.64
4	6	0.685	Prop.	12	PVC	1,950	0.220	2.2	1.42	1.7	1.08	1.08	1.58
6	3	0.339	Prop.	10	PVC	1,100	0.220	1.7	1.10	1.0	0.67	0.67	1.96
3	1A	0.964	Prop.	12	PVC	2,850	0.220	2.2	1.42	1.7	1.08	1.08	1.12
3A	1A	0.170	Exist.	8	PVC	1,960	0.400	1.4	0.90	0.8	0.49	0.49	2.92
1A	1	6.269	Exist.	30	PVC	400	0.080	23.3	15.05	11.6	7.51	7.51	1.20
1	E.C.I.	7.899	Exist.	36	PVC	1,000	0.060	36.5	23.58	16.4	10.58	10.58	1.34

**Table 9.7. – Ultimate System Pipe Design (Southeast, Northwest, and Southwest Districts)**

From Point	To Point	Design Flow (MGD)	Exist./ Prop.	Pipe Size (in)	Pipe Material	Length (ft)	Avg Slope (%)	CAPACITY					Capac./ Design Flow
								Inlet Control		Outlet Control		Capacity (MGD)	
								(cfs)	(MGD)	(cfs)	(MGD)		
Southeast District (SE)													
1	2	0.144	Prop FM	4	PVC	550	N/A	Assumed a pumping rate of 5 fps				0.28	1.95
2	C1	0.144	Exist.	8	PVC	---	0.400	1.4	0.90	0.8	0.49	0.49	3.43
3	C2	0.005	Prop FM	4	PVC	1,100	N/A	Assumed a pumping rate of 5 fps				0.28	53.84
Northwest District (NW)													
2	1	0.170	Exist FM	4	HDPE	---	N/A	2 Pumps @ 86 GPM = 172 GPM = 0.25 MGD				0.25	1.45
2	1	0.170	Exist.	8	PVC	---	0.400	1.4	0.90	0.8	0.49	0.49	2.90
1	OTF	0.623	Exist FM	6	PVC	---	N/A	2 Pumps @ 200 GPM = 400 GPM = 0.58 MGD				0.58	0.92
Southwest District (SW)													
1	E.C.I.	0.380	Prop.	8	PVC	2,600	0.400	1.4	0.90	0.8	0.49	0.49	1.30

Figure 9.2 Ultimate Sewer Map



## Infiltration and Inflow

The City has adopted wastewater ordinances that address limiting I/I through current accepted engineering practices; prohibiting the connection of foundation drains, sump pumps, and roof leaders to the sanitary sewer system; and requiring disconnection of existing foundation drains, sump pumps, and roof leaders. These prohibitions are described in the City Code of Ordinances, Chapter 51, Sections 01-06 (found in the Appendix).

## Community and Subsurface Treatment Systems

The City of Dayton has an existing ordinance (Chapter 51, Sections 20-30) regulating the installation of on-site wastewater disposal systems. Under this ordinance, the design of the system is reviewed in accordance with the guidelines of Minnesota Pollution Control Agency Standards described in MN Rules Chapters 7080-7083, and a permit is required before the system can be installed.

The City of Dayton is currently developing a septic and sewer plan to track and quantify the number of existing on-site wastewater disposal facilities located within the City. One private community subsurface sewage treatment system is located within the City, which serves a residential development of approximately 28 homes on the north side of French Lake. It is anticipated that the number of on-site systems will be reduced as municipal sanitary sewer service is extended throughout the districts.

The policy of the City of Dayton is to allow existing on-site wastewater disposal facilities to be maintained within each of the sanitary sewer districts until the community desires service and service is brought into an area. New on-site wastewater disposal facilities will be allowed by the City provided the properties agree to hook up to the City sewer system when available.

CITY OF DAYTON  
2040 COMPREHENSIVE PLAN  
Chapter 10: Water Supply Plan  
Summary

## Introduction

A Comprehensive Water Supply and Distribution Plan for the City of Dayton has been developed to meet the anticipated near term and ultimate needs of the Dayton municipal water system. The plan identifies the anticipated water facilities and infrastructure proposed to serve Dayton through the ultimate build-out. The plan presents an “ultimate system” and there is flexibility for Dayton Officials and staff to make adjustments in the future that will benefit Dayton as it continues to grow.

Refer to Appendix B for the City of Dayton Local Water Supply Plan submitted to the Department of Natural Resources. This attachment includes details for the Local Water Supply Plan for Dayton, Water Conservation and Reuse, Assessment and Protection of Source Water, and Sub-Regional Collaboration.

## Water Demand Projections

Dayton’s population has increased from approximately 2,600 in 1970 to about 6,018 today. Existing water service has been provided to the Historic Village, the Industrial Park in southwest Dayton, and residential areas in northeast Dayton. The remainder of the City obtains water from private wells.

**Table 1.1 – Population and Extended Water Demand Projections**

Year	Total Population	Population Served	Projected Per Capita Demand (GPCD)	Projected Avg Daily Demand (MGD)	Projected Max Daily Demand (MGD)
2020	5,900	2,817	106	0.299	0.776
2030	7,900	4,817	98	0.472	1.227
2040	10,400	7,317	98	0.717	1.864

CITY OF DAYTON  
2040 COMPREHENSIVE PLAN  
Chapter 11: Surface Water Summary

## Executive Summary

The City last completed its Local Water Management Plan (LWMP) in October of 2018, See appendix C for the LWMP plan). The plan serves as a comprehensive planning document to guide the City in conserving, protecting, and managing its surface water resources. The plan was developed to meet the requirements of Minnesota Statutes 103B and Minnesota Rules 8410 to be consistent with the goals and policies of the Metropolitan Council's Water Resources Management Policy Plan and the goals and policies of the Elm Creek Watershed Management Commission – the watershed management organization that has jurisdiction within the City.

The LWMP includes a detailed description of the City's natural resources including water resources, past studies and inventories, and current surface water management. An assessment of the existing and potential water resource and stormwater related concerns within the City and associated corrective actions are provided. The LWMP also includes goals and policies to address the long-term surface water management needs in the City and outlines the regulations, standards, practices, projects, and funding that will be needed to implement the goals and policies. The LWMP also includes an inventory and classification of the City's wetlands and a plan for management of those resources.

The Dayton Local Surface Water Management Plan has a dual purpose: (1) It serves as a guide for the construction of storm drainage facilities and (2) provides a basis for a consistent approach to water resource protection. The following themes have been incorporated into the LWMP:

1. Division of the City into drainage districts and catchments.
2. Determination of stormwater runoff under 2020 land use conditions.
3. General layout and sizing of trunk storm sewers and open channels.
4. Tributary areas, storage volumes, and high water levels of all required ponding areas.
5. Development of wetland management policies to ensure compliance with local, state, and federal wetland regulations.
6. Estimated construction and implementation costs of the Local Surface Water Management Plan.
7. Trunk stormwater system financing.
8. Recommendations for education of City residents, staff, and development community.
9. Operation and maintenance of the stormwater system.
10. Regulatory responsibilities.

## Water Resource Management Related Agreements

Since May 1993, the City of Dayton has been party to a joint powers agreement establishing the Elm Creek Watershed Management Commission.

## Amendment Procedures

For the LWMP to remain dynamic, an avenue must be available to implement new information, ideas, methods, standards, management practices and any other changes that may affect the intent and/or results of the LWMP. The amendment procedure for the LWMP is presented below.

### Request for Amendment

Written request for plan amendment is submitted to City staff. The request shall outline the need for the amendment as well as additional materials that the City will need to consider before making its decision.

### Staff Review of Amendment

A decision is made as to the validity of the request. Three options exist: 1) reject the amendment, 2) accept the amendment as a minor issue, with minor issues collectively added to the plan at a later date, or 3) accept the amendment as a major issue, with major issues requiring an immediate amendment. In acting on an amendment request, City staff shall recommend to City Council whether or not a public hearing is warranted.

### Council Consideration

The amendment and the need for a public hearing shall be considered at a regular or special Council meeting. Staff recommendations should be considered before decisions on appropriate action(s) are made.

### Public Hearing and Council

This step allows for public input based on public interest. Council shall determine when the public hearing should occur in the process. Based on the public hearing, the City Council could approve the amendment.

### Watershed District Approval

All proposed amendments must be reviewed by the watershed districts prior to final adoption of the amendments.

### Council Adoption

Final action on an amendment, following approval by the watershed districts, is City Council adoption. However, prior to the adoption, an additional public hearing could be held to review the plan changes and notify the appropriate stakeholders.

## Physical Environment and Land Use

A map of the City's future land use plan, consistent with the 2040 Comprehensive Plan, is shown on Figure C in the Land Use Chapter. For nearly the last century and a half, land use within the City has been dominated by agriculture. Approximately one-third of the City is projected to remain undeveloped as it is part of the Elm Creek Park Reserve. This undeveloped area consist mainly of agricultural fields or undeveloped woods and meadows.

Within the remainder of the City, residential, commercial, and industrial development is present or is projected to occur mainly in three general areas: the northwest, the northeast, and the southwest. The oldest permanent development within Dayton is located in the extreme northwest corner of the City at the confluence of the Crow and Mississippi Rivers. This area consists of a mix of low density residential and commercial properties.

Undeveloped land located between the confluence of the rivers and Laura Lake, currently agriculture, is projected to develop as primarily low density residential. The northeast area of the City, bordered on the east by Champlin and the north by the Mississippi River, is experiencing ongoing development, consisting almost entirely of low density residential. Undeveloped areas

are projected to develop in a similar manner.

The southwest area of the City, from French Lake to east of Fernbrook Lane, consists of residential and agricultural areas interspersed with commercial and industrial areas bordering Highway 169 and I-94. Undeveloped agricultural areas in the extreme southwest corner of the City, near Highway 169 and I-94, are projected to develop as commercial and industrial uses. The undeveloped land south of Dubay Lake, east of French Lake Road, and west of Fernbrook Lane is undergoing development primarily as low density residential.

The LWMP provides a description of the City's topography and watersheds, soils, land use, and key water resources consisting of numerous wetlands, creeks, lakes, and rivers. Generally, the City of Dayton is divided into 5 watersheds, each with their specific abbreviation:

1. Crow River - CR
2. Diamond Creek - DC
3. Elm Creek - EC
4. Mississippi River - MR
5. Rush Creek - RC

These watersheds were further divided into drainage districts which generally were grouped according to location within a particular watershed, such as east, west, north, south, etc. or the proximity to a water body such as a lake or river. Volumes and rates of flow for these defined drainage areas are described in the LWMP.

## Existing and Potential Water Resource-Related Problems

Table 1.1 lists the 303(d) impaired waters within and bordering the City of Dayton.

**Table 1.1 – 303(d) 2018 List of Impaired Waters Within or Bordering the City of Dayton**

Water Body	Reach/ Description	Year Listed	Affected Use	Pollutant or Stressor	TMDL Completion/ Approved
Crow River	S Fk Crow R to Mississippi R	2012	Aquatic Life	Aquatic macroinvertebrate bioassessments	2022
Crow River	S Fk Crow R to Mississippi R	2002	Aquatic Life	Fishes bioassessments	2022
Crow River	S Fk Crow R to Mississippi R	2016	Aquatic Life	Nutrient/eutrophication biological indicators	2022
Crow River	S Fk Crow R to Mississippi R	2002	Aquatic Life	Turbidity	2013
Crow River	S Fk Crow R to Mississippi R	2004	Aquatic Recreation	Fecal Coliform	2013
Diamond Creek	Headwaters to Unnamed Lake	2014	Aquatic Life	Aquatic macroinvertebrate bioassessments	2017
Diamond Creek	Headwaters to Unnamed Lake	2010	Aquatic Life	Dissolved oxygen	2017

Diamond Creek	Headwaters to Unnamed Lake	2014	Aquatic Life	Fishes bioassessments	2017
Diamond Creek	Headwaters to Unnamed Lake	2010	Aquatic Recreation	Escherichia coli	2017
Elm Creek	Headwaters to Mississippi R	2014	Aquatic Life	Aquatic macroinvertebrate bioassessments	2017
Elm Creek	Headwaters to Mississippi R	2014	Aquatic Life	Chloride	2016
Elm Creek	Headwaters to Mississippi R	2004	Aquatic Life	Dissolved oxygen	2017
Elm Creek	Headwaters to Mississippi R	2014	Aquatic Life	Fishes bioassessments	2017
Elm Creek	Headwaters to Mississippi R	2010	Aquatic Recreation	Escherichia coli	2017
Mississippi River	Crow R to Upper St Anthony Falls	1998	Aquatic Consumption	Mercury in fish tissue	2007
Mississippi River	Crow R to Upper St Anthony Falls	2002	Aquatic Consumption	PCB in fish tissue	2020
Mississippi River	Crow R to Upper St Anthony Falls	2016	Aquatic Life	Nutrient/eutrophication biological indicators	2018
Mississippi River	Crow R to Upper St Anthony Falls	2006	Aquatic Recreation	Fecal Coliform	2024
Rush Creek	Headwaters to Elm Cr	2014	Aquatic Life	Aquatic macroinvertebrate bioassessments	2017
Rush Creek	Headwaters to Elm Cr	2010	Aquatic Life	Dissolved oxygen	2017
Rush Creek	Headwaters to Elm Cr	2002	Aquatic Life	Fishes bioassessments	2017
Rush Creek	Headwaters to Elm Cr	2010	Aquatic Recreation	Escherichia coli	2017
Diamond	Lake	2006	Aquatic Recreation	Nutrient/eutrophication biological indicators	2017
Diamond	Wetland	2014	Aquatic Life	Chloride	2016
French	Lake	1998	Aquatic Consumption	Mercury in fish tissue	2007
French	Lake	2010	Aquatic Recreation	Nutrient/eutrophication biological indicators	2017

## Local Implementation Plan/Program

The LWMP provides a plan for expanding and management the City's surface water system and for protecting key water resources in the City. The real measure of success of the LWMP will be in its implementation. Implementation of the LWMP covers a number of aspects including:

1. Administering regulations and programs,

2. Managing surface water as redevelopment and new development occur,
3. Implementing a public education program regarding stormwater management,
4. Operating and maintaining the surface water system,
5. Constructing prioritized capital improvements,
6. Financing projects and programs, and
7. Providing a process for future amendments to the LWMP.

The City Stormwater Capital Improvement Plan and Implementation actions addressing identified problems and issues can be found in the LWMP (Tables 6.1 and 6.2 respectively) found in Appendix C. Sanitary sewer construction phasing is used as the basis for trunk stormwater system construction phasing because trunk storm sewer would likely occur as land develops as driven by availability of sanitary sewer service.

The LWMP summarizes the following recommendations that were developed as part of the plan:

1. Establish future ponding areas.
2. Establish standard review procedures to ensure all new development or redevelopment within the City is in compliance with the grading and stormwater management controls determined by this Plan.
3. Require detailed hydrologic analyses for all development and redevelopment activities.
4. Establish final high water levels governing building elevations adjacent to ponding areas and floodplains as development occurs or when drainage facilities are constructed.
5. Establish and maintain overflow routes to provide relief during extreme storm conditions which exceed design conditions.
6. Perform a functions and values assessment on wetlands prior to development.
7. Develop a Wetland Management Plan for the City.
8. Develop an assessment for the Outstanding Resource Value Water (ORVW) Mississippi River per requirements of the NPDES MS4 permit, and for inclusion into the City's SWPPP.
9. Develop an electronic map of the City's stormwater management system.
10. Establish a surface water system maintenance program to ensure the successful operation of the system.
11. Continue operating and maintaining the City's surface water system in accordance with the LWMP.
12. Enforce the erosion and sedimentation control criteria for new developments.
13. Implement an education program for City residents, staff, and development community.
14. Adopt and implement amendments to the plan as warranted by future standards or regulations.

CITY OF DAYTON  
2040 COMPREHENSIVE PLAN  
Chapter 12: Implementation Summary

## Introduction

The purpose of the Implementation Chapter is to set forth the actions that the City will take to ensure that the plans, programs, and policies adopted in the plan will be carried out by the decisions that the City makes on a daily basis. This chapter provides guidance for policymakers and staff to determine priority for a wide range of strategies recommended to carry out the plan.

Most of the implementation items are contained within the individual chapters. They are also contained in this Chapter so that one collected resource is available to policymakers, staff, and residents. This will aid in the timing, prioritizing, and budgeting for the items. However, the chapter is not intended to include all planning and policy efforts that the City will undertake to fulfill the goals of the Comprehensive Plan. It is intended to identify major initiatives needing time and resources.

### Implementation chapter outline

The following sections list the implementation strategies for the following chapters.

- **Chapter 3: Natural Resources.** Plan, programs and tools to protect, enhance and provide greater opportunity for enjoyment of Dayton's natural environment.
- **Chapter 4: Housing.** Demographics, goals, policies and programs to meet the housing needs for Dayton's existing and future residents.
- **Chapter 5: Land Use.** Goals, plans and policies to guide the timing and use of land in Dayton.
- **Chapter 6: Economic Development.** Demographics, goals, policies and tools to sustain existing businesses and attract new economic growth to support a healthy local economy, expansion of the tax base and creation of new jobs.
- **Chapter 7: Parks, Trails and Open Space.** Summary of the updated Parks, Trails and Open Space plan.
- **Chapter 8: Transportation.** Plans, goals, and policy and discussion of important regional issues to guide the future development of Dayton's transportation system.
- **Chapter 9: Waste Water (Sanitary Sewer).** Summary of Dayton's Comprehensive Sewer Policy Plan.
- **Chapter 10: Water Supply and Distribution Plan.** Summary of Dayton's Water Supply and Distribution Plan.
- **Chapter 11: Surface Water.** Summary of Dayton's Surface Water Management Plan.

## Natural Resources Chapter

The following implementation strategies will be used to carry out the Goals and Policies identified in the Natural Resources Chapter:

- Evaluate the Greenway Overlay Corridor to ensure it is purposefully protecting natural resources that would otherwise go unprotected. Amend the Conservation Subdivision Ordinance as needed to ensure they continue to align with the goals of the City.
- Update the Wetland Ordinance as needed to ensure compliance with the policies of Wetland Conservation Act and Watershed Authorities.
  - Review and approve wetland delineations and determinations

- Review and approve wetland exemption / no-loss applications
- Review and approve wetland replacement plan applications
- Coordinate Technical Evaluation Panel (TEP) meetings
- Send Notices of Application and Decision to the TEP
- Enforce wetland replacement monitoring requirements, review monitoring reports and certify replacement wetlands
- Work with MDNR and Hennepin County to enforce WCA violations
- Continue to monitor existing ordinances, like the Tree Preservation ordinance, to ensure that it continues to be reasonable, enforceable, and meets the intent of City Goals.
- Promote the use of innovative stormwater management techniques including but not limited to:
  - stormwater reuse for irrigation, and
  - incentivize the use of smart technology by residents for irrigation to ensure the use of City resources is efficient.
- Continue to communicate and enforce the floodplain ordinance and ensure the City makes available any updates to the FEMA floodplain maps.
- Ensure the Mississippi River Corridor Critical Area ordinance is updated per MNDNR regulations.

## Housing Chapter

The City's Housing policies related to the provision of housing opportunities, improving affordable housing stock, and housing maintenance can be found in Chapter 4.

### Housing implementation

**Goal 1:** Provide and encourage a variety of housing types, styles, densities and choices to meet life-cycle housing needs of current and future residents.

- Use the land use plan as a tool to provide a variety of residential land uses in a range of densities concentrating higher density opportunities along major transportation and transit corridors and around future job centers.
- Update the zoning ordinance and subdivision ordinance to remove any impediments to affordable housing.
- Periodically review land use regulations to determine the effectiveness of current ordinances in encouraging additional affordable units as well as encouraging modifications to keep the existing housing stock desirable and livable.
- Ensure that all new housing including high density adheres to the highest possible standards of planning, design, and construction.
- Allow the creative use of site planning or Planned Unit Developments (PUDs) that provide flexibility for development containing affordable housing
- such as a reduction in lot size, setbacks, street width, floor area, and parking requirements, and consideration of a reduction in City fees.

- Encourage innovative subdivision design including clustering techniques to preserve open space or natural features.
- Promote development of neighborhood “life- style centers” that incorporate housing in a range of densities and affordability limits in close proximity to shopping, services, daycare, and medical services. Safe access to parks and schools, and the ability to walk, bike, and have access to transit should be part of the design.

**Goal 2:** Improve the availability of affordable housing and senior housing.

- Seek housing developers to work cooperatively with the City to construct affordable units.
- Create an incentive-based program or Residential Planned Unit Development Ordinance that includes density bonuses for construction of affordable housing. This allows an increase in density, beyond the underlying zoning if the development includes affordable housing.
- Participate in the Livable Communities Act Local Housing Incentives Program.
- Activate and utilize powers and tools of the City Economic Development Authority and/or creation of a City Housing and Redevelopment Authority to create new funds aimed at creating new affordable housing.
- Designate a portion of Tax Increment Financing (TIF) to fund activities that increase new affordable and workforce housing units.
- Utilize techniques, such as land trusts, to maintain long-term affordability.
- Partner with, support, and market programs offered by the County, State, Minnesota Housing Finance Agency (MHFA), Federal Government, and non-profits to fund the development of affordable housing.
- Complete an assessment of senior housing needs in the community.

**Goal 3:** Promote housing rehabilitation.

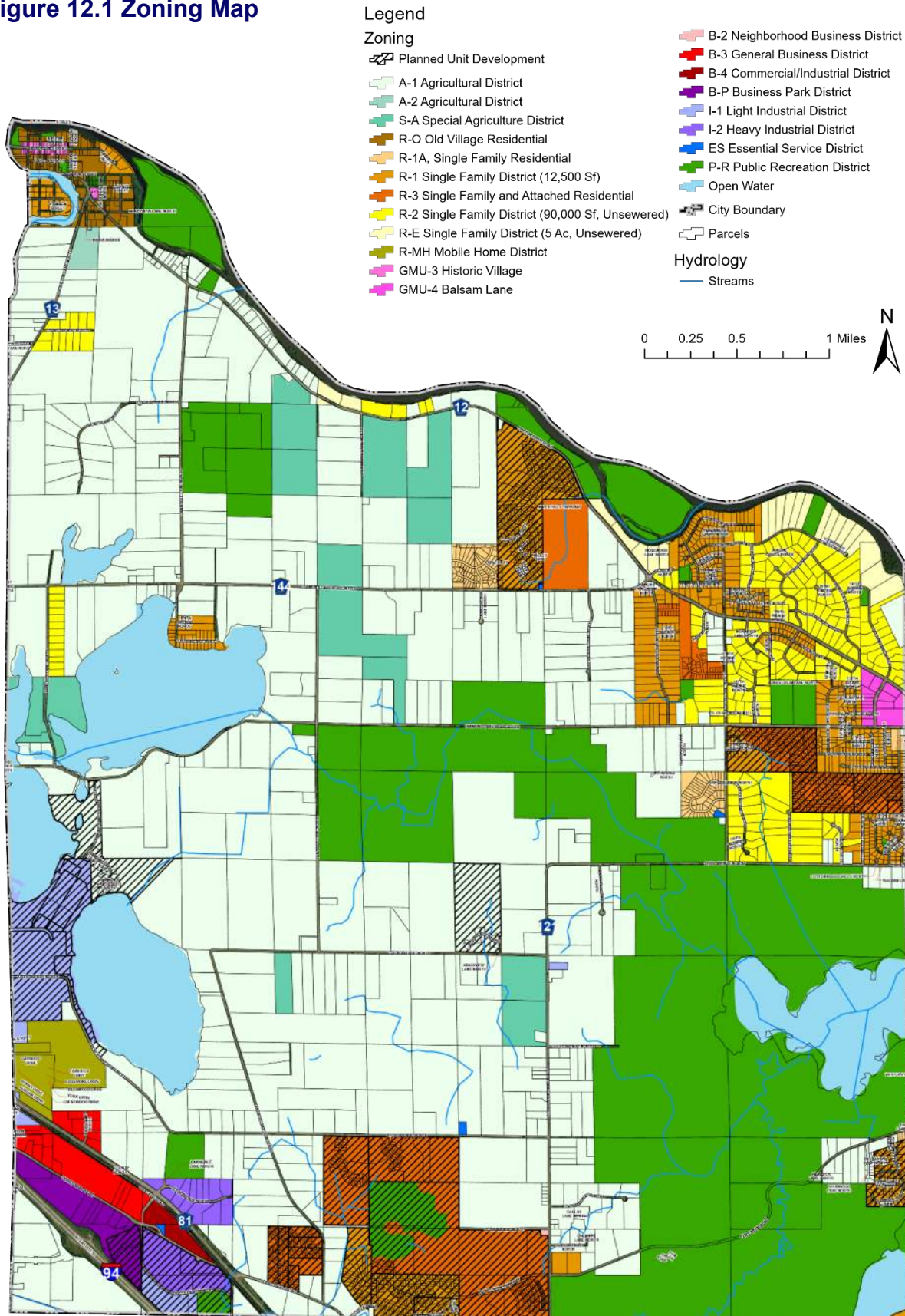
## Land Use Chapter

The following implementation strategies will be used to carry out the Land Use Chapter goals and policies.

- Update the City’s Growth Management Ordinance to ensure orderly and manageable development.
- **Zoning Ordinance** – complete a full review and update of the Zoning Ordinance to be consistent with the Comprehensive Plan. See [this link](#) to the City’s Zoning Ordinance.
  - Update the zoning map for developed properties to be consistent with the land use map.
  - Review and determine if the existing PUD ordinance required updates.
  - Review and update the City’s Mixed-Use Zoning Districts to ensure compliance with the City’s vision for the different Mixed-Use Areas.
  - Update all general standards (parking, landscaping, etc.) where necessary.
  - Update as necessary the Shoreland, Floodplain, MRCCA zoning code and update the City’s stormwater requirements.
  - The Zoning Map is included below.

- Subdivision Ordinance – Complete full review and update to the Subdivision Ordinance to ensure development requirements, development processes, and dedication requirements are clear and meet the goals of the Comprehensive Plan. See [this link](#) for the City's Subdivision Ordinance.

**Figure 12.1 Zoning Map**



## Economic Development Chapter

Several economic development goals are provided in the Economic Development Chapter. The following strategies will be used to meet these goals.

- Complete a market study and update the market study as necessary to ensure the City has updated information to make economically viable land use decisions related to commercial and industrial development.
- Create marketing materials for developing industrial sites to better communicate City goals and policies for future businesses.
- Ensure policy makers have a clear understanding of existing businesses and their needs through continuing communication.
- Utilize TIF and Tax Abatement in accordance with the City's Business Subsidy Policy to encourage existing business expansion and encourage new business development.

## Parks, Trails and Open Space Chapter

The Parks, Trails, and Open Space Chapter contains detail information regarding the City's future parks and trails. The following strategies will be used to ensure a robust parks and trails system:

- Continue to seek out funding through development fees, grants and other funding strategies to financially plan the park system.
  - Use the CIP to schedule new park development and park maintenance
- Effectively utilize the Parks Commission to guide future park development and park improvements.
  - Check in with other jurisdiction to better understanding grant opportunities and to collaborate with jurisdictions like Three Rivers ensure regional park and trail improvements connect with City parks and trails.
- Proactively work with developers and property owners to ensure understanding of where park needs exist and where park dedication is expected.
  - Utilize the subdivision code to enforce park dedication requirements
  - Actively communicate with residents and property owners to determine interest is selling land for a large community park, or interest in donating land for park development
  - Ensure the park dedication cash in leu fees are updated with recent costs for amenities to ensure we are charging fees which can make park development a reality.
- Explore the use of natural resource improvements and conservation in concert with park development to create unique parks which connect residents to nature.
- Explore a park referendum in the future to fund park development

## Transportation Chapter

The Transportation Chapter should be referenced for detailed strategies and goals related to the City's transportation system. The following are some of the strategies which are outlined in the chapter:

- Continue to collaborate with adjacent jurisdictions to effectively improve the City's transportation system.
- Utilize the CIP to schedule funding for needed transportation improvements.
- Collaborate and work with developers to construct Dayton Parkway
- Continue to explore ways to fund transportation improvements which includes: franchise fees, special assessments, state aid, and legislative funding.
- Communicate the transportation needs and mediate discussions with the county to ensure required transportation related mitigation is constructed with developments.

## Waste Water Chapter

The following strategies will be used to continue to build the City's trunk sewer infrastructure. See the Waste Water Chapter for detail on how the City plans to develop the Trunk Sewer System.

- Continue coordination with the Metropolitan Council regarding SAC fees and plat reporting to provide accurate information regarding connections.
- Continue to schedule necessary sewer infrastructure improvements on the City's CIP (which is updated yearly).
- Continue to communicate expectations regarding lateral and trunk sewer infrastructure requirements to developers as they construct improvements for their development.

## Water Supply and Distribution Chapter

The following strategies will be used to continue to build the City's trunk water infrastructure. See the Water Supply plan in the appendix B for draft Water Supply Plan for details.

- Continue working with adjacent communities regarding joint powers agreements.
- Continue plans to construct a south water tower to close the Maple Grove connection.
- Continue to schedule necessary water infrastructure improvements on the City's CIP.
- Continue to communicate expectations regarding lateral and trunk water infrastructure requirements to developers as they construct improvements for their development.

## Surface Water Chapter

See the Local Water Management Plan in Appendix C for details related to implementation.

- Continue to work with Watershed authorities in regards to wetland impacts and mitigations.
- Continue to work with other jurisdictions regarding improvements to surface water, and water quality (e.g. work with DNR for improvements to water quality related to Diamond Lake and other lakes).
- Schedule funding on the CIP related to stormwater improvements which offer regional benefits.

## A. Mississippi River Corridor Critical Area (MRCCA) Plan

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### Introduction

This section contains information, goals, and guidelines for the Mississippi River Corridor Critical Area within the City of Dayton. The intent of this section is to continue compliance and compatibility with regional goals to sustain and strengthen the natural resources and amenities along the Mississippi. Establishing goals and implementing policies related to conserving our natural resources, including our rivers, can ensure that natural amenities can remain a focal point of our City for generations to come.

### History of the Mississippi River Corridor Critical Area Planning

The Mississippi River Corridor Critical Area (MRCCA) comprises 72 miles of the river across 30 Twin Cities Metropolitan Area jurisdictions. The MRCCA is governed by special land planning requirements and land development regulations created to protect and preserve the natural, scenic recreational and transportation resources of this section of the Mississippi River. Local communities within the corridor are required to complete a MCRRA plan as a chapter or subsection of their Comprehensive Plan.

The MRCCA was designated by Governor's Executive Order in 1976, following the passage of the 1973 Minnesota Critical Areas Act. On January 4, 2017, Minnesota Rules, chapter 6106 replaced Executive Order 79-19, which previously governed land use in the MRCCA. The rules require local governments to update their MRCCA plans and MRCCA ordinances for consistency with the rules.

The MRCCA is important because of its many significant natural and cultural resources, including scenic views, water, navigation, geology, soils, vegetation, minerals, fauna, cultural resources, and recreational resources. The 72-mile long MRCCA is home to a full range of residential neighborhoods and parks, as well as river-related commerce, industry, and transportation. A brief timeline of the MRCCA history is below:

- **1973** - Minnesota passes Critical Areas Act of 1973 (MN Statutes, Chapter 116G). Environmental Quality Board (EQB) adopts rules to implement Act (MN Rules, parts 4410.8100 – 4410.9910)
- **1976** - Mississippi River and adjacent corridor designated a state critical area by Governor Wendell Anderson (Executive Order No. 130)
- **1979** - Designation continued by Governor Albert Quie (Executive Order 79-19). Metropolitan Council acts to make designation permanent (Resolution 79-48)
- **1988** - In 1988, the U.S. Congress established the Mississippi National River and Recreation Area (MNRRA), a unit of the National Park System. The MNRRA shares the same boundary as the MRCCA, and the park's Comprehensive Management Plan (CMP), signed by the Governor and Secretary of the Interior, incorporates by reference the MRCCA program for land use management. Rather than institute a separate layer of federal regulations, the MNRRA largely relies on the MRCCA to manage land use within the park. This reliance establishes

a unique partnership and framework for land use management amongst the local, state and federal governments to protect the intrinsic resources of the Mississippi River Corridor.

- **1991** - MNRRA designated a state critical area per Critical Areas Act (MN Statutes, §116G.15)
- **1995** - Responsibility shifts from EQB to Department of Natural Resources (DNR) by Governor Arne Carlson (Reorganization Order 170)
- **2007** - Legislature directs DNR to prepare report on the Mississippi River Corridor Critical Area (Completed January 2008)
- **2009** - Legislature amends MN Statutes, §116G.15 and directs DNR to conduct rulemaking for the Mississippi River Corridor Critical Area (MN Laws 2009, Chapter 172, Article 2, §5.e.)
- **2011** - DNR develops draft rule after stakeholder process, but rulemaking authority lapses
- **2013** - Legislature directs DNR to resume rulemaking process in consultation with local governments
- **2017** - Rules become effective January 4

## Public Input

As part of the 2040 City of Dayton Comprehensive Plan the Steering Committee reviewed appropriate materials and conducted a Strengths, Weaknesses, Opportunities and Threats (SWOT) exercise for a variety of comprehensive plan topics including but not limited to land use, natural resources and parks and open space. Further, during the comprehensive plan public engagement process, the MRCCA Area was identified on materials and on display boards used at public engagement open houses and stakeholder meetings. The public and stakeholders were invited to comment on the proposed goals, as well as viewsheds that should be protected as part of the MRCCA plan update process. Beyond the comprehensive plan, when appropriate the City will initiate, cooperate and continue educational programs and plans to further promote understanding of the importance of the river corridor.

## Summarize progress in accomplishing plan goals and policies since the last MRCCA plan



The City of Dayton adopted a Mississippi River Critical Area Plan as part of the City of Dayton 2030 Comprehensive Plan. That document complied with all applicable MRCCA requirements and included inventories, long range goals, specific riverfront policies, natural resource management and policies, parks, trails and open space policies, and public facilities, utilities, transportation and ownership policies. Further, the Mississippi River Corridor/Critical Area Ordinance (as defined) is part of the City Zoning Ordinance which is updated as needed. The City has consistently communicated with residents and developers regarding the MRCCA rules and regulations. Most areas around the MRCCA were already developed prior to the 2030 plan being adopted, however, residents regularly make improvements which require review.

## MRCCA Districts

Six districts are defined in MRCCA rules, based on the natural and built character of different areas of the corridor. Structure setbacks, height limits, and the amount of open space required for subdivisions vary by district. All other MRCCA standards apply uniformly throughout the 72-mile corridor. The presence and diversity of the districts supports different dimensional standards needed to enhance the corridor's character and to protect its identified resources.

The following four MRCCA districts exist in the City of Dayton:

### Rural and open space district (CA-ROS)

The rural and open space district (CA-ROS) is characterized by rural and low-density development patterns and land uses, and includes land that is riparian or visible from the river, as well as large, undeveloped tracts of high ecological and scenic value, floodplain, and undeveloped islands. Many primary conservation areas exist in the district. The CA-ROS district must be managed to sustain and restore the rural and natural character of the corridor and to protect and enhance habitat, parks and open space, public river corridor views, and scenic, natural, and historic areas.

### River towns and crossings district (CA-RTC)

The river towns and crossings district (CA-RTC) is characterized by historic downtown areas and limited nodes of intense development at specific river crossings, as well as institutional campuses that predate designation of the MRCCA and that include taller buildings. The CA-RTC district must be managed in a manner that allows continued growth and redevelopment in historic downtowns and more intensive redevelopment in limited areas at river crossings to accommodate compact walkable development patterns and connections to the river. Minimizing erosion and the flow of untreated storm water into the river, providing public access to and public views of the river, and restoring natural vegetation in riparian areas and tree canopy are

priorities in the district.

### River neighborhood district (CA-RN)

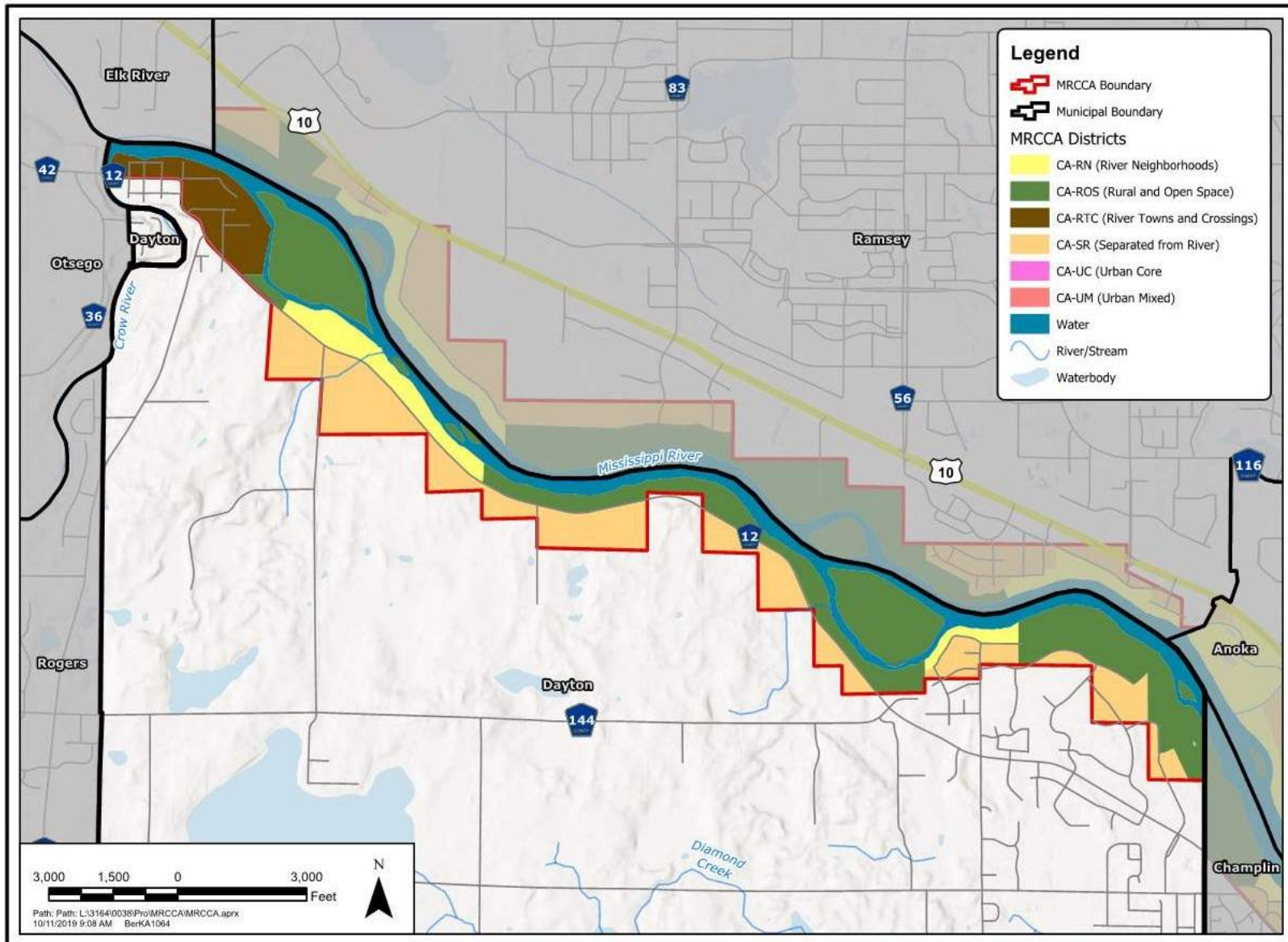
The river neighborhood district (CA-RN) is characterized by primarily residential neighborhoods that are riparian or readily visible from the river or that abut riparian parkland. The district includes parks and open space, limited commercial development, marinas, and related land uses. The CA-RN district must be managed to maintain the character of the river corridor within the context of existing residential and related neighborhood development, and to protect and enhance habitat, parks and open space, public river corridor views, and scenic, natural, and historic areas. Minimizing erosion and the flow of untreated storm water into the river and enhancing habitat and shoreline vegetation are priorities in the district.

### Separated from river district (CA-SR)

The separated from river district (CA-SR) is characterized by its physical and visual distance from the Mississippi River. The district includes land separated from the river by distance, topography, development, or a transportation corridor. The land in this district is not readily visible from the Mississippi River. The CA-SR district provides flexibility in managing development without negatively affecting the key resources and features of the river corridor. Minimizing negative impacts to primary conservation areas and minimizing erosion and flow of untreated storm water into the Mississippi River are priorities in the district. The following figure illustrates the MRCCA boundary and the MCRRA districts within Dayton.

The following figure depicts the four MRCCA districts present within Dayton:

Figure 1. MRCCA Districts

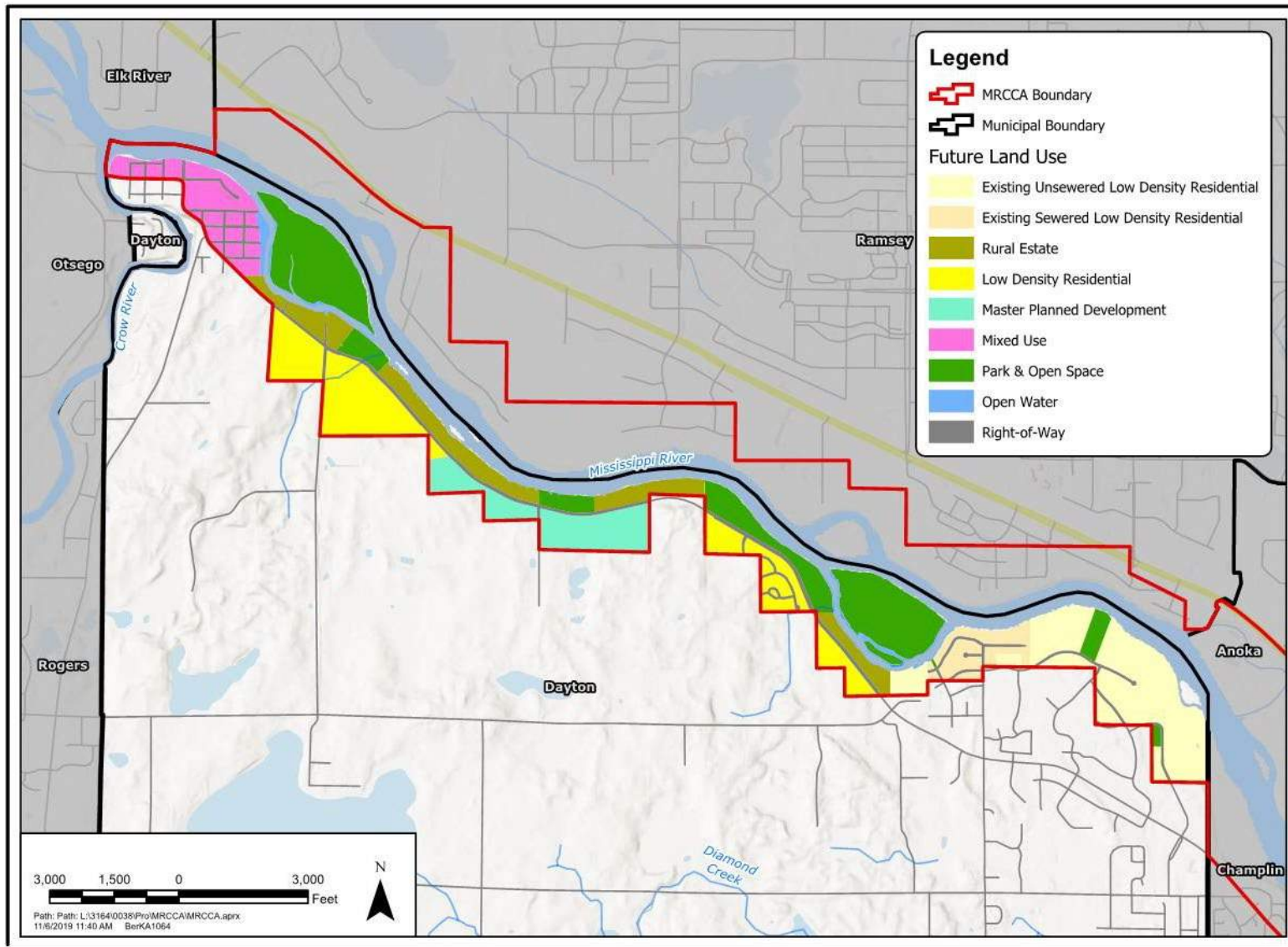


## Future Land Use

Current land uses within the MRCCA boundary are illustrated later in this plan. The following figure illustrates future land use patterns as outlined in the Land Use Section of the 2040 Comprehensive Plan.

As illustrated, from west to east the future land use patterns mirror the current land use patterns of: mixed use, park and open space, rural estate, low density development, parks and open space, rural estate, parks and open space, master planned development (on the south side of Dayton River Trail), parks and open space, low density development, rural estate, existing unsewered low density development and additional pocket parks and open space. See the following figure.

**Figure 2. Land Uses within the MRCCA District**



## Primary Conservation Areas

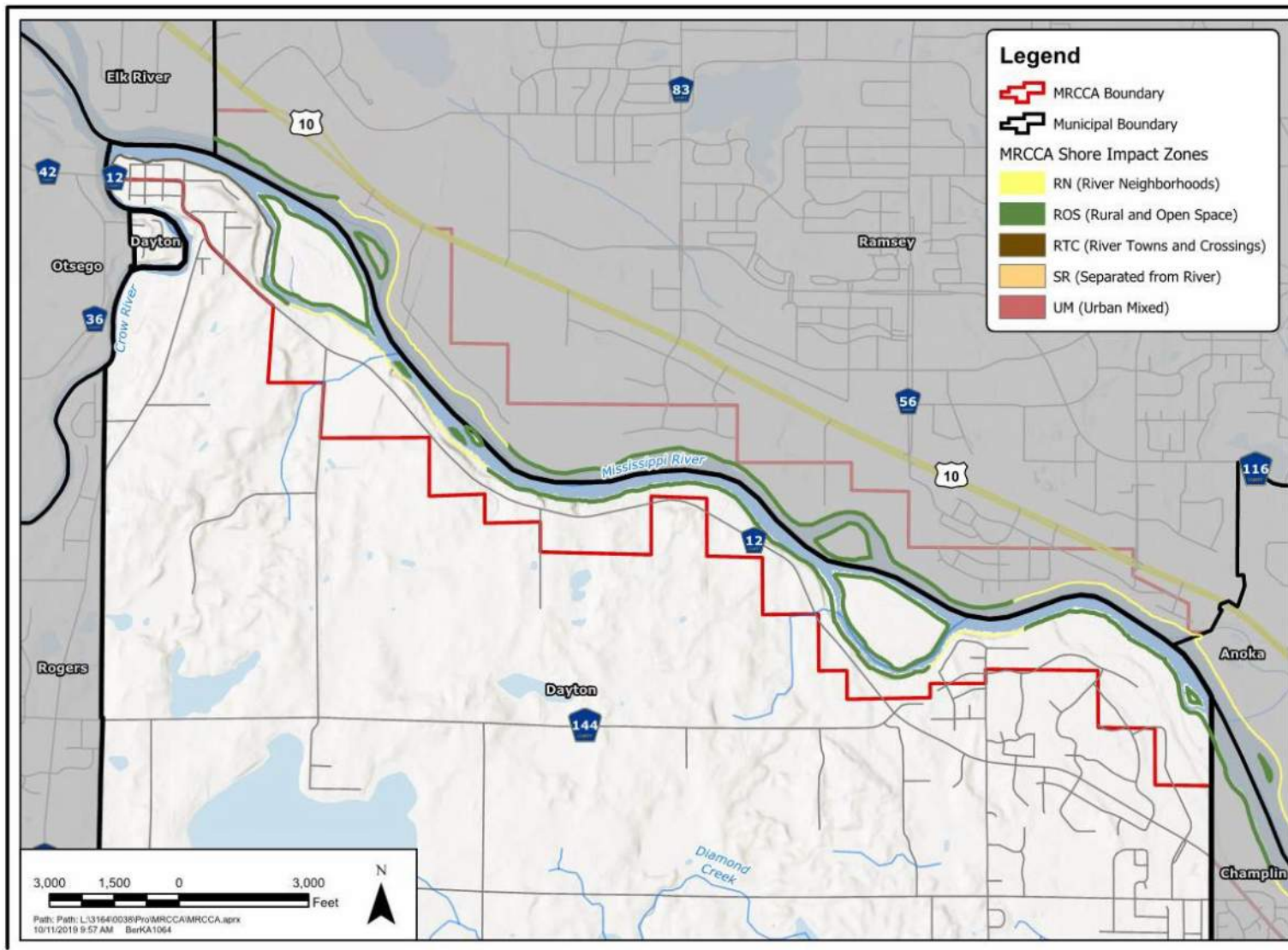
Primary Conservation Areas (PCAs) are defined as key resources and features that are given priority consideration for protection. PCAs include shore impact zones, bluff impact zones, floodplains, wetlands, gorges, areas of confluence, natural drainage routes, unstable soils and bedrock, native plant communities, cultural and historic properties, significant existing vegetative stands, tree canopies, and other identified resources.

The natural resources of the Mississippi River Corridor have been subject to the stresses imposed by commerce and settlement. The main transportation routes within Dayton, specifically Dayton River Road has been long established before the Critical Area Act of 1973. Remnants of original woodlands and wildlife have endured where construction is limited or infeasible around floodplains and steep slopes that form bluffs and ravines along the river. The city strives to protect and preserve the PCAs mapped and described in this plan.

### Shore Impact Zones

Shoreline areas are environmentally sensitive and need special protection from development and vegetation removal. The shore impact zone is a “buffer” area between the water’s edge and the area where development is permitted. The shore impact zone distances are defined as 50-percent of the structure setback from the Ordinary High Water Level (OHWL) from the Mississippi River. Specific setback distances are available within the Dayton’s City Code. The following figure illustrates the location of the shore impact zones within the MRCCA boundary and four MRCCA districts in Dayton.

**Figure 3. Shore Impact Zones**



The following six figures illustrate the shore impact zone within the MRCCA boundary in greater detail by specific MRCCA district.

Figure 4. Shore Impact Zone area 1

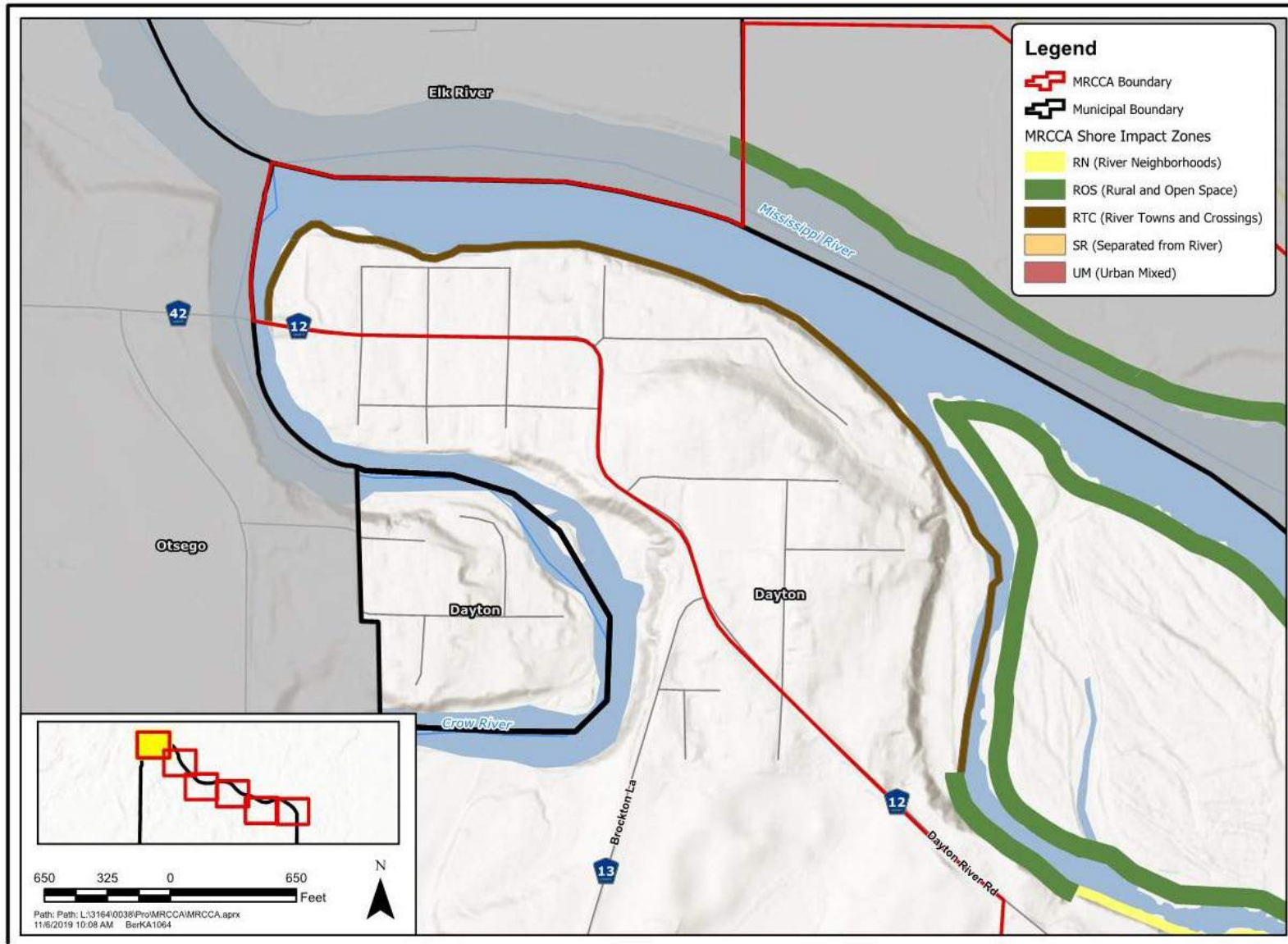


Figure 5. Shore Impact Zones area 2

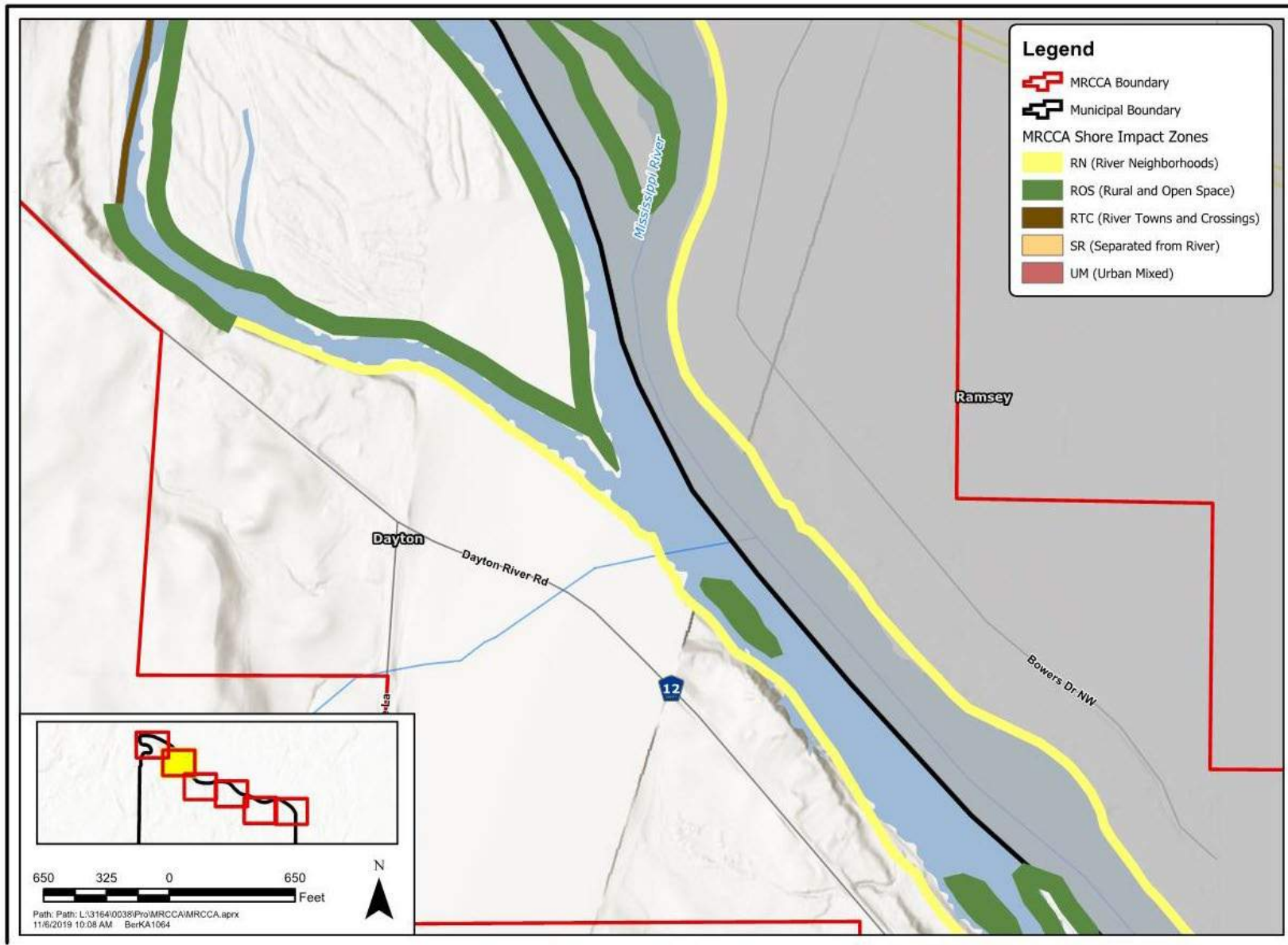


Figure 5. Shore Impact Zone area 3

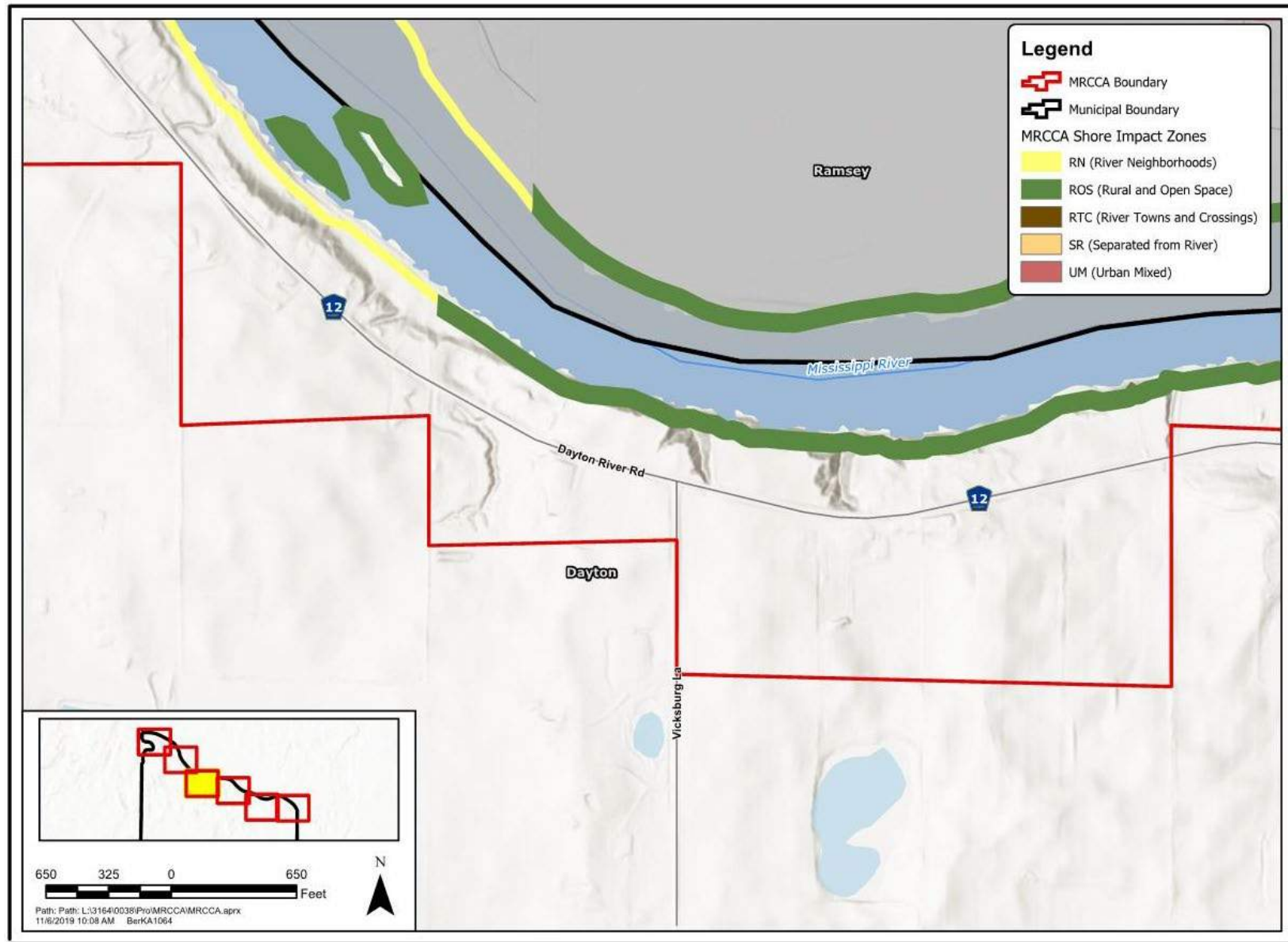


Figure 6. Shore Impact Zones area 4

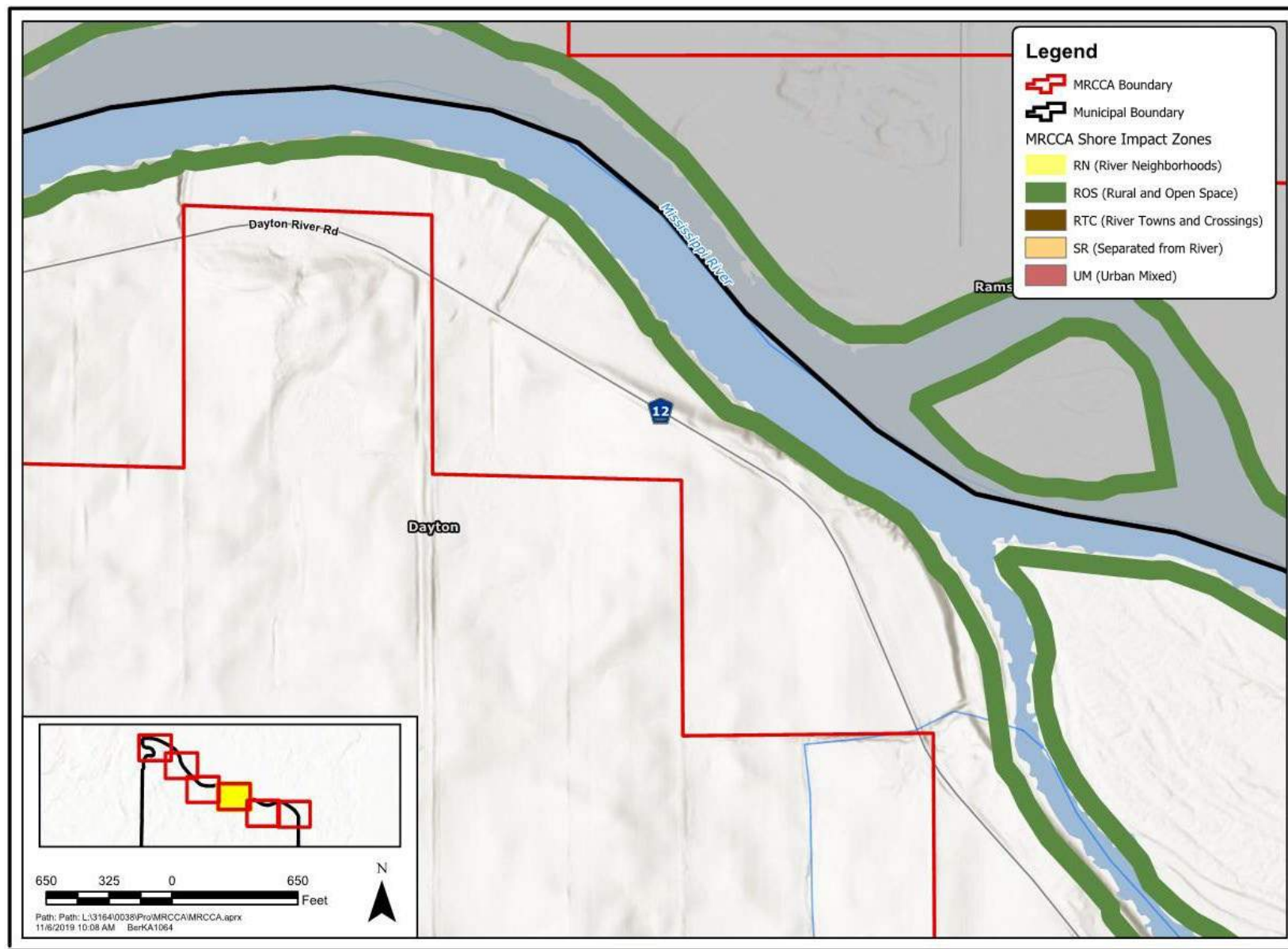


Figure 7. Shore Impact Zones area 5

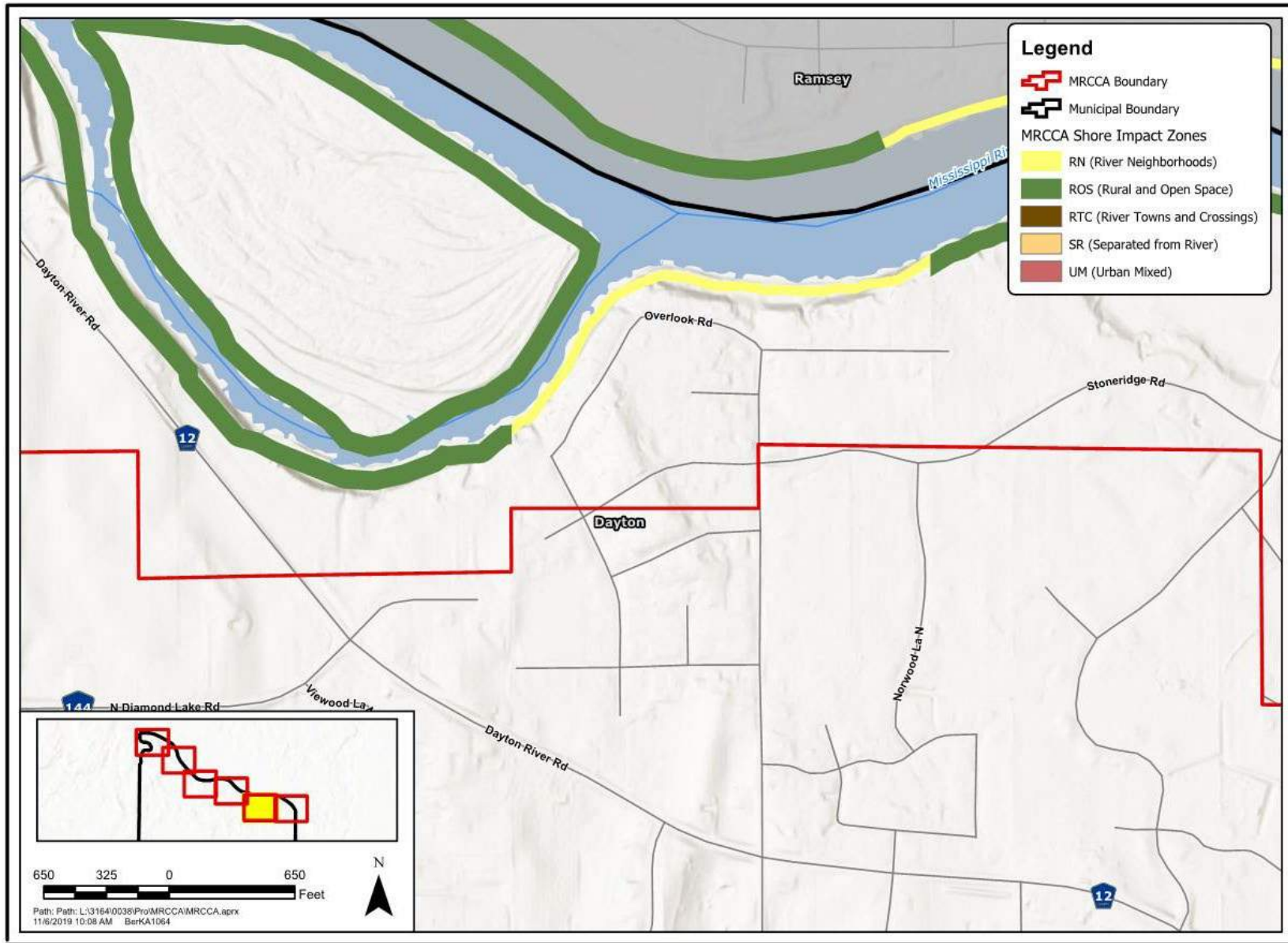
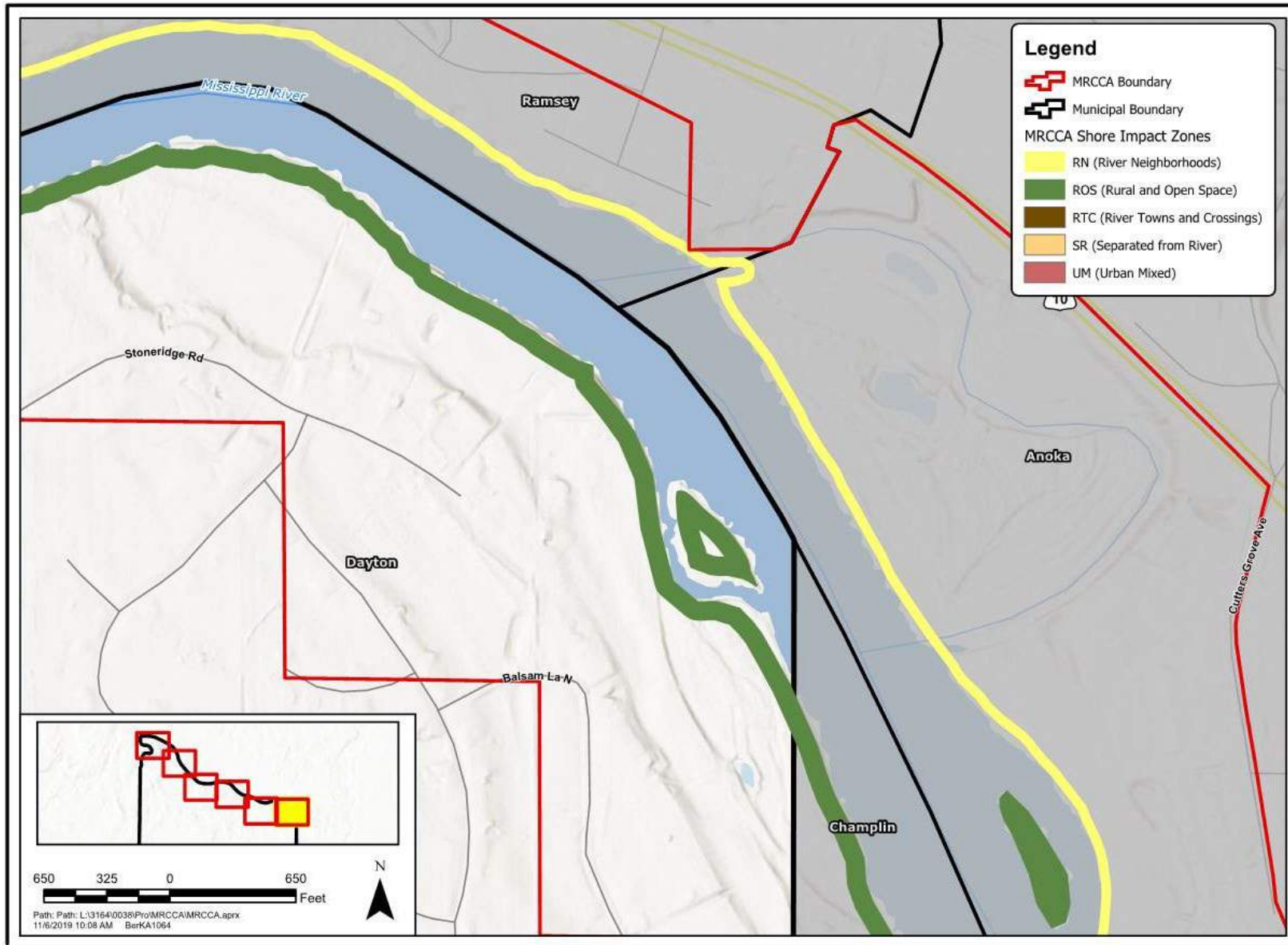


Figure 8. Shore Impact Zones area 6



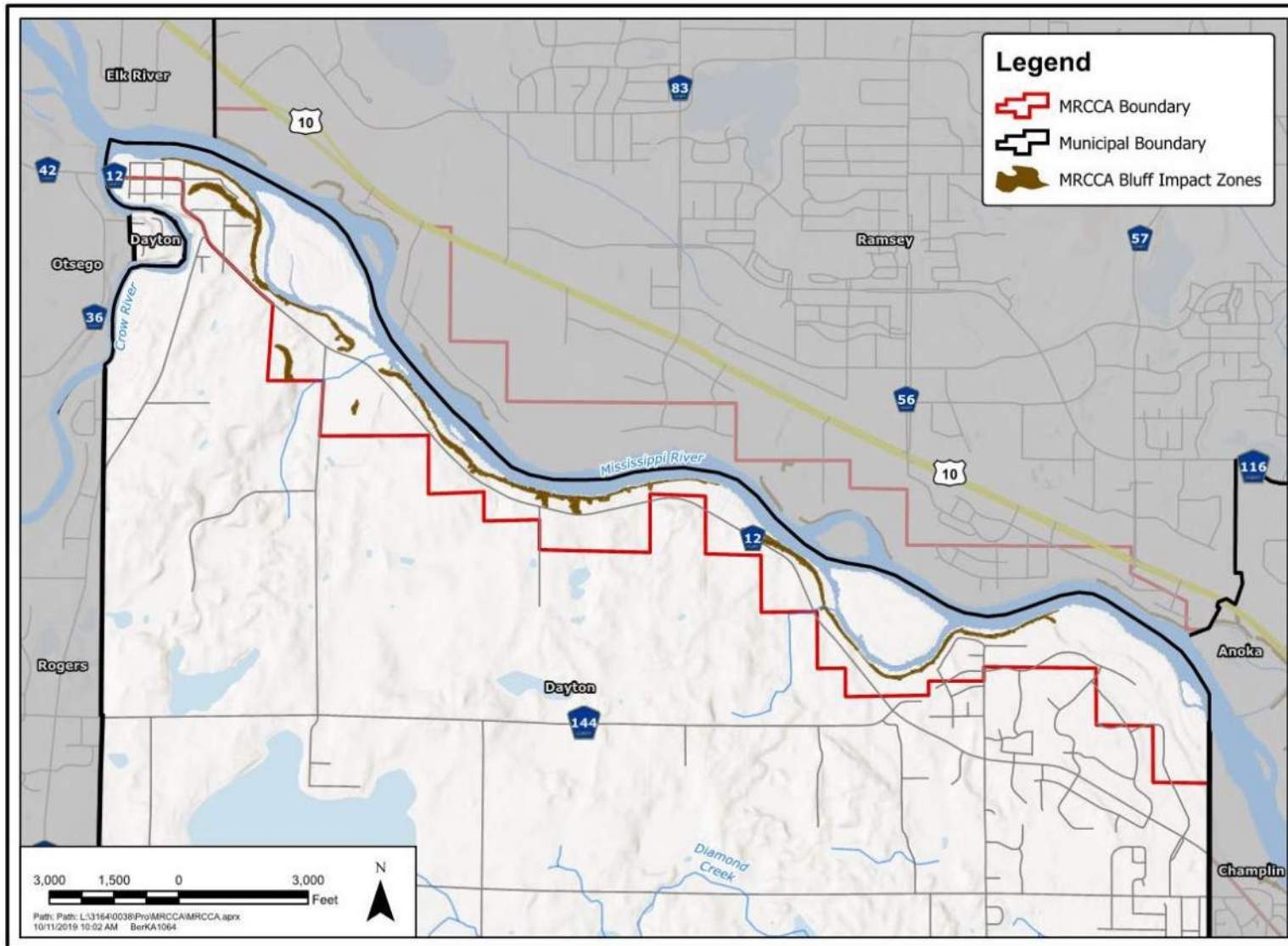
### Natural Drainage Ways

Natural drainage ways are linear depressions that collect and drain surface water. They may be permanently or temporarily inundated. There are limited natural drainage ways within the MCRRA boundary in Dayton, and as mapped do not provide adequate or detail to warrant illustration. With that in mind, we have developed a map series depicting bluff impact zones, and soil erosion susceptibility.

### Bluff Impact Zones

MRCCA rules define a bluff as a natural topographic feature having a slope that rises at least 25 feet and a grade for that slope that averages 18 percent or greater, measured over a horizontal distance of 25 feet. The bluff impact zone includes the bluff and land within 20 feet of the bluff. The following figure illustrates the location of the bluff impact zones within the MRCCA boundary in Dayton.

**Figure 9. Bluff Impact Zones**



The following six figures illustrate the bluff impact zones in greater detail.

Figure 10. Bluff Impact Zones area 1

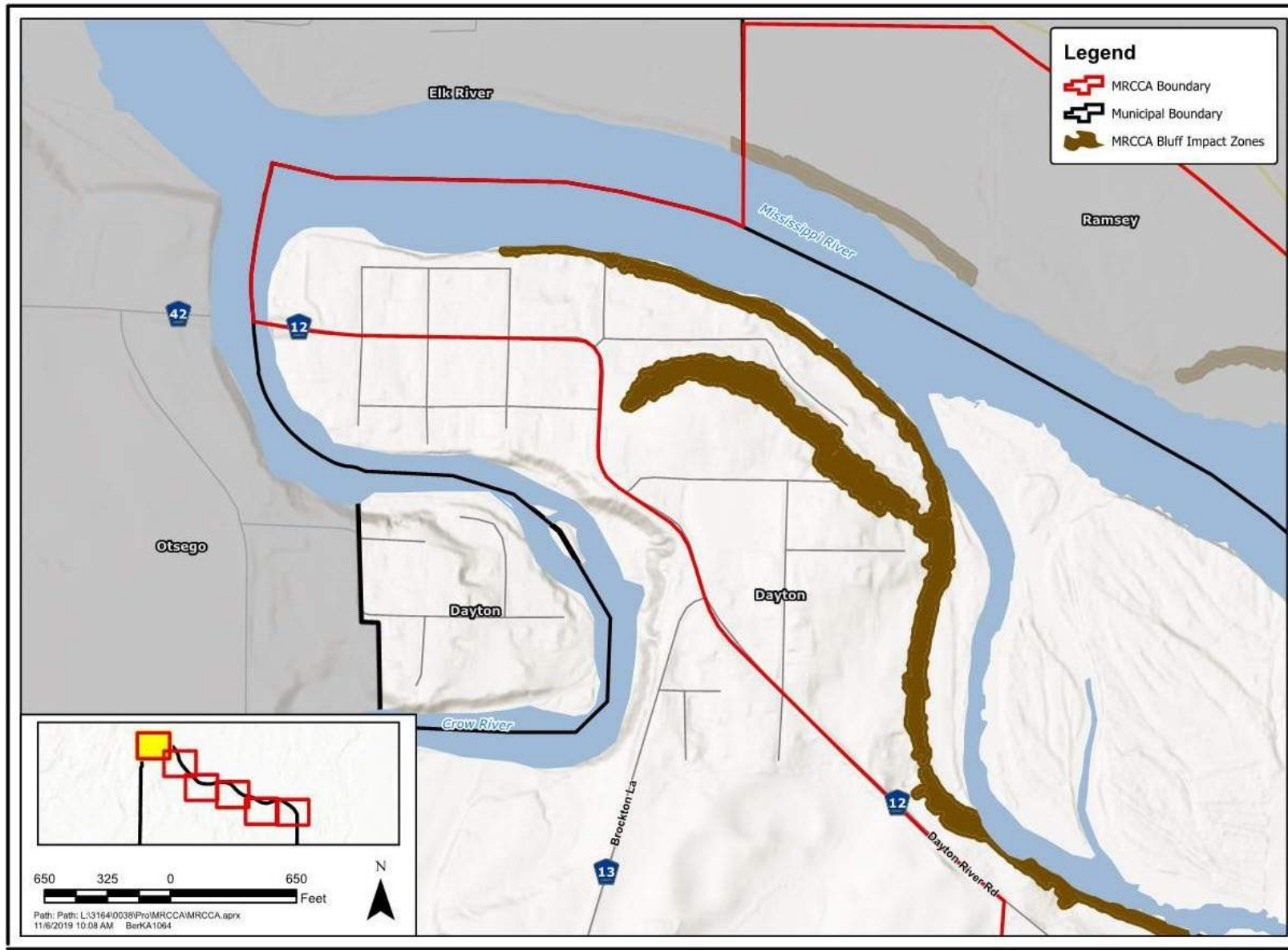


Figure 11. Bluff Impact Zones area 2

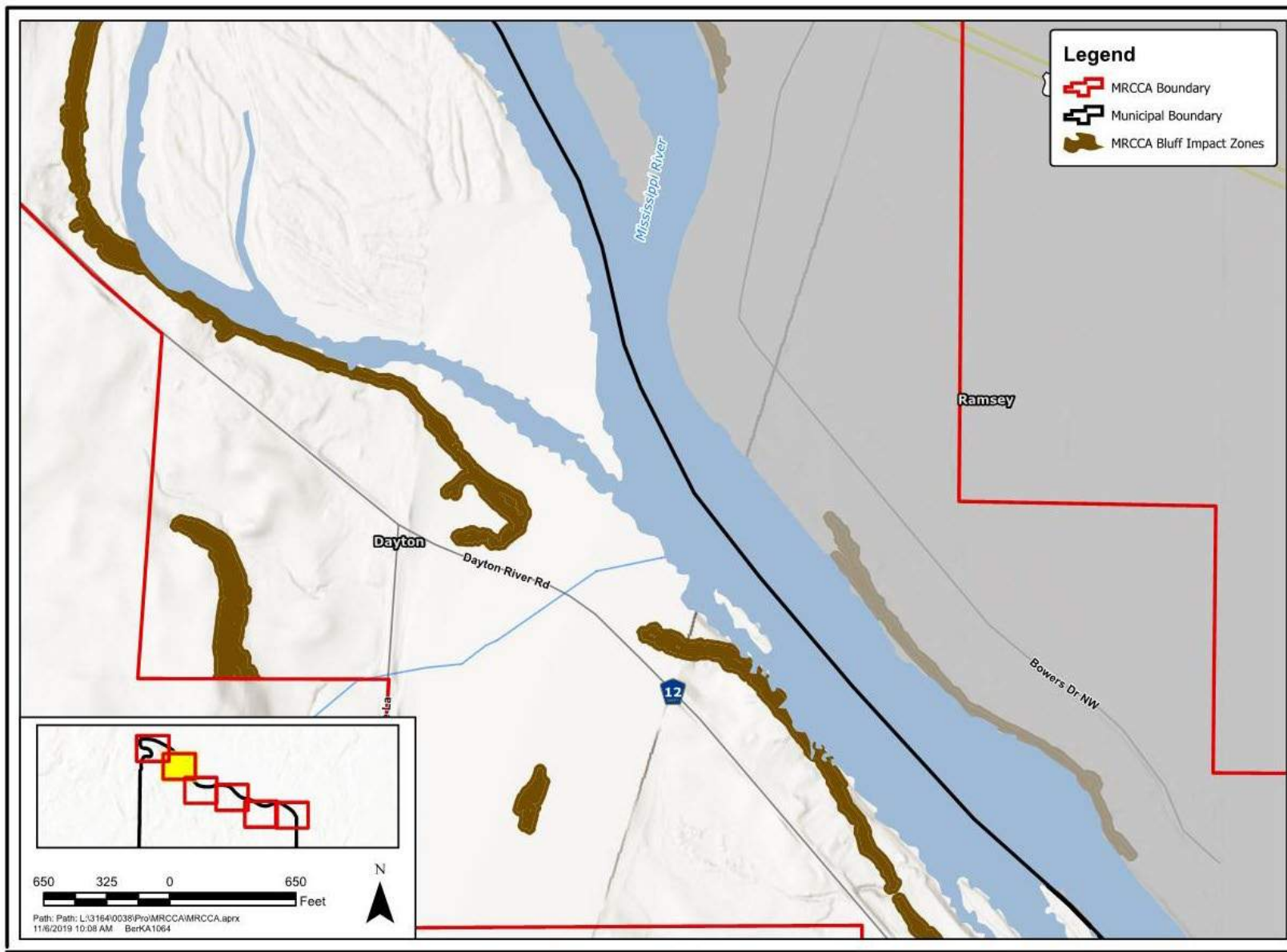


Figure 12. Bluff Impact Zone area 3

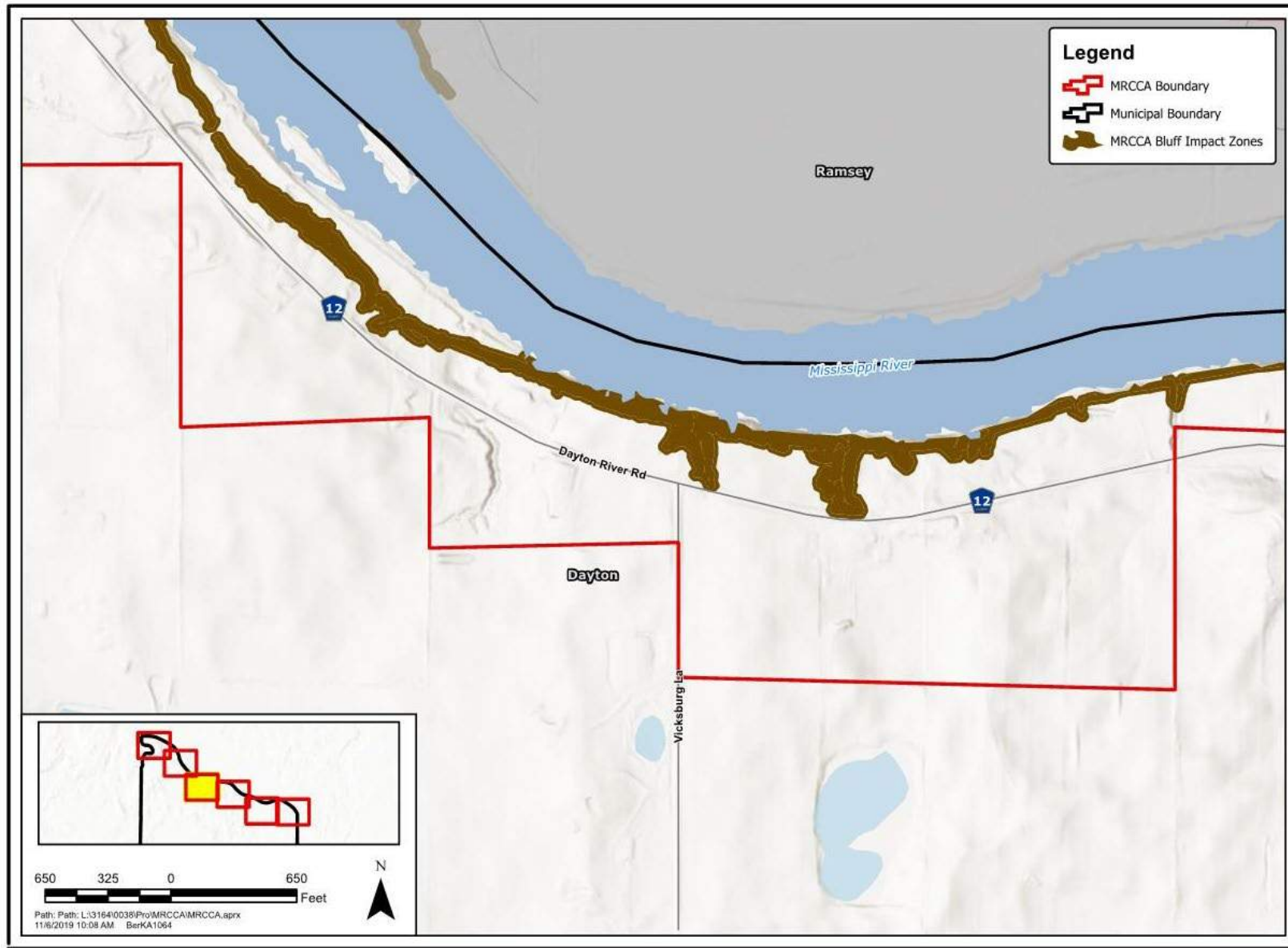


Figure 13. Bluff Impact Zone area 4

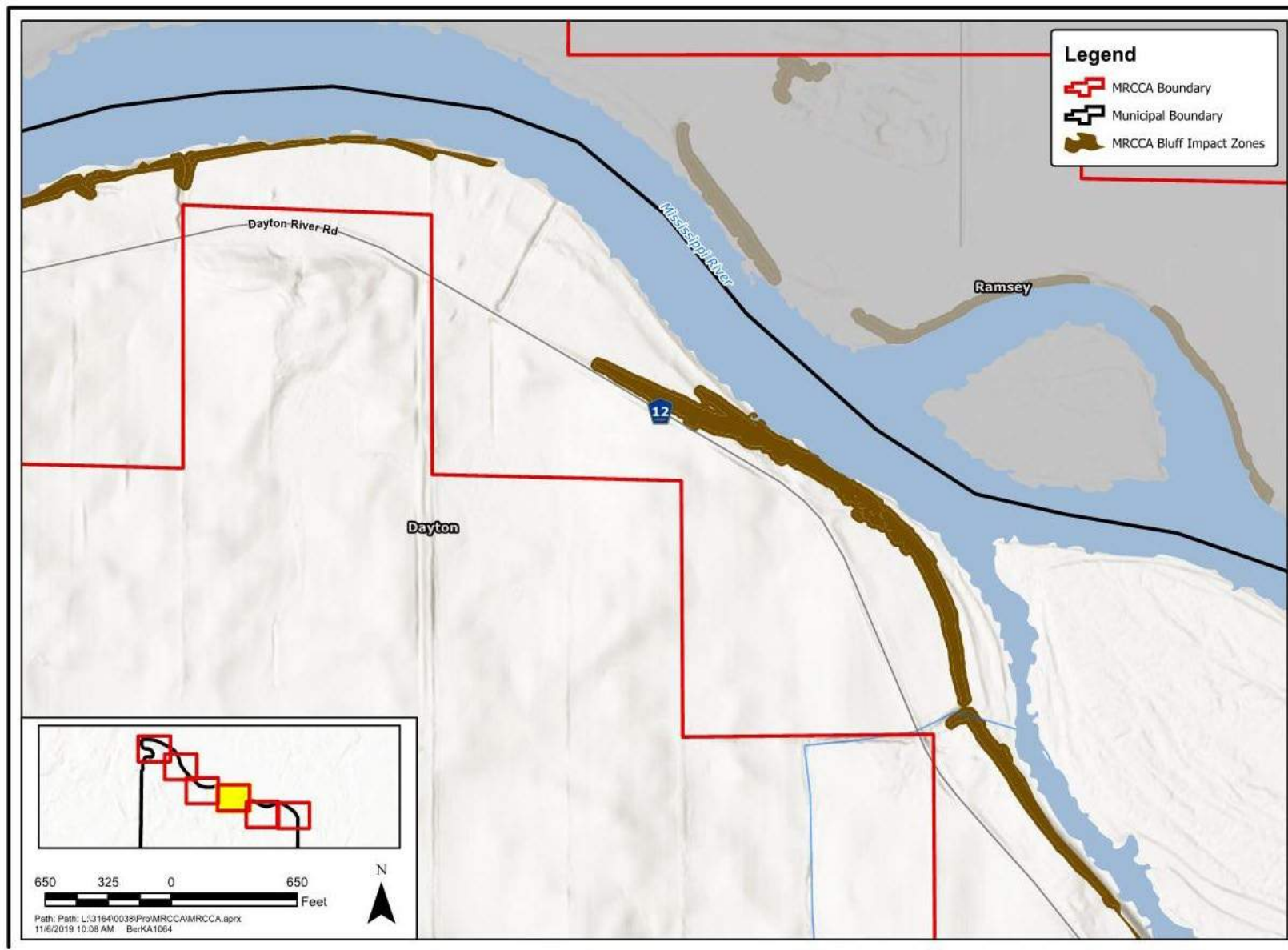


Figure 14. Bluff Impact Zone area 5

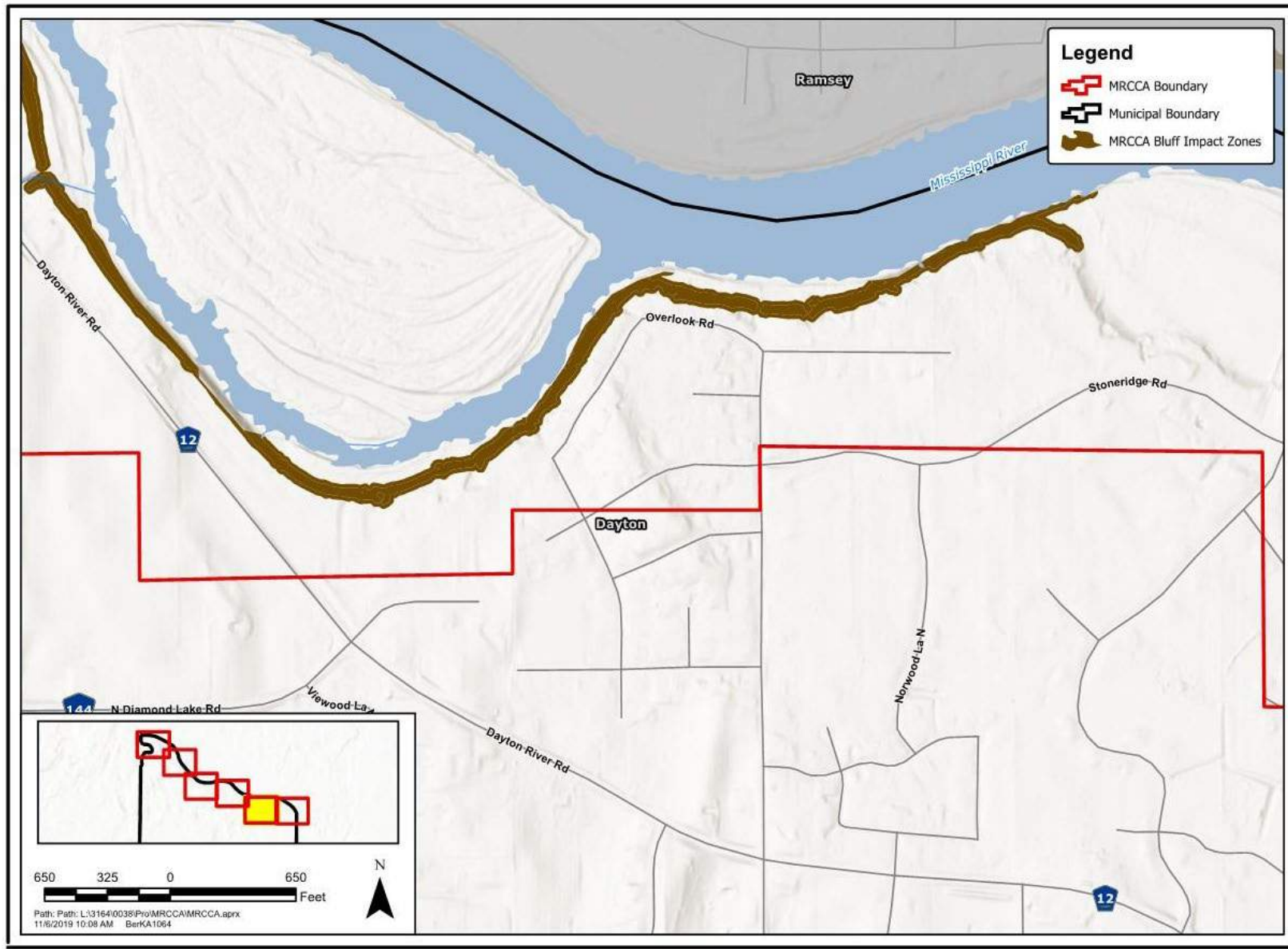
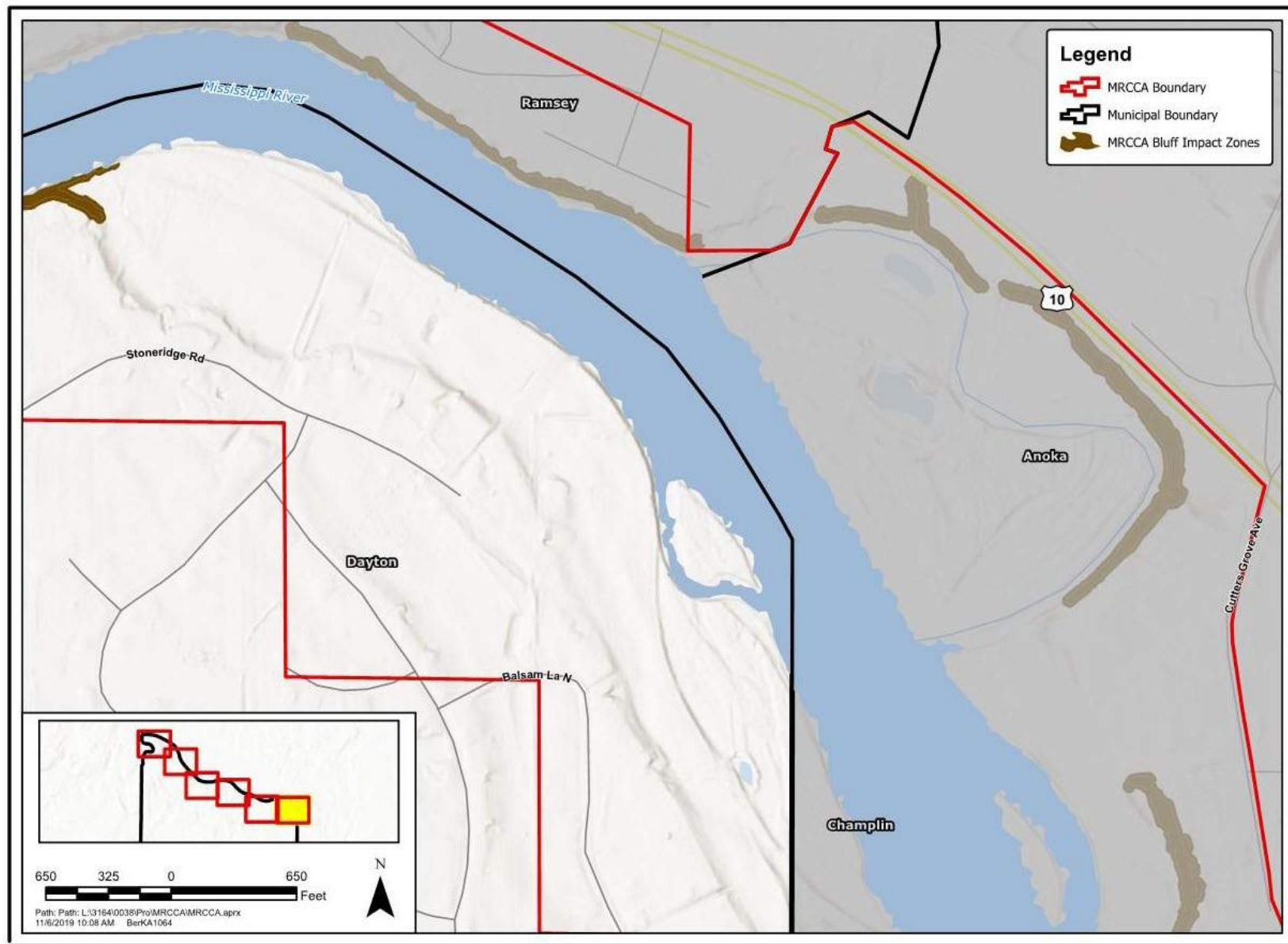


Figure 15. Bluff Impact Zone area 6.



## Soil Erodibility

The following six maps illustrate soil susceptibility to erosion. The soil erodibility index shows the relative potential for soils within the MRCCA to erode. The index combines the inherent erodibility of a soil type (K-factor) with the slope on which the soil type is located. The soil erosion index value is derived by multiplying the slope class with the K-Factor resulting in a relative index range from 0.02 to 1.96. The K-factor value was retrieved from the U.S. Department of Agriculture - Natural Resource Conservation Service (USDA-NRCS) Soil Survey Geographic Database (SSURGO) on 2/1/2017. The percent slope was calculated from a 10-meter LiDAR-derived digital elevation model (DEM). LiDAR data for the Twin Cities Metro area was collected in the spring and fall of 2011.

The following six figures illustrate the susceptibility of soil to erosion.

Figure 16. Soil Erosion Susceptibility area 1

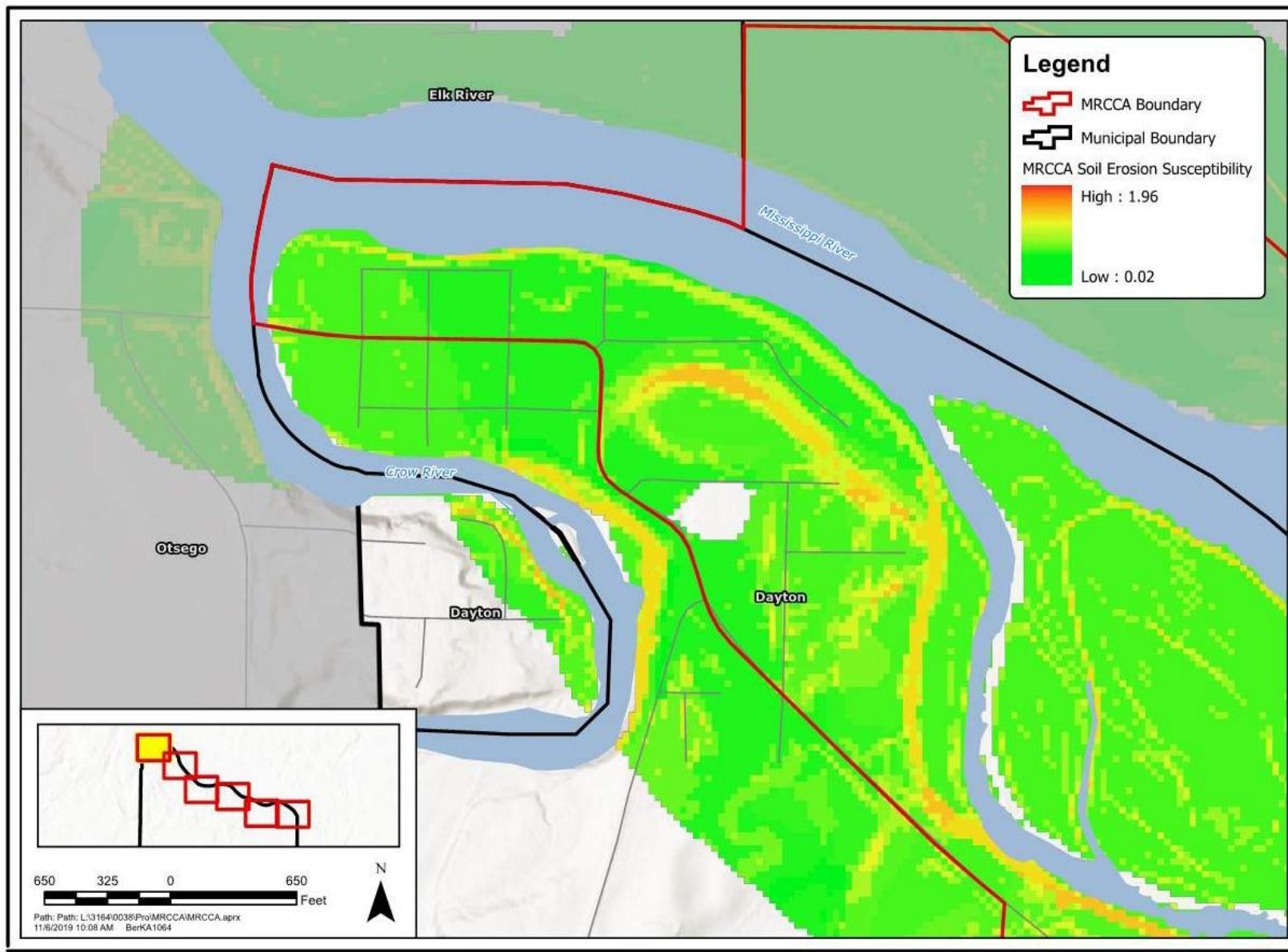


Figure 17. Soil Erosion Susceptibility area 2

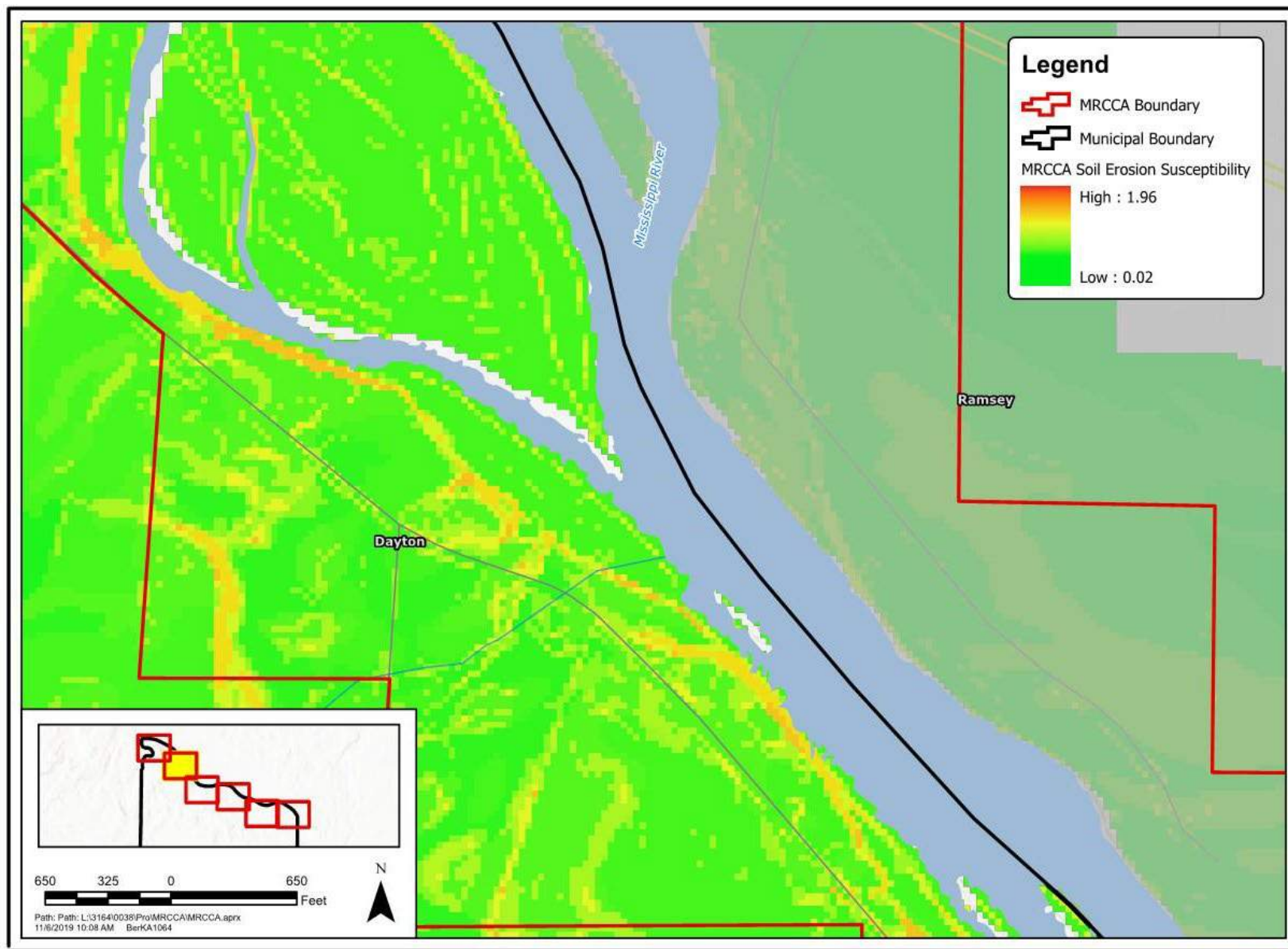


Figure 18. Soil Erosion Susceptibility area 3

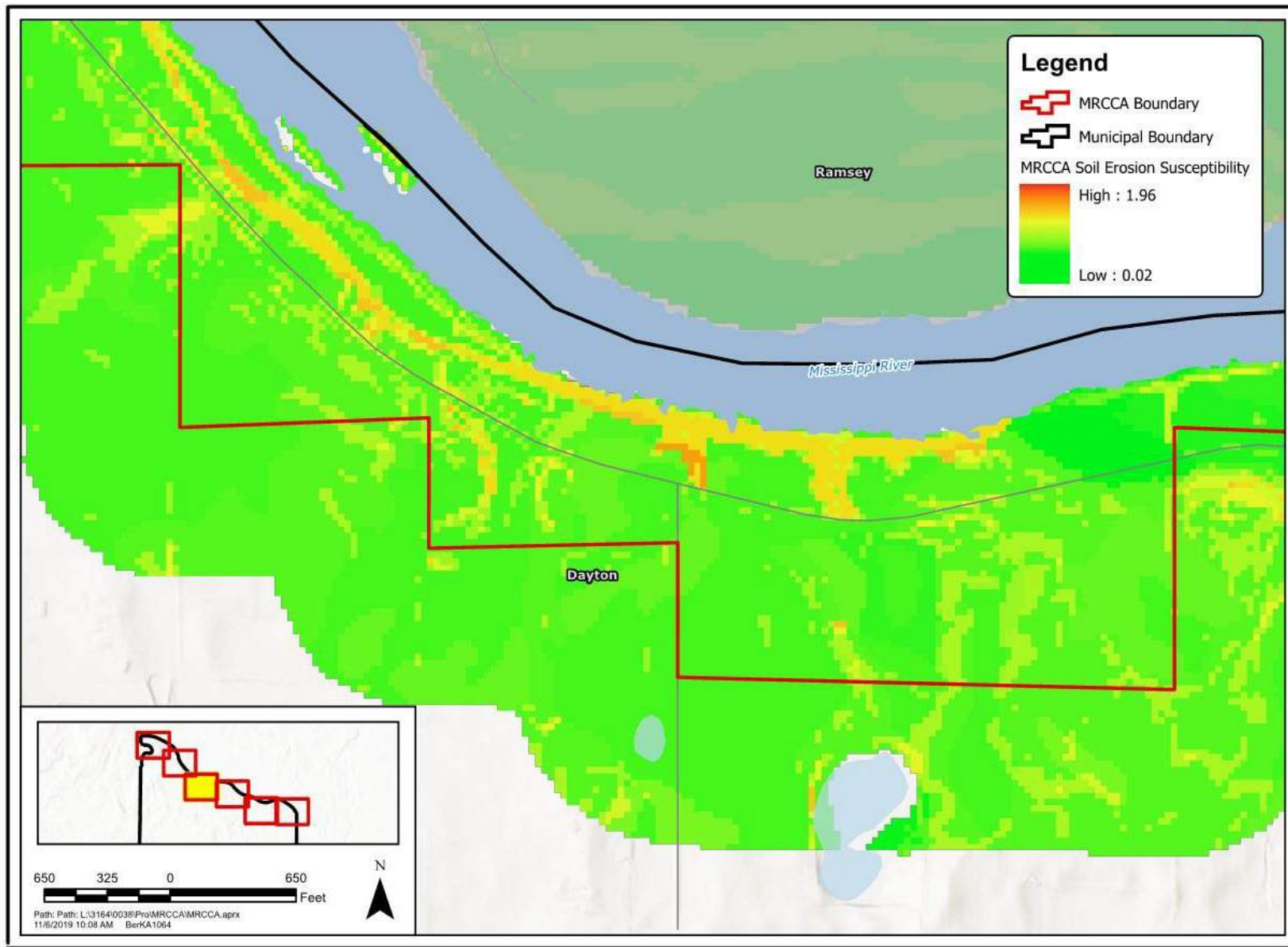


Figure 19. Soil Erosion Susceptibility area 4

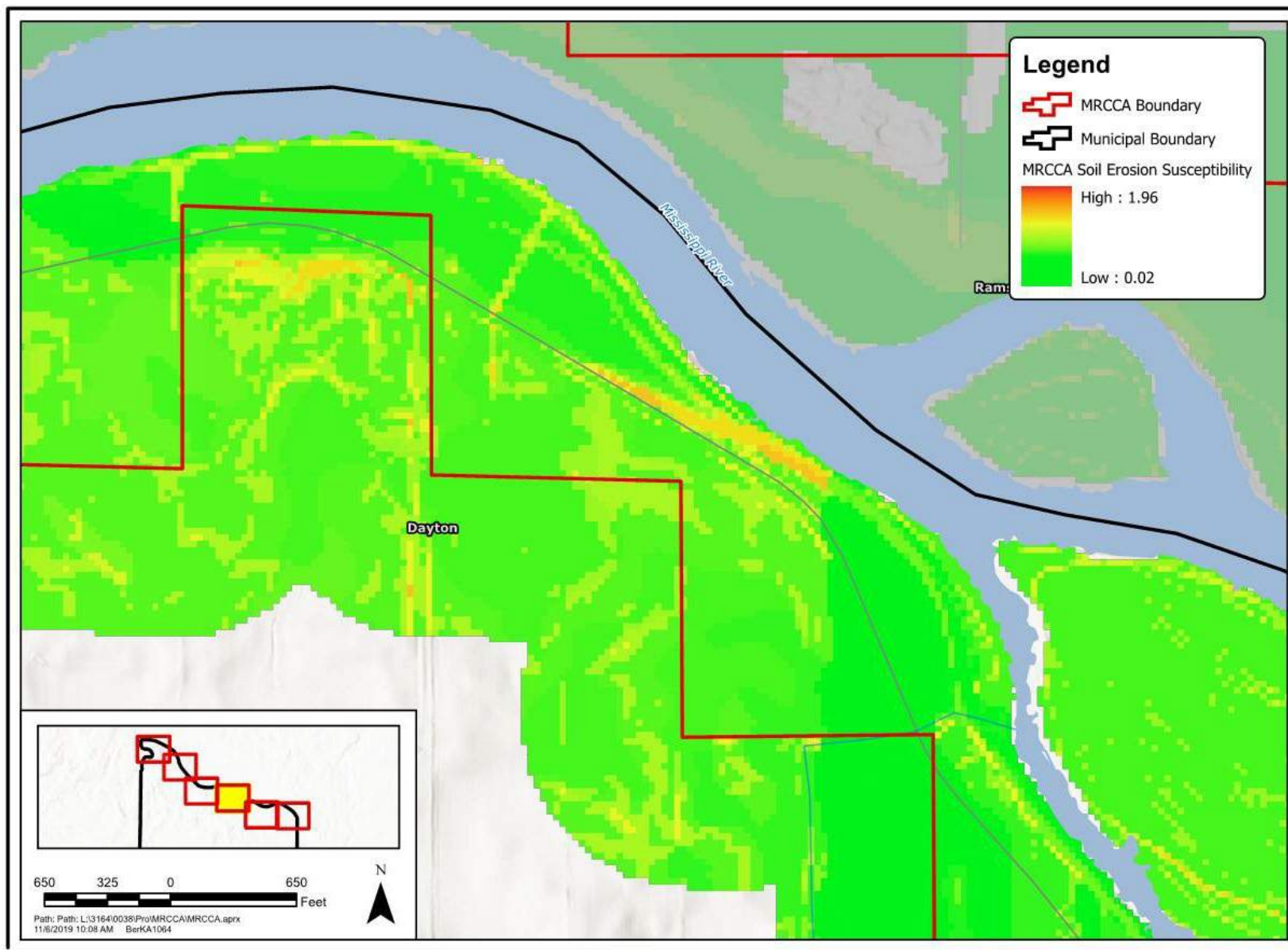


Figure 20. Soil Erosion Susceptibility area 5

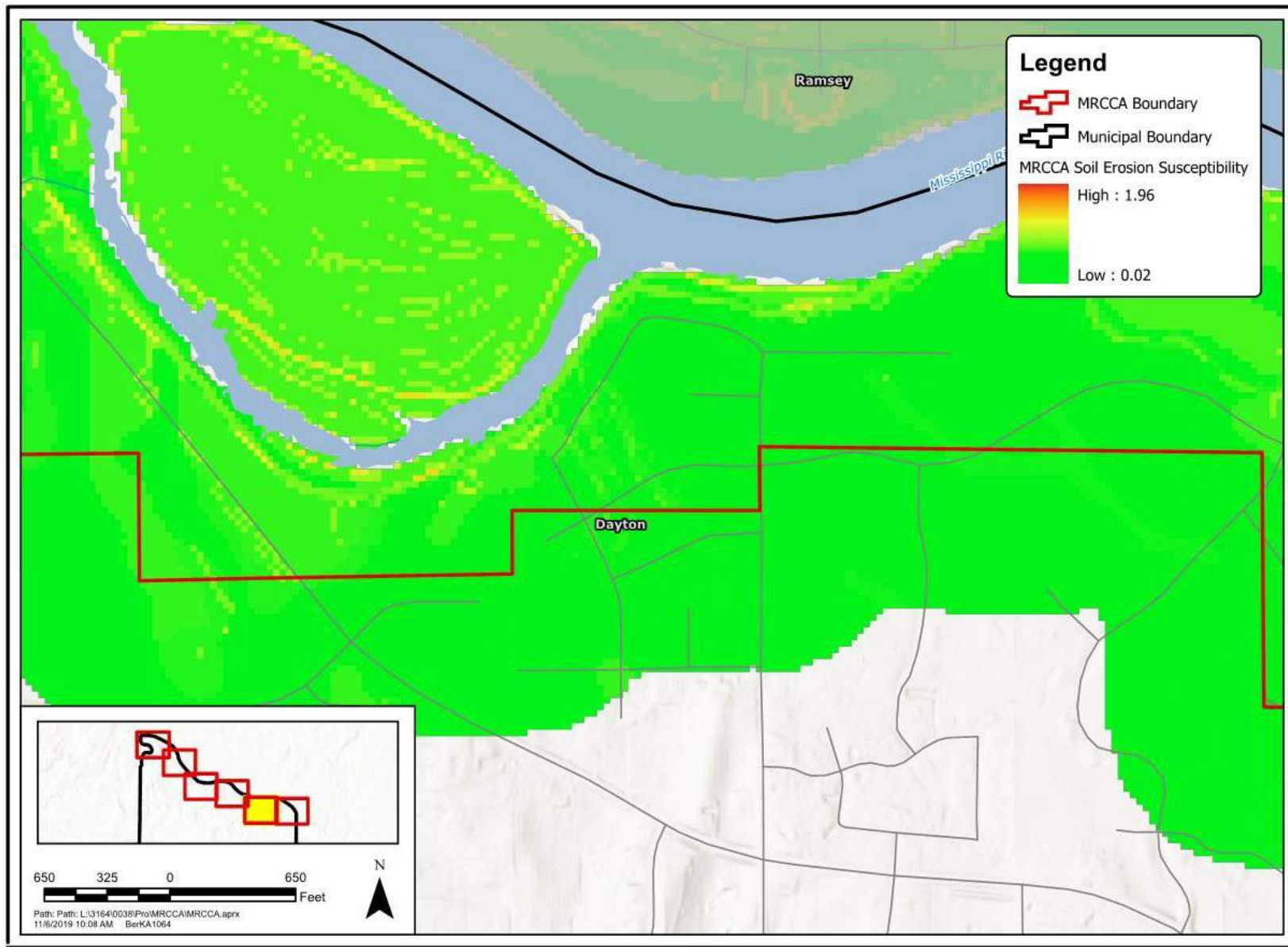
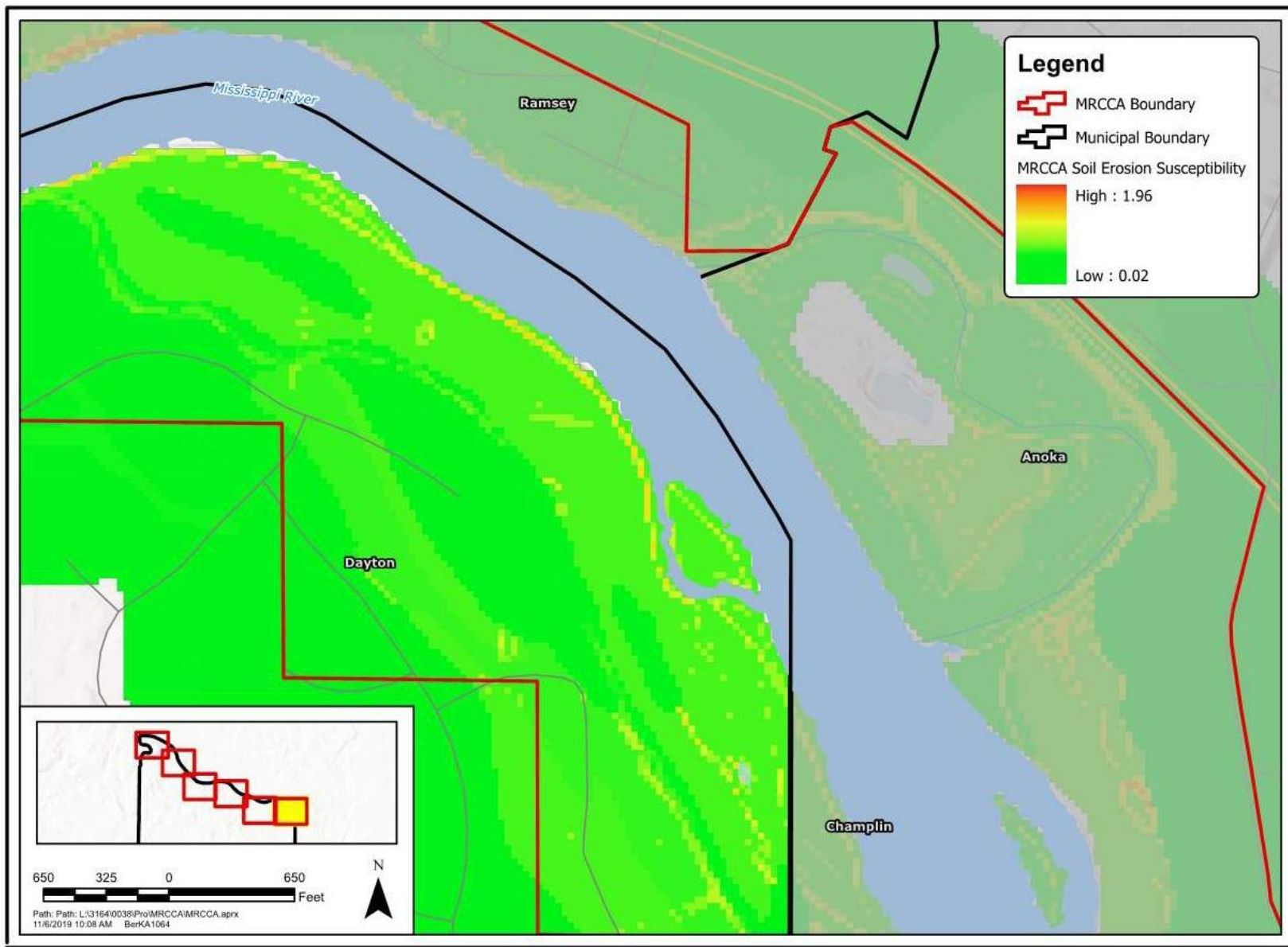


Figure 21. Soil Erosion Susceptibility area 6

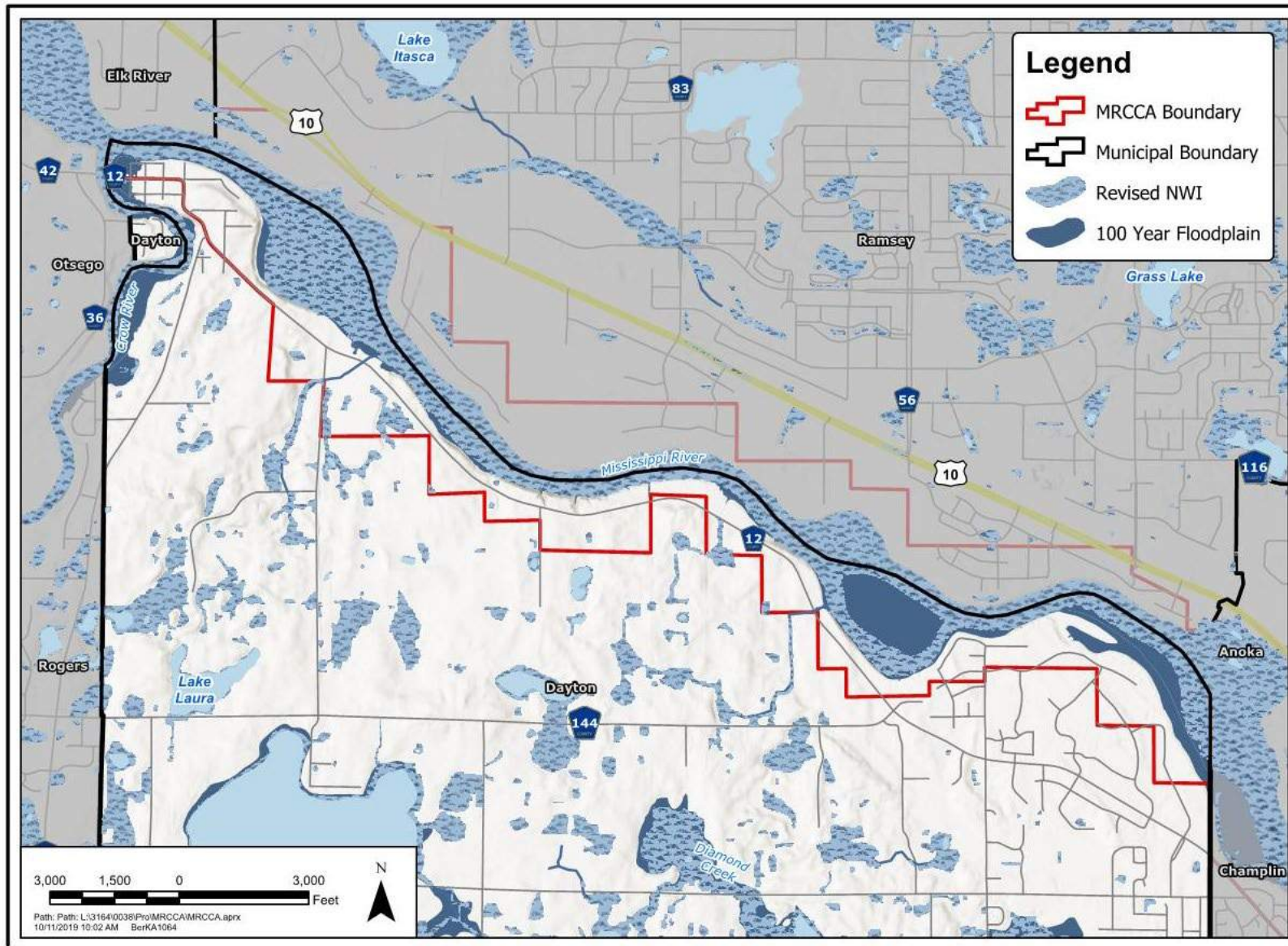


### Wetlands, Floodplains, and Areas of Confluence

Approximately 20-percent of the MRCCA within Dayton is normally covered by water, all within the floodplain of the Crow and Mississippi Rivers. The floodplain itself consists of nearly 500 acres or 44-percent of the MRCCA. This area is defined as the area inundated by the regional flood or 100-year flood. 100-year floods are considered to be floods with a 1-percent chance of occurring in any given year.

Water in upland areas of the MRCCA is contained in wetlands, where, usually, no standing surface water is present. These areas are where water is seasonally “perched” at shallow depths and are an important resource for base flow recharge in the River and for support of wetland vegetation. Streams and natural tributaries are also important feeders for the River Area and conservation of these areas provides benefits for the overall natural water system. The following figure illustrates the location of the wetlands and floodplain within the MRCCA boundary districts in Dayton. Please be apprised that the City of Dayton administers wetland rules (the Wetland Conservation Act) to ensure protection, management and mitigation.

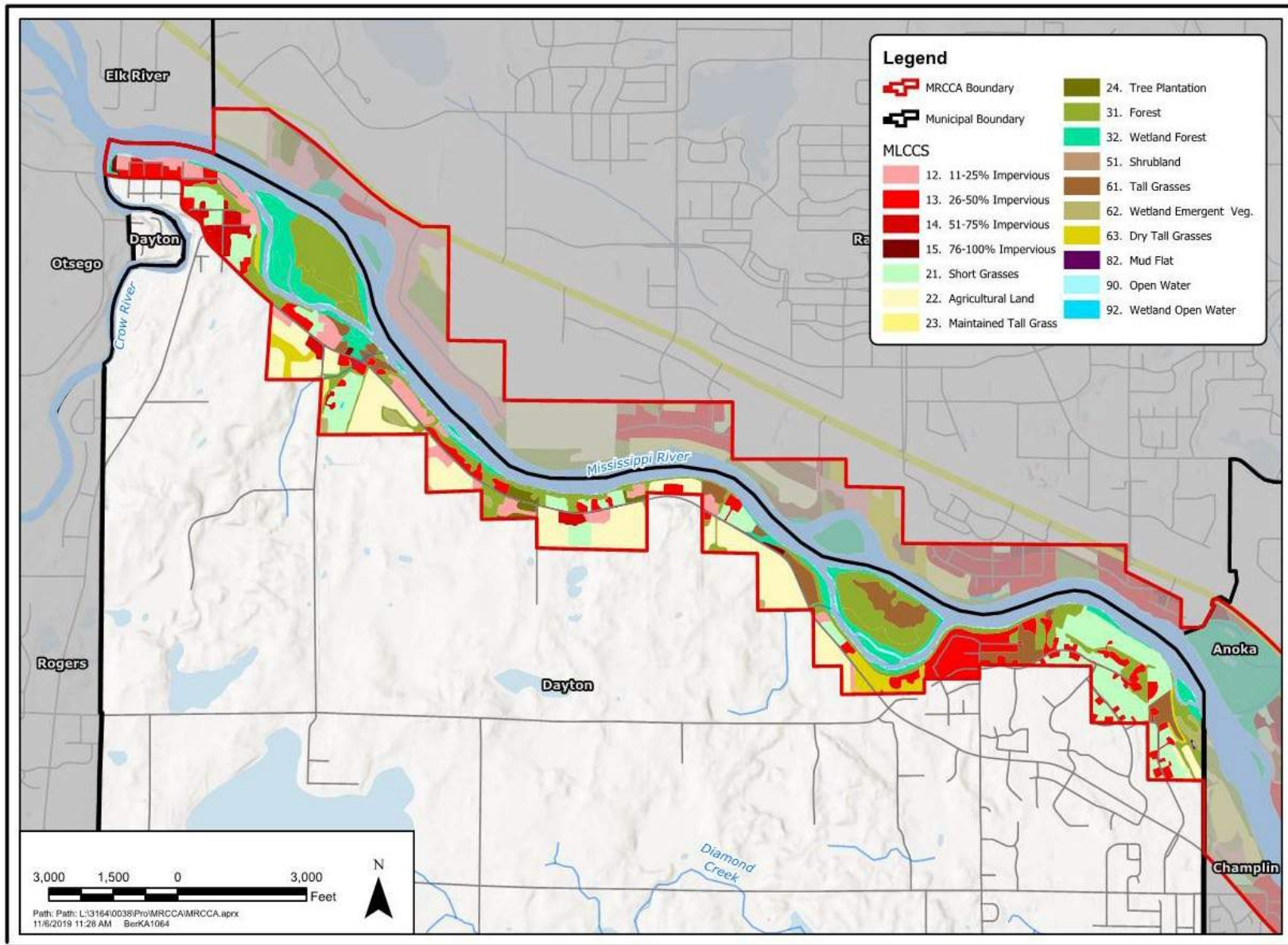
Figure 22. Wetlands, Flood Plains, and Tributaries



## Native Plant Communities and Significant Vegetative Stands

Native plant communities identified in the Minnesota Biological Survey represent the highest quality native plant communities. Significant vegetative stands are plant communities identified by the National Park Service as largely intact and connected and containing a sufficient representation of the original native plant community. The following figure illustrates the type of vegetation based on the Minnesota Land Cover Classification System (MLCCS).

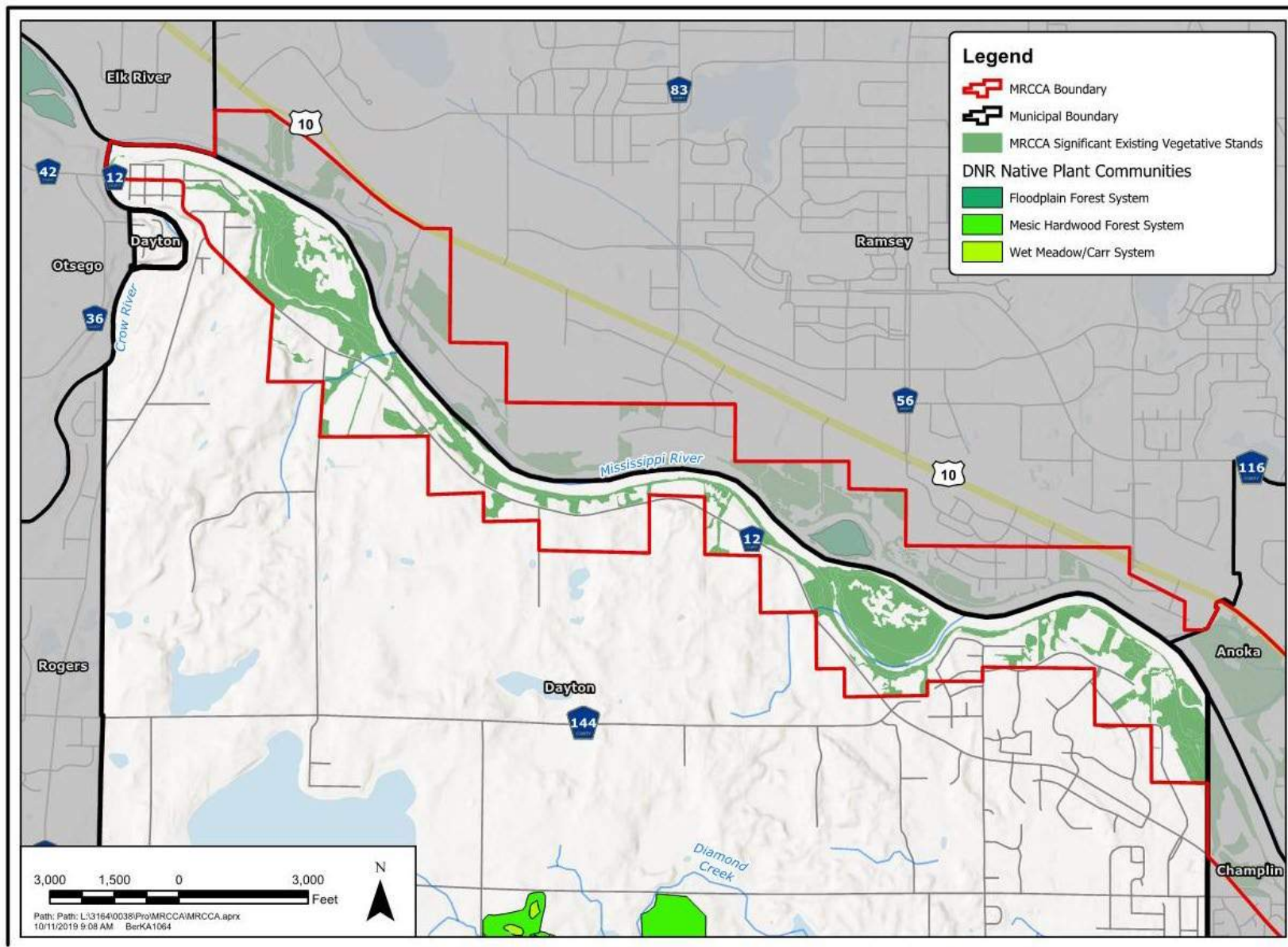
Figure 23. MLCCS and MRCCA area



### MRCCA Priorities for Restoration

The following figure illustrates the location of the significant existing vegetative stands within the MRCCA boundary in Dayton. The city had previously restored some grasses and removed invasive trees from portions of both Goodwin and Cloquent Islands. The city does not currently have plans to restore additional stands. Please be apprised that the quality of the significant vegetative stands are comprised of semi-natural areas with moderate to low quality comprised primarily of scrub floodplain forest and grassed vegetation. The previous figure of MLCCS provides greater detail.

Figure 24. Vegetative Stands in MRCCA Boundary



## Public River Corridor Views

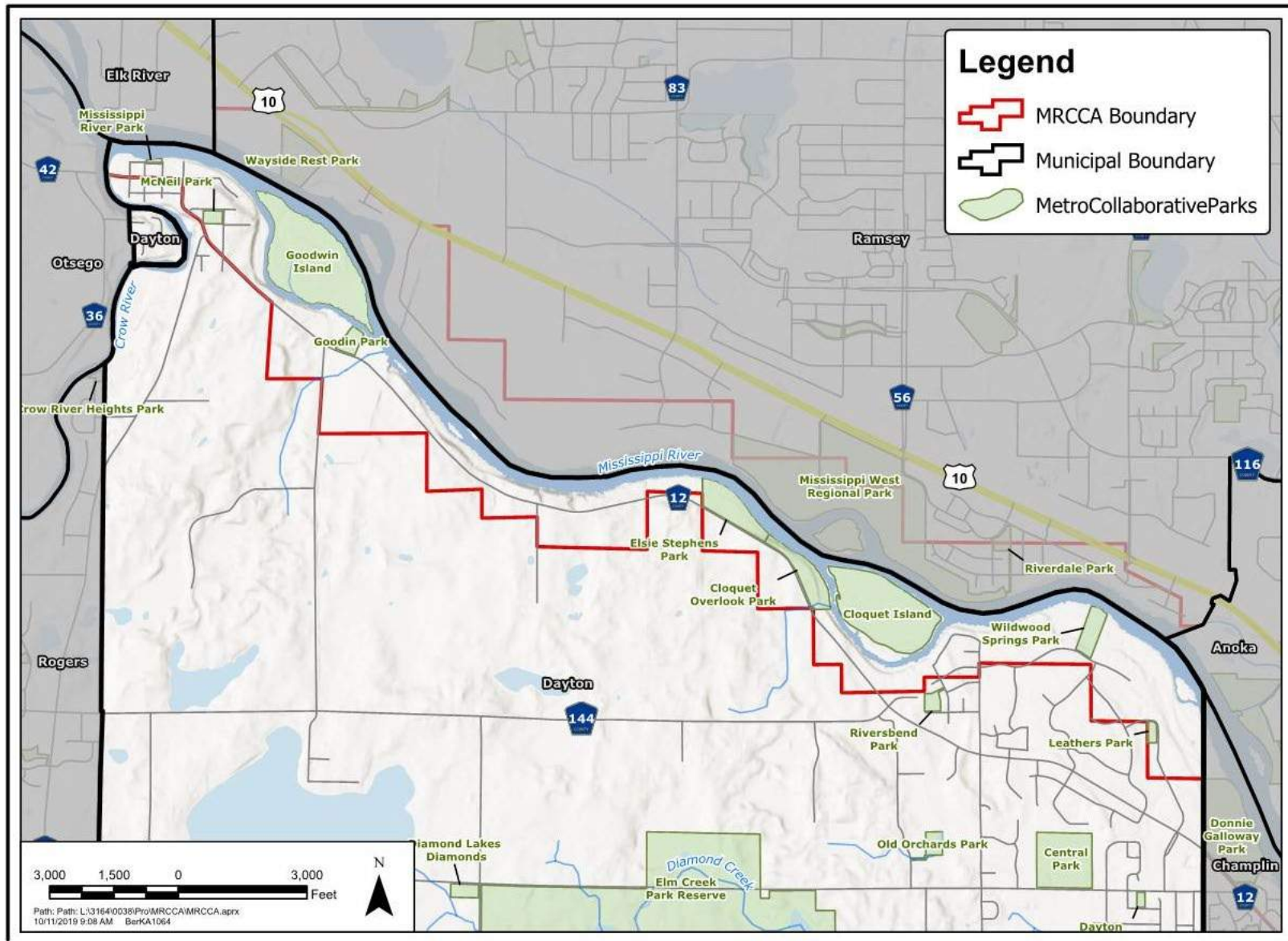
Public river corridor views (PRCVs) are views toward the river from public parkland, historic properties, and public overlooks, as well as views toward bluffs from the ordinary high water level of the opposite shore, as seen during the summer months. PRCVs are deemed highly valued by the community and are worth protecting because of the aesthetic value they bring to the MRCCA. During the comprehensive plan public engagement process, the MRCCA Area was identified on materials and on display boards used at public engagement open houses and stakeholder meetings. The public and stakeholders were invited to comment on the proposed goals, as well as viewsheds that should be protected as part of the MRCCA plan update process.

The following are identified PRCVs on the south side of the Mississippi River, within Dayton.

- Mississippi River Park
- McNeil Park
- Goodwin Island
- Goodwin Park
- Elsie Stephens Park
- Cloquet Overlook Park
- Cloquet Island
- Wildwood Springs Park
- Leathers Park

The following figure illustrates the location and identification of public river corridor views within Dayton's park facilities within the MRCCA boundary in Dayton.

Figure 25. Public River Corridor Views



Of special note, views toward the river from public places that were noted by the community during public engagement included Mississippi River Park, Elsie Stephens and Cloquet Overlook Park. Views toward bluffs included Goodwin Park, Elsie Stephens, Cloquet Overlook Park and Wildwood Springs Park.



Panoramic photo from Cloquet Overlook looking northwest, north and northeast.



Panoramic photo from Goodin Park looking north.



Panoramic photo from Mississippi River Park looking northwest, north and northeast.

Of special note, views toward the river from public places on the north side of the Mississippi, from the City of Ramsey that were noted by the community during public engagement included multiple locations from the Mississippi West Regional Park.

Identified PRCVs on the north side of the Mississippi within the City of Ramsey looking toward Dayton include:

- Wayside Rest Park
- Mississippi West Regional Park



Panoramic photo from Wayside Rest Park in Ramsey looking southeast, south and southwest toward Dayton.



Panoramic photo from Mississippi West Regional Park in Ramsey looking southeast, south and southwest toward the Dayton.

### Cultural and Historic Properties

Historic properties are properties with features such as an archaeological site, standing structures, site, district, or other property that are listed in the National Register of Historic Places or the State Register of Historic Places, locally designated as a historic site, or are determined to meet the criteria for eligibility. In the MRCCA boundary within Dayton, there are no identified properties listed in the National Register of Historic Places, nor have any properties received local designation through the Minnesota Department of Administration State Historic Preservation Office.

Of singular note is St. John the Baptist Church within northwest corner of Dayton which provides an impressive visual display along County Road 12 within the Historic Village.



### Surface Water Uses

The MRCCA guidance describes surface water uses are uses of the river surface such as recreational boat traffic, barge fleeting and commercial riverboat tours. Further, surface water uses are related to, but not different from, water-oriented uses, which will be described below. There are no defined surface water uses pertaining to commerce, industry, or recreation along the MRCCA boundary within the City of Dayton.

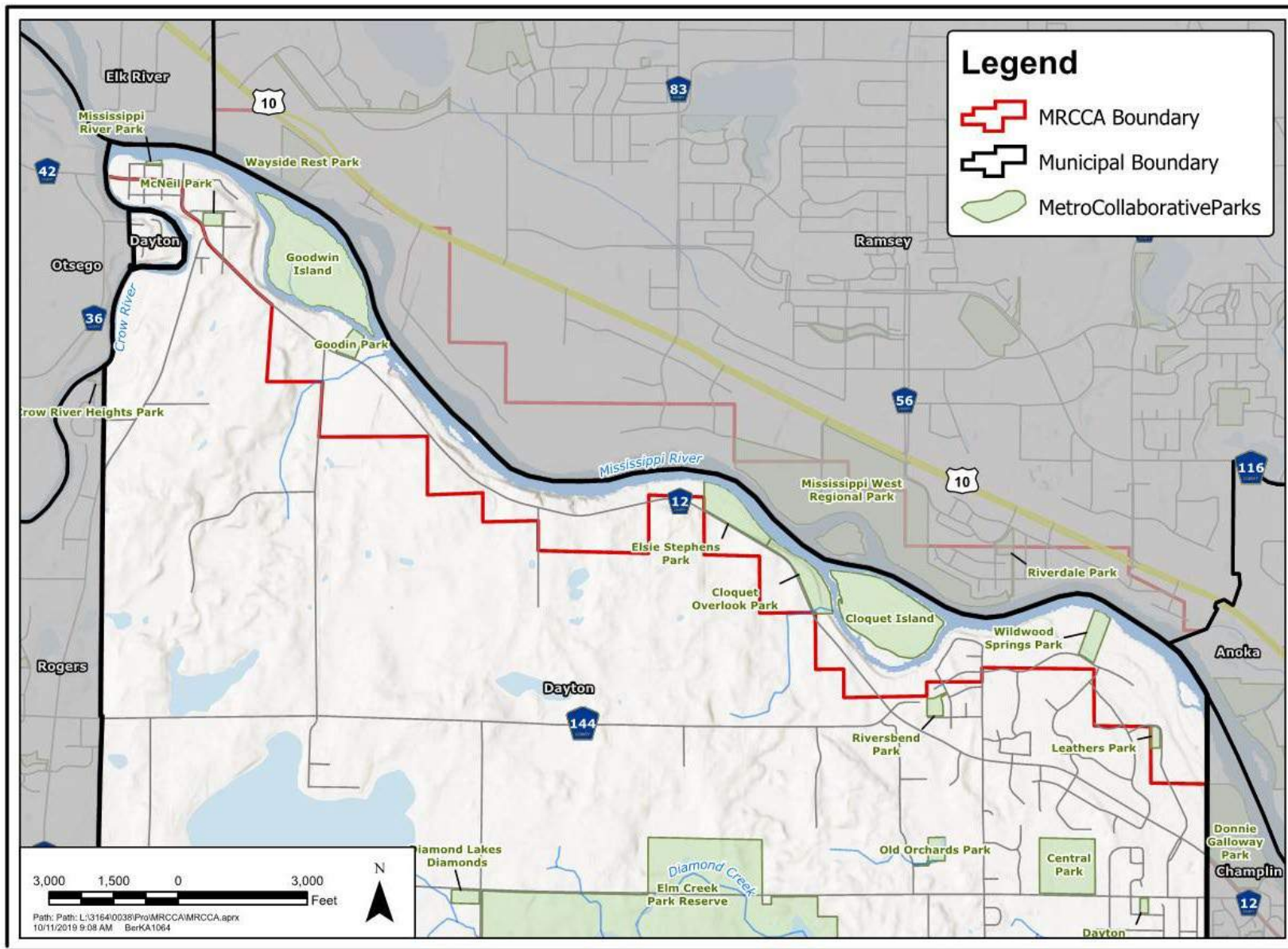
## Water-Oriented Uses

The MRCCA guidance describes water-oriented uses as land uses that are commercial and industrial in nature that require water access such as barge terminals and recreational marinas. Water-oriented land uses provide economic benefits as well as potential external impacts and land use conflicts. There are no defined water-oriented uses along the MRCCA boundary within the City of Dayton.

## Open Space and Recreational Facilities

Open space and recreational facilities can include parks, trails, scenic overlooks, natural areas, islands, and wildlife areas. These add to the quality of a community and increase access for the public to enjoy the Mississippi River Corridor. The City of Dayton's open space and recreational facilities in the MRCCA include Mississippi River Park, McNeil Park, Goodwin Island, Goodwin Park, Elsie Stephens Park, Cloquet Overlook Park, Cloquet Island, Riversbend Park, Wildwood Springs Park and Leathers Park. Please be apprised there are no bikeway and recreational paths within the City of Dayton, therefore it is not mapped. Three Rivers Parks District does have plans to extend regional trails along the corridor, however at this time, none of those trails have been constructed. The following figure illustrates parks and open space within the MRCCA boundary.

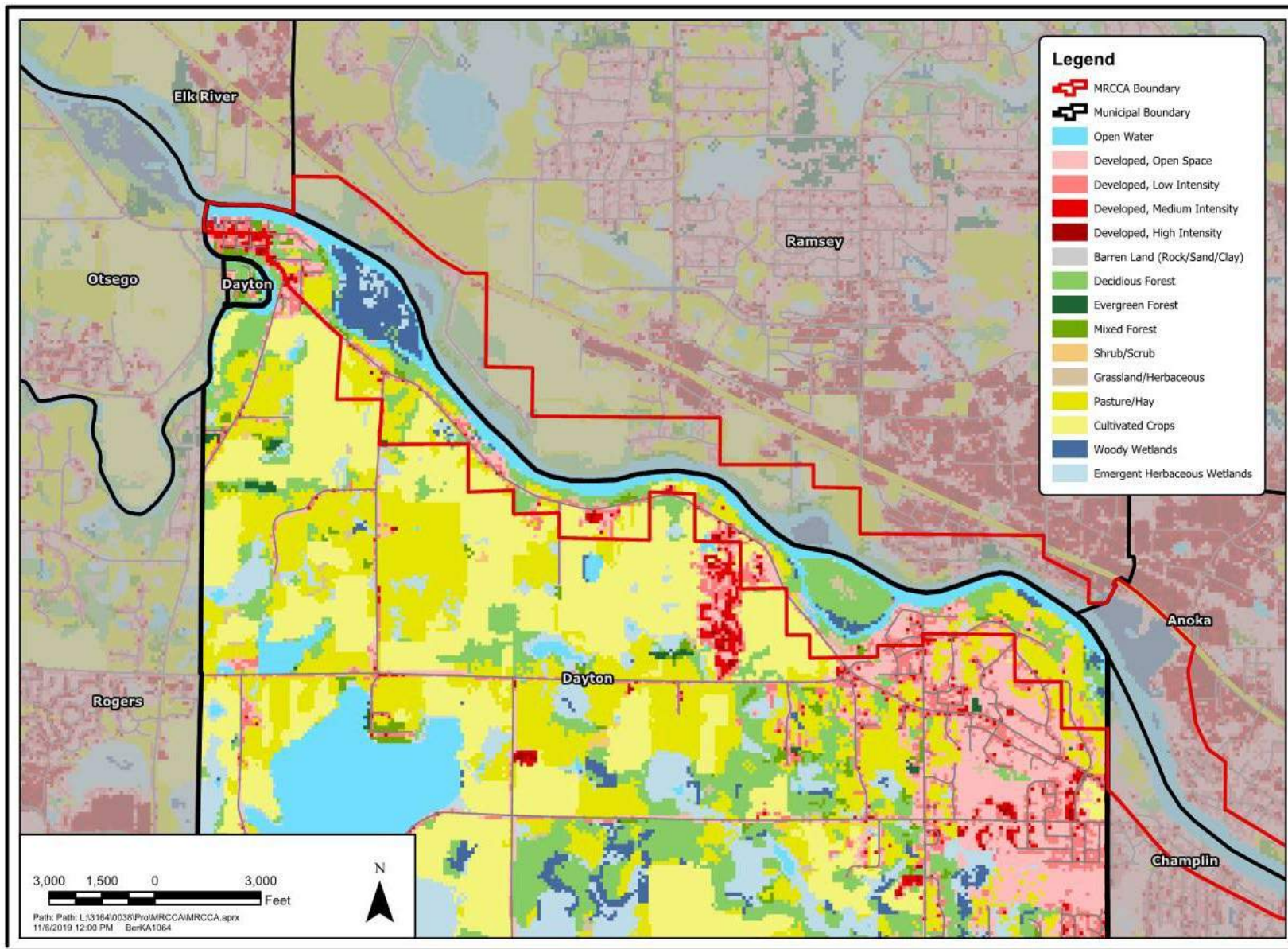
Figure 26. Parks and Open Space within MRCCA



## Current Land Use, Transportation and Public Utilities

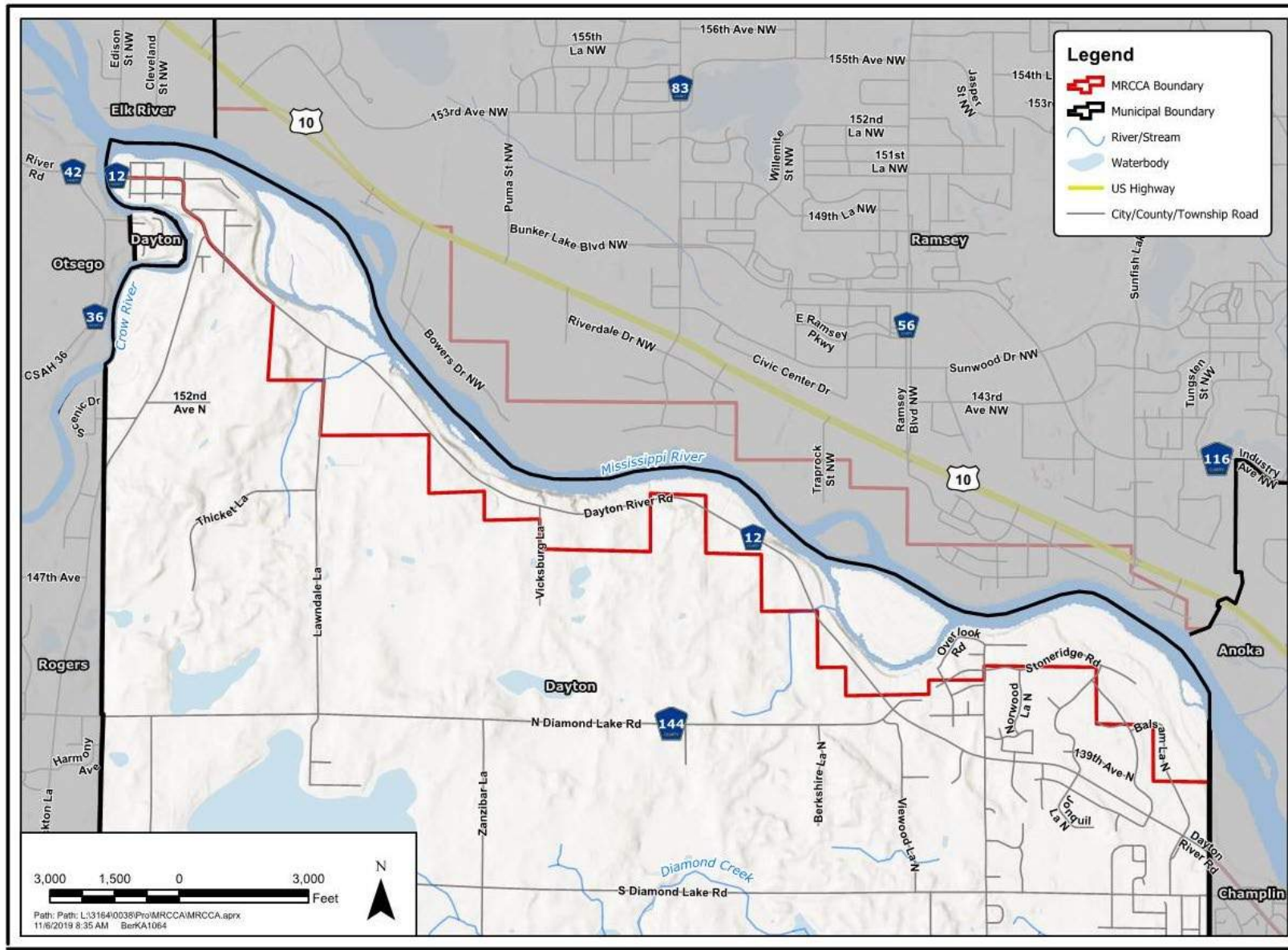
Poorly placed land uses, transportation and utility facilities (electricity, gas, water, sewer, stormwater) can have negative impacts on scenic views, habitat, and soil stability. Proper design and development of these facilities can minimize their impacts on the MRCCA. The following figure illustrates current land use. For the most part this land use pattern has been set decades before the Critical Areas Act of 1973 and subsequent MRCCA requirements. As the figures illustrates, the highest density of developed land use has occurred in the northwest portion of the City within the Historic Village area. Development density tends to follow the transportation route along Dayton River Road with a mix of mostly residential development. Large lot development occupies the eastern third of the MRCCA boundary within the City with scattered pasture, hay and other agricultural uses throughout.

Figure 27. Existing Land Use in the MRCCA area



The following figure illustrates the transportation (road) patterns within the MRCCA boundary. For the most part, Dayton River Road is the predominant transportation route along the entire boundary. In many instances, individual homes or small subdivisions are the only transportation spoke north of Dayton River Road. Please be apprised there are no transit routes within the City of Dayton, therefore it is not mapped.

Figure 28. Transportation Network and MRCCA Boundary



The following six figures illustrate public utilities within the MRCCA boundary in detail. Public utilities mapped include sanitary and storm sewer and the associated services including manholes, catch basins, etc. Figures 29, 30, 31 and 33 respectively show little to no public utilities within the MRCCA boundary. Those habitable land uses within these areas are serviced by private well and sanitary, which further limits anticipated intensification of land uses within the MRCCA boundary.

Figure 28. Public Utilities in MRCCA Boundary area 1

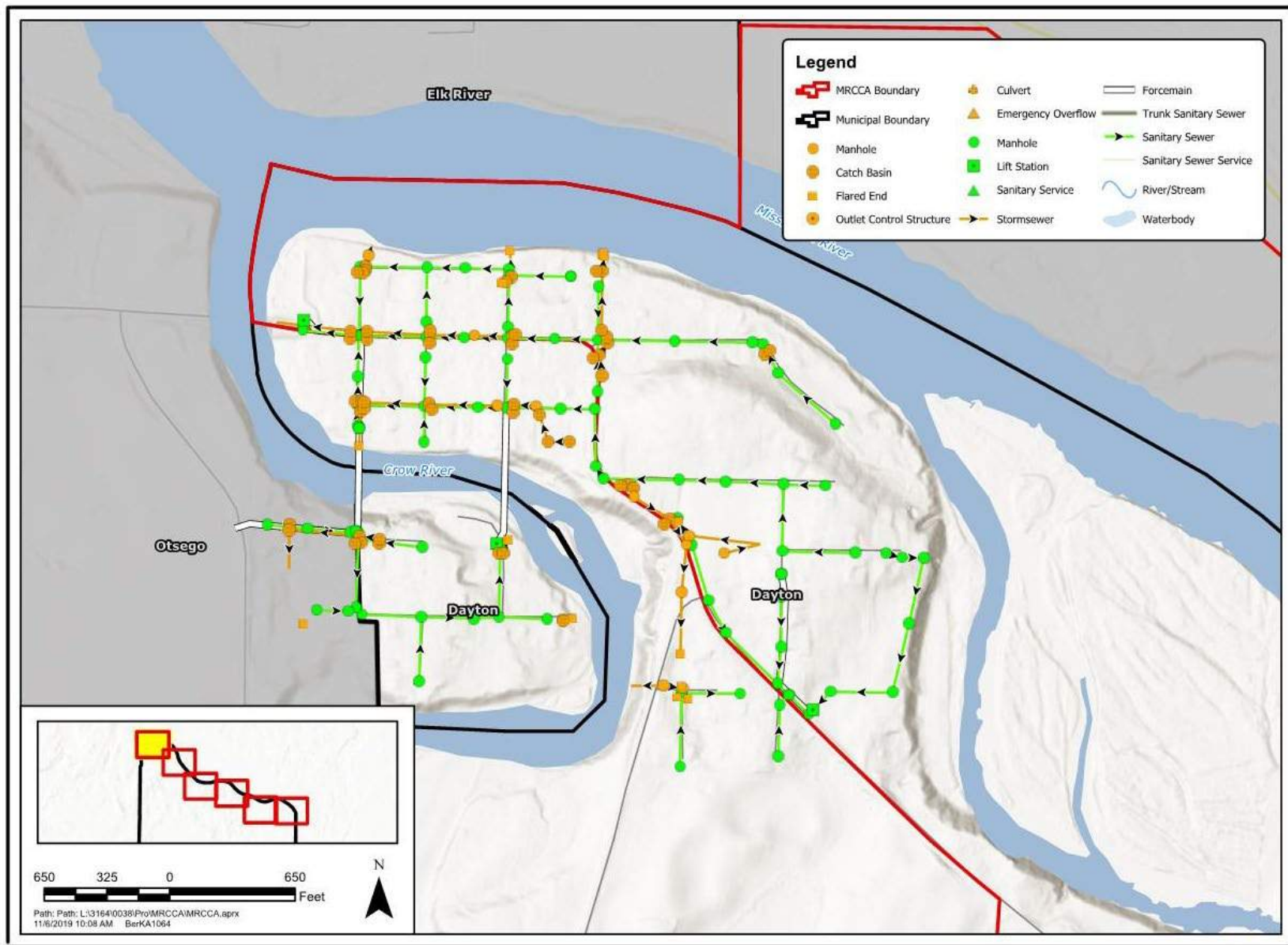
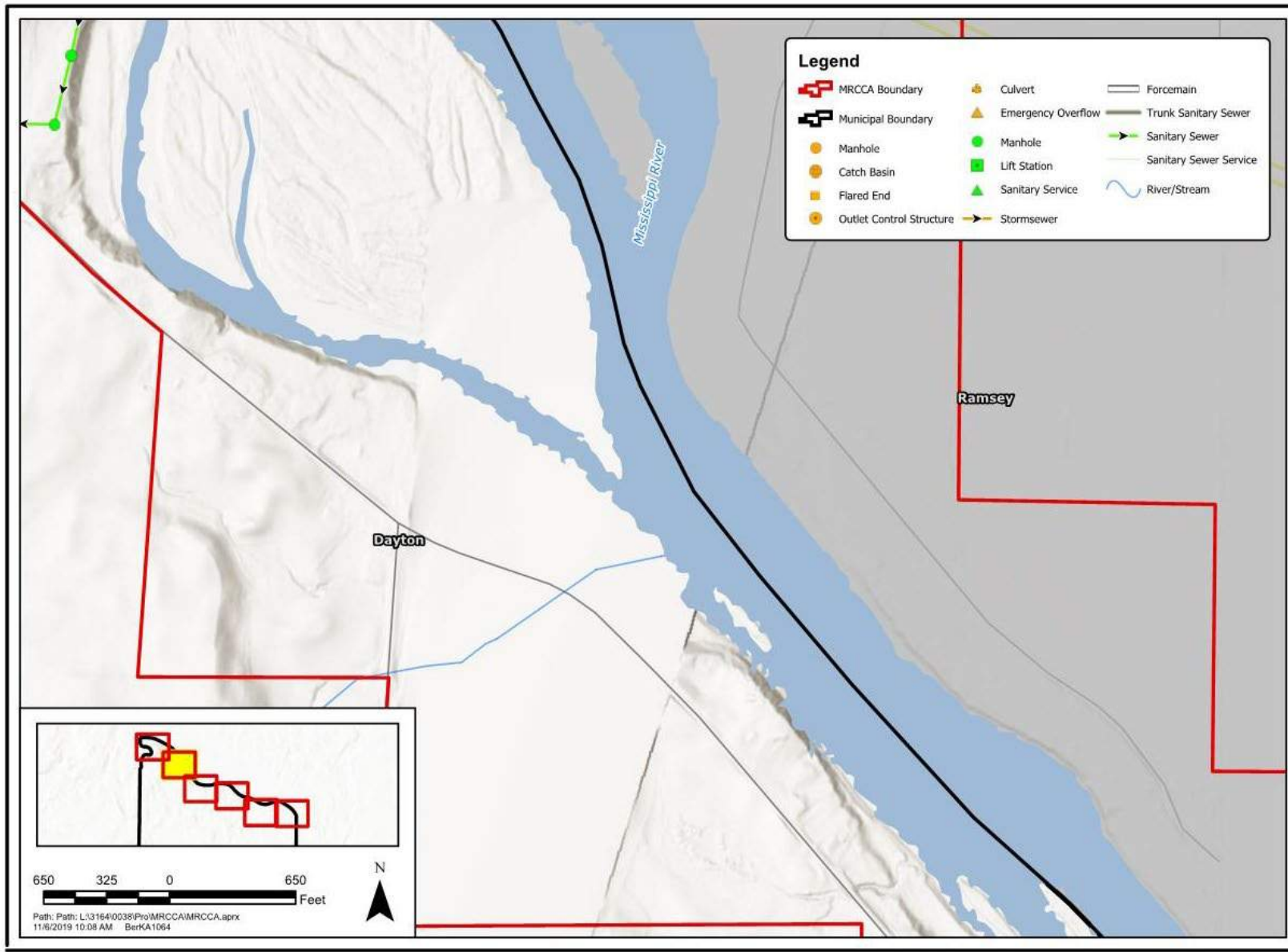


Figure 29. Public Utilities in MRCCA Boundary area 2



**Figure 30. Public Utilities in MRCCA Boundary area 3**

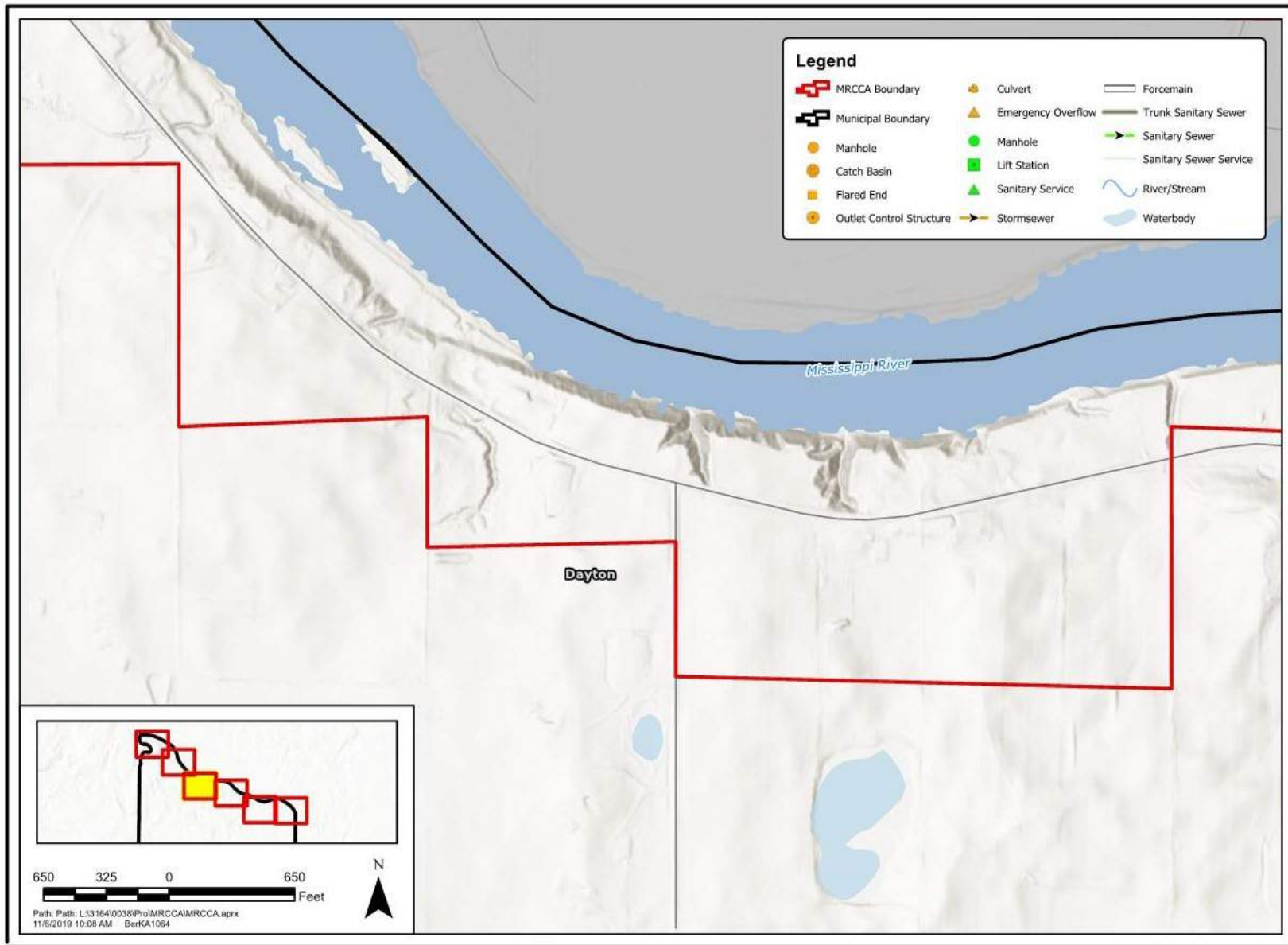


Figure 31. Public Utilities in MRCCA Boundary area 4

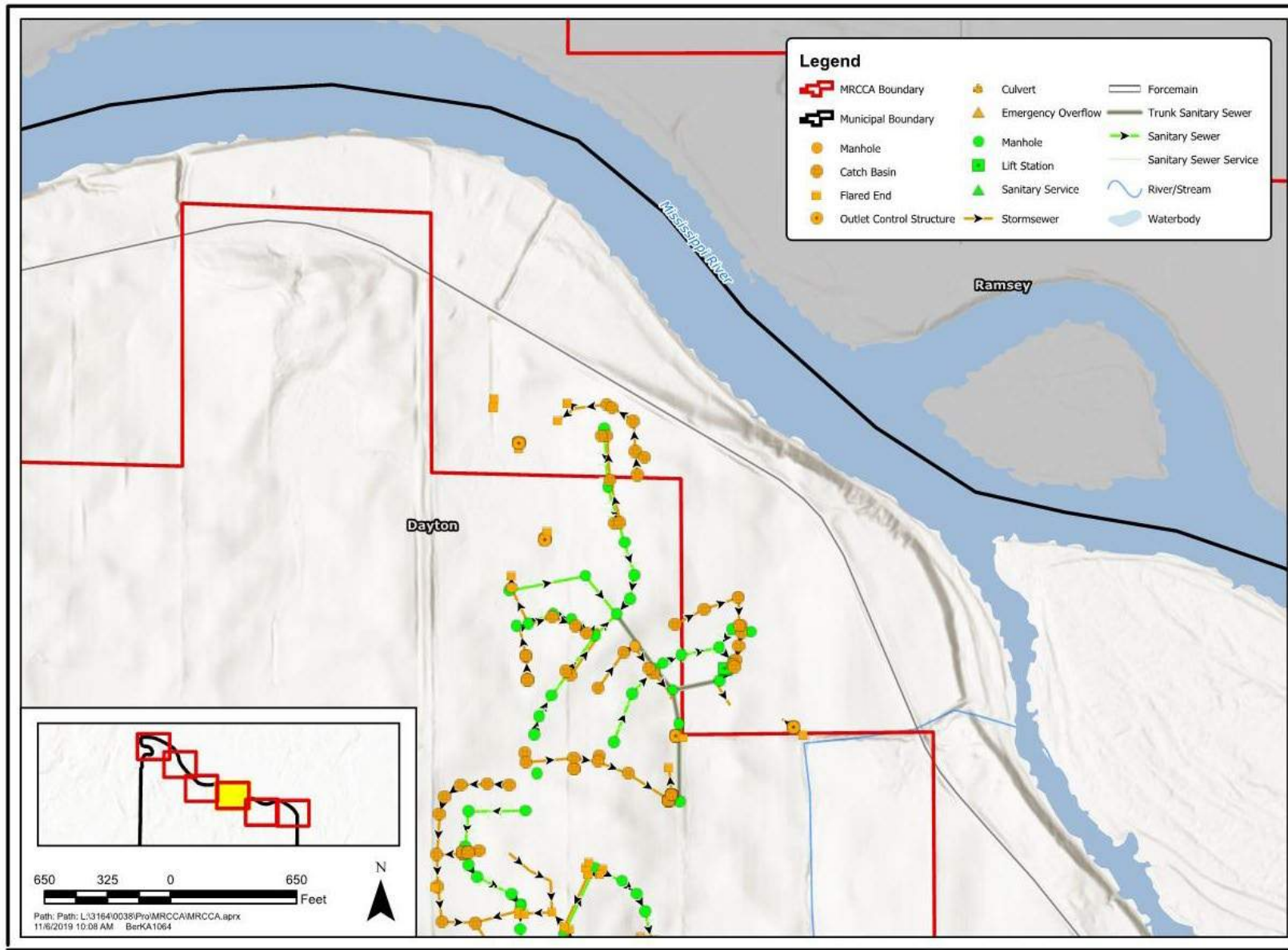
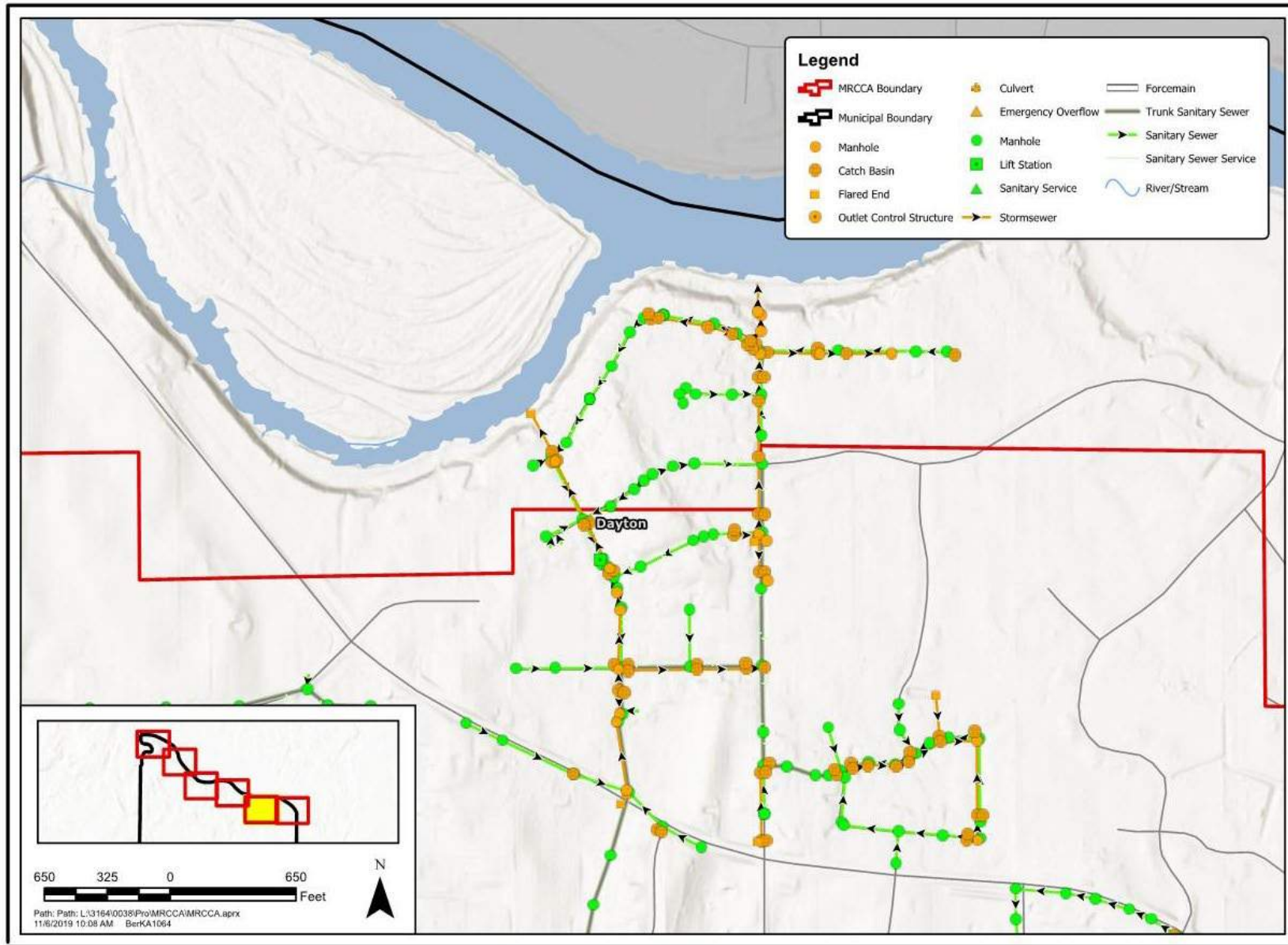
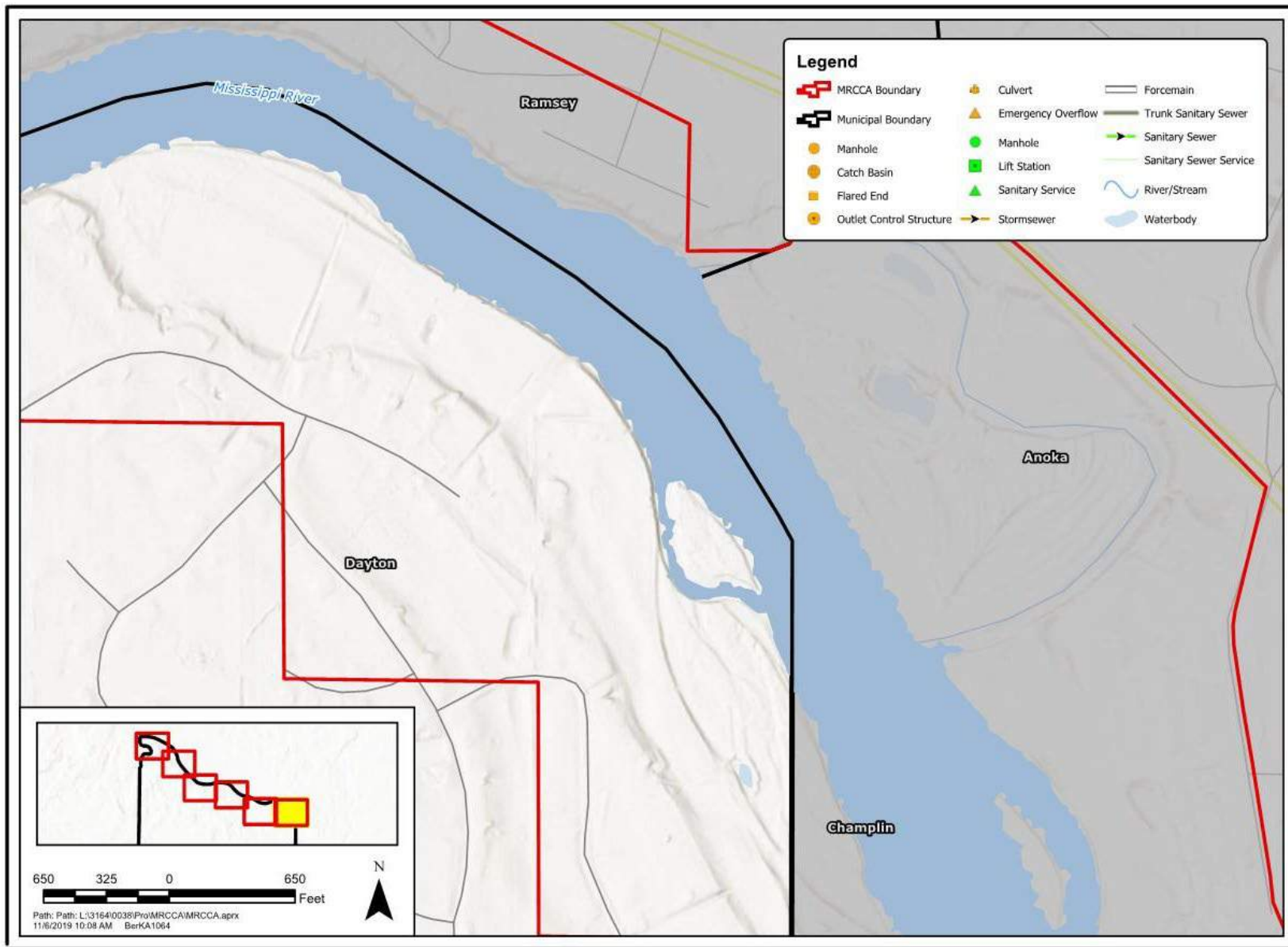


Figure 32. Public Utilities in MRCCA Boundary area 5



**Figure 33. Public Utilities in MRCCA Boundary area 6**



# Policies of the Dayton MRCCA Plan

## District/Land Use

- Guide land use and development and redevelopment activities consistent with the management purpose of each district.

## Primary Conservation Areas

- Protect the PCAs identified in this plan throughout the existing city parks along the Mississippi River and continue to minimize impact to the PCAs from public and private development and land use activities.
- Support mitigation of impacts to PCAs through, subdivisions/PUDs, variances, CUPs, and other permits.
- Make restoration of removed native plant communities and natural vegetation in riparian areas a high priority during development and redevelopment.
- Support alternative design standards that protect Dayton's PCAs, such as conservation design, transfer of development density, or other zoning and site design techniques that achieve better protections or restoration of primary conservation areas.
- Make permanent protection measures (such as public acquisition, conservation easement, deed restrictions, etc.) that protect PCAs a high priority.

## Public River Corridor Views

- Protect and minimize impacts to PRCVs from public and private development activities.
- Protect and minimize impacts to PRCVs from public and private vegetation management activities.
- Support the City of Ramsey to continue to protect the PRCVs on the northside of the Mississippi River.

## Restoration Priorities

- Protect native and existing vegetation during the development and redevelopment process, and require restoration if any is removed by development. Priorities for restoration shall include stabilization of erodible soils, riparian buffers and bluffs or steep slopes visible from the river.
- Seek opportunities to restore vegetation to protect and enhance PRCVs identified in this plan.
- Seek opportunities to restore vegetation in restoration priority areas identified in this plan through the CUP, variance, vegetation permit and subdivision/PUD processes.
- Sustain and enhance ecological functions (habitat value) during vegetation restorations.
- Evaluate proposed development sites for erosion prevention and bank and slope stabilization issues and require restoration as part of the development process.

## Open Space & Rec Facilities

- Encourage creation, connection, and maintenance of open space, recreational facilities, including public access to the river.
- Identify and encourage connection of CA-SR district land to existing and planned parks and trails.

- Encourage that land dedication requirements be used to acquire land suitable for public river access.

## Transportation & Utilities

- Minimize impacts to PCAs and PRCVs from solar and wind generation facilities, public transportation facilities and public utilities.

## Actions

### District/Land Use

- Amend existing or adopt new MRCCA ordinance overlay district compliant with the goals and policies of the MRCCA plan, and with Minnesota Rules, part 6106.0070, Subp. 5 - Content of Ordinances.
- Update zoning map to reflect new MRCCA districts.
- Ensure that information on the new MRCCA districts and zoning requirements is readily available to property owners to help them understand which ordinance requirements - such as setbacks and height requirements apply to their property for project planning and permitting.
- Update the Shoreland Management Ordinance, Critical Area Ordinance, and Zoning Ordinance where appropriate to reflect goals and policies of this plan as well as the requirements of federal and state legislation.

### Primary Conservation Areas

- Ensure that information on the location of PCAs is readily available to property owners to understand how PCA-relevant ordinance requirements, such as vegetation management and land alteration permits, apply to their property for project planning and permitting.
- Support where appropriate alternative design standards that protect the City's identified PCAs, such as conservation design, transfer of development density, or other zoning and site design techniques that achieve better protections or restoration of primary conservation areas.
- Make permanent protection measures (such as acquisition, conservation easements, deed restrictions, covenants, etc.) as a method to protect and enhance PCAs.
- Establish procedures and criteria for processing applications with potential impacts to PCAs, including:
  - identifying the information that must be submitted and how it will be evaluated,
  - determining appropriate mitigation procedures/methods for variances and CUPs,
  - establishing evaluation criteria for protecting PCAs when a development site contains multiple types of PCAs and the total area of PCAs exceed the required set aside percentages.
  - Developing administrative procedures for integrating DNR and local permitting of riprap, walls and other hard armoring.

### Public River Corridor Views

- Ensure that information on the location of PRCVs is readily available to property owners to understand how PRCV-relevant ordinance requirements, such as vegetation management and land alteration permits, apply to their property for project planning and permitting.

- Establish procedures for processing applications with potential impacts to PRCVs, including:
  - identifying the information that must be submitted and how it will be evaluated,
  - developing visual analysis approach for CUPs for additional height in the RTC and UM districts (if applicable), as well as for proposed PUDs and variances, and
  - determining appropriate mitigation procedures/methods for variances and CUPs.
- Actively communicate with other communities to protect views other communities have identified in your community that are valuable, and vice versa.

## Restoration Priorities

- Ensure that information on the location of natural vegetation restoration priorities is readily available to property owners to understand how relevant ordinance requirements apply to their property for project planning and permitting.
- Establish a vegetation permitting process that includes permit review procedures to ensure consideration of restoration priorities identified in this plan in permit issuance, as well as standard conditions requiring vegetation restoration for those priority areas.
- Establish process for evaluating priorities for natural vegetation restoration, erosion prevention and bank and slope stabilization, or other restoration priorities identified in this plan in CUP, variances and subdivision/PUD processes.

## Open Space & Rec Facilities

- Include facilities in the capital improvement program for parks and open space facilities.
- Develop a system for reviewing, tracking, and monitoring open space required as part of the subdivision process.
- Provide recreation opportunities for interaction between people and the River, allowing for both physical and visual access and a continuous, non-motorized trail

## Transportation & Utilities

- Include transportation facilities in the capital improvement program.
- Incorporate specific design and placement conditions that minimize impacts to PCAs and PRCVs into local permits for solar and wind generation facilities and essential and transmission services.
- Recognize the importance of the Great River Road through preservation of natural character and scenic views, use of promotional materials and interpretive signs

# City of Dayton Local Water Supply Plan Template Third Generation for 2016-2018

Revised April 10, 2017

*Formerly called Water Emergency & Water Conservation Plan*



*Cover photo by Molly Shodeen*



For more information on this Water Supply Plan Template, please contact the DNR Division of Ecological and Water Resources at (651) 259-5034 or (651) 259-5100.

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This information is available in an alternative format upon request.

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# DEPARTMENT OF NATURAL RESOURCES – DIVISION OF ECOLOGICAL AND WATER RESOURCES AND METROPOLITAN COUNCIL

## INTRODUCTION TO WATER SUPPLY PLANS (WSP)

### Who needs to complete a Water Supply Plan

Public water suppliers serving more than 1,000 people, large private water suppliers in designated Groundwater Management Areas, and all water suppliers in the Twin Cities metropolitan area are required to prepare and submit a water supply plan.

The goal of the WSP is to help water suppliers: 1) implement long term water sustainability and conservation measures; and 2) develop critical emergency preparedness measures. Your community needs to know what measures will be implemented in case of a water crisis. A lot of emergencies can be avoided or mitigated if long term sustainability measures are implemented.

### Groundwater Management Areas (GWMA)

The DNR has designated three areas of the state as Groundwater Management Areas (GWMAs) to focus groundwater management efforts in specific geographies where there is an added risk of overuse or water quality degradation. A plan directing the DNR's actions within each GWMA has been prepared. Although there are no specific additional requirements with respect to the water supply planning for communities within designated GWMAs, communities should be aware of the issues and actions planned if they are within the boundary of one of the GWMAs. The three GWMAs are the North and East Metro GWMA (Twin Cities Metro), the Bonanza Valley GWMA and the Straight River GWMA (near Park Rapids). Additional information and maps are included in the [DNR Groundwater Management Areas webpage](#).

### Benefits of completing a WSP

Completing a WSP using this template, fulfills a water supplier's statutory obligations under M.S. [M.S.103G.291](#) to complete a water supply plan. For water suppliers in the metropolitan area, the WSP will help local governmental units to fulfill their requirements under M.S. 473.859 to complete a local comprehensive plan. Additional benefits of completing WSP template:

- The standardized format allows for quicker and easier review and approval
- Help water suppliers prepare for droughts and water emergencies.
- Create eligibility for funding requests to the Minnesota Department of Health (MDH) for the Drinking Water Revolving Fund.
- Allow water suppliers to submit requests for new wells or expanded capacity of existing wells.
- Simplify the development of county comprehensive water plans and watershed plans.
- Fulfill the contingency plan provisions required in the MDH wellhead protection and surface water protection plans.
- Fulfill the demand reduction requirements of Minnesota Statutes, section 103G.291 subd 3 and 4.

- Upon implementation, contribute to maintaining aquifer levels, reducing potential well interference and water use conflicts, and reducing the need to drill new wells or expand system capacity.
- Enable DNR to compile and analyze water use and conservation data to help guide decisions.
- Conserve Minnesota's water resources

If your community needs assistance completing the Water Supply Plan, assistance is available from your area hydrologist or groundwater specialist, the MN Rural Waters Association circuit rider program, or in the metropolitan area from Metropolitan Council staff. Many private consultants are also available.

## **WSP Approval Process**

### **10 Basic Steps for completing a 10-Year Water Supply Plan**

1. Download the DNR/Metropolitan Council Water Supply Plan Template from the [DNR Water Supply Plan webpage](#).
2. Save the document with a file name with this naming convention:  
WSP\_cityname\_permitnumber\_date.doc.
3. The template is a form that should be completed electronically.
4. Compile the required water use data (Part 1) and emergency procedures information (Part 2)
5. The Water Conservation section (Part 3) may need discussion with the water department, council, or planning commission, if your community does not already have an active water conservation program.
6. Communities in the seven-county Twin Cities metropolitan area should complete all the information discussed in Part 4. The Metropolitan Council has additional guidance information on their [Water Supply webpage](#). All out-state water suppliers **do not** need to complete the content addressed in Part 4.
7. Use the Plan instructions and Checklist document from the [DNR Water Supply Plan webpage](#) to insure all data is complete and attachments are included. This will allow for a quicker approval process.
8. Plans should be submitted electronically using the [MPARS website](#) – no paper documents are required.
9. DNR hydrologist will review plans (in cooperation with Metropolitan Council in Metro area) and approve the plan or make recommendations.
10. Once approved, communities should complete a Certification of Adoption form, and send a copy to the DNR.

Complete Table 1 with information about the public water supply system covered by this WSP.

**Table 1. General information regarding this WSP**

<b>Requested Information</b>	<b>Description</b>
DNR Water Appropriation Permit Number(s)	<b>2001-6076</b>
Ownership	<input checked="" type="checkbox"/> Public or <input type="checkbox"/> Private
Metropolitan Council Area	<input checked="" type="checkbox"/> Yes or <input type="checkbox"/> No (Hennepin)
Street Address	<b>12260 South Diamond Lake Road</b>
City, State, Zip	<b>Dayton, MN 55327</b>
Contact Person Name	Marty Farrell
Title	Public Works Director
Phone Number	612-751-8847
MDH Supplier Classification	Municipal

## **PART 1. WATER SUPPLY SYSTEM DESCRIPTION AND EVALUATION**

The first step in any water supply analysis is to assess the current status of demand and availability. Information summarized in Part 1 can be used to develop Emergency Preparedness Procedures (Part 2) and the Water Conservation Plan (Part 3). This data is also needed to track progress for water efficiency measures.

### **A. Analysis of Water Demand**

Complete Table 2 showing the past 10 years of water demand data.

- Some of this information may be in your Wellhead Protection Plan.
- If you do not have this information, do your best, call your engineer for assistance or if necessary leave blank.

If your customer categories are different than the ones listed in Table 2, please describe the differences below:

--

Table 2. Historic water demand (see definitions in the [glossary](#) after Part 4 of this template)

Year	Pop. Served	Total Connections	Residential Water Delivered (MG)***	C/I/I Water Delivered (MG)***	Water used for Non-essential	Whole sale Deliver ies (MG)	Total Water Delivered (MG) ***	Total Water Pumped (MG)	Water Supplier Services	Percent Unmetered/ Unaccounted	Average Daily Demand (MGD)	Max. Daily Demand (MGD)	Date of Max. Demand	Residential Per Capita Demand (GPCD)	Total per capita Demand (GPCD)
2007*															
2008*															
2009**	815	286	19.75	6.819			26.569	17.997		0%	0.073	0.289	20-Oct	66.39	89.32
2010**	963	338	25.15	8.961			34.111	22.389		0%	0.093	0.305	20-Apr	71.55	97.05
2011**	1074	377	23.554	7.916			31.47	26.481		0%	0.086	0.334	10-Oct	60.09	80.28
2012	1522	534	44.888	11.836	1.484		58.208	31.901		0%	0.159	0.271	9-Oct	80.80	104.78
2013	1519	533	44.887	12.434	0.81		58.131	30.028		8%	0.159	0.285	16-Apr	80.96	104.79
2014	1573	552	47.221	11.048	3.174		61.443	29.162		1%	0.168	0.227	15-Apr	82.25	107.02
2015	1667	585	55.848	14.724	1.449		72.021	38.35		8%	0.197	0.354	12-Oct	91.79	118.37
2016	1878	659	63.636	12.086	1.879		77.601	45.149		9%	0.213	0.323	3-Jul	92.84	113.21
Avg. 2011-2016			51.296	12.426	1.753		65.475	34.918		6.5%	0.179	0.292		86	109

\* No information available through search of records and current systems.

\*\* Information obtained from previous Water Supply Plan submitted in 2011.

\*\*\* Reflects water delivered via Maple Grove System and City of Dayton System.

**MG** – Million Gallons      **MGD** – Million Gallons per Day      **GPCD** – Gallons per Capita per Day

See [Glossary](#) for definitions. A list of [Acronyms and Initialisms](#) can be found after the Glossary.

Complete Table 3 by listing the top 10 water users by volume, from largest to smallest. For each user, include information about the category of use (residential, commercial, industrial, institutional, or wholesale), the amount of water used in gallons per year, the percent of total water delivered, and the status of water conservation measures.

**Table 3. Large volume users**

Customer	Use Category (Residential, Industrial, Commercial, Institutional, Wholesale)	Amount Used (Gallons per Year)	Percent of Total Annual Water Delivered	Implementing Water Conservation Measures? (Yes/No/Unknown)
1. DAYTON PARK PROPERTIES	RESIDENTIAL	18,747,000	28.3	NO
2. CEMSTONE	COMMERCIAL	7,078,000	10.8	NO
3. CITY OF DAYTON PARKS	OTHER	2,131,000	3.2	NO
4. KING SOLUTIONS	COMMERCIAL	1,574,000	2.3	NO
5. LIBERTY PROPERTIES	COMMERCIAL	1,255,000	1.9	NO
6. ANOKA SCHOOLS	INSTITUTIONAL	743,000	1.1	NO
7. QUAM CONSTRUCTION	COMMERCIAL	655,000	1.0	NO
8. JACE AND AMY REED	RESIDENTIAL	322,000	0.5	NO
9. ICA CORP	COMMERCIAL	298,000	0.4	NO
10. K-LAND MFG	COMMERCIAL	125,000	0.2	NO

## B. Treatment and Storage Capacity

Complete Table 4 with a description of where water is treated, the year treatment facilities were constructed, water treatment capacity, the treatment methods (i.e. chemical addition, reverse osmosis, coagulation, sedimentation, etc.) and treatment types used (i.e. fluoridation, softening, chlorination, Fe/MN removal, coagulation, etc.). Also describe the annual amount and method of disposal of treatment residuals. Add rows to the table as needed.

**Table 4. Water treatment capacity and treatment processes**

Treatment Site ID (Plant Name or Well ID)	Year Constructed	Treatment Capacity (GPM)	Treatment Method	Treatment Type	Annual Volume of Residuals	Disposal Process for Residuals	Do You Reclaim Filter Backwash Water?
Well 1	2000	300	Chemical Injection	Polyphosphate, Chlorine, fluoride	NA	NA	NA
Well 2	2007	800	Chemical Injection	Polyphosphate, Chlorine, fluoride	NA	NA	NA
Total		1450					

Complete Table 5 with information about storage structures. Describe the type (i.e. elevated, ground, etc.), the storage capacity of each type of structure, the year each structure was constructed, and the primary material for each structure. Add rows to the table as needed.

Table 5. Storage capacity, as of the end of the last calendar year

Structure Name	Type of Storage Structure	Year Constructed	Primary Material	Storage Capacity (Gallons)
NE Water Tower	Elevated storage	2009	Steel	500,000
Well 1 Pressure Tank	Pressure Tank	2000	Steel	1,000
Total	NA	NA	NA	

### Treatment and storage capacity versus demand

It is recommended that total storage equal or exceed the average daily demand.

Discuss the difference between current storage and treatment capacity versus the water supplier's projected average water demand over the next 10 years (see Table 7 for projected water demand):

The City of Dayton has a unique water distribution system that cannot simply compare the average daily flow to storage capacity to determine if the storage volume for the city is sufficient. This is because the City currently has three separate distribution systems which all must be looked at independently. Currently the 500,000 gallon elevated water storage tank is located in the NE system and as you can see from the future growth projections, would be adequate to serve a majority of the future growth on its own. The NW water system currently only has a pressure tank located within the well house which does not provide sufficient storage for the service area if a well interruption were to occur. Because of this, the City currently has a backup well for this area planned in 2018 and a future storage tank is included in the CIP. The southern distribution area which is served via the City of Maple Grove currently has adequate capacity via the City of Maple Grove system and this supply is capable of providing an average daily demand of 2.8 Mgal per day with a peak demand of 5.0Mgal. This as well would be sufficient for the projected growth in the area for the foreseeable future if determined necessary. However, the City of Dayton will eventually supply a portion of the southern distribution network someday and at that time additional storage capacity will be required for the service network.

### C. Water Sources

Complete Table 6 by listing all types of water sources that supply water to the system, including groundwater, surface water, interconnections with other water suppliers, or others. Provide the name of each source (aquifer name, river or lake name, name of interconnecting water supplier) and the Minnesota unique well number or intake ID, as appropriate. Report the year the source was installed or established and the current capacity. Provide information about the depth of all wells. Describe the status of the source (active, inactive, emergency only, retail/wholesale interconnection) and if the source facilities have a dedicated emergency power source. Add rows to the table as needed for each installation.

Include copies of well records and maintenance summary for each well that has occurred since your last approved plan in **Appendix 1**.

**Table 6. Water sources and status**

Resource Type (Groundwater, Surface water, Interconnection)	Resource Name	MN Unique Well # or Intake ID	Year Installed	Capacity (Gallons per Minute)	Well Depth (Feet)	Status of Normal and Emergency Operations (active, inactive, emergency only, retail/wholesale interconnection))	Does this Source have a Dedicated Emergency Power Source? (Yes or No)
Groundwater	CTCW-Tunnel City-Wonewoc	611054	2000	350	385	Active	No (Portable Backup Generator Available)
Groundwater	CTCW-Tunnel City-Wonewoc	752128	2007	1100	404	Active	No (Portable Backup Generator Available)

### **Limits on Emergency Interconnections**

Discuss any limitations on the use of the water sources (e.g. not to be operated simultaneously, limitations due to blending, aquifer recovery issues etc.) and the use of interconnections, including capacity limits or timing constraints (i.e. only 200 gallons per minute are available from the City of Prior Lake, and it is estimated to take 6 hours to establish the emergency connection). If there are no limitations, list none.

There are no current limitations on the use of the wells or the emergency interconnects. The City has a water service agreement between itself and the City of Maple Grove. In that agreement the City of Maple Grove will furnish and deliver sufficient quantity of water to meet an average daily demand not to exceed 2.8 Million Gallons per Day and a maximum daily demand of 5.0 Million Gallons per Day.

## **D. Future Demand Projections – Key Metropolitan Council Benchmark**

### **Water Use Trends**

Use the data in Table 2 to describe trends in 1) population served; 2) total per capita water demand; 3) average daily demand; 4) maximum daily demand. Then explain the causes for upward or downward trends. For example, over the ten years has the average daily demand trended up or down? Why is this occurring?

The water use information for the City of Dayton is limited in availability prior to 2012 as the data software currently used to track water usage is unable to track prior information effectively. A previous Water Supply Plan update from 2011 was used which included data from 2009 through 2011. That information is included in the report but shows water usage demands which are significantly different than what was calculated from the currently available data. The information from the 2011 Water Supply Plan update was included in the tables but our analysis is primarily based on data from 2012 to present. The data presented in table 2 provides a recent snapshot of how the City of Dayton is trending in their water usage. The City of Dayton is a growing community who is experiencing a current boom in new home construction throughout the community. While the population of the town may be growing at a more gradual pace when compared to the total population, the population being served via the public water system is growing at a much faster rate when looked at as a percentage basis as the vast majority of the new home builds are within the water service areas. As discussed later in the report, this growth rate is expected to continue for the foreseeable future as the interest in single family residential homes within the city continues to be strong. Over the last 5 years, the water usage on a per capita basis has average to be 86 gpcpd. This number is higher than

the 75 gpcpd goal usage rate as the portions of Dayton which are being serviced are primarily single family homes with a fair amount of new home growth. It has been the cities observation that typically the new home constructions include irrigated lawns and new home owners who tend to use more water than older non irrigated homeowners.

We have seen the average daily demand increase in proportion to the service growth. The maximum daily demand shown in Table 2 is based off of automated pumping information available from Dayton Wells 1 and 2. Because no metering exists on the service line between Maple Grove and Dayton, the maximum daily demand only reflects the water pumped via the two Dayton wells. This number has fluctuated slightly but not to the same degree as the average daily demand has grown. It was noted that the maximum daily demand has typically occurred on days in which the City of Dayton Flushes the hydrants which uses a significant amount of water compared to the average consumer usage. As the service area grows, it is expected that the hydrant flushing will have a less notable impact on the maximum daily demand.

Use the water use trend information discussed above to complete Table 7 with projected annual demand for the next ten years. Communities in the seven-county Twin Cities metropolitan area must also include projections for 2030 and 2040 as part of their local comprehensive planning.

Projected demand should be consistent with trends evident in the historical data in Table 2, as discussed above. Projected demand should also reflect state demographer population projections and/or other planning projections.

**Table 7. Projected annual water demand**

Year	Projected Total Population	Projected Population Served	Projected Total Per Capita Water Demand (GPCD)	Projected Average Daily Demand (MGD)	Projected Maximum Daily Demand (MGD)
2017	5309	2226	109	0.243	0.631
2018	5505	2422	108	0.262	0.680
2019	5701	2618	107	0.280	0.728
2020	5900	2817	106	0.299	0.776
2021	6100	3017	105	0.317	0.824
2022	6300	3217	104	0.335	0.870
2023	6500	3417	102	0.349	0.906
2024	6700	3617	101	0.365	0.950
2025	6900	3817	99	0.378	0.982
2026	7100	4017	98	0.394	1.024
2030	7900	4817	98	0.472	1.227
2040	10400	7317	98	0.717	1.864

**GPCD** – Gallons per Capita per Day

**MGD** – Million Gallons per Day

### Projection Method

Describe the method used to project water demand, including assumptions for population and business growth and how water conservation and efficiency programs affect projected water demand:

The population projections used for the future water demand were based on population forecasts published by the Metropolitan Council. It was assumed that every new resident to Dayton will be added to the water supply area so the population served was increased incrementally with the added population.

The residential projected per capita water usage was determined by looking at what the residential water use has been over the last 5 years. This has averaged at 86 gpcpd which we set as our starting point. Additionally, the industrial usage of the city is approximately 23 gpcpd. For this exercise it is assumed that the city will grow and develop both industrial and residential service areas to the same approximate ratio which currently exists. The city has set forth the goal of reducing the residential per capita usage to 75 gpcpd in 10 years. For this projection it is assumed that the residential reduction usage will be linear over that time and that the C/I/I usage per capita will remain the same.

## E. Resource Sustainability

### Monitoring – Key DNR Benchmark

Complete Table 8 by inserting information about source water quality and quantity monitoring efforts. The list should include all production wells, observation wells, and source water intakes or reservoirs. Groundwater level data for DNR’s statewide network of observation wells are available online through the [DNR’s Cooperative Groundwater Monitoring \(CGM\) webpage](#).

**Table 8. Information about source water quality and quantity monitoring**

MN Unique Well # or Surface Water ID	Type of monitoring point	Monitoring program	Frequency of monitoring	Monitoring Method
611054	<input checked="" type="checkbox"/> production well <input type="checkbox"/> observation well <input type="checkbox"/> source water intake <input type="checkbox"/> source water reservoir	<input checked="" type="checkbox"/> routine MDH sampling <input type="checkbox"/> routine water utility sampling <input type="checkbox"/> other	<input checked="" type="checkbox"/> continuous <input type="checkbox"/> hourly <input type="checkbox"/> daily <input type="checkbox"/> monthly <input type="checkbox"/> quarterly <input type="checkbox"/> annually	<input checked="" type="checkbox"/> SCADA <input type="checkbox"/> grab sampling <input type="checkbox"/> steel tape <input type="checkbox"/> stream gauge
752128	<input checked="" type="checkbox"/> production well <input type="checkbox"/> observation well <input type="checkbox"/> source water intake <input type="checkbox"/> source water reservoir	<input checked="" type="checkbox"/> routine MDH sampling <input type="checkbox"/> routine water utility sampling <input type="checkbox"/> other	<input checked="" type="checkbox"/> continuous <input type="checkbox"/> hourly <input type="checkbox"/> daily <input type="checkbox"/> monthly <input type="checkbox"/> quarterly <input type="checkbox"/> annually	<input checked="" type="checkbox"/> SCADA <input type="checkbox"/> grab sampling <input type="checkbox"/> steel tape <input type="checkbox"/> stream gauge
27065	<input type="checkbox"/> production well <input checked="" type="checkbox"/> observation well <input type="checkbox"/> source water intake <input type="checkbox"/> source water reservoir	<input checked="" type="checkbox"/> routine MDH sampling <input type="checkbox"/> routine water utility sampling <input type="checkbox"/> other	<input checked="" type="checkbox"/> continuous <input type="checkbox"/> hourly <input type="checkbox"/> daily <input type="checkbox"/> monthly <input type="checkbox"/> quarterly <input type="checkbox"/> annually	<input checked="" type="checkbox"/> SCADA <input type="checkbox"/> grab sampling <input type="checkbox"/> steel tape <input type="checkbox"/> stream gauge

### Water Level Data

A water level monitoring plan that includes monitoring locations and a schedule for water level readings must be submitted as **Appendix 2**. If one does not already exist, it needs to be prepared and submitted with the WSP. Ideally, all production and observation wells are monitored at least monthly.

Complete Table 9 to summarize water level data for each well being monitored. Provide the name of the aquifer and a brief description of how much water levels vary over the season (the difference between the highest and lowest water levels measured during the year) and the long-term trends for each well. If water levels are not measured and recorded on a routine basis, then provide the static water level when each well was constructed and the most recent water level measured during the same season the well was constructed. Also include all water level data taken during any well and pump maintenance. Add rows to the table as needed.

Groundwater hydrographs illustrate the historical record of aquifer water levels measured within a well and can indicate water level trends over time. For each well in your system, provide a hydrograph for the life of the well, or for as many years as water levels have been measured. Include the hydrographs in **Appendix 3**. An example of a hydrograph can be found on the [DNR's Groundwater Hydrograph webpage](#). Hydrographs for DNR Observation wells can be found in the [CGM](#) discussed above.

**Table 9. Water level data**

Unique Well Number or Well ID	Aquifer Name	Seasonal Variation (Feet)	Long-term Trend in water level data	Water level measured during well/pumping maintenance
611054	CTCW-Tunnel City-Wonewoc	NA	<input type="checkbox"/> Falling <input checked="" type="checkbox"/> Stable <input type="checkbox"/> Rising	Individual reading not taken but continuous readings available in graphs in Appendix 3
752128	CTCW-Tunnel City-Wonewoc	NA	<input type="checkbox"/> Falling <input checked="" type="checkbox"/> Stable <input type="checkbox"/> Rising	Individual reading not taken but continuous readings available in graphs in Appendix 3
27065	Jordan Sandstone	Approx 1.5'	<input type="checkbox"/> Falling <input checked="" type="checkbox"/> Stable <input type="checkbox"/> Rising	

### **Potential Water Supply Issues & Natural Resource Impacts – Key DNR & Metropolitan Council Benchmark**

Complete Table 10 by listing the types of natural resources that are or could potentially be impacted by permitted water withdrawals in the future. You do not need to identify every single water resource in your entire community. The goal is to help you triage the most important water resources and/or the water resources that may be impacted by your water supply system – perhaps during a drought or when the population has grown significantly in ten years. This is emerging science, so do the best you can with available data. For identified resources, provide the name of specific resources that may be impacted. Identify what the greatest risks to the resource are and how the risks are being assessed. Identify any resource protection thresholds – formal or informal – that have been established to identify when actions should be taken to mitigate impacts. Provide information about the potential mitigation actions

that may be taken, if a resource protection threshold is crossed. Add additional rows to the table as needed. See the glossary at the end of the template for definitions.

Some of this baseline data should have been in your earlier water supply plans or county comprehensive water plans. When filling out this table, think of what are the water supply risks, identify the resources, determine the threshold and then determine what your community will do to mitigate the impacts.

Your DNR area hydrologist is available to assist with this table.

For communities in the seven-county Twin Cities metropolitan area, the [Master Water Supply Plan Appendix 1 \(Water Supply Profiles\)](#), provides information about potential water supply issues and natural resource impacts for your community.

### Steps for completing Table 10

#### **1. *Identify the potential for natural resource impacts/issues within the community***

First, review available information to identify resources that may be impacted by the operation of your water supply system (such as pumping).

##### ***Potential Sources of Information:***

- County Geologic Atlas
- Local studies
- Metropolitan Council System Statement (for metro communities)
- Metropolitan Council Master Water Supply Plan (for metro communities)

ACTION: Check the resource type(s) that may be impacted in the column “Resource Type”

#### **2. *Identify where your water supply system is most likely to impact those resources (and vice versa).***

##### ***Potential Sources of Information:***

- Drinking Water Supply Management Areas
- Geologic Atlas - Sensitivity
- If no WHPA or other information exists, consider rivers, lakes, wetlands and significant within 1.5 miles of wells; and calcareous fens and trout streams within 5 miles of wells

ACTION: Focus the rest of your work in these areas.

#### **3. *Within focus areas, identify specific features of value to the community***

You know your community best. What resources are important to pay attention to? It may be useful to check in with your community’s planning and zoning staff and others.

##### ***Potential Sources of Information:***

- Park plans
- Local studies
- Natural resource inventories
- Tourist attractions/recreational areas/valued community resource

ACTION: Identify specific features that the community prioritizes in the “Resource Name” column (for example: North Lake, Long River, Brook Trout Stream, or Green Fen). If, based on a review of available information, no features are likely to be at risk, note “None”.

**4. *Identify what impact(s) the resource is at risk for***

***Potential Sources of Information:***

- Wellhead Protection Plan
- Water Appropriation Permit
- County Geologic Atlas
- MDH or PCA reports of the area
- Metropolitan Council System Statement (for metro communities)
- Metropolitan Council Master Water Supply Plan (for metro communities)

ACTION: Check the risk type in the column “Risk”. If, based on a review of available information, no risk is identified, note “None anticipated”.

**5. *Describe how the risk was assessed***

***Potential Sources of Information:***

- Local studies
- Monitoring data (community, WMO, DNR, etc.)
- Aquifer testing
- County Geologic Atlas or other hydrogeologic studies
- Regional or state studies, such as DNR’s report ‘Definitions and Thresholds for Negative Impacts to Surface Waters’
- Well boring logs

ACTION: Identify the method(s) used to identify the risk to the resource in the “Risk Assessed Through” column

**6. *Describe protection threshold/goals***

What is the goal, if any, for protecting these resources? For example, is there a lower limit on acceptable flow in a river or stream? Water quality outside of an accepted range? A lower limit on acceptable aquifer level decline at one or more monitoring wells? Withdrawals that exceed some percent of the total amount available from a source? Or a lower limit on acceptable changes to a protected habitat?

***Potential Sources of Information:***

- County Comprehensive Water Plans
- Watershed Plans or One Watershed/One Plan
- Groundwater or Aquifer Plans
- Metropolitan Master Plans
- DNR Thresholds study
- Community parks, open space, and natural resource plans

ACTION: Describe resource protection goals in the “Describe Resource Protection Threshold” column or reference an existing plan/document/webpage

**7. If a goal/threshold should trigger action, describe the plan that will be implemented.**

Identify specific action, mitigation measures or management plan that the water supplier will implement, or refer to a partner's plan that includes actions to be taken.

***Potential Sources of Information:***

- County Comprehensive Water Plans
- Watershed Plans or One Watershed/One Plan
- Groundwater or Aquifer Plans
- Metropolitan Master Plans
- Studies such as DNR Thresholds study

ACTION: Describe the mitigation measure or management plan in the "Mitigation Measure or Management Plan" column.

**8. Describe work to evaluate these risks going forward.**

For example, what is the plan to regularly check in to stay current on plans or new data?

Identify specific action that the water supplier will take to identify the creation of or change to goals/thresholds, or refer to a partner's plan that includes actions to be taken.

***Potential Sources of Information:***

- County Comprehensive Water Plans
- Watershed Plans or One Watershed/One Plan
- Groundwater or Aquifer Plans
- Metropolitan Master Plans
- Studies such as DNR Thresholds study

ACTION: Describe what will be done to evaluate risks going forward, including any changes to goals or protection thresholds in the "Describe how Changes to Goals are monitored" column.

Table 10. Natural resource impacts (\*List specific resources in Appendix 12)

Resource Type	Resource Name	Risk	Risk Assessed Through *	Describe Resource Protection Threshold or Goal *	Mitigation Measures or Management Plan	Describe How Thresholds or Goals are Monitored
<input checked="" type="checkbox"/> River or stream	Mississippi River	<input checked="" type="checkbox"/> None anticipated <input type="checkbox"/> Flow/water level decline <input type="checkbox"/> Degrading water quality trends <input type="checkbox"/> Impacts on endangered, threatened, or special concern species habitat <input type="checkbox"/> Other: _____	<input type="checkbox"/> Geologic atlas or other mapping <input type="checkbox"/> Modeling <input type="checkbox"/> Modeling <input type="checkbox"/> Monitoring <input type="checkbox"/> Aquifer testing <input type="checkbox"/> WRAPS or other watershed report <input type="checkbox"/> Proximity (<1.5 miles) <input checked="" type="checkbox"/> Other: <u>WHPP</u>	<input checked="" type="checkbox"/> Not applicable <input type="checkbox"/> Additional data is needed to establish <input type="checkbox"/> See report: _____ <input type="checkbox"/> No data available <input type="checkbox"/> Other: _____	<input checked="" type="checkbox"/> Not applicable <input type="checkbox"/> Change groundwater pumping <input type="checkbox"/> Increase conservation <input type="checkbox"/> Other: _____	<input checked="" type="checkbox"/> Not applicable <input type="checkbox"/> Newly collected data will be analyzed <input type="checkbox"/> Regular check-in with these partners: _____ <input type="checkbox"/> Other: _____
<input checked="" type="checkbox"/> Aquifer	Tunnel City - Wonevot	<input type="checkbox"/> None anticipated <input checked="" type="checkbox"/> Flow/water level decline <input checked="" type="checkbox"/> Degrading water quality trends <input type="checkbox"/> Impacts on endangered, threatened, or special concern species habitat <input type="checkbox"/> Other: _____	<input type="checkbox"/> Geologic atlas or other mapping <input type="checkbox"/> Modeling <input checked="" type="checkbox"/> Monitoring <input checked="" type="checkbox"/> Aquifer testing <input type="checkbox"/> Proximity (obwell < 5 miles) <input type="checkbox"/> Other: _____	<input checked="" type="checkbox"/> Not applicable <input type="checkbox"/> Additional data is needed to establish <input type="checkbox"/> See report: _____ <input type="checkbox"/> Other: _____	<input checked="" type="checkbox"/> Not applicable <input type="checkbox"/> Change groundwater pumping <input type="checkbox"/> Increase conservation <input type="checkbox"/> Other: _____	<input type="checkbox"/> Not applicable <input type="checkbox"/> Newly collected data will be analyzed <input type="checkbox"/> Regular check-in with these partners: _____ <input checked="" type="checkbox"/> Other: <u>Routing MDH testing as part of water distribution system.</u>

### Wellhead Protection (WHP) and Source Water Protection (SWP) Plans

Complete Table 11 to provide status information about WHP and SWP plans.

The emergency procedures in this plan are intended to comply with the contingency plan provisions required in the Minnesota Department of Health's (MDH) Wellhead Protection (WHP) Plan and Surface Water Protection (SWP) Plan.

**Table 11. Status of Wellhead Protection and Source Water Protection Plans**

Plan Type	Status	Date Adopted	Date for Update
WHP	<input checked="" type="checkbox"/> In Process <input type="checkbox"/> Completed <input type="checkbox"/> Not Applicable	WHPP Part I approved April 27, 2017	November 2017
SWP	<input type="checkbox"/> In Process <input type="checkbox"/> Completed <input checked="" type="checkbox"/> Not Applicable		

**WHP** – Wellhead Protection Plan    **SWP** – Source Water Protection Plan

## F. Capital Improvement Plan (CIP)

Please note that any wells that received approval under a ten-year permit, but that were not built, are now expired and must submit a water appropriations permit.

### Adequacy of Water Supply System

Complete Table 12 with information about the adequacy of wells and/or intakes, storage facilities, treatment facilities, and distribution systems to sustain current and projected demands. List planned capital improvements for any system components, in chronological order. Communities in the seven-county Twin Cities metropolitan area should also include information about plans through 2040.

The assessment can be the general status by category; it is not necessary to identify every single well, storage facility, treatment facility, lift station, and mile of pipe.

Please attach your latest Capital Improvement Plan as **Appendix 4**.

**Table 12. Adequacy of Water Supply System**

System Component	Planned action	Anticipated Construction Year	Notes
Wells/Intakes	<input type="checkbox"/> No action planned - adequate <input type="checkbox"/> Repair/replacement <input checked="" type="checkbox"/> Expansion/addition	2018 NW 2023 NE 2030 South	Anticipated backup well installed in NW District in 2018. NE well in 2023 and Southern well in 2030 dependent on growth.
Water Storage Facilities	<input type="checkbox"/> No action planned - adequate <input type="checkbox"/> Repair/replacement <input checked="" type="checkbox"/> Expansion/addition	2021 NW 2027 South	South Water tower dependent on future growth
Water Treatment Facilities	<input checked="" type="checkbox"/> No action planned - adequate <input type="checkbox"/> Repair/replacement <input type="checkbox"/> Expansion/addition		

System Component	Planned action	Anticipated Construction Year	Notes
Distribution Systems (Pipes, valves, etc.)	<input checked="" type="checkbox"/> No action planned - adequate <input type="checkbox"/> Repair/replacement <input type="checkbox"/> Expansion/addition		Several project included in CIP but all are expected to be driven and constructed by future development
Pressure Zones	<input checked="" type="checkbox"/> No action planned - adequate <input type="checkbox"/> Repair/replacement <input type="checkbox"/> Expansion/addition		
Other:	<input checked="" type="checkbox"/> No action planned - adequate <input type="checkbox"/> Repair/replacement <input type="checkbox"/> Expansion/addition		

The City currently has a 10-year capital improvement plan which projects out to the year 2027. The city does not currently know if any other projects between 2027 and 2040. The City annually updates their capital improvement plan.

However, based on the projected water demand and the current capital improvement plan, the Capital improvements planned related to water storage would be sufficient for the projected need. The city would likely install a secondary well in the southern service area between 2027 and 2040 to provide a backup source and ensure sufficient pumping capacity is available.

### Proposed Future Water Sources

Complete Table 13 to identify new water source installation planned over the next ten years. Add rows to the table as needed.

**Table 13. Proposed future installations/sources**

Source	Installation Location (approximate)	Resource Name	Proposed Pumping Capacity (gpm)	Planned Installation Year	Planned Partnerships
Groundwater	Northwest	Tunnel City – Wonewoc	850	2018	NA
Groundwater	Northeast	Tunnel City – Wonewoc	850	2023	NA
Groundwater	South	Tunnel City- Wonewoc	1010	2030	NA

### Water Source Alternatives - Key Metropolitan Council Benchmark

Do you anticipate the need for alternative water sources in the next 10 years? Yes ☐ No ☒

For metro communities, will you need alternative water sources by the year 2040? Yes ☐ No ☒

**If you answered yes for either question, then complete table 14. If no, insert NA.**

Complete Table 14 by checking the box next to alternative approaches that your community is considering, including approximate locations (if known), the estimated amount of future demand that could be met through the approach, the estimated timeframe to implement the approach, potential partnerships, and the major benefits and challenges of the approach. Add rows to the table as needed.

For communities in the seven-county Twin Cities metropolitan area, these alternatives should include approaches the community is considering to meet projected 2040 water demand.

**Table 14. Alternative water sources**

Alternative Source Considered	Source and/or Installation Location (approximate)	Estimated Amount of Future Demand (%)	Timeframe to Implement (YYYY)	Potential Partners	Benefits	Challenges
<input type="checkbox"/> Groundwater	NA					
<input type="checkbox"/> Surface Water	NA					
<input type="checkbox"/> Reclaimed stormwater	NA					
<input type="checkbox"/> Reclaimed wastewater	NA					
<input type="checkbox"/> Interconnection to another supplier	NA					

## PART 2. EMERGENCY PREPAREDNESS PROCEDURES

The emergency preparedness procedures outlined in this plan are intended to comply with the contingency plan provisions required by MDH in the WHP and SWP. Water emergencies can occur as a result of vandalism, sabotage, accidental contamination, mechanical problems, power failings, drought, flooding, and other natural disasters. The purpose of emergency planning is to develop emergency response procedures and to identify actions needed to improve emergency preparedness. In the case of a municipality, these procedures should be in support of, and part of, an all-hazard emergency operations plan. Municipalities that already have written procedures dealing with water emergencies should review the following information and update existing procedures to address these water supply protection measures.

### A. Emergency Response Plan

Section 1433(b) of the Safe Drinking Water Act, (Public Law 107-188, Title IV- Drinking Water Security and Safety) requires community water suppliers serving over 3,300 people to prepare an Emergency Response Plan. MDH recommends that Emergency Response Plans are updated annually.

**Do you have an Emergency Response Plan?** Yes ☐ No ☒

**Have you updated the Emergency Response Plan in the last year?** Yes ☐ No ☒

**When did you last update your Emergency Response Plan?** \_Currently less than the 3,300 people served threshold

Complete Table 15 by inserting the noted information regarding your completed Emergency Response Plan.

**Table 15. Emergency Response Plan contact information**

Emergency Response Plan Role	Contact Person	Contact Number	Phone	Contact Email
Emergency Response Lead	MARTY FARRELL	612-751-8847		<a href="mailto:mfarrell@cityofdaytonmn.com">mfarrell@cityofdaytonmn.com</a>
Alternate Emergency Response Lead	TINA GOODROAD	763-421-3487		<a href="mailto:tgoodroad@cityofdaytonmn.com">tgoodroad@cityofdaytonmn.com</a>

## B. Operational Contingency Plan

All utilities should have a written operational contingency plan that describes measures to be taken for water supply mainline breaks and other common system failures as well as routine maintenance.

**Do you have a written operational contingency plan?** Yes ☐ No ☒

Emergency telephone list included in Appendix 5.

At a minimum, a water supplier should prepare and maintain an emergency contact list of contractors and suppliers.

## C. Emergency Response Procedures

Water suppliers must meet the requirements of MN Rules 4720.5280. Accordingly, the Minnesota Department of Natural Resources (DNR) requires public water suppliers serving more than 1,000 people to submit Emergency and Conservation Plans. Water emergency and conservation plans that have been approved by the DNR, under provisions of Minnesota Statute 186 and Minnesota Rules, part 6115.0770, will be considered equivalent to an approved WHP contingency plan.

### Emergency Telephone List

Prepare and attach a list of emergency contacts, including the MN Duty Officer (1-800-422-0798), as **Appendix 5**. An [Emergency Contact List template](#) is available at the [MnDNR Water Supply Plans webpage](#).

The list should include key utility and community personnel, contacts in adjacent water suppliers, and appropriate local, state and federal emergency contacts. Please be sure to verify and update the contacts on the emergency telephone list and date it. Thereafter, update on a regular basis (once a year is recommended). In the case of a municipality, this information should be contained in a notification and warning standard operating procedure maintained by the Emergency Manager for that community. Responsibilities and services for each contact should be defined.

### Current Water Sources and Service Area

Quick access to concise and detailed information on water sources, water treatment, and the distribution system may be needed in an emergency. System operation and maintenance records should be maintained in secured central and back-up locations so that the records are accessible for emergency

purposes. A detailed map of the system showing the treatment plants, water sources, storage facilities, supply lines, interconnections, and other information that would be useful in an emergency should also be readily available. It is critical that public water supplier representatives and emergency response personnel communicate about the response procedures and be able to easily obtain this kind of information both in electronic and hard copy formats (in case of a power outage).

**Do records and maps exist?** Yes ☒ No ☐

**Can staff access records and maps from a central secured location in the event of an emergency?**

Yes ☒ No ☐

**Does the appropriate staff know where the materials are located?**

Yes ☒ No ☐

### Procedure for Augmenting Water Supplies

Complete Tables 16 – 17 by listing all available sources of water that can be used to augment or replace existing sources in an emergency. Add rows to the tables as needed.

In the case of a municipality, this information should be contained in a notification and warning standard operating procedure maintained by the warning point for that community. Municipalities are encouraged to execute cooperative agreements for potential emergency water services and copies should be included in **Appendix 6**. Outstate Communities may consider using nearby high capacity wells (industry, golf course) as emergency water sources.

WSP should include information on any physical or chemical problems that may limit interconnections to other sources of water. Approvals from the MDH are required for interconnections or the reuse of water.

**Table 16. Interconnections with other water supply systems to supply water in an emergency**

Other Water Supply System Owner	Capacity (GPM & MGD)	Note Any Limitations On Use	List of services, equipment, supplies available to respond
City of Champlin	NA	NA	NO FORMAL AGREEMENT IN PLACE
City of Maple Grove	2.8MGD AVG. 5.0MGD PEAK	CAPACITY	HARD CONNECTION. NO ADDITIONAL SERVICES.
City of Rogers	NA	NA	CURRENTLY SINGLE SERVICE IN ROGERS BEING SERVED VIA DAYTON NETWORK. IF FUTURE ROGERS SYSTEM EXPANDS TO THIS AREA, SERVICE WILL BE OPERATED AT EMERGENCY INTERCONNECT. NO FORMAL AGREEMENT IN PLACE FOR EMERGENCY INTERCONNECT OPERATIONS.

GPM – Gallons per minute MGD – million gallons per day

**Table 17. Utilizing surface water as an alternative source**

Surface Water Source Name	Capacity (GPM)	Capacity (MGD)	Treatment Needs	Note Any Limitations On Use
NA				
NA				

If not covered above, describe additional emergency measures for providing water (obtaining bottled water, or steps to obtain National Guard services, etc.)

No emergency connection in place for NW water service area. Currently plan would be to provide temporary potable water to residents until permanent source can be established. New secondary/emergency well in area is in CIP for 2018.

### Allocation and Demand Reduction Procedures

Complete Table 18 by adding information about how decisions will be made to allocate water and reduce demand during an emergency. Provide information for each customer category, including its priority ranking, average day demand, and demand reduction potential for each customer category. Modify the customer categories as needed, and add additional lines if necessary.

Water use categories should be prioritized in a way that is consistent with Minnesota Statutes 103G.261 (#1 is highest priority) as follows:

1. Water use for human needs such as cooking, cleaning, drinking, washing and waste disposal; use for on-farm livestock watering; and use for power production that meets contingency requirements.
2. Water use involving consumption of less than 10,000 gallons per day (usually from private wells or surface water intakes)
3. Water use for agricultural irrigation and processing of agricultural products involving consumption of more than 10,000 gallons per day (usually from private high-capacity wells or surface water intakes)
4. Water use for power production above the use provided for in the contingency plan.
5. All other water use involving consumption of more than 10,000 gallons per day.
6. Nonessential uses – car washes, golf courses, etc.

Water used for human needs at hospitals, nursing homes and similar types of facilities should be designated as a high priority to be maintained in an emergency. Lower priority uses will need to address water used for human needs at other types of facilities such as hotels, office buildings, and manufacturing plants. The volume of water and other types of water uses at these facilities must be carefully considered. After reviewing the data, common sense should dictate local allocation priorities to protect domestic requirements over certain types of economic needs. Water use for lawn sprinkling, vehicle washing, golf courses, and recreation are legislatively considered non-essential.

**Table 18. Water use priorities**

Customer Category	Allocation Priority	Average Daily Demand (GPD)	Short-Term Emergency Demand Reduction Potential (GPD)
Residential	1	86	68
Institutional	2	1535	1400
Commercial	3	1535	1400
Industrial	3	1535	1400
Irrigation	6	NA	NA
Wholesale	6	NA	NA
Non-Essential	6		
TOTAL	NA	NA	

**GPD** – Gallons per Day

***Tip: Calculating Emergency Demand Reduction Potential***

The emergency demand reduction potential for all uses will typically equal the difference between maximum use (summer demand) and base use (winter demand). In extreme emergency situations, lower priority water uses must be restricted or eliminated to protect priority domestic water requirements. Emergency demand reduction potential should be based on average day demands for customer categories within each priority class. Use the tables in Part 3 on water conservation to help you determine strategies.

Complete Table 19 by selecting the triggers and actions during water supply disruption conditions.

**Table 19. Emergency demand reduction conditions, triggers and actions (Select all that may apply and describe)**

**Northeast Service Area**

Emergency Triggers	Short-term Actions	Long-term Actions
<input checked="" type="checkbox"/> Contamination <input checked="" type="checkbox"/> Loss of production <input checked="" type="checkbox"/> Infrastructure failure <input type="checkbox"/> Executive order by Governor <input type="checkbox"/> Other: _____	<input checked="" type="checkbox"/> Supply augmentation through City of Champlin Connection. <input checked="" type="checkbox"/> Adopt (if not already) and enforce a critical water deficiency ordinance to penalize lawn watering, vehicle washing, golf course and park irrigation & other nonessential uses. <input type="checkbox"/> Water allocation through____ <input checked="" type="checkbox"/> Meet with large water users to discuss their contingency plan.	<input checked="" type="checkbox"/> Supply augmentation through City of Champlin. <input checked="" type="checkbox"/> Connect system to southern or NW distribution networks if determined feasible. <input type="checkbox"/> Water allocation through____ <input checked="" type="checkbox"/> Meet with large water users to discuss their contingency plan.

**Southern Service Area**

Emergency Triggers	Short-term Actions	Long-term Actions
<input checked="" type="checkbox"/> Contamination <input checked="" type="checkbox"/> Loss of production <input checked="" type="checkbox"/> Infrastructure failure <input type="checkbox"/> Executive order by Governor <input type="checkbox"/> Other: _____	<input checked="" type="checkbox"/> Supply augmentation through City of Maple Grove Emergency Interconnects <input checked="" type="checkbox"/> Adopt (if not already) and enforce a critical water deficiency ordinance to penalize lawn watering, vehicle washing, golf course and park irrigation & other nonessential uses. <input type="checkbox"/> Water allocation through _____ <input checked="" type="checkbox"/> Meet with large water users to discuss their contingency plan.	<input checked="" type="checkbox"/> Supply augmentation through City of Maple Grove Emergency Interconnects <input checked="" type="checkbox"/> Adopt (if not already) and enforce a critical water deficiency ordinance to penalize lawn watering, vehicle washing, golf course and park irrigation & other nonessential uses. <input checked="" type="checkbox"/> Connect system to NW or NE water systems if feasible. <input checked="" type="checkbox"/> Meet with large water users to discuss their contingency plan.

#### Northwest Service Area

Emergency Triggers	Short-term Actions	Long-term Actions
<input checked="" type="checkbox"/> Contamination <input checked="" type="checkbox"/> Loss of production <input checked="" type="checkbox"/> Infrastructure failure <input type="checkbox"/> Executive order by Governor <input type="checkbox"/> Other: _____	<input type="checkbox"/> Supply augmentation through _____ <input checked="" type="checkbox"/> Adopt (if not already) and enforce a critical water deficiency ordinance to penalize lawn watering, vehicle washing, golf course and park irrigation & other nonessential uses. <input type="checkbox"/> Water allocation through _____ <input checked="" type="checkbox"/> Meet with large water users to discuss their contingency plan.	<input checked="" type="checkbox"/> Supply augmentation through potential city of Otsego interconnect. <input checked="" type="checkbox"/> Adopt (if not already) and enforce a critical water deficiency ordinance to penalize lawn watering, vehicle washing, golf course and park irrigation & other nonessential uses. <input type="checkbox"/> Connect to NE or Southern water systems if feasible. <input checked="" type="checkbox"/> Meet with large water users to discuss their contingency plan.

#### Notification Procedures

Complete Table 20 by selecting trigger for informing customers regarding conservation requests, water use restrictions, and suspensions; notification frequencies; and partners that may assist in the notification process. Add rows to the table as needed.

**Table 20. Plan to inform customers regarding conservation requests, water use restrictions, and suspensions**

Notification Trigger(s)	Methods (select all that apply)	Update Frequency	Partners
<input checked="" type="checkbox"/> Short-term demand reduction	<input checked="" type="checkbox"/> Website <input type="checkbox"/> Email list serve	<input type="checkbox"/> Daily <input type="checkbox"/> Weekly <input checked="" type="checkbox"/> Monthly	

Notification Trigger(s)	Methods (select all that apply)	Update Frequency	Partners
declared (< 1 year)	<input type="checkbox"/> Social media (e.g. Twitter, Facebook) <input checked="" type="checkbox"/> Direct customer mailing, <input checked="" type="checkbox"/> Press release (TV, radio, newspaper), <input checked="" type="checkbox"/> Meeting with large water users (> 10% of total city use) <input checked="" type="checkbox"/> Other: Post on City Notice Board	(Bi-monthly billing for direct mailing) <input type="checkbox"/> Annually	
<input checked="" type="checkbox"/> Long-term Ongoing demand reduction declared	<input checked="" type="checkbox"/> Website <input type="checkbox"/> Email list serve <input type="checkbox"/> Social media (e.g. Twitter, Facebook) <input checked="" type="checkbox"/> Direct customer mailing, <input checked="" type="checkbox"/> Press release (TV, radio, newspaper), <input checked="" type="checkbox"/> Meeting with large water users (> 10% of total city use) <input checked="" type="checkbox"/> Other: Post on City Notice Board	<input type="checkbox"/> Daily <input type="checkbox"/> Weekly <input checked="" type="checkbox"/> Monthly (Bi-monthly billing for direct mailing) <input type="checkbox"/> Annually	
<input checked="" type="checkbox"/> Governor's critical water deficiency declared	<input checked="" type="checkbox"/> Website <input type="checkbox"/> Email list serve <input type="checkbox"/> Social media (e.g. Twitter, Facebook) <input checked="" type="checkbox"/> Direct customer mailing, <input checked="" type="checkbox"/> Press release (TV, radio, newspaper), <input checked="" type="checkbox"/> Meeting with large water users (> 10% of total city use) <input checked="" type="checkbox"/> Other: Post on City Notice Board	<input type="checkbox"/> Daily <input type="checkbox"/> Weekly <input checked="" type="checkbox"/> Monthly (Bi-monthly billing for direct mailing) <input type="checkbox"/> Annually	

### Enforcement

Prior to a water emergency, municipal water suppliers must adopt regulations that restrict water use and outline the enforcement response plan. The enforcement response plan must outline how conditions will be monitored to know when enforcement actions are triggered, what enforcement tools will be used, who will be responsible for enforcement, and what timelines for corrective actions will be expected.

Affected operations, communications, and enforcement staff must then be trained to rapidly implement those provisions during emergency conditions.

### ***Important Note:***

Disregard of critical water deficiency orders, even though total appropriation remains less than permitted, is adequate grounds for immediate modification of a public water supply authority's water use permit (2013 MN Statutes 103G.291)

**Does the city have a critical water deficiency restriction/official control in place that includes provisions to restrict water use and enforce the restrictions? (This restriction may be an ordinance, rule, regulation, policy under a council directive, or other official control)** Yes ☐ No ☒

If yes, attach the official control document to this WSP as **Appendix 7**.

If no, the municipality must adopt such an official control within 6 months of submitting this WSP and submit it to the DNR as an amendment to this WSP.

Critical Water Deficiency Ordinance is currently in development and will be enacted prior to plan finalization.

**Irrespective of whether a critical water deficiency control is in place, does the public water supply utility, city manager, mayor, or emergency manager have standing authority to implement water restrictions?** Yes ☐ No ☒

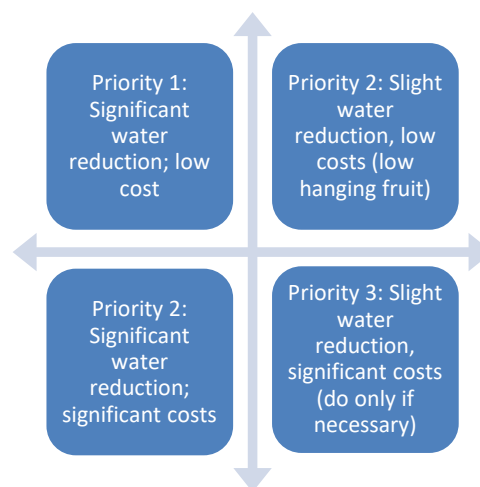
**If yes, cite the regulatory authority reference:** \_\_\_\_\_.

**If no, who has authority to implement water use restrictions in an emergency?**

In the critical water deficiency ordinance in draft form, the mayor would have authority to implement water use restrictions during an emergency.
---

## PART 3. WATER CONSERVATION PLAN

Minnesotans have historically benefited from the state's abundant water supplies, reducing the need for conservation. There are however, limits to the available supplies of water and increasing threats to the quality of our drinking water. Causes of water supply limitation may include: population increases, economic trends, uneven statewide availability of groundwater, climatic changes, and degraded water quality. Examples of threats to drinking water quality include: the presence of contaminant plumes from past land use activities, exceedances of water quality standards from natural and human sources, contaminants of emerging concern, and increasing pollutant trends from nonpoint sources.



There are many incentives for conserving water; conservation:

- reduces the potential for pumping-induced transfer of contaminants into the deeper aquifers, which can add treatment costs
- reduces the need for capital projects to expand system capacity
- reduces the likelihood of water use conflicts, like well interference, aquatic habitat loss, and declining lake levels
- conserves energy, because less energy is needed to extract, treat and distribute water (and less energy production also conserves water since water is used to produce energy)
- maintains water supplies that can then be available during times of drought

It is therefore imperative that water suppliers implement water conservation plans. The first step in water conservation is identifying opportunities for behavioral or engineering changes that could be made to reduce water use by conducting a thorough analysis of:

- Water use by customer
- Extraction, treatment, distribution and irrigation system efficiencies
- Industrial processing system efficiencies
- Regulatory and barriers to conservation
- Cultural barriers to conservation
- Water reuse opportunities

Once accurate data is compiled, water suppliers can set achievable goals for reducing water use. A successful water conservation plan follows a logical sequence of events. The plan should address both conservation on the supply side (leak detection and repairs, metering), as well as on the demand side (reductions in usage). Implementation should be conducted in phases, starting with the most obvious and lowest-cost options. In some cases, one of the early steps will be reviewing regulatory constraints to water conservation, such as lawn irrigation requirements. Outside funding and grants may be available for implementation of projects. Engage water system operators and maintenance staff and customers in brainstorming opportunities to reduce water use. Ask the question: "How can I help save water?"

### Progress since 2006

Is this your community's first Water Supply Plan? Yes ☐ No ☒

If yes, describe conservation practices that you are already implementing, such as: pricing, system improvements, education, regulation, appliance retrofitting, enforcement, etc.

--

If no, complete Table 21 to summarize conservation actions taken since the adoption of the 2006 water supply plan.

**Table 21. Implementation of previous ten-year Conservation Plan**

2007 Plan Commitments	Action Taken?
Change water rates structure to provide conservation pricing	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Water supply system improvements (e.g. leak repairs, valve replacements, etc.)	<input type="checkbox"/> Yes <input type="checkbox"/> No
Educational efforts	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
New water conservation ordinances	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Rebate or retrofitting Program (e.g. for toilet, faucets, appliances, showerheads, dish washers, washing machines, irrigation systems, rain barrels, water softeners, etc.	<input type="checkbox"/> Yes <input type="checkbox"/> No
Enforcement	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Describe other	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

**What are the results you have seen from the actions in Table 21 and how were results measured?**

<p>City of Dayton water distribution system is relatively new (most less than 10 years old) with a rapidly growing service network. The new rate structure was adopted in the spring of 2017 and not enough information is available to adequately assess its impacts.</p>
--

### **A. Triggers for Allocation and Demand Reduction Actions**

Complete table 22 by checking each trigger below, as appropriate, and the actions to be taken at various levels or stages of severity. Add in additional rows to the table as needed.

**Table 22. Short and long-term demand reduction conditions, triggers and actions**

Objective	Triggers	Actions
Protect surface water flows	<input type="checkbox"/> Low stream flow conditions <input type="checkbox"/> Reports of declining wetland and lake levels <input type="checkbox"/> Other: _____	<input type="checkbox"/> Increase promotion of conservation measures <input type="checkbox"/> Other: _____
Short-term demand reduction (less than 1 year)	<input type="checkbox"/> Extremely high seasonal water demand (more than double winter demand) <input checked="" type="checkbox"/> Loss of treatment capacity <input checked="" type="checkbox"/> Lack of water in storage <input checked="" type="checkbox"/> State drought plan <input checked="" type="checkbox"/> Well interference <input type="checkbox"/> Other: _____	<input checked="" type="checkbox"/> Adopt (if not already) and enforce the critical water deficiency ordinance to restrict or prohibit lawn watering, vehicle washing, golf course and park irrigation & other nonessential uses. <input checked="" type="checkbox"/> Supply augmentation through various interconnects the city has dependent on location of required demand reduction. <input type="checkbox"/> Water allocation through _____ <input checked="" type="checkbox"/> Meet with large water users to discuss user's contingency plan.
Long-term demand reduction (>1 year)	<input checked="" type="checkbox"/> Per capita demand increasing <input checked="" type="checkbox"/> Total demand increase (higher population or more industry). <input type="checkbox"/> Other: _____	<input type="checkbox"/> Develop a critical water deficiency ordinance that is or can be quickly adopted to penalize lawn watering, vehicle washing, golf course and park irrigation & other nonessential uses. <input checked="" type="checkbox"/> Enact a water waste ordinance that targets overwatering (causing water to flow off the landscape into streets, parking lots, or similar), watering impervious surfaces (streets, driveways or other hardscape areas), and negligence of known leaks, breaks, or malfunctions. <input checked="" type="checkbox"/> Meet with large water users to discuss user's contingency plan. <input checked="" type="checkbox"/> Enhanced monitoring and reporting: audits, meters, billing, etc.
Governor's "Critical Water Deficiency Order" declared	<input checked="" type="checkbox"/> If enacted.	<input checked="" type="checkbox"/> Enforced by city as required by statute

## **B. Conservation Objectives and Strategies – Key benchmark for DNR**

This section establishes water conservation objectives and strategies for eight major areas of water use.

### **Objective 1: Reduce Unaccounted (Non-Revenue) Water loss to Less than 10%**

The Minnesota Rural Water Association, the Metropolitan Council and the Department of Natural Resources recommend that all water uses be metered. Metering can help identify high use locations and times, along with leaks within buildings that have multiple meters.

It is difficult to quantify specific unmetered water use such as that associated with firefighting and system flushing or system leaks. Typically, water suppliers subtract metered water use from total water pumped to calculate unaccounted or non-revenue water loss.

**Is your five-year average (2005-2014) unaccounted Water Use in Table 2 higher than 10%?**

Yes ☐ No ☒

**What is your leak detection monitoring schedule? (e.g. Monitor 1/3rd of the city lines per year)**

Infrastructure is relatively new (less than 20 years old) compared to the expected life and no leak detection schedule has been established. This may be considered as the pipe approaches its expected life.

**Water Audits** - are designed to help quantify and track water losses associated with water distribution systems and identify areas for improved efficiency and cost recovery. The American Water Works Association (AWWA) has a recommended water audit methodology which is presented in [AWWA's M36 Manual of Water Supply Practices: Water Audits and Loss Control Programs](#). AWWA also provides a free spreadsheet-based water audit tool that water suppliers can use to conduct their own water audits. This free water audit tool can be found on AWWA's [Water Loss Control webpage](#). Another resource for water audit and water loss control information is [Minnesota Rural Water Association](#).

**What is the date of your most recent water audit? NA**

**Frequency of water audits:**     ☐ yearly     ☒ other (specify frequency) As Needed

**Leak detection and survey:**     ☐ every year     ☐ every other year     ☒ periodic as needed

**Year last leak detection survey completed: NA. None completed as infrastructure is new compared to expected life. This will be performed as needed.**

If Table 2 shows annual water losses over 10% or an increasing trend over time, describe what actions will be taken to reach the <10% loss objective and within what timeframe

The last 2 years, the unaccounted for water usage within the City of Dayton Service Area has been 6.5%. This is well below the 10% and is expected to remain so as the infrastructure within the City is relatively new. The unaccounted for water usage from the City of Maple Grove cannot be calculated as there is no meter between the two cities to determine the amount of water which was delivered.

**Metering** -AWWA recommends that every water supplier install meters to account for all water taken into its system, along with all water distributed from its system at each customer's point of service. An effective metering program relies upon periodic performance testing, repair, maintenance or replacement of all meters. Drinking Water Revolving Loan Funds are available for purchase of new meters when new plants are built. AWWA also recommends that water suppliers conduct regular water audits to account for unmetered unbilled consumption, metered unbilled consumption and source water and customer metering inaccuracies. Some cities install separate meters for interior and exterior water use, but some research suggests that this may not result in water conservation.

Complete Table 23 by adding the requested information regarding the number, types, testing and maintenance of customer meters.

**Table 23. Information about customer meters**

Customer Category	Number of Customers	Number of Metered Connections	Number of Automated Meter Readers	Meter testing intervals (years)	Average age/meter replacement schedule (years)
Residential	851	851	851	15	10/ 15+
Irrigation meters	3	3	2	15	10/15+
C/I/I	25	25	25	15	10/15+
Public facilities	2	2	2	15	10/15+
Other					___ / ___
TOTALS	881	881	880	NA	NA

For unmetered systems, describe any plans to install meters or replace current meters with advanced technology meters. Provide an estimate of the cost to implement the plan and the projected water savings from implementing the plan.

**Table 24. Water source meters**

	Number of Meters	Meter testing schedule (years)	Number of Automated Meter Readers	Average age/meter replacement schedule (years)
Water source (wells/intakes)	4	1	2	13 / 30+

## Objective 2: Achieve Less than 75 Residential Gallons per Capita Demand (GPCD)

The 2002 average residential per capita demand in the Twin Cities Metropolitan area was 75 gallons per capita per day.

Is your average 2012-2016 residential per capita water demand in Table 2 more than 75? Yes ☒ No ☐

What was your 2012 – 2016 five-year average residential per capita water demand? 90 g/person/day

Describe the water use trend over that timeframe:

The residential water use trend over the last 5 Years within the City of Dayton has seen the water usage start at near 81 gpcpd in 2012. In 2013 and 2014 the residential water usage increased slightly but remained in the low 80's gpcpd. The last two years the City has seen its residential water rate rise above the 90gpcpd. As the City of Dayton continues to grow, they foresee their largest obstacle to manage residential water usage being new home construction. Many new homes are constructed with new sod and irrigation systems, and the City has noticed a trend of excessive watering at times. The city recognizes that education on this topic will be one of the key opportunities to try to manage water use within the city.

Complete Table 25 by checking which strategies you will use to continue reducing residential per capita demand and project a likely timeframe for completing each checked strategy (Select all that apply and add rows for additional strategies):

**Table 25. Strategies and timeframe to reduce residential per capita demand**

Strategy to reduce residential per capita demand	Timeframe for completing work
<input type="checkbox"/> Revise city ordinances/codes to encourage or require water efficient landscaping.	
<input checked="" type="checkbox"/> Revise city ordinance/codes to permit water reuse options, especially for non-potable purposes like irrigation, groundwater recharge, and industrial use. Check with plumbing authority to see if internal buildings reuse is permitted	3 years
<input checked="" type="checkbox"/> Revise ordinances to limit irrigation. Describe the restricted irrigation plan: An odd/even watering plan will be discussed.	3 years
<input type="checkbox"/> Revise outdoor irrigation installations codes to require high efficiency systems (e.g. those with soil moisture sensors or programmable watering areas) in new installations or system replacements.	
<input type="checkbox"/> Make water system infrastructure improvements	
<input type="checkbox"/> Offer free or reduced cost water use audits for residential customers.	
<input checked="" type="checkbox"/> Implement a notification system to inform customers when water availability conditions change.	Currently any changes to water conditions are included in the water bills.
<input type="checkbox"/> Provide rebates or incentives for installing water efficient appliances and/or fixtures indoors (e.g., low flow toilets, high efficiency dish washers and washing machines, showerhead and faucet aerators, water softeners, etc.)	
<input type="checkbox"/> Provide rebates or incentives to reduce outdoor water use (e.g., turf replacement/reduction, rain gardens, rain barrels, smart irrigation, outdoor water use meters, etc.)	
<input type="checkbox"/> Identify supplemental Water Resources	
<input checked="" type="checkbox"/> Conduct audience-appropriate water conservation education and outreach.	5 years. Specifically educate residential customers on impacts of irrigation systems.
<input type="checkbox"/> Describe other plans	

**Objective 3: Achieve at least 1.5% annual reduction in non-residential per capita water use**  
(For each of the next ten years, or a 15% total reduction over ten years.) This includes commercial, institutional, industrial and agricultural water users.

Complete Table 26 by checking which strategies you will used to continue reducing non-residential customer use demand and project a likely timeframe for completing each checked strategy (add rows for additional strategies).

Where possible, substitute recycled water used in one process for reuse in another. (For example, spent rinse water can often be reused in a cooling tower.) Keep in mind the true cost of water is the amount on the water bill PLUS the expenses to heat, cool, treat, pump, and dispose of/discharge the water. Don't just calculate the initial investment. Many conservation retrofits that appear to be prohibitively

expensive are actually very cost-effective when amortized over the life of the equipment. Often reducing water use also saves electrical and other utility costs. Note: as of 2015, water reuse, and is not allowed by the state plumbing code, M.R. 4715 (a variance is needed). However, several state agencies are addressing this issue.

**Table 26. Strategies and timeframe to reduce institutional, commercial industrial, and agricultural and non-revenue use demand**

Strategy to reduce total business, industry, agricultural demand	Timeframe for completing work
<input type="checkbox"/> Conduct a facility water use audit for both indoor and outdoor use, including system components	
<input checked="" type="checkbox"/> Install enhanced meters capable of automated readings to detect spikes in consumption	Currently installing on new services and will be phasing in these meters as replacements needed on existing meters without this capability.
<input type="checkbox"/> Compare facility water use to related industry benchmarks, if available (e.g., meat processing, dairy, fruit and vegetable, beverage, textiles, paper/pulp, metals, technology, petroleum refining etc.)	
<input type="checkbox"/> Install water conservation fixtures and appliances or change processes to conserve water	
<input type="checkbox"/> Repair leaking system components (e.g., pipes, valves)	
<input type="checkbox"/> Investigate the reuse of reclaimed water (e.g., stormwater, wastewater effluent, process wastewater, etc.)	
<input type="checkbox"/> Reduce outdoor water use (e.g., turf replacement/reduction, rain gardens, rain barrels, smart irrigation, outdoor water use meters, etc.)	
<input type="checkbox"/> Train employees how to conserve water	
<input checked="" type="checkbox"/> Implement a notification system to inform non-residential customers when water availability conditions change.	Large C/I/I users will be notified when availability conditions change when ordinance is completed.
<input type="checkbox"/> Nonpotable rainwater catchment systems intended to supply uses such as water closets, urinals, trap primers for floor drains and floor sinks, industrial processes, water features, vehicle washing facilities, cooling tower makeup, and similar uses shall be approved by the commissioner. <a href="#">Plumbing code 4714.1702, Published October 31, 2016</a>	
<input type="checkbox"/> Describe other plans:	

#### **Objective 4: Achieve a Decreasing Trend in Total Per Capita Demand**

Include as **Appendix 8** one graph showing total per capita water demand for each customer category (i.e., residential, institutional, commercial, industrial) from 2005-2014 and add the calculated/estimated linear trend for the next 10 years.

Describe the trend for each customer category; explain the reason(s) for the trends, and where trends are increasing.

Residential: The City has seen a rise in the residential water use per capita over the last 8 years with the exception of 2011 in which the water usage per capita dropped. The City has set a goal of reducing its

residential per capita water usage to 75 gpcpd in 10 years. The city assumed a starting point of 86 gpcpd which is the average usage over the last 5 years.

C/I/I: The per capita C/I/I usage within the city has seen a declining trend over the past 8 years. Over the last 5 years specifically the usage within this category has fluctuated some but generally remained the same. However, the population over that same time period has seen steady growth which is resulting in a lower per capita usage rate. When projecting the next 10 years the City does anticipate some additional commercial activity occurring but no specific projects or users are identified. For this reason, a linear growth was assumed which would put the C/I/I growth in the same projection as the residential.

Non-Essential: The primary users of this category are the City Parks and Buildings. The per capita usage of this category has been highly variable which is due to the relative small amount of usage and the dependence on watering needs of the parks. Again this category was projected to maintain a steady usage rate on a per capita basis.

#### **Objective 5: Reduce Ratio of Maximum day (peak day) to the Average Day Demand to Less Than 2.6**

**Is the ratio of average 2007-2016 maximum day demand to average 2007-2016 average day demand reported in Table 2 more than 2.6?** Yes ☒ No ☐

**Calculate a ten-year average (2007 – 2016) of the ratio of maximum day demand to average day demand: 3.29 (this is the average of the last 4 years as this is the only information available for the City of Dayton only supply area)**

The position of the DNR has been that a peak day/average day ratio that is above 2.6 for in summer indicates that the water being used for irrigation by the residents in a community is too large and that efforts should be made to reduce the peak day use by the community.

It should be noted that by reducing the peak day use, communities can also reduce the amount of infrastructure that is required to meet the peak day use. This infrastructure includes new wells, new water towers which can be costly items.

#### **Objective 6: Implement Demand Reduction Measures**

##### ***Water Conservation Program***

Municipal water suppliers serving over 1,000 people are required to adopt demand reduction measures that include a conservation rate structure, or a uniform rate structure with a conservation program that achieves demand reduction. These measures must achieve demand reduction in ways that reduce water demand, water losses, peak water demands, and nonessential water uses. These measures must be approved before a community may request well construction approval from the Department of Health or before requesting an increase in water appropriations permit volume ([Minnesota Statutes, section 103G.291, subd. 3 and 4](#)). Rates should be adjusted on a regular basis to ensure that revenue of

the system is adequate under reduced demand scenarios. If a municipal water supplier intends to use a Uniform Rate Structure, a community-wide Water Conservation Program that will achieve demand reduction must be provided.

### ***Current Water Rates***

Include a copy of the actual rate structure in **Appendix 9** or list current water rates including base/service fees and volume charges below.

Volume included in base rate or service charge: 0 gallons or \_\_\_\_ cubic feet \_\_\_\_ other

Frequency of billing: ☐ Monthly ☒ Bimonthly ☐ Quarterly ☐ Other: \_\_\_\_\_

Water Rate Evaluation Frequency: ☒ every year ☐ every \_\_\_\_ years ☐ no schedule

Date of last rate change: March, 2017

**Table 27. Rate structures for each customer category (Select all that apply and add additional rows as needed)**

<b>Customer Category</b>	<b>Conservation Billing Strategies in Use *</b>	<b>Conservation Neutral Billing Strategies in Use **</b>	<b>Non-Conserving Billing Strategies in Use ***</b>
Residential	<input type="checkbox"/> Monthly billing <input checked="" type="checkbox"/> Increasing block rates (volume tiered rates) <input type="checkbox"/> Seasonal rates <input type="checkbox"/> Time of use rates <input checked="" type="checkbox"/> Water bills reported in gallons <input type="checkbox"/> Individualized goal rates <input type="checkbox"/> Excess use rates <input type="checkbox"/> Drought surcharge <input type="checkbox"/> Use water bill to provide comparisons <input type="checkbox"/> Service charge not based on water volume <input type="checkbox"/> Other (describe)	<input type="checkbox"/> Uniform <input type="checkbox"/> Odd/even day watering	<input type="checkbox"/> Service charge based on water volume <input type="checkbox"/> Declining block <input type="checkbox"/> Flat <input type="checkbox"/> Other (describe)
Commercial/ Industrial/ Institutional	<input type="checkbox"/> Monthly billing <input checked="" type="checkbox"/> Increasing block rates (volume tiered rates) <input type="checkbox"/> Seasonal rates <input type="checkbox"/> Time of use rates <input checked="" type="checkbox"/> Water bills reported in gallons <input type="checkbox"/> Individualized goal rates <input type="checkbox"/> Excess use rates <input type="checkbox"/> Drought surcharge <input type="checkbox"/> Use water bill to provide comparisons <input type="checkbox"/> Service charge not based on water volume <input type="checkbox"/> Other (describe)	<input type="checkbox"/> Uniform	<input type="checkbox"/> Service charge based on water volume <input type="checkbox"/> Declining block <input type="checkbox"/> Flat <input type="checkbox"/> Other (describe)

Customer Category	Conservation Billing Strategies in Use *	Conservation Neutral Billing Strategies in Use **	Non-Conserving Billing Strategies in Use ***
<input type="checkbox"/> Other			

**\* Rate Structures components that may promote water conservation:**

- **Monthly billing:** is encouraged to help people see their water usage so they can consider changing behavior.
- **Increasing block rates (also known as a tiered residential rate structure):** Typically, these have at least three tiers: should have at least three tiers.
  - The first tier is for the winter average water use.
  - The second tier is the year-round average use, which is lower than typical summer use. This rate should be set to cover the full cost of service.
  - The third tier should be above the average annual use and should be priced high enough to encourage conservation, as should any higher tiers. For this to be effective, the difference in block rates should be significant.
- **Seasonal rate:** higher rates in summer to reduce peak demands
- **Time of Use rates:** lower rates for off peak water use
- **Bill water use in gallons:** this allows customers to compare their use to average rates
- **Individualized goal rates:** typically used for industry, business or other large water users to promote water conservation if they keep within agreed upon goals. **Excess Use rates:** if water use goes above an agreed upon amount this higher rate is charged
- **Drought surcharge:** an extra fee is charged for guaranteed water use during drought
- **Use water bill to provide comparisons:** simple graphics comparing individual use over time or compare individual use to others.
- **Service charge or base fee that does not include a water volume** – a base charge or fee to cover universal city expenses that are not customer dependent and/or to provide minimal water at a lower rate (e.g., an amount less than the average residential per capita demand for the water supplier for the last 5 years)
- **Emergency rates** -A community may have a separate conservation rate that only goes into effect when the community or governor declares a drought emergency. These higher rates can help to protect the city budgets during times of significantly less water usage.

**\*\*Conservation Neutral\*\***

- **Uniform rate:** rate per unit used is the same regardless of the volume used
- **Odd/even day watering** –This approach reduces peak demand on a daily basis for system operation, but it does not reduce overall water use.

**\*\*\* Non-Conserving \*\*\***

- **Service charge or base fee with water volume:** an amount of water larger than the average residential per capita demand for the water supplier for the last 5 years
- **Declining block rate:** the rate per unit used decreases as water use increases.
- **Flat rate:** one fee regardless of how much water is used (usually unmetered).

Provide justification for any conservation neutral or non-conserving rate structures. If intending to adopt a conservation rate structure, include the timeframe to do so:

--

## Objective 7: Additional strategies to Reduce Water Use and Support Wellhead Protection Planning

Development and redevelopment projects can provide additional water conservation opportunities, such as the actions listed below. If a Uniform Rate Structure is in place, the water supplier must provide a Water Conservation Program that includes at least two of the actions listed below. Check those actions that you intent to implement within the next 10 years.

**Table 28. Additional strategies to Reduce Water Use & Support Wellhead Protection**

<input type="checkbox"/>	Participate in the GreenStep Cities Program, including implementation of at least one of the 20 “Best Practices” for water
<input checked="" type="checkbox"/>	Prepare a master plan for smart growth (compact urban growth that avoids sprawl)
<input checked="" type="checkbox"/>	Prepare a comprehensive open space plan (areas for parks, green spaces, natural areas)
<input type="checkbox"/>	Adopt a water use restriction ordinance (lawn irrigation, car washing, pools, etc.)
<input checked="" type="checkbox"/>	Adopt an outdoor lawn irrigation ordinance
<input type="checkbox"/>	Adopt a private well ordinance (private wells in a city must comply with water restrictions)
<input type="checkbox"/>	Implement a stormwater management program
<input type="checkbox"/>	Adopt non-zoning wetlands ordinance (can further protect wetlands beyond state/federal laws- for vernal pools, buffer areas, restrictions on filling or alterations)
<input type="checkbox"/>	Adopt a water offset program (primarily for new development or expansion)
<input type="checkbox"/>	Implement a water conservation outreach program
<input type="checkbox"/>	Hire a water conservation coordinator (part-time)
<input type="checkbox"/>	Implement a rebate program for water efficient appliances, fixtures, or outdoor water management
<input type="checkbox"/>	Other

**Objective 8: Tracking Success: How will you track or measure success through the next ten years?**

The City of Dayton will continue to monitor water the city wide usage rates and their per capita water usage rates. As there are relatively few commercial/industrial users within the service area, the primary category which will be monitored for improvement will be the residential usage. The City will monitor usage before and after any ordinances to help understand if any tangible impacts can be identified from the ordinance being implemented.

***Tip: The process to monitor demand reduction and/or a rate structure includes:***

- a) The DNR Hydrologist will call or visit the community the first 1-3 years after the water supply plan is completed.
- b) They will discuss what activities the community is doing to conserve water and if they feel their actions are successful. The Water Supply Plan, Part 3 tables and responses will guide the discussion. For example, they will discuss efforts to reduce unaccounted for water loss if that is a problem, or go through Tables 33, 34 and 35 to discuss new initiatives.
- c) The city representative and the hydrologist will discuss total per capita water use, residential per capita water use, and business/industry use. They will note trends.
- d) They will also discuss options for improvement and/or collect case studies of success stories to share with other communities. One option may be to change the rate structure, but there are many other paths to successful water conservation.
- e) If appropriate, they will cooperatively develop a simple work plan for the next few years, targeting a couple areas where the city might focus efforts.

## C. Regulation

Complete Table 29 by selecting which regulations are used to reduce demand and improve water efficiencies. Add additional rows as needed.

Copies of adopted regulations or proposed restrictions or should be included in **Appendix 10** (a list with hyperlinks is acceptable).

**Table 29. Regulations for short-term reductions in demand and long-term improvements in water efficiencies**

Regulations Utilized	When is it applied (in effect)?
<input type="checkbox"/> Rainfall sensors required on landscape irrigation systems	<input type="checkbox"/> Ongoing <input type="checkbox"/> Seasonal <input type="checkbox"/> Only during declared Emergencies
<input type="checkbox"/> Water efficient plumbing fixtures required	<input type="checkbox"/> New development <input type="checkbox"/> Replacement <input type="checkbox"/> Rebate Programs
<input checked="" type="checkbox"/> Critical/Emergency Water Deficiency ordinance	<input checked="" type="checkbox"/> Only during declared Emergencies
<input type="checkbox"/> Watering restriction requirements (time of day, allowable days, etc.)	<input type="checkbox"/> Odd/even <input type="checkbox"/> 2 days/week <input type="checkbox"/> Only during declared Emergencies
<input type="checkbox"/> Water waste prohibited (for example, having a fine for irrigators spraying on the street)	<input type="checkbox"/> Ongoing <input type="checkbox"/> Seasonal <input type="checkbox"/> Only during declared Emergencies
<input checked="" type="checkbox"/> Limitations on turf areas (requiring lots to have 10% - 25% of the space in natural areas)	<input checked="" type="checkbox"/> New development <input type="checkbox"/> Shoreland/zoning <input type="checkbox"/> Other
<input type="checkbox"/> Soil preparation requirements (after construction, requiring topsoil to be applied to promote good root growth)	<input type="checkbox"/> New Development <input type="checkbox"/> Construction Projects <input type="checkbox"/> Other
<input checked="" type="checkbox"/> Tree ratios (requiring a certain number of trees per square foot of lawn)	<input checked="" type="checkbox"/> New development <input type="checkbox"/> Shoreland/zoning <input type="checkbox"/> Other
<input type="checkbox"/> Permit to fill swimming pool and/or requiring pools to be covered (to prevent evaporation)	<input type="checkbox"/> Ongoing <input type="checkbox"/> Seasonal <input type="checkbox"/> Only during declared Emergencies
<input type="checkbox"/> Ordinances that permit stormwater irrigation, reuse of water, or other alternative water use (Note: be sure to check current plumbing codes for updates)	<input type="checkbox"/> Describe

## D. Retrofitting Programs

Education and incentive programs aimed at replacing inefficient plumbing fixtures and appliances can help reduce per capita water use, as well as energy costs. It is recommended that municipal water suppliers develop a long-term plan to retrofit public buildings with water efficient plumbing fixtures and appliances. Some water suppliers have developed partnerships with organizations having similar conservation goals, such as electric or gas suppliers, to develop cooperative rebate and retrofit programs.

A study by the AWWA Research Foundation (Residential End Uses of Water, 1999) found that the average indoor water use for a non-conserving home is 69.3 gallons per capita per day (gpcd). The average indoor water use in a conserving home is 45.2 gpcd and most of the decrease in water use is related to water efficient plumbing fixtures and appliances that can reduce water, sewer and energy costs. In Minnesota, certain electric and gas providers are required (Minnesota Statute 216B.241) to fund programs that will conserve energy resources and some utilities have distributed water efficient showerheads to customers to help reduce energy demands required to supply hot water.

### Retrofitting Programs

Complete Table 30 by checking which water uses are targeted, the outreach methods used, the measures used to identify success, and any participating partners.

**Table 30. Retrofitting programs (Select all that apply)**

Water Use Targets	Outreach Methods	Partners
<input type="checkbox"/> Low flush toilets, <input type="checkbox"/> Toilet leak tablets, <input type="checkbox"/> Low flow showerheads, <input type="checkbox"/> Faucet aerators;	<input type="checkbox"/> Education about <input type="checkbox"/> Free distribution of <input type="checkbox"/> Rebate for <input type="checkbox"/> Other	<input type="checkbox"/> Gas company <input type="checkbox"/> Electric company <input type="checkbox"/> Watershed organization
<input type="checkbox"/> Water conserving washing machines, <input type="checkbox"/> Dish washers, <input type="checkbox"/> Water softeners;	<input type="checkbox"/> Education about <input type="checkbox"/> Free distribution of <input type="checkbox"/> Rebate for <input type="checkbox"/> Other	<input type="checkbox"/> Gas company <input type="checkbox"/> Electric company <input type="checkbox"/> Watershed organization
<input type="checkbox"/> Rain gardens, <input type="checkbox"/> Rain barrels, <input type="checkbox"/> Native/drought tolerant landscaping, etc.	<input type="checkbox"/> Education about <input type="checkbox"/> Free distribution of <input type="checkbox"/> Rebate for <input type="checkbox"/> Other	<input type="checkbox"/> Gas company <input type="checkbox"/> Electric company <input type="checkbox"/> Watershed organization

Briefly discuss measures of success from the above table (e.g. number of items distributed, dollar value of rebates, gallons of water conserved, etc.):

Currently none apply

### E. Education and Information Programs

Customer education should take place in three different circumstances. First, customers should be provided information on how to conserve water and improve water use efficiencies. Second, information should be provided at appropriate times to address peak demands. Third, emergency notices and educational materials about how to reduce water use should be available for quick distribution during an emergency.

### Proposed Education Programs

Complete Table 31 by selecting which methods are used to provide water conservation and information, including the frequency of program components. Select all that apply and add additional lines as needed.

**Table 31. Current and Proposed Education Programs**

Education Methods	General summary of topics	#/Year	Frequency
Billing inserts or tips printed on the actual bill			<input type="checkbox"/> Ongoing <input type="checkbox"/> Seasonal <input type="checkbox"/> Only during declared emergencies
Consumer Confidence Reports	Water quality information for the water supplied via the City of Dayton Wells.	1	<input checked="" type="checkbox"/> Ongoing <input type="checkbox"/> Seasonal <input type="checkbox"/> Only during declared emergencies
Press releases to traditional local news outlets (e.g., newspapers, radio and TV)			<input type="checkbox"/> Ongoing <input type="checkbox"/> Seasonal <input type="checkbox"/> Only during declared emergencies
Social media distribution (e.g., emails, Facebook, Twitter)			<input type="checkbox"/> Ongoing <input type="checkbox"/> Seasonal <input type="checkbox"/> Only during declared emergencies
Paid advertisements (e.g., billboards, print media, TV, radio, web sites, etc.)			<input type="checkbox"/> Ongoing <input type="checkbox"/> Seasonal <input type="checkbox"/> Only during declared emergencies
Presentations to community groups			<input type="checkbox"/> Ongoing <input type="checkbox"/> Seasonal <input type="checkbox"/> Only during declared emergencies
Staff training			<input type="checkbox"/> Ongoing <input type="checkbox"/> Seasonal <input type="checkbox"/> Only during declared emergencies
Facility tours			<input type="checkbox"/> Ongoing <input type="checkbox"/> Seasonal <input type="checkbox"/> Only during declared emergencies
Displays and exhibits			<input type="checkbox"/> Ongoing <input type="checkbox"/> Seasonal <input type="checkbox"/> Only during declared emergencies
Marketing rebate programs (e.g., indoor fixtures & appliances and outdoor practices)			<input type="checkbox"/> Ongoing <input type="checkbox"/> Seasonal <input type="checkbox"/> Only during declared emergencies
Community news letters	Any new ordinances as well as water conservation info/tips for residents	1	<input checked="" type="checkbox"/> Ongoing <input type="checkbox"/> Seasonal <input type="checkbox"/> Only during declared emergencies

Education Methods	General summary of topics	#/Year	Frequency
Direct mailings (water audit/retrofit kits, showerheads, brochures)			<input type="checkbox"/> Ongoing <input type="checkbox"/> Seasonal <input type="checkbox"/> Only during declared emergencies
Information kiosk at utility and public buildings			<input type="checkbox"/> Ongoing <input type="checkbox"/> Seasonal <input type="checkbox"/> Only during declared emergencies
Public service announcements			<input type="checkbox"/> Ongoing <input type="checkbox"/> Seasonal <input type="checkbox"/> Only during declared emergencies
Cable TV Programs			<input type="checkbox"/> Ongoing <input type="checkbox"/> Seasonal <input type="checkbox"/> Only during declared emergencies
Demonstration projects (landscaping or plumbing)			<input type="checkbox"/> Ongoing <input type="checkbox"/> Seasonal <input type="checkbox"/> Only during declared emergencies
K-12 education programs (Project Wet, Drinking Water Institute, presentations)			<input type="checkbox"/> Ongoing <input type="checkbox"/> Seasonal <input type="checkbox"/> Only during declared emergencies
Community events (children's water festivals, environmental fairs)			<input type="checkbox"/> Ongoing <input type="checkbox"/> Seasonal <input type="checkbox"/> Only during declared emergencies
Community education classes			<input type="checkbox"/> Ongoing <input type="checkbox"/> Seasonal <input type="checkbox"/> Only during declared emergencies
Water week promotions			<input type="checkbox"/> Ongoing <input type="checkbox"/> Seasonal <input type="checkbox"/> Only during declared emergencies
Website (include address: <a href="http://www.cityofdaytonmn.com">www.cityofdaytonmn.com</a> )	Water quality info, water conservation pamphlets, consumer confidence reports, flushing schedules	variable	<input checked="" type="checkbox"/> Ongoing <input type="checkbox"/> Seasonal <input type="checkbox"/> Only during declared emergencies
Targeted efforts (large volume users, users with large increases)			<input type="checkbox"/> Ongoing <input type="checkbox"/> Seasonal <input type="checkbox"/> Only during declared emergencies
Notices of ordinances	Critical Water Deficiency Ordinance as well as future watering control ordinance.	variable	<input checked="" type="checkbox"/> Ongoing <input type="checkbox"/> Seasonal <input type="checkbox"/> Only during declared emergencies

Education Methods	General summary of topics	#/Year	Frequency
Emergency conservation notices	If required		<input type="checkbox"/> Ongoing <input type="checkbox"/> Seasonal <input checked="" type="checkbox"/> Only during declared emergencies
Other:			<input type="checkbox"/> Ongoing <input type="checkbox"/> Seasonal <input type="checkbox"/> Only during declared emergencies

Briefly discuss what future education and information activities your community is considering in the future:

Considering adding some water conservation videos to community on-demand website.

## **PART 4. ITEMS FOR METROPOLITAN AREA COMMUNITIES**

Minnesota Statute 473.859 requires WSPs to be completed for all local units of government in the seven-county Metropolitan Area as part of the local comprehensive planning process.



Much of the information in Parts 1-3 addresses water demand for the next 10 years. However, additional information is needed to address water demand through 2040, which will make the WSP consistent with the Metropolitan Land Use Planning Act, upon which the local comprehensive plans are based.

This Part 4 provides guidance to complete the WSP in a way that addresses plans for water supply through 2040.

### **A. Water Demand Projections through 2040**

Complete Table 7 in Part 1D by filling in information about long-term water demand projections through 2040. Total Community Population projections should be consistent with the community's system statement, which can be found on the Metropolitan Council's website and which was sent to the community in September 2015.

Projected Average Day, Maximum Day, and Annual Water Demands may either be calculated using the method outlined in *Appendix 2* of the *2015 Master Water Supply Plan* or by a method developed by the individual water supplier.

### **B. Potential Water Supply Issues**

Complete Table 10 in Part 1E by providing information about the potential water supply issues in your community, including those that might occur due to 2040 projected water use.

The [Master Water Supply Plan](#) provides information about potential issues for your community in *Appendix 1 (Water Supply Profiles)*. This resource may be useful in completing Table 10.

You may document results of local work done to evaluate impact of planned uses by attaching a feasibility assessment or providing a citation and link to where the plan is available electronically.

### **C. Proposed Alternative Approaches to Meet Extended Water Demand Projections**

Complete Table 12 in Part 1F with information about potential water supply infrastructure impacts (such as replacements, expansions or additions to wells/intakes, water storage and treatment capacity, distribution systems, and emergency interconnections) of extended plans for development and redevelopment, in 10-year increments through 2040. It may be useful to refer to information in the community's local Land Use Plan, if available.

Complete Table 14 in Part 1F by checking each approach your community is considering to meet future demand. For each approach your community is considering, provide information about the amount of

future water demand to be met using that approach, the timeframe to implement the approach, potential partners, and current understanding of the key benefits and challenges of the approach.

As challenges are being discussed, consider the need for: evaluation of geologic conditions (mapping, aquifer tests, modeling), identification of areas where domestic wells could be impacted, measurement and analysis of water levels & pumping rates, triggers & associated actions to protect water levels, etc.

#### **D. Value-Added Water Supply Planning Efforts (Optional)**

The following information is not required to be completed as part of the local water supply plan, but completing this can help strengthen source water protection throughout the region and help Metropolitan Council and partners in the region to better support local efforts.

##### **Source Water Protection Strategies**

**Does a Drinking Water Supply Management Area for a neighboring public water supplier overlap your community?** Yes ☐ No ☐

If you answered no, skip this section. If you answered yes, please complete Table 32 with information about new water demand or land use planning-related local controls that are being considered to provide additional protection in this area.

**Table 32. Local controls and schedule to protect Drinking Water Supply Management Areas**

<b>Local Control</b>	<b>Schedule to Implement</b>	<b>Potential Partners</b>
<input type="checkbox"/> None at this time		
<input type="checkbox"/> Comprehensive planning that guides development in vulnerable drinking water supply management areas		
<input type="checkbox"/> Zoning overlay		
<input type="checkbox"/> Other:		

##### **Technical assistance**

From your community's perspective, what are the most important topics for the Metropolitan Council to address, guided by the region's Metropolitan Area Water Supply Advisory Committee and Technical Advisory Committee, as part of its ongoing water supply planning role?

- ☐ Coordination of state, regional and local water supply planning roles
- ☐ Regional water use goals
- ☐ Water use reporting standards
- ☐ Regional and sub-regional partnership opportunities
- ☐ Identifying and prioritizing data gaps and input for regional and sub-regional analyses
- ☐ Others: \_\_\_\_\_

## GLOSSARY

**Agricultural/Irrigation Water Use** - Water used for crop and non-crop irrigation, livestock watering, chemigation, golf course irrigation, landscape and athletic field irrigation.

**Average Daily Demand** - The total water pumped during the year divided by 365 days.

**Calcareous Fen** - Calcareous fens are rare and distinctive wetlands dependent on a constant supply of cold groundwater. Because they are dependent on groundwater and are one of the rarest natural communities in the United States, they are a protected resource in MN. Approximately 200 have been located in Minnesota. They may not be filled, drained or otherwise degraded.

**Commercial/Institutional Water Use** - Water used by motels, hotels, restaurants, office buildings, commercial facilities and institutions (both civilian and military). Consider maintaining separate institutional water use records for emergency planning and allocation purposes. Water used by multi-family dwellings, apartment buildings, senior housing complexes, and mobile home parks should be reported as Residential Water Use.

**Commercial/Institutional/Industrial (C/I/I) Water Sold** - The sum of water delivered for commercial/institutional or industrial purposes.

**Conservation Rate Structure** - A rate structure that encourages conservation and may include increasing block rates, seasonal rates, time of use rates, individualized goal rates, or excess use rates. If a conservation rate is applied to multifamily dwellings, the rate structure must consider each residential unit as an individual user. A community may have a separate conservation rate that only goes into effect when the community or governor declares a drought emergency. These higher rates can help to protect the city budgets during times of significantly less water usage.

**Date of Maximum Daily Demand** - The date of the maximum (highest) water demand. Typically this is a day in July or August.

**Declining Rate Structure** - Under a declining block rate structure, a consumer pays less per additional unit of water as usage increases. This rate structure does not promote water conservation.

**Distribution System** - Water distribution systems consist of an interconnected series of pipes, valves, storage facilities (water tanks, water towers, reservoirs), water purification facilities, pumping stations, flushing hydrants, and components that convey drinking water and meeting fire protection needs for cities, homes, schools, hospitals, businesses, industries and other facilities.

**Flat Rate Structure** - Flat fee rates do not vary by customer characteristics or water usage. This rate structure does not promote water conservation.

**Industrial Water Use** - Water used for thermonuclear power (electric utility generation) and other industrial use such as steel, chemical and allied products, paper and allied products, mining, and petroleum refining.

**Low Flow Fixtures/Appliances** - Plumbing fixtures and appliances that significantly reduce the amount of water released per use are labeled “low flow”. These fixtures and appliances use just enough water to be effective, saving excess, clean drinking water that usually goes down the drain.

**Maximum Daily Demand** - The maximum (highest) amount of water used in one day.

**Metered Residential Connections** - The number of residential connections to the water system that have meters. For multifamily dwellings, report each residential unit as an individual user.

**Percent Unmetered/Unaccounted For** - Unaccounted for water use is the volume of water withdrawn from all sources minus the volume of water delivered. This value represents water “lost” by miscalculated water use due to inaccurate meters, water lost through leaks, or water that is used but unmetered or otherwise undocumented. Water used for public services such as hydrant flushing, ice skating rinks, and public swimming pools should be reported under the category “Water Supplier Services”.

**Population Served** - The number of people who are served by the community's public water supply system. This includes the number of people in the community who are connected to the public water supply system, as well as people in neighboring communities who use water supplied by the community's public water supply system. It should not include residents in the community who have private wells or get their water from neighboring water supply.

**Residential Connections** - The total number of residential connections to the water system. For multifamily dwellings, report each residential unit as an individual user.

**Residential Per Capita Demand** - The total residential water delivered during the year divided by the population served divided by 365 days.

**Residential Water Use** - Water used for normal household purposes such as drinking, food preparation, bathing, washing clothes and dishes, flushing toilets, and watering lawns and gardens. Should include all water delivered to single family private residences, multi-family dwellings, apartment buildings, senior housing complexes, mobile home parks, etc.

**Smart Meter** - Smart meters can be used by municipalities or by individual homeowners. Smart metering generally indicates the presence of one or more of the following:

- Smart irrigation water meters are controllers that look at factors such as weather, soil, slope, etc. and adjust watering time up or down based on data. Smart controllers in a typical summer will reduce water use by 30%-50%. Just changing the spray nozzle to new efficient models can reduce water use by 40%.
- Smart Meters on customer premises that measure consumption during specific time periods and communicate it to the utility, often on a daily basis.
- A communication channel that permits the utility, at a minimum, to obtain meter reads on demand, to ascertain whether water has recently been flowing through the meter and onto the premises, and to issue commands to the meter to perform specific tasks such as disconnecting or restricting water flow.

**Total Connections** - The number of connections to the public water supply system.

**Total Per Capita Demand** - The total amount of water withdrawn from all water supply sources during the year divided by the population served divided by 365 days.

**Total Water Pumped** - The cumulative amount of water withdrawn from all water supply sources during the year.

**Total Water Delivered** - The sum of residential, commercial, industrial, institutional, water supplier services, wholesale and other water delivered.

**Ultimate (Full Build-Out)** - Time period representing the community's estimated total amount and location of potential development, or when the community is fully built out at the final planned density.

**Unaccounted (Non-revenue) Loss** - See definitions for "percent unmetered/unaccounted for loss".

**Uniform Rate Structure** - A uniform rate structure charges the same price-per-unit for water usage beyond the fixed customer charge, which covers some fixed costs. The rate sends a price signal to the customer because the water bill will vary by usage. Uniform rates by class charge the same price-per-unit for all customers within a customer class (e.g. residential or non-residential). This price structure is generally considered less effective in encouraging water conservation.

**Water Supplier Services** - Water used for public services such as hydrant flushing, ice skating rinks, public swimming pools, city park irrigation, back-flushing at water treatment facilities, and/or other uses.

**Water Used for Nonessential Purposes** - Water used for lawn irrigation, golf course and park irrigation, car washes, ornamental fountains, and other non-essential uses.

**Wholesale Deliveries** - The amount of water delivered in bulk to other public water suppliers.

## Acronyms and Initialisms

**AWWA** – American Water Works Association  
**C/I/I** – Commercial/Institutional/Industrial  
**CIP** – Capital Improvement Plan  
**GIS** – Geographic Information System  
**GPCD** – Gallons per capita per day  
**GWMA** – Groundwater Management Area – North and East Metro, Straight River, Bonanza,  
**MDH** – Minnesota Department of Health  
**MGD** – Million gallons per day

**MG** – Million gallons  
**MGL** – Maximum Contaminant Level  
**MnTAP** – Minnesota Technical Assistance Program (University of Minnesota)  
**MPARS** – MN/DNR Permitting and Reporting System (new electronic permitting system)  
**MRWA** – Minnesota Rural Waters Association  
**SWP** – Source Water Protection  
**WHP** – Wellhead Protection

## APPENDICES TO BE SUBMITTED BY THE WATER SUPPLIER

### Appendix 1: Well records and maintenance summaries

Go to [Part 1C](#) for information on what to include in appendix

### Appendix 2: Water level monitoring plan

Go to [Part 1E](#) for information on what to include in appendix

### Appendix 3: Water level graphs for each water supply well

Go to [Part 1E](#) for information on what to include in appendix

### Appendix 4: Capital Improvement Plan

Go to [Part 1E](#) for information on what to include in appendix

### Appendix 5: Emergency Telephone List

Go to [Part 2C](#) for information on what to include in appendix

### Appendix 6: Cooperative Agreements for Emergency Services

Go to [Part 2C](#) for information on what to include in appendix

### Appendix 7: Municipal Critical Water Deficiency Ordinance

Go to [Part 2C](#) for information on what to include in appendix

### Appendix 8: Graph of Ten Years of Annual Per Capita Water Demand for Each Customer Category

Go to [Objective 4 in Part 3B](#) for information on what to include in appendix

### Appendix 9: Water Rate Structure

Go to [Objective 6 in Part 3B](#) for information on what to include in appendix

### Appendix 10: Ordinances or Regulations Related to Water Use

Go to [Objective 7 in Part 3B](#) for information on what to include in appendix

### Appendix 11: Implementation Checklist

Provide a table that summarizes all the actions that the public water supplier is doing, or proposes to do, with estimated implementation dates.

### Appendix 12: Sources of Information for Table 10

Provide links or references to the information used to complete Table 10. If the file size is reasonable, provide source information as attachments to the plan.

# Local Water Management Plan October 2018



*Prepared for:*  
**City of Dayton, MN**

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# City of Dayton, Minnesota

## Local Water Management Plan

Adopted October 24, 2018

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### **APPENDICES**

Appendix A. Joint Power Agreements

## Acronyms and Useful Terms

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AIS	Aquatic Invasive Species
BMP	Best Management Practice
BWSR	Board of Water and Soil Resources
Chl- <i>a</i>	Chlorophyll- <i>a</i>
CIP	Capital Improvement Program
DWSMA	Drinking Water Supply Management Area
ECWMC	Elm Creek Watershed Management Commission
EWR	MDNR's Ecological and Water Resources Division
EPA	United States Environmental Protection Agency
FIRM	Flood Insurance Rate Map
FIS	Flood Insurance Study
ISTS	Individual Sewage Treatment Systems
JPA	Joint Powers Agreement
LGU	Local Government Unit
LWMP	Local Water Management Plan
MDH	Minnesota Department of Health
µg/L	Micrograms per liter
mg/L	Milligrams per liter
MDNR	Minnesota Department of Natural Resources
MIDS	Minimal Impact Design Standards
MOU	Memorandum of Understanding
MPCA	Minnesota Pollution Control Agency
MS4	Municipal Separate Storm Sewer System
NFIP	National Flood Insurance Program
NPDES	National Pollutant Discharge Elimination System
SD	Secchi depth
SWPPP	Storm Water Pollution Prevention Program
TEP	Technical Evaluation Panel
TMDL	Total Maximum Daily Load
TP	Total phosphorus
UMRB	Upper Mississippi River Basin
WCA	Wetland Conservation Act
WHPA	Wellhead Protection Area
WHPP	Wellhead Protection Plan
WMC	Watershed Management Commission
WRAPS	Watershed Restoration and Protection Strategies

## Executive Summary

---

The City of Dayton, Minnesota is located in northern Hennepin County (Figure ES.1). The City is approximately 25 square miles and is bordered by the Crow and Mississippi Rivers to the north, Champlin to the east, Maple Grove to the south, and Rogers to the west. The City lies completely within the jurisdiction of Elm Creek Watershed Management Commission.

This Local Water Management Plan (LWMP) was prepared in conformance with Minnesota Statutes 103B.235 and Minnesota Rules 8410. This plan is intended to provide the City of Dayton with information and direction in the administration and implementation of water resource management activities within the City during the period 2018- 2027. It serves as a guide to projects, provides for effective allocation of resources, and sets forth a funding plan for projects and programs over the next 5 to 10 years.

### Issues

A number of water resources-related issues were identified in this planning process. These include:

- ▲ Some of the lakes and streams in the City do not meet the state's water quality standards for recreation and aquatic life.
- ▲ Development can cause flooding, if not properly planned for.
- ▲ Groundwater stores could diminish without efforts to promote groundwater recharge.
- ▲ Wetlands provide numerous benefits and should be protected and preserved.
- ▲ The amount of sediment from construction sites and from eroding streambanks entering surface waters must be minimized.
- ▲ Aquatic vegetation management, especially of invasive aquatic vegetation, is necessary.
- ▲ The Mississippi River Critical Area Corridor must be protected according to state and federal requirements.
- ▲ NPDES Phase II MS4 Permit requirements should be implemented despite limited budget, requiring prioritization of resources.
- ▲ City ordinance updates are necessary to ensure consistency with new and updated requirements of pertinent government entities.
- ▲ Education and outreach opportunities could be expanded.
- ▲ Stormwater-related maintenance is needed on an ongoing basis, such as street sweeping, sump manhole cleaning, and regular stormwater facility inspections.
- ▲ Financial resources are limited, requiring that certain projects be prioritized.

### Goals

The LWMP updates the City's goals and related policies to address the problems and issues that were evaluated for the updated LWMP. The goals are as follows:

- Goal 1.** Identify and plan for means to effectively protect and improve water quality.
- Goal 2.** Protect, preserve, and manage natural surface and constructed retention systems to control excessive volumes and rates of runoff and prevent flooding.
- Goal 3.** Enhance groundwater recharge.



Responsive partner. Exceptional outcomes.

- Goal 4.** Protect and preserve wetlands through administration of the Wetland Conservation Act.
- Goal 5.** Control or manage sediment discharge into surface waters and drainageways.
- Goal 6.** Protect and enhance fish and wildlife habitat and water related recreational amenities.
- Goal 7.** Manage the City's surface waters consistent with best practices and the City's NPDES MS4 Permit's SWPPP.
- Goal 8.** Manage the City's surface waters consistent with other state and federal requirements.
- Goal 9.** Inform the public about urban stormwater management and potential pollutants according to the requirements of the City's NPDES MS4 permit.

### **Implementation Plan**

This LWMP includes an Implementation Plan to help achieve the above goals through regulations, education, maintenance activities, capital projects, and special studies.

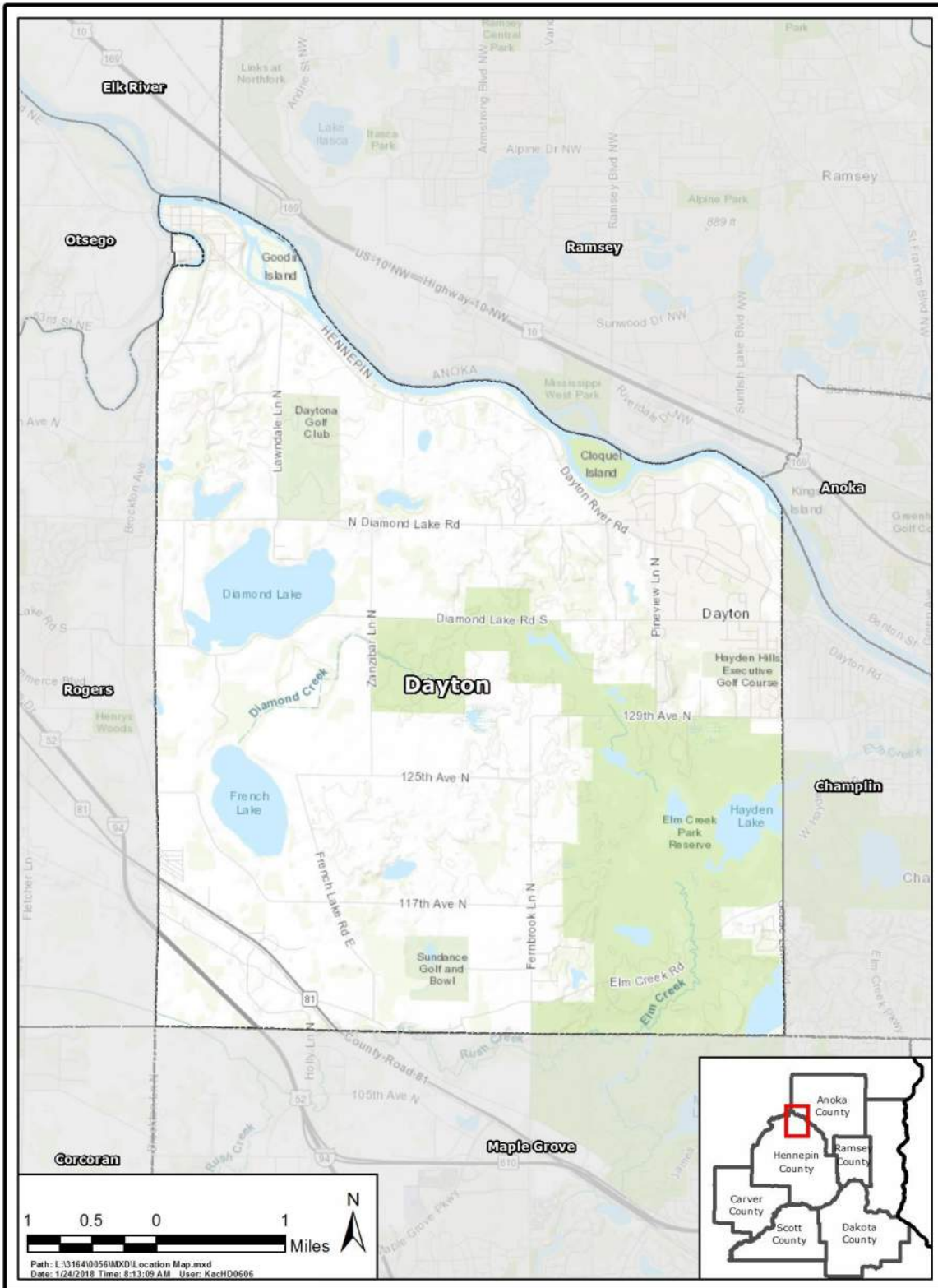
*Regulatory Program.* Dayton has enacted numerous policies and ordinances regulating and managing water resources. These policies and ordinances aim to be consistent with local, state and federal agencies that regulate water resources in Dayton, including the Elm Creek Watershed Management Commission, the MDNR, the MPCA and the MDH.

*Education and Outreach.* Dayton carries out education and outreach activities in accordance with MS4 requirements. These activities include maintaining stormwater educational materials on the City's website, distributing brochures at public facilities, conducting annual public meetings, and other activities that help achieve Dayton's goals and policies.

*Maintenance Activities.* The City conducts general operations and maintenance activities, some of which are required by the NPDES Phase II Permit. These activities include stormwater pond inspections, street sweeping, catch basin inspection, illicit discharge detection and others.

*Capital Projects.* The City has proposed several capital projects that help address identified issues and achieve goals and policies. Table 6.1 outlines these projects, but among the projects are construction of several stormwater ponds, streambank stabilization projects and a feasibility study for the restoration of Diamond Lake.

*Additional Actions.* Table 6.2 lists a number of actions that the City plans to execute in order to address the water resource issues identified in this LWMP. Some of these actions are regulatory, educational, maintenance-related or capital projects, but others do not fit in the above categories and are specific solutions to identified City issues.



**Figure ES.1. Location of the City of Dayton.**

# 1.0 Introduction

---

## 1.1 PURPOSE

This Local Water Management Plan (LWMP) describes how the City of Dayton will fulfill the requirements of Minnesota Statutes 103B.235 and Minnesota Rules 8410 in the management of the water resources within the City. It is a summary of the City's management goals and policies, and strategies, including a capital improvement program and review of local policies and ordinances. The content requirements of LWMPs per Minnesota Statute 103B.235 are:

1. Describe the existing and proposed physical environment and land use;
2. Define drainage areas and the volumes, rates, and paths of stormwater runoff;
3. Identify areas and elevations for stormwater storage adequate to meet performance standards established in the watershed plan;
4. Identify regulated areas; and
5. Set forth an implementation program, including a description of official controls and, as appropriate, a capital improvement program.

Further, per Minnesota Rules 8410.0160 contents of LWMPs must contain the following:

1. An executive summary that summarizes the highlights of the local water plan;
2. Appropriate water resource management-related agreements that have been entered into by the local community including joint powers agreements related to water management;
3. The existing and proposed physical environment and land use must be described. Drainage areas and the volumes, rates and paths of stormwater runoff must be defined;
4. An assessment of existing or potential water resource-related problems must be summarized; and
5. A local implementation program through the year the local water plan extends must describe nonstructural, programmatic, and structural solutions to problems identified in item 4 above.

Minnesota statutes and administrative rules also require that City water resources management be consistent with the goals and requirements of the watershed districts having land within its borders. The City is situated entirely within the jurisdictional boundaries of the Elm Creek Watershed Management Commission.

## 1.2 RELATIONSHIP TO OTHER CITY PLANS

The LWMP is intended to comprehensively address surface water management, and elements will be incorporated into the City of Dayton's 2040 Comprehensive Plan. The Stormwater Pollution Prevention Plan (SWPPP) and Wellhead Protection Plan (WHPP) are separate from the LWMP.

### **1.2.1 Comprehensive Plan**

The 2030 Comprehensive Plan was completed in 2008. The City of Dayton is currently updating its Comprehensive Plan per the 2040 Metropolitan Council requirements. The City was granted an extension to complete the Plan by December 31, 2019. The plan update is considered complete when it includes the elements required by statute and contains sufficient information that ensures conformance with metropolitan system plans, is consistent with adopted regional plans and is compatible with plans of affected and adjacent jurisdictions.

### **1.2.2 Storm Water Pollution Prevention Program**

Dayton is regulated by the State of Minnesota's National Pollutant Discharge Elimination System (NPDES) General Stormwater Permit as a Municipal Separate Storm Sewer System (MS4). In accordance with that permit, the City developed a SWPPP comprised of a series of Best Management Practices (BMPs) in six Minimum Control Measure areas to prevent pollution and to manage and treat runoff discharged from the City into state waters. An annual report documents actions taken in the previous year, which is presented to the public for review, approved by the City Council, and submitted to the Minnesota Pollution Control Agency (MPCA) for approval.

A new General Permit became effective August 1, 2013. The City submitted an application for renewal of coverage under the permit, which was extended on April 3, 2014. The SWPPP was required to be updated for the new permit. Many SWPPP actions are incorporated into this LWMP.

### **1.2.3 Wellhead Protection Plan**

The City of Dayton's WHPP was approved by the Minnesota Department of Health (MDH) in 2008. The WHPP covers one existing well (Well No. 1) serving the Historic Village area. Well No. 1 obtains its water from the Franconia-Ironton-Galesville aquifer. The WHPP documents the delineation of the wellhead protection area and drinking water supply management area for this well, in addition to the vulnerability assessment for the well and its aquifer. Beginning in 2016, the City began developing an amendment to the WHPP to prevent human-caused contaminants from entering water supply wells. The WHPP is separate from the LWMP except as surface water influences groundwater.

### **1.2.4 City-wide Hydrologic and Hydraulic Model**

The 2007 Local Surface Water Management Plan included a city-wide hydrologic and hydraulic model to guide city planning efforts for its storm sewer infrastructure. Truck storm sewer, regional ponds and lift stations were primarily sized, site and priced with information produced in the model. The model was developed in HydroCAD and calculated in accordance with SCS TR-20 methodology. Since 2007, the model has been used by developers to properly size development in terms of volume, rate and flow. The City is committed to revisiting the model and updating the Comprehensive Stormwater Management Plan to the appropriate NOAA Atlas 14 precipitation estimates and the subsequent model update is referenced in the Implementation section.

### 1.3 RELATIONSHIP TO OTHER PLANS

Several agencies manage programs or regulate activities for local stormwater or water resource management. The following sections summarize those relevant to local water management planning.

#### 1.3.1 Metropolitan Council Water Resources Policy Plan

The Metropolitan Council's Water Resources Management Policy Plan is a framework to integrate water resources management and protection with planning for the Metro region's growth. In 1995, the Metropolitan Land Planning Act was amended to require that each city and township's comprehensive plan include a local water management plan. These local plans need to be consistent with Minnesota Statutes 103B and Metropolitan Land Planning Act requirements. Local water management plans are reviewed by the Metropolitan Council as part of the local comprehensive planning process prior to approval by the watershed management organization and adoption by the city or township.

In addition to the local stormwater plan elements required in statute and administrative rule, the Policy Plan expects communities to show that they are committed to the Metropolitan Council's goal of no adverse impact (nondegradation) for area water resources. Local plans should include actions such as writing ordinances that runoff water quality treatment, limiting the rates and volumes of runoff, adopting BMPs for development and redevelopment, and planning for wetland management.

#### 1.3.2 Upper Mississippi River Basin Plan

The MPCA's Upper Mississippi River Basin Plan broadly guides water quality management of the Mississippi River watershed from its headwaters to the Rum River in Anoka, Minnesota. The plan identifies eight general needs of the Upper Mississippi River Basin (UMRB):

1. Inventory and classification of the existing water quality of the Basin's lakes, rivers and streams and ground water.
2. Additional monitoring and data collection of the rivers, streams, lakes and ground water quality.
3. An understanding and control of the impacts of phosphorus, nitrogen, sediment, bacteria, and other pollutants on the Basin's water quality.
4. Stormwater management in the urbanizing areas of the UMRB.
5. Adequate wastewater treatment to protect water quality in the UMRB.
6. Proper management of our ground water and drinking water resources, particularly the Mississippi River as a source of water for the cities of St. Cloud, St. Paul and Minneapolis.
7. Improved feedlot management and the implementation of the rules and regulations for feedlots.
8. Response to the emerging issues impacting water quality, such as hypoxia in the Gulf of Mexico.

While the plan emphasizes MPCA activities, it can also be used for local watershed management by individuals, associations, watershed groups and municipalities. Dayton's LWMP was designed with consideration of these Basin needs.

### **1.3.3 North Fork Crow River One Watershed One Plan**

Some of western Dayton falls within the boundaries of the North Fork Crow River Watershed, which developed a pilot One Watershed, One Plan, published in April 2018. The vision of One Watershed, One Plan is to align planning on major watershed boundaries with prioritized, targeted, and measurable watershed plans developed and implemented locally. The North Fork Crow River One Watershed, One Plan listed four top priority resources: drinking water (groundwater), lakes, agricultural drainage system, and surface runoff. The plan lists targeted and measurable goals for restoring and protection these resources. This LWMP has taken the North Fork Crow River's plan into account when developing targeted and measurable goals for Dayton.

### **1.3.4 Elm Creek Watershed Management Commission Third Generation Watershed Management Plan**

The Elm Creek Watershed Management Commission (ECWMC) was formed on February 1, 1973, under a Joint Powers Agreement developed under the authority conferred to the member communities by Minnesota Statutes 471.59. The Joint Powers Agreement sets forth the authorities granted to the Commission by the member communities. The City of Dayton is member community. The ECWMC's purpose is set forth in Minnesota Statutes 103B.210, Metropolitan Surface Water Planning, which codified the Metropolitan Surface Water Management Act of 1982. Minnesota Statutes 103B.231 and Minnesota Rules 8410 established requirements for watershed management plans within the Twin Cities Metro Area. The law requires the plan focus on:

1. Protecting, preserving and using natural surface and groundwater storage and retention systems;
2. Minimizing public capital expenditures needed to correct flooding and water quality problems;
3. Identifying and planning for means to effectively protect and improve surface and groundwater quality;
4. Establishing more uniform local priorities and official controls for surface and groundwater management;
5. Preventing erosion of soil into surface water systems;
6. Promoting groundwater recharge;
7. Protecting and enhancing fish and wildlife habitat and water recreational facilities, and
8. Securing other benefits associated with the proper management of surface and ground water.

Member cities, including Dayton, all have approved stormwater management plans that assist the ECWMC in implementing the Third Generation Watershed Management Plan. The member cities have in place ordinances codifying the ECWMC's development rules and standards including stormwater management, erosion control, and wetland and floodplain management. The Joint Powers Agreement does not authorize the ECWMC to directly contract for capital improvement projects. The ECWMC may order capital projects for construction by member cities, often as regional projects which several cities may agree to

cooperatively construct and fund. The ECWMC may also help fund studies or initiatives that further the Commission's goals.

As it pertains to implementation of TMDLs and WRAPS, the Third Generation Watershed Management Plan has priorities to being implementing priority projects, providing cost-share to member cities to undertake projects to achieve WRAPS lake and stream goals. The ECWMC will use the results of the WRAPS study to establish priority areas, and complete subwatershed assessments to identify specific BMPs that feasibly and cost-effectively reduce nutrient and sediment loading to impaired water resources.

## 2.0 Regulatory Framework

### 2.1 DAYTON ORDINANCES AND POLICIES

Protection of water resources has been an important consideration throughout the City's development history. Existing water resource related policies and local controls (City Code sections) include:

- ▲ Wastewater, Sanitary Sewer System (Chapter 51)
  - Sanitary Sewer Discharges (Chapter 51.01-51.06)
  - Individual Sewage Treatment Systems (Chapter 51.20-51.30)
  - Wastewater Treatment and Collection Facilities (Chapter 51.40-51.99)
- ▲ Water System (Chapter 52)
  - General Provisions (Chapter 52.001-52.015)
  - Water Usage (Chapter 52.050-52.056)
- ▲ Storm Water Management (Chapter 151)
  - Storm Water Pollution Prevention Plan Submittal Procedures (Chapter 151.07)
  - Storm Water Pollution Prevention Plan Review Process (Chapter 151.08)
  - Minimum Construction Site Best Management Practices (Chapter 151.09)
- ▲ Public Property; Improvements and Excavations (Chapter 153)
  - Excavations (Chapter 153.15-153.21)
- ▲ Land Usage (Chapter 1000)
- ▲ Zoning (Chapter 1001)
  - Mississippi River Corridor (Chapter 1001.07)
  - Shoreland Zoning (Chapter 1001.08)
  - Floodplains (Chapter 1001.09)
  - Landscaping and Screening (Chapter 1001.24)
  - Steep Slopes (Chapter 1001.26)
  - Wetlands (Chapter 1001.27)
  - Construction Site Runoff Control (Chapter 1001.33)
  - Storm Water Illicit Discharge and Illicit Connection (Chapter 1001.34)
- ▲ Subdivisions (Chapter 1002)
  - Growth Management (Chapter 1002.14)
  - Conservation Subdivision (Chapter 1002.15)

These ordinances and policies have provided the City and the private development sector with the means to protect the City's natural resources through limiting wetland filling, establishing minimum setbacks, requiring steep slope and shoreline buffers, managing floodplain areas, and implementing BMPs to prevent pollution, manage stormwater runoff and protect water resources.

## 2.2 STATE AGENCY REGULATORY FRAMEWORK

Several agencies manage programs or regulate activities for local stormwater or water resource management. The following sections summarize those relevant to local water management planning.

### 2.2.1 Metropolitan Council

The Metropolitan Council's *Water Resources Management Policy Plan* includes a range of programs administered by various governmental and private agencies for management of water resources in the Twin Cities Metropolitan Area. Several of the Metropolitan Council's programs are of interest to cities, including the following:

- ▲ Development of targeted watershed pollutant loads
- ▲ Review of watershed and local water plans and comprehensive plans for consistency with metropolitan goals and objectives
- ▲ Watershed Outlet Monitoring Program (WOMP)
- ▲ Citizens' Assisted Lake Monitoring Program (CAMP)
- ▲ Environmental Information Management System
- ▲ Regional Water Supply Plan for the Metropolitan Area

### 2.2.2 Minnesota Pollution Control Agency (MPCA)

The MPCA administers several programs applicable to local stormwater management planning. The MPCA monitors water quality, sets standards, and implements various controls. Following are two programs related to water quality.

- ▲ The MPCA manages the NPDES Phase II permitting for small municipal separate storm sewer systems (MS4s) and construction and industrial discharge permitting.
- ▲ The MPCA implements the Clean Water Act, requiring that states adopt water quality standards to protect waters of the state. The United States Environmental Protection Agency (EPA) and MPCA require preparation of Total Maximum Daily Load (TMDL) studies to identify the source of pollutants and WRAPS studies to plan how to bring water resources into compliance. Diamond Lake, Diamond Creek, Elm Creek and Rush Creek are listed on the MPCA's draft 2016 303(d) list of impaired waters. Section 2.6 discusses the impaired waters issue in more detail.

### 2.2.3 Minnesota Department of Health (MDH)

The Environmental Health Division of the MDH administers numerous programs of interest to local water management planning, including the following.

- ▲ Drinking water protection
- ▲ Wellhead protection
- ▲ Lake and fish monitoring (in partnership with other agencies)
- ▲ Environmental Health Services
- ▲ Health risk assessment, site assessment, and consultation
- ▲ Well management

The City worked with the MDH to develop and implement a WHPP.

### 2.2.4 Minnesota Department of Natural Resources (MDNR)

The MDNR manages and protects the state's natural resources and operates numerous programs. The department provides technical assistance and information regarding BMPs, natural resource management, incorporating natural resource conservation into land use planning, and lakescaping.

The Fisheries Division monitors and improves fisheries within the state. It also promotes fishing opportunities and provides grants to assist in the construction of fishing piers. The Ecological and Water Resources (EWR) Division focuses on an overarching vision of "Healthy Watersheds throughout Minnesota." The EWR Division also provides the following services:

- ▲ Maintains an inventory of public waters
- ▲ Operates permit programs for working in public waters or for appropriating public waters
- ▲ Oversees the state's floodplain management program
- ▲ Provides local stewardship by coordinating the Mississippi River Critical Area, Mississippi National River & Recreation Area programs and the Shoreland Management program
- ▲ Collects, analyzes, and provides ecological information, including:
  - Location and management of rare resources (endangered and threatened species, critical habitats, high quality natural communities)
  - Management of harmful exotic species, fish and wildlife diseases, and negative environmental impacts of human development
  - Management and restoration of important ecological processes in river systems and key natural areas
  - Information about Minnesota's ecosystems and their significance to a sustainable quality of life

The MDNR's webpage at [www.dnr.state.mn.us/lakefind/index.html](http://www.dnr.state.mn.us/lakefind/index.html) is LakeFinder, a MDNR-supported tool that combines information from various MDNR Divisions, as well as other state agencies, such as MPCA (water quality) and MDH (fish consumption). This tool contains data for more than 4,500 lakes and rivers throughout Minnesota.

The MDNR also provides a variety of specialized programs oriented to property owners or neighborhood groups, such as the Aquatic Plant Management, Urban Fisheries and Fishing in the Neighborhood, Neighborhood Wilds, and Metro Greenways programs.

### 2.2.5 Elm Creek Watershed Management Commission

The entire City of Dayton falls under the jurisdiction of the Elm Creek Watershed Management Commission. The Elm Creek Watershed Management Commission is required by statute to prepare and administer water management plans that establish watershed-wide goals, policies, and regulations. The Elm Creek Watershed Management Commission published a Third Generation Watershed Management Plan in October of 2015. Local governments such as the City of Dayton are also required by statute to prepare and administer water management plans. These local plans must be consistent with watershed plans. This local water management plan was developed to acknowledge the Elm Creek

Watershed Commission's jurisdictional criteria while also reflecting the priorities of the City of Dayton.

As stated previously, the ECWMC's purpose is set forth in Minnesota Statutes 103B.210, Metropolitan Surface Water Planning, which codified the Metropolitan Surface Water Management Act of 1982. Minnesota Statutes 103B.231 and Minnesota Rules 8410 established requirements for watershed management plans within the Twin Cities Metro Area. The law requires the plan focus on:

1. Protecting, preserving and using natural surface and groundwater storage and retention systems;
2. Minimizing public capital expenditures needed to correct flooding and water quality problems;
3. Identifying and planning for means to effectively protect and improve surface and groundwater quality;
4. Establishing more uniform local priorities and official controls for surface and groundwater management;
5. Preventing erosion of soil into surface water systems;
6. Promoting groundwater recharge;
7. Protecting and enhancing fish and wildlife habitat and water recreational facilities, and
8. Securing other benefits associated with the proper management of surface and ground water.

## **2.3 WATER RESOURCE RELATED AGREEMENTS**

Water resource-related agreements, such as Joint Powers Agreements (JPA) or Memorandums of Understanding (MOU), are typically entered into between agencies or entities with overlapping regulatory interests or geographic similarities. The City of Dayton has several such agreements. In 1993, Dayton and several other entities adopted a JPA to establish the Elm Creek Watershed Management Commission in order to "plan, protect and manage the Elm Creek Watershed and adjacent minor watersheds."

In addition, Dayton has several agreements related to drinking water and wastewater. Dayton has a JPA with Champlin, signed in approximately 2004, stating that Champlin will supply areas in southeastern Dayton with drinking water and serve as a backup source of drinking water for areas in northeastern Dayton. Dayton has a similar contract with Maple Grove, signed in 2006, stating that Maple Grove will supply drinking water to areas in southwestern Dayton. Dayton plans to sign a third drinking water-related agreement with Rogers so that Rogers can supply drinking water to areas in west central Dayton. Dayton also has wastewater agreements with the cities of Otsego, Rogers and Champlin.

The need for a JPA or MOU will be evaluated as part of the City's ongoing Wellhead Protection planning. No other Agreements are anticipated at this time.

## **2.4 WETLAND CONSERVATION ACT**

The City of Dayton is the Local Governmental Unit (LGU) for the Wetland Conservation Act of 1991 (WCA) within the City's subdivision authority. Wetland LGU responsibilities include:

- ▲ Review and approve wetland delineations and determinations
- ▲ Review and approve wetland exemption / no-loss applications

- ▲ Review and approve wetland replacement plan applications
- ▲ Coordinate Technical Evaluation Panel (TEP) meetings
- ▲ Send Notices of Application and Decision to the TEP
- ▲ Enforce wetland replacement monitoring requirements, review monitoring reports and certify replacement wetlands
- ▲ Work with MDNR and Hennepin County to enforce WCA violations

## **2.5 RELATIONSHIP TO NPDES PERMIT**

The City holds a permit from the MPCA to discharge stormwater into waters of the State through the MPCA's NPDES General Stormwater Permit. The permit specifies that the City must develop, receive MPCA approval of, and implement a Stormwater Pollution Prevention Plan (SWPPP) that addresses the following six minimum control measures established by the EPA:

1. Public education and outreach
2. Public participation/involvement
3. Illicit discharge detection and elimination
4. Construction site runoff control
5. Post-construction runoff control
6. Pollution prevention/good housekeeping during municipal operations

The City's SWPPP was approved in 2003 and modified in 2007 and 2013. Most recently, the State of Minnesota reauthorized the NPDES General Stormwater Permit effective August 1, 2013. The City submitted an application for renewal of coverage under the permit, which was extended on April 3, 2014. The SWPPP was required to be updated for the new permit. New and existing activities and policies to be included in the SWPPP are prescribed in the General Permit and SWPPP Document, and includes many of the actions and policies set forth in this LWMP.

## **2.6 TOTAL MAXIMUM DAILY LOADS (TMDLS)**

Lakes and streams that do not meet state water quality standards are listed as "Impaired" by the State of Minnesota. Waters that are impaired in Dayton are listed in Table 2.1. These lakes, streams and rivers require additional analysis in the form of a Total Maximum Daily Load (TMDL) study. A TMDL is the maximum amount of a pollutant a waterbody can receive and still meet water quality standards. The TMDL study identifies the sources and magnitude of pollutant loading and establishes a numeric load reduction that must be made for each source.

**Table 2.1. Impaired Waters in Dayton.**

Note: Based on the draft 2016 303(d) List.

Lake/Stream	DNR Lake # / Reach #	Affected Use(s)	Pollutant(s)
Crow River	07010204-502	Aquatic recreation, Aquatic life	Excess Nutrients, <i>Escherichia coli</i> , Fish bioassessment, Macroinvertebrate bioassessment, Turbidity
Diamond Lake	27-0125-00	Aquatic recreation	Excess Nutrients
Diamond Creek	07010206-525	Aquatic recreation, Aquatic life	<i>Escherichia coli</i> , Dissolved oxygen, Fish bioassessment, Macroinvertebrate bioassessment
Elm Creek	07010206-508	Aquatic recreation, Aquatic life	<i>Escherichia coli</i> , Dissolved oxygen, Fish bioassessment, Macroinvertebrate bioassessment Chloride
Mississippi River	07010206-805	Aquatic recreation, Aquatic life, Aquatic consumption	Excess Nutrients, <i>Escherichia coli</i> , Mercury in fish tissue, PCB in fish tissue
Rush Creek	07010206-528	Aquatic recreation, Aquatic life	<i>Escherichia coli</i> , Dissolved oxygen, Fish bioassessment, Macroinvertebrate bioassessment

## 3.0 Land and Water Resources Inventory

### 3.1 PHYSICAL ENVIRONMENT

The City of Dayton lies in northern Hennepin County, southeast of the confluence of the Crow and Mississippi Rivers (Figure 3.1). The City is approximately 25 square miles and is bordered by the Crow and Mississippi Rivers to the north, Champlin to the east, Maple Grove to the south, and Rogers to the west.

#### 3.1.1 Geology and Soils

The bedrock underlying Dayton is part of the St. Lawrence and Franconia formations consisting of dolomitic siltstone and shale. The surficial geology is predominantly loamy till with scattered sandy till and lacustrine deposits. The Hennepin County Geologic Atlas has more information regarding the geology and hydrogeology in Dayton, and can be found online at [purl.umn.edu/58491](http://purl.umn.edu/58491).

The soils in Dayton are predominantly fine textured silt loams and clay loams (Figure 3.2), which tend to support mesic native plant communities in the uplands (such as mesic oak forest, maple basswood forest, and mesic prairie). The Hennepin County Soil Survey has more information regarding soil units within Dayton, which can be viewed online at the Natural Resources Conservation Service's Web Soil Survey at [websoilsurvey.nrcs.usda.gov/app/HomePage.htm](http://websoilsurvey.nrcs.usda.gov/app/HomePage.htm).

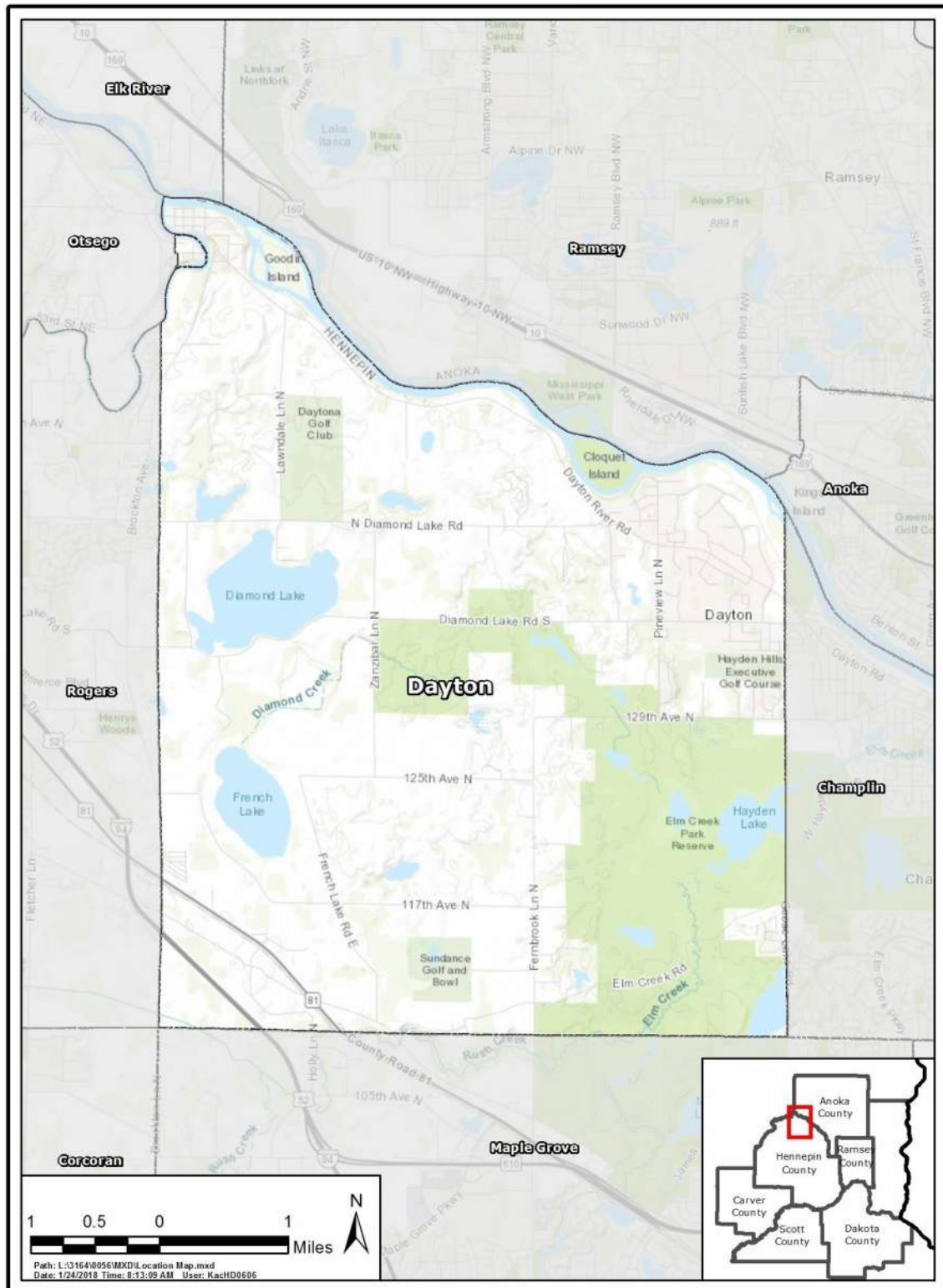
#### 3.1.2 Climate and Precipitation

The climate is predominately continental. Sitting close to the middle of North America, the weather in Dayton can vary widely and rapidly. Both temperature and precipitation can change abruptly. Table 3.1 shows the City's temperature normals, or averages, for the years 1981 to 2010.

**Table 3.1. Temperature Normals (°F) for Dayton.**

Twin Cities (1981-2010)													
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Maximum	23.7	28.9	41.3	57.8	69.4	78.8	83.4	80.5	71.7	58.0	41.2	27.1	55.3
Minimum	7.5	12.8	24.3	37.2	48.9	58.8	64.1	61.8	52.4	39.7	26.2	12.3	37.3
Mean	15.6	20.8	32.8	47.5	59.1	68.8	73.8	71.2	62.0	48.9	33.7	19.7	46.3
Crystal Airport (1981-2010)													
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Maximum	23.8	29.1	41.6	57.8	70.0	79.1	83.4	82.5	72.0	58.8	41.5	27.3	55.7
Minimum	6.7	11.5	22.6	35.7	46.9	57.2	62.0	60.1	50.4	37.9	24.9	11.7	35.8
Mean	15.2	20.3	32.1	46.8	58.4	68.2	72.7	71.3	61.2	48.4	33.2	19.5	45.7

Source: Minnesota State Climatology Office and National Climatic Data Center.



**Figure 3.1. Location of Dayton**

## 3.2 BIOLOGICAL ENVIRONMENT

The City's landscape has gone through many changes due to human activity. Before European settlement, the area was part of the "Big Woods" ecoregion where oak woodland and maple-basswood forests were the dominant vegetation types. Upon settlement, much of the landscape was converted to agricultural land. Since then, a portion of the landscape has remained in agricultural use while some has been developed primarily for residential use.

Elm Creek Park Reserve, the Mississippi River and French and Diamond Lakes are among the dominant natural features in the City. Elm Creek Park Reserve, managed by Three Rivers Park District, occupies the southern corner of the City, and extends south into Maple Grove as well as east into Champlin. The Mississippi River is not only a defining feature of the City and northern border of the City, but the river corridor is a critical migratory route for birds. French and Diamond Lakes define the west-central portion of the City. Diamond Lake, at over 400 acres, provides a popular shallow lake fishery.

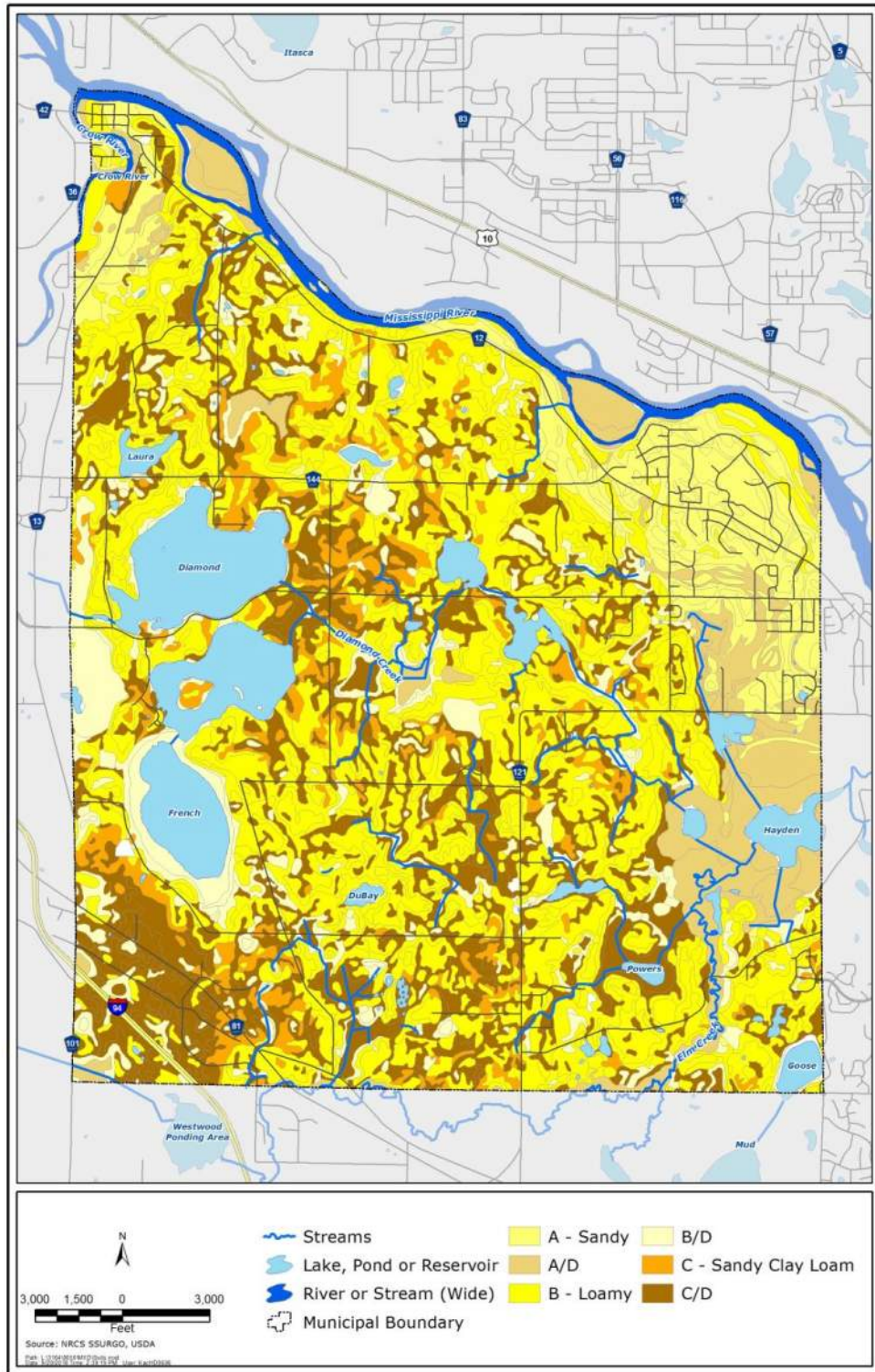
## 3.3 HUMAN ENVIRONMENT

The notes of the Public Land Survey conducted in 1856 describe the Dayton area as being 'extremely timbered,' generally level, and with many lakes and marshes. The first known settler of European descent arrived in the Dayton area in 1851, settling on the site of a French fur trading post. Other claims followed, mostly along the Mississippi and Crow Rivers and near lakes. In 1854 the first hotel in Dayton was erected near the confluence of the Crow and Mississippi Rivers. The post office was established in 1855, and in 1856 a mill was built just downstream of the Crow. A church followed in 1857 and a school in 1859, the year the village was organized. Territorial Road was authorized by the Territorial Legislature in 1855, fueling growth in the area.

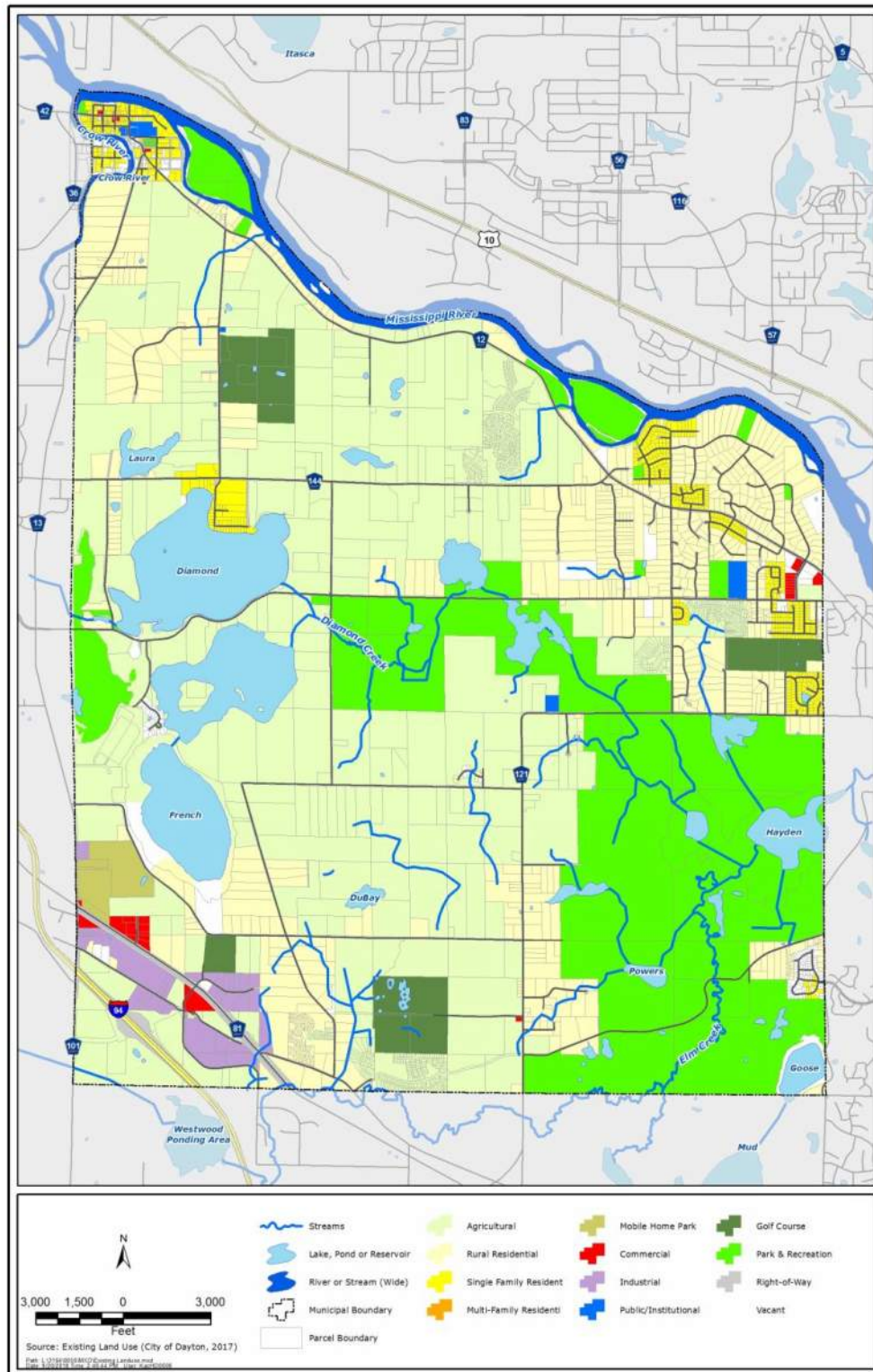
### 3.3.1 Land Use

Figure 3.3 shows Dayton's 2016 land use from Metropolitan Council land use data. The City is largely undeveloped, with 35 percent in agricultural use, 23 percent designated as parks, golf courses and preserves, and over 22 percent vacant (Table 3.2). Included in this undeveloped land is Elm Creek Park Reserve, which dominates the southeastern portion of the City. Residential land use consists of an additional 10 percent of land use and primarily consists of single-family homes.

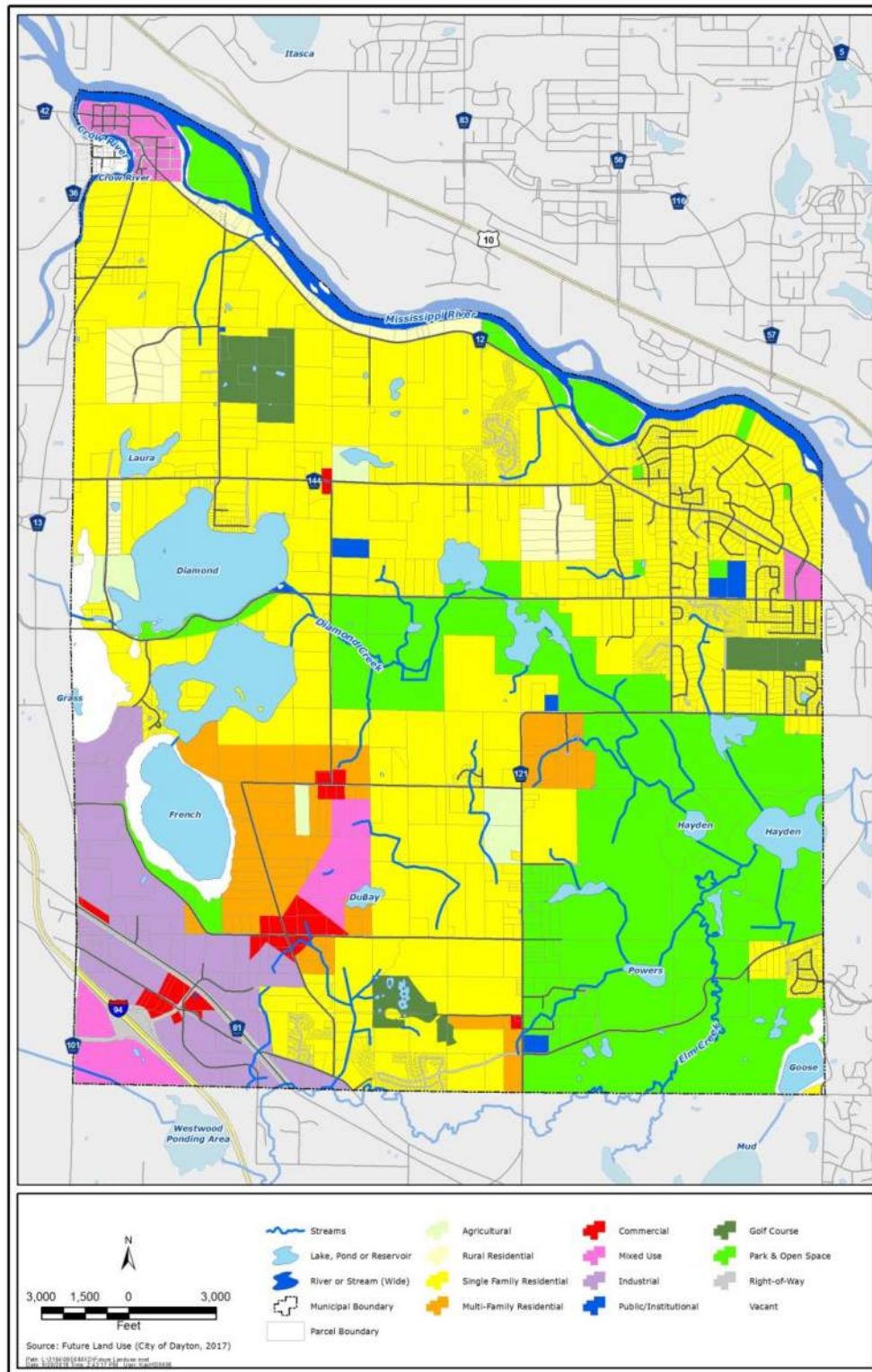
Increased density is expected in Dayton with the construction in 2020 of the Brockton Interchange at Interstate 94 and approximately Brockton Lane in southwestern Dayton. Figure 3.4 shows planned 2040 land use from the 2008 Comprehensive Plan. The City of Dayton is currently updating its Comprehensive Plan.



**Figure 3.2. Soils in Dayton.**



**Figure 3.3. Existing land use in Dayton.**



**Figure 3.4. Future land use planned for 2040 in Dayton.**

**Table 3.2. 2016 land use in the City of Dayton.**

<b>Land Use</b>	<b>Area (acres)</b>	<b>Area (%)</b>
Agricultural	5,637	35.0
Parks and Recreation	3,692	22.9
Undeveloped	3,594	22.3
Single Family Residential	1,596	9.9
Water	1,189	7.3
Industrial	266	1.6
Major Roadways	56	0.3
Commercial	35	0.2
Institutional	29	0.2
Multi Family	1	<0.1
Mixed Use	1	<0.1
<b>Total</b>	<b>16,097</b>	<b>100</b>

Source: Metropolitan Council from city comprehensive plan and air photos.

### 3.3.2 Parks, Open Space, Recreational Facilities

Over 30 percent of the land area of Dayton is park, open space or water surface (Figure 3.3). The most notable recreational feature is the Elm Creek Park Reserve, which is operated by the Three Rivers Park District. This regional park features picnic grounds, a large creative play area, a swimming pond, a winter sports area, and an extensive bicycle/pedestrian trail system that allows users to view the park's lakes, wetlands, and Elm and Rush Creeks. The Eastman Nature Center in Elm Creek Park features quiet reading and observation rooms, large classrooms, a professional exhibit area with wildlife watching, and outdoor learning facilities such as display gardens, a floating boardwalk, pond observation blind, amphitheater, orienteering courses, and demonstrative plantings for wildlife.

The section of the Mississippi River bordering Dayton is included in the Mississippi National River and Recreation Area, a 72-mile stretch of the river protected and managed by the United States National Park Service. Dayton's section of the Mississippi River is additionally protected by the MPCA as an Outstanding Resource Value Water, which can limit discharges to the river.

Dayton's recreational facilities also include Daytona Golf Club, Hayden Hills Public Golf Course, and several parks along the Mississippi River. Boat ramps are located at Diamond and French Lakes.

The primary LWMP-related recreational concern is the improvement of water quality in the City's lakes to sustain or enhance their beneficial use and to preserve the general enjoyment of the City's water resources.

### 3.3.3 Pollutant Sources

Historically Dayton has not been an industrial city, so there are no major issues of contaminated soil or groundwater. According to the MPCA's "What's in my Neighborhood" website, there are several localized sites of contamination where releases of petroleum or other hazardous products have occurred. However, these sites are all being monitored or remediated, or have received regulatory closure from the MPCA. The WHPP evaluates and provides recommendations for monitoring and/or remediating potential pollutant sources

such as dumpsites, leaking underground storage tank sites, Voluntary Investigation and Cleanup sites. Information on these sources can also be found by contacting the MPCA or the EPA, or visiting the MPCA's What's in My Neighborhood website at [www.pca.state.mn.us/udgx680](http://www.pca.state.mn.us/udgx680).

In addition, there are six MPCA-registered feedlots within the city limits of Dayton. Feedlots can be a source of nutrient pollution to nearby waters. Feedlots are permitted through the MPCA. (Hennepin County is a non-delegated feedlot county, meaning the MPCA manages the feedlot program for the County and its cities.) There are also many other smaller operations of animal husbandry in Dayton.

Failing septic systems are another known source of pollution. Dayton administers a septic permitting and maintenance ordinance. Pumping and inspection of septic systems is required by the City every three years. The City also requires more restrictive design standards for septic systems than required by Minnesota Rule.

Wells, whether operating or abandoned, can also provide a conduit for pollution. The MDH regulates new and abandoned wells and maintains a comprehensive list of the status of each. The City does not allow repair or improvement of existing individual wells if municipal water is available. Further, new construction must be connected to municipal water at the time of construction if municipal water is available.

### 3.4 SURFACE WATER

#### 3.4.1 Lakes

There are seven lakes in Dayton (Figure 3.5). Diamond and French Lakes are the largest lakes and the only two lakes with public access ramps. Diamond Lake is listed as impaired on the MPCA's draft 2016 303(d) list for excess nutrients due to elevated total phosphorus levels.

Minnesota's standards for lake water quality vary depending on the depth classification of the lake (Table 3.3). Shallow lakes are defined by having a maximum depth of 15 feet deep or less or having 80 percent or more of lake area 15 feet or less (i.e., shallow enough to support rooted aquatic plants). All of Dayton's lakes are defined as shallow. The lake number and shoreland classification, lake morphometry, and water quality data are shown in Table 3.4. More information about the lakes can be found online at the DNR's LakeFinder website: [www.dnr.state.mn.us/lakefind/index.html](http://www.dnr.state.mn.us/lakefind/index.html).

**Table 3.3. Water quality standards for lakes in the North Central Hardwood Forest Ecoregion.**

Note: All of Dayton's lakes are classified as shallow.

Parameters	Shallow lake standard	Deep lake standard
Total phosphorus ( $\mu\text{g/L}$ )	$\leq 60$	$\leq 40$
Chlorophyll- <i>a</i> ( $\mu\text{g/L}$ )	$\leq 20$	$\leq 14$
Secchi depth (meters)	$\geq 1.0$	$\geq 1.4$

**Table 3.4. Characteristics of Dayton lakes.**

Note: TP= total phosphorus; Chl-a= chlorophyll-a, a measure of algal density; SD= Secchi depth or clarity; RD = Recreational Development; NE = Natural Environment, n/a = Not Applicable.

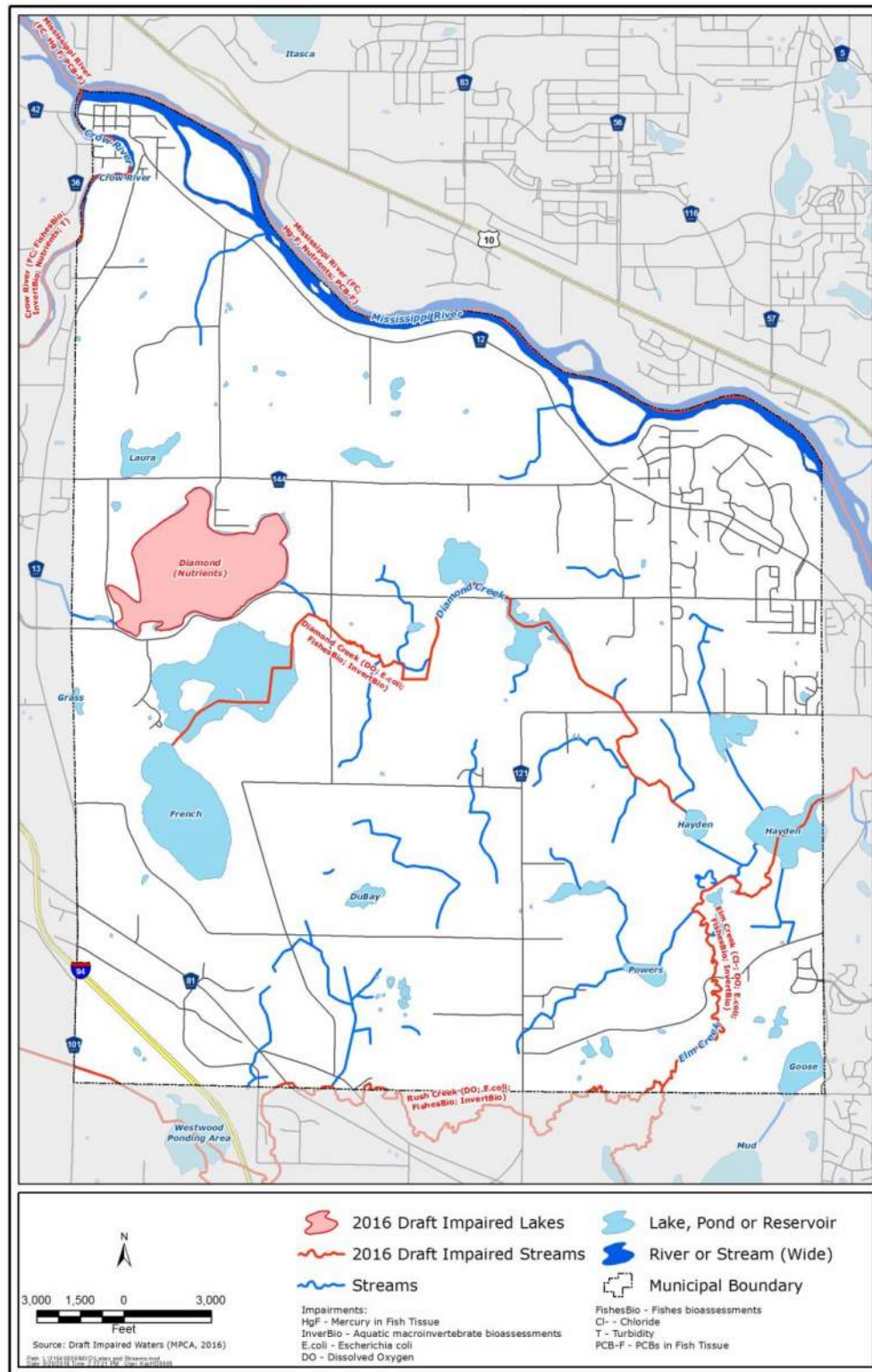
Lake	DNR ID#	Surface Area (ac)	Max Depth (ft.)	Public Access	DNR Class <sup>1</sup>	10-year Summer Average			Depth Class
						TP (µg/L)	Chl-a (µg/L)	SD (m)	
<b>Diamond Lake</b>	27-0125-00	406	8	Ramp	RD	170	68	0.8	Shallow
<b>DuBay Lake</b>	27-0129-00	15	n/a	No	NE	n/a	n/a	n/a	Shallow
<b>French Lake</b>	27-0127-00	217	6	Ramp	RD	214	152	0.5	Shallow
<b>Goose Lake</b>	27-0122-00	59	6	No	NE	175	111	0.3	Shallow
<b>Hayden Lake</b>	27-0128-00	93	n/a	No	NE	n/a	n/a	n/a	Shallow
<b>Lake Laura</b>	27-0123-00	35	n/a	No	NE	n/a	n/a	n/a	Shallow
<b>Powers Lake</b>	27-0130-00	15	n/a	No	NE	n/a	n/a	n/a	Shallow

Source: DNR LakeFinder, MPCA Environmental Quality Information System (EQuIS).

### 3.4.2 Streams

Diamond Creek, Elm Creek and Rush Creek and their tributaries drain the majority of Dayton (Figure 3.5). Small portions of Dayton also drain directly to the Mississippi River (north) and to the Crow River (northwest). Diamond Creek, Elm Creek, Rush Creek, the Crow River and the Mississippi River are all listed as impaired on the MPCA's draft 2016 303(d) list for various pollutants including excess nutrients, excess *Escherichia coli*, low fish integrated biotic integrity, low macroinvertebrate integrated biotic integrity, high turbidity, low dissolved oxygen, excess chloride, mercury in fish tissue and PCBs in fish tissue. Section 2.6, Total Maximum Daily Loads, and Table 2.1 specify impairments for each stream or river.

Minnesota's standards for river water quality vary for Dayton's rivers (Table 3.5). The Class 2Bd Streams standards for the Central River Nutrient Region apply to Diamond, Elm and Rush Creeks and the portion of the Mississippi River bordering Dayton. The portion of the Crow River in Dayton, however, has its own site-specific standard (Table 3.5). Table 3.6 lists Dayton's major streams and rivers and their length within the City of Dayton. Data on stream conditions and trends is detailed in the Elm Creek Watershed Management Commission 2015 TMDL and 2016 WRAPS studies.



**Figure 3.5. Lakes and streams in Dayton, with impaired waters in red.**

**Table 3.5. Water quality standards for rivers and streams in Dayton.**

Note: The Central River Nutrient Region standard applies to all rivers except the Crow River, which has a site-specific standard.

Parameters	Central River Nutrient Region standard	Crow River site-specific standard
Total Phosphorus (µg/L)	≤100	≤125
Chlorophyll-a (µg/L)	≤18	≤27
Diel dissolved oxygen flux (mg/L)	≤3.5	≤4.0
Biochemical oxygen demand (5-day, mg/L)	≤2.0	≤2.5

**Table 3.6. Dayton's major streams and rivers and their length within Dayton.**

Stream Name	Reach #	Length (mi)
Crow River	07010204-502	1.1
Diamond Creek	07010206-525	5.1
Elm Creek	07010206-508	3.1
Mississippi River	07010206-805	5.8
Rush Creek	07010206-528	1.2

### 3.4.3 Wetlands

There are approximately 12,415 acres of wetland in Dayton (Figure 3.6). Wetland in Dayton is dominated by shallow open water and shallow marsh. There are also several seasonally flooded basins, especially surrounding Hayden Lake and Elm Creek, and scattered shrub swamp.

### 3.4.4 Stormwater

The 2007 Local Surface Water Management Plan included a city-wide hydrologic and hydraulic model to guide city planning efforts for its storm sewer infrastructure. Truck storm sewer, regional ponds and lift stations were primarily sized, site and priced with information produced in the model. The model was developed in HydroCAD and calculated in accordance with SCS TR-20 methodology. Since 2007, the model has been used by developers to properly size development in terms of volume, rate and flow. The current site-specific volumes, rates and paths of stormwater are identified in the maps and models within the 2007 Local Surface Water Management Plan. The trunk stormwater system map associated with this model can be found on the City's website and copies of the 2007 Local Surface Water Management Plan are available for viewing at City Hall.

As stated elsewhere in this Plan including in Section 6 Implementation Plan, the City is committed in 2019 to revisiting the model and updating the Comprehensive Stormwater Management Plan to the appropriate NOAA Atlas 14 precipitation estimates.

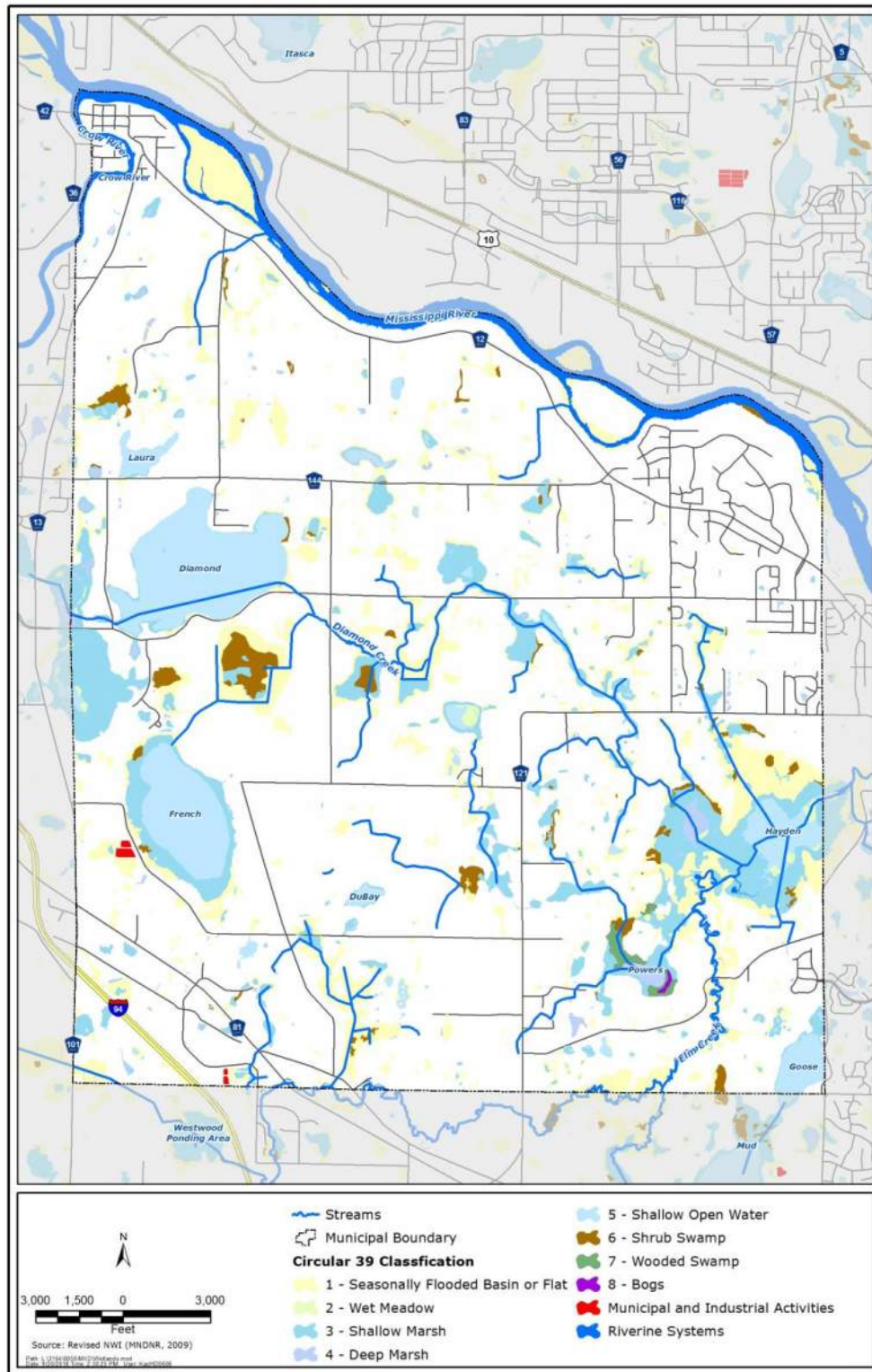
## 3.5 GROUNDWATER

Dayton relies on groundwater for municipal water, currently operating two wells drawing from the Franconia-Ironton-Galesville aquifer. Groundwater is managed through the City's WHPP. This plan provides comprehensive guidance to protect wellhead areas from contamination while meeting the requirements of the Safe Drinking Water Act and the

Minnesota Groundwater Protection Act. The WHPP details measures to protect the groundwater entering and flowing through the Wellhead Protection Area to protect the drinking water supply from contamination. The following items are included in the WHPP:

- ▲ A delineation of the Wellhead Protection Area (WHPA) and Drinking Water Supply Management Area (DWSMA) for the public water supply system using the most recent version of the Twin Cities Metropolitan Area Groundwater Flow Model.
- ▲ Identification of potential sources of contamination to the DWSMA, such as unsealed wells, Class V wells, and Underground Storage Tanks, and establish strategies and actions to manage risk and to minimize impacts to the DWSMA.
- ▲ A Spill Response Plan in coordination with other cities in the DWSMA.
- ▲ Information and guidelines and policies for the use of infiltration BMPs for stormwater management.

The Hennepin County Groundwater Protection Plan was completed in 1994 and approved by the Board of Water and Soil Resources (BWSR), but has not been adopted by the Hennepin County Board. As such, Hennepin County does not have what would be considered an approved Groundwater Protection Plan and is not a part of the LWMP review process.



**Figure 3.6. Wetlands in Dayton.**

### 3.6 FLOODING

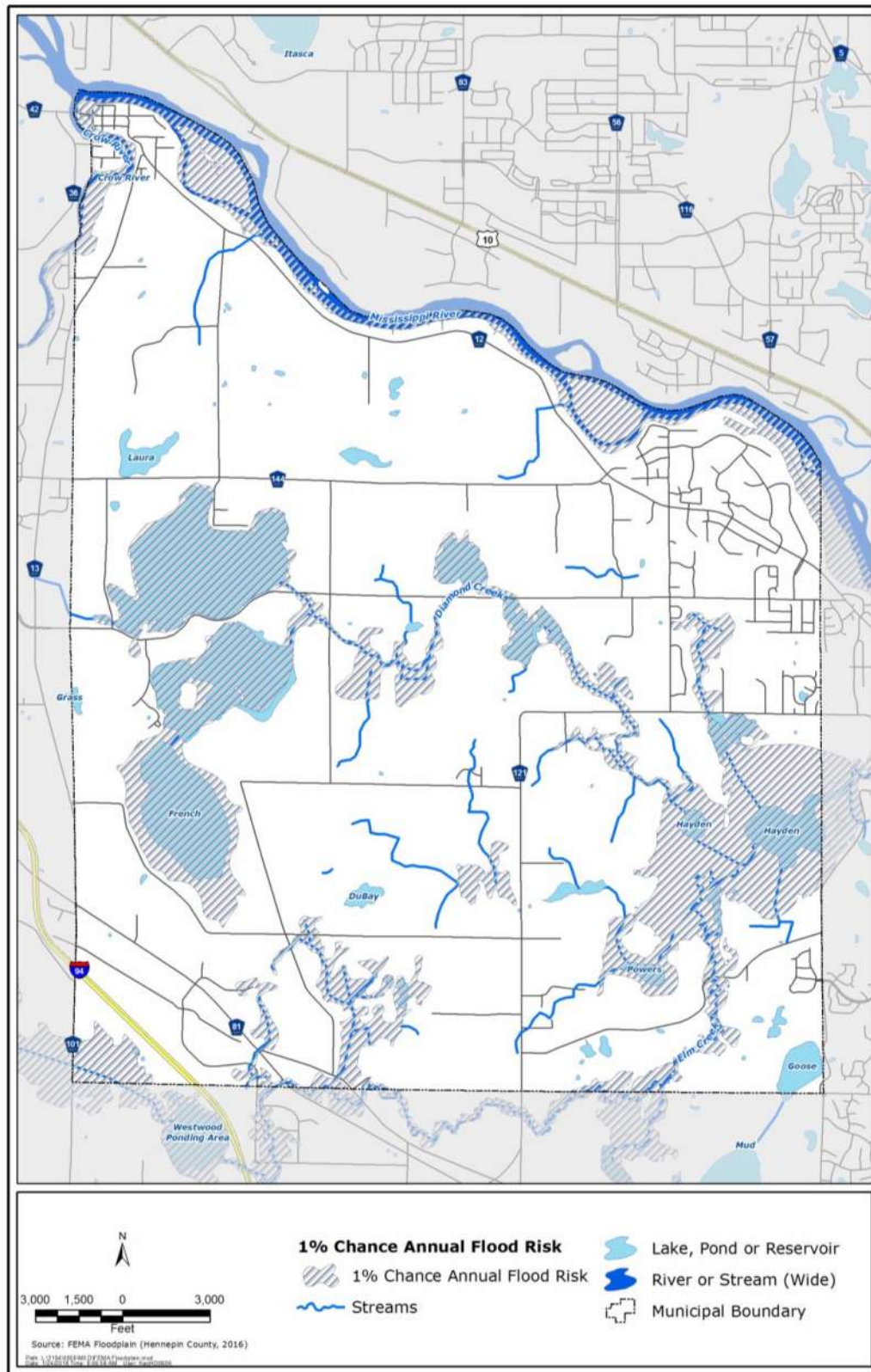
Flooding effects may range from personal nuisance to property damage or loss to injury or death. Floodplain areas flood most often and severely. Land use regulations define the floodplain as the area covered by the flood that has a one percent chance of occurring each year, also known as the 100-year flood. The floodplain is divided into two zoning districts: the floodway and flood fringe. The floodway includes the river channel and nearby land areas which must remain open to discharge the 100-year flood. The flood fringe, while in the floodplain, lies outside the floodway.

In 1968, Congress created the National Flood Insurance Program (NFIP) to make flood insurance available to property owners at federally subsidized rates. Community participation in the NFIP requires adoption and administration of a local floodplain ordinance based on Flood Insurance Rate Maps (FIRMs) and a corresponding Flood Insurance Study (FIS) that identifies floodplain boundaries and elevations of floodplain depths (where available).

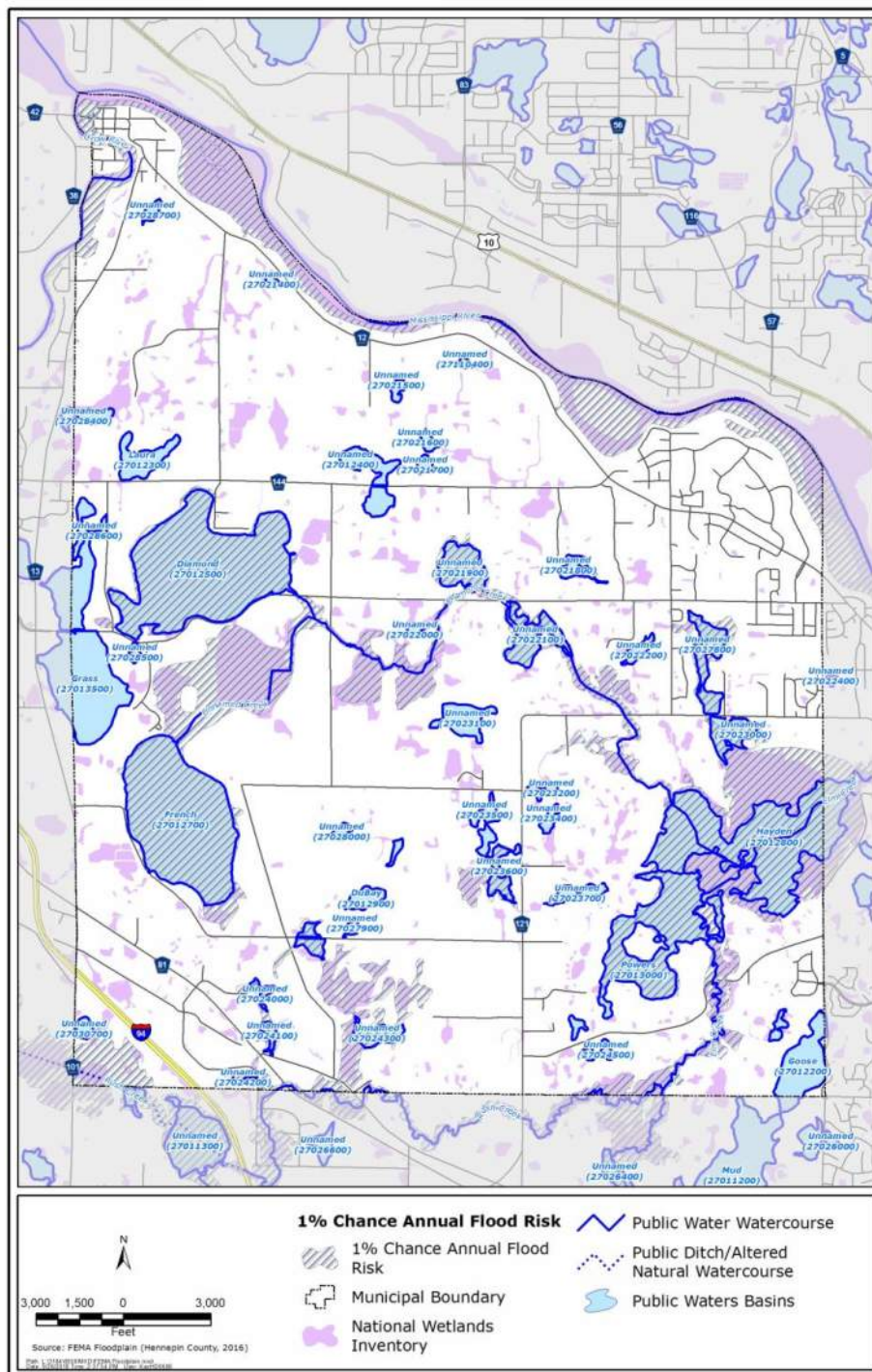
Hennepin County recently completed a County-wide Floodplain Restudy and thereby the City of Dayton has updated FIRMs and FIS. The individual map panels and insurance study can be viewed at City Hall, Hennepin County Environmental Services or through FEMA's online Flood Map Service Center. Figure 3.7 shows the 100-year floodplain in Dayton, or the parts of Dayton that annually have a 1 percent chance of flooding

### 3.7 REGULATED WATERS

Figure 3.8 is a combined map that depicts wetlands, lakes, ponds, rivers streams and floodplain that is inventoried or regulated through the National Wetlands Inventory, the Wetland Conservation Act, the Public Waters Inventory, public drainage law or the National Flood Insurance Program. Each component has federal, state or local program oversight.



**Figure 3.7. FEMA 100-year floodplain in Dayton.**



**Figure 3.8. Regulated areas in Dayton, including FEMA 100-year floodplain, wetlands and public waters.**

## 4.0 Assessment of Problems, Issues, and Requirements

### 4.1 PROBLEMS, ISSUES AND REQUIREMENTS IDENTIFICATION

Local water management problems, issues and requirements were identified by reviewing:

- ▲ Statutory requirements for LWMP
- ▲ The 2008 Dayton Local Surface Water Management Plan
- ▲ Water body inventories and data
- ▲ Input solicited from the public, the City of Dayton's Park Commission, City staff, and state and local agency staff

Table 4.1 summarizes Dayton's problems, issues and requirements by category. After the problems, issues and requirements were identified, staff and the Park Commission collaborated to identify goals and policies and to prioritize potential solutions to help the City of Dayton accomplish the goals of this Plan. Table 6.2 later in this Plan shows how the actions in the Implementation Plan address each of these problems and issues.

**Table 4.1. Identified problems, issues and requirements.**

Category	Identified Problems and Issues
<b>Water Quality</b>	Development and redevelopment projects have the capacity to negatively impact stormwater quality.
	Lakes and streams in the City are listed on the Clean Water Act Section 303(d) TMDL List of Impaired Waters. Load allocations were given to these water bodies in the 2016 Elm Creek WMC TMDL and solutions were identified in the 2016 Elm Creek WMC WRAPS.
	Ongoing stormwater system maintenance is needed to protect and improve surface waters, ensure system integrity, and fulfill NPDES permit obligations.
	If use of shorelands is uncontrolled, this can lead to pollution of public waters.
	There are six feedlots in Dayton. Feedlots have the potential to pollute surface and groundwater.
	Individual sewage treatment systems have the potential to pollute surface water and groundwater.
	Areas of groundwater used for drinking water supply must be protected from contamination.
<b>Water Quantity</b>	Development can cause excessive stormwater volumes and runoff rates and subsequent flooding if not properly planned for.
	Groundwater stores could diminish without efforts to promote of groundwater recharge.

Category	Identified Problems and Issues
<b>Wetlands</b>	Wetlands provide numerous benefits for water quality, habitat, flooding and erosion, aesthetics and recreation, and should therefore be protected and preserved.
	For two main purposes, the City needs wetland data. First, the City has limited resources to put toward wetland management and needs data to most effectively allocate resources. Second, assessing wetlands prior to development helps ensure that wetlands will be protected from degradation.
<b>Erosion and Sediment Control</b>	Sediment discharge from construction sites into surface waters and drainageways must be minimized.
	Erosion along ditch- and stream-banks contributes sediment to surface waters and degrades water quality, yet has not been systematically assessed.
<b>Fish, Wildlife and Recreation</b>	Water quality should be protected or improved as needed to protect or manage recreational opportunities.
	As water quality and clarity improves, aquatic vegetation management may be needed to reduce invasive species, encourage beneficial vegetation and allow recreational usage.
	Control of AIS is a continuing concern, particularly in Diamond Lake with the rise of curly-leaf pondweed.
	The Mississippi River bordering Dayton is designated as the Mississippi River Critical Area Corridor and an Outstanding Resource Value Water. These designations come with land use, development and stormwater discharge requirements.
<b>Regulatory Requirements and Operational Policies</b>	Limited budget is available to implement NPDES Phase II MS4 Permit requirements, requiring prioritization of resources.
	The MPCA plans to issue a new NPDES Phase II MS4 Permit in 2018 and all MS4s will have to apply for coverage under this Permit.
	Minimal Impact Design Standards (MIDS) are available to reduce the cost of controlling runoff and protecting/ improving water quality. MIDS are stormwater management standards that guide development to mimic a site's natural hydrology.
	City goals, policies and ordinances to help protect natural resources will need review and refinement for consistency with NPDES, Metropolitan Council, MDNR, MPCA, Elm Creek WMC and BWSR requirements, including but not limited to MS4, ISTS, feedlot, floodplain, shoreland, Mississippi River Corridor Critical Area and wetland requirements.
<b>Education and Outreach</b>	Education and outreach efforts could be expanded, and new educational opportunities could be added for targeted groups as needs are identified.
<b>Maintenance Requirements</b>	Stormwater pond maintenance and repair needs should be identified, such as the need for creation/ restoration of storage capacity, repair of erosion issues, and addition of alternative stormwater treatment techniques.

Category	Identified Problems and Issues
<b>Maintenance Requirements (cont.)</b>	Street sweeping, sump manhole cleaning and regular stormwater facility inspections are necessary on an ongoing basis to help reduce non-point source pollutant loads.
<b>Financial Resources</b>	Financial resources are limited, requiring that certain projects be prioritized.
<b>Collaboration Opportunities</b>	There are opportunities for collaboration with other agencies such as the watershed districts, Hennepin County, the Three Rivers Park District, and state agencies to leverage expertise and resources to finance and construct improvements.

## 5.0 Goals and Policies

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This section of the Plan outlines goals and policies guiding surface water management in the City of Dayton.

### 5.1 GOALS AND POLICIES

#### *Water Quality*

#### **Goal 1. Identify and plan for means to effectively protect and improve water quality.**

Policy 1.1. The City shall ensure development and redevelopment projects are in conformance with water quality standards as prescribed in the Minnesota Stormwater Manual, the Metropolitan Council Water Resources Management Policy Plan and other pertinent regional and state BMP documents.

Policy 1.2. Infiltration is a preferred method to manage rate and volume. The City promotes infiltration BMPs that improve water quality.

Policy 1.3. On-site treatment is the preferred method for water quality improvements.

Policy 1.4. The City shall continue to work with stakeholders to address goals for improving water quality of impaired water bodies.

Policy 1.5. The City aims to address pollutant sources to impaired water bodies, as outlined in the 2016 Elm Creek Watershed Management Commission's TMDL and WRAPS studies.

Policy 1.6. The MPCA administers feedlot rules in Hennepin County. The City will ensure compliance with MPCA and Elm Creek Watershed Management Commission feedlot requirements to protect water quality from feedlot impacts; and will enact and enforce a manure management ordinance within one year of plan adoption.

Policy 1.7. The City will continue to administer a Shoreland Zoning ordinance regulating the subdivision, use and development of MDNR designated shoreland areas in order to protect stormwater quality.

Policy 1.8. To protect surface water and groundwater quality, the City will continue to administer an Individual Sewage Treatment Systems (ISTS) ordinance, requiring permits, inspection and maintenance of ISTS, including compliance inspections.

Policy 1.9. To protect groundwater quality, the City shall not encourage infiltration in areas protected by the Wellhead Protection Program.

**Goal 2. Protect, preserve, and manage natural surface and constructed retention systems to control excessive volumes and rates of runoff and prevent flooding.**

Policy 2.1. The City will revisit the existing city-wide stormwater hydrologic and hydraulic model and Comprehensive Stormwater Management Plan that guides planning efforts for stormwater infrastructure and update to the appropriate NOAA Atlas 14 precipitation estimates.

Policy 2.2. Protect, preserve, and manage natural surface and constructed retention systems to control excessive volumes and rates of runoff and thus prevent flooding.

Policy 2.3. New development and redevelopment shall limit proposed runoff rates to rates of existing conditions for the 2-, 10- and 100-year 24-hour rainfall event, from NOAA Atlas 14 precipitation information, or best available data. The existing condition is defined as pre-development.

Policy 2.4. The 100-year rainfall event elevation shall be established for natural and constructed water bodies. These elevations should be based on the 100-year 24-hour rainfall and the 100-year 10-day snowmelt runoff from NOAA Atlas 14 information or best available data.

Policy 2.5. Stormwater management facilities shall be designed, based on NOAA Atlas 14 information or best available data, to manage the 100-year critical rainfall event.

Policy 2.6. Storm sewer shall be designed for at least the 10-year rainfall event using the rational method and Intensity Duration Frequency curves from NOAA Atlas 14 precipitation information, or best available data.

Policy 2.7. The City will continue to administer a Floodplain Ordinance to regulate the development and land use activities in special flood hazard areas.

Policy 2.8. The low floor elevation of all new structures shall be a minimum of 2 feet above the 100-year high water level. The low structure elevation, defined as the lowest ground elevation adjacent to a structure, will be at least 1 foot above the as-built emergency overflow elevation of any area where surface water is impounded during a flood event.

Policy 2.9. Where structures are proposed below the overflow elevation for a land-locked basin, the low structure elevation, defined as the lowest ground elevation adjacent to a structure, will be a minimum of 2 feet above the peak water elevation as determined by the critical back-to-back 100-year storm event, or five feet above the critical 100-year storm event, whichever is higher.

Policy 2.10. Infiltration is a preferred method to manage rate and volume. Infiltration BMPs shall be implemented where feasible on developed sites to minimize runoff.

Policy 2.11. The City will coordinate as appropriate for the removal of deadfall in creek channels provided the deadfall is no longer attached to the land.

**Goal 3. Enhance groundwater recharge.**

Policy 3.1. Require infiltration of stormwater where it is feasible, in accordance with the MDH's Evaluating Proposed Stormwater Infiltration Projects in Vulnerable Wellhead Protection Areas and with the City's NPDES MS4 Stormwater Permit requirements.

Policy 3.2. The City recognizes the opportunity to reuse water where appropriate and encourages reuse for irrigation purposes.

***Wetlands***

**Goal 4. Protect and preserve wetlands through administration of the Wetland Conservation Act.**

Policy 4.1. The City will continue to act as the responsible LGU for the administration of the Minnesota Wetland Conservation Act for project sites that have potential wetland impacts.

Policy 4.2. The City will continue to administer wetland protection and mitigation in accordance with the Minnesota Wetland Conservation Act and the City's Wetland Ordinance.

***Erosion and Sediment Control***

**Goal 5. Control or manage sediment discharge into surface waters and drainageways.**

Policy 5.1. To prevent sediment pollution from construction sites, the City will continue to administer a Construction Site Stormwater Runoff Control ordinance and a Post-Construction Stormwater Management ordinance.

Policy 5.2. To protect stormwater from sediment and other pollutants, the City will continue to administer an Illicit Discharge Detection and Elimination ordinance.

Policy 5.3. Erosion and sediment control plans shall be required for all land disturbance activities greater than one acre, and shall be consistent with City standards and the requirements of the NPDES construction permit.

Policy 5.4. Require erosion and sediment control training for staff that are responsible for inspecting erosion control.

Policy 5.5. Require the use of BMPs for erosion and sediment control as specified in City ordinance, the Minnesota Stormwater Manual and other pertinent regional and state BMP documents.

### ***Fish, Wildlife and Recreation***

#### **Goal 6. Protect and enhance fish and wildlife habitat and water related recreational amenities.**

Policy 6.1. The City will ensure compliance with State buffer law requirements and amend existing ordinances as needed to maintain permanent vegetative buffers around waterbodies.

Policy 6.2. When appropriate, the City will coordinate with Hennepin County and other stakeholders to address Aquatic Invasive Species (AIS) in selected waterbodies.

Policy 6.3. When appropriate, the City will explore opportunities to establish new water related recreational amenities.

Policy 6.4. The City will continue to administer a Mississippi River Corridor Ordinance pertaining to land use, development, and stormwater discharge to meet the requirements of the Mississippi River Critical Area Corridor and the Outstanding Resource Value Water designation of the Mississippi River.

### ***Regulatory Programs***

#### **Goal 7. Manage the City's surface waters consistent with best practices and the City's NPDES MS4 Permit's SWPPP.**

Policy 7.1. Implement the City's NPDES Phase II Permit's SWPPP.

Policy 7.2. The City will actively inspect, and properly operate, maintain and repair its stormwater system. The City will follow a regular inspection, cleaning, and repair schedule. Frequency of maintenance will occur at intervals specified in the SWPPP.

Policy 7.3. The City will follow BMPs on its own lands and for City projects (including street reconstruction) in accordance with the NPDES construction site permit and the City's NPDES MS4 Permit.

**Goal 8. Manage the City's surface waters consistent with other state and federal requirements.**

Policy 8.1. City goals, policies and ordinances shall be consistent with NPDES, Metropolitan Council, MDNR, MPCA, Elm Creek Watershed Management Commission and BWSR requirements, including but not limited to MS4, ISTS, feedlot, floodplain, shoreland, Mississippi River Corridor Critical Area and wetland requirements.

***Education and Public Involvement***

**Goal 9. Inform the public about urban stormwater management and potential pollutants according to the requirements of the City's NPDES MS4 permit.**

Policy 9.1. Involve and educate residents in water resource related issues where appropriate.

**5.2 RELATIONSHIP TO OTHER AGENCIES' GOALS AND POLICIES**

The recommendations set forth in this Plan were developed to be consistent with local, regional, state, and federal rules, goals and policies including:

- ▲ Local Water Management Rules Chapter 8410
- ▲ Wetland Conservation Act and Minnesota Rules Chapter 8420
- ▲ Minnesota Pollution Control Agency Water Quality Standards Chapter 7050
- ▲ U.S. Army Corps of Engineers Section 404 Clean Water Act
- ▲ Elm Creek Watershed Management Commission Watershed Management Plan
- ▲ North Fork Crow River One Watershed One Plan
- ▲ Metropolitan Council Water Resources Management Policy Plan
- ▲ DNR's *Strategic Conservation Agenda 2009-2013*
- ▲ MPCA's 2013 Nonpoint Source Management Program Plan
- ▲ Upper Mississippi River Basin Plan
- ▲ Metropolitan Council's Regional Park Policy Plan

## 6.0 Implementation Plan

### 6.1 PRIORITIZATION

A priority system was developed to reflect the City's responsibility to protect the health, safety, and general welfare of the environment and its citizens by addressing problems and issues specific to the City. Priorities were noted as "High" or "Medium" based on a combination of the following factors during development of the Implementation Plan.

- ▲ Corrective actions required
- ▲ Steps needed to alleviate or prevent future water management problems
- ▲ Existing goals and policies as well as changes needed to reflect upcoming regulatory needs and requirements
- ▲ Programs currently in place or required in the future to monitor and evaluate the effectiveness of the water management programs or policies enacted
- ▲ Funding availability
- ▲ Overall water management concerns within the City
- ▲ Requirements of the NPDES Phase II permit
- ▲ Educational programs currently provided by the City and where they need supplementation
- ▲ Completed, pending or expected TMDLs and implementation activities

### 6.2 REGULATORY PROGRAM

Numerous local, state, and federal agencies regulate water resources in Dayton. However, the primary regulators are the City of Dayton, Elm Creek Watershed Management Commission, the MDNR, the MPCA and the MDH.

#### 6.2.1 Current City Ordinances

As listed in Section 2.1, Dayton has enacted numerous policies and ordinances regulating and managing water resources. Management of water resources has been an important consideration throughout the City's development history. Existing water resource related policies and local controls (City Code sections) include:

- ▲ Wastewater, Sanitary Sewer System (Chapter 51)
  - Sanitary Sewer Discharges (Chapter 51.01-51.06)
  - Individual Sewage Treatment Systems (Chapter 51.20-51.30)
  - Wastewater Treatment and Collection Facilities (Chapter 51.40-51.99)
- ▲ Water System (Chapter 52)
  - General Provisions (Chapter 52.001-52.015)
  - Water Usage (Chapter 52.050-52.056)
- ▲ Storm Water Management (Chapter 151)
  - Storm Water Pollution Prevention Plan Submittal Procedures (Chapter 151.07)
  - Storm Water Pollution Prevention Plan Review Process (Chapter 151.08)
  - Minimum Construction Site Best Management Practices (Chapter 151.09)

- ▲ Public Property; Improvements and Excavations (Chapter 153)
  - Excavations (Chapter 153.15-153.21)
- ▲ Land Usage (Chapter 1000)
- ▲ Zoning (Chapter 1001)
  - Mississippi River Corridor (Chapter 1001.07)
  - Shoreland Zoning (Chapter 1001.08)
  - Floodplains (Chapter 1001.09)
  - Landscaping and Screening Chapter 1001.24)
  - Steep Slopes (Chapter 1001.26)
  - Wetlands (Chapter 1001.27)
  - Construction Site Runoff Control (Chapter 1001.33)
  - Storm Water Illicit Discharge and Illicit Connection (Chapter 1001.34)
- ▲ Subdivisions (Chapter 1002)
  - Growth Management (Chapter 1002.14)
  - Conservation Subdivision (Chapter 1002.15)

Further, the City recognizes its responsibility to protect property and other resources from adverse impacts due to new development and redevelopment. In order to minimize these impacts, the City has developed design guidelines. These design guidelines are consistent with the standards of the Elm Creek Watershed Management Commission, which are documented in the Elm Creek Watershed Management Plan. The City's design standards are available on the City of Dayton website and may be updated periodically.

The 2007 Local Surface Water Management Plan included a city-wide hydrologic and hydraulic model to guide city planning efforts for its storm sewer infrastructure. Truck storm sewer, regional ponds and lift stations were primarily sized, site and priced with information produced in the model. The model was developed in HydroCAD and calculated in accordance with SCS TR-20 methodology. Since 2007, the model has been used by developers to properly size development in terms of volume, rate and flow. The City is committed to revisiting the model and updating to the appropriate NOAA Atlas 14 precipitation estimates and the subsequent model update is referenced in the Implementation section.

### **6.2.2 NPDES MS4 Permit Requirements**

The State's General NPDES MS4 Permit was reissued on August 1, 2013, and Dayton was issued coverage under this permit. The City's SWPPP associated with this permit identified a number of BMPs that the City needs to initiate or update. Implementation of these BMPs are detailed in the City's Annual Report and are reviewed at an annual public meeting prior to submittal of the annual report to the City Council and MPCA. The City's water resources and engineering staff are also working towards comprehensive ArcGIS mapping of storm sewer systems, stormwater ponds and other water resources in the City as part of the NPDES Phase II Stormwater Permit requirements. The State's General Permit is expected to be reissued some time in 2018, after which the City will have to reapply for coverage under the State's permit and update their SWPPP once again.

### **6.2.3 Elm Creek Watershed Management Commission Requirements**

The City is situated entirely within the jurisdictional boundaries of the Elm Creek Watershed Management Commission. Land-alteration activities that meet certain thresholds must comply with Elm Creek Watershed Commission rules regarding stormwater management, sediment and erosion control, floodplain management and drainage alterations, bridges and culvert crossings, and buffers along water resources. The Elm Creek Watershed Management Commission must recommend these projects for approval before the City of Dayton issues a permit.

## **6.3 IMPLEMENTATION PROGRAMS AND PROJECTS**

### **6.3.1 Education and Outreach**

The City will carry out education and public outreach in accordance with MS4 requirements. The City will also take advantage of additional opportunities such as public functions where educational materials can be distributed. The City will conduct the following outreach activities:

- ▲ Maintain stormwater educational materials on website
- ▲ Distribute educational brochures at public facilities
- ▲ Conduct Annual Stormwater Public Meetings
- ▲ Distribute educational information on utility bills
- ▲ Host catch basin stenciling events
- ▲ Review MS4 Minimum Control Measure 1 opportunities and improve as needed
- ▲ Explore the possibility for educational partnerships with West Metro Water Alliance, Elm Creek Watershed Management Commission and other organizations

### **6.3.2 Maintenance and Operations**

The City periodically updates and revises its Stormwater Inventory Inspection and Maintenance Plan. This Plan includes both activities necessary to meet NPDES Phase II permit obligations as well as general operations and maintenance activities. These include:

- ▲ Stormwater pond inspections
- ▲ Street and parking lot sweeping
- ▲ Catch basin inspection, cleaning, and repair
- ▲ Sump catch basin inspection, cleaning, and repair
- ▲ Sediment removal as needed
- ▲ Televising, jetting, and repair of storm sewers and culverts
- ▲ Treatment effectiveness evaluation
- ▲ Illicit discharge detection and elimination

The City is in the process of developing up to date GIS shapefiles containing information about water bodies, stormwater facilities and stormwater infrastructure. In addition, the City is developing a program to link maintenance records with GIS records to create a dynamic information system.

### **6.3.3 Capital Improvement Plan**

The 2018 to 2027 Stormwater Capital Improvement Plan (CIP) is outlined in Table 6.1 below. Local stormwater CIPs include projects or actions that help restore or enhance the

stormwater system, lakes and/or streams. These may consist of pond maintenance, installation of BMPs, inventories, feasibility studies or capital projects such as alum treatments, rough fish management, invasive aquatic vegetation management and streambank stabilization.

Typically, only priority projects are included in the CIP. This CIP is regularly reviewed and updated, and projects are added or re-prioritized as more or better information is available or as new problems or opportunities arise. Note that the cost listed in Table 6.1 represents the total cost of the project and not the cost to the City. The cost of the project may be shared by grants, the Elm Creek Watershed Management Commission, the City and other sources.

**Table 6.1. City of Dayton 2018- 2027 Stormwater Capital Improvement Plan (CIP).**

Item	Cost	Year	Paid By
Surface Water Management Plan	\$27,000	2018	City
Comprehensive Stormwater Management Plan and model	\$80,000	2019	City
Oakview Lane Ravine Stabilization	\$75,000	2020	City
Diamond Creek Subwatershed Assessment	\$52,000	2020	City
Rush Creek Stabilization	\$110,000	2023	City
Stormwater Pond EC-S1P	\$615,000	2018	Developer
Stormwater Pond RC-N3P	\$685,000	2019	Developer
Stormwater Pond EC-W7P	\$305,000	2020	Developer
Stormwater Pond DC-DL8P	\$960,000	2021	Developer
Stormwater Pond RC-E2P	\$65,000	2022	Developer
Stormwater Pond EC-S3P	\$205,000	2023	Developer
Stormwater Pond DC-FL1P	\$860,000	2024	Developer

#### 6.4 ADDRESSING IDENTIFIED PROBLEMS AND ISSUES

As noted earlier in Table 4.1 of this Plan, the planning process revealed a number of problems and issues. Table 6.2 repeats those by category and describes how each was addressed in this Plan.

**Table 6.2. Implementation actions addressing identified problems and issues.**

Category	Identified Problems & Issues	Identified Solution	Implementation Schedule	Estimated Cost/Source	Priority
Water Quality	Development and redevelopment projects have the capacity to negatively impact stormwater quality.	Update the City's Stormwater Management Plan and Model to implement the most current Elm Creek WMC volume, rate control and water quality standards to improve urban stormwater management to NOAA Atlas 14 standards.	2019	\$50,000-\$80,000/General Funds	High
	Lakes and streams in the City are listed on the Clean Water Act Section 303(d) TMDL List of Impaired Waters. Load allocations were given to these water bodies in the 2016 Elm Creek WMC TMDL and solutions were identified in the 2016 Elm Creek WMC WRAPS.	Develop a vegetation plan to manage curly-leaf pondweed in Diamond Lake to comply with the Elm Creek WMC's WRAPS requirement.	2021	\$20,00/Grants, County AIS funds	Medium
		Conduct an Internal Load Management Plan to evaluate internal load reduction options, feasibility and costs for Diamond Lake to comply with the Elm Creek WMC's WRAPS requirement.	2020	\$20,000/Grants	High

Category	Identified Problems & Issues	Identified Solution	Implementation Schedule	Estimated Cost/Source	Priority
		Management options for Diamond Lake from the Internal Load Management Plan: Alum treatment, common carp management/fish management, lake-wide curly-lead pondweed treatments, full/partial lake drawdown.	2021	\$100,000-\$1,000,000/Grants, partnerships	High
		Develop, administer and enforce a Manure and Fertilizer Management ordinance within one year of Plan adoption to comply with the Elm Creek WMC's rule requirement.	2019	\$5,000/General Funds	High
		Conduct early morning longitudinal DO surveys along Diamond Creek to determine specific reaches that may be causing low DO and begin strategies for improvement	2021	\$25,000/Grants	Medium

Category	Identified Problems & Issues	Identified Solution	Implementation Schedule	Estimated Cost/Source	Priority
	Ongoing stormwater system maintenance is needed to protect and improve surface waters, ensure system integrity, and fulfill NPDES permit obligations.	Identify and manage stormwater system maintenance needs through practices such as annual stormwater inspections, facility inspections, street sweeping, manhole cleaning, and capital projects such as targeted pond cleanouts, road maintenance, and facility improvements.	Ongoing	Development revenue	High
	If use of shorelands is uncontrolled, this can lead to pollution of public waters.	Continue to administer a Shoreland Zoning ordinance regulating the subdivision, use and development of DNR designated shoreland areas.	Ongoing	Permit fees	High
	There are six feedlots in Dayton. Feedlots have the potential to pollute surface and groundwater.	The MPCA administers the feedlot program for Hennepin County, including the City of Dayton. The City, however, will develop, administer and enforce a Manure and Fertilizer Management ordinance within one year of Plan adoption to comply with the Elm Creek WMC's rule requirement.	2019	\$5,000	High

Category	Identified Problems & Issues	Identified Solution	Implementation Schedule	Estimated Cost/Source	Priority
	Individual sewage treatment systems have the potential to pollute surface water and groundwater.	Continue to administer an Individual Sewage Treatment Systems (ISTS) ordinance, requiring permits, inspection and maintenance of ISTS, including compliance inspections.	Ongoing	Permit fees	High
		Update the ISTS ordinance as needed.	2019	\$5,000	High
		Inventory parcels containing ISTS and assess compliance information for each.	2019-2020	\$75,000/grant	High
	Areas of groundwater used for drinking water supply must be protected from contamination.	Coordinate infiltration requirements with the City's Wellhead Protection Plan.	Ongoing	\$2,000	High
Water Quantity	Development can cause excessive stormwater volumes and runoff rates and subsequent flooding if not properly planned for.	Update the City's Stormwater Management Plan and Model to implement the most current Elm Creek WMC volume, rate control and water quality standards to improve urban stormwater management to NOAA Atlas 14 standards.	2019-2020	\$50,000-\$75,000/General Funds	High
		Require as-built plans for all completed construction projects to ensure projects were constructed as planned.	Ongoing	Varies (development revenue, general funds)	High

Category	Identified Problems & Issues	Identified Solution	Implementation Schedule	Estimated Cost/Source	Priority
		Look for opportunities to delineate un-numbered A-zone floodplain through state grants, cost-share or development.	Ongoing	Grants	Medium
	Groundwater stores could diminish without efforts to promote of groundwater recharge.	Implement the Elm Creek WMC volume control standard to promote infiltration BMPs and enhance groundwater recharge.	Ongoing	Grants	High
		Look for opportunities to reuse water, especially for irrigation purposes, and implement reuse when feasible.	2019	\$5,000	High
Wetlands	Wetlands provide numerous benefits for water quality, habitat, flooding and erosion, aesthetics and recreation, and should therefore be protected and preserved.	Continue to act as the LGU for WCA administration and administer the City's Wetlands ordinance.	Ongoing	General Funds	High

Category	Identified Problems & Issues	Identified Solution	Implementation Schedule	Estimated Cost/Source	Priority
	For two main purposes, the City needs wetland data. First, the City has limited resources to put toward wetland management and needs data to most effectively allocate resources. Second, assessing wetlands prior to development helps ensure that wetlands will be protected from degradation.	Develop a Wetland Management Plan that includes both a comprehensive wetland inventory and wetland function and values assessment.	2019	\$20,000/General Funds, Grants	Medium
Erosion and Sediment Control	Sediment discharge from construction sites into surface waters and drainageways must be minimized.	Continue to implement MS4 Permit Minimum Control Measures that help control construction site sediment: the Construction Site Runoff Control ordinance, the Illicit Discharge Detection & Elimination ordinance and the Post-Construction Stormwater Management ordinance.	Ongoing	\$5,000/General Funds	High
		Require erosion and sediment control plans for all land disturbance activities greater than one acre.	Ongoing	General Funds/Development Revenue	High
		Require training for staff that are responsible for erosion control inspections.	Annual/Ongoing	General Funds	High

Category	Identified Problems & Issues	Identified Solution	Implementation Schedule	Estimated Cost/Source	Priority
		Require the use of BMPs for erosion and sediment control as specified in City ordinance, the Minnesota Stormwater Manual and other pertinent regional and state BMP documents.	Ongoing	General Funds	High
	Erosion along ditch- and stream-banks contributes sediment to surface waters and degrades water quality, yet has not been systematically assessed.	Perform a geomorphological assessment of all streams and ditches in the City to identify hotspots of bank erosion and candidate stream reaches for restoration.	2020	\$50,000/Grant, partnerships	Medium
Fish, Wildlife and Recreation	Water quality should be protected or improved as needed to protect or manage recreational opportunities.	Implement the water quality improvement action items listed above; water quality improvement is intended to create better habitat for wildlife and better fishing, swimming and boating opportunities for citizens.	Ongoing	General Funds/Grants	High
		Develop lake management plans for Diamond and French Lakes.	2021	\$20,000/Grants	

Category	Identified Problems & Issues	Identified Solution	Implementation Schedule	Estimated Cost/Source	Priority
	Control of AIS is a continuing concern, particularly in Diamond Lake with the rise of curly-leaf pondweed.	Work with the MDNR, Three Rivers Park District, Metropolitan Council, Hennepin County and Elm Creek WMC to undertake actions such as watercraft inspections, biocontrol, fish restocking, or other similar AIS prevention or management activities.	2020	\$15,000/Grants	High
	The Mississippi River bordering Dayton is designated as the Mississippi River Critical Area Corridor and an Outstanding Resource Value Water. These designations come with land use, development and stormwater discharge requirements.	Continue to administer a Mississippi River Corridor Ordinance pertaining to land use, development, and stormwater discharge near the Mississippi River.	Ongoing	General Funds	High
Regulatory Requirements and Operational Policies	Limited budget is available to implement NPDES Phase II MS4 Permit requirements, requiring prioritization of resources.	Maintain a budget that prioritizes operating programs and projects to address both regulatory and operational needs and water resource improvements based on current information.	Ongoing	\$8,000/General Funds	High

Category	Identified Problems & Issues	Identified Solution	Implementation Schedule	Estimated Cost/Source	Priority
	The MPCA plans to issue a new NPDES Phase II MS4 Permit in 2018 and all MS4s will have to apply for coverage under this Permit	Reapply for coverage under the MPCA's 2018 NPDES Phase II MS4 Permit. Based on the Minimum Control Measures specified in the new Permit, this may require ordinance revisions.	2019	\$5,000/General Funds	High
	Minimal Impact Design Standards (MIDS) are available to reduce the cost of controlling runoff and protecting/improving water quality. MIDS are stormwater management standards that guide development to mimic a site's natural hydrology.	Continue to work with developers to incorporate MIDS standards into new development and redevelopment projects during permit reviews, making use of BMPs described in the <i>Minnesota Stormwater Manual</i> .	Ongoing	Development Revenue/General Funds	Medium
	City goals, policies and ordinances to help protect natural resources will need review and refinement for consistency with NPDES, Metropolitan Council, MDNR, MPCA, Elm Creek WMC and BWSR requirements, including but not limited to MS4, ISTS, feedlot, floodplain, shoreland, Mississippi River Corridor Critical Area and wetland requirements.	Review and, if needed, update ordinances relating to natural resources (e.g., ordinances related to MS4 requirements, ISTS, feedlots, shoreland, Mississippi River Corridor Critical Area and wetlands).	Annual/Ongoing	General Funds	High

Category	Identified Problems & Issues	Identified Solution	Implementation Schedule	Estimated Cost/Source	Priority
Education and Outreach	Education and outreach efforts could be expanded, and new educational opportunities could be added for targeted groups as needs are identified.	Continue education and outreach efforts such as those listed in Section 6.3.1.	Ongoing	General Funds	High
		Add new educational programs as needs are identified.	Ongoing	General Funds	
Maintenance Requirements	Stormwater pond maintenance and repair needs should be identified, such as the need for creation/restoration of storage capacity, repair of erosion issues, and addition of alternative stormwater treatment techniques	Conduct a systematic stormwater basin inventory and maintenance assessment to assess the condition of public stormwater infrastructure, such as infiltration basins, stormwater wetlands and constructed stormwater ponds. Address identified problems through the CIP or other programs.	Ongoing	General Funds	High
	Street sweeping, sump manhole cleaning and regular stormwater facility inspections are necessary on an ongoing basis to help reduce non-point source pollutant loads.	Administer a maintenance program that includes provisions for regular and special street sweeping; inspection and maintenance of sump manholes and catch basins; basin inspections and repairs; illicit discharge detection; and erosion control.	Ongoing	General Funds	High

Category	Identified Problems & Issues	Identified Solution	Implementation Schedule	Estimated Cost/Source	Priority
Financial Resources	Financial resources are limited, requiring that certain projects be prioritized.	Prioritize operating programs and projects that address both regulatory and operational needs and water resource improvements.	Ongoing	General Funds	High
		Leverage available funding by collaborating with partners and seeking grant funding.	Ongoing	Grants	High
		Evaluate and adjust the rate schedule periodically, taking into consideration both project needs and budget requirements.	Annually	General Funds	High
		Consider developing and implementing a stormwater utility fee.	When Appropriate	\$15,000/General Funds	Medium
Collaboration Opportunities	There are opportunities for collaboration with other agencies such as the watershed districts, Hennepin County, the Three Rivers Park District, and state agencies to leverage expertise and resources to finance and construct improvements.	Continue to collaborate with the Elm Creek WMC and other relevant agencies to identify and complete capital projects.	Ongoing	Grants/General Funds	High

## 7.0 Funding Considerations

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The City will fund the Implementation Program and Projects detailed above through a combination of funding sources. The primary source of funds will be City's Capital Improvement Project (CIP), the General Fund and through Developer's Agreements.

### 7.1 WATERSHED COMMISSION FUNDING

Some projects are eligible for cost share by the Elm Creek Watershed Management Commission. The ECWMC has in place cost-sharing policies and a procedure to determine the watershed-wide benefit of improvements petitioned. Projects and programs funding requests must be brought forward by the City to the watershed district for individual consideration.

### 7.2 OTHER FUNDING SOURCES

A number of grant opportunities are available that might supplement City funding which should be evaluated as projects are scheduled. The City will pursue Clean Water Fund grants from the Legacy Amendment, and that will continue to be a source of potential funding. The Department of Natural Resources maintains a number of relevant grant programs. Most of these grants require a 25-50 percent match. The MPCA also administers several grant and loan programs, although these are targeted to water resource studies and TMDL studies. The availability of funds will be evaluated as project needs arise.

## 8.0 Plan Updates

### 8.1 PROCESS

The Dayton Local Water Management Plan extends from 2018 to 2027. However, this document is intended to be a planning tool that will adapt to changing needs and requirements in management practices and financial resources. For example, the Implementation Plan will be reviewed and updated as needed and the financial analysis will be reviewed annually and updated as the City's annual CIP and project needs are evaluated and completed.

In the event that the City, in the future, elects to exercise sole regulatory authority over activities subject to one or more of the Elm Creek Watershed Management Commission rules, the City will amend this LWMP plan to specify the regulatory subject(s) for which it intends to exercise authority. This plan amendment would provide for a process whereby City ordinances addressing the selected subjects would be amended on an ongoing basis to ensure protection of water resources consistent with the thresholds and standards set by the relevant watershed district, and to provide for a process for the City to obtain approval of the relevant watershed district for any proposed activity requiring a variance from an adopted ordinance pertaining to a regulatory subject covered by watershed district rule(s).

The City will submit this plan amendment to the Elm Creek Watershed Management Commission and other relevant watershed organizations for review and approval in accordance with Minnesota Statutes section 103B.235. If this plan amendment is adopted, the City would update its ordinances within one year of receiving notice from the watershed district that it has significantly revised its rules or regulatory standards.

### 8.2 AMENDMENT PROCEDURES- PUBLIC REQUESTS

Any person either residing in or operating a business within the City may request an update to the LWMP. Requests must be submitted in writing to the City Administrator. The request shall outline the need for the revision as well as any materials the City may need to consider before making its decision. City staff shall review the request and determine whether the request is warranted. Staff shall consider the following options:

- ▲ Reject the request as unwarranted.
- ▲ Accept the request as a routine issue. Routine issues will be addressed individually as a routine update under Section 7.3 below.
- ▲ Accept the request as a major issue. The request and the need for a public hearing will be evaluated by City staff and scheduled with the City Council and the Elm Creek Watershed Management and other relevant watershed organizations for review and consideration. Examples of the types of requests that may require a public hearing and update to the Local Water Management Plan include:
  - Adoption of more stringent official controls,
  - Proposals to discontinue programs, or
  - Actions that would change the Goals of the LWMP.

After review and/or public hearing before the City Council, the request will be approved or denied. If a Plan Update is required as a result the request will be referred to the appropriate watershed district or other agency for comment and approval and a process to update the LWMP will be initiated. Major issues would only become effective upon completion of the Elm Creek Watershed Management and other relevant watershed organizations, Metropolitan Council and City Council review and approval process.

### **8.3 ROUTINE UPDATES**

City staff will review development changes, budget amendment requirements, capital improvement projects, water management-related issues, and NPDES regulatory changes on an annual basis. Routine updates include wetland review results, budget changes, changes in education and outreach programming, basin repair issues, stormwater pond creation or expansions, and databases updates.

## 9.0 References

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## Appendix A

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### Joint Powers Agreements

AMENDED AND RESTATED  
JOINT POWERS AGREEMENT ESTABLISHING  
THE ELM CREEK. WATERSHED MANAGEMENT COMMISSION

RECITALS

WHEREAS, on May 12, 1993, pursuant to statutory authority, the Cities of Champlin, Corcoran, Dayton, Greenfield, Maple Grove, Medina, Plymouth and Rogers, the Town of Hassan, and the Hennepin Conservation District adopted a "Joint Powers Agreement for the Establishment of the Elm Creek Watershed Management Commission to Plan, Protect and Manage the Elm Creek Watershed and Adjacent Minor Watersheds" (the "Joint Powers Agreement"); and

WHEREAS, in 2001 the City of Greenfield withdrew from the Agreement; and

WHEREAS, the Cities of Champlin, Corcoran, Dayton, Maple Grove, Medina, Plymouth and Rogers, and the Town of Hassan, wish to amend and restate the Agreement's terms in this document.

NOW, THEREFORE, pursuant to the authority conferred upon the parties by Minn. Stat §§ 471.59 and 103B.201, et seq., the parties to this Agreement do mutually agree as follows:

SECTION ONE  
DEFINITIONS

For purposes of this Agreement, each of the following terms, when used herein with an initial capital letter, will have the meaning ascribed to it as follows:

"Agreement" means the Joint Powers Agreement, as amended and restated in this document.

"Board" means the Board of Commissioners of the Commission.

"BWSR" means the Minnesota Board of Water and Soil Resources.

"Commissioner" means an individual appointed by a governmental unit to serve on the Board. The term Commissioner shall include both the representative and alternate representative appointed to serve on the Board.

"Elm Creek Watershed" or "Watershed" means the area within the mapped area delineated on the map filed with BWSR, as may be amended. A complete legal description defining the boundary of the Elm Creek Watershed is attached hereto and made apart hereof.

"Governmental Unit" means any signatory city or township.

"Member" means a governmental unit that enters into this Agreement.

"Watershed Management Organization ("WMO") means the organization created by this Agreement, the full name of which is "Elm Creek Watershed Management Commission." The Commission shall be a public agency of its respective governmental units.

## SECTION TWO ESTABLISHMENT

The parties create and establish the Elm Creek Watershed Management Commission. The Commission membership shall include the Cities of Champlin, Corcoran, Dayton, Maple Grove, Medina, Plymouth and Rogers, and the Town of Hassan. In addition to other powers identified in this Agreement, the Commission shall have all of the authority for a joint powers watershed management organization identified in Minn. Stat. § 103B.211.

## SECTION THREE PURPOSE STATEMENT

The purpose of this Agreement is to establish an organization within the Elm Creek Watershed to (a) protect, preserve, and use natural surface and groundwater storage and retention systems, (b) minimize public capital expenditures needed to correct flooding and water quality problems, (c) identify and plan for means to effectively protect and improve surface and groundwater quality, (d) establish more uniform local policies and official controls for surface and groundwater management, (e) prevent erosion of soil into surface water systems, (f) promote groundwater recharge, (g) protect and enhance fish and wildlife habitat and water recreational facilities, and (h) secure the other benefits associated with the proper management of surface and ground water, as identified in Minn. Stat. § 103B.201, including but not limited to aesthetic values when owned by the public or constituting public resources, as defined in Minn. Stat. Ch. 116B.

The Commission's Members agree to (a) provide a forum for exchanging information in the management of land use and land use techniques and control, (b) provide a forum for resolution of intergovernmental disputes relating to management and protection of the Elm Creek Watershed; and (c) cooperate on a united basis on behalf of all units of government within the Elm Creek Watershed with all other levels of government for the purpose of facilitating natural resource protection and management in the Watershed.

## SECTION FOUR BOARD OF COMMISSIONERS

4.1. Appointment. The governing body of the Commission shall be its Board. Each Member shall be entitled to appoint one representative to serve on the Board and one alternate who may sit when the representative is not in attendance, and said representative or alternative representative shall be called a "Commissioner."

4.2. Term. Each Member shall determine the term length for its Commissioner's appointment to the Board. Each Member agrees that it will not remove from the Board its appointed Commissioner before the expiration of his/her term except for just cause. The Commission and its Members shall fill all Board vacancies pursuant to Minn. Stat. §

103B.227, subd. 1 and 2, as may be amended from time to time.

4.3. Compensation. Commissioners shall serve without compensation from the Commission, but this shall not prevent a Member from providing compensation to its Commissioner for serving on the Board.

4.4. Officers. By the first meeting in March of each year, the Commission shall elect from its membership a chairperson, a vice-chairperson, a treasurer and a secretary and such other officers as it deems necessary to reasonably carry out the purposes of this Agreement. Except for the position of chairperson, any Commissioner may be elected to more than one office. All officers shall hold office for terms of one year and until their successors have been elected by the Commission. An officer may be reelected to the same office for unlimited terms. A vacancy in an office shall be filled from the Board membership by election for the remainder of the unexpired term of such office. The officers' duties include the following:

- A. Chairperson. The Chairperson shall preside at all Board meetings and shall have all the same privileges of discussion, making motions and voting, as do other Commissioners. The Chairperson may delegate certain responsibilities to the Executive Secretary as necessary to carry out the duties of the office.
- B. Vice-Chairperson. The Vice-Chairperson shall, in the absence or disability of the Chairperson, perform the duties and exercise the powers of the Chairperson.
- C. Treasurer. The Treasurer shall have the custody of the funds and securities of the Commission and shall keep full and accurate accounts of receipts and disbursements in books belonging to the Commission and shall deposit all monies and other valuable effects in the name and to the credit of the Commission in such depository as may be designated by the Commission. He/she shall disburse funds of the Commission as approved by the Commission and shall render to the Commission at regular meetings, or as the Board may request, an account of all his/her transactions as Treasurer and of the financial condition of the Commission. The Treasurer may delegate certain duties to the Executive Secretary as necessary to carry out the duties of the office.
- D. Secretary. The Secretary shall attend all Board meetings, shall act as clerk of such meetings, and shall record all votes and the minutes of all proceedings. He/she shall give notice of all Board meetings. The Secretary may delegate certain duties to the Executive Secretary as necessary to carry out the duties of the office.
- E. Executive Secretary. The Commission may appoint an Executive Secretary to coordinate activities of the Commission, accept delegated duties by the Commission officers, and accept business duties not assigned to officers. All notices to the Commission shall be delivered or served at the office of the Executive Secretary.

4.5. Quorum and Voting. A minimum of four (4) Commissioners with voting privileges shall constitute a quorum. Once a quorum is present, a majority vote is required for approval on an action, unless as provided otherwise in this Agreement.

4.6. Meetings. The Board shall schedule meetings at least quarterly (every three months) on a uniform day and place selected by the Commission. Written notice of the location and time of all Commission meetings shall

be sent to all Commission representatives and alternate representatives and to the Clerk of each Member. Special meetings may be held at the call of the Chairperson or by any three Commissioners by giving not less than 72 hours written notice of the time, place and purpose of such meeting.

## SECTION FIVE COMMISSION POWERS AND DUTIES

5.1. Watershed Management Plan. The Commission shall develop a watershed management plan including a capital improvement program in conformance with Minn. Stat. § 103B.231. The Commission shall adopt the plan within 120 days after BWSR's approval of the plan. After adoption, the Commission shall implement the watershed management plan and enforce the regulations set out in the plan. A copy of the adopted plan shall be filed with the clerk of each Member governmental unit,

5.2. Local Water Management Plans. The Commission shall review Members' local water management plans as required by Minn. Stat. § 103B.235, subd. 3.

5.3. Review Services.

A. Where the Commission is authorized or requested to review and make recommendations on any matter, the Commission shall act on such matter in compliance with Minn. Stat. § 15.99,

B. The Commission may charge a reasonable fee for such review services. The Commission's standard fee schedule, as amended from time to time, will be a part of the Commission's Rules.

C. The Commission may charge an additional fee when it determines that a particular project will require extraordinary and substantial review services. Before undertaking such review services, the Commission shall provide the party to be charged the additional fee with written notice of the services to be performed and the additional fee therefor. Unless said party objects within 5 business days of receipt of such written notice to the amount of the additional fee to be charged, such review services shall be performed and the party shall be responsible for the cost thereof. If said party objects to the proposed additional fee for such services within 5 business days and the party and the Commission are unable to agree on a reasonable alternative amount for review services, such extraordinary and substantial review services shall not be undertaken by the Commission.

D. Upon request of any Member, the Commission shall review and evaluate any dispute between the Member and other unit(s) of government regarding land use and natural resource protection and management.

E. Where the Commission makes recommendations on any matter to a Member, a Member not acting in accordance with such recommendation shall submit a written statement of its reasons for doing otherwise to the

Commission within ten days of its decision to act contrary to the Commission's recommendation. The Commission shall review the written statement and, if determined insufficient by the Commission, request written clarification within an additional ten days.

5.4 Public Participation.

A. Technical Advisory Committee. A Technical Advisory Committee ("TAC") to the Commission is hereby created, TAC members and one or more alternate members shall be appointed by the governing body of each Member. TAC members may be, but need not be, Commissioners. TAC members shall serve at the pleasure of the governing body of each Member which appoints them and are not required to meet statutory qualifications for Commissioners. TAC members may attend and participate in all meetings of the Commission. TAC members shall not have the authority to make motions or vote on matters before the Commission, but shall otherwise have the rights of a Commissioner to question, discuss, debate and comment on all matters before the Commission.

B. Citizen Advisory Committee. If a need is determined by the Commission, the Commission will establish a Citizen Advisory Committee to the Commission,

5.5. Rules. The Commission shall adopt rules for (a) conducting its business, including but not limited to additional duties of the Commission's officers, (b) the scope of responsibilities of the Technical Advisory Committee and the Citizen Advisory Committee, if one is established, and (c) preparing the annual work plan.

5.6. Contracts. The Commission may make such contracts, and enter into any such agreements, as it deems necessary to make effective any power granted to it by this Agreement. No Commissioner shall receive a direct financial benefit from any contract made by the Commission. Every contract for the purchase or sale of merchandise, materials or equipment by the Commission shall be let in accordance with the Uniform Municipal Contracting Law (Minn. Stat. § 471.345) and the Joint Exercise of Powers statute (Minn. Stat. § 471.59). In accordance with Minn. Stat. § 471.59, subd. 3, contracts let and purchases made under this Agreement shall conform to the statutory requirements applicable to the Member cities with a population over 2,500.

5.7. Employment. The Commission may contract for services, may use staff of other governmental agencies, may use staff of the Members and may employ such other persons as it deems necessary. Where staff services of a Member are utilized, such services shall not reduce the financial contribution of such Member to the Commission's operating fund unless utilization of staff service is substantial and the Commission so authorizes.

5.8. Public/Private Organizations. The Commission may cooperate or contract with the State of Minnesota or any subdivision thereof or federal agency or private or public organization to accomplish the purposes for which it

is organized.

5.9. Annual Financial, Activity and Audit Reports; Newsletter. The Commission shall submit to its Members and BWSR a financial report, an activity report and an audit report for the preceding fiscal year, in compliance with state law. The Commission shall publish and distribute an annual newsletter in compliance with state law, The Commission shall transmit to the clerk of each Member copies of the reports/newsletter in a format ready for publication. Each Member shall publish/distribute the reports/newsletter as it deems necessary. All of the Commission's books, reports and records shall be available for and open to examination by any Member at all reasonable times.

5.10. Gifts, Grant, Loans. The Commission may, within the scope of this Agreement, accept gifts, apply for and use grants or loans of money or other property from the United States, the State of Minnesota, a unit of government or other governmental unit or organization, or any person or entity for the purposes described herein; may enter into any reasonable agreement required in connection therewith; may comply with any laws or regulations applicable thereto; and may hold, use and dispose of such money or property in accordance with the terms of the gift, grant, loan or agreement relating thereto.

5.11. Boundary Change in the Elm Creek Watershed.

A. Enlargement. Proceedings for the enlargement of the Elm Creek Watershed shall be initiated by a request from affected Member(s) to the Commission, or as mandated by law. Such request should include a map and legal description of the affected area. In reviewing such a request, the Commission should consider, among other things, (a) whether the affected area is contiguous to the existing Elm Creek Watershed, (b) whether the affected area can be feasibly administered by the Commission; and (c) the reasons why it would be conducive to the public health and welfare to add the area to the existing Elm Creek Watershed. Upon deliberation, if it appears to the Commission that the enlargement of the Watershed as requested would be for the public welfare and public interest and the purpose of resource management would be served, or that in fact the enlargement is mandated by law, the Commission shall by its findings and order enlarge the Elm Creek Watershed and file a copy of said findings and order with the appropriate governmental offices.

B. Transfer of Territory. Proceedings to transfer territory that is within the Elm Creek Watershed to the jurisdiction of another watershed management organization or a watershed district shall be initiated by a request from affected Member(s) to the Commission, or as mandated by law. Such request should include a map and legal description of the affected area. Upon deliberation, if it appears to the Commission that the transfer of territory as requested would be for the public welfare and public interest and the purpose of resource management would be

served, the Commission shall by its findings and order change the Elm Creek Watershed boundaries accordingly and file a copy of said findings and order with the appropriate governmental offices.

5.12. Subdistricts. The Commission may define and designate drainage subdistricts within the Watershed and shall have authority to separate the Watershed into such different subdistricts and to allocate capital improvement costs to a subdistrict area if that subdistrict is the only area that materially benefits from the capital improvement.

5.13. Monitor Water Quality. The Commission will continue to monitor waterbodies and streams, to evaluate the success of its program to control non-point sources of pollution, and use the results of the water quality monitoring program to determine the progress towards these goals.

5.14. Ratification. The Commission may, and where required by this Agreement shall, refer matters to the governing bodies of the Members for ratification. Within 60 days, the governing bodies of the Members shall take action upon any matter referred for ratification.

5.15. Statutory Powers. The Commission may exercise all other powers necessary and incidental to the implementation of the purposes and powers set forth herein and as outlined and authorized by Minn, Stat. §§ I03B.201, et seq.

## SECTION SIX FINANCIAL MATTERS

6.1. Depositories/Disbursements. The Commission may collect and receive money and services subject to the provisions of this Agreement from the parties and from any other sources approved by the Commission and it may incur expenses and make expenditures and disbursements necessary and incidental to the effectuation of the purposes of this Agreement. The Board shall designate a national, state, or private bank or banks as a depository of Commission funds. Funds may be expended by the Commission in accordance with procedures established herein. Orders, checks and drafts shall be signed by two officers,

6.2. General Administration. Each voting Member agrees to contribute each year to a general fund to be used for general administration purposes including, but not limited to, salaries, rent, supplies, development on an overall plan, insurance, bonds, and to purchase and maintain devices to measure hydrological and water quality data. The funds may also be used for normal maintenance of facilities and capital improvements. The annual contribution by each voting Member shall be based on its share of the taxable market value of all real property within the Watershed to the total area in the Watershed.

6.3. Budget Approval and Appeal Process. On or before June 15 of each year, the Board shall adopt an operating budget for the following calendar year for the purpose of providing funds to operate the Commission's

business in accordance with its annual work plan. The operating budget shall never be greater than the equivalent of 0.02418% of total market value on all real property within the Watershed. Budget approval shall require a majority vote of all Commissioners eligible to vote. The Commission shall certify the budget on or before July 1 to the clerk of each Member governmental unit together with a statement of the proportion of the budget to be provided by each Member. The schedule of payments by the Members shall be determined by the Board in such a manner as to provide for an orderly collection of the funds needed.

The governing body of each Member agrees to review the budget, and the Board shall upon notice from any Member received prior to August 15, hear objections to the budget, and may, upon notice to all Members and after a hearing, modify or amend the budget (except the fee due cannot be increased), and then give notice to the Members of any and all modifications or amendments. Each Member agrees to provide the funds required by the budget and said determination shall be conclusive if no Member enters objections in writing on or before August 15. If objections are submitted to the Board, each Member agrees to provide the funds approved by the Board, after the Board has conducted the aforementioned hearing. Modifications or amendments to the original budget require a favorable vote by a majority of all Commissioners eligible to vote.

6.4. Supplemental Budget. Upon notice and hearing, the Board by a majority vote of all Commissioners eligible to vote may adopt a supplemental budget requiring additional payments by the Members within 60 days of its adoption. The operating budget, including any supplemental budget, shall never be greater than the equivalent of 0.02418% of total market value on all real property within the Watershed.

## SECTION SEVEN CAPITAL IMPROVEMENT PROGRAM

7.1. Assessments. If a capital improvement ordered by the Commission may result in payment from any Member, or if a capital improvement ordered by the Commission may result in a levy by a Member against privately or publicly owned land within the Watershed, said capital improvement shall follow the statutory procedure outlined in Minn. Stat. Ch. 429, except as herein modified.

7.2. Preliminary Reports/Public Hearings. For those improvements initiated by the Commission or so designated in the Commission's watershed management plan to be constructed by the Board, the Board shall secure from its engineers or some other competent person a preliminary report advising it whether the proposed improvement is feasible and as to whether it shall best be made as proposed or in connection with some other improvement and the estimated cost of the improvement as recommended,

The Board shall then hold a public hearing on the proposed improvement after mailed notice to the clerk of each Member governmental unit within the Watershed. The Commission shall not be required to mail or publish notice except by said notice to the clerk. Said notice shall be mailed not less than 45 days before the hearing, shall state the time and place of the hearing, the general nature of the improvement, the estimated total cost and the estimated cost to each Member governmental unit. The Board may adjourn said hearing to obtain further information, may continue said hearing pending action of the Member governmental units or may take such other action as it deems necessary to carry out the purpose of this Commission.

A resolution setting forth the order for a capital improvement project shall require a favorable vote by at least two-thirds of all Commissioners eligible to vote. In all cases other than to order a capital improvement project, a majority vote of all Commissioners eligible to vote shall be sufficient to adopt an action. The order shall describe the improvement, shall allocate in percentages the cost between the Member governmental units, shall designate the engineers to prepare plans and specifications, and shall designate the Member who will contract for the improvement.

After the Board has ordered the improvement or if the hearing is continued while the Member governmental units act on said proposal, it shall forward said preliminary report to all Member governmental units with an estimated time schedule for the construction of said improvement. The Board shall allow an adequate amount of time, and in no event less than 45 days, for each Member governmental unit to conduct hearings, in accordance with the provisions of the aforestated Chapter 429 or the charter requirements of any Member city, or to ascertain the method of financing which said Member governmental unit will utilize to pay its proportionate share of the costs of the improvement, Each Member governmental unit shall ascertain within a period of 90 days the method it shall use to pay its proportionate share of the costs.

If the Commission proposes to use Hennepin County's bonding authority as set forth in Minn. Stat. § 103B.251, or if the Commission proposes to certify all or any part of a capital improvement to Hennepin County for payment, then and in that event all proceedings shall be carried out in accordance with the provisions set forth in said Section 103B.251.

The Board shall not order and no engineer shall prepare plans and specifications before the Board has adopted a resolution ordering the improvement. The Board may direct one of its Members to prepare plans and specifications and order the advertising for bids upon receipt of notice from each Member governmental unit who will be assessed that it has completed its hearing or determined its method of payment or upon expiration of 90 days after the mailing of the preliminary report to the Members.

7.3. Appeals/Arbitration. Any Member governmental unit being aggrieved by the Board's determination as to the cost allocation of said capital improvement shall have 30 days after the Commission resolution ordering the improvement to appeal said determination. Said appeal shall be in writing and shall be addressed to the Board asking for arbitration. The determination of the Member's appeal shall be referred to a Board of Arbitration. The Board of Arbitration shall consist of three persons; one to be appointed by the Board of Commissioners, one to be appointed by the appealing Member governmental unit, and the third to be appointed by the two so selected. In the event the two persons so selected do not appoint the third person within 15 days after their appointment, then the Chief Judge of the Hennepin County District Court shall have jurisdiction to appoint, upon application of either or both of the two earlier selected, the third person to the Board of Arbitration. The third person selected shall not be a resident of any Member governmental unit and if appointed by the Chief Judge said person shall be a person knowledgeable in the subject matter. The arbitrators' expenses and fees, together with the other expenses, not including attorney fees, incurred in the conduct of the arbitration shall be divided equally between the Commission and the appealing Member. Arbitration shall be conducted in accordance with the Uniform Arbitration Act, Minn. Stat. Ch. 572.

7.4. Contracts for Capital Improvements. All contracts which are to be let as a result of the Board ordering a capital improvement, and for which two or more Member governmental units shall be responsible for the costs, shall be let in accordance with the provisions of Minn. Stat. § 429.041. The bidding and contracting of said work shall be let by any one of the Member governmental units, as ordered by the Board, after compliance with the statutory requirements. Contracts and bidding procedures shall comply with the legal requirements applicable to statutory cities.

The Commission shall not have the authority to contract in its own name for any improvement work for which a special assessment will be levied against any private or public property under the provisions of Chapter 429 or under the provisions of any Member city charter. These contracts shall be awarded by action of the governing body of a Member and shall be in the name of a Member governmental unit. This section does not preclude the Commission from proceeding under Minn. Stat. § 103B.251.

7.5. Contracts with Other Governmental Bodies. The Commission may exercise the powers set forth in Section 7.4 but said contracts for a capital improvement shall require a majority vote of all Commissioners eligible to vote,

7.6. Supervision. All improvement contracts shall be supervised by the entity awarding the contract. The Commission staff shall also be authorized to observe and review the work in progress and the Members agree to cooperate with the Commission staff in accomplishing its purposes. Representatives of the WMO shall have the right to enter upon the place or places where the improvement work is in progress for the purpose of making reasonable tests

and inspections. The Commission staff shall report and advise and recommend to the Board on the progress of the work.

7.7. Land Acquisition. The Commission shall not have the power of eminent domain. The Member governmental units agree that any and all easements or interests in land which are necessary will be negotiated or condemned in accordance with Minn. Stat. Ch. 117 by the unit wherein said lands are located, and each Member agrees to acquire the necessary easements or right-of-way or partial or complete interest in land upon order of the Board of Commissioners to accomplish the purposes of the improvement. All reasonable costs of said acquisition shall be considered as a cost of the improvement. If a Member government unit determines it is in the best interests of that Member to acquire additional lands, in conjunction with the taking of lands for storm and surface drainage or storage, or some other purpose, the costs of said acquisition will not be included in the improvement costs of the ordered project. The Board in determining the amount of the improvement costs to be assessed to each Member governmental unit may take into consideration the land use for which the additional lands are being acquired and may credit the acquiring municipality for said land acquisition to the extent that it benefits the other Members to this Agreement. Any credits may be applied to the cost allocation of the improvement project under consideration or the Board if feasible and necessary may defer said credits to a future project.

If any Member unit refuses to negotiate or condemn lands as ordered by the Board, any other Member may negotiate or condemn outside its corporate limits in accordance with Minn. Stat. Ch. 117. All Members agree that they will not condemn or negotiate for land acquisition to pond or drain storm and surface waters within another Member's corporate boundaries within the Watershed except upon order of the Board of Commissioners.

7.8. Capital Improvement Fund.

A. The Commission shall establish an improvement fund for each capital improvement project. Each Member agrees to contribute to said fund its proportionate share of the engineering, construction, legal and administrative costs as determined by the amount to be assessed against each Member as a cost of the improvement. The Board shall submit in writing a statement to each Member, setting forth in detail the expenses incurred by the Commission for each project,

Each Member agrees to pay its proportionate share of the cost of the improvement in accordance with the determination of the Board under Section 7.2. The Board, in its discretion, may require Members to make advance payments based upon estimated costs, subject to adjustment to reflect actual costs, or may bill the Members as costs are actually incurred. Members agree to pay billings within 30 days of receipt. The Board or the Member awarding the

contract shall advise other contributing Members of the tentative time schedule of the work and the estimated times when the contribution shall be necessary.

B. Notwithstanding the provisions of Section 7.8.A., the Commission may fund all or part of the cost of a capital improvement contained in the capital improvement program of the plan in accordance with Minn. Stat. § 103B.251, The Commission and Hennepin County may establish a maintenance fund to be used for normal and routine maintenance of an improvement constructed in whole or in part with money provided by Hennepin County pursuant to Minn. Stat. § 103B.251. The levy and collection of an ad valorem tax levy for an improvement, payment of bonds, or maintenance shall be by Hennepin County based upon a tax levy resolution adopted by a majority vote of all eligible Members of the Board and remitted to the County on or before the date prescribed by law each year. If it is determined to levy for maintenance, the Commission shall be required to follow the hearing process established by Minn. Stat. Ch. 103D. Mailed notice shall also be sent to the clerk of each Member governmental unit at least 30 days before the hearing.

7.9. Capital Improvement Cost Allocation.

A. All costs of improvements designated in the Board's adopted watershed management plan for construction by the Board, which the Board determines will benefit only one Member, shall be paid for entirely by that Member.

B. All costs of improvements designated in the Board's adopted watershed management plan for construction by the Board, which the Board determines benefit more than one Member, shall be apportioned by the Board by the following bases:

- (1) A negotiated amount to be arrived at by the Members who have lands in the subdistrict responsible for the capital improvement.
- OR
- (2) Based on each Member's share of the taxable market value of all real property within the Watershed to the total area within the Watershed.
- OR
- (3) Capital costs allocated under option (2) above may be varied by the Commission by a favorable vote by at least two-thirds of all Commissioners eligible to vote if (a) any Member community receives a direct benefit from the capital improvement which benefit can be defined as a lateral as well as a trunk benefit, or (b) the capital improvement provides a direct benefit to one or more Members which benefit is so disproportionate as to require in a sense of fairness a modification in the formula,

C. If the project is constructed and financed pursuant to Minn, Stat, § 103B.251, the Members understand and agree that said costs will be levied on all taxable property in the watershed as set forth in the statute.

D. Credits to any Member for lands acquired by said Member to pond or store storm and surface

water shall be allowed against costs as set forth in Section 7.7.

#### SECTION EIGHT WITHDRAWAL FROM AGREEMENT

Withdrawal of any Member may be accomplished by filing written notice with the Commission and the other Members 60 days before the effective date of withdrawal. No Member may withdraw from this Agreement until the withdrawing Member has met its full financial obligations for the year of withdrawal and prior years,

#### SECTION NINE DISSOLUTION OF COMMISSION

9.1. This Agreement may be terminated upon the unanimous consent of the parties. If the Agreement is to be terminated, a notice of the intent to dissolve the Commission shall be sent to Hennepin County and BWSR, at least 90 days before the date of dissolution,

9.2. In addition to the manner provided in Section 9.1 for termination, any Member may petition the Commission's Board to dissolve the Commission. Upon 90 days notice in writing to the clerk of each member governmental unit and to Hennepin County and BWSR, the Board shall hold a hearing and upon a majority vote of all Commissioners eligible to vote, the Board may by Resolution recommend that the Commission be dissolved, Said Resolution shall be submitted to each Member governmental unit and if ratified by three-fourths of the governing bodies of all eligible Members within 60 days, said Board shall dissolve the Commission allowing a reasonable time to complete work in progress and to dispose of personal property owned by the Commission.

9.3. Winding Up. Upon dissolution, all personal property of the Commission shall be sold and the proceeds thereof, together with monies on hand after payment of all obligations, shall be distributed to the Members, Such distribution of Commission assets shall be made in approximate proportion to the total contributions to the Commission for such costs made by each Member. All payments due and owing for operating costs under Section 6.2, or other unfilled financial obligations, shall continue to be the lawful obligation of the Members. In no event may this Agreement be terminated until all of the planning and plan implementation provisions of the Act, which are required of a watershed management organization, have been completed.

#### SECTION TEN MISCELLANEOUS PROVISIONS

10.1. Eminent Domain. The Commission shall not have the power of eminent domain and shall not own any interest in real property. All interests in lands shall be held in the name of the Member wherein said lands are located.

10.2. Special Assessments. The Commission shall not have the power to levy a special assessment upon any privately or publicly owned land. All such assessments shall be levied by the Member wherein said lands are located. The Commission shall have the power to require any Member to contribute the costs allocated or assessed according to the other provisions of this agreement.

10.3. Member's Construction Projects that Will Affect Elm Creek. Each Member agrees that it will not directly or indirectly collect or divert any additional surface water to or from Elm Creek or its tributaries without approval from the Commission. Such approval may be granted by the Commission for a Member to proceed with the construction or reconstruction of improvements within the individual corporate Member's boundaries and at said Member's sole cost upon a finding (a) that there is an adequate outlet, (b) that said construction is in conformance with the overall plan, and (c) that the construction will not adversely affect other Members.

10.4. Member Vote Suspension for Failure to Contribute. Any Member who is more than 60 days in default in contributing its proportionate share to the general fund shall have the vote of its Board representative suspended pending the payment of its proportionate share. Any Member who is more than 60 days in default in contributing its proportionate share of the cost of any improvement to the contracting Member shall upon request of the contracting Member have the vote of its Board representative suspended, pending the payment of its proportionate share. Any Member whose Board representative vote is under suspension shall not be considered as an eligible Member as such membership affects the number of votes required to proceed on any matter under consideration by the Board.

10.5. Amendment. The Commission may recommend changes and amendments to this Agreement to the Members. Amendments shall be acted upon by the Members within 90 days of referral. Amendments shall be evidenced by appropriate resolutions of the Members filed with the Commission and shall, if no effective date is contained in the amendment, become effective as of the date all such filings have been completed.

10.6. Termination of Prior Agreement. By executing this document, the parties hereby agree to terminate the prior joint powers agreement, adopted May 12, 1993.

10.7. Counterparts. This Agreement and any amendment may be executed in several counterparts and all so executed shall constitute one Agreement or amendment, binding on all of the parties hereto notwithstanding that all of the parties are not signatory to the original or the same counterpart.

10.8. Effective Date. This Agreement shall be in full force and effect when all governmental units delineated in Section 2 have executed this Agreement. All Members need not sign the same copy.

10.9.Duration. This agreement shall have an unlimited duration.

10.10.Statutory References. All statutory references include all future amendments.

Dated: 11/10/2003

CITY OF CHAMPLIN

By: [Signature]  
Its Mayor

Attest: [Signature]  
Its City Clerk

Dated: November 13, 2003

CITY OF CORCORAN

By: [Signature]  
Its Mayor

Attest: [Signature]  
Its City Clerk

Dated: 4-14-04

CITY OF DAYTON

By: [Signature]  
Its Mayor

Attest: [Signature]  
Its City Clerk

Dated: Dec. 15th, 2003

CITY OF MAPLE GROVE

By: [Signature]  
Its Mayor

Attest: [Signature]  
Its City Clerk

Dated: 11-18-2003

CITY OF MEDINA

By: [Signature]  
Its Mayor

Attest: [Signature]  
Its City Clerk

11-25-03

Dated:

CITY OF PLYMOUTH

By: Julie A. Johnson  
Its Mayor

Attest: Sandra Raulon  
Its City Clerk

5-25-04

Dated:

CITY OF ROGERS

By: Reigh D. Stanley  
Its Mayor

Attest: Tanya Bobosensai  
Its City Clerk

Dated: Dec. 7, 2003

TOWN OF HASSAN

By: COOR. F.  
Chair of Town Board

Attest: Be. F. F.  
Its Town Clerk

## JOINT POWERS AGREEMENT

THIS AGREEMENT is entered into this 13<sup>th</sup> day of Nov, 2015, by and between the **City of Dayton**, a Minnesota municipal corporation, 12260 South Diamond Lake Road, Dayton, Minnesota 55327 (hereinafter the "Dayton") and **City of Rogers**, a Minnesota municipal corporation, 22350 South Diamond Lake Road, Rogers, Minnesota 55374 (hereinafter "Rogers"; Dayton and Rogers sometimes individually "City" and collectively "Cities").

WHEREAS, the Rogers and Dayton share a common boundary with closely aligned roads and shared utility services which benefit both Cities; and

WHEREAS, both Cities desire to continue to cooperate and coordinate the planning and development and provision of infrastructure, including utility service; and

WHEREAS, the Cities are empowered to enter into a Joint Powers Agreement pursuant to Minn. Stat. §471.59 to carry out municipal powers possessed by each, including infrastructure and roadway planning and implementation; and

WHEREAS, the purpose of this Agreement is to provide for cooperation in the planning, location, use and funding of public infrastructure within each City in a manner that is efficient and promotes the orderly development of areas in each City near their joint boundary.

NOW, THEREFORE, it is hereby agreed by and between the Cities as follows:

1. Incorporation. The foregoing recitals are hereby incorporated into and made a part of this Agreement.
2. Utility Service. Rogers will provide permanent municipal water and temporary sewer service to area shown on the attached Exhibit A ("Dayton Utility Service Area") pursuant to Utility Service Agreement attached hereto as Exhibit B.
3. Development South of County State Aid Highway 81 (hereinafter "CSAH 81"). The area shown on Exhibit C and marked as "South CSAH 81 Service Area" shall be the subject of discussion between the parties for inclusion in Dayton's utility plan for Southwest Dayton to determine if service can be provided to the Area, and if so to negotiate with respect to the terms of any service to be provided.
4. Rogers Drive/Brockton Lane Intersection.
  - a. Hennepin County has identified the intersection of Rogers Drive and Brockton Lane as one that should be constructed to a four lane section (hereinafter "Intersection Improvement"), as shown on the attached Exhibit D (hereinafter "Intersection Plans"), a portion of which is already built by Rogers. Rogers will be the responsible contracting/lead agency in the final design, bidding and construction of the Intersection Improvements pursuant to the Intersection Plans. A preliminary design of the full intersection has been done and is shown on the

attached Exhibit E. Rogers will work with Dayton and the developer within Dayton of the French Lake Development, Liberty, to arrive at the most efficient cost-effective design that meets the County's requirements. Upon approval of the plans by all parties, the work will be bid and construction started as soon as reasonably possible. The existing portion that was completed in 2015 is estimated to cost between \$900,000.00 and \$1,000,000.00. The new improvements are estimated between \$900,000.00 and \$1,200,000.00. This brings the full intersection costs to an estimated cost of \$1,800,000.00 to \$2,200,000.00. ~~Dayton and Rogers will each be responsible for 50% of the actual costs even if it exceeds the estimates that are noted. Dayton will be responsible for 50% of the Intersection Improvement costs upon receiving full documentation and support demonstrating actual costs incurred, which based off these estimates would be \$900,000.00 to \$1,100,000.00.~~ Rogers shall not enter into a contract for or commence construction of the Intersection Improvements, if Dayton is going to be a cost participant, until such time as Dayton has entered into an agreement with the developer of the French Lake Development ("French Lake Development Agreement") obligating and providing assurance, satisfactory to Dayton, that the Developer will pay Dayton's share of Intersection Improvements. ~~After the Intersection Improvements are constructed, Dayton shall reimburse Rogers within 30 days of billing for 50% of the Intersection Improvement costs and Rogers shall provide to Dayton copies of all payment requests and such other supporting documentation as Dayton requests.~~ Rogers is willing to consider accepting payment of 1/3 of the Dayton shared costs within 30-days of billing and also assess Liberty Property Trust's two parcels in Rogers for the balance of the billing.

- b. Any future improvements beyond the Intersection Improvements as depicted on the Intersection Plans, including, but not limited to, the addition of a second north-bound left lane (hereinafter "Left Turn Lane") shall be the sole responsibility of Rogers for design and construction.
5. This Section intentionally left blank.
6. Brockton Lane Four Lane from Rogers Drive to CSAH 81. SRF is preparing a study with respect to a potential roadway improvement to Brockton Lane to expand it to four lanes from Rogers Drive to CSAH 81(hereinafter the "Study"). Once the Study has been prepared and provided to Dayton, Dayton shall pay 1/3 of the cost of the Study, provided that Rogers pays 1/3 and Hennepin County pays 1/3.
  - a. Once received the parties shall review the Study and engage in discussions concerning potential implementation of the Study recommendations.
7. 124 Avenue. Dayton may wish to vacate 124<sup>th</sup> Avenue at a future date and if it elects to do so, Rogers will agree to vacate its portion as well. The City of Rogers will maintain an access to the existing public facility (lift station) currently existing. Any improvements to the County Road for facilitating an access would be the responsibility of the benefited property owner.
8. Brockton/CSAH 81/13 Intersection. Dayton and Rogers intend to improve the Brockton, CSAH 81 and Highway 13 intersection (hereinafter "CSAH 81 Intersection

Improvements”) as shown on attached Exhibit F (hereinafter “CSAH 81 Plans”). Rogers will be the lead agency in bidding and constructing the CSAH 81 Intersection Improvements pursuant to the CSAH 81 Plans and will build and complete the CSAH 81 Intersection in accordance with CSAH Plans. Roger’s and its developers have committed \$2,800,000.00 toward these intersection improvements, Hennepin County has committed \$800,000.00. Rogers will expend the first \$2,000,000.00 in construction and project development costs including engineering and right-of-way, exclusive of the City of Rogers Cooperative Construction Agreement with Hennepin County in the amount of \$800,000.00, for right-of-way acquisition only. After the project costs have exceeded \$2,000,000.00, Rogers and Dayton agree to provide up to \$800,000.00 each, for a total of \$1,600,000.00 toward the project costs expensed as an equal (50/50) share. Provided, however, in no event will Dayton be obligated to pay more than \$800,000.00. The CSAH 81 Intersection Improvements are proposed to be constructed in 2016; if Dayton is to be a cost participant Rogers shall not enter into a contract or commence construction of the CSAH 81 Intersection Improvements until such time that Dayton has entered into the French Lake Development Agreement, to the Satisfaction of Dayton, assuring and obligating that the Developer will pay Dayton’s share, if any, of the CSAH 81 Intersection Improvements. In the event of a request for payment is made to Dayton, the request shall be accompanied by the payment applications showing project costs in excess of \$2,000,000.00 and such other documentation as requested by Dayton. Dayton shall have 30 days to review and process said payment requests from the receipt of the final documentation and shall be responsible for only actual construction costs that have been incurred and paid by Rogers. No billing will be made to Dayton unless Rogers has expended the necessary dollars as noted above on construction costs. Dayton will participate fully in discussions with property owners within Dayton regarding project development and acquisition as it relates to the improvements described herein.

9. Joint Property. The parties do not expect that there will be property of any kind or description that will result from the cooperative actions contemplated by this Agreement, nor any joint funds. Consequently, there will be no property or funds to be distributed upon termination or expiration of this Agreement.
10. Brockton Interchange. Rogers supports the Brockton Interchange with I-94 (“Brockton Interchange Project” as shown on attached Exhibit G) and the City of Dayton’s application for the 2015 Minnesota Transportation Economic Development Pilot Project grant (“TED”). Rogers will contribute a maximum of \$1,500,000 toward the Local Match for the Brockton Interchange Project to either Dayton or the appropriate funding agency (“Rogers Local Match”). Funds shall be paid by Rogers within 30 days of completion of the First Phase of Brockton Interchange Project. Dayton shall proceed with the Brockton Interchange Project only in the event it receives \$10,000,000 in Federal or State grants after the date of this Agreement. Rogers will be obligated to

contribute the Rogers Local Match only after Dayton has contributed funds towards the Brockton Interchange Project ("Dayton Brockton Contribution"). The Rogers Local Match shall be one-half (1/2) of the actual Dayton Brockton Contribution provided with a maximum Rogers Local Match of \$1,500,000. The Rogers and/or Dayton Brockton Contribution shall be made by any combination of in kind expenditure directly related to design or construction of the Brockton Interchange Project, including without limitation, the value of contributed real estate, engineering or design services, in addition to cash, regardless of the source as allowed by any Grant(s) received to meet Rogers/Dayton's local match.

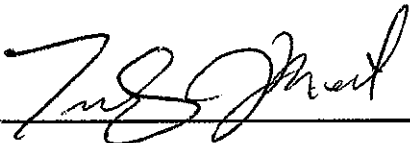
11. Liability. To the full extent permitted by law, the Agreement is intended to be and shall be construed as a "cooperative activity" under Minn. Stat. §471.59 and neither City is liable for the acts or omissions of the other City. Neither City shall be responsible for injuries or death of the other party's personnel. Each City will maintain worker's compensation coverage to the extent required by law on its personnel who perform work pursuant to this Agreement. Dayton and Rogers shall maintain their own comprehensive liability insurance policy or program in at least the amounts specified as to the extent of liability under Minn. Stat. § 466.04.

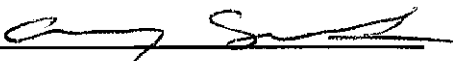
12. Miscellaneous.

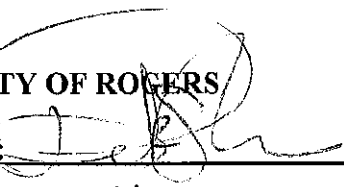
- a. Binding Effect. All of the covenants, conditions and agreements herein contained shall extend to, be binding upon, and inure to the benefit of the Cities and their respective permitted successors and assigns.
- b. Governing Law. This Agreement shall in all respects be governed by and interpreted under the laws of the State of Minnesota.
- c. Time is of the Essence. Time is of the essence in the Agreement and performance of the terms and obligations herein.

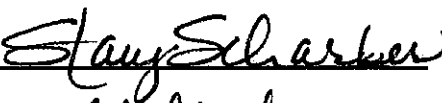
IN WITNESS WHEREOF, the Cities have subscribed their names as of the day and year first above written.

**CITY OF DAYTON**

By:   
Its: Mayor

By:   
Its: Deputy Clerk

**CITY OF ROGERS**  
By:   
Its: Mayor

By:   
Its: City Clerk



## Memorandum

**To:** Lisa Herbert, Finance Director, City of Rogers

**From:** Bret Weiss, PE, City Engineer, WSB & Associates  
Jenn Edison, PE, Project Manager, WSB & Associates

**Date:** 6/26/17

**Re:** Rogers Drive/CSAH 13 Partial Project Cost Payment  
WSB Project No. 3193-08

The Rogers Drive/Brockton Lane (CSAH 13) Intersection Improvements Project is near completion and the contractor has some remaining punch list items to complete prior to final acceptance. The current project costs are noted as follows:

Current Project Costs Brockton/Rogers Drive	
Design	\$69,497
Construction Management	\$91,100
Permits	\$10,929
Publications	\$910
Construction	\$625,763
<b>Total Project Costs</b>	<b>\$798,198</b>

Current project costs are **\$798,200** and are to be 100% funded through developer (Liberty) funds per the Developers Agreement for West French Lake Industrial Park. Staff is still working to resolve other possible costs that have been submitted by the developers engineer for consideration to be included in the total project costs for the intersection improvements. These items were completed as part of the West French Lake Industrial Park and are related to grading and stormwater management.

In 2014, the first phase of the Rogers Drive/CSAH 13 (Brockton Lane) intersection expansion was constructed for the Fedex Development. The improvements for the first phase of the intersection expansion was fully funded through developer funds as per the Developers Agreement with Scannell Properties. The total project costs for these improvements was **\$933,521**.

We will continue to evaluate the requests by the developer and determine what the final project cost will be. In accordance with the agreement, the two project costs will be added together and divided by two for the final number to be paid by the City of Dayton. At this point, it appears that Rogers will have paid more and there will be some amount of restitution from the City of Dayton to square up the two projects for an equal financial investment.

We would recommend that you invoice the City of Dayton for \$798,200 at this time.

Please contact us with any questions or concerns at 763-541-4800.

### **Joint Powers Agreement**

WHEREAS, the City of Rogers (hereinafter "Rogers") and the City of Dayton (hereinafter "Dayton") are municipal corporations under the laws of Minnesota; and

WHEREAS, Dayton has a public water system that is supplied water from the City of Maple Grove (hereinafter "Maple Grove") which is capable of providing service to Lot 1 Block 1 Kinghorn Industrial Park for an industrial building not to exceed \_\_\_\_\_ square feet (hereinafter "User") within Rogers; and

WHEREAS, Rogers has a property that is being developed adjacent to Dayton's water system and a distance away from current Rogers water supply; and

WHEREAS, a temporary connection to the Dayton water system and Maple Grove water supply has been requested by Rogers to serve this property until the Rogers system can be extended to the site, which Rogers intends to last for no longer than five years; and

WHEREAS, Rogers understands that no additional connections other than to User will be allowed without prior approval of Dayton and Maple Grove; and

WHEREAS, Rogers and Dayton have discussed the connection with Maple Grove and have received approval for the connection according to a memo of understanding that stipulates a connection charge of \$20,000 be paid by Rogers to Maple Grove for five (5) years of service and that if User is still connected after the five year term, that another \$20,000 be paid to Maple Grove for a second five year term. Rogers will accurately meter water provided to the User and will provide that information to Dayton and will pay Dayton the charges for said water use consistent with water charges made to similar uses in Dayton, including a reasonable administrative fee of 1% of the water charges made; and

WHEREAS, Maple Grove's water supply is not intended to serve all of fully developed Dayton. If this connection continues to a time when Dayton begins to supplement Maple Grove's water supply with its own water supply,, but no earlier than 10 years from the date of this Agreement,, Dayton will make additional charges to Rogers commensurate with all additional costs to Dayton for providing that service, including trunk and facility charges, and administrative, legal and engineering fees incurred by Dayton; and

WHEREAS, the proposed connection, following the end of this use agreement, can serve as a cross connection between Rogers and Dayton in case there is a need to provide water to one or the other community. Rogers will be paying the entire \$21,000 connection cost to provide this emergency cross connection. (This is the full cost of the improvement which would otherwise be split between Dayton and Rogers at \$10,500 each.) In consideration for the completion of this emergency cross connection and Rogers paying Dayton's share of half the cost or \$10,500, Dayton will not charge Rogers its trunk water main fee (\$1200/acre for the 11.69 acres or \$14,028. Because this is a temporary connection to last no more than 5 years and assuming a watermain life of 40 years Roger's cost would be 1/8 of \$14,028 or \$1,753.50); and

WHEREAS, Dayton is willing under the terms of this agreement to make its public water available to User; and

NOW, THEREFORE, IT IS HEREBY AGREED upon this 19th day of June, 2013, pursuant to Minn. Stat. §471.59, between Rogers and Dayton under the terms of this agreement.

1. Purpose. The purpose of this agreement is for Dayton to provide public water service to User within the City of Rogers under the terms of this agreement.
2. Incorporation. The foregoing recitals are incorporated into and made part of this Agreement.
3. Permission to Connect. User will be allowed to connect to the Dayton water system through a public watermain that will connect Rogers and Dayton. The water will be provided from Maple Grove and a connection charge will be paid to Maple Grove amounting to \$20,000 for five years of service, prior to commencement of service. If Rogers has not connected the User to Rogers's water within the five year period, Rogers will pay Maple Grove an additional \$20,000 for a new five year term, prior to commencement of continued service. Dayton will not require any payment for trunk system improvements and will take the construction of this interconnect as payment in full for the normal trunk fee. Rogers will spend \$21,000 to complete the connection to Dayton.
4. Construction. Rogers shall be responsible for construction of all necessary pipes, leads, valves and other appurtenances to allow the User to connect with Dayton's water system. Rogers shall be responsible for all such construction cost and may assess or otherwise charge properties within Rogers. All construction shall be done to specifications consistent with the applicable standards and regulations, including any applicable Dayton construction standards. Dayton shall review and approve construction plans before the commencement of construction and may, to the extent desired, monitor actual construction to assure compliance with applicable Dayton standards.

Charges for Service. Rogers shall pay Maple Grove \$20,000 for five years of service and if Rogers is still connected after the five year term, another \$20,000 will be paid to Maple Grove for a second five year term. In addition Rogers shall pay to Dayton \$3,500 prior to the commencement of service and after connection, Rogers shall pay for ongoing water service at the same rate as Dayton charges its residents, plus an administrative fee of 1% of the water service charges payable to Dayton. The payment shall be made by Rogers on a quarterly basis, upon receipt. The payment made by Rogers shall be accompanied by a Water Use Report or meter reading to provide for actual usage. In the event service continues after the initial five year term, Rogers shall pay to Dayton an additional \$3,500 prior to commencement of the additional 5 year term.

5. Reimbursement. Rogers agrees to pay the total amount of any costs, charges, expenses, attorneys' fees and engineering fees incurred by Dayton in relation to this agreement and its implementation. Dayton shall invoice Rogers and Rogers shall remit payment to Dayton within 14 calendar days of the receipt of the invoice.
6. Maintenance/Compliance with Dayton Regulations. Rogers agrees to maintain and operate the public water main system within the corporate boundaries of the City of Rogers in accordance with all Dayton and other applicable State regulations. The City of Dayton shall maintain the water main system within the corporate boundaries of the City of Dayton.

7. Assistance. Rogers and Dayton will work together to answer questions and provide information concerning maintenance, billing and other common areas of concern between the cities.
8. Arbitration. All disputes between the parties shall be resolved by arbitration pursuant to Minn. Stat. Chapt. 572. If the parties cannot agree on the arbitrator, the arbitrator shall be appointed through application to the Hennepin County District Court.
9. Contingencies. This agreement is contingent upon all necessary approvals by the Minnesota Department of Health and Maple Grove for the water service described herein.
10. Default and Termination. In the event payments due to Dayton are not made as required the City may terminate this Agreement upon ten days notice to Rogers. Upon any termination of the Agreement, upon the effective date of termination, the Dayton may discontinue the provision of water to Rogers under this Agreement and shall have no liability to Rogers for such termination; and, Rogers shall defend, indemnify and hold Dayton harmless from any all claims, including without limitation from the User, or any other owners, tenants or occupants of the property of the User.
11. Term of Agreement. Dayton may terminate this Agreement upon 6 months written notice if Dayton reaches capacity of water from Maple Grove, Rogers will be responsible to provide water service to the site. Provided, however, this Agreement shall terminate when the User can be served by a water system operated by Rogers or ten years from the date of this Agreement, whichever comes first.

IN WITNESS WHEREOF, the undersigned, as of the date set forth above, being fully authorized, on behalf of the Cities of Rogers and Dayton, agree to the terms set forth above.

CITY OF ROGERS

By: \_\_\_\_\_  
Mayor

Attest:

\_\_\_\_\_  
City Clerk

CITY OF DAYTON

By: \_\_\_\_\_  
Mayor

Attest:

\_\_\_\_\_  
City Clerk

CITY OF OTSEGO  
COUNTY OF WRIGHT  
STATE OF MINNESOTA

*Daytonce Dayton  
Contract per  
Army File  
under 2/14/17  
Contract*

**AGREEMENT BETWEEN THE CITY OF OTSEGO AND CITY OF DAYTON REGARDING COSTS RELATED TO  
THE STUDY AND EVALUATION OF CONSTRUCTION AND DELIVERY OF EMERGENCY WATER SERVICE**

**THIS AGREEMENT** made this \_\_\_\_ day of July, 2016 by and between the City of Otsego (OTSEGO), a Minnesota Municipal Corporation and the City of Dayton (DAYTON), a Minnesota Municipal Corporation.

**WHEREAS**, OTSEGO is located within Wright County and has constructed City water service extending near to its border with DAYTON; and

**WHEREAS**, DAYTON is located primarily within Hennepin County and a small portion within Wright County and has limited public water service; and

**WHEREAS**, DAYTON has limited available emergency water service within the proposed Service Area as set forth on Exhibit A, attached; and

**WHEREAS**, DAYTON has requested that OTSEGO consider the delivery of emergency water service to the Service Area; and

**WHEREAS**, OTSEGO has indicated that they will consider the request after receiving preliminary information from City staff and consultants regarding the feasibility, advisability and cost of providing DAYTON with emergency water service.

**NOW, THEREFORE IT IS AGREED BETWEEN THE PARTIES AS FOLLOWS:**

1. OTSEGO will undertake the necessary preliminary studies, research and collection of data to provide the OTSEGO City Council with an adequate basis of making a decision as to whether or not it would be advisable to proceed with providing the requested emergency services water connection.
2. All costs incurred by OTSEGO in the drafting of this Agreement, and in undertaking the studies and research mentioned above will be paid by DAYTON. Costs include, but are not limited to, City staff time, consultant's fees, engineering fees, legal fees cost of printing and cost of any necessary meetings to review the material. It is contemplated that OTSEGO will need to evaluate the effect of the requested services on its water system, evaluate where pipes can be extended, determine the need for easements and the related costs, evaluate the cost of ongoing

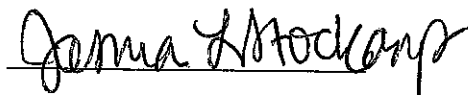
service, evaluate additional maintenance and repair required by the extension of lines, evaluate charges for the service to DAYTON, evaluate what Agreement and in what form needs to be in place between the Parties, and evaluate the criteria for providing the service as well as the mechanism for service provision.

3. OTSEGO shall provide an itemized billing statement to DAYTON monthly for the costs as set forth above. DAYTON agrees to pay the bill in full without contest within thirty (30) days of receipt of the bill.
4. OTSEGO may enforce this Agreement in the Wright County District Court, and in the event that the Agreement requires enforcement due to non-payment or any other reason DAYTON agrees to pay any and all costs, including attorney's fees incurred by OTSEGO in enforcement of the Agreement.
5. By entering into this Agreement OTSEGO has made no representations that it will provide the requested service. The decision as to whether or not to provide the service and under what conditions is left solely to the discretion of the OTSEGO City Council. DAYTON understands that prior to making any decision, OTSEGO must fully evaluate the ramifications of the request and determine whether or not it is in the best interests of the citizens of Otsego.

Dated: 6-13-16

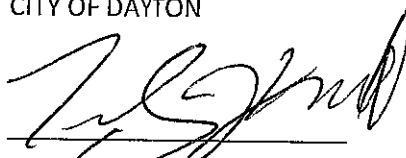
Dated: 2-14-17

CITY OF OTSEGO

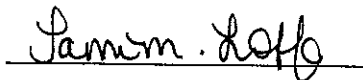


Jessica Stockamp, Mayor

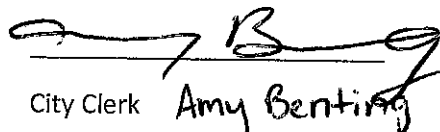
CITY OF DAYTON



Tim McNeil, Mayor



Tami Loff, City Clerk

  
City Clerk Amy Benting

**CITY OF OTSEGO  
COUNTY OF WRIGHT  
STATE OF MINNESOTA**

**AGREEMENT BETWEEN THE CITY OF OTSEGO AND CITY OF DAYTON REGARDING COSTS RELATED TO  
THE STUDY AND EVALUATION OF CONSTRUCTION AND DELIVERY OF EMERGENCY WATER SERVICE**

**THIS AGREEMENT** made this 26 day of 9, 2016 by and between the City of Otsego (OTSEGO), a Minnesota Municipal Corporation and the City of Dayton (DAYTON), a Minnesota Municipal Corporation.

**WHEREAS**, OTSEGO is located within Wright County and has constructed City water service extending near to its border with DAYTON; and

**WHEREAS**, DAYTON is located primarily within Hennepin County and a small portion within Wright County and has limited public water service; and

**WHEREAS**, DAYTON has limited available emergency water service within the proposed Service Area as set forth on Exhibit A, attached; and

**WHEREAS**, DAYTON has requested that OTSEGO consider the delivery of emergency water service to the Service Area; and

**WHEREAS**, OTSEGO has indicated that they will consider the request after receiving preliminary information from City staff and consultants regarding the feasibility, advisability and cost of providing DAYTON with emergency water service.

**NOW, THEREFORE IT IS AGREED BETWEEN THE PARTIES AS FOLLOWS:**

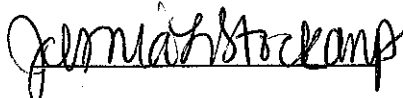
1. OTSEGO will undertake the necessary preliminary studies, research and collection of data to provide the OTSEGO City Council with an adequate basis of making a decision as to whether or not it would be advisable to proceed with providing the requested emergency services water connection.
2. All costs incurred by OTSEGO in the drafting of this Agreement, and in undertaking the studies and research mentioned above will be paid by DAYTON. Costs include, but are not limited to, City staff time, consultant's fees, engineering fees, legal fees cost of printing and cost of any necessary meetings to review the material. It is contemplated that OTSEGO will need to

evaluate the effect of the requested services on its water system, evaluate where pipes can be extended, determine the need for easements and the related costs, evaluate the cost of ongoing service, evaluate additional maintenance and repair required by the extension of lines, evaluate charges for the service to DAYTON, evaluate what Agreement and in what form needs to be in place between the Parties, and evaluate the criteria for providing the service as well as the mechanism for service provision. The specific engineering study to be undertaken is described in the attached August 12, 2016 letter from Hakanson Anderson to Lori Johnson, OTSEGO City Administrator.

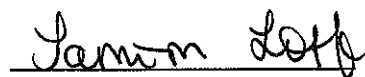
3. OTSEGO shall provide an itemized billing statement to DAYTON monthly for the costs as set forth above. DAYTON agrees to pay within thirty (30) days of receipt of the bill for said costs.
4. OTSEGO may enforce this Agreement in the Wright County District Court, and in the event that the Agreement requires enforcement due to non-payment or any other reason DAYTON agrees to pay any and all costs, including attorney's fees incurred by OTSEGO in enforcement of the Agreement.
5. This Agreement is an agreement that relates only to the analysis of the feasibility of providing emergency water service to the Proposed Service Area. By entering into this Agreement OTSEGO makes no representations that it will provide the requested service, and any provision of service or construction of emergency water service shall be the subject of a separate agreement. The decision as to whether or not to provide the service and under what conditions is left solely to the discretion of the OTSEGO City Council. DAYTON understands that prior to making any decision, OTSEGO must fully evaluate the ramifications of the request and determine whether or not it is in the best interests of the citizens of Otsego.
6. This Agreement may be terminated by DAYTON by written notice to OTSEGO. In the event written notice is given, OTSEGO shall cease all work under this Agreement, and shall provide to DAYTON a final invoice for costs incurred through the date of termination.

Dated: 10-10-16

CITY OF OTSEGO



Jessica Stockamp, Mayor

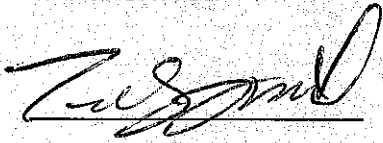


Tami Loff, City Clerk

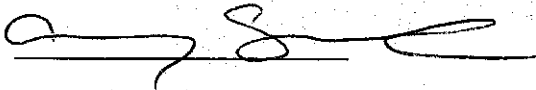
*Motion made by O'Brien, Seconded by Ziebell.  
Motion carried unanimously.*

Dated: 9-27-16

CITY OF DAYTON

A handwritten signature in black ink, appearing to read 'Tim McNeil', written over a horizontal line.

Tim McNeil, Mayor

A handwritten signature in black ink, appearing to read 'Amy Stanius', written over a horizontal line.

Amy Stanius, Deputy City Clerk

### STORMWATER MAINTENANCE AGREEMENT

THIS AGREEMENT is made and entered into as of the 26<sup>th</sup> day of September, 2016, by and between Dayton Housing Group, LLC, a Minnesota limited liability company (the "Developer") and City of Dayton, a Minnesota municipal corporation (the "City").

#### WITNESSETH:

WHEREAS, Developer owns certain real property located in Dayton, Hennepin County, Minnesota, legally described on Exhibit A attached hereto (the "Property"); and

WHEREAS, Developer intends to construct certain stormwater improvements in conjunction with an multifamily apartment development for the benefit of the Property, depicted on Exhibit B attached hereto (the "Stormwater Improvements"); and

WHEREAS, the Elm Creek Watershed Management Commission requires permanent provisions for handling of stormwater runoff, including provisions for operation and maintenance of all stormwater runoff facilities and ponds and such provisions are to be set forth in an agreement to be recorded in the real estate records; and

WHEREAS, City and Developer intend to comply with certain conditions, including entering into a this Agreement regarding Stormwater Improvements.

NOW, THEREFORE, in consideration of mutual covenants of the parties set forth herein and other valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties agree as follows:

1. Maintenance of Stormwater Improvements. Developer and its successors or assigns as fee owner of Property shall be responsible for maintaining Stormwater Improvements and for observing all applicable drainage laws governing the operation and maintenance of Stormwater Improvements. Developer shall provide City with a schedule acceptable to City for inspection of Stormwater Improvements. Developer shall make all such scheduled inspections, keep record of all inspections and maintenance activities and submit such records annually to City. The cost of all inspections and maintenance, including skimming and cleaning of Stormwater Improvements, shall be the obligation of Developer and its successors or assigns as the fee owner of Property.

2. City's Access and Maintenance Rights. City may maintain Stormwater Improvements and Developer hereby grants access to Stormwater Improvements, as provided in this paragraph, if City reasonably believes that Developer or its successors or assigns has failed to maintain the Stormwater Improvements in accordance with applicable drainage laws and other requirements herein and such failure continues for sixty (60) days after City gives Developer written notice of such failure. Developer shall adequately maintain and inspect Stormwater Improvements which includes pipes and ditches built to convey stormwater to the Stormwater Improvements as well as structures, improvements and vegetation provided to control the quantity and quality of the stormwater. Adequate maintenance is herein defined as good working condition so that these facilities are performing their design functions. City's notice shall specifically state which maintenance tasks are to be performed. If Developer does not complete the maintenance tasks within sixty (60) days after such notice is given by City, City shall have the right to enter upon Property to perform such maintenance tasks. In such case, City shall send an invoice for its reasonable maintenance costs to Developer or its successors or assigns, which shall include all staff time, engineering and legal and other reasonable costs and expenses incurred by City. If Developer or its assigns fails to reimburse City for its costs and expenses in maintaining Stormwater Improvements within thirty (30) days of receipt of an invoice for such costs, City shall have the right to assess the full cost thereof against Property. Developer, on behalf of itself and its successor and assigns, acknowledges that the maintenance work performed by City regarding Stormwater Improvements benefits Property in an amount which exceeds the assessment and hereby waives any right to hearing or notice and the right to appeal the assessments otherwise provided by Minnesota Statutes Chapter 429. Notwithstanding the foregoing, in the event of an emergency, as reasonably determined by the City engineer, the sixty (60) day notice requirement to Developer for failure to perform maintenance tasks shall be and hereby is waived in its entirety by Developer and Developer shall reimburse City and be subject to assessment for any reasonable expense so incurred by City in the same manner as if written notice as described above has been given.

3. Hold Harmless. Developer hereby agrees to indemnify and hold harmless City and its agents and employees against any and all claims, demands, losses, damages and expenses (including reasonable attorneys' fees) arising out of or resulting from Developer's or the Developer's agents or employee's negligent or intentional acts or any violation of any safety law, regulation or code in the performance of this Agreement, without regard to any inspection or review made or not made by City, its agents or employees or failure by City, its agents or employees to take any other prudent precautions.

4. Costs of Enforcement. Developer agrees to reimburse City for all reasonable costs incurred by City in the enforcement of this Agreement or any portion thereof, including court costs and reasonable attorneys' fees.

5. Notice. All notices required under this Agreement shall either be personally delivered or be sent by certified or registered mail and addressed as follows:

To Developer: Dayton Housing Group, LLC  
366 South Tenth Avenue  
Waite Park, MN 56387

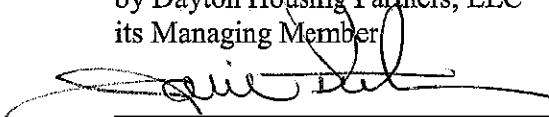
To City: City of Dayton  
12260 South Diamond Lake Road  
Dayton, MN 55327

All notices given hereunder shall be deemed given when personally delivered or two (2) business days after being placed in the mail properly addressed as provided herein.

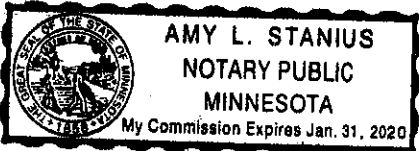
6. Successors. All duties and obligations of Developer under this Agreement shall also be duties and obligations of Developer's successors and assigns. The terms and conditions of this Agreement shall run with Property.

7. Effective Date. This Agreement shall be binding and effective as of the date hereof.

DAYTON HOUSING GROUP, LLC  
by Dayton Housing Partners, LLC  
its Managing Member

  
\_\_\_\_\_  
Jamie Thelen, Secretary

STATE OF MINNESOTA )  
 ) ss.  
COUNTY OF STEARNS )



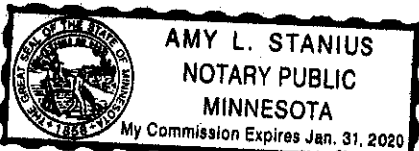


This instrument was acknowledged before me on this \_\_\_\_ day of September, 2016, by Jamie Thelen, the Secretary of Dayton Housing Partners, LLC, a Minnesota limited liability company, on behalf of said company.

CITY OF DAYTON

  
\_\_\_\_\_  
Tim McNeil

STATE OF MINNESOTA )  
 ) ss.  
COUNTY OF HENNEPIN )

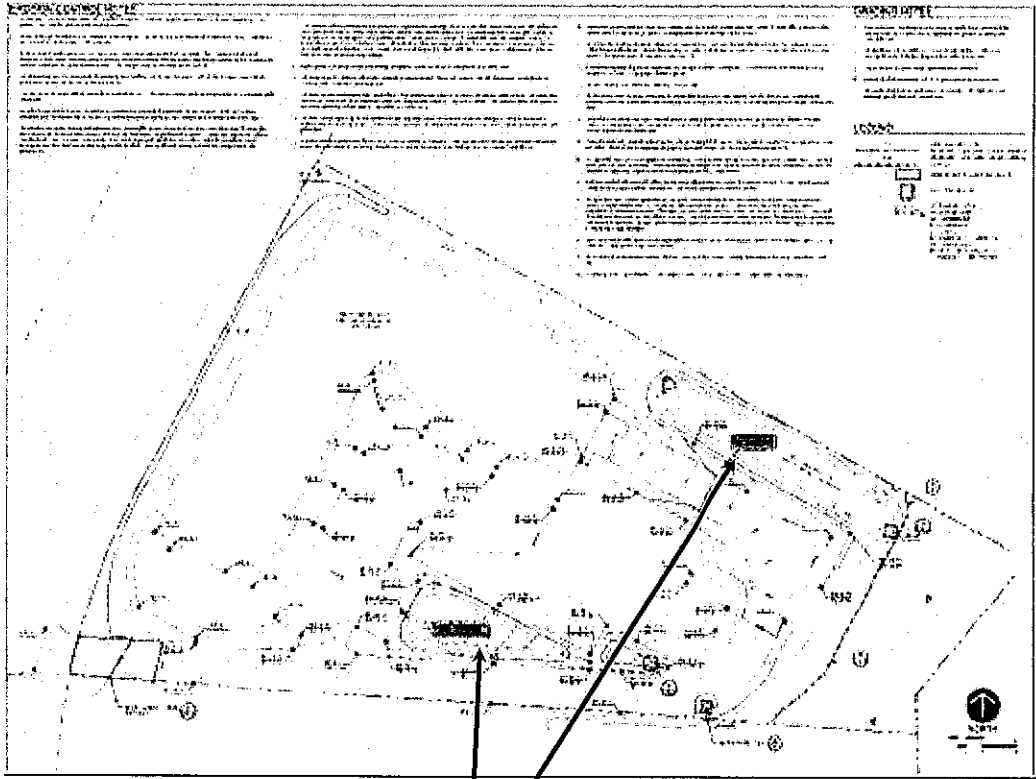




This instrument was acknowledged before me on this 28 day of September, 2016, by Tim McNeil, the Mayor of the City of Dayton, a Minnesota municipal corporation, on behalf of said municipal corporation.

THIS INSTRUMENT WAS DRAFTED BY:  
Sand Development, LLC  
366 South Tenth Avenue  
Waite Park, Minnesota 56387  
Phone: (320) 202-3100

EXHIBIT B  
STORMWATER IMPROVEMENTS



Stormwater Ponds

**SANITARY SEWER SERVICE AGREEMENT  
CITIES OF DAYTON AND MAPLE GROVE**

THIS AGREEMENT, entered into 27<sup>th</sup> day of JAN., 2016 between the City of Dayton, a municipal corporation in the County of Hennepin, hereinafter referred to as "DAYTON"; and the City of Maple Grove, a municipal corporation in the County of Hennepin, hereinafter referred to as "MAPLE GROVE";

**WITNESSETH:**

WHEREAS, Dayton and Maple Grove have entered into Sundance Woods Agreement dated October 22, 2013; and

WHEREAS, Dayton has constructed an 8" PVC sanitary beneath Sundance Woods Boulevard to the Maple Grove city limit and is willing to provide sanitary sewer service to an area in Maple Grove lying northerly of Rush Creek ("Rush Creek Service Area") as depicted in attached Exhibit A; and

WHEREAS, Maple Grove desires to connect the Rush Creek Service Area to the Dayton sanitary sewer system beneath Sundance Woods Boulevard by force-main; and

WHEREAS, Dayton and Maple Grove desire to define each cities operational and maintenance responsibility for the sanitary sewer service to the Rush Creek Service Area under this Sanitary Sewer Service Agreement.

NOW THEREFORE, it is hereby and herein mutually agreed, in consideration of each party's promises and considerations herein set forth the Agreement is amended, as follows:

**1. Sanitary Sewer Operations & Maintenance Responsibilities**

Dayton shall provide Maple Grove with a connection to its sanitary sewer systems, beneath Sundance Woods Boulevard at MH20 depicted on attached Exhibit B. Dayton shall be solely responsible for operation and maintenance of the Dayton sanitary sewer system, except that Maple Grove shall be responsible for maintenance to clean that segment of sanitary sewer pipe extending to the Maple Grove city limits from MH12. Maple Grove shall be solely responsible for the construction, operation and maintenance of the sanitary sewer in Maple Grove serving the Rush Creek Service Area. Dayton and Maple Grove agree to work cooperative ley and not to interfere with the operation and maintenance of the respective systems.

**2. Connection Charges**

Maple Grove agrees to pay Dayton a connection charge of \$605 for each unit making connection to sanitary sewer in the Rush Creek Service Area; payment to be made annually in January, corresponding to the number of connections made each year.

### 3. Treatment Costs

Dayton will make payment to MCES for treatment costs of wastewater discharge from the Rush Creek Service Area to the Dayton sanitary sewer system. Maple Grove will reimburse Dayton treatment costs for Rush Creek Service Area on an annual basis in January, as described below:

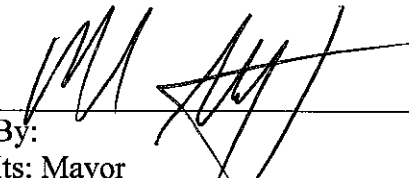
- a) Maple Grove will provide Dayton a count of the residential units connected to the sanitary sewer within the Rush Creek Service Area in January of each year. Each Single Family residential unit connected to the Rush Creek Service Area sanitary sewer system shall correspond to 1 SAC. Each Multi-Family unit connected to the Rush Creek Service Area sanitary sewer system shall correspond to 0.6 SAC.
- b) Treatment rate determined by annual treatment cost to Dayton divided by the total Dayton flow, pursuant to MCES Municipal Wastewater Charges allocation letter.
- c) Flow volume assumed to be 65,000 gallons per SAC per year.
- d) Rush Creek Service Area treatment costs shall be equivalent to the MCES treatment rate multiplied by the number of Rush Creek Service Area SAC multiplied by the estimated flow volume of 65,000 gallons per SAC per year.

### 4. Term

The term of this Agreement is for an indefinite term. The City of Maple Grove, however, may terminate this Agreement upon six months' notice to Dayton. In the event of termination it is the responsibility of Maple Grove to provide sanitary sewer service to the Rush Creek Service Area and abandon the connection at the City of Dayton border. Work to be performed at no cost to the City of Dayton.

#### CITY OF MAPLE GROVE

Dated: \_\_\_\_\_, 2016

By:   
Its: Mayor

Dated: \_\_\_\_\_, 2016

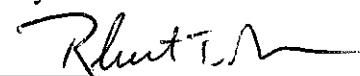
By:   
Its: City Administrator

#### CITY OF DAYTON

Dated: 1-27-, 2016

By:   
Its: Mayor

Dated: 1-27-, 2016

By:   
Its: City Administrator/Clerk

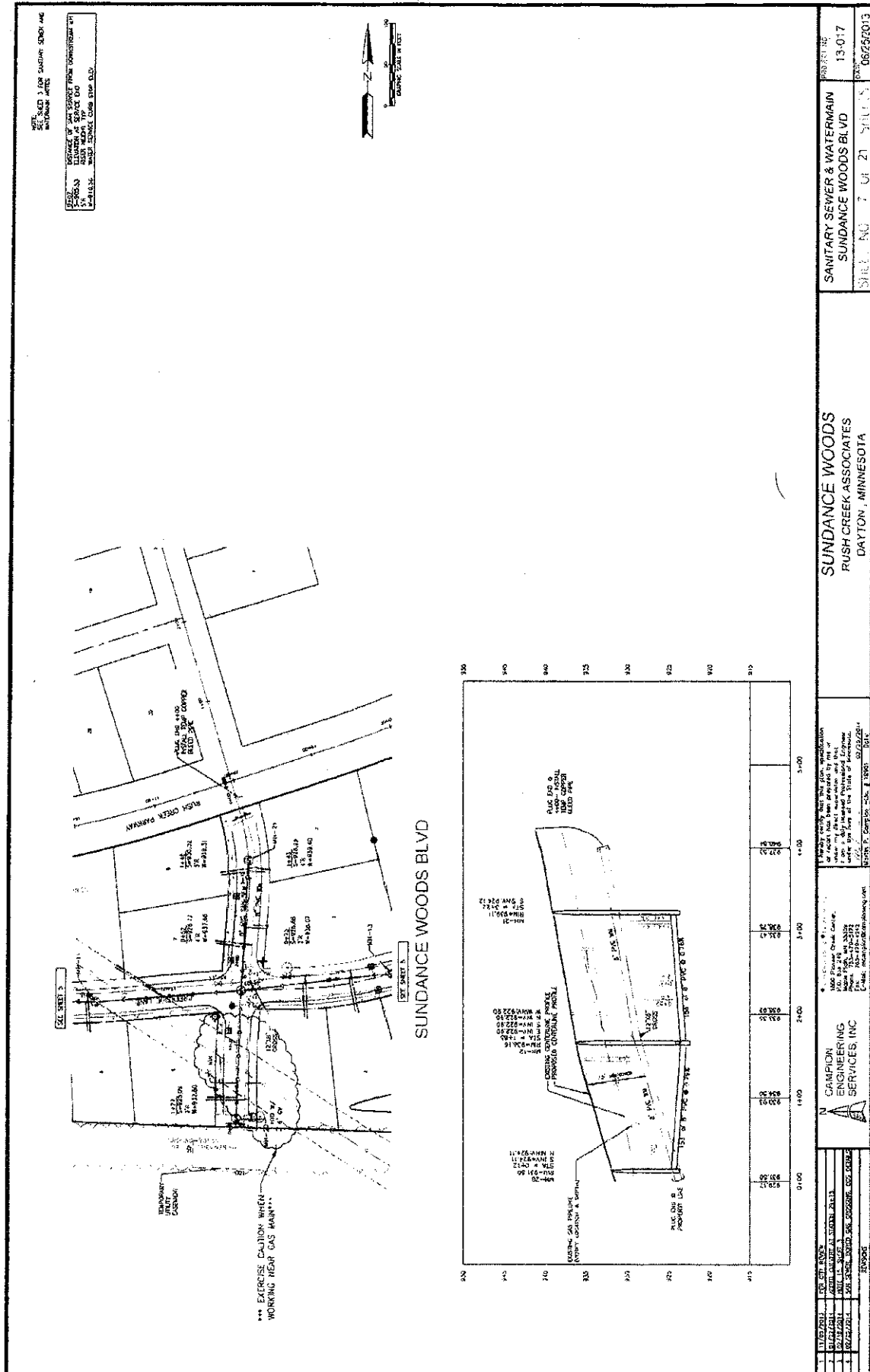


City of  
**Maple Grove**

**EXHIBIT "A"**

**RUSH CREEK SERVICE AREA**





**SUNDANCE WOODS AGREEMENT BETWEEN  
THE CITY OF DAYTON MINNESOTA AND THE CITY OF MAPLE GROVE MINNESOTA**

This agreement made and entered into this 22 day of Oct, 2013 by and between the City of Dayton, a Municipal Corporation located in Hennepin County, Minnesota, hereinafter referred to as "Dayton" and the City of Maple Grove, a Municipal Corporation located in Hennepin County, Minnesota, hereinafter referred to as "Maple Grove".

Whereas, Dayton has approved the Sundance Woods development located on the approximate 80 acres immediately south of Sundance Golf Course; and

Whereas, Dayton's public utility infrastructure to serve Sundance Woods hereinafter referred to as "Public Utility", will extend from the existing sewer/water stubs in Territorial Road immediately east of County Road 81 in Dayton to Sundance Woods via Territorial Road and Rush Creek Road; and

Whereas, existing Territorial Road is a bituminous rural section road in extremely poor condition and due to the Public Utility extension via Territorial Road in Dayton and a very small portion in Maple Grove, the road will be completely reconstructed; and

Whereas, Maple Grove has no plans to improve the portion of Territorial Road in Maple Grove in the foreseeable future; and

Whereas, existing Rush Creek Road is a dead-end gravel rural section road serving three (3) existing residential properties in Dayton and due to the Public Utility extension in Rush Creek Road, Rush Creek Road will be reconstructed to its pre-existing gravel rural section prior to the project contemplated herein; and

Whereas, the existing intersection of Territorial Road/Rush Creek Road and short sections of road east and north of the intersection are located in Maple Grove; and

Whereas, access to serve the Sundance Woods development will be from Fernbrook Lane (CR 121) and Territorial Road; and

Whereas, Territorial Road is designated a Municipal State Aid Road in both Dayton and Maple Grove; and

Whereas, Maple Grove has future developable land located north of Rush Creek with no current or foreseeable future plans to extend public utilities and road infrastructure across Rush Creek to provide service; and

Whereas, Rush Creek receives storm water runoff from Dayton and Maple Grove and experiences stream bank erosion even though storm water control and conveyance from new development is implemented; and

Whereas, a Contract for Water Service between the City of Maple Grove and City of Dayton, hereinafter referred to as the "2006 Agreement" and is attached hereto as Exhibit A, was executed in August 2006 and provides for a second water connection (16" diameter) at the Dayton/Maple Grove border to serve south Dayton in Fernbrook Lane (CR 121), the terms of which are incorporated into this Agreement and made a part hereof;

Now, therefore, it is agreed upon between the parties as follows:

1. Incorporation. The foregoing recitals are hereby incorporated into this Agreement:

- A. **Sundance Woods Phase One.** The First Phase access to serve Sundance Woods will extend from Fernbrook Lane (CR 121) from the intersection of Elm Creek Road (CR 202) as generally depicted on the attached Exhibit B. As future phases develop in Sundance Woods and the land west of Sundance Woods develops, access will be provided from Territorial Road in Dayton and Maple Grove. Dayton will plan for improvements in Territorial Road to CR 81 including the CR 81 intersection recognizing Maple Grove may limit access east on Territorial Road at the intersection with Rush Creek Road.
- B. **Future Development in Maple Grove.** The developable land north of Rush Creek in Maple Grove will best be served by public utilities and certainly best served by transportation access from Dayton/Sundance Woods. Public Utility and road stubs to serve the land north of Rush Creek in Maple Grove will be reviewed with Maple Grove during the planning and design process as development occurs in Dayton. Interim and permanent drainage (storm water) improvements from developable land in Dayton to Rush Creek in Maple Grove will be reviewed between Dayton and Maple Grove to determine the preferred solution to satisfy the requirements of Maple Grove and Dayton at the time of development. A future maintenance agreement and contract for utility services if required will be developed defining the responsibilities of each city when the land in Maple Grove develops.
- C. **Second Water Connection.** Maple Grove will plan and coordinate the second (2nd) water main connection in Fernbrook Lane (CR 121) in accordance with the 2006 Agreement. The extension of the water main in Fernbrook Lane in Maple Grove will be Maple Grove's responsibility and will be paid by Dayton through future connection charges in Dayton in accordance with the 2006 Agreement.
- D. **Rush Creek/Territorial Road.** The public infrastructure improvements (road/utility) in Rush Creek Road and Territorial Road will be reviewed by Dayton and Maple Grove to serve existing, proposed and future development. These improvements may include utility service stubs to serve properties in Maple Grove which abut Territorial Road and/or Rush Creek Road. At the time the properties in Maple Grove elect to connect to the infrastructure or develop, further connection charges payable by Maple Grove to Dayton will be determined. The present and future MSA designation for Territorial Road will be reviewed with the understanding Dayton and Maple Grove may elect to remove the MSA designation in the future.
- E. **Rush Creek Stormwater Management.** Dayton and Maple Grove in conjunction with Elm Creek Watershed Management Organization will review stream bank stabilization improvements in Rush Creek including cost participation as projects are planned in the future along the creek. Cost participation agreements will be prepared based on acceptable cost sharing between all parties.

**CITY OF DAYTON**

\_\_\_\_\_  
Date

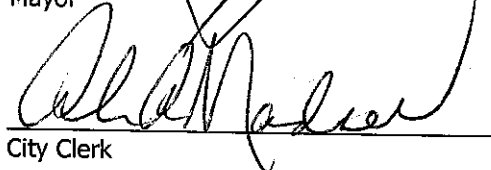
\_\_\_\_\_  
Mayor

\_\_\_\_\_  
City Clerk

**CITY OF MAPLE GROVE**

11/27/13  
\_\_\_\_\_  
Date

  
\_\_\_\_\_  
Mayor

  
\_\_\_\_\_  
City Clerk

**CITY OF DAYTON**

\_\_\_\_\_  
Date

\_\_\_\_\_  
Mayor

  
\_\_\_\_\_  
City Clerk

**CITY OF MAPLE GROVE**

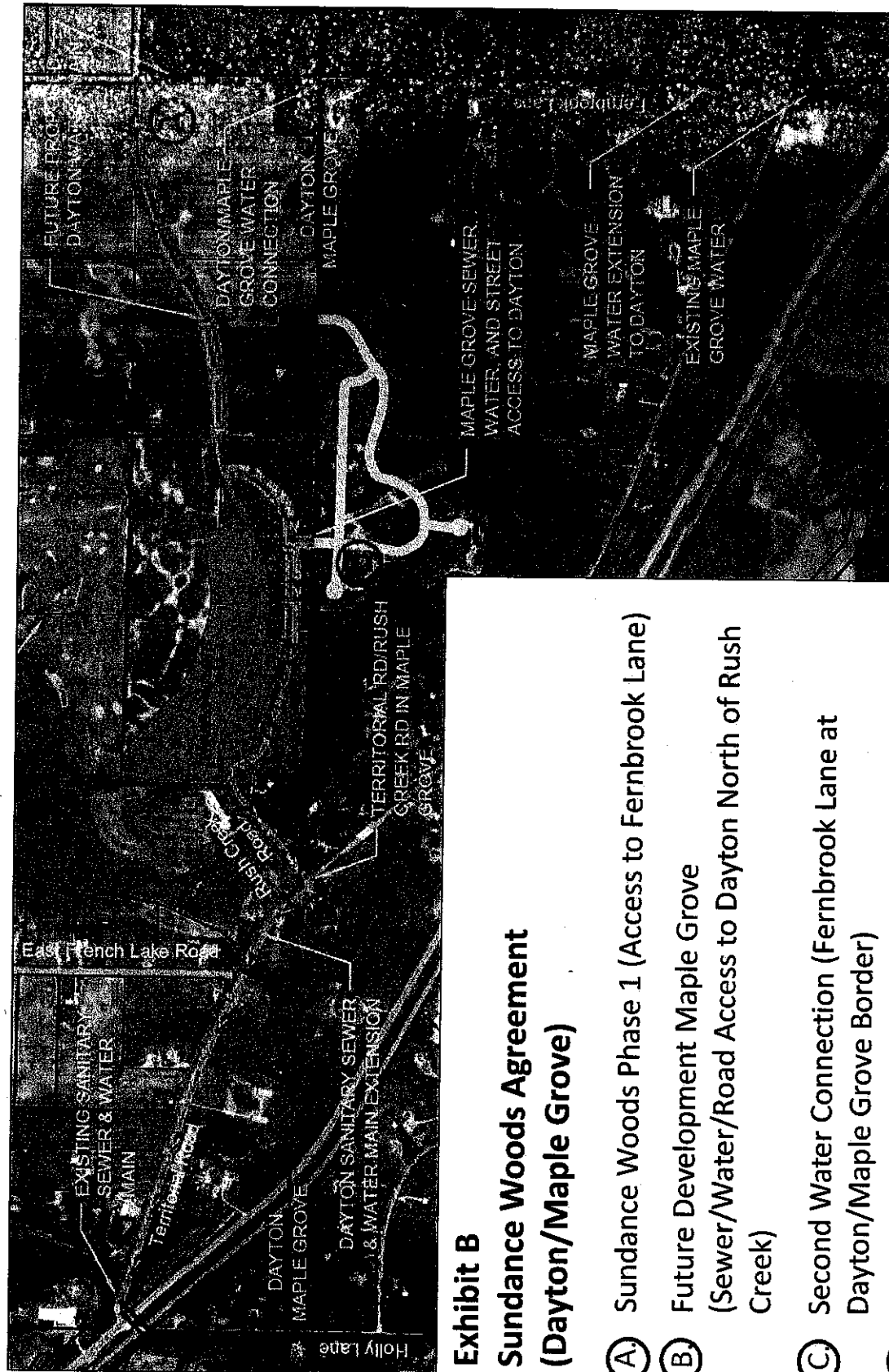
\_\_\_\_\_  
Date

\_\_\_\_\_  
Mayor

\_\_\_\_\_  
City Clerk

**EXHIBIT A**

**EXHIBIT B**



## Exhibit B

### Sundance Woods Agreement (Dayton/Maple Grove)

- (A) Sundance Woods Phase 1 (Access to Fernbrook Lane)
- (B) Future Development Maple Grove  
(Sewer/Water/Road Access to Dayton North of Rush Creek)
- (C) Second Water Connection (Fernbrook Lane at Dayton/Maple Grove Border)
- (D) Rush Creek Rd/Territorial Rd (Improvements in Maple Grove)
- (E) Rush Creek Stormwater Management

**CONTRACT FOR WATER SERVICE BETWEEN  
THE CITY OF MAPLE GROVE MINNESOTA AND THE CITY OF DAYTON MINNESOTA**

This contract made and entered in this 8th day of August 2006 by and between the City of Maple Grove, a Municipal Corporation located in Hennepin County, Minnesota hereafter called "Maple Grove" and the City of Dayton, a Municipal Corporation located in Hennepin County, Minnesota hereafter called "Dayton".

Witness:

That the said parties, in consideration of the mutual covenants and agreements herein after set forth, have agreed to and with each other as follows:

**1. Term of Contract**

This contract shall be for the term of thirty (30) years from the date of execution hereof unless terminated earlier as hereinafter provided. The contract may be cancelled pursuant to notice provided in Section 10 or may be cancelled by either party if laws are enacted by the State of Minnesota or the United States of America which substantially and adversely affect rights, duties, or obligations of either party under this contract. In the event the City of Dayton wants to terminate this contract, the contract shall be terminated provided Dayton reimburses costs incurred by Maple Grove to serve Dayton. It is expressly understood that this contract may be extended by the written consent of both parties.

**2. Water Service**

- A. Maple Grove agrees to furnish and deliver water from the Maple Grove water works system to the southwest portion of Dayton as shown on Exhibit "A" in sufficient quantity to meet an average day demand not to exceed 2.8 Million Gallons per Day (MGD) and a maximum day demand of 5.0 MGD.
- B. Maple Grove will furnish water to the City of Dayton at mutually agreed Connection Points (hereinafter Connection Points) at a minimum pressure as determined by elevation 1066 National Geodetic Vertical Datum of 1929.
- C. The water furnished by Maple Grove shall be the same treated water supplied by Maple Grove to Maple Grove residents.
- D. Dayton agrees that the use of water from the supply furnished by Maple Grove shall be at all times be governed by the applicable rules, regulations and conditions Maple Grove has now in effect or hereafter adopts for the preservation, regulation and protection of its water supply, and Dayton agrees to adopt the rules, regulations or requirements of Maple Grove now or hereafter adopted in connection with use of water in Maple Grove and to enact and enforce such rules, regulations and requirements as Dayton ordinances within one hundred and eighty (180) days after the execution of this contract and to enact any amendments to the regulations hereafter adopted by the City of Maple Grove within sixty (60) days after being notified of such adoption and to adopt the same penalties as those of Maple Grove for the violation thereof and to strictly enforce such rules, regulations and requirements. This section shall be, however, limited to water usage and related matter and does not give Maple Grove the right to prescribe rules for administration and billing for the Dayton water system.

### 3. Water System Facilities

- A. Maple Grove shall own and operate all facilities necessary to the supply, production, storage and transmission of water to the Connection Points, [but not including the master meter or master meters and backflow devices.]
- B. Dayton shall own and operate all facilities necessary for the metering, transmission, and distribution of water from the Connection Points to the points of delivery of water in Dayton. All such facilities shall conform to the Minnesota State Health Department requirements. Dayton shall maintain at no expense to Maple Grove its entire Dayton water system from point or points of delivery.
- C. Dayton shall keep accurate records of watermain construction and number of connections by category and such records shall be subject to inspection and auditing by Maple Grove.
- D. The Connection Points on Maple Grove's facilities shall be made by Maple Grove, but all expense shall be paid by Dayton within thirty (30) days of billing by Maple Grove. The water consumed by Dayton shall be measured by a master meter or meters furnished and maintained by Dayton at its own cost and expense at such reasonable locations to be designated by Maple Grove. Such meters shall be of a make and setting, and shall be installed and housed in a manner approved by Maple Grove. Such meters shall be subject to testing by Maple Grove at any reasonable time.
- E. Backflow prevention devices shall be installed at the Connection Points to assure no backflow or flow through of water through the Dayton system into the Maple Grove system. Dayton shall install and maintain at no expense to Maple Grove said backflow devices.

### 4. Connection Charge

The City of Dayton shall pay a connection charge based on the current charge then in effect at time of payment to Maple Grove properties for each connection made to the system served with water from Maple Grove based on the following residential connection charges for various types of property

<u>Land Use Type</u>	<u>Residential Equivalent Unit</u>	<u>2006 Rate</u>
Low Density	1.0/unit	\$1,700/unit
Medium and High Density with laundry facilities in each unit.		
Medium and High Density without Plumbing included for laundry facilities in each unit	.8/unit	\$1,360/unit
Commercial	4.0/acre	\$6,800/ac
Industrial	4.0/acre	\$6,800/ac
Mixed	4.0/acre	\$6,800/ac
Parks	0.5acre	\$850/ac
Institutional	4.0/acre	\$6,800/ac

connect to Maple Grove's water supply is shown in the following table:

	<u>Number of Acres</u>	<u>Number of R.E.U.'s</u>
Residential (Low, Medium, High)	2800	8800
Commercial/Industrial	800	3200
Institutional	N/A	N/A
Parks	400	200
Mixed Use	-	-
<b>Total</b>	<b>4,000</b>	<b>12,200</b>

The City of Dayton agrees to pay Maple Grove three hundred fifty thousand dollars (\$350,000) within sixty (60) days of execution of this agreement, and \$350,000 when Dayton connects to Maple Grove's water supply, which amount will allow 102.94 acres, or 411.76 R.E.U.'s to connect to Maple Grove's system provided said payments are received by end of 2006. Thereafter Dayton shall pay Maple Grove for each R.E.U. or acre that connects to the system served from Maple Grove at the then current connection charge rate for Maple Grove properties and transmit payment to Maple Grove within 45 days of permit for connection.

5. **Connections Beyond Corporate Limits of Dayton**

Water extensions beyond the Corporate Dayton limits of the City of Dayton and shall be made only with the permission of Maple Grove.

6. **Rates**

Initial water rate for water sold by Maple Grove to Dayton under this agreement shall be \$1.30 per 1000 gallons. In the future, the water rate shall be increased by the same percentage of increase for water to Maple Grove residents. Maple Grove's current water rates to Maple Grove residents is \$.90 per 1000 gallons and \$13.20 annually resulting in a current effective water rate of approximately \$1.04 per 1000 gallons based on 100,000 gallons per Residential Equivalent Unit (REU) per year.

7. **Meter Reading and Billing**

Monthly readings of the master meter or meters at the Connection Points of delivery to Dayton shall be made by Maple Grove. Billings by Maple Grove shall be mailed to Dayton and payment on such bills shall be made by Dayton to Maple Grove within 30 days.

8. **Department of Health Connection Fee**

The City of Dayton shall be responsible for collecting and transmitting the state mandated water connection fee (current rate is \$5.21/year) to the Minnesota Department of Health for connections made to the Dayton Water Distribution System.

9. **Liability of Maple Grove -**

Maple Grove shall not be liable for interruptions in service; provided, however, that Maple Grove shall not discriminate against Dayton water users in the event of such interruption, and shall reasonably attempt to provide uniform service to all water system users, to the extent possible in the event of such interruption.

10. **Default**

Either party shall have the right to terminate this agreement and the water service provided herein in the event that the other party fails to comply with any of the terms and conditions of this agreement. Any termination shall not take effect unless written notice of termination is provided containing a description the default. The defaulting party shall have thirty (30) days to cure the default. If the default is cured, this agreement shall be reinstated. If it is not cured within the time provided for cure, this agreement and the obligations here under shall terminate. However, such service may be

terminated only after reasonable notice to Dayton, and Dayton shall have a reasonable opportunity to correct any condition which is cited by Maple Grove as a cause for termination of water service.

11. **Indemnification**

Dayton agrees to indemnify and save Maple Grove harmless in accordance with acceptable standards from any and all claims or demands for damages rising out of or which may result from the water supplied pursuant to this agreement and from the use, installation, and maintenance and repair of its facilities as set forth in the contract.

12. **Non-Waiver**

The non-enforcement by either party hereunder of a right provided by this Agreement shall not constitute a waiver of that party's rights to enforce the term or provision of the Contract at a later date.

13. **Effective Date of Agreement**

Effective date of this agreement shall be the date of execution thereof of both parties.

\_\_\_\_\_  
Date

**CITY OF MAPLE GROVE**

\_\_\_\_\_  
Mayor

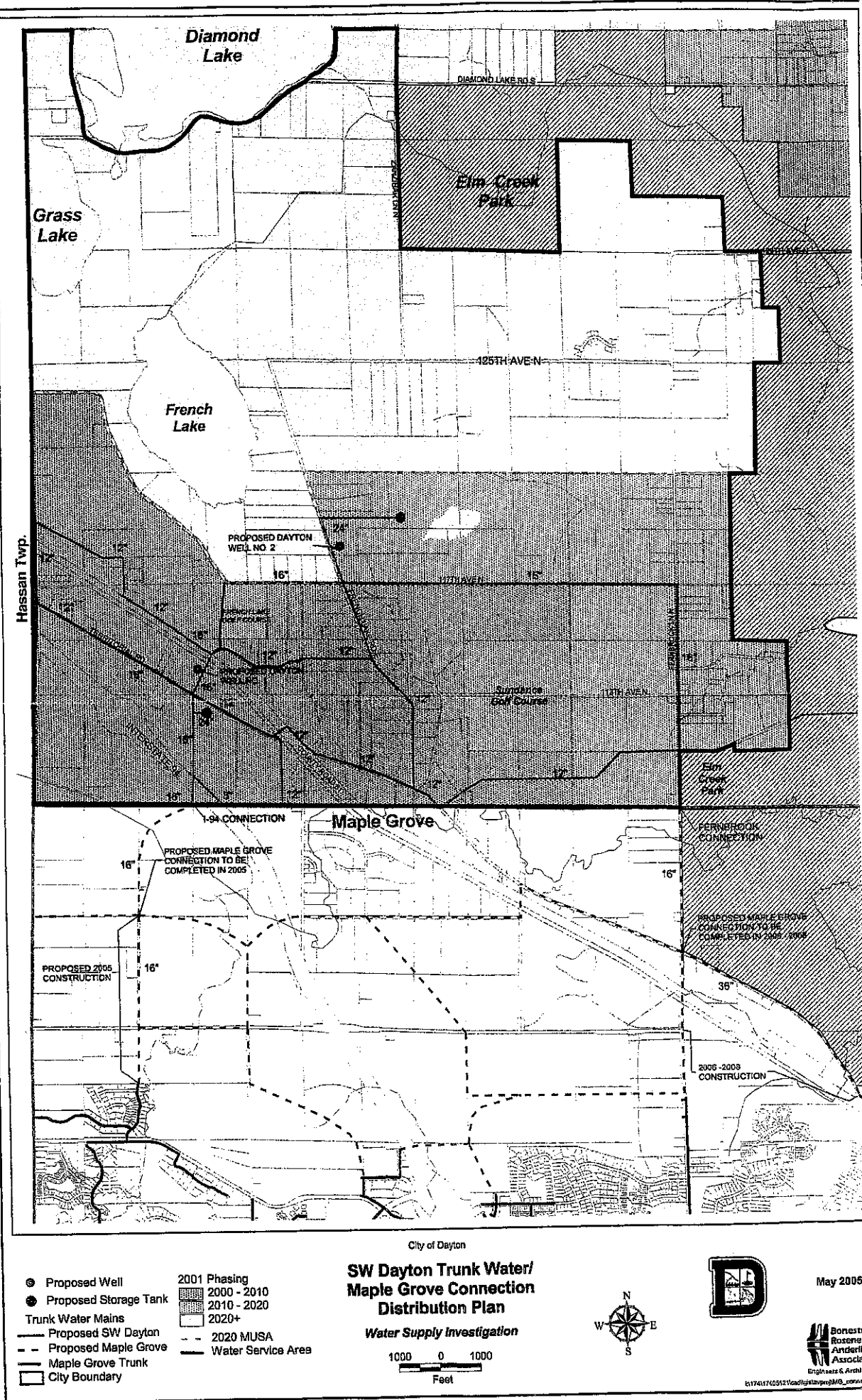
\_\_\_\_\_  
City Clerk

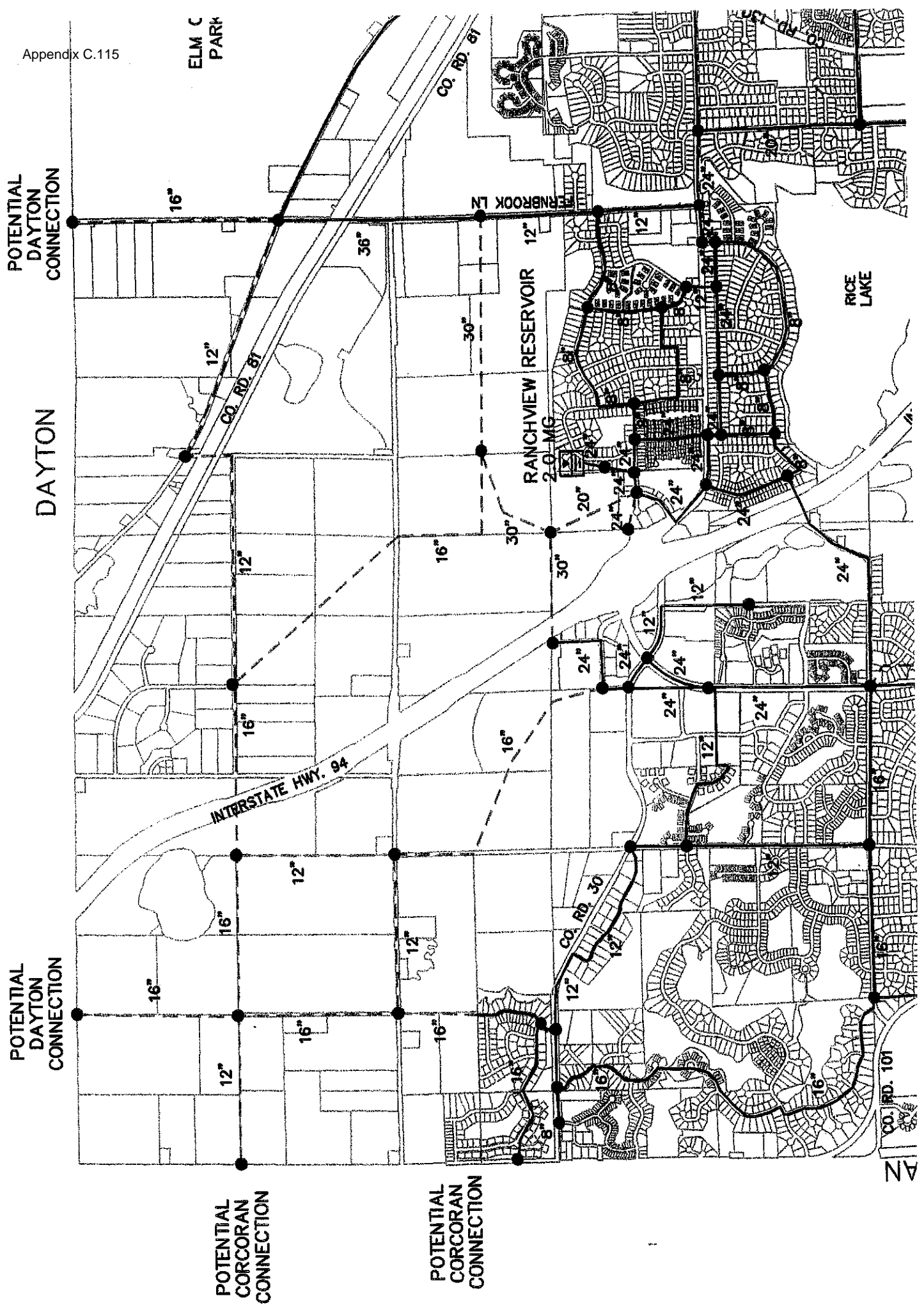
**CITY OF DAYTON**

\_\_\_\_\_  
Mayor

\_\_\_\_\_  
City Clerk

October 3, 2006  
Date

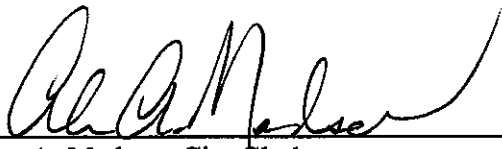




STATE OF MINNESOTA )  
COUNTY OF HENNEPIN ) SS.  
CITY OF MAPLE GROVE

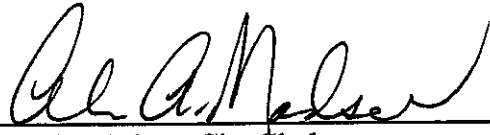
I, the undersigned, being the duly qualified City Clerk of the City of Maple Grove, Hennepin County, Minnesota, hereby certify that I have carefully compared the attached Resolution with the original thereof on file and of record in my office, and the same is a full, true and correct copy of City Council Resolution No. 06-096 as adopted on the 15th day of May, 2006.

WITNESS, my hand and seal this 16th day of May, 2006.

  
\_\_\_\_\_  
Alan A. Madsen, City Clerk

STATE OF MINNESOTA )  
COUNTY OF HENNEPIN ) SS.  
CITY OF MAPLE GROVE)

I, the undersigned, being the duly qualified and acting Clerk of the City of Maple Grove, Hennepin County, Minnesota, a Minnesota municipal corporation, hereby certify that the above and foregoing Resolution No. 06-096 is a true and correct copy of the Resolution as adopted by the City Council on the 15th day of May, 2006.

  
\_\_\_\_\_  
Alan A. Madsen, City Clerk

RESOLUTION NO. 06-096

RESOLUTION APPROVING CONTRACT FOR WATER SERVICE BETWEEN THE CITY OF MAPLE GROVE, MINNESOTA AND THE CITY OF DAYTON, MINNESOTA

---

WHEREAS, a request has been submitted to have the City of Maple Grove supply the City of Dayton with water for both domestic and fire flow purposes; and

WHEREAS, Maple Grove's water system is designed to accommodate the requested amount of water needed by the City of Dayton; and

WHEREAS, a contract has been drafted for approval and execution by Dayton and Maple Grove City officials, which sets forth provisions of the sale of water to the City of Dayton; and

WHEREAS, the Maple Grove City Council concurs with the provisions of said contract.

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Maple Grove, Minnesota:

1. The contract for water service between the City of Maple Grove, Minnesota and the City of Dayton, Minnesota is hereby approved.
2. The Mayor and City Clerk are hereby authorized to execute said contract.

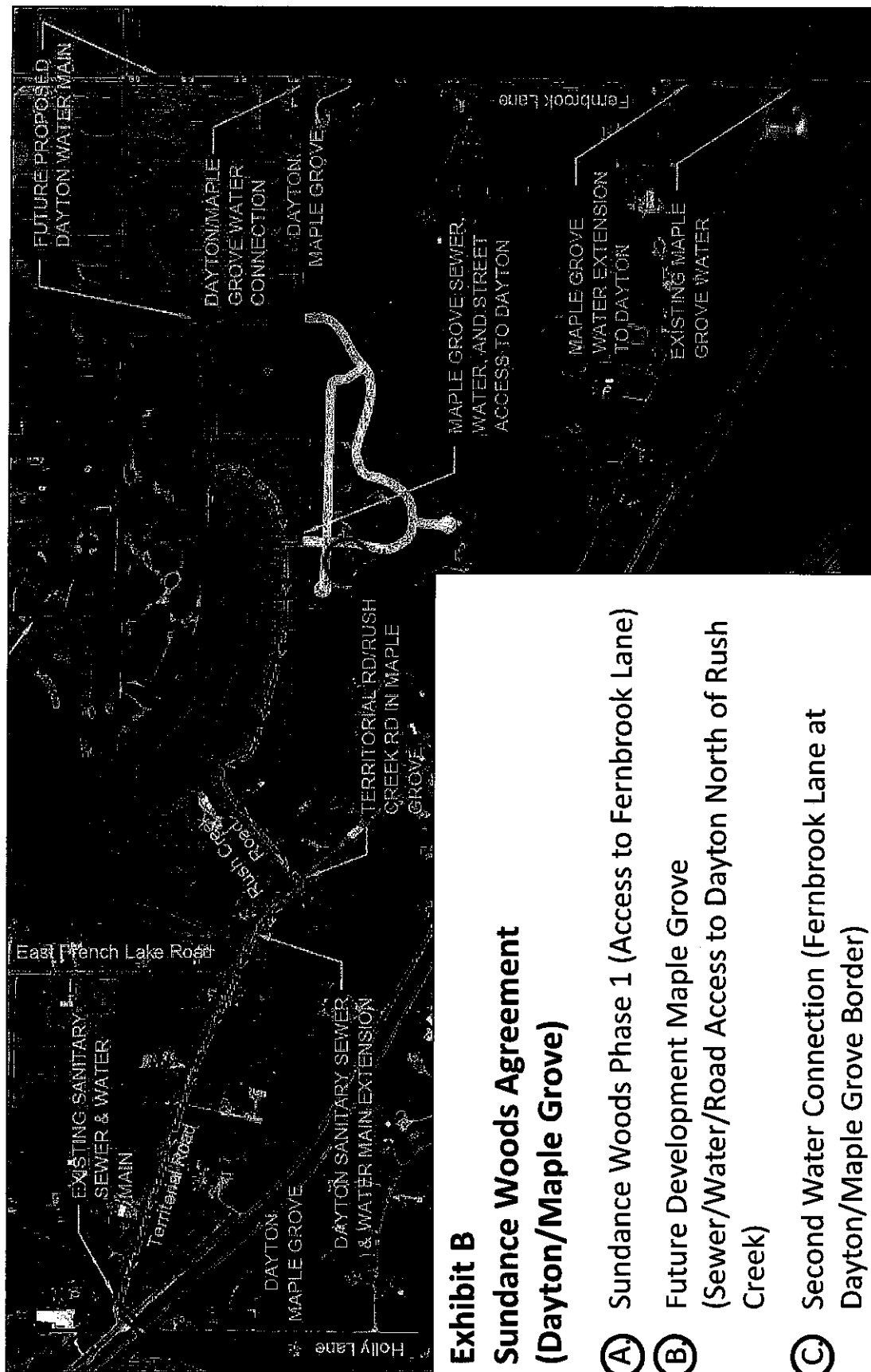
Adopted by the City Council on this 15th day of May, 2006.

The motion for the adoption of the foregoing resolution was made by Councilmember Jaeger, seconded by Councilmember Sargent, and upon vote being duly taken thereon, the following voted in favor thereof: Mayor Steffenson, Councilmembers Campbell, Jaeger, Koski and Sargent

and the following voted against the same: None.

and the following were absent: None.

whereupon said resolution was declared duly passed and adopted.



## Exhibit B

### Sundance Woods Agreement (Dayton/Maple Grove)

- A.** Sundance Woods Phase 1 (Access to Fernbrook Lane)
- B.** Future Development Maple Grove (Sewer/Water/Road Access to Dayton North of Rush Creek)
- C.** Second Water Connection (Fernbrook Lane at Dayton/Maple Grove Border)
- D.** Rush Creek Rd/Territorial Rd (Improvements in Maple Grove)
- E.** Rush Creek Stormwater Management

SECTION 00500

CONTRACT AGREEMENT

THIS AGREEMENT is made and executed the 23<sup>rd</sup> day of SEPTEMBER 2015, by and between the City of Dayton, Minnesota, hereinafter referred to as the "OWNER", and Minger Construction Co., Inc., hereinafter referred to as the "CONTRACTOR",

WITNESSETH;

OWNER and CONTRACTOR, for the consideration hereinafter stated, agree as follows:

1. **CONTRACTOR's Duties:** The CONTRACTOR shall provide the equipment and construction services specified in the Contract Documents, and shall do everything required by this Agreement and the Contract Documents. CONTRACTOR shall fully and satisfactorily comply with the conditions of the Contract Documents and complete the work contemplated by this Agreement in accordance with the Contract Documents.
2. **Bonds:** Prior to issuance of the NOTICE TO PROCEED, the CONTRACTOR shall furnish to OWNER a performance bond in the amount 100% of the Contract and a payment bond in the amount of 100% of the Contract both in form and substance satisfactory to the OWNER.
3. **Price:** OWNER shall pay CONTRACTOR for completion of the Work in accordance with the Contract Documents an amount in current funds as follows:
  - A. For all Work at the prices stated in CONTRACTOR's Bid, attached hereto as an exhibit. The Bid prices for Unit Price work set forth as of the Effective Date of the Agreement are based on estimated quantities. As provided in Paragraph 11.03 of the General Conditions, estimated quantities are not guaranteed, and determinations of actual quantities and classifications are to be made by Engineer as provided in Paragraph 9.07 of the General Conditions.
  - B. Original Contract Amount is based on **\$699,372.50**
4. **Payment:** Payments to the CONTRACTOR by the OWNER shall be made as provided in the Contract Documents. OWNER will retain an amount not to exceed 5% of the amount of each payment. Upon completion of 95% of the contract, the OWNER may reduce, in its discretion, the amount of retainage on a payment if, in the OWNER's opinion, the work is progressing satisfactorily.
5. **Contract Documents:** The Contract Documents consist of all documents listed in paragraph 1.1.1 of the General Conditions of Contract and Supplementary Conditions. The Contract Documents are hereby incorporated with this Agreement and are as much a part of this Agreement as if fully set forth herein. This Agreement and the Contract Documents are the Contract.
6. **Completion:** The CONTRACTOR shall deliver all equipment and substantially complete all construction on or before December 18, 2015, in accordance with the terms and conditions set forth in the Contract Documents. Substantial completion is defined as the installation of all sanitary sewer mains, manholes, and appurtenances including completed backfilling and compacting of all trenches with non-frozen materials. The CONTRACTOR shall complete final construction and have completed any discrepancies from the final walk through on or before January 8, 2015, in accordance with the terms and conditions set forth in the Contract Documents. Final completion is defined as completion and acceptance of turf and all other items for project completion in accordance with Contract Documents.

Time being an essential element of this Contract, it is hereby agreed that the OWNER will be entitled to damages for non-completion of construction within the prescribed time limits. If the CONTRACTOR should fail to complete the work within the time limit specified in this section and the Contract Documents, the CONTRACTOR will be assessed a the sum of \$500 for each calendar day that expires after the time specified in Paragraph 6 above for Substantial Completion until the Work is substantially complete. The above charges, if any, will be deducted from payment due to the CONTRACTOR not as a penalty, but as liquidated damages for breach of contract.

After Substantial Completion, if Contractor shall neglect, refuse, or fail to complete the remaining Work within the Contract Time specified in Paragraph 6 above or any extension thereof granted by Owner in accordance with Article 12 of the General Conditions, Contractor shall be assessed the sum of \$100 for each calendar day that expires after Substantial Completion until the Work is completed and ready for Final Payment. Assessed Liquidated Damages will be withheld from progress payments.

7. **Data Practices Act:** The CONTRACTOR shall at all times abide by the Minnesota Government Data Practices Act, Minn. Statutes § 13.01, et seq., to the extent that the Act is applicable to data and documents in the hands of the CONTRACTOR.

8. **Audits:** The books, records, documents, and accounting procedures and practices of the CONTRACTOR or other parties relevant to this agreement are subject to examination by the OWNER and either Legislative Auditor or the State Auditor for a period of six years after the effective date of this Contract.

9. **Income Tax Withholding:** No final payment shall be made to the CONTRACTOR until the CONTRACTOR has provided satisfactory evidence to the OWNER that the CONTRACTOR and each of its subcontractors have complied with the provisions of Minn. Statutes § 290.92 relating to withholding of income taxes upon wages. A certificate by the Department of Revenue shall satisfy this requirement. Note: This section applies to contractors who undertake to supply labor or a combination of labor and materials for specific construction, repairs, rehabilitation or improvements. It does not apply to contractors for maintenance services or dealers, merchants and suppliers who supply materials only.

10. **Worker's Compensation:** CONTRACTOR represents and warrants that it has and will maintain during the performance of this agreement worker's compensation insurance coverage required pursuant to Minn. Statute § 176.181, subd. 2 and that the certificate of insurance or the written order of the Department of Commerce permitting self insurance of worker's compensation insurance coverage provided to the OWNER prior to execution of this agreement is current and in force and effect.

11. **Discrimination:** In performance of this contract, the CONTRACTOR shall not discriminate on the grounds of or because of race, color, creed, religion, national origin, sex, marital status, status with regards to public assistance, disability, sexual orientation, or age against any employee of the CONTRACTOR, any subcontractor of the CONTRACTOR, or any applicant for employment. The CONTRACTOR shall include a similar provision in all contracts with subcontractors to this contract. The CONTRACTOR further agrees to comply with all aspects of the Minnesota Human Rights Act, Minn. Statutes § 363.01, et seq., Title VII of the Civil Rights Act of 1964, and the Americans with Disabilities Act of 1990.

12. **Conflicts:** No salaried officer or employee of the OWNER and no officer of the OWNER shall have a financial interest, direct or indirect, in this contract. The violation of this provision renders the Contract void. Any federal regulations and applicable state statutes shall not be violated

13. **Claims:** To receive any payment on this Contract, the invoice or bill must include the following signed and dated statement: "I declare under penalty of perjury that this account, claim, or demand is just and correct and that no part of it has been paid."

14. **CONTRACTOR's Prompt Payment of Subcontractors:** The CONTRACTOR shall pay to any subcontractor within ten (10) days of the CONTRACTOR's receipt of payment from the OWNER for undisputed services provided by the subcontractor. The CONTRACTOR shall pay interest of one and a half percent (1 ½%) per month or any part of a month to a subcontractor on any undisputed amount not paid on time to the subcontractor. The minimum monthly interest penalty payment for an unpaid balance of \$100.00 or more is \$10.00. For an unpaid balance of less than \$100.00, the CONTRACTOR shall pay the actual amount due to the subcontractor.

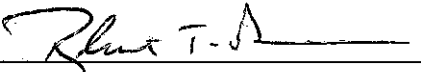
15. **Counterparts:** This Agreement may be executed in multiple counterparts each of which shall be considered an original.

16. **Whole Agreement:** This Agreement and the Contract Documents constitute the final and complete agreement of the parties and shall supersede and replace any prior oral or written agreements between OWNER and CONTRACTOR. Any subsequent modification must be in writing signed by both parties.

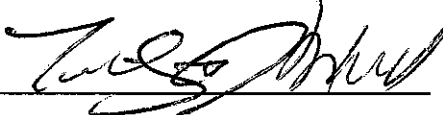
17. **Governing Law:** This Agreement shall be governed and construed under the laws of the State of Minnesota.

IN WITNESS WHEREOF, the parties to this Agreement have hereunto set their hands as of the date set forth above.

CITY OF DAYTON


BY 

ITS INTERIM CITY ADMINISTRATOR

BY 

ITS MAYOR

MINGER CONSTRUCTION CO., INC.

BY 

ITS CEO

BY \_\_\_\_\_

ITS \_\_\_\_\_

**RESOLUTION NO. 44-2011**

**CITY OF DAYTON**

**RESOLUTION APPROVING FINAL STAGE PLANNED UNIT DEVELOPMENT  
AND GRANTING FINAL PLAT APPROVAL  
FOR NATURES CROSSING FIFTH ADDITION**

WHEREAS, the City of Dayton (hereinafter referred to as the "City") is a municipal corporation organized and existing under the laws of the State of Minnesota; and

WHEREAS, the City Council has adopted Subdivision Regulations for the orderly, economic and safe development of land within the City; and

WHEREAS, MTD Properties, LLP (hereinafter referred to as the "Developer"), has submitted a proposal for Final Stage Planned Unit Development (hereinafter referred to as the "PUD") and Final Plat for Natures Crossing Fifth Addition for the property legally described as follows:

Outlot A, NATURES CROSSING FOURTH ADDITION, Hennepin County, Minnesota, according to the recorded plat thereof.

(hereinafter referred to as the "Property" or "Natures Crossing Fifth Addition"); and

WHEREAS, the City staff studied the matter, made a report, and provided other information to the Planning Commission and City Council; and

WHEREAS, the City Planning Commission at its September 1, 2011, meeting, considered the matter; and

WHEREAS, the City Council at its September 13, 2011, meeting, has considered the matter.

NOW, THEREFORE, the City Council of the City of Dayton makes the following:

**FINDINGS**

1. The Property is the Fifth phase of the preliminary plat of Natures Crossing approved by Resolution 36-2002 on December 10, 2002 (hereinafter referred to as the "Preliminary Plat").
2. The Developer is proposing to create 14 single family lots.
3. The Developer has submitted the following for the City review and approval:

- a. The Final Plat for Natures Crossing Fifth Addition drafted by Sunde Land Surveying, which is on file with the City (hereinafter referred to as the "Final Plat").
- b. The Final Stage Planned Unit Development Plan consisting of:
  - i. Natures Crossing Fifth Addition Street and Storm Sewer Plan - Hackberry Lane, drafted by Campion Engineering Services, Inc., dated August 9, 2011;
  - ii. Natures Crossing Fifth Addition Street and Storm Sewer Plan - Parkside Trail, drafted by Campion Engineering Services, Inc., dated August 9, 2011;
  - iii. Natures Crossing Fifth Addition Grading Plan drafted by Campion Engineering Services, Inc., dated August 9, 2011; and
  - iv. Natures Crossing Fifth Addition Storm Water Pollution Prevention Plan drafted by Campion Engineering Services, August 9, 2011,(hereinafter referred to as the "Plans").
4. Minnesota Statutes Section 462.357 grants to the City, for the purpose of promoting the public health, safety, morals and general welfare, the authority to regulate use of land within the City through zoning regulations.
5. The City Council has adopted a planned unit development (hereinafter referred to as "PUD"):
  - (1) To encourage a more creative and efficient development of land and its improvements through the preservation of natural features and amenities than is possible under the more restrictive application of zoning requirements. This section may allow modifications such as non-standard lot sizes, private streets and driveways, reduced rights-of-way and street widths, housing types, zero lot lines and building setbacks. These changes shall meet the standards and purposes of the comprehensive plan while preserving the health, safety, and welfare of the citizens of the city.
  - (2) To allow for the potential mixture of uses in an integrated and well planned area when such mixing of land uses could not otherwise be accomplished under this title.

- (3) To ensure concentration of open space into more usable areas, and a preservation of the natural resources of the site.
- (4) Protects natural features in private, common and public open space.
- (5) To facilitate the economical provision of streets and public utilities.
- (6) To facilitate mixed use developments, and/or affordable housing, recreational uses and institutional uses.

Dayton City Code §1001.10, Subd. 2.

- 7. Dayton City Code §1001.10 states that Final Development Plans (Final PUD) shall meet specific criteria
- 8. The proposed development meets the Code criteria, is not in conflict with the Comprehensive Plan, will not be detrimental to the surrounding properties, to existing roads and traffic, and the general health, safety and welfare of the public, provided it is subject to and meets the conditions set forth in this Resolution.
- 9. Minnesota Statutes Section 462.358, grants the City, for the purpose of protecting and promoting the public health, safety and general welfare, the authority to adopt subdivision regulations providing for the orderly, economic and safe development of land within the City.
- 10. The proposed subdivision of the Property is governed by City Code.
- 11. The Developer has submitted the Final Plat for the City's review and approval.
- 12. The Final Plat meets the City Code requirements and is subject to the conditions set forth in this Resolution.

### DECISION

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Dayton, based upon the information received and the above Findings, the Plans and Final Plat are hereby approved and the Mayor and Clerk are authorized to execute and release the Final Plat, subject to the following conditions set forth below that must be met, to the satisfaction of the City, prior to the release of the Final Plat, unless otherwise stated:

1. At all times, all buildable lots must be connected to sanitary sewer and municipal water. A certificate of occupancy will not be issued for specific lots until such time that said connection is made.

2. The Property shall, at all times, comply with all applicable federal, state and local rules and regulations.

3. Prior to release of the Final Plat the Developer shall comply, to the satisfaction of the City Engineer, with all requirements of the City Engineer in it Memorandum dated August 26, 2011 attached hereto as Exhibit "A" and the following requirements:

- a. A lift station design and location and sewer alignment needs to be finalized by the City. The finalized design, location and alignment will be part of and incorporated into the Plans.
- b. The Plans shall be modified to provide for the depiction of proposed grading in Outlot A west of the backyards from the homes abutting Parkside Trail.
- c. The location of an overland swale along the north property line from the storm sewer in Hackberry Lane needs to be finalized by the City to maintain the drainage in the area to the wetland in relation to impacts of overland swale in the backyards. The finalized design and location will be part of and incorporated into the Plans.

Further, prior to release of the Final Plat, Developer shall execute the Developer's Agreement attached hereto as Exhibit "B".

4. All construction activities on the Property shall, at all times, comply with the Plans, the Developer's Agreement, this Resolution and City Code, including, but not limited to, the paving of all driveways.

5. Developer shall plant on all non-wooded lots at a minimum four (4) trees that are a minimum two and half (2 ½) caliber inch deciduous trees or six (6) foot high evergreen trees. To guarantee compliance with the landscaping installation requirement, building permits will not be issued until the City is provided with a \$1,250.00 cash escrow for each building permit.

6. No building permits shall be issued until access and construction access to lots has been reviewed and approved by the City Public Works Director, City Engineer and City Fire Marshal.

7. Developer's cash obligation for park dedication has been computed based upon the formula approved by City for use in the year 2011 and based on said formula the

park dedication amount to be paid for the Final Plat is \$66,808.00 (which represents 14 lots times \$4,772.00). In the event the City approves an amendment to the park dedication formula prior to release of the Final Plat, the above-referenced payment shall be adjusted based upon the computation formula approved by City in effect when the Final Plat is actually released for filing with the Hennepin County Recorder or Registrar of Titles. The park dedication fee as set forth above shall be paid prior to the Final Plat being released for filing at the Hennepin County Government Center.

8. No building permits shall be issued until the plat legal description is approved by the City Attorney, final plat is recorded, required improvements have been made, Developers Agreement and other documents required herein to be recorded are executed and recorded, and the City is provided with recording information.

9. At all times, the Developer shall pay upon demand all reasonable expense, related to review, analysis, processing, monitoring, drafting and approvals as determined by the City, that the City incurs in relation to this development and Resolution, and shall provide an escrow deposit in an amount to be determined by the City. Said expenses shall include, but are not limited to, staff time, including, but not limited to, hourly wage, overhead and benefits, engineering, legal and other consulting fees incurred in relation to the development.

10. The Developer shall provide an updated and certified Abstract of Title and/or Registered Property Abstract as required by Minn. Stat. §505.03, or in the alternative, the Developer may provide a Commitment for a Title Insurance Policy for the Property naming the City as the proposed insured and with the amount of coverage for this policy being equal to \$100,000.00 per acre dedicated to the City (including but not limited to streets, rights-of-way, park dedication, and drainage and utility easements). \$100,000.00 per dedicated acre represents the coverage amount formula approved by the City for the year 2011. If Final Plat is not released for filing in the year 2011, the above-referenced policy coverage amount shall be adjusted based upon the formula approved by City for the year in which the Final Plat is actually released for filing with the Hennepin County Recorder. The above-mentioned evidence of title shall be subject to the review and approval of the City Attorney to determine what entities must execute the Final Plat and other documents to be recorded against the Property. In the event the Developer provides the City with a Commitment for a Title Insurance Policy, the Developer shall cause a Title Insurance Policy to be issued consistent with the Commitment for a Title Insurance Policy provided by the Developer and the requirements of the City Attorney and with an effective date on which the Final Plat is recorded (the City will not issue any certificate of occupancies until it is provided with said Title Insurance Policy). Further, Developer shall provide the City with evidence, which sufficiency shall be determined by the City, that all documents required to be recorded pursuant to this Resolution and by the City Attorney are recorded and all conditions for release of the Final Plat have been met prior to the City processing or approving any building permits or other permits applicable to the development of the Property.

11. The Developer shall post an irrevocable Letters of Credit in favor of the City, on a form and institution approved by the City Attorney, in the amount of \$399,700.00, to assure compliance with its obligations established in this Resolution, the Developer's Agreement and other obligations related to this development.

12. The Final Plat must be filed and recorded with Hennepin County within two years of the date of this Resolution. If the Final Plat is not timely filed or recorded, this Resolution and all approval herein shall be void with no further action required by the City Council.

13. Developer shall file and record with the Hennepin County Recorder or Registrar of Titles contemporaneously with the filing and recording of the Final Plat restrictive covenants against all lots of Natures Crossing Fifth Addition not allowing, among other things, outside storage of any unlicensed vehicles and allowing only one camper or one recreational trailer or boat. The Final Plat shall not be released until said restrictive covenants are reviewed and meet all requirements of the City Attorney. All lots in Final Plat shall be subject to the R-1S requirements, including legally adopted updates to the R-1S Zoning Code as they are adopted by the City from time to time. Regardless of the R-1S Zoning Ordinance, lots within the Final Plat shall have the following setbacks:

- |    |                             |         |
|----|-----------------------------|---------|
| a. | Front – dwelling            | 25 feet |
| b. | Rear – dwelling             | 20 feet |
| c. | Side – dwelling             | 10 feet |
| d. | Side – garage               | 5 feet  |
| e. | Front – accessory structure | 25 feet |
| f. | Side – accessory structure  | 5 feet  |
| g. | Rear – accessory structure  | 5 feet  |
| h. | Height – measured at grade  | 45 feet |

14. The terms and conditions of previous approvals and agreements governing the development and use of the Property, not modified by this Resolution, shall remain in full force and effect and continue to govern the development and use of the Property.

Adopted this 13<sup>th</sup> day of September 2011, by the City Council of City of Dayton.

Motion made by Councilmember McNeil, seconded by Councilmember Forseth  
Ayes: Mayor Anderson, Councilmembers Hoke, Forseth, McNeil, and Shermer  
Nays: None

  
Mayor

ATTEST:


  
City Clerk

EXHIBIT "A"

[City Engineer Memorandum]



## Memorandum

To: Erin Stwora	Project: Natures Crossing 5 <sup>th</sup> Addition	Date: 08-26- 11
From: Mark Hanson Katie Warner Brad Schleeter	Client: City of Dayton	
Re: Preliminary Plan Review	File No: 000174- 11000-1	
Copy: Mike Elhard		

2335 Highway 36 W  
St. Paul, MN 55113

Tel 651-636-4600  
Fax 651-636-1311

www.bonestroo.com

### BACKGROUND

The developer for Natures Crossing has submitted plans for Natures Crossing 5<sup>th</sup> Addition.

The proposed development will be completed by:

Developer: MTD Properties                      Contact: Tom Dehn  
Engineer: Campion Engineering Services      Contact: Marty Campion

The following items were submitted and were used for this review:

- Preliminary plans dated August 10, 2011.
- Storm sewer calculations dated August 8, 2011.

### SITE CONDITIONS

The existing site is rolling topography.

### STREETS

Access to the site is from the existing Natures Crossing development from Hackberry Lane and Parkside Trail N.

Hackberry Lane and Parkside Trail are proposed to be constructed with mountable curb and gutter and 31-foot back to back wide with a 5-foot concrete sidewalk. A 60-foot right-of-way is provided for the street.

### SANITARY SEWER

Natures Crossing 5<sup>th</sup> Addition is located in the SE-A Subdistrict of Dayton's Comprehensive Sanitary Sewer Plan. Gravity sanitary sewer is extended to the limits of the proposed development.

A lift station is required to serve Natures Crossing 5<sup>th</sup> Addition and the remainder of the subdistrict. The lift station will ultimately serve 59.2 acres with 5.6 acres being Natures Crossing 5<sup>th</sup> Addition. The City and developer will need to work out an agreement to determine cost and responsibility for the lift station.

Two different locations have been identified for the lift station. A soil boring in each location should be taken to help determine if one location is more suitable for the lift station based soil conditions. The plans that were submitted show the lift station adjacent to Elm Creek Road.

The lateral sanitary sewer collection system with in Natures Crossing 5<sup>th</sup> Addition will be 8-inch and will generally be located within public streets.

#### **WATER MAIN**

Natures Crossing 5<sup>th</sup> Addition is not located with in Dayton's service area. This area is served by a water supply connection to Champlin.

An 8" water main is constructed to the limits of the proposed addition and will be extended throughout and generally parallel the sanitary sewer.

#### **GRADING & STORM WATER**

The grading plan should clearly show existing and proposed contours.

The swale that was graded on the north side of Lots 1-7, Block 1 with Natures Crossing 4<sup>th</sup> Addition should be shown on the plans.

It is recommended the EOF between Lots 2 & 3, Block 2 be lowered to 893.5 to provide a minimum of 2-feet of freeboard for the adjacent homes.

The pipe between the flared end section and CBMH-1 has a calculated velocity of 10.56 ft/s. This shall be reduced to around 6 ft/s to prevent erosion in the proposed swale.

The flared end shall have rip rap installed at the end and the bank to the west shall be armored with rip rap to prevent erosion while turning the water north towards the pond.

The end of the 8" PVC between Lots 5 & 6, Block 1 shall have rip rap installed and the bank to the north shall be armored with rip rap to prevent erosion while turning the water east towards the pond.

Provide a detail for the rodent guard that is proposed on the end of the 8" PVC between Lots 5 & 6, Block 1. It is recommended a flared end section be installed.

The plan identifies installing Category 4 erosion control blanket in the proposed swale to the pond which is not sufficient to prevent the bank of the pond from eroding. The pond slope shall be armored with rip rap in the location where the swale discharges or a piped inlet to the pond shall be constructed.

The grading plan shall note that the existing swales identified on Lot 1, Block 3, Lot 3, Block 2, and between Lot 5 & 6, Block 1 will be regarded and will no longer function as swales.

Add a note to remove the flared end section and pipe from STMH-2 on Lot 3, Block 2 in plan view.

The pond outlet will need to be salvaged and reinstalled based on the proposed alignment for the sanitary sewer and force main. The pipe should be reinstalled so that it ties into the existing slopes.

The existing pipe that was installed with the 4<sup>th</sup> Addition along the south side of the pond shall be shown on the plans.

### **EASEMENTS**

The proposed and existing drainage and utility easements shall be shown on all sanitary sewer, water main, storm sewer, street and grading plan sheets.

The City standards require a 10-foot drainage and utility easement be provided on each side of the pipe. The drainage and utility easement for the storm sewer pipe between Lot 3 & 4, Block 2 and Lots 5 & 6, Block 1 is identified as 7.5 feet.

A drainage and utility easement shall be described above the 100yr HWL for the backyard drainage area on Lots 1-4, Block 2.

Gravity sanitary sewer and force main are proposed to be extended to the adjacent property where the existing pond is located. Drainage and utility easement is required over these utilities.

The swale on Lot 3, Block 2 where the emergency overflow for the backyard drainage is located shall have a drainage and utility easement for the overland drainage route.

### **WETLANDS**

The site currently has a delineated wetland. The complete wetland delineation shall be identified on all construction sheets. Temporary wetland impacts are anticipated based on the proposed utility alignments. Wetland impacts and mitigation plans shall be submitted to the City and for review and approval. DNR permit shall be obtained for the impacts if warranted.

### **EROSION CONTROL**

Erosion control narrative is included on the Stormwater Pollution Prevention Plan. Locations of erosion control measures should be identified in the plans for final approval. The submittal should identify locations for the following:

1. Rock construction entrance
2. Heavy duty silt fence along wetlands.
3. Silt fence along plat boundary.
4. Inlet protection at catch basins with proper maintenance.
5. Erosion control blanket.
6. Ditch checks.

#### **PRIVATE UTILITIES**

The developer must coordinate the burial of all future private utilities to serve the development. The security amount will be determined after review with each private utility.

#### **FINANCIAL RESPONSIBILITIES / CASH ESCROW / LETTER OF CREDIT**

##### Fees

Natures Crossing participated in financing the improvements to Goose Lake Road which satisfied their requirements for a transportation fee.

The overall plat for Natures Crossing was originally approved on December 10, 2002 prior to implementation of the trunk storm water fee therefore it is not proposed to be collected with the 5<sup>th</sup> Addition.

##### Cash Escrow

The developer is required to pay a cash escrow to the City. The escrow is applied to engineering review, legal, construction observation, and updating base maps with record drawings and is estimated at 4% of the construction cost.

##### Letter of Credit

The developer is required to establish a letter of credit with the City. The letter of credit amount, based on the City's policy is 110% of the estimated cost for the public improvements. The estimated costs are shown below:

Sanitary Sewer	\$86,100
Watermain	\$58,350
Storm Sewer	\$57,150
Streets	\$161,750
Subtotal	\$363,350
10%	\$36,350
Total Letter of Credit	\$399,700

##### Connection/Area Charges

Connection/ area charges are collected at the time a building permit is issued in accordance with past agreements with the City of Champlin/Metropolitan Council Environmental Services.

The developer is required to submit the final plat and construction record drawings in electronic format.

#### **RECOMMENDATIONS**

Engineering staff recommends the following for engineering approval:

- The requirements and stipulations of this review are met.
- The requirements of Elm Creek Watershed and all jurisdictional agencies associated with storm water review.
- All requirements for temporary wetland impacts are met.
- A letter of credit be established in accordance with the City's policy.
- The agreement to construct and maintain the lift station is finalized and executed.

Approval is also subject but not limited to review by the City Administrator, Zoning Administrator, and the City Attorney.

**EXHIBIT “B”**

**[Developers Agreement]**

**DEVELOPER'S AGREEMENT**  
**FOR NATURES CROSSING FIFTH ADDITION**  
**CITY OF DAYTON, COUNTY OF HENNEPIN, STATE OF MINNESOTA**

THIS AGREEMENT made and entered into the 13 day of September, 2011, by and between the City of Dayton, a Minnesota municipal corporation, 12260 S. Diamond Lake Rd., Hennepin and Wright Counties, State of Minnesota (hereinafter referred to as the "**City**"), and MTD Properties, LLP, a Minnesota limited liability partnership, 13601 Balsm Lane, Dayton, County of Hennepin, State of Minnesota (hereinafter referred to as the "**Developer**").

**RECITALS:**

WHEREAS, Developer is the fee owner and developer of a parcel or parcels of land lying within the City and legally described in Exhibit "1" and which property is proposed to be developed as a subdivision in the City bearing the name "Natures Crossing Fifth Addition" (hereinafter referred to as the "**Property**" or "**Natures Crossing Fifth Addition**"); and

WHEREAS, the City Council, on December 10, 2002, passed Resolution No. 36-2002 conditionally approving the preliminary development plan and preliminary plat of Natures Crossing (hereinafter referred to as the "**Preliminary Plat**"); and

WHEREAS, the City Council on September 13, 2011, passed Resolution No. 44-2011 conditionally approving the Fifth phase of the Preliminary Plat consisting of the Final Stage Planned Unit Development Plans drafted by Campion Engineering Services, Inc., dated August 9, 2011 and on file with the City (hereinafter referred to as the "**Plans**"), and the final plat of Natures Crossing Fifth Addition drafted by Campion Engineering Services, Inc., and on file with the City (hereinafter referred to as the "**Final Plat**"); and

WHEREAS, this Agreement is entered into for the purpose of setting forth and memorializing for the parties and subsequent owners the understandings and agreements of the parties concerning the development of the Property.

NOW, THEREFORE, it is hereby agreed by and between the City and the Developer as follows:

1. INCORPORATION. The above recitals are a material part of this Agreement and are incorporated herein. Further, City Resolution Nos. 36-2002, 10-2003, 14-2004, 63-2005, 21-2006, 63-2007, 69-2009 and 44-2011 (hereinafter collectively referred to as "**City Resolutions**") are a material part of this Agreement and are incorporated herein.
2. MEETING WITH CITY. Prior to commencing any construction activity on the Property, the Developer, their contractor and engineer shall meet with the City Engineer and Public Works Superintendent to discuss the improvements to be made to streets, utilities, and access to the Property.
3. CONSTRUCTION. Construction on the Property shall proceed in accordance with the Plans, the Preliminary Plat, the Final Plat, City Resolutions, City Code and this Agreement.
4. INSTALLATION OF IMPROVEMENTS.
  - a. Developer to Install. The Developer shall install the improvements in, and adjacent to, Natures Crossing Fifth Addition as set forth in the Plans and this Agreement, including, but not limited to:
    - i. street grading and graveling, including, but not limited to the construction of berms and boulevards;
    - ii. Permanent street surfacing, including but not limited to concrete curb and gutter;
    - iii. boulevard sodding;
    - iv. sanitary sewer laterals or extensions, including but not limited to all necessary services, lift stations and other appurtenances;
    - v. storm sewers, including but not limited to all necessary catch basins, inlets and other appurtenances;
    - vi. watermain laterals or extensions, including but not limited to all necessary building services, hydrants, valves and other related items;
    - vii. storm drainage systems;
    - viii. landscaping;
    - ix. grading of the Property and construction of corrected soil areas;
    - x. street lighting; and
    - xi. street signs.

(hereinafter referred to as the “**Improvements**”) no later than one year from recording of Final Plat and/or Developers Agreement, whichever is earlier.

- b. Records. Copies of all documents and information relating to the construction of the Improvements, including, but not limited to, all bids, changes orders, suppliers, subcontractors shall be provided to the City Engineer.
- c. Approval of Contractors. Any contractor selected by the Developer to construct and install the Improvements shall be subject to the review and approval of the City. The City shall be provided, upon request, evidence of competency and adequate financial strength of any contractor selected by the Developer, which evidence shall be subject to the review and approval of the City.
- d. Additional Work or Materials. The installation of the Improvements and all work to be completed by the Developer under this Agreement shall be done at no expense to the City. The Developer shall not do any work or furnish any materials not covered by the Plans and this Agreement, for which reimbursement is expected for the City, unless such work is first ordered and reimbursement is approved by the City Council. Any such work or materials which may be done or furnished by the Developer or its contractor without prior written order are furnished at the Developer's or its contractor's own risk, cost and expense, and the Developer agrees that it will make no claim for compensation for work or materials so done or furnished.
- e. Paving. Prior to commencing paving of streets, the Developer shall give the City twenty-four (24) hour notice of its intention to pave. If, in the sole determination of the City, weather conditions are unsuitable for paving said streets, the City shall, within six (6) hours of receiving Developer's notice, notify the Developer that it cannot proceed with said paving. The final lift of pavement shall only be commenced after the base course has been subjected to a complete freeze/thaw cycle and the direction has been given by the City Engineer. Failure of the City to give Developer notification shall not constitute a warranty that conditions are suitable for paving said streets.
- f. Final Inspection/Acceptance. All Improvements are subject to the inspection and approval of the City Engineer and City Building Inspector to ensure conformity to the Plans, this Agreement and applicable governmental regulations. The Developer shall promptly correct any improvements done, as required by the City Engineer and City Building Inspector, to conform to the Plans, this Agreement and governmental regulations. The Developer agrees that the City shall have the final right

of inspection to determine if all conditions of approval for development of the Property and this Agreement are completed to the satisfaction of the City Building Inspector and the City Engineer. Upon completion of the work and construction required by this Agreement, the Developer shall inform the City and, whereupon final inspection shall be promptly undertaken by the City. Upon acceptance by the City, the improvements lying within public easements shall become City property.

- g. As-built Plans. Upon completion of the Improvements and all work to be completed by the Developer under this Agreement, Developer shall provide the City with two full sets of reproducible record plans.
- h. Indemnification. Any and all claims that arise or may arise against the Developer, its agents, servants, or employees while engaged in the performance of the development of Natures Crossing Fifth Addition, shall in no way be the obligation of the City. Furthermore, the Developer shall indemnify, hold harmless, and defend the City, its officers, employees, consultants and agents against any and all liability, loss, costs, damages, expenses, claims, actions, or judgments, including attorneys' fees which the City, its officers, employees, consultants and agents may hereafter sustain, incur, or be required to pay, arising out of or by reason of any act or failure to act by the Developer, its agents, servants and/or employees.
- i. Landscaping. Developer shall plant, prior to the issuance of a certificate of occupancy, on all non-wooded lots at a minimum four (4) trees that are a minimum two and half (2 ½) caliper inch deciduous trees or six (6) foot high evergreen trees. Developer shall guarantee that the above landscaping requirements shall survive two (2) full growing seasons. To guarantee compliance with the landscaping installation and guarantee requirement, building permits will not be issued until the City is provided with a \$1,250.00 cash escrow for each building permit. The City, upon written request of the Developer and with approval of the City that the above landscaping requirements have been satisfied, shall refund the escrow amount on a per lot basis. If the above landscaping requirement does not survive two (2) full growing seasons, the City shall be entitled to retain the escrow and shall have the right, but not the obligation, to enter the Property to complete all remaining landscaping, or replace landscaping that does not survive said two (2) growing seasons and the Developer agrees to waive any claim of trespass against the City, its officers, employees and agents. In that event, the City shall complete or replace the landscaping, the City may reimburse itself for all costs and expenses, including, but not limited to legal and consulting fees, from the retained escrow. Any landscaping completed by the City pursuant to this Section is not warranted or guaranteed. The Developer shall indemnify, hold harmless, and defend

the City, its officers, employees, agents and insurers against any and all liability, loss, costs, damages, expenses, claims, actions, or judgments, including attorneys' fees which the City, its officers, employees, agents and insurers may hereafter sustain, incur, or be required to pay, arising out of or by reason of the City exercising its power under this Section.

- j. Insurance. The Developer shall furnish proof of insurance, subject to the review and approval of the City, covering any public liability or property damage by reason of operation of the contractor's equipment, laborers and hazard caused by the Improvements at minimum policy amounts of \$1,500,000.00. The contractor shall keep the insurance in force at all times that construction of the development is in progress. The insurance must name the City as an additional insured and must provide that the insurer will give the City not less than 30 days written notice prior to cancellation or termination of the insurance policy.
- k. Warranty. The Developer agrees to guarantee all work performed and all materials supplied for the construction of the Improvements referenced in the Plans for a period of one (1) year from final acceptance by the City and to promptly repair or replace any portion of the improvements found to be defective.
- l. Lift Station. The City is requiring and the Developer agrees to construct, as part of the Improvements, a lift station that will serve the Property and other land (hereinafter referred to as the "**Lift Station**"). The Lift Station location and design will be finalized prior to any permit being issued for the Property. The approved plans for the Lift Station shall be part of and incorporated into the Plans. It is the intent of the City that the Lift Station design will be similar in size and configuration to attached Exhibit "2", will generally have the capacity and specifications as shown on attached Exhibit "3", and is planned to be located generally in one of the two locations shown on attached Exhibit "4". The Lift Station is intended to serve 134 lots, 15 of which are on the Property.
- m. Future Reimbursement. Upon the connection of lots to the Lift Station that are outside the Property and the City collects area charges from those lots, the City shall reimburse Developer for the Lift Station oversizing to the extent that the oversizing cost is charged and recouped from said area charge payments in an amount not to exceed 89% of the Lift Station costs [89% is determined by dividing the total number of lots anticipated to be served by the Lift Station (135) by the number lots owned by the Developer (15)]; provided, however, that the City is obligated to make payments only from the said collected area charges and has no obligation to make payments from any other source. Developer recognizes, acknowledges and agrees that the amount of said reimbursement is not guaranteed and that the amount of the charges made for oversizing by

the City to the lots served by the Lift Station rest in the discretion of the City Council.

5. PAYMENT OF SEWER AND WATER CONNECTIONS. Developer shall pay or cause to be paid, prior to the issuance of a building permit, the then current rate, as determined by the City, for connection to the City sewer and water system.
6. EASEMENTS. The Developer shall, prior to release of final plat, cause the following easements to be displayed on the Final Plat, subject to the review and approval of the City:
  - a. drainage and utility; and
  - b. all road right of way required as a condition of plat approval.

Developer must provide to the City, prior to release of the Final Plat, any such easements required as a condition of Final Plat approval and not displayed on the Final Plat, in recordable form, as reviewed and approved by the City

7. RESTRICTIVE COVENANTS; ZONING REQUIREMENTS. Developer shall record restrictive covenants, that have been approved by the City, against all lots of Natures Crossing Fifth Addition not allowing, among other things, outside storage of any unlicensed vehicles and allowing only, at a maximum, one camper or one recreational trailer or boat. All lots in Natures Crossing Fifth Addition Plat shall be subject to the R-1S requirements, including legally adopted updates to the R-1S Zoning Code as they are adopted by the City from time to time. Regardless of the R-1S Zoning Ordinance, lots within the Natures Crossing Fifth Addition, the following setbacks shall apply:
 

a. Front – dwelling	25 feet
b. Rear – dwelling	20 feet
c. Side – dwelling	10 feet
d. Side – garage	5 feet
e. Front – accessory structure	25 feet
f. Side – accessory structure	5 feet
g. Rear – accessory structure	5 feet
h. Height – measured at grade	45 feet
8. EROSION AND SEDIMENT CONTROL. City Code §1001.33 and other applicable provisions of City Code shall apply to the construction of this Development, including but not limited to stormwater management regulations, best management principles and silt fencing requirements. Developer shall comply with City Code §1001.33 and other applicable provisions of City Code to the satisfaction of the City.

9. LETTER OF CREDIT.

- a. Establishment. The Developer has submitted a cost estimate for the improvements for Natures Crossing Fifth Addition. Based on those cost estimates Developer shall provide, prior to the release of the Final Plat, security by way of an Irrevocable Letter of Credit in the amount of \$399,700.00, in a form acceptable to the City, to guarantee the Developer's compliance with all the requirements set forth in this Agreement and guaranteeing the completion of all Improvements pursuant to the Plans in a good and workerlike manner, payment of all fees required herein or any other default in its performance of this Agreement. In the event Developer fails to complete the said improvements in accordance with the provisions of this Agreement and within a timeframe determined by the City, the City may declare a default under the Agreement by ten (10) days written notice to Developer, and thereafter may draw upon the Letter of Credit, in whole or in part for the purpose of curing any such default. Said Irrevocable Letter of Credit shall be renewable on an annual basis and shall provide for the City to receive notice of renewal at least ten (10) days prior to the date of renewal.
  
- b. Expiration. In the event the Irrevocable Letter of Credit, which by its terms will become null and void prior to the time at which all money or obligation of Developer is paid or completed pursuant to this Agreement, it is agreed that Developer shall provide City with a new letter of credit, acceptable to City, at least thirty (30) days prior to the expiration of the said expiring letter of credit. If a new letter of credit is not received as required above, City may declare a default in the terms of this Agreement and draw in part or in total, at City's discretion, upon the expiring letter of credit to avoid the loss of surety for the continued obligations.
  
- c. Failure to Perform. It is further agreed that, should the Developer fail to perform any of the duties, conditions or terms of the City Resolutions or this Agreement in the time permitted herein, or in such extended time as may be granted in writing by the Dayton City Council, the City shall be entitled to execute on the full amount of the Letter(s) Of Credit and shall have the right, but not the obligation, to enter the Property to cure any defaults. In that event, the City shall complete the performance, acquisition, project or work in accordance with this Agreement or the Plans set forth above, or in such other manner as is deemed reasonable by the City, or defend against any claims, the City may reimburse itself for all costs and expenses, including, but not limited to legal and consulting fees, from Letter of Credit funds. Any improvements completed by the City pursuant to this Paragraph are not warranted or

guaranteed. The Developer shall indemnify, hold harmless, and defend the City, its officers and employees against any and all liability, loss, costs, damages, expenses, claims, actions, or judgments, including attorneys' fees which the City, its officers or employees may hereafter sustain, incur, or be required to pay, arising out of or by reason of the City exercising its power under this Paragraph.

- d. Deficiency. In the event that the Letter of Credit is used by the City and found to be deficient in amount to pay or reimburse the City in total as required herein, Developer agrees that upon being billed by the City, Developer will pay said deficiency amount to City within ten (10) days of the mailing of said billings to Developer. If Developer fails to pay, the City may assess all cost, including, but not limited to, staff time, engineering fees and legal fees, against each lot of Natures Crossing Fifth Addition. Developer agrees that the Property will be benefited by the work completed by the City in at least the amount of the City billing. Developer expressly waives all rights to appeal in the courts, together with objection to any irregularity with regard to the assessment for the improvements, but retains the right to appeal whether the amount incurred by the City is reasonably necessary. Developer acknowledges that the City has the authority, pursuant to Minnesota Statutes Chapters 412 and 429, to specially assess property benefited by improvements. If there should be an overage in the amount of utilized security City will, upon making said determination, refund to Developer any monies which City has in its possession which are in excess of the surety needed by City. In addition to the above, the City may seek a civil judgment against the Developer for the above amounts demanded by the City.
- e. Release. Developer may request of City that the Letter of Credit be released when all improvements have been completed, as determined by the City, and the City determines that no more surety is required to guarantee performance under this Agreement and the Resolutions.

10. PARK DEDICATION. Developer's cash obligation for park dedication has been computed based upon the formula approved by City for use in the year 2011 and based on said formula the park dedication amount to be paid for the Final Plat is \$66,808.00 (which represents 14 lots times \$4,772.00). In the event the City approves an amendment to the park dedication formula prior to release of the Final Plat, the above-referenced payment shall be adjusted based upon the computation formula approved by City in effect when the Final Plat is actually released for filing with the Hennepin County Recorder or Registrar of Titles. The park dedication fee as set forth above shall be paid prior to the Final Plat being released for filing at the Hennepin County Government Center.

11. ENGINEERING REQUIREMENTS. Prior to release of the Final Plat, the Developer shall comply, to the satisfaction of the City Engineer, with any and all requirements of the City Engineer which include, but is not limited to, certain modifications to the Plans.
12. ACCESS. Access, and temporary construction access, to all lots of Natures Crossing Fifth Addition must be reviewed and is subject to approval of the Public Works Director, City Engineer and Fire Marshal.
13. ESCROW. The Developer shall pay to the City upon demand, expenses, determined by the City, that the City incurs in administering the Resolutions, this Agreement and the construction contemplated herein and shall provide an escrow deposit to the City in an amount to be determined by the City. Said expenses shall include, but are not limited to, staff time, engineering, legal expenses and fees for inspection services.
14. PROTECTION OF WOODED AREAS AND STEEP SLOPES. During the development of Natures Crossing Fifth Addition, Developer shall follow all measures to protect any wooded areas and steep slopes on the Property as determined and directed by the City Engineer.
15. NOTIFICATION INFORMATION. Any notice to the parties herein shall be deemed to have been given or delivered if sent by certified mail addressed as follows:

If to City:

City of Dayton  
12260 S. Diamond Lake Road  
Dayton MN 55327  
Attn: City Administrator

If to Developer:

MTD Properties, LLP  
13601 Balsm Lane  
Dayton, Minnesota 55327  
Attn: Tom Dehn

16. LICENSE. The Developer hereby grants the City, its agents, employees, officers and contractors a license to enter the Property to perform all work and inspections deemed appropriate by the City in conjunction with Final Plat development.
17. CITY ATTORNEY REVIEW. The Developer shall provide an updated

and certified Abstract of Title and/or Registered Property Abstract as required by Minn. Stat. §505.03, or in the alternative, the Developer may provide a Commitment for a Title Insurance Policy for the Property naming the City as the proposed insured and with the amount of coverage for this policy being equal to \$100,000.00 per acre dedicated to the City (including but not limited to streets; rights-of-way, park dedication, and drainage and utility easements). \$100,000.00 per dedicated acre represents the coverage amount formula approved by the City for the year 2011. If Final Plat is not released for filing in the year 2011, the above-referenced policy coverage amount shall be adjusted based upon the formula approved by City for the year in which the Final Plat is actually released for filing with the Hennepin County Recorder. The above-mentioned evidence of title shall be subject to the review and approval of the City Attorney to determine what entities must execute the Final Plat and other documents to be recorded against the Property. In the event the Developer provides the City with a Commitment for a Title Insurance Policy, the Developer shall cause a Title Insurance Policy to be issued consistent with the Commitment for a Title Insurance Policy provided by the Developer and the requirements of the City Attorney and with an effective date on which the Final Plat is recorded (the City will not issue any certificate of occupancies until it is provided with said Title Insurance Policy). Further, Developer shall provide the City with evidence, which sufficiency shall be determined by the City, that all documents required to be recorded pursuant to this Resolution and by the City Attorney are recorded and all conditions for release of the Final Plat have been met prior to the City processing or approving any building permits or other permits applicable to the development of the Property.

18. BUILDING PERMITS. No building permits shall be issued until the plat legal description is approved by the City Attorney, the Final Plat is recorded, any required improvements have been made, all provisions of this Agreement have been satisfied, this Agreement is executed and recorded, restrictive covenants and Association documents have been executed and recorded, park dedication fees paid and outstanding fees due as required herein or as due for City review and/or inspection of development have been paid and any required sureties have been established.
19. GRADING. Grading work may begin on the Property prior to execution and release of the Final Plat, subject to the following conditions: prior to commencing work on the Property, the Developer, their contractor and engineer, if any, shall meet with the City Engineer, Public Works Department, Building Official, Zoning Administrator, and other City staff to discuss the improvements to be made to Natures Crossing Fifth Addition; and no grading or grading work may commence until Developer has submitted a final grading and drainage plan subject to review and

approval of the City Engineer. All work in accordance with said grading plan in wetland areas is subject to the review and approval of the City, the Department of Natural Resources and Army Corps of Engineers. Further, all grading is completed at the risk of the Developer and grading completed pursuant to this Paragraph is not a guarantee that the Final Plat will be released.

20. RESPONSIBILITY FOR DAMAGE TO PUBLIC PROPERTY. Developer agrees to assume full financial responsibility for any damage that may occur to public property when said damage occurs as a result of the activity which takes place during the development of Natures Crossing Fifth Addition. Developer further agrees to pay all costs required to repair the streets and/or utility systems damaged or cluttered with debris when occurring as a direct or indirect result of the construction that takes place in Natures Crossing Fifth Addition. In the event the Developer fails to maintain or repair the damaged public property referred to aforesaid, Developer agrees that City may, but is under no obligation to, undertake making and causing said damage or clutter to be repaired or cleaned. When City undertakes such repair, Developer shall reimburse the City for all of its expenses within ten (10) days of City's billing to Developer. Failure to make such timely payment shall be cause for default under this Agreement.
21. STREET CLEANING. During the development of its parcels, Developer shall keep the streets adjoining its development free of dirt and debris caused by its development. In the event dirt and/or debris has accumulated on streets within or adjacent to Natures Crossing Fifth Addition, City is hereby authorized to immediately commence street cleaning operation if streets are not cleaned by the Developer after twenty-four (24) hours of the violation. Street cleaning shall be defined as the use of any equipment specifically designed for sweeping, necessary for cleaning dirt, mud and debris from the City right-of-way. If conditions are such that street cleaning operation is immediately necessary, City may perform the necessary street cleaning. City will then bill Developer, as the delinquent party for all associated street cleaning costs. Failure to reimburse City for street cleaning costs within ten (10) days of such billing shall be cause for default under this Agreement.
22. DEFAULT. In the event the Developer, its successors or assigns violates any of the covenants and agreements herein contained, the City is hereby granted the right and privilege to declare the Developer in default of this Agreement. City may thence immediately and without notice or consent of Developer use all of the deposited escrow funds and surety funds, if any, to cure said default, and to the extent not satisfied from such funds, to bring legal action against Developer to collect any sums due pursuant to this Agreement. Developer hereby grants City and City's employees, representatives or agents the right to enter the Property to perform any act

deemed necessary by City to complete Developer's obligations created herein.

23. MISCELLANEOUS.

- a. Runs with the Property. The terms and conditions of this Agreement shall be binding on the parties hereto, their respective successors and assigns and the benefits and burdens shall run with the Property. Notwithstanding the foregoing, no conveyance of the Property or any part thereof shall relieve the Developer of its personal liability for full performance of this Agreement unless the City expressly so releases the Developer in writing.
- b. Recording. This Agreement shall be recorded against the Property by the Developer. No building permits shall be issued until the City is provided with recording information.
- c. Integration. This Agreement, any attached exhibits and any addenda or amendments signed by the parties shall constitute the entire agreement between the parties as it relates to the specific terms and obligations herein, and supersedes any other such written or oral agreements between the parties.
- d. Warrant of Authority. Developer warrants and guarantees that it has the authority to enter into this Agreement and to make it a covenant on the Property binding all current and future owners.
- e. Attorney's Fees. Developer will pay to City, if the City prevails, reasonable attorney's fees to be fixed by the Court in the event a suit or action is brought to enforce the terms of this Agreement.
- f. Severability. In case any one or more of the provisions contained in this Agreement shall be invalid, illegal or unenforceable in any respect, the validity, legality and enforceability of the remaining provisions contained herein and any other application thereof shall not in anyway be affected or impaired thereby.
- g. Data Practices Compliance. Developer will have access to data collected or maintained by the City to the extent necessary to perform Developer's obligations under this Agreement. Developer agrees to maintain all data obtained from the City in the same manner as the City is required under the Minnesota Government Data Practices Act, Minnesota Statutes Chapter 13 or other applicable law (hereinafter the "Act"). Developer will not release or disclose the contents of data classified as not public to any person except at the written direction of the City. Developer

agrees to defend and indemnify the City from any claim, liability, damage or loss asserted against the City as a result of Developer's failure to comply with the requirements of the Act or this Agreement. Upon termination and/or completion of this Agreement, Developer agrees to return all data to the City, as requested by the City.

- h. Governing Law. It is agreed that this Agreement shall be governed by, construed, and enforced in accordance with the laws of the State of Minnesota.
- i. Time is of the Essence. Time is of the essence in the performance of the terms and obligations of this Agreement.
- J. Modification. Any modification of this Agreement or additional obligation assumed by either party in connection with this Agreement shall be binding only if evidenced in writing signed by each party or an authorized representative of each party. It is understood that subsequent agreements may be necessary to complete the understandings of the parties relating to necessary improvements and uses of the Property.
- k. Non-Waiver. The action or inaction of the City shall not constitute a waiver or amendment of the provisions of this Agreement. The waiver by or the failure of the City to enforce any particular section, portion or requirement of this Agreement at any particular time shall not in any way constitute a waiver of any other section, provision, requirement, time element, or the right to enforce such provision at a subsequent time. To be binding, any amendments or waivers shall be in writing, signed by the parties and approved by written resolution of the City Council. The City's failure to promptly take legal action to enforce this Agreement shall not be a waiver or release.
- l. Cumulative Rights. Each right, power, or remedy herein conferred upon the City is cumulative and in addition to every other right, power, or remedy, express or implied, now or hereinafter arising, available to the City, at law or in equity, or under any other agreement, and each and every right, power, and remedy herein set forth or otherwise so existing may be exercised from time to time as often and in such order as may be deemed expedient by the City and will not be a waiver of the right to exercise at any time thereafter any other right, power, or remedy.

IN WITNESS WHEREOF, the parties hereto have hereunto set their hands the day and year first above written.

CITY OF DAYTON

MTD PROPERTIES, LLP

By: *Doug Anderson*  
Its: Mayor Doug Anderson

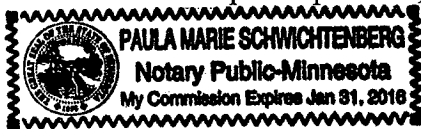
By: *Thomas A. Dehn*  
Its: partner

By: *Sandra Borders*  
Its: Clerk, Sandra Borders

By: \_\_\_\_\_  
Its:

STATE OF MINNESOTA )  
 ) ss.  
COUNTY OF HENNEPIN )

The foregoing instrument was acknowledged before me this 13 day of September, 2011 Doug Anderson, Mayor, and Sandra Borders, City Clerk, of the City of Dayton, a Minnesota municipal corporation, on behalf of the corporation.



*Paula M Schwichtenberg*  
Notary Public

STATE OF MINNESOTA )  
 ) ss.  
COUNTY OF HENNEPIN)

The foregoing instrument was acknowledged before me this \_\_\_\_ day of \_\_\_\_\_, 2011 by \_\_\_\_\_ and \_\_\_\_\_, the \_\_\_\_\_ and \_\_\_\_\_ of \_\_\_\_\_, on behalf of said \_\_\_\_\_.

\_\_\_\_\_  
Notary Public

This Document Drafted By:  
Hoff, Barry & Kozar, P.A. (SBL)  
160 Flagship Corporate Center  
775 Prairie Center Drive  
Eden Prairie, MN  
(952) 941-9220

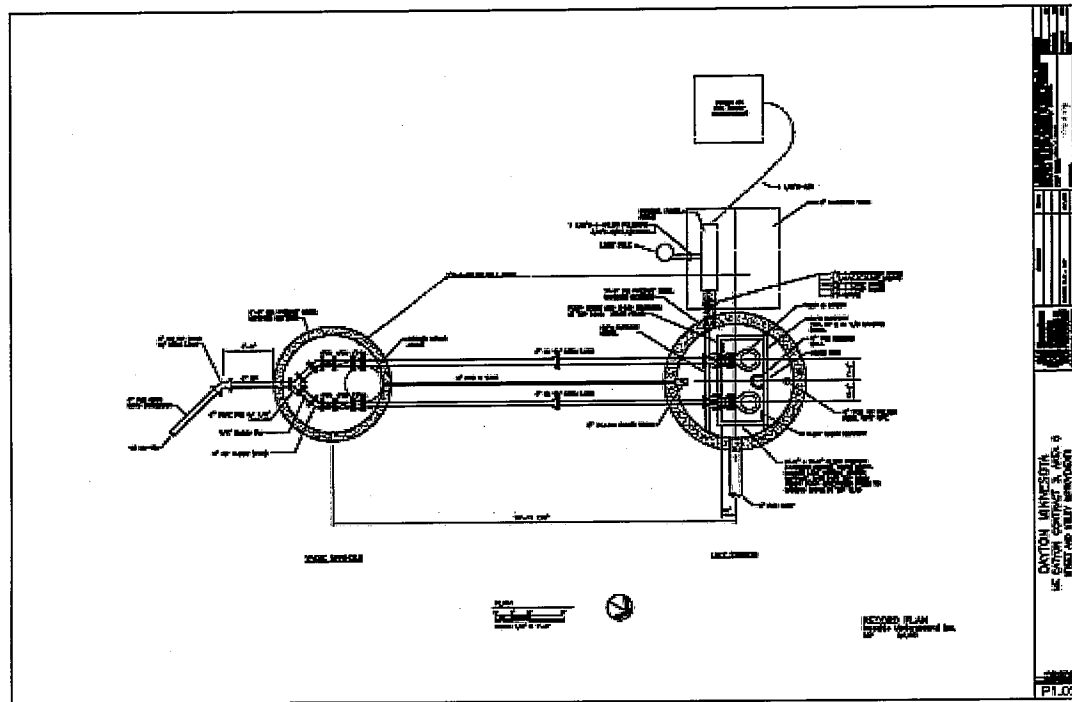
***[Insertion of Lender's Consent if required by the City Attorney after Title review]***

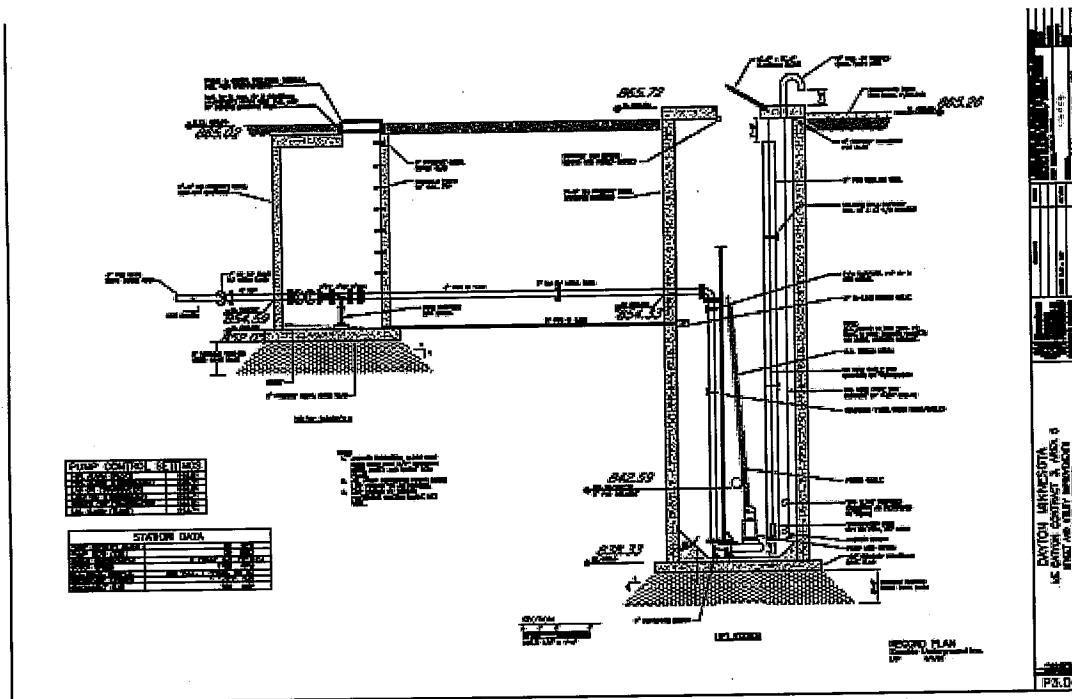
**EXHIBIT "1"**

**LEGAL DESCRIPTION OF THE PROPERTY**

Outlot A, NATURES CROSSING FOURTH ADDITION, Hennepin County,  
Minnesota, according to the recorded plat thereof.

**EXHIBIT "2"**  
**GENERAL LIFT STATION PLANS**





**EXHIBIT “3”**

**LIFT STATION GENERAL SPECIFICATIONS**

Natures Crossing Lift Station  
August 3, 2011

Natures Crossing(1-5 Additon) Units	91 Lots
Natures Crossing(1-5 Additon) Area	40.2 Acres
Average Acres/Lot	2.26 Lots/Acre

LS Service Area	59.2 Acres
Approx. Units	134 Lots

Average Daily Flow Rate (Comp Plan)	216 Gal/Unit
Peak Flow Factor	4
Average Daily Flow to LS	0.029 MGD
Peak Flow to LS	0.116 MGD

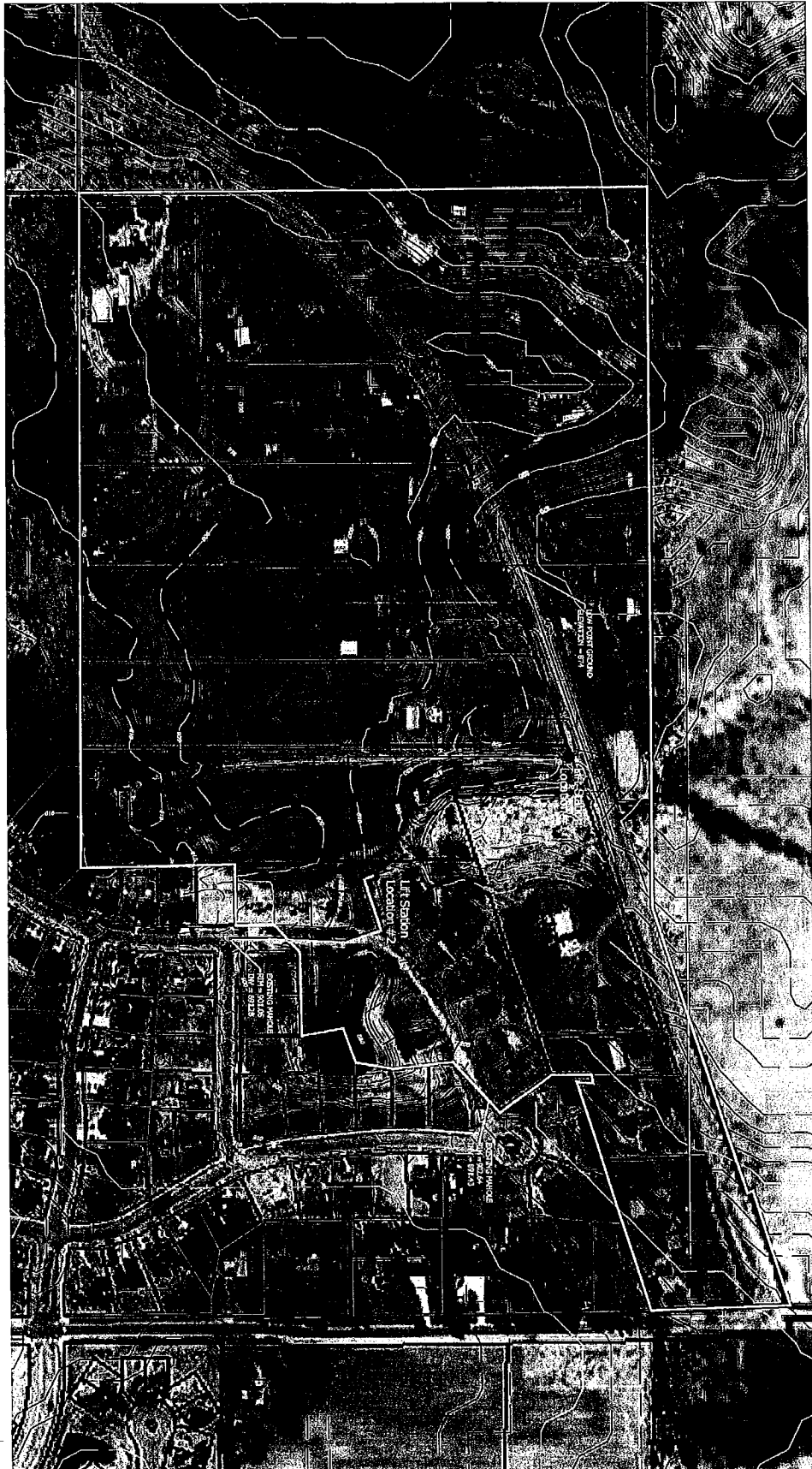
	LOCATION #1	LOCATION #2
Low Pt Ground Elevation	874 ft	874 ft
Distance to LS	500 lf	1300 lf
Min Grade 8" Sanitary	0.40%	0.40%
Sanitary Sewer Invert	862 ft	858.8 ft
Ground Elevation	872 ft	890 ft
Rim to invert depth LS	10-15 ft	30-35 ft
Forcemain Length	1300 lf	500 lf
Invert Elevation EXMH	891.28 ft	891.28 ft
Elevation difference	30 ft	33 ft

**EXHIBIT “4”**

**GENERAL LIFT STATION LOCATIONS SITES**

LIFT STATION SERVICE AREA  
 DAYTON, MN  
 NATURES CROSSING  
 E:\17\1746\NATURES CROSSING\NATURES CROSSING 5TH ADDITION\NATURES CROSSING FIGURE 1-LIFT STATION\NATURES CROSSING-1

FIGURE 1



## **CHAPTER 51: WASTEWATER; SANITARY SEWER SYSTEM**

### Section

#### Sanitary Sewer Discharges

- 51.01 Purpose
- 51.02 Discharge prohibited
- 51.03 Disconnection
- 51.04 Inspections
- 51.05 New construction
- 51.06 Winter discharge

#### Individual Sewage Treatment Systems

- 51.20 General provisions
- 51.21 Definitions
- 51.22 Standards incorporated by reference
- 51.23 Administration
- 51.24 Permitting
- 51.25 Construction inspections
- 51.26 Existing systems
- 51.27 Violations
- 51.28 Additional standards for health and environmental protection
- 51.29 More restrictive standards
- 51.30 Fees

#### Wastewater Treatment and Collection Facilities

- 51.40 Definitions
- 51.41 Control by authorized representative
- 51.42 Use of public sewers required
- 51.43 Private wastewater disposal
- 51.44 Building sewers and connections; design
- 51.45 Use of public wastewater treatment facilities
- 51.46 Prosecution for damages to the facility
- 51.47 Powers and authority of inspectors
- 51.48 Sewer service charge system
- 51.99 Penalty

## **SANITARY SEWER DISCHARGES**

### **§ 51.01 PURPOSE.**

The discharge of water from roof, surface, ground water sump pump, footing tile, swimming pool, natural precipitation or private sewage system into the city sewerage system results in flooding and overloading of the sewage system. When this water is discharged into the sanitary sewer system, it is treated at the Metropolitan Sewage Treatment Plant. This results in very large and needless expenditures. The City Council, therefore, finds it in the best interest of the city to prohibit such discharges and to impose surcharges estimating the burden placed on the system from unlawful discharge.

(Ord. 2009-07, passed 4-14-2009)

### **§ 51.02 DISCHARGE PROHIBITED.**

Except as otherwise expressly authorized in this subchapter, no water from any roof, surface, ground water sump pump, footing tile, swimming pool, spa, hot tub, natural precipitation or private sewage system shall be discharged into the sanitary sewer system. Dwellings and other buildings and structures which require, because of infiltration of water into basements, crawl spaces and the like, a sump pump discharge system shall have a permanently installed discharge line which shall not at any time discharge water into the sanitary sewer system, except as provided herein. A permanent installation shall be one which provides for year-round discharge capability to the outside of the dwelling, building or structure. A direct connection to the public storm sewer or street in public right-of-way/easement shall be reviewed by the city and may require a permit. The water discharge shall be a free discharge. An air separation shall be provided before connecting to a public storm sewer.

(Ord. 2009-07, passed 4-14-2009) Penalty, see § 51.99

### **§ 51.03 DISCONNECTION.**

Any person, firm or corporation having a roof surface, ground water sump pump, footing tile or swimming pool now connected and/or discharging into the sanitary sewer system shall disconnect or remove same. Any disconnects or openings in the sanitary sewer system shall be closed or repaired in an effective, workmanlike manner.

(Ord. 2009-07, passed 4-14-2009) Penalty, see § 51.99

### **§ 51.04 INSPECTIONS.**

(A) Every person owning improved real estate that discharges into the city's sanitary sewer system shall allow an employee of the city or a designated representative of the city to inspect the buildings to confirm that there is no sump pump or other prohibited discharge into the sanitary sewer system. In lieu of having the city inspect his or her property, any person may furnish a certificate from a licensed plumber certifying that his or her property is in compliance with this subchapter.

(B) Each sump pump connection identified may be reinspected periodically for compliance with this subchapter.

(Ord. 2009-07, passed 4-14-2009) Penalty, see § 51.99

#### **§ 51.05 NEW CONSTRUCTION.**

All new dwellings with sumps for which a building permit is issued after 1-1-2009 shall be piped to the outside of the dwelling before a certificate of occupancy is issued.

(Ord. 2009-07, passed 4-14-2009) Penalty, see § 51.99

#### **§ 51.06 WINTER DISCHARGE.**

(A) The City Administrator is authorized to issue a permit to allow a property owner to discharge surface water into the sanitary sewer system.

(B) The permit shall authorize such discharge only from November 15 to March 15 and a property owner is required to meet at least one of the following criteria in order to obtain the permit:

(1) The freezing of the surface water discharge from the sump pump or footing drain is causing a dangerous condition, such as ice buildup or flooding, on either public or private property;

(2) The property owner has demonstrated that there is a danger that the sump pump or footing drain pipes will freeze up and result in either failure or damage to the sump pump unit or the footing drain and cause basement flooding; and/or

(3) The water being discharged from the sump pump or footing drain cannot be readily discharged into a storm drain or other acceptable drainage system.

(C) Following ten days' written notice and an opportunity to be heard, the City Administrator may require a property to discharge its sump pump into the sanitary sewer from November 15 to March 15 if surface water discharge is causing an icy condition on streets.

(Ord. 2009-07, passed 4-14-2009)

## **INDIVIDUAL SEWAGE TREATMENT SYSTEMS**

#### **§ 51.20 GENERAL PROVISIONS.**

(A) Purpose. This subchapter is enacted to provide minimum standards for the regulation of subsurface sewage treatment systems (ISTS) including: their proper location, design and construction; their necessary modification and reconstruction; their operation, maintenance and repair for the purpose of protecting surface water and groundwater from contamination by human sewage and waterborne household and commercial wastes; the protection of the public's health and safety; and the elimination and prevention of the development of public nuisances, pursuant to the authority granted under M.S. Chs. 115 and 145A, as they may be amended from time to time,

and Minn. Rules Chs. 7080, 7081 and 7082, that may pertain to sewage and wastewater treatment. All sewage generated in unsewered areas of the county shall be treated and dispersed by an approved SSTS that is sited, designed, installed, operated and maintained in accordance with the provisions of this subchapter or by a system that has been permitted by the MPCA.

(B) Sewage discharge to ground surface or surface water. It is unlawful for any person to construct, maintain, or use any wastewater treatment system regulated under this subchapter that results in raw or partially treated wastewater seeping to the ground surface or flowing into any surface water. Any surface discharging system must be permitted by the MPCA under the National Pollutant Discharge Elimination System program.

(C) Objectives. The principal objectives of this subchapter are as follows:

(1) The protection of the city's lakes, rivers and streams, wetlands, and groundwater essential to the promotion of public health, safety, welfare, socioeconomic growth and development of the city in perpetuity;

(2) The regulation of proper ISTS construction, reconstruction, repair and maintenance to prevent the entry and migration of contaminants, thereby ensuring the non-degradation of surface water and groundwater;

(3) The establishment of minimum standards for ISTS placement, design, construction, reconstruction, repair and maintenance to prevent contamination and, if contamination is discovered, the identification and control of its consequences and the abatement of its source and migration;

(4) The appropriate utilization of privy vaults and other non-water carried ISTS; and

(5) The prevention and control of water-borne disease, lake degradation, groundwater related hazards, and public nuisance conditions through technical assistance and education, plan reviews, inspections, ISTS surveys and complaint investigation.

(Ord. 2015-03, passed 2-25-2015) Penalty, see § 51.99

## **§ 51.21 DEFINITIONS.**

For the purpose of this subchapter, the following definitions shall apply unless the context clearly indicates or requires a different meaning.

**CITY.** The City of Dayton Planning and Building Department and its designated agents who shall be a qualified employee or licensee.

**ISTS.** An individual sewage treatment system as defined in Minn. Rules 7080.1100, subp. 41.

**MSTS.** A Midsized Subsurface Sewage Treatment System as defined in Minn. Rules 7081.0020, subp.4.

**OTHER ESTABLISHMENT.** Any private or public structure, other than a dwelling, that generates sewage having characteristics other than residential-type waste or has an average waste flow greater than 2,000 gallons per day and discharges to an individual sewage treatment system.

**OWNER.** The fee owner(s) and, if applicable, the contract-for-deed purchaser. Ownership interests shall be determined by reference to the records of the county. The

owner of each lot served by an ISTS is responsible for the lawful operation and maintenance of each ISTS.

SSTS. Subsurface Sewage Treatment System as defined in Minn. Rules 7080.1100, subp. 82.

TYPE I SYSTEM. An ISTS designed according to Minn. Rules parts 7080.2200 to 7080.2240.

TYPE II SYSTEM. An ISTS designed according to Minn. Rules parts 7080.2250 to 7080.2290.

TYPE III SYSTEM. An ISTS designed according to Minn. Rules 7080.2300.

TYPE IV SYSTEM. An ISTS designed according to Minn. Rules 7080.2350.

TYPE V SYSTEM. An ISTS designed according to Minn. Rules 7080.2400.  
(Ord. 2015-03, passed 2-25-2015)

## **§ 51.22 STANDARDS INCORPORATED BY REFERENCE.**

This subchapter hereby incorporates by reference Minn. Rules Chs. 7080 and 7081, as they may be amended from time to time.

(Ord. 2015-03, passed 2-25-2015)

## **§ 51.23 ADMINISTRATION.**

(A) Generally. The city shall have the following duties and responsibilities:

- (1) To review all applications for ISTS;
- (2) To issue all required permits;
- (3) To conduct construction inspections and to perform all necessary tests to determine its conformance with this subchapter;
- (4) To investigate complaints regarding ISTS;
- (5) To perform compliance inspections and to issue certificates of compliance or notices of noncompliance where appropriate;
- (6) To issue stop work orders and notices of violation pursuant to this subchapter;
- (7) To take complaints to the Municipal or County Attorney for violations of this subchapter;
- (8) To maintain proper records for ISTS including site evaluation records, design records including calculations and summaries for all system component sizings and as-builts, complaints on noncompliance, compliance inspections, site evaluations, applications and exhibits, variance requests, issued permits, certificates of compliance, and enforcement proceedings; and
- (9) To submit annual reports to the MPCA to demonstrate enforcement of this subchapter per Minn. Rules 7082.0040, Subpart 5, as it may be amended from time to time.

(B) Issuance of notices. Neither the issuance of permits, certificates of compliance nor notices of noncompliance as requested or issued shall be construed to represent a guarantee or warranty of the system's operation or effectiveness. Such certificates

signify that the system in question is or has been designed and installed in compliance or non-compliance with the provision of these standards and regulations.

(Ord. 2015-03, passed 2-25-2015)

#### **§ 51.24 PERMITTING.**

(A) Required permits. A permit from the city is required before any ISTS in city's jurisdiction is installed, replaced, abandoned, altered, repaired, rejuvenated or extended. Installation, replacement, alteration, repair or extension of an ISTS shall not begin prior to the receipt of a permit from the city for each specific installation, replacement, alteration, repair or extension pursuant to this subchapter. Such permits are not transferable as to person or place. Such permits shall expire 12 months after date of issuance. Upon request of an inspector, permits shall be provided by the permittee at the time of inspection.

(B) Permits not required. Permits shall not be required for the following activities:

- (1) Repair or replacement of pumps, floats or other electrical devices of the pump;
- (2) Repair or replacement of baffles in the septic tank;
- (3) Installation or repair of inspection pipes and manhole covers;
- (4) Repair or replacement of the line from the building to the septic tank; or
- (5) Repair or replacement of the line from the septic tank or pump chamber to the distribution box of lines.

(C) Permit application. All applications for an ISTS permit shall include the following information:

- (1) Name and address of property owner;
- (2) Property identification number;
- (3) Legal description of the property;
- (4) ISTS designer name, address, telephone number and state MPCA license number (or city qualified employee name and number);
- (5) ISTS installer name, address, telephone number and MPCA license number;
- (6) Site evaluation report on forms approved by the city;
- (7) System design with full information including applicable construction information on forms approved by the city;
- (8) The location of at least one designated additional soil treatment area that can support system as described in Minn. Rules parts 7080.2200 through 7080.2230, or site conditions described in Minn. Rules 7081.0270, subps. 3 through 7, on lots created after January 23, 1996;
- (9) A management plan as described in Minn. Rules 7082.0600 and this subchapter; and
- (10) Any other information requested pertinent to the process.

(D) Operating permit.

(1) An operating permit is required for all treatment systems installed under Minn. Rules 7080.2290 (holding tanks), Minn. Rules 7080.2350-2400 (Type IV & V Systems), and Minn. Rules Ch. 7081 (MSTS). Sewage shall not be discharged to a treatment system requiring an operating permit until the city certifies that the treatment system

was installed in substantial conformance with the approved plans, receives the final record drawings of the SSTS, and a valid operating permit is issued to the owner.

(2) The operating permit shall be valid for 12 months and renewed by the expiration date. The city shall review all required monitoring data submitted from the previous year and the renewal application before approving any subsequent operating permits. An operating permit shall include:

(a) A detailed description of the operation, maintenance, and monitoring, reporting and compliance limits and boundaries necessary to ensure both continued system performance as designed and protection of public health and the environment for the life of the system;

(b) A requirement that the person responsible for monitoring notify the city when monitoring plan requirements are not met;

(c) A disclosure of the location and condition of the additional soil treatment and dispersal system;

(d) A stipulation of acceptable and prohibited discharges; and

(e) The signatures of the system designer and owner.

(E) Compliance monitoring.

(1) Performance monitoring of a SSTS shall be performed by a licensed inspection business or licensed service provider hired by the holder of the operating permit in accordance with the monitoring frequency and parameters stipulated in the permit.

(2) A monitoring report shall be prepared and certified by the licensed inspection business or licensed service provider. The report shall be submitted to the department on or before the compliance reporting date stipulated in the operating permit. The report shall contain a description of the maintenance and servicing activities performed since the last compliance monitoring report as described below:

(a) Owner name and address;

(b) Operating permit number;

(c) Average daily flow since last compliance monitoring report;

(d) Description of type of maintenance and date performed;

(e) Description of sample taken (if required), analytical laboratory used and results of analyses;

(f) Problems noted with the system and actions proposed or taken to correct them; and

(g) Name, signature, license and license number of the licensed professional who performed the work.

(F) License requirements. All design, installation, alteration, repair, maintenance, operation, pumping and inspection activities for SSTS located in the county must be completed by a business licensed by the state under Minn. Rules Ch. 7083, an appropriately certified qualified employee, or a person exempted under Minn. Rules 7083.0700, subps. 1(A), (C), (D), (F), (G), (H) and (I). Individuals exempt from a state SSTS license under Minn. Rules 7083.0700, subps. 1(A), (C), (D), (F), (G), (H) and (I), must follow all applicable local, state and federal requirements. Property owners that employ a business to perform this work must hire a business that is licensed in accordance with Minn. Rules Ch. 7083.

(G) Application review and determination. If after consideration of the application for a permit, the city determines that the proposed work complies with provision of this subchapter, the city shall issue a written permit granting preliminary approval authorizing initiation of the work as proposed. If the city determines that the proposed work will not comply with the provisions of this subchapter, the city shall deny the permit application. The permit application may be revised or corrected and resubmitted to the city for reconsideration.

(H) Variances.

(1) Variances to wells and water supply lines require approval from the Minnesota Department of Health. The city may grant variances to the technical standards and criteria of Minn. Rules Ch. 7080 or this subchapter. However, the city is prohibited from granting variances to:

- (a) Minn. Rules 7080.2150, Subp. 2;
- (b) Minn. Rules 7081.0080, Subps. 2 to 5, however, variances may be granted to Minn. Rules 7081.0080, Subp. 4(0)(1), for the replacement of MSTs serving existing dwellings or other establishments; and
- (c) Flow determinations under Minn. Rules 7081.0110, if the deviation reduces the average daily flow from more than 10,000 gallons to 10,000 gallons per day or less.

(2) All requests for a variance shall be requested in writing to the city on forms approved by the city.

(I) Periodically saturated soil disagreements.

(1) If a documented discrepancy arises on the depth of the periodically saturated soil between licensed businesses for SSTs design or compliance purposes, all disputing parties must follow the procedure outlined in this subsection.

(a) The disputing parties must meet at the disputed site in an attempt to resolve differences; and

(b) If the provision does not resolve the differences, then:

1. Obtain an opinion from a state licensed professional soil scientist who is a certified SSTs designer or inspector and who is independent of, and agreed upon by, both parties; and

2. If opinions rendered do not resolve the dispute, all initial and follow-up documents and information generated must be submitted to the city. The city shall take into consideration all information and opinions rendered and make a final judgment. The city shall render findings of fact, conclusions of law and findings setting forth the reasons for any final decisions it renders.

(2) If a documented discrepancy arises on the depth of the periodically saturated soil between an SSTs licensed business and the city for SSTs design or compliance purposes, all disputing parties shall follow the procedure outlined in this item.

(a) A representative of the city and the licensed business must meet at the disputed site in an attempt to resolve differences.

(b) If the provision does not resolve differences, then the SSTs licensed business may obtain an opinion from a state licensed professional soil scientist who is a certified SSTs designer or inspector and who is independent of, and agreed upon by, both parties.

(c) If still unresolved, the city shall take into consideration all information and opinions rendered and make a final judgment. The city shall render findings of fact, conclusions of law and findings setting forth the reasons for any final decisions they render.

(3) Upon resolution of a dispute, amendments to initial disputed documents containing the resolution shall be made and submitted to the city and all other parties involved.

(Ord. 2015-03, passed 2-25-2015)

#### **§ 51.25 CONSTRUCTION INSPECTIONS.**

(A) Requirements. Compliance inspections shall be conducted by the city anytime an ISTS is installed, replaced, altered, repaired or extended. The installation and construction of the ISTS shall be in accordance with the permit requirements and application design. If any ISTS component is covered before being inspected by the city, it shall be uncovered if so ordered by the city. Proposals to alter the permitted construction shall be reviewed and the proposed change accepted by the city prior to construction. Inspections shall be conducted at least once during the construction that is prior to covering of the ISTS to assure that the system has been constructed per the submitted and approved design.

(B) Inspector. Compliance inspections for construction, replacement, alteration or repair work on ISTS shall be conducted by the city.

(C) Request for inspection. It shall be the duty of the permittee to notify the city of the date and time the inspection is requested at least 24 hours (excluding weekend days and holidays) preceding the requested inspection time. If the permittee provides proper notice as described above and the city does not appear for an inspection within two hours after the time scheduled, the permittee may complete the installation and submit an as-built for the system.

(D) Access to premises and records. Upon the request of the city, the applicant, owner, permittee or any other person shall allow access at any reasonable time to the affected premises as well as any related records, for the purposes of regulating and enforcing this subchapter. If entry is refused, the city shall have recourse to the remedies provided by law to secure entry. No person shall hinder or otherwise interfere with the city in the performance of their duties and responsibilities pursuant to the enforcement of this subchapter. Refusal to allow reasonable access to the city shall be deemed a separate and distinct offense, whether or not any other specific violations are cited.

(E) Stop work orders. Whenever any ISTS work is being done contrary to the provisions of this subchapter, the city may order the work stopped by verbal or written notice served upon the installer or the owner of the land. All installation and construction shall cease and desist until subsequent authorization to proceed is received from the city.

(F) As-builts. As-builts shall be submitted to the city within five working days of completion of the work on the ISTS on forms provided or approved by the city. The as-built shall include photographs of the system prior to covering and a certified statement that the work was installed in accordance with submitted design and permit conditions

and that it was free from defects. If an as-built is not submitted, the city may require the uncovering of the system for inspection.

(G) Inspection reports. A certificate of compliance or notice of noncompliance shall be prepared by the city following an inspection or review of as-builts submitted in accordance with division (F) of this section. A certificate of compliance or notice of noncompliance shall include a signed statement by the inspector identifying the type of ISTS inspected and whether the system is in compliance with Minnesota Rules. A copy of the certificate of compliance or notice of noncompliance shall be provided to the property owner within 30 days of the compliance inspection and a copy kept on file with the city.

(1) Certificates of compliance issued by the city for new construction and replacement shall be valid for five years from the date of the compliance inspection or as-built certification unless the health authority or licensed inspector identifies the system as an imminent public health threat.

(2) Notices of violation may be issued with notices of noncompliance when the city determines that new construction, replacement or repairs are not in compliance with this subchapter.

(Ord. 2015-03, passed 2-25-2015)

#### **§ 51.26 EXISTING SYSTEMS.**

(A) Requirements. The city shall require a compliance inspection of an existing system whenever:

(1) In designated shoreland management or wellhead protection areas, an application for any type of building or land use permit is made;

(2) The city deems a compliance inspection necessary, including, but not limited to, upon receipt of information of a potential ISTS failure or imminent health threat;

(3) An additional bedroom on the property is requested. If a request for an additional bedroom is received between November 1 and April 30, the city may issue a building permit immediately with the contingent requirement that a compliance inspection of the existing ISTS shall be completed by the following June 1 and the applicant submits a certificate of compliance by the following September 30; or

(4) Any addition or remodel of a licensed food, beverage, or lodging establishment or any other establishment where the sewage treatment system's designed flow may be effected.

(B) Inspector. Only the city or licensed designer I or inspector, shall conduct an inspection when a compliance inspection is required for an existing ISTS.

(C) SSTS built before April 1, 1996. SSTS built before April 1, 1996, outside of areas designated as shoreland areas, wellhead protection areas, or SSTS providing sewage treatment for food, beverage, or lodging establishments must have at least two feet of vertical separation between the bottom of the dispersal system and seasonal saturation or bedrock. The vertical separation measurement shall be made outside the area of system influence in an area of similar soil.

(D) SSTS built after March 31, 1996. SSTS built after March 31, 1996, or SSTS located in a shoreland area, wellhead protection area, or serving a food, beverage, or

lodging establishment as defined under Minn. Rules 7080.1100, subp. 84, must have a three-foot vertical separation between the bottom soil infiltrative surface and the periodically saturated soil and/or bedrock. Unless otherwise determined by the city, existing systems that have no more than a 15% reduction to the minimum required 36-inch separation distance are considered compliant, (such as, a separation distance no less than 30.6 inches). This reduction is to account for settling of sand or soil, normal variation of separation distance measurements and interpretation of limiting layer characteristics. The vertical separation measurement shall be made outside the area of the system influence in an area of similar soil.

(E) Abandonment of existing systems. Whenever the use of a SSTS or any system component is discontinued as the result of a system repair, modification, replacement or decommissioning following connection to a municipal or private sanitary sewer, or condemnation or demolition of a building served by the system, further use of the system or any system component for any purpose is prohibited. Abandonment shall be completed in accordance with Minn. Rules 7080.2500.

(F) Inspection reports. A copy of the certificate of compliance or notice of noncompliance resulting from a compliance inspection shall be provided to the property owner and the city within 30 calendar days of inspection.

(G) Certificates of compliance issued by a licensed ISTS Inspector for an existing system shall be valid for three years from the date of the compliance inspection unless the city or licensed inspector identifies the system as an imminent public health threat.

(H) Notice. A notice of noncompliance shall be issued in the following circumstances and the conditions noted in violation of this subchapter shall be remedied as follows:

(1) An ISTS determined to be failing shall be upgraded, replaced or repaired in accord with Minnesota Rules Chs. 7080 or 7081, as they may be amended from time to time, within three years, or its use is discontinued. The city, at its discretion, may grant an extension of an additional two years.

(2) An ISTS posing an imminent threat to public health or safety shall be upgraded, replaced or repaired within ten months. The city will give consideration to weather conditions in determining compliance dates. If an ISTS is determined to be a public health nuisance by the city, the city may order the owner of the ISTS to cease use immediately and not allow use of the ISTS until it is corrected in accordance with the recommendations of the city.

(Ord. 2015-03, passed 2-25-2015) Penalty, see § 51.99

## **§ 51.27 VIOLATIONS.**

(A) Cause to issue a notice of violation. Noncompliance with this subchapter by an applicant, permittee, installer or other person, as determined by the city, shall constitute a violation.

(B) Serving a notice of violation. The city shall serve, in person or by mail, a notice of violation upon any person determined to be not in compliance with this subchapter.

(C) Contents of a notice of violation. A notice of violation shall contain the following:

(1) A statement documenting the findings of fact determined through inspections, reinspection or investigation;

- (2) A list of specific violation or violations of this subchapter;
- (3) The specific requirements for correction or removal of the specified violation;  
and
- (4) A mandatory time schedule for correction, removal and compliance with this subchapter.

(D) Notification of MPCA. The city shall in accordance with state law notify the MPCA of any inspection, installation, design, construction, alteration or repair of an ISTS by a licensed person or any pumping by a licensed pumper performed in violation of the provisions of this subchapter.

(Ord. 2015-03, passed 2-25-2015)

#### **§ 51.28 ADDITIONAL STANDARDS FOR HEALTH AND ENVIRONMENTAL PROTECTION.**

(A) Siting of an ISTS. Notwithstanding any state or federal requirements, the separation distance from an ISTS to a Type 3, 4, 5 or 6 wetland shall be no less than 50 feet.

(1) SSTS in flood plains. No permit shall be issued for SSTS located in a floodway and wherever possible, located within any part of a floodplain should be avoided. If no option exists to locate a SSTS outside of a floodplain, location within the flood fringe is allowed if the requirements of Minn. Rules 7080.2270 and all relevant local requirements are met.

(2) Class V injection wells. All owners of new or replacement SSTS that are considered to be Class V injection wells as defined in C.F.R. Title 40, Part 144, are required to submit SSTS inventory information to the United States Environmental Protection Agency and the MPCA. Owners are also required to identify all Class V injection wells in property transfer disclosures.

(3) Holding tanks. Holding tanks may be used for the following applications only after it can be shown conclusively by the property owner that a SSTS permitted under this subchapter cannot be feasibly installed:

- (a) As a replacement for an existing failing SSTS;
- (b) For an SSTS that poses an imminent threat to public health or safety; or
- (c) For use with buildings with limited water use.

(4) Determination of hydraulic loading rate and SSTS sizing. Table IX from Minn. Rules 7080.2150, subp. 3(E), entitled Loading Rates for Determining Bottom Absorption Area for Trenches and Seepage Beds for Effluent Treatment Level C and Absorption Ratios for Determining Mound Absorption Areas Using Detail Soil Descriptions and Table IX from Minn. Rules 7080.2150, subp. 3(E), entitled Loading Rates for Determining Bottom Absorption Area for Trenches and Seepage Beds for Effluent Treatment Level C and Absorption Ratios for Determining Mound Absorption Areas Using Percolation Tests and herein adopted by reference shall both be used to size SSTS infiltration areas using the larger sizing factor of the two for SSTS design.

(B) Maintenance report. Licensed maintenance businesses must abide by the requirements described in Minn. Rules 7083.0770, subp. 2. All written reports required

by Minn. Rules 7083.0770, subp. 2, must be provided to the homeowner and the city within 30 days after any maintenance work is performed.

(C) Systems not operated under a management plan. For owners of SSTs that are not operated under a management plan or operating permit, the following shall apply:

(1) Maintenance, inspection and reporting.

(a) The owner of any individual sewage treatment system shall have the septic tank(s) properly pumped, cleaned and inspected on a regular basis, but in no case less than once every three years.

(b) A licensed pumper must be retained by the owner for pumping, cleaning, inspection, maintenance and repair.

(c) In the event a septic pumper fails to complete the maintenance report form and return it to the city as required herein, the city, pursuant to M.S. § 429.101, as it may be amended from time to time, the city shall provide written notice to the property owner. After providing a second written notice, the failure to submit documentation of pumping and inspection of a septic system shall be considered a violation of this subchapter and subject to the criminal penalties and/or civil remedies outlined in § 51.99 of this chapter. The city may provide for the property owner's septic system to be pumped, cleaned and evaluated and for all costs related hereto to be assessed against the property benefitted.

(2) Maintenance report form.

(a) Evaluation of the on-site sewage tank and system shall be made by a licensed inspector or pumper. A listing of licensed pumpers is available from the MPCA and will also be available from the city.

(b) The above-described system maintenance shall include, but not be limited to, pumping and cleaning of the septic tank, evaluation of the condition of the tank, baffles and system, and an examination of the drain field for evidence of system failure.

(c) For ISTS having inspection openings, the inspection should also include the following measurements:

1. The distance between sludge and the bottom of outlet baffles; and
2. The distance between scum and the bottom of outlet baffles.

(d) Where there is less than 12 inches between the sludge and the bottom of the outlet baffles, or where the scum line is found less than three inches above the bottom of the outlet baffles, this condition shall be noted on the inspection report.

(e) The owner shall require remedial activity to take place to correct deficiencies wherever found.

(3) Failing septic systems.

(a) Upon inspection, if the system is found to be failing or creating a health hazard, the owner of the property shall have the system pumped and repaired or replaced pursuant to a schedule as determined by the City Building Inspector. Section 51.23 of this subchapter regarding failing systems shall be followed.

(b) In the event the property owner fails to comply with the pumping schedule or have the system repaired or replaced, the failure to submit documentation of pumping, inspection, repair or replacement of a failing septic system shall be considered a violation of this subchapter and subject to the criminal penalties and/or civil remedies

outlined in § 51.99 of this chapter. The city, pursuant to M.S. § 429.101, as it may be amended from time to time, may provide for the property owner's septic system to be pumped and repaired or replaced and for all costs related thereto to be assessed against the property benefitted.

(4) Costs.

(a) Any on-site inspection or pumping conducted or contracted by the city shall be invoiced to the property owner in an amount established by resolution of the City Council.

(b) Pursuant to M.S. § 429.101, as it may be amended from time to time, the City Council hereby authorizes the city staff to certify any unpaid costs or charges imposed pursuant to this subchapter to the County Auditor for collections as other taxes.

(Ord. 2015-03, passed 2-25-2015)

### **§ 51.29 MORE RESTRICTIVE STANDARDS.**

(A) Minn. Rules 7080.0130, subp. 3(A) is hereby modified requiring at least two septic tanks with a minimum capacity of 1,000 gallons each.

(B) Minn. Rules part 7080.0160, subp. 1(C), is hereby modified to require a minimum dosing tank of 1,000 gallons.

(C) Minn. Rules part 7080.0910 specifying alternative and experimental systems shall be utilized only on existing developed lots with existing septic systems which have failed. Systems designed or installed in a slope greater than 12% shall be considered experimental on any lot.

(D) All wastewaters discharged into the septic system shall be metered on all non-single family

(E) The pump for all new systems which have applied for a permit after the date of passage of this subchapter shall employ an audible alarm and warning light located inside of the principal structure to alert occupants of failure.

(Ord. 2015-03, passed 2-25-2015)

### **§ 51.30 FEES.**

The city shall, from time to time, establish fees for activities undertaken by the city pursuant to this subchapter. Fees shall be due and payable at a time and in a manner to be determined by the city.

(Ord. 2015-03, passed 2-25-2015)

## **WASTEWATER TREATMENT AND COLLECTION FACILITIES**

### **§ 51.40 DEFINITIONS.**

For the purpose of this subchapter, the following definitions shall apply unless the context clearly indicates or requires a different meaning.

ACT. The Federal Water Pollution Control Act, also referred to as the Clean Water Act, as amended, 33 U.S.C. §§ 1251 et seq.

BOD5 or BIOCHEMICAL OXYGEN DEMAND. The quantity of oxygen utilized in the biochemical oxidation of organic matter standard laboratory procedures in five days at 20°C and as expressed in terms of milligrams per liter (mg/l).

BUILDING DRAIN. The point of a building which conveys wastewater to the building sewer, beginning three feet outside the building wall.

CITY. The area within the corporate boundaries of the city; the City Council, its authorized representative, or the authorized representative of the sanitary sewer district.

DEBT SERVICE CHARGE. A charge to users of the wastewater treatment facility for the purpose of repaying capital costs.

INDUSTRIAL USER.

(1) Any entity as defined in the Standard Industrial Manual (latest edition) as categorized, that discharge wastewater to the public sewer:

- (a) Division A: Agriculture, Forestry and Fishing;
- (b) Division B: Mining;
- (c) Division D: Manufacturing;
- (d) Division E: Transportation, Communications, Electric, Gas and Sanitary Sewers; and
- (e) Division I: Services.

(2) Any user whose discharges, singly or by interaction with other wastes:

- (a) Contaminate the sludge of the wastewater treatment system;
- (b) Injure or interfere with the treatment process;
- (c) Create a public nuisance or hazard;
- (d) Have an adverse effect on the waters receiving wastewater treatment plant discharges;
- (e) Exceed NDSW limitations; and
- (f) Exceed normal residential unit volumes of wastewater.

INFILTRATION/INFLOW (I/I). Water other than wastewater that enters the sewer system from the ground or from surface runoff, as defined in Minnesota Rules.

MPCA. Minnesota Pollution Control Agency.

NATIONAL CATEGORICAL PRETREATMENT STANDARDS. Federal regulations establishing pretreatment standards for introduction of pollutants in publicly-owned wastewater treatment facilities. § 307(b) of the Act, being 33 U.S.C. § 1317(b).

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT. A permit issued by the MPCA setting limits on pollutants that a permittee may legally discharge pursuant to §§ 402 and 405 of the Act, being 33 U.S.C. §§ 1342 and 1345.

NATURAL OUTLET. Any outlet, including storm sewers and combined sewers, which flows into a body of surface water or ground water.

NORMAL DOMESTIC STRENGTH WASTE (NDSW). Wastewater that primarily introduced by residential users with BOD5 concentrations not greater than 300 mg/l and total suspended solids (TSS) concentrations not greater than 300 mg/l.

**NON-RESIDENTIAL USER.** A user of the treatment facility whose building is not used as a private residence and discharges NDSW.

**OPERATION, MAINTENANCE AND REPLACEMENT COSTS (OM&R).** Expenditures necessary to provide for the dependable, economical and efficient functioning of the treatment facility throughout its design life including operator training, and permit fees. Replacement refers to equipment replacement costs, not the cost of future replacement of the entire facility.

**OWNER or USER.** Non-residential user, residential user and industrial user.

**RESIDENTIAL USER.** A user of the treatment facility whose building is used primarily as a private residence and discharges NDSW.

**SEWER.** A pipe or conduit that carries wastewater or drainage water.

(1) **BUILDING SEWER.** The extension from the building drain to the public sewer or other place of disposal, also referred to as a service connection.

(2) **SANITARY SEWER.** A sewer designed to carry only liquid and water-carried wastes from residential, non-residential and industrial sources together with minor quantities of I/I.

(3) **STORM SEWER.** A sewer intended to carry unpolluted surface and subsurface water from any source.

**SEWER SERVICE CHARGE.** The total of the user charge and the debt service charge.

**SLUDGE.** A discharge of water or wastewater which in concentration or in quantity of flow exceeds for any period of duration longer than 15 minutes, more than five times the average 24-hour concentration of flows during normal operation.

**STATE DISPOSAL SYSTEM (SDS) PERMIT.** A permit issued by the MPCA pursuant to M.S. § 115.07, as it may be amended from time to time, for a disposal system as defined by M.S. § 115.01, Subd. 5, as it may be amended from time to time.

**TOTAL SUSPENDED SOLIDS (TSS).** The total suspended matter that either floats on the surface of, or is in suspension in water, wastewater or other liquids, and is removable by laboratory filtering as prescribed in Standard Methods for the Examination of Water and Wastewater (latest edition).

**UNPOLLUTED WATER.** Water of quality equal to or better than the effluent criteria in effect, or water that would not cause violation of receiving water quality standards. An example could be non-contact cooling water.

**USER CHARGE.** A charge to users of a treatment facility for the user's proportionate share of the cost of operation and maintenance, including replacement.

**WASTEWATER.** Liquid and water-carried wastes from residential, non-residential and industrial users, together with any ground water, surface water and storm water that may be present.

**WASTEWATER TREATMENT FACILITIES or TREATMENT FACILITIES.** The land, devices, facilities, structures, equipment and processes owned or used by the city for the purpose of the transmission, storage, treatment, recycling and reclamation of municipal wastewater, and the disposal of residues resulting from such treatment. (Ord. 2000-2, passed - -2000; Ord. 2000-8, passed - -2000)

#### **§ 51.41 CONTROL BY AUTHORIZED REPRESENTATIVE.**

The City Council shall appoint an authorized representative who shall have control and general supervision of all public sewers and service connections in the city, and shall be responsible for administering the provisions of this subchapter to ensure that a proper and efficient public sewer is maintained. The authorized representative may delegate responsibilities to designated representatives.

(Ord. 2000-2, passed - -2000; Ord. 2000-8, passed - -2000)

#### **§ 51.42 USE OF PUBLIC SEWERS REQUIRED.**

(A) Owners of property directly adjacent to the sanitary sewer collection system, but with a working private septic system, shall be allowed to continue to use their private septic system. If however, at any time, the private septic system fails, as determined by the City Building Inspector or Zoning Administrator through an inspection and no reasonable option exists to repair it or replace it on a suitable on-site alternate septic site, the owners shall install a suitable service connection to the sanitary sewer system at their own expense.

(B) If a property owner chooses to continue to use a private septic system where city sanitary and water service is available, a water availability charge may be imposed.

(C) Any property that has been provided with service stubs and fails to make payment to the city for the installation of the service stubs and has not been assessed for the stub by the time the stubs are installed, shall be charged, pursuant to M.S. § 444.075, as it may be amended from time to time, a per stub amount and a monthly charge, as determined by the City Council, for the availability of said stubs. Any unpaid availability charges shall be certified with the taxes against the property.

(Ord. 2000-2, passed - -2000; Ord. 2000-8, passed - -2000; Ord. 2008-09, passed 3-11-2008; Ord. 2008-12, passed 3-25-2008; Ord. 2015-04, passed 3-10-2015; Ord. 2017-05, passed 3-29-2017)

#### **§ 51.43 PRIVATE WASTEWATER DISPOSAL.**

(A) Where a public sewer is not available under the provisions of § 51.42 of this chapter, the building sewer shall be connected to a private wastewater disposal system complying with the provisions required by the city, the Minnesota Pollution Control Agency (MPCA) and all other regulatory agencies. The owner(s) shall obtain the appropriate permits for construction and operation of a private wastewater disposal system. Operation of the private wastewater disposal system is subject to approval by the city and all other appropriate regulatory agencies.

(B) The owner(s) shall operate and maintain the private wastewater disposal facilities in a sanitary manner at all times at no expense to the city.

(C) No statement contained in this section shall be construed to interfere with any additional requirements that may be imposed by the MPCA, the State Department of Health or other responsible federal, state or local agencies.

(Ord. 2000-2, passed - -2000; Ord. 2000-8, passed - -2000)

**§ 51.44 BUILDING SEWERS AND CONNECTIONS; DESIGN.**

(A) (1) No person(s) shall make any alterations to the public sewer or any appurtenances thereof without first obtaining a written permit from the city. No private building drain shall extend beyond the limits of the building or property for which the permit has been given.

(2) Any new connection to the sanitary sewer system shall be prohibited unless sufficient capacity is available in all downstream facilities including, but not limited to, capacity for flow, BOD5 and TSS as determined by the authorized representative.

(3) Application for permit for public sewer service shall be made on printed forms, shall state the legal description and street and official house number of the premises and the nature of the improvement to be performed. The application for the written permit to connect to public sewer or alter connected service pipes shall be made jointly by the master plumber who will make the installation and by the owner of such premises or his or her authorized agent or by the occupant or person in possession of the premises. The permit shall issue to the owner and his or her master plumber applicant, and each applicant by such application shall subscribe to and be obligated to be bound by the city's applicable ordinances and rules and regulations.

(4) The applicant must pay all required permit fees and any other charges, which shall be set forth by resolution of the City Council.

(5) No person, except a master plumber duly licensed in the state or duly authorized employee of the city, is permitted to do any work on service pipes connected with public sewer.

(B) (1) A separate and independent building sewer shall be provided for each building. Old building sewers may be used to service new buildings only when they are found to meet all requirements of this subchapter.

(2) Whenever possible, the building sewer shall be brought to the building at an elevation below the basement floor. In all buildings in which any building drain is too low to permit gravity flow to the public sewer, wastewater shall be lifted by an approved means and discharged to the building sewer.

(C) The construction and connection of the building sewer to the public sewer shall conform to the requirements of the State Building and Plumbing Code, applicable rules and regulations of the city and the materials and procedural specifications set forth in the American Society of Testing Materials (ASTM) and the Water Pollution Control Federation (WPCF) Manual of Practice No.9. All such connections shall be made gas- and water-tight and verified by proper testing to prevent infiltration/ inflow.

(D) No unpolluted water sources shall be connected to the sanitary sewer.

(E) (1) No person, except authorized persons employed by the city or master plumber permittee bearing specific authority by written permit required herein, shall connect to public sewer.

(2) A master plumber permittee requesting a connection shall give notice at least eight business hours in advance of need. The master plumber permittee requesting must help uncover the main and locate the tap if requested by the city. The connection shall be made under the supervision of a designated representative.

(3) A bond shall be filed with the city by the master plumber permittee requesting the connection in the sum of \$10,000 conditioned upon the full, complete and

satisfactory completion of each connection undertaken by the master plumber permittee in the city. If the master plumber permittee is to do his or her own installation/excavation work, the said \$10,000 bond shall also bond such installation/excavation work as required herein

(4) Prior to the issuance of the permit to connect to public sewer and/or for sewer service, insurance coverage shall be obtained by the person requesting such permit protecting against damage to property or injury to death to person, which policy or policies shall indemnify and hold harmless the city and all of its officers and personnel against any claims, demands, damages, actions or causes of action arising out of or by reason of the doing of the work or activities related to or incident to the permits required herein and from any costs, disbursements or expenses of defending the same. The property damage insurance coverage shall be in the amount of \$200,000 or more, and the public liability insurance for injury or death to person shall be in the amount of \$1,000,000 aggregate for injury to each person. Proof of such insurance shall be filed with the city prior to the commencement of construction work and such policy shall provide that the city shall receive written notice at least ten days before any termination or modification of such insurance.

(5) Should the insurance coverage hereinbefore provided be inadequate in amount, then such person shall indemnify and hold harmless the city and all of its officers and personnel in like manner.

(6) If the master plumber permittee is to do his or her own installation/excavation work, the said insurance shall also insure such installation/excavation work required herein.

(F) (1) An appropriate installation/excavation license is required to install a service connection. Any person desiring a license shall apply in writing to the City Council, providing satisfactory evidence of the applicant's qualifications. If approved by the City Council, the license shall be issued by a designated representative upon the filing of a bond and insurance as hereinafter provided.

(2) At the time of granting such installation/excavation license, a bond must be filed with the city by the person receiving the license, unless such installation/excavation licensee is excused therefor under this subchapter, and said bond shall be in the sum of \$10,000 conditioned upon the full, complete and satisfactory completion of every installation/excavation undertaken in connection with the installation for which the licensee undertakes.

(3) Prior to the issuance of the installation/excavation license, insurance coverage shall be obtained by the person requesting such permit, unless such installation/excavation licensee is excused therefor under this subchapter, protecting against damage to property or injury to death to person, which policy or policies shall indemnify and hold harmless the city and all of its officers and personnel against any claims, demands, damages, actions or causes of action arising out of or by reason of the doing of the work or activities related to or incident to the license required herein and from any costs, disbursements or expenses of defending the same. The property damage insurance coverage shall be in the amount of \$200,000 or more, and the public liability insurance for injury or death to person shall be in the amount of \$1,000,000 aggregate for injury to each person. Proof of such insurance shall be filed with the city prior to the commencement of construction work and such policy shall provide that the

city shall receive written notice at least ten days before any termination or modification of such insurance.

(4) Should the insurance coverage hereinbefore provided be inadequate in amount, then such person shall indemnify and hold harmless the city and all of its officers and personnel in like manner.

(5) The cost of a license for installation/excavation shall be set forth by resolution of the City Council. All licenses shall expire on December 31 of the license year unless the license is suspended or revoked by the City Council for any reasonable cause.

(6) The City Council may suspend or revoke any license issued under this section for any of the following causes:

- (a) Giving false information in connection with the application for a license;
- (b) Incompetence of the licensee;
- (c) Willful violation of any provisions of this section or any rule or regulation pertaining to the making of service connections; and/or
- (d) Failure to adequately protect and indemnify the city and the user.

(G) The city shall maintain and repair or replace all sewer service connection lines within public rights-of-way or easements when rendered unserviceable through ordinary use. However, when replacement, repair or adjustment of any sewer service connection is rendered necessary by the act, neglect or carelessness of the owner or occupant of any premises, any expense caused by the city thereby shall be charged against and collected from the owner or occupant of the premises. Water and sewer service may be discontinued until the cause is corrected and the charge is collected.

(H) All sewer service connection lines within public rights-of way or easements shall remain the property of the city. All other sewer service connection line shall be the responsibility of the property owner.

(Ord. 2000-2, passed - -2000; Ord. 2000-8, passed - -2000) Penalty, see § 51.99

#### **§ 51.45 USE OF PUBLIC WASTEWATER TREATMENT FACILITIES.**

(A) No unpolluted water or storm water shall be discharged to the sanitary sewer. Such water shall be discharged only to storm sewers or to natural outlets approved by the city and other regulatory agencies.

(B) No person(s) shall discharge any of the following substances to the public sewer:

- (1) Liquids, solids, gases or other substances which singly or by interaction with others may cause fire or explosion;
- (2) Solid or viscous substances which may cause obstruction to the flow in a sewer;
- (3) Wastewater having a pH of less than 5.0 or greater than 9.5 or having any other corrosive or caustic property capable of causing damage or hazard; and/or
- (4) Wastewater containing toxic pollutants, as defined in § 307(a) of the Water Pollution Control Act, being 33 U.S.C. § 1317(a) and M.S. § 115.01, Subd. 20, as it may be amended from time to time.

(C) Discharges of the following substances shall be limited to concentrations or quantities which will not harm the wastewater facility, streams, soils, vegetation, ground

water and will not otherwise create a hazard or nuisance. The authorized representative may set limitations lower than the prohibition limits outlined below. Consideration will be given to such factors as the quantity of waste in relation to flows and velocities, materials of construction, the city's NPDES and SDS permits, capacity of the treatment plant, degree of treatability of wastes and other pertinent factors:

- (1) Wastewater having a temperature greater than 150°F (65.6°C), or causing, individually or in combination with other wastewater, the influent at the treatment facilities to have a temperature exceeding 104°F (40°C), or having heat in amounts which will be detrimental to biological activity in the treatment facilities;
- (2) Wastewater containing fats, wax, grease or oils in excess of 100 mg/l or containing substances which may solidify or become viscous at temperatures between 32°F and 150°F (0°C and 65.6°C);
- (3) A discharge of water or wastewater which in concentration or in quantity of flow exceeds for any period of duration longer than 15 minutes, more than five times the average 24-hour concentration of flows during normal operation;
- (4) Food wastes not properly shredded to such a degree that all particles will be carried freely under normal flow conditions with no particle greater than one-half inch in any dimension;
- (5) Noxious or malodorous liquids, gases or solids;
- (6) Wastewater with objectionable color not removed in the treatment process;
- (7) Wastewater containing inert suspended solids in such quantities that would cause disruption to the wastewater treatment facilities;
- (8) Radioactive wastes or isotopes in concentrations that exceed limits established by applicable state and federal regulations;
- (9) Wastewaters with BOD5 or suspended solids levels that require additional treatment, except as may be permitted by specific written agreement with the city subject to division (K) below; and
- (10) Wastewater containing substances which cannot be treated to produce effluent quality required by the permit or causes a violation of any applicable local, state or federal regulation.

(D) (1) In the event of discharges to the public sewers which contain substances or possess characteristics prohibited in divisions (B) and (C) above or which, in the judgment of the authorized representative, may have deleterious effects to the treatment facility, receiving waters, soils, vegetation or which create a hazard or nuisance, the authorized representative may:

- (a) Refuse to accept the wastes;
  - (b) Require pretreatment to an acceptable condition for discharge to the public sewers, pursuant to § 307(b) of the Act, being 33 U.S.C. § 1317(b) and all addenda thereof;
  - (c) Require control over the quantities and rates of discharge; and
  - (d) Require payment to cover all the added costs of handling, treating and disposing of wastes not covered by existing taxes or sewer charges.
- (2) If the authorized representative permits the pretreatment or equalization of waste flows, the design, installation, maintenance and efficient operation of the facilities

and equipment shall be at the owner's expense and shall be subject to review and approval by the city pursuant to the requirements of the MPCA.

(E) No user shall increase the use of process water or in any manner attempt to dilute a discharge as a partial or complete substitute for adequate treatment to achieve compliance with the limitations contained in this section, the national categorical pretreatment standards and any state or local requirement.

(F) (1) Grease, oil and sand interceptors shall be provided at the owner's expense when, in the opinion of the authorized representative, they are necessary for the proper handling of liquid wastes containing floatable grease in excessive amounts, any flammable wastes, sand or other harmful ingredients. All interceptors shall be readily and easily accessible for cleaning and inspection. The owner shall be responsible for the maintenance of interceptors, including proper removal and disposal of the captured materials by appropriate means, and shall maintain a record of dates and means of disposal which are subject to review by the authorized representative.

(2) Any material removal and hauling must be performed by the owner's personnel or a currently licensed waste disposal firm and in compliance with all applicable laws and regulations.

(G) Where required by the authorized representative, industrial users shall install and maintain at their own expense a suitable structure or control manhole with such necessary meters and other testing equipment needed to facilitate observation, sampling and measurement of wastewater. The manhole will be safe and accessible at all times. The City Council may require submission of laboratory analyses to illustrate compliance with this subchapter and any special conditions for discharge established by the City Council or responsible regulatory agency. All measurements, tests and analyses to which reference is made in this subchapter shall be determined in accordance with the latest edition of Standard Methods for the Examination of Water and Wastewater, published by the American Public Health Association.

(H) (1) Where required by the authorized representative, user(s) shall provide protection from an accidental discharge of substances regulated by this subchapter. Where necessary, facilities to prevent accidental discharges of prohibited materials shall be provided and maintained at the owner's expense. Detailed plans and operating procedures of said facilities shall be submitted to the authorized representative for review and approval prior to construction of the facility. Approval of such plans and operating procedures shall not relieve the user from the responsibility of modifying the facility as necessary to meet the requirements of this subchapter.

(2) Users shall notify the authorized representative immediately if a sludge or accidental discharge of wastewater occurs in violation of this subchapter. Notification will allow measures to be taken to minimize damage to the treatment facilities. Notification will not relieve users of liability for any expense, loss or damage to the treatment facilities or for fines imposed on the city by any state or federal agency as a result of their actions.

(3) A notice shall be permanently posted on the user's bulletin board or other prominent place advising employees of the emergency notification procedure in the event of a sludge or accidental discharge.

(I) (1) No person shall permit any substance or matter which may form a deposit or obstruction of flow to be discharged into the public sewer. Whenever any service connection becomes clogged, obstructed, detrimental to the use of the public sewer or unfit for the purpose of drainage, the owner shall make repairs as directed by the authorized representative.

(2) Each day after three days that the owner neglects to make said repairs shall constitute a separate violation of this division (I). The authorized representative may then cause the work to be done and recover related expenses from the owner or agent by an action in the name of the city.

(J) In addition to penalties that may be imposed for violation of any provision of this section, the city may assess against the user the cost of repairing or restoring sewers and associated facilities damaged as a result of the discharge of prohibited wastes and may collect the assessment as an additional charge for the use of the public sewer system.

(K) No statement contained in this section shall prevent any special agreement or arrangement between the city and any industrial user. Industrial waste of unusual strength or character may be accepted by the facility for treatment, subject to adequate payment by the industrial user; providing that, national categorical pretreatment standards and the city's NPDES and SDS permit limitations are not violated.

(Ord. 2000-2, passed - -2000; Ord. 2000-8, passed - -2000) Penalty, see § 51.99

#### **§ 51.46 PROSECUTION FOR DAMAGES TO THE FACILITY.**

No person(s) shall willfully or negligently break, damage, destroy, uncover, deface or tamper with any structure, appurtenance or equipment which is part of the wastewater treatment facilities. Any person violating this provision shall be subject to immediate arrest under the charge of a misdemeanor and shall reimburse the city for all costs.

(Ord. 2000-2, passed - -2000; Ord. 2000-8, passed - -2000) Penalty, see § 51.99

#### **§ 51.47 POWERS AND AUTHORITY OF INSPECTORS.**

(A) Duly authorized employee(s) of the city, bearing proper credentials and identification, shall be permitted to enter all properties at all reasonable times for inspection, observations, measurement, sampling, testing, repair and maintenance in accordance with the provisions of this subchapter.

(B) Industrial users shall be required to provide information concerning industrial processes which have a direct bearing on the type and source of discharge to the collection system. An industry may withhold information considered confidential. However, the industry must establish that the information in question might result in an advantage to competitors and that the industrial process does not have deleterious results on the treatment process.

(Ord. 2000-2, passed - -2000; Ord. 2000-8, passed - -2000)

**§ 51.48 SEWER SERVICE CHARGE SYSTEM.**

(A) (1) The city hereby establishes a sewer service charge system with fees being set by resolution. All revenue collected from users of the wastewater treatment facilities will be used for annual operation, maintenance, replacement and capital costs. Each user shall pay a proportionate share of operation, maintenance and replacement costs based on the users proportionate contribution to the total wastewater loading.

(2) The sewer service charge system shall set forth the projected operation, maintenance and replacement ("OM&R") costs of all users which shall serve as the basis for the unit charges made to users of the system. The sewer service charge system may also set forth the assessment of additional charges and debt retirement costs which shall be an additional charge.

(3) The sewer service charge system adopted by resolution upon enactment of this subchapter shall be published in the local newspaper and shall be effective upon publication. Subsequent changes in the sewer service rates and charges shall be adopted by City Council resolution and published in the local paper.

(4) Revenues collected through the sewer service charge system shall be deposited in a separate fund known as the Sewer Service Fund.

(B) (1) The city hereby establishes a Sewer Service Fund as an income fund to receive all revenues generated by the sewer service charge system and all other income dedicated to the wastewater treatment facility.

(2) The Sewer Service Fund administered by a designated representative shall be separate and apart from all other accounts. Revenue received by the Sewer Service Fund shall be transferred to the following accounts established as income and expenditure accounts:

- (a) Operation and Maintenance;
- (b) Equipment Replacement; and
- (c) Debt Retirement for the collection and treatment facility.

(C) (1) A designated representative shall maintain a proper system of accounts and records suitable for determining the OM&R and debt retirement costs of the treatment facilities, and shall furnish the City Council with a report of such costs annually.

(2) At that time, the City Council shall determine whether sufficient revenue is being generated for the effective management of the facilities and debt retirement. The City Council will also determine whether the user charges are distributed proportionately. If necessary, the sewer service charge system shall be revised to ensure proportionality of user charges and sufficient funds.

(3) In accordance with state requirements, each user will be notified annually in conjunction with a regular billing of that portion of the sewer service charge attributable to OM&R.

(4) Sewer service charges shall be billed on a bi-monthly basis. Any bill not paid in full 30 days after the due date will be considered delinquent. At that time, the user will be notified regarding the delinquent bill and subsequent penalty. The penalty shall be computed as 1.5% of the original bill and shall be increased by the same percent for every quarter the bill is outstanding.

(D) Where required by the city, users shall install and maintain, at their own expense, meter(s) on their water supply to facilitate measurement of wastewater generated. All

users other than single-family residential users shall have meters installed for billing purposes. The meters shall be accessible to the city at all times.  
(Ord. 2000-2, passed - -2000; Ord. 2000-8, passed - -2000)

#### **§ 51.99 PENALTY.**

(A) Any person violating any provision of this chapter for which no specific penalty is prescribed shall be subject to § 10.99 of this code of ordinances.

(B) (1) Criminal penalty.

(a) General. Any person who violates any of the provisions of §§ 51.20 through 51.29 of this chapter or who makes any false statement on a certificate of compliance shall be guilty of a misdemeanor, punishable by imprisonment or a fine or both as defined by law, except as noted below.

(b) First pumping and/or inspection violation. Any person who fails to conduct required ISTS pumping or inspection shall be guilty of a petty misdemeanor, punishable by a fine, as defined by law, for the first violation only.

(c) Additional pumping and/or inspection violation(s). After a first violation, if the violation fails to be taken care of within a set period of time, regardless of whether the city pursues the charges of petty misdemeanor, a property owner who fails to conduct a required ISTS pumping or inspection shall be guilty of a misdemeanor, punishable by imprisonment or a fine or both as defined by law.

(d) Repair and resolution. Any person who fails to repair and resolve a failing septic system which is an imminent health hazard or is approaching the status of an imminent health hazard shall be guilty of a misdemeanor, punishable by a fine or imprisonment or both as defined by law.

(2) Civil remedy. In the event of a violation of §§ 51.20 through 51.29 of this chapter, in addition to other remedies, the City Attorney may institute appropriate actions or proceedings to prevent, restrain, correct or abate such violations.

(3) Permits. No building permit, certificate of occupancy, license or other permit shall be issued for the construction, use or occupancy of any parcel of property within the city unless the requirements of §§ 51.20 through 51.29 of this chapter are met with respect to said parcel of property.

(C) (1) Upon determination that a user has violated or is violating applicable provisions of §§ 51.40 through 51.48 of this chapter or related permits, the authorized representative may issue a notice of violation. Within ten days of such notification, the violator shall submit to the authorized representative an adequate explanation for the violation and a plan for the correction and prevention of such occurrences, including specific actions required. Submission of such a plan in no way relieves the violator of liability for any violations occurring before or after the issuance of the notice of violation.

(2) Any violation is subject to a fine not exceeding \$700 and/or 90 days in jail. Each day in which any such violation occurs shall be deemed as a separate offense. Such fines may be added to the user's next sewer service charge and will hence be subject to the same collection regulations as specified in §§ 51.40 through 51.48 of this chapter.

(3) To collect delinquent sewer service charge accounts, the city may file a civil action suit or levy a lien against the violator. Related attorneys' fees fixed by court order

shall also be collected. The violator shall be liable for interest on all balances at a rate of 10% annually.

(4) Any person violating any of the provisions of §§ 51.40 through 51.48 of this chapter shall become liable to the city for any expense, loss or damage occasioned by the city by reason of such violation.

(Ord. 2000-2, passed - -2000; Ord. 2000-08, passed - -2000; Ord. 2003-09, passed 7-8-2003)

City of Dayton, Minnesota  
Capital Improvement Plan - Capital Equipment Fund 401  
Schedule of Planned Capital Outlay 2019 to 2029

Department	Replacement Year	Item	Cost	2019 Estimated Amounts
Public Safety - Fire	2020	Replace Engine 12 with pumper/tanker	\$ 335,000	\$ -
Public Safety - Fire	2021	Replace Engine 12 with pumper/tanker	335,000	-
Public Safety - Fire	2026	Purchase ladder truck	1,300,000	-
Public Safety - Fire	2026	Replace Rescue 11	300,000	-
Public Safety - Fire	2027	Replace fire chief pickup	63,000	-
Public Safety - Fire	2027	Purchase rescue/grass rig for station three	300,000	-
Public Safety - Fire	2027	Purchase fire engine for station three	700,000	-
Public Safety - Fire	2028	Refurbish tanker 11	150,000	-
Parks and Recreation	2019	48" Mower	8,152	8,152
Parks and Recreation	2020	Utility tractor	40,000	-
Parks and Recreation	2020	Triple gang mower	70,000	-
Parks and Recreation	2020	Boom Sprayer	30,000	-
Parks and Recreation	2022	60" mower	17,000	-
Parks and Recreation	2024	TORO Workman w drag and dump box	70,000	-
Parks and Recreation	2025	TORO Groundsman 16' mower	80,000	-
Parks and Recreation	2027	60" Mower	30,000	-
Public Safety - Police	2019	Squad/Equipment	66,000	66,000
Public Safety - Police	2020	CVI Scales	13,000	-
Public Safety - Police	2020	Squad/Equipment	122,000	-
Public Safety - Police	2021	Squad/Equipment	134,000	-
Public Safety - Police	2022	Squad/Equipment	132,000	-
Public Safety - Police	2023	Message Board	20,000	-
Public Safety - Police	2023	Squad/Equipment	68,000	-
Public Safety - Police	2024	Squad/Equipment	146,000	-
Public Safety - Police	2025	Squad/Equipment	150,000	-
Public Safety - Police	2026	Squad/Equipment	154,000	-
Public Safety - Police	2027	Squad/Equipment	158,000	-
Public Safety - Police	2028	Squad/Equipment	162,000	-
Public Safety - Police	2029	Squad/Equipment	230,000	-
Public Works	2019	Generator	70,000	70,000
Public Works	2019	Pick up truck with plow package	50,000	50,000
Public Works	2019	Medium duty trailer	12,000	12,000
Public Works	2020	Skid steer attachments	20,000	-
Public Works	2021	Pick up truck with plow package	50,000	-
Public Works	2021	1 ton with plow and dump box	70,000	-
Public Works	2022	Pick up with plow package	50,000	-
Public Works	2022	Street Sweeper	230,000	-
Public Works	2022	Tandem Dump Truck	225,000	-
Public Works	2023	Single Axle Dump Truck with plow package	270,000	-
Public Works	2023	Roll off box for hook and Box Truck with plow package	40,000	-
Public Works	2022	Bucket truck	150,000	-
Public Works	2024	Front end Loader	250,000	-
Public Works	2024	Snow Blower for front end loader	80,000	-
Public Works	2025	Packer for Gravel Roads	25,000	-
Public Works	2025	Skid steer attachments	60,000	-
Public Works	2025	Road Grader	250,000	-
Public Works	2026	Wood Chipper	90,000	-
Public Works	2026	Mini Excavator	150,000	-
Public Works	2027	Tar box for hook and box truck	100,000	-
Public Works	2028	Pick up truck replacement	60,000	-
Public Works	2029	Roll off box for hook and Box Truck	40,000	-
				<u>\$ 206,152</u>

Replace Engine 12 with pumper/tanker- cost is spread across 2020 and 2021. Increased to \$335,000 each year. This is a replacement of a 29 yr old engine

2020 Estimated Amounts	2021 Estimated Amounts	2022 Estimated Amounts	2023 Estimated Amounts	2024 Estimated Amounts	2025 Estimated Amounts	2026 Estimated Amounts	2027 Estimated Amounts	2028 Estimated Amounts	2029 Estimated Amounts
\$ 335,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
-	335,000	-	-	-	-	-	-	-	-
-	-	-	-	-	-	1,300,000	-	-	-
-	-	-	-	-	-	300,000	-	-	-
-	-	-	-	-	-	-	63,000	-	-
-	-	-	-	-	-	-	300,000	-	-
-	-	-	-	-	-	-	700,000	-	-
-	-	-	-	-	-	-	-	150,000	-
-	-	-	-	-	-	-	-	-	-
40,000	-	-	-	-	-	-	-	-	-
70,000	-	-	-	-	-	-	-	-	-
30,000	-	-	-	-	-	-	-	-	-
-	-	17,000	-	-	-	-	-	-	-
-	-	-	-	70,000	-	-	-	-	-
-	-	-	-	-	80,000	-	-	-	-
-	-	-	-	-	-	-	30,000	-	-
-	-	-	-	-	-	-	-	-	-
13,000	-	-	-	-	-	-	-	-	-
122,000	-	-	-	-	-	-	-	-	-
-	134,000	-	-	-	-	-	-	-	-
-	-	132,000	-	-	-	-	-	-	-
-	-	-	20,000	-	-	-	-	-	-
-	-	-	68,000	-	-	-	-	-	-
-	-	-	-	146,000	-	-	-	-	-
-	-	-	-	-	150,000	-	-	-	-
-	-	-	-	-	-	154,000	-	-	-
-	-	-	-	-	-	-	158,000	-	-
-	-	-	-	-	-	-	-	162,000	-
-	-	-	-	-	-	-	-	-	230,000
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
20,000	-	-	-	-	-	-	-	-	-
-	50,000	-	-	-	-	-	-	-	-
-	70,000	-	-	-	-	-	-	-	-
-	-	50,000	-	-	-	-	-	-	-
-	-	230,000	-	-	-	-	-	-	-
-	-	225,000	-	-	-	-	-	-	-
-	-	-	270,000	-	-	-	-	-	-
-	-	-	40,000	-	-	-	-	-	-
-	-	150,000	-	-	-	-	-	-	-
-	-	-	-	250,000	-	-	-	-	-
-	-	-	-	80,000	-	-	-	-	-
-	-	-	-	-	25,000	-	-	-	-
-	-	-	-	-	60,000	-	-	-	-
-	-	-	-	-	250,000	-	-	-	-
-	-	-	-	-	-	90,000	-	-	-
-	-	-	-	-	-	150,000	-	-	-
-	-	-	-	-	-	-	100,000	-	-
-	-	-	-	-	-	-	-	60,000	-
-	-	-	-	-	-	-	-	-	40,000
\$ 630,000	\$ 589,000	\$ 804,000	\$ 398,000	\$ 546,000	\$ 565,000	\$ 1,994,000	\$ 1,351,000	\$ 372,000	\$ 270,000

City of Dayton, Minnesota  
 Capital Improvement Plan - Capital Equipment Fund 401  
 Schedule of Projected Revenue, Expenditures and Debt

	2018 Actual Amounts	2019 Estimated Amounts
<b>Revenues</b>		
Property taxes	\$ 325,000	\$ 200,000
Interest on investments	892	1,493
Other	4,000	-
<b>Total Revenues</b>	<u>329,892</u>	<u>201,493</u>
<b>Expenditures</b>		
Capital outlay		
Public works	228,434	132,000
Public safety - fire	-	-
Public safety - police	115,419	66,000
Parks and recreation	15,767	8,152
General government	40,203	-
<b>Total Expenditures</b>	<u>399,823</u>	<u>206,152</u>
<b>Excess (Deficiency) of Revenues Over (Under) Expenditures</b>	<u>(69,931)</u>	<u>(4,659)</u>
<b>Other Financing Sources</b>		
Transfers in	49,112	-
Bond proceeds	-	-
Transfers out	-	-
<b>Total Other Financing Sources</b>	<u>49,112</u>	<u>-</u>
<b>Net Change in Cash Balances</b>	<u>(20,819)</u>	<u>(4,659)</u>
<b>Cash Balances January 1</b>	<u>170,070</u>	<u>149,251</u>
<b>Cash Balances, December 31</b>	<u>\$ 149,251</u>	<u>\$ 144,592</u>

	2018 Estimated Amounts	2019 Estimated Amounts
<b>Beginning Balance</b>	\$ -	\$ -
<b>Revenue</b>		
Tax levy	-	-
Interest	-	-
Transfers in	-	-
<b>Total Revenue</b>	<u>-</u>	<u>-</u>
<b>Expenditures</b>		
Principal	-	-
Interest	-	-
<b>Total Expenditures</b>	<u>-</u>	<u>-</u>
<b>Ending Balance</b>	<u>\$ -</u>	<u>\$ -</u>

## Capital Project Fund Projected Activity

2020 Estimated Amounts	2021 Estimated Amounts	2022 Estimated Amounts	2023 Estimated Amounts	2024 Estimated Amounts	2025 Estimated Amounts	2026 Estimated Amounts	2027 Estimated Amounts	2028 Estimated Amounts	2029 Estimated Amounts
\$ 585,000	\$ 520,000	\$ 780,000	\$ 600,000	\$ 650,000	\$ 950,000	\$ 1,300,000	\$ 1,350,000	\$ 500,000	\$ 300,000
1,446	1,010	330	94	2,115	3,176	7,058	188	180	1,462
-	-	-	-	-	-	-	-	-	-
586,446	521,010	780,330	600,094	652,115	953,176	1,307,058	1,350,188	500,180	301,462
20,000	120,000	655,000	310,000	330,000	335,000	240,000	100,000	60,000	40,000
335,000	335,000	-	-	-	-	1,600,000	1,063,000	150,000	-
135,000	134,000	132,000	88,000	146,000	150,000	154,000	158,000	162,000	230,000
140,000	-	17,000	-	70,000	80,000	-	30,000	-	-
-	-	-	-	-	-	-	-	-	-
630,000	589,000	804,000	398,000	546,000	565,000	1,994,000	1,351,000	372,000	270,000
(43,554)	(67,990)	(23,670)	202,094	106,115	388,176	(686,942)	(812)	128,180	31,462
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
(43,554)	(67,990)	(23,670)	202,094	106,115	388,176	(686,942)	(812)	128,180	31,462
144,592	101,038	33,048	9,378	211,472	317,587	705,763	18,821	18,009	146,189
\$ 101,038	\$ 33,048	\$ 9,378	\$ 211,472	\$ 317,587	\$ 705,763	\$ 18,821	\$ 18,009	\$ 146,189	\$ 177,651

## Debt Service Fund Related Activity

2020 Estimated Amounts	2021 Estimated Amounts	2022 Estimated Amounts	2023 Estimated Amounts	2024 Estimated Amounts	2025 Estimated Amounts	2026 Estimated Amounts	2027 Estimated Amounts	2028 Estimated Amounts	2029 Estimated Amounts
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

City of Dayton, Minnesota  
 Capital Improvement Plan - Park Development Fund 404  
 Schedule of Planned Capital Outlay 2019 to 2029

					2019 Estimated Amounts
Department	Paid By	Replacement Year	Item	Cost	
Parks and Recreation	City	2020	Reside Shed at McNeil Park	\$ 12,000	\$ -
Parks and Recreation	City	2020	Picnic Shelter (McNeil Field)	45,000	-
Parks and Recreation	City	2021	Picnic Shelter (Stephens Phase 1)	60,000	-
					<u>\$ -</u>

2020 Estimated Amounts	2021 Estimated Amounts	2022 Estimated Amounts	2023 Estimated Amounts	2024 Estimated Amounts	2025 Estimated Amounts	2026 Estimated Amounts	2027 Estimated Amounts	2028 Estimated Amounts	2029 Estimated Amounts
\$ 12,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
45,000	-	-	-	-	-	-	-	-	-
-	60,000	-	-	-	-	-	-	-	-
\$ 57,000	\$ 60,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

City of Dayton, Minnesota  
 Capital Improvement Plan - Park Development Fund 404  
 Schedule of Projected Revenue, Expenditures and Debt

	2018 Actual Amounts	2019 Estimated Amounts
<b>Revenues</b>		
Property taxes	\$ -	\$ -
Charges for service	5,561	5,728
Interest on investments	1,018	1,121
<b>Total Revenues</b>	<u>6,579</u>	<u>6,849</u>
<b>Expenditures</b>		
Capital outlay		
Parks and recreation	-	-
<b>Total Expenditures</b>	<u>-</u>	<u>-</u>
<b>Excess (Deficiency) of Revenues Over (Under) Expenditures</b>	<u>6,579</u>	<u>6,849</u>
<b>Other Financing Sources</b>		
Transfers in	44,863	17,000
Bond proceeds	-	-
Transfers out	-	-
<b>Total Other Financing Sources</b>	<u>44,863</u>	<u>17,000</u>
<b>Net Change in Cash Balances</b>	51,442	23,849
<b>Cash Balances January 1</b>	<u>60,619</u>	<u>112,061</u>
<b>Cash Balances, December 31</b>	<u>\$ 112,061</u>	<u>\$ 135,910</u>

	2018 Estimated Amounts	2019 Estimated Amounts
<b>Beginning Balance</b>	\$ -	\$ -
<b>Revenue</b>		
Tax levy	-	-
Interest	-	-
Transfers in	-	-
<b>Total Revenue</b>	<u>-</u>	<u>-</u>
<b>Expenditures</b>		
Principal	-	-
Interest	-	-
<b>Total Expenditures</b>	<u>-</u>	<u>-</u>
<b>Ending Balance</b>	<u>\$ -</u>	<u>\$ -</u>

## Capital Project Fund Projected Activity

2020 Estimated Amounts	2021 Estimated Amounts	2022 Estimated Amounts	2023 Estimated Amounts	2024 Estimated Amounts	2025 Estimated Amounts	2026 Estimated Amounts	2027 Estimated Amounts	2028 Estimated Amounts	2029 Estimated Amounts
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
5,900	6,077	6,259	6,447	6,640	6,839	7,045	7,256	7,474	7,698
1,359	862	331	397	465	536	610	687	766	849
7,259	6,939	6,590	6,844	7,105	7,375	7,655	7,943	8,240	8,547
57,000	60,000	-	-	-	-	-	-	-	-
57,000	60,000	-	-	-	-	-	-	-	-
(49,741)	(53,061)	6,590	6,844	7,105	7,375	7,655	7,943	8,240	8,547
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
(49,741)	(53,061)	6,590	6,844	7,105	7,375	7,655	7,943	8,240	8,547
135,910	86,168	33,107	39,697	46,541	53,646	61,021	68,676	76,619	84,858
\$ 86,168	\$ 33,107	\$ 39,697	\$ 46,541	\$ 53,646	\$ 61,021	\$ 68,676	\$ 76,619	\$ 84,858	\$ 93,405

## Debt Service Fund Related Activity

2020 Estimated Amounts	2021 Estimated Amounts	2022 Estimated Amounts	2023 Estimated Amounts	2024 Estimated Amounts	2025 Estimated Amounts	2026 Estimated Amounts	2027 Estimated Amounts	2028 Estimated Amounts	2029 Estimated Amounts
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

City of Dayton, Minnesota  
Capital Improvement Plan - Park Dedication Fund 405  
Schedule of Planned Capital Outlay 2019 to 2029

Department	Paid By	Replacement Year	Item	Cost	2019
					Estimated Amounts
Parks and Recreation	City/CDAA	2019	Purchase land for Sports complex	\$ 153,432	\$ 153,432
Parks and Recreation	City	2019	Stephens Park Improvements (fence)	35,000	35,000
Parks and Recreation	City	2020	River Hills Park Development	300,000	-
Parks and Recreation	City	2020	Complete Sundance Woods Park	100,000	-
Parks and Recreation	City/CDAA	2020	Purchase land for Sports complex	153,432	-
Parks and Recreation	City	2021	River Hills Park Development	300,000	-
Parks and Recreation	City	2021	Stephens Park Improvements- first phase	300,000	-
Parks and Recreation	City/CDAA	2021	Purchase land for Sports complex	153,432	-
Parks and Recreation	City	2022	Stephens Park Improvements- complete first phase	300,000	-
Parks and Recreation	City/CDAA	2022	Purchase land for Sports complex	153,432	-
Parks and Recreation	City	2022	Hayden Hills Park	500,000	-
Parks and Recreation	City/CDAA	2023	Purchase land for Sports complex	153,432	-
Parks and Recreation	City	2024	Neighborhood Park Area 21	500,000	-
Parks and Recreation	City/CDAA	2024	Purchase land for Sports complex	153,432	-
Parks and Recreation	City/CDAA	2025	Purchase land for Sports complex	153,432	-
Parks and Recreation	City/CDAA	2026	Purchase land for Sports complex	153,432	-
Parks and Recreation	City/CDAA	2027	Purchase land for Sports complex	153,432	-
Parks and Recreation	City/CDAA	2028	Purchase land for Sports complex	153,432	-
Parks and Recreation	City/CDAA	2029	Construction of Community Playfield Complex	2,000,000	-
					<u>\$ 188,432</u>

Purchase of land (85 acres) for Community Park. Includes first payment in 2019 thru 2028 based on proposed contract for deed.

Completion of Sundance Woods park is scheduled for 2020 to matches bid timing with other park improvements.

River Hills park development is schedule for 2020 and 2021 for total of \$600,000. We have received dedicated land from the developer plus an additional \$125,000 for play Stephens Farm Park development scheduled for first phase construction for 2021 and 2022.

2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Estimated Amounts	Estimated Amounts	Estimated Amounts	Estimated Amounts	Estimated Amounts	Estimated Amounts	Estimated Amounts	Estimated Amounts	Estimated Amounts	Estimated Amounts
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
-	-	-	-	-	-	-	-	-	-
300,000	-	-	-	-	-	-	-	-	-
100,000	-	-	-	-	-	-	-	-	-
153,432	-	-	-	-	-	-	-	-	-
-	300,000	-	-	-	-	-	-	-	-
-	300,000	-	-	-	-	-	-	-	-
-	153,432	-	-	-	-	-	-	-	-
-	-	300,000	-	-	-	-	-	-	-
-	-	153,432	-	-	-	-	-	-	-
-	-	500,000	-	-	-	-	-	-	-
-	-	-	153,432	-	-	-	-	-	-
-	-	-	-	500,000	-	-	-	-	-
-	-	-	-	153,432	-	-	-	-	-
-	-	-	-	-	153,432	-	-	-	-
-	-	-	-	-	-	153,432	-	-	-
-	-	-	-	-	-	-	153,432	-	-
-	-	-	-	-	-	-	-	153,432	-
-	-	-	-	-	-	-	-	-	2,000,000
\$ 553,432	\$ 753,432	\$ 953,432	\$ 153,432	\$ 653,432	\$ 153,432	\$ 153,432	\$ 153,432	\$ 153,432	\$ 2,000,000

/ground improvements. We received \$25,000 grant .

City of Dayton, Minnesota  
 Capital Improvement Plan - Park Dedication Fund 405  
 Schedule of Projected Revenue, Expenditures and Debt

	2018 Actual Amounts	2019 Estimated Amounts
<b>Revenues</b>		
Property taxes	\$ -	\$ -
Charges for service (120 units, 5% annual increase in rate charged to developers)	386,390	378,775
Interest on investments	8,554	8,422
Intergovernmental	25,000	-
Contributions and donations	14,030	45,000
<b>Total Revenues</b>	<u>433,974</u>	<u>432,197</u>
<b>Expenditures</b>		
Capital outlay		
Parks and recreation	371,390	188,432
<b>Total Expenditures</b>	<u>371,390</u>	<u>188,432</u>
<b>Excess (Deficiency) of Revenues Over (Under) Expenditures</b>	<u>62,584</u>	<u>243,765</u>
<b>Other Financing Sources</b>		
Transfers in	-	-
Bond proceeds	-	-
Transfers out	-	-
<b>Total Other Financing Sources</b>	<u>-</u>	<u>-</u>
<b>Net Change in Cash Balances</b>	62,584	243,765
<b>Cash Balances January 1</b>	<u>779,582</u>	<u>842,166</u>
<b>Cash Balances, December 31</b>	<u>\$ 842,166</u>	<u>\$ 1,085,931</u>
<b>Park Dedication Rate per Unit Assumption</b>	<u>\$ 3,006</u>	<u>\$ 3,156</u>

	2018 Actual Amounts	2019 Estimated Amounts
<b>Beginning Balance</b>	\$ -	\$ -
<b>Revenue</b>		
Tax levy	-	-
Interest	-	-
Transfers in	-	-
<b>Total Revenue</b>	<u>-</u>	<u>-</u>
<b>Expenditures</b>		
Principal	-	-
Interest	-	-
<b>Total Expenditures</b>	<u>-</u>	<u>-</u>
<b>Ending Balance</b>	<u>\$ -</u>	<u>\$ -</u>

## Capital Project Fund Projected Activity

2020 Estimated Amounts	2021 Estimated Amounts	2022 Estimated Amounts	2023 Estimated Amounts	2024 Estimated Amounts	2025 Estimated Amounts	2026 Estimated Amounts	2027 Estimated Amounts	2028 Estimated Amounts	2029 Estimated Amounts
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
397,714	417,599	438,479	460,403	483,423	507,595	532,974	559,623	587,604	616,984
10,859	11,361	8,566	3,952	7,511	6,336	10,391	14,741	19,400	24,386
150,000	-	-	-	-	-	-	-	-	-
45,000	45,000	45,000	45,000	45,000	45,000	45,000	45,000	45,000	-
603,573	473,960	492,045	509,355	535,934	558,931	588,365	619,364	652,004	641,370
553,432	753,432	953,432	153,432	653,432	153,432	153,432	153,432	153,432	2,000,000
553,432	753,432	953,432	153,432	653,432	153,432	153,432	153,432	153,432	2,000,000
50,141	(279,472)	(461,387)	355,923	(117,498)	405,499	434,933	465,932	498,572	(1,358,630)
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
50,141	(279,472)	(461,387)	355,923	(117,498)	405,499	434,933	465,932	498,572	(1,358,630)
1,085,931	1,136,072	856,600	395,213	751,136	633,639	1,039,137	1,474,071	1,940,003	2,438,575
\$ 1,136,072	\$ 856,600	\$ 395,213	\$ 751,136	\$ 633,639	\$ 1,039,137	\$ 1,474,071	\$ 1,940,003	\$ 2,438,575	\$ 1,079,945
\$ 3,314	\$ 3,480	\$ 3,654	\$ 3,837	\$ 4,029	\$ 4,230	\$ 4,441	\$ 4,664	\$ 4,897	\$ 5,142

## Debt Service Fund Related Activity

2020 Estimated Amounts	2021 Estimated Amounts	2022 Estimated Amounts	2023 Estimated Amounts	2024 Estimated Amounts	2025 Estimated Amounts	2026 Estimated Amounts	2027 Estimated Amounts	2028 Estimated Amounts	2029 Estimated Amounts
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

City of Dayton, Minnesota  
 Capital Improvement Plan - Park Trail Development Fund 408  
 Schedule of Planned Capital Outlay 2019 to 2029

Department	Paid By	Replacement Year	Item	Cost	2019
					Estimated Amounts
Parks and Recreation	City/County	2020	Pedestrian Crossing at Jonquil Lane	\$ 170,000	\$ -
Parks and Recreation	Three Rivers	2020	Pineview Ln (S.Diamond to Co. Rd. 121) and Pedestrian Crossing	622,000	-
Parks and Recreation	City	2020	Trail on Northside of CR 144	100,000	-
Parks and Recreation	City	2025	Pineview Ln (Dayton River Rd to Co. Rd. 121)	650,000	-
Parks and Recreation	City	2021	Stephens Farm Trails- First Phase construction	65,000	-
					<u>\$ -</u>

Timing for Jonquil Trail Crossing was moved to 2020.

Trail along Pineview Lane between SDLR and 121 will be in 2020 and funded by Three Rivers Park District

Stephens Farm Trail includes first phase construction of internal park trails in 2021

Other trails will be added to the CIP based on the final comp plan and coordination with Three Rivers Park District. Trails internal to developments are not included on the CIP as they are constructed by developers.

2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Estimated Amounts	Estimated Amounts	Estimated Amounts	Estimated Amounts	Estimated Amounts	Estimated Amounts	Estimated Amounts	Estimated Amounts	Estimated Amounts	Estimated Amounts
\$ 170,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
622,000	-	-	-	-	-	-	-	-	-
100,000	-	-	-	-	-	-	-	-	-
-	-	-	-	-	650,000	-	-	-	-
-	65,000	-	-	-	-	-	-	-	-
\$ 892,000	\$ 65,000	\$ -	\$ -	\$ -	\$ 650,000	\$ -	\$ -	\$ -	\$ -

City of Dayton, Minnesota  
Capital Improvement Plan - Park Trail Development Fund 408  
Schedule of Projected Revenue, Expenditures and Debt

	2018 Actual Amounts	2019 Estimated Amounts
<b>Revenues</b>		
Property taxes	\$ -	\$ -
Charges for service (50% of 120 unit assumption beginning in 2018; reduction to account for credits for "developer paid" projects; 5% annual increase in rate charged to developers)	201,761	126,280
Interest on investments	3,395	4,218
Contributions and Donations	-	-
<b>Total Revenues</b>	<u>205,156</u>	<u>130,498</u>
<b>Expenditures</b>		
Capital outlay		
Parks	-	-
<b>Total Expenditures</b>	<u>-</u>	<u>-</u>
<b>Excess (Deficiency) of Revenues Over (Under) Expenditures</b>	<u>205,156</u>	<u>130,498</u>
<b>Other Financing Sources</b>		
Transfers in	-	-
Bond proceeds	-	-
Transfers out	-	-
<b>Total Other Financing Sources</b>	<u>-</u>	<u>-</u>
<b>Net Change in Cash Balances</b>	205,156	130,498
<b>Cash Balances January 1</b>	<u>216,614</u>	<u>421,770</u>
<b>Cash Balances, December 31</b>	<u>\$ 421,770</u>	<u>\$ 552,268</u>
<b>Park Trail Dedication Rate per Unit Assumption</b>	<u>\$ 2,004</u>	<u>\$ 2,105</u>

	2018 Estimated Amounts	2019 Estimated Amounts
<b>Beginning Balance</b>	\$ -	\$ -
<b>Revenue</b>		
Tax levy	-	-
Interest	-	-
Transfers in	-	-
<b>Total Revenue</b>	<u>-</u>	<u>-</u>
<b>Expenditures</b>		
Principal	-	-
Interest	-	-
<b>Total Expenditures</b>	<u>-</u>	<u>-</u>
<b>Ending Balance</b>	<u>\$ -</u>	<u>\$ -</u>

## Capital Project Fund Projected Activity

2020 Estimated Amounts	2021 Estimated Amounts	2022 Estimated Amounts	2023 Estimated Amounts	2024 Estimated Amounts	2025 Estimated Amounts	2026 Estimated Amounts	2027 Estimated Amounts	2028 Estimated Amounts	2029 Estimated Amounts
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
132,594	139,224	146,185	153,495	161,169	169,228	177,689	186,574	195,902	205,697
5,523	4,204	4,988	6,500	8,100	9,793	5,083	6,910	8,845	10,893
622,000	-	-	-	-	-	-	-	-	-
760,117	143,428	151,173	159,995	169,269	179,021	182,772	193,484	204,747	216,590
892,000	65,000	-	-	-	650,000	-	-	-	-
892,000	65,000	-	-	-	650,000	-	-	-	-
(131,883)	78,428	151,173	159,995	169,269	(470,979)	182,772	193,484	204,747	216,590
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
(131,883)	78,428	151,173	159,995	169,269	(470,979)	182,772	193,484	204,747	216,590
552,268	420,386	498,814	649,987	809,982	979,251	508,272	691,044	884,527	1,089,275
\$ 420,386	\$ 498,814	\$ 649,987	\$ 809,982	\$ 979,251	\$ 508,272	\$ 691,044	\$ 884,527	\$ 1,089,275	\$ 1,305,865
\$ 2,210	\$ 2,320	\$ 2,436	\$ 2,558	\$ 2,686	\$ 2,820	\$ 2,961	\$ 3,110	\$ 3,265	\$ 3,428

## Debt Service Fund Related Activity

2020 Estimated Amounts	2021 Estimated Amounts	2022 Estimated Amounts	2023 Estimated Amounts	2024 Estimated Amounts	2025 Estimated Amounts	2026 Estimated Amounts	2027 Estimated Amounts	2028 Estimated Amounts	2029 Estimated Amounts
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

City of Dayton, Minnesota  
 Capital Improvement Plan - Temporary Financing Fund 409  
 Schedule of Planned Capital Outlay 2019 to 2029

Department	Paid By	Replacement Year	Item	Cost	2019 Estimated Amounts
				\$ -	\$ -
				-	-
					\$ -

2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Estimated Amounts	Estimated Amounts	Estimated Amounts	Estimated Amounts	Estimated Amounts	Estimated Amounts	Estimated Amounts	Estimated Amounts	Estimated Amounts	Estimated Amounts
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
-	-	-	-	-	-	-	-	-	-
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

City of Dayton, Minnesota  
Capital Improvement Plan - Temporary Financing Fund 409  
Schedule of Projected Revenue, Expenditures and Debt

	2018 Actual Amounts	2019 Estimated Amounts
<b>Revenues</b>		
Property taxes	\$ -	\$ -
Interest on investments	1,711	6,766
<b>Total Revenues</b>	1,711	6,766
<b>Expenditures</b>		
Capital outlay	-	-
<b>Total Expenditures</b>	-	-
<b>Excess (Deficiency) of Revenues Over (Under) Expenditures</b>	1,711	6,766
<b>Other Financing Sources</b>		
Transfers in	314,674	-
Bond proceeds	-	-
Transfers out	-	-
<b>Total Other Financing Sources</b>	314,674	-
<b>Net Change in Cash Balances</b>	316,385	6,766
<b>Fund Balances January 1</b>	360,259	676,644
<b>Fund Balances, December 31</b>	\$ 676,644	\$ 683,410

	2018 Estimated Amounts	2019 Estimated Amounts
<b>Beginning Balance</b>	\$ -	\$ -
<b>Revenue</b>		
Tax levy	-	-
Interest	-	-
Transfers in	-	-
<b>Total Revenue</b>	-	-
<b>Expenditures</b>		
Principal	-	-
Interest	-	-
<b>Total Expenditures</b>	-	-
<b>Ending Balance</b>	\$ -	\$ -

## Capital Project Fund Projected Activity

2020 Estimated Amounts	2021 Estimated Amounts	2022 Estimated Amounts	2023 Estimated Amounts	2024 Estimated Amounts	2025 Estimated Amounts	2026 Estimated Amounts	2027 Estimated Amounts	2028 Estimated Amounts	2029 Estimated Amounts
\$ -	\$ -	\$ -	\$ 200,000	\$ 430,000	\$ 475,000	\$ 450,000	\$ 200,000	\$ 1,350,000	\$ 2,600,000
6,834	6,902	4,971	5,021	7,071	11,442	16,307	20,970	20,679	34,386
6,834	6,902	4,971	205,021	437,071	486,442	466,307	220,970	1,370,679	2,634,386
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
6,834	6,902	4,971	205,021	437,071	486,442	466,307	220,970	1,370,679	2,634,386
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	(200,000)	-	-	-	-	-	(250,000)	-	-
-	(200,000)	-	-	-	-	-	(250,000)	-	-
6,834	(193,098)	4,971	205,021	437,071	486,442	466,307	(29,030)	1,370,679	2,634,386
683,410	690,244	497,146	502,117	707,138	1,144,209	1,630,651	2,096,958	2,067,928	3,438,607
\$ 690,244	\$ 497,146	\$ 502,117	\$ 707,138	\$ 1,144,209	\$ 1,630,651	\$ 2,096,958	\$ 2,067,928	\$ 3,438,607	\$ 6,072,993

## Debt Service Fund Related Activity

2020 Estimated Amounts	2021 Estimated Amounts	2022 Estimated Amounts	2023 Estimated Amounts	2024 Estimated Amounts	2025 Estimated Amounts	2026 Estimated Amounts	2027 Estimated Amounts	2028 Estimated Amounts	2029 Estimated Amounts
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

City of Dayton, Minnesota  
Capital Improvement Plan - Capital Facilities Fund 410  
Schedule of Planned Capital Outlay 2019 to 2029

Replacement					2019
Department	Paid By	Year	Item	Cost	Estimated Amounts
General Government	City	2019	Activity Centre Kitchen Upgrades	\$ 138,000	\$ 138,000
Public Works	City	2020	City signage - gateways and parks	60,000	-
General Government	City	2019	Replace roof @ PD and City Hall, including FS #2	73,000	73,000
Public Safety - Fire	City	2019	FS Epoxy Floors	45,000	45,000
Public Safety - Fire	City	2020	FS #1 and #2 Clean Air Exchange Units	70,000	-
Public Works	City	2020	Outdoor Covered Storage PW	70,000	-
Public Works	City	2021	City signage - gateways and parks	40,000	-
Public Safety - Fire	City	2021	Land acquisition for FS#3 & other city facility	500,000	-
Public Works	City	2022	City signage - gateways and parks	40,000	-
Public Works	City	2023	City signage - gateways and parks	40,000	-
General Government	City	2021	City Hall Remodel	250,000	-
Public Safety - Fire	City	2024	FS#2 Remodel	550,000	-
Public Safety - Fire	City	2027	FS#3 New Building/City Hall	3,500,000	-
Public Works	City	2028	Public works expansion	1,500,000	-
					\$ 256,000

City Hall remodel was moved to 2020 to accommodate growing staff spacing needs

New FS# 3 /City Hall is positioned at 2027 and can be re-evaluated once the fire needs assessment is completed.

2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Estimated Amounts	Estimated Amounts	Estimated Amounts	Estimated Amounts	Estimated Amounts	Estimated Amounts	Estimated Amounts	Estimated Amounts	Estimated Amounts	Estimated Amounts
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
60,000	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
70,000	-	-	-	-	-	-	-	-	-
70,000	-	-	-	-	-	-	-	-	-
-	40,000	-	-	-	-	-	-	-	-
-	500,000	-	-	-	-	-	-	-	-
-	-	40,000	-	-	-	-	-	-	-
-	-	-	40,000	-	-	-	-	-	-
-	250,000	-	-	-	-	-	-	-	-
-	-	-	-	550,000	-	-	-	-	-
-	-	-	-	-	-	-	3,500,000	-	-
-	-	-	-	-	-	-	-	1,500,000	-
\$ 200,000	\$ 790,000	\$ 40,000	\$ 40,000	\$ 550,000	\$ -	\$ -	\$ 3,500,000	\$ 1,500,000	\$ -

City of Dayton, Minnesota  
 Capital Improvement Plan - Capital Facilities Fund 410  
 Schedule of Projected Revenue, Expenditures and Debt

	2018 Actual Amounts	2019 Estimated Amounts
<b>Revenues</b>		
Property taxes	\$ 65,001	\$ 320,000
Interest on investments	2,773	2,768
<b>Total Revenues</b>	<u>67,774</u>	<u>322,768</u>
<b>Expenditures</b>		
Capital outlay		
General government	-	211,000
Public safety - fire	-	45,000
Public works	69,159	-
<b>Total Expenditures</b>	<u>69,159</u>	<u>256,000</u>
<b>Excess (Deficiency) of Revenues Over (Under) Expenditures</b>	<u>(1,385)</u>	<u>66,768</u>
<b>Other Financing Sources (Uses)</b>		
Transfers in	54,985	-
Bond proceeds	-	-
Transfers out	-	-
<b>Total Other Financing Sources (Uses)</b>	<u>54,985</u>	<u>-</u>
<b>Net Change in Cash Balances</b>	53,600	66,768
<b>Cash Balances January 1</b>	<u>223,224</u>	<u>276,824</u>
<b>Cash Balances, December 31</b>	<u>\$ 276,824</u>	<u>\$ 343,592</u>

	2018 Actual Amounts	2019 Estimated Amounts
<b>Beginning Balance</b>	\$ -	\$ -
<b>Revenue</b>		
Tax levy	-	-
Interest	-	-
Transfers in	-	-
<b>Total Revenue</b>	<u>-</u>	<u>-</u>
<b>Expenditures</b>		
Principal	-	-
Interest	-	-
<b>Total Expenditures</b>	<u>-</u>	<u>-</u>
<b>Ending Balance</b>	<u>\$ -</u>	<u>\$ -</u>

## Capital Project Fund Projected Activity

2020 Estimated Amounts	2021 Estimated Amounts	2022 Estimated Amounts	2023 Estimated Amounts	2024 Estimated Amounts	2025 Estimated Amounts	2026 Estimated Amounts	2027 Estimated Amounts	2028 Estimated Amounts	2029 Estimated Amounts
\$ 50,000	\$ 600,000	\$ 310,000	\$ 600,000	\$ 750,000	\$ 650,000	\$ 750,000	\$ 1,250,000	\$ 1,250,000	\$ 500,000
3,436	1,970	90	2,791	8,419	10,503	17,108	24,779	2,527	52
53,436	601,970	310,090	602,791	758,419	660,503	767,108	1,274,779	1,252,527	500,052
-	250,000	-	-	-	-	-	-	-	-
70,000	500,000	-	-	550,000	-	-	3,500,000	-	-
130,000	40,000	40,000	40,000	-	-	-	-	1,500,000	-
200,000	790,000	40,000	40,000	550,000	-	-	3,500,000	1,500,000	-
(146,564)	(188,030)	270,090	562,791	208,419	660,503	767,108	(2,225,221)	(247,473)	500,052
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
(146,564)	(188,030)	270,090	562,791	208,419	660,503	767,108	(2,225,221)	(247,473)	500,052
343,592	197,028	8,998	279,088	841,879	1,050,298	1,710,801	2,477,909	252,688	5,215
\$ 197,028	\$ 8,998	\$ 279,088	\$ 841,879	\$ 1,050,298	\$ 1,710,801	\$ 2,477,909	\$ 252,688	\$ 5,215	\$ 505,267

## Debt Service Fund Related Activity

2020 Estimated Amounts	2021 Estimated Amounts	2022 Estimated Amounts	2023 Estimated Amounts	2024 Estimated Amounts	2025 Estimated Amounts	2026 Estimated Amounts	2027 Estimated Amounts	2028 Estimated Amounts	2029 Estimated Amounts
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

City of Dayton, Minnesota  
Capital Improvement Plan - Pavement Management and Improvements Fund 414  
Schedule of Planned Capital Outlay 2019 to 2029

*Projects previously shown in the Transportation Area Charges fund now shown in this fund with the exception of Pineview Lane (South Diamond Lake Rd to CR-121)*

Department	Paid By	Replacement Year	Item	Cost	2019
					Estimated Amounts
Public Works	City	2019	Zanzibar Lane Improvements - SDLR to NDLR	\$ 757,000	\$ 757,000
Public Works	City	2020	Pavement Management Plan	15,000	-
Public Works	City	2020	Oakview Lane Improvements	735,000	-
Public Works	City/MSA/County	2020	Pineview Lane/CR-121 Intersection	1,242,000	-
Public Works	City	2021	2021 Street Improvements- 152nd ave	450,000	-
Public Works	City/Assessments (50/50)	2022	Interchange Master Plan Area- Streets	1,160,000	-
Public Works	City	2022	2022 Street Improvements	250,000	-
Public Works	City	2022	Zanzibar Lane Improvements- 125th ave to SDLR	1,500,000	-
Public Works	City	2023	2023 Street Improvements	250,000	-
Public Works	City	2024	2024 Street Improvements	300,000	-
Public Works	City/County (33/67)	2024	County Rd 81 & Territorial Rd	750,000	-
Public Works	City	2025	Rushcreek Parkway Extension/Territorial Rd Intersection	500,000	-
Public Works	City	2025	2025 Street Improvements	350,000	-
Public Works	City/County/Developer (33/33/33)	2025	Dayton Parkway Extension (Hwy 81- 117th Ave N)	4,000,000	-
Public Works	City	2026	2026 Street Improvements	350,000	-
Public Works	County (100)	2026	County Rd 81 Widening	3,600,000	-
Public Works	City	2027	2027 Street Improvements	350,000	-
Public Works	City/Developer (50/50)	2027	West French Lake Road (Liberty-Dayton Parkway)	4,500,000	-
Public Works	City	2028	2028 Street Improvements	350,000	-
Public Works	City/County/Developer (33/33/33)	2029	Dayton Parkway Extension (117th Ave N - East French Lake Rd)	3,500,000	-
Public Works	City	2029	2029 Street Improvements	350,000	-
					<u>\$ 757,000</u>

Cost for Zanzibar Lane have been updated for 2019. This has been on the CIP since 2017.

Pineview Lane/CR 121 Intersection- this is a new item for 2020. This will provide a permanent improvement to this intersection to be constructed at the same time as Pineview Lane and Oakview Lane (under one feasibility report).

We have commitment from the county for \$700,000 and proposing an MSA advance of \$700,000 for the remaining costs.

Interchange Master Plan Area -this future project includes the necessary street construction to support future development southwest of the interchange. This project will occur when there is development demand and will be a shared cost.

Its estimated at 2022 but could very well be bumped depending on development needs.

Zanzibar Lane -125th to SDLR was added for 2022. Depending on need this could be adjusted

Dayton Parkway Extensions reflects extension of the parkway to support future development. Estimated at 2025 for the purposes of planning but will be based on timing of development. Costs will be shared and the city will be seeking grant funds

2020 Estimated Amounts	2021 Estimated Amounts	2022 Estimated Amounts	2023 Estimated Amounts	2024 Estimated Amounts	2025 Estimated Amounts	2026 Estimated Amounts	2027 Estimated Amounts	2028 Estimated Amounts	2029 Estimated Amounts
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
15,000	-	-	-	-	-	-	-	-	-
735,000	-	-	-	-	-	-	-	-	-
1,242,000	-	-	-	-	-	-	-	-	-
-	450,000	-	-	-	-	-	-	-	-
-	-	1,160,000	-	-	-	-	-	-	-
-	-	250,000	-	-	-	-	-	-	-
-	-	1,500,000	-	-	-	-	-	-	-
-	-	-	250,000	-	-	-	-	-	-
-	-	-	-	300,000	-	-	-	-	-
-	-	-	-	750,000	-	-	-	-	-
-	-	-	-	-	500,000	-	-	-	-
-	-	-	-	-	350,000	-	-	-	-
-	-	-	-	-	4,000,000	-	-	-	-
-	-	-	-	-	-	350,000	-	-	-
-	-	-	-	-	-	3,600,000	-	-	-
-	-	-	-	-	-	-	350,000	-	-
-	-	-	-	-	-	-	4,500,000	-	-
-	-	-	-	-	-	-	-	350,000	-
-	-	-	-	-	-	-	-	-	3,500,000
-	-	-	-	-	-	-	-	-	350,000
\$ 1,992,000	\$ 450,000	\$ 2,910,000	\$ 250,000	\$ 1,050,000	\$ 4,850,000	\$ 3,950,000	\$ 4,850,000	\$ 350,000	\$ 3,850,000

City of Dayton, Minnesota  
Capital Improvement Plan - Pavement Management and Improvements Fund 414  
Schedule of Projected Revenue, Expenditures and Debt

	2018 Actual Amounts	2019 Estimated Amounts
<b>Revenues</b>		
Property taxes	\$ 250,000	\$ 250,000
Intergovernmental	-	-
Interest on investments	5,370	6,007
Special assessments (25% of project cost to cover reconstruct, 10 year assessment)	-	-
<b>Total Revenues</b>	<u>255,370</u>	<u>256,007</u>
<b>Expenditures</b>		
Capital outlay		
Public works	25,128	757,000
<b>Total Expenditures</b>	<u>25,128</u>	<u>757,000</u>
<b>Excess (Deficiency) of Revenues Over (Under) Expenditures</b>	<u>230,242</u>	<u>(500,993)</u>
<b>Other Financing Sources</b>		
Transfers in (2020 from Transportation Area Charges Fund; 2021-2029 from Dayton Parkway Fund; 2027 from Temporary Financing Fund)	-	-
Bond proceeds	-	-
Transfers out	-	-
<b>Total Other Financing Sources</b>	<u>-</u>	<u>-</u>
<b>Net Change in Cash Balances</b>	230,242	(500,993)
<b>Cash Balances January 1</b>	<u>370,423</u>	<u>600,665</u>
<b>Cash Balances, December 31</b>	<u>\$ 600,665</u>	<u>\$ 99,672</u>

	2018 Actual Amounts	2019 Estimated Amounts
<b>Beginning Balance</b>	\$ -	\$ -
<b>Revenue</b>		
Tax levy	-	-
Interest	-	-
Transfers in	-	-
<b>Total Revenue</b>	<u>-</u>	<u>-</u>
<b>Expenditures</b>		
Principal	-	-
Interest	-	-
<b>Total Expenditures</b>	<u>-</u>	<u>-</u>
<b>Ending Balance</b>	<u>\$ -</u>	<u>\$ -</u>

## Capital Project Fund Projected Activity

2020 Estimated Amounts	2021 Estimated Amounts	2022 Estimated Amounts	2023 Estimated Amounts	2024 Estimated Amounts	2025 Estimated Amounts	2026 Estimated Amounts	2027 Estimated Amounts	2028 Estimated Amounts	2029 Estimated Amounts
\$ 815,000	\$ 600,000	\$ 800,000	\$ 800,000	\$ 800,000	\$ 800,000	\$ 800,000	\$ 800,000	\$ 800,000	\$ 800,000
2,100,000	-	-	-	500,000	3,000,000	3,600,000	2,250,000	-	2,333,333
997	13,463	20,473	1,791	9,910	15,396	6,849	13,456	372	7,401
-	-	58,000	58,000	58,000	58,000	58,000	58,000	58,000	58,000
2,915,997	613,463	878,473	859,791	1,367,910	3,873,396	4,464,849	3,121,456	858,372	3,198,734
1,992,000	450,000	2,910,000	250,000	1,050,000	4,850,000	3,950,000	4,850,000	350,000	3,850,000
1,992,000	450,000	2,910,000	250,000	1,050,000	4,850,000	3,950,000	4,850,000	350,000	3,850,000
923,997	163,463	(2,031,527)	609,791	317,910	(976,604)	514,849	(1,728,544)	508,372	(651,266)
322,649	537,508	163,361	202,044	230,709	121,908	145,913	420,105	194,474	218,870
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
322,649	537,508	163,361	202,044	230,709	121,908	145,913	420,105	194,474	218,870
1,246,646	700,971	(1,868,166)	811,835	548,619	(854,696)	660,762	(1,308,439)	702,846	(432,396)
99,672	1,346,318	2,047,289	179,123	990,958	1,539,577	684,881	1,345,643	37,204	740,050
\$ 1,346,318	\$ 2,047,289	\$ 179,123	\$ 990,958	\$ 1,539,577	\$ 684,881	\$ 1,345,643	\$ 37,204	\$ 740,050	\$ 307,654

## Debt Service Fund Related Activity

2020 Estimated Amounts	2021 Estimated Amounts	2022 Estimated Amounts	2023 Estimated Amounts	2024 Estimated Amounts	2025 Estimated Amounts	2026 Estimated Amounts	2027 Estimated Amounts	2028 Estimated Amounts	2029 Estimated Amounts
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

City of Dayton, Minnesota  
 Capital Improvement Plan - Stormwater Fund 415  
 Schedule of Planned Capital Outlay 2019 to 2029

*\*Projects denoted with an asterisk indicate a significant future assumption which may include future development and/or federal or state funding for a project.*

Department	Paid By	Replacement Year	Item	Cost	2019
					Estimated Amounts
Storm Sewer	City	2020	Stormwater System Modeling	\$ 100,000	\$ -
Storm Sewer	City	2020	Diamond Creek Subwatershed Assessment	52,000	-
Storm Sewer	City	2020	Oakview Lane Ravine Stabilization	111,000	-
Storm Sewer	City	2020	Pineview Lane Storm Improvements	197,000	-
Storm Sewer	City	2020	Pineview Lane / CR 121 Intersection Storm	181,000	-
Storm Sewer	City	2021	SW Wetland Bank	800,000	-
Storm Sewer	City/Assessments (50/50)	2022	Interchange Master Plan Area- Storm	140,000	-
Storm Sewer	City/Grant (20/80)	2021	Diamond Lake Vegetation and Internal Load Mgmt Plans	40,000	-
Storm Sewer	City/Grant (20/80)	2021	Diamond DO Surveys	25,000	-
Storm Sewer	City/Grant (20/80)	2022	Stream & Ditch Assessment (city-wide)	50,000	-
Storm Sewer	City/Grant (20/80)	2022	Diamond Lake & French Lake Management Plans	20,000	-
Storm Sewer	City	2023	Rush Creek Stabilization	110,000	-
					<u>\$ -</u>

Added several stormwater management projects including SW wetland bank-city would be able to sell credits to developers.

2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Estimated Amounts	Estimated Amounts	Estimated Amounts	Estimated Amounts	Estimated Amounts	Estimated Amounts	Estimated Amounts	Estimated Amounts	Estimated Amounts	Estimated Amounts
\$ 100,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
52,000	-	-	-	-	-	-	-	-	-
111,000	-	-	-	-	-	-	-	-	-
197,000	-	-	-	-	-	-	-	-	-
181,000	-	-	-	-	-	-	-	-	-
-	800,000	-	-	-	-	-	-	-	-
-	-	140,000	-	-	-	-	-	-	-
-	40,000	-	-	-	-	-	-	-	-
-	25,000	-	-	-	-	-	-	-	-
-	-	50,000	-	-	-	-	-	-	-
-	-	20,000	-	-	-	-	-	-	-
-	-	-	110,000	-	-	-	-	-	-
\$ 641,000	\$ 865,000	\$ 210,000	\$ 110,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

City of Dayton, Minnesota  
Capital Improvement Plan - Stormwater Enterprise 415  
Statements of Cash Flows

	2018 Actual Amounts	2019 Estimated Amounts
<b>Cash Flows from Operating Activities</b>		
Receipts from customers and users	\$ -	\$ -
Payments to suppliers and employees (3% growth assumption)	(11,804)	(12,158)
<b>Net Cash Provided (Used) by Operating Activities</b>	<u>(11,804)</u>	<u>(12,158)</u>
<b>Cash Flows from Noncapital Financing Activities</b>		
Transfer to other funds (Fund 342 - existing debt service, first 100 unit connection fees missed in 2017)	(215,233)	-
Transfer to other funds (Fund 342 - existing debt service, first 75 unit connection fees)	(169,496)	(177,971)
Transfer from other funds (Fund 409 - Temp Financing Fund)	-	-
Intergovernmental grants	-	-
<b>Net Cash Provided (Used) by Noncapital Financing Activities</b>	<u>(384,729)</u>	<u>(177,971)</u>
<b>Cash Flows from Capital and Related Financing Activities</b>		
Acquisition of capital assets	-	-
Sale of capital assets (SW Wetland Bank credits sold to developers)	-	-
Connection charges (120 units beginning in 2018, 5% annual increase in rate charged to developers)	748,391	284,754
Connection charges (additional 20 homes, total projected connections at 140)	-	47,459
Proceeds from bonds and notes issued	-	-
Principal and interest paid on long-term debt	-	-
<b>Net Cash Used by Capital and Related Financing Activities</b>	<u>748,391</u>	<u>332,213</u>
<b>Cash Flows from Investing Activities</b>		
Investment earnings	10,561	9,981
<b>Net Increase (Decrease) in Cash and Cash Equivalents</b>	362,419	152,064
<b>Cash and Cash Equivalents, January 1</b>	635,665	998,084
<b>Cash and Cash Equivalents, December 31</b>	<u>\$ 998,084</u>	<u>\$ 1,150,148</u>
<b>Connection Charges (Trunk) Per Unit Assumption</b>	<u>\$ 2,260</u>	<u>\$ 2,373</u>

## Enterprise Fund Projected Activity

2020 Estimated Amounts	2021 Estimated Amounts	2022 Estimated Amounts	2023 Estimated Amounts	2024 Estimated Amounts	2025 Estimated Amounts	2026 Estimated Amounts	2027 Estimated Amounts	2028 Estimated Amounts	2029 Estimated Amounts
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
(12,523)	(12,899)	(13,286)	(13,684)	(14,095)	(14,517)	(14,953)	(15,402)	(15,864)	(16,339)
(12,523)	(12,899)	(13,286)	(13,684)	(14,095)	(14,517)	(14,953)	(15,402)	(15,864)	(16,339)
-	-	-	-	-	-	-	-	-	-
(186,870)	(196,213)	(206,024)	(216,325)	(227,141)	(238,498)	(250,423)	(262,944)	(276,092)	(289,896)
-	200,000	-	-	-	-	-	-	-	-
39,000	-	-	82,500	-	-	-	-	-	-
(147,870)	3,787	(206,024)	(133,825)	(227,141)	(238,498)	(250,423)	(262,944)	(276,092)	(289,896)
(641,000)	(865,000)	(210,000)	(110,000)	-	-	-	-	-	-
-	-	-	99,000	99,000	198,000	198,000	198,000	198,000	-
298,991	313,941	329,638	346,120	363,426	381,597	400,677	420,711	441,746	463,834
49,832	52,323	54,940	57,687	60,571	63,600	66,780	70,118	73,624	77,306
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
(292,177)	(498,736)	174,578	392,807	522,997	643,197	665,457	688,829	713,371	541,139
11,501	7,091	2,083	1,657	4,126	6,985	10,957	15,067	19,323	23,730
(441,068)	(500,756)	(42,648)	246,954	285,887	397,166	411,037	425,551	440,738	258,634
1,150,148	709,080	208,324	165,676	412,630	698,517	1,095,684	1,506,721	1,932,272	2,373,010
\$ 709,080	\$ 208,324	\$ 165,676	\$ 412,630	\$ 698,517	\$ 1,095,684	\$ 1,506,721	\$ 1,932,272	\$ 2,373,010	\$ 2,631,644
\$ 2,492	\$ 2,616	\$ 2,747	\$ 2,884	\$ 3,029	\$ 3,180	\$ 3,339	\$ 3,506	\$ 3,681	\$ 3,865

City of Dayton, Minnesota  
 Capital Improvement Plan - Dayton Parkway Interchange Fund 480  
 Schedule of Planned Capital Outlay 2019 to 2029

Department	Paid By	Replacement Year	Item	Cost	2019
					Estimated Amounts
Public Works	City	Multiple	Dayton Parkway Interchange	\$ 26,467,250	\$ 3,467,250
					<u>\$ 3,467,250</u>

2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Estimated Amounts	Estimated Amounts	Estimated Amounts	Estimated Amounts	Estimated Amounts	Estimated Amounts	Estimated Amounts	Estimated Amounts	Estimated Amounts	Estimated Amounts
\$ 15,525,000	\$ 7,475,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ 15,525,000	\$ 7,475,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

City of Dayton, Minnesota  
Capital Improvement Plan - Dayton Parkway Interchange Fund 480  
Schedule of Projected Revenue, Expenditures and Debt

	2018 Actual Amounts	2019 Estimated Amounts
<b>Revenues</b>		
Property taxes	\$ -	\$ -
Franchise fees	-	-
Intergovernmental	33,856	1,181,809
Interest on investments	-	-
Special assessments (Liberty & Dayton Distribution Agreements)	108,165	104,160
Development fees (French Lake Ind Park, Liberty Prop Trust - Interchange Fee \$2,000/acre)	44,060	31,992
<b>Total Revenues</b>	<u>186,081</u>	<u>1,317,961</u>
<b>Expenditures</b>		
Capital outlay		
Public works	444,499	3,467,250
<b>Total Expenditures</b>	<u>444,499</u>	<u>3,467,250</u>
<b>Excess (Deficiency) of Revenues Over (Under) Expenditures</b>	<u>(258,418)</u>	<u>(2,149,289)</u>
<b>Other Financing Sources</b>		
Transfers in	-	-
Bond proceeds	-	-
Transfers out (Pavement Management and Improvements Fund)	-	-
Transfers out (Debt Service Fund)	-	-
<b>Total Other Financing Sources</b>	<u>-</u>	<u>-</u>
<b>Net Change in Cash Balances</b>	(258,418)	(2,149,289)
<b>Cash Balances January 1</b>	<u>(1,301,928)</u>	<u>(1,560,346)</u>
<b>Cash Balances, December 31</b>	<u>\$ (1,560,346)</u>	<u>\$ (3,709,635)</u>

	2018 Actual Amounts	2019 Estimated Amounts
<b>Beginning Balance</b>	\$ -	\$ -
<b>Revenue</b>		
Tax levy	-	-
Special Assessments	-	-
Interest	-	-
Transfers in	-	-
<b>Total Revenue</b>	<u>-</u>	<u>-</u>
<b>Expenditures</b>		
Principal	-	-
Interest	-	-
<b>Total Expenditures</b>	<u>-</u>	<u>-</u>
<b>Ending Balance</b>	<u>\$ -</u>	<u>\$ -</u>

## Capital Project Fund Projected Activity

2020 Estimated Amounts	2021 Estimated Amounts	2022 Estimated Amounts	2023 Estimated Amounts	2024 Estimated Amounts	2025 Estimated Amounts	2026 Estimated Amounts	2027 Estimated Amounts	2028 Estimated Amounts	2029 Estimated Amounts
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
360,000	371,520	383,040	394,560	406,080	417,600	429,120	440,640	452,160	463,680
17,100,000	5,550,000	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
100,800	97,440	94,080	90,720	87,360	-	-	-	-	-
46,500	33,400	13,200	31,800	40,240	-	-	-	-	-
17,607,300	6,052,360	490,320	517,080	533,680	417,600	429,120	440,640	452,160	463,680
15,525,000	7,475,000	-	-	-	-	-	-	-	-
15,525,000	7,475,000	-	-	-	-	-	-	-	-
2,082,300	(1,422,640)	490,320	517,080	533,680	417,600	429,120	440,640	452,160	463,680
-	-	-	-	-	-	-	-	-	-
4,000,000	-	-	-	-	-	-	-	-	-
-	(537,508)	(163,361)	(202,044)	(230,709)	(121,908)	(145,913)	(170,105)	(194,474)	(218,870)
(119,494)	(293,023)	(326,959)	(315,036)	(302,971)	(295,692)	(283,207)	(270,535)	(257,686)	(244,810)
3,880,506	(830,531)	(490,320)	(517,080)	(533,680)	(417,600)	(429,120)	(440,640)	(452,160)	(463,680)
5,962,806	(2,253,171)	-	-	-	-	-	-	-	-
(3,709,635)	2,253,171	-	-	-	-	-	-	-	-
\$ 2,253,171	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

## Debt Service Fund Related Activity

2020 Estimated Amounts	2021 Estimated Amounts	2022 Estimated Amounts	2023 Estimated Amounts	2024 Estimated Amounts	2025 Estimated Amounts	2026 Estimated Amounts	2027 Estimated Amounts	2028 Estimated Amounts	2029 Estimated Amounts
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
-	-	-	-	-	-	-	-	-	-
-	106,730	104,729	102,728	100,727	98,726	96,725	94,723	92,722	90,720
-	-	-	-	-	-	-	-	-	-
119,494	293,023	326,959	315,036	302,971	295,692	283,207	270,535	257,686	244,810
119,494	399,753	431,688	417,764	403,698	394,418	379,932	365,258	350,408	335,530
-	260,000	300,000	295,000	290,000	290,000	285,000	280,000	275,000	270,000
119,494	139,753	131,688	122,764	113,698	104,418	94,931	85,258	75,408	65,530
119,494	399,753	431,688	417,764	403,698	394,418	379,931	365,258	350,408	335,530
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

City of Dayton, Minnesota  
 Capital Improvement Plan - Transportation Area Charges Fund 485  
 Schedule of Planned Capital Outlay 2019 to 2029

Department	Paid By	Replacement Year	Item	Cost	2019
					Estimated Amounts
Public Works	City	2020	Pineview Lane (South Diamond Lake Rd to CR-121)	\$ 1,357,000	\$ -
					<u>\$ -</u>

2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Estimated Amounts	Estimated Amounts	Estimated Amounts	Estimated Amounts	Estimated Amounts	Estimated Amounts	Estimated Amounts	Estimated Amounts	Estimated Amounts	Estimated Amounts
\$ 1,357,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ 1,357,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

City of Dayton, Minnesota  
Capital Improvement Plan - Transportation Area Charges Fund 485  
Schedule of Projected Revenue, Expenditures and Debt

	2018 Actual Amounts	2019 Estimated Amounts
<b>Revenues</b>		
Property taxes	\$ -	\$ -
Interest on investments	16,872	16,466
Charges for service	668,001	-
<b>Total Revenues</b>	684,873	16,466
<b>Expenditures</b>		
Capital outlay		
Public works	26,321	-
<b>Total Expenditures</b>	26,321	-
<b>Excess (Deficiency) of Revenues Over (Under) Expenditures</b>	658,552	16,466
<b>Other Financing Sources</b>		
Transfers in	-	-
Bond proceeds	-	-
Transfer out (one-time to Fund 480 Brockton for interchange fee coded to 485 in 2016)	(44,060)	-
Transfers out (close out fund to Pavement Management)	-	-
<b>Total Other Financing Sources</b>	(44,060)	-
<b>Net Change in Cash Balances</b>	614,492	16,466
<b>Cash Balances January 1</b>	1,032,061	1,646,553
<b>Cash Balances, December 31</b>	\$ 1,646,553	\$ 1,663,019
<b>Transportation Area Charge Rate per Unit Assumption</b>	\$ 3,550	\$ -

	2018 Estimated Amounts	2019 Estimated Amounts
<b>Beginning Balance</b>	\$ -	\$ -
<b>Revenue</b>		
Tax levy	-	-
Interest	-	-
Transfers in	-	-
<b>Total Revenue</b>	-	-
<b>Expenditures</b>		
Principal	-	-
Interest	-	-
<b>Total Expenditures</b>	-	-
<b>Ending Balance</b>	\$ -	\$ -

## Capital Project Fund Projected Activity

2020 Estimated Amounts	2021 Estimated Amounts	2022 Estimated Amounts	2023 Estimated Amounts	2024 Estimated Amounts	2025 Estimated Amounts	2026 Estimated Amounts	2027 Estimated Amounts	2028 Estimated Amounts	2029 Estimated Amounts
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
16,630	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
16,630	-	-	-	-	-	-	-	-	-
1,357,000	-	-	-	-	-	-	-	-	-
1,357,000	-	-	-	-	-	-	-	-	-
(1,340,370)	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
(322,649)	-	-	-	-	-	-	-	-	-
(322,649)	-	-	-	-	-	-	-	-	-
(1,663,019)	-	-	-	-	-	-	-	-	-
1,663,019	-	-	-	-	-	-	-	-	-
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

## Debt Service Fund Related Activity

2020 Estimated Amounts	2021 Estimated Amounts	2022 Estimated Amounts	2023 Estimated Amounts	2024 Estimated Amounts	2025 Estimated Amounts	2026 Estimated Amounts	2027 Estimated Amounts	2028 Estimated Amounts	2029 Estimated Amounts
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

City of Dayton, Minnesota  
Capital Improvement Plan - Water Enterprise Fund 601  
Schedule of Planned Capital Outlay 2019 to 2029

Department	Paid By	Replacement Year	Item	Cost	2019
					Estimated Amounts
Water	City	2019	GIS Software	\$ 20,000	\$ 20,000
Water	City	2019	Water Tower Improvements	70,000	70,000
Water	City	2019	Northwest Well (back up water source)	500,000	500,000
Water	City	2020	Northwest Well (back up water source)	750,000	-
Water	City	2020	Water Tower Painting Maintenance	97,000	-
Water	City	2021	Northeast Well	500,000	-
Water	City	2022	Northeast Well	750,000	-
Water	City/Assessments	2022	Interchange Master Plan Area	271,000	-
Water	City	2022	Water Supply Distribution Plan	75,000	-
Water	City	2023	Northwest Ground Storage	1,000,000	-
Water	City	2025	Water Treatment Facility	20,000,000	-
Water	City	2028	Northeast Well (3rd)	1,250,000	-
Water	City	2028	South Dayton Water System (Well/Tower)	3,800,000	-
					<u>\$ 590,000</u>

NW well (backup water source) adjusted to 2019.

NE well was moved up from 2023 to 2021 based on increased demand.

Water Tower Painting Maintenance is a *new item* in 2020.

NW ground storage was moved to 2023 from 2021.

Added a few projects since the preliminary review including a Water Supply and Distribution Plan in 2022 and a Water Treatment Facility in 2025.

Engineering staff is working hard to shave costs off of the NW Well.

2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Estimated Amounts	Estimated Amounts	Estimated Amounts	Estimated Amounts	Estimated Amounts	Estimated Amounts	Estimated Amounts	Estimated Amounts	Estimated Amounts	Estimated Amounts
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
750,000	-	-	-	-	-	-	-	-	-
97,000	-	-	-	-	-	-	-	-	-
-	500,000	-	-	-	-	-	-	-	-
-	-	750,000	-	-	-	-	-	-	-
-	-	271,000	-	-	-	-	-	-	-
-	-	75,000	-	-	-	-	-	-	-
-	-	-	1,000,000	-	-	-	-	-	-
-	-	-	-	-	20,000,000	-	-	-	-
-	-	-	-	-	-	-	-	1,250,000	-
-	-	-	-	-	-	-	-	3,800,000	-
\$ 847,000	\$ 500,000	\$ 1,096,000	\$ 1,000,000	\$ -	\$ 20,000,000	\$ -	\$ -	\$ 5,050,000	\$ -

City of Dayton, Minnesota  
Capital Improvement Plan - Water Enterprise Fund 601  
Statements of Cash Flows

	2018 Actual Amounts	2019 Estimated Amounts
<b>Cash Flows from Operating Activities</b>		
Receipts from customers and users (based on most recent utility rate analysis)	\$ 547,895	\$ 607,136
Payments to suppliers (3% growth assumption)	(265,544)	(273,510)
Payments to employees (3% growth assumption)	(92,464)	(95,238)
<b>Net Cash Provided (Used) by Operating Activities</b>	<u>189,887</u>	<u>238,388</u>
<b>Cash Flows from Noncapital Financing Activities</b>		
Transfer from other funds (Sundance Woods repayment)	42,857	42,857
Transfer to other funds (Fund 342 - existing debt service, first 75 unit connection fees)	(271,425)	(400,500)
<b>Net Cash Provided (Used) by Noncapital Financing Activities</b>	<u>(228,568)</u>	<u>(357,643)</u>
<b>Cash Flows from Capital and Related Financing Activities</b>		
Acquisition of capital assets	(66,773)	(590,000)
Connection charges (120 units, 5% annual increase in rate charged to developers)	555,397	640,800
Connection charges (additional 20 homes, total projected connections at 140)	-	106,800
Proceeds from bonds and notes issued	-	-
Principal and interest paid on long-term debt	-	-
<b>Net Cash Used by Capital and Related Financing Activities</b>	<u>488,624</u>	<u>157,600</u>
<b>Cash Flows from Investing Activities</b>		
Investment earnings	24,728	16,270
<b>Net Increase (Decrease) in Cash and Cash Equivalents</b>	474,671	54,615
<b>Cash and Cash Equivalents, January 1</b>	<u>1,152,355</u>	<u>1,627,026</u>
<b>Cash and Cash Equivalents, December 31</b>	<u>\$ 1,627,026</u>	<u>\$ 1,681,641</u>
<b>Connection Charges (Water Access Charge and Trunk) Per Unit Assumption</b>	<u>\$ 3,619</u>	<u>\$ 5,340</u>

## Enterprise Fund Projected Activity

2020 Estimated Amounts	2021 Estimated Amounts	2022 Estimated Amounts	2023 Estimated Amounts	2024 Estimated Amounts	2025 Estimated Amounts	2026 Estimated Amounts	2027 Estimated Amounts	2028 Estimated Amounts	2029 Estimated Amounts
\$ 647,595	\$ 689,295	\$ 732,262	\$ 776,422	\$ 821,902	\$ 868,830	\$ 917,133	\$ 966,941	\$ 1,018,185	\$ 1,070,995
(281,716)	(290,167)	(298,872)	(307,838)	(317,073)	(326,586)	(336,383)	(346,475)	(356,869)	(367,575)
(98,095)	(101,038)	(104,069)	(107,191)	(110,407)	(113,719)	(117,131)	(120,645)	(124,264)	(127,992)
267,784	298,090	329,321	361,393	394,422	428,525	463,619	499,822	537,052	575,428
42,857	42,857	42,857	-	-	-	-	-	-	-
(420,525)	(441,551)	(463,629)	(486,810)	(511,151)	(536,708)	(563,544)	(591,721)	(621,307)	(652,372)
(377,668)	(398,694)	(420,772)	(486,810)	(511,151)	(536,708)	(563,544)	(591,721)	(621,307)	(652,372)
(847,000)	(500,000)	(1,096,000)	(1,000,000)	-	(20,000,000)	-	-	(5,050,000)	-
672,840	706,482	741,806	778,896	817,841	858,733	901,670	946,753	994,091	1,043,796
112,140	117,747	123,634	129,816	136,307	143,122	150,278	157,792	165,682	173,966
-	-	-	-	-	20,000,000	-	-	5,050,000	-
-	-	-	-	-	(500,000)	(1,500,000)	(1,475,000)	(1,826,250)	(1,795,000)
(62,020)	324,229	(230,560)	(91,288)	954,148	501,856	(448,052)	(370,454)	(666,477)	(577,238)
16,816	15,266	17,654	14,611	12,590	21,090	25,238	20,010	15,587	8,235
(155,088)	238,890	(304,356)	(202,094)	850,009	414,762	(522,739)	(442,343)	(735,145)	(645,947)
1,681,641	1,526,554	1,765,444	1,461,088	1,258,994	2,109,003	2,523,765	2,001,026	1,558,683	823,538
\$ 1,526,554	\$ 1,765,444	\$ 1,461,088	\$ 1,258,994	\$ 2,109,003	\$ 2,523,765	\$ 2,001,026	\$ 1,558,683	\$ 823,538	\$ 177,591
\$ 5,607	\$ 5,887	\$ 6,182	\$ 6,491	\$ 6,815	\$ 7,156	\$ 7,514	\$ 7,890	\$ 8,284	\$ 8,698

City of Dayton, Minnesota  
 Capital Improvement Plan - Sewer Enterprise Fund 602  
 Schedule of Planned Capital Outlay 2019 to 2029

Department	Paid By	Replacement Year	Item	Cost	2019
					Estimated Amounts
Sewer	City	2019	GIS Software	\$ 20,000	\$ 20,000
Sewer	City	2020	Jet Vac truck	375,000	-
Sewer	City	2020	Pineview Lane Improvements - Sewer	20,000	-
Sewer	City/ Assessme	2022	Interchange Master Plan Area - Sewer	360,000	-
Sewer	City	2022	Sanitary Sewer Comprehensive Plan	50,000	-
					<u>\$ 20,000</u>

Added Sanitary Sewer Comprehensive Plan in 2022.

2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Estimated Amounts	Estimated Amounts	Estimated Amounts	Estimated Amounts	Estimated Amounts	Estimated Amounts	Estimated Amounts	Estimated Amounts	Estimated Amounts	Estimated Amounts
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
375,000	-	-	-	-	-	-	-	-	-
20,000	-	-	-	-	-	-	-	-	-
-	-	360,000	-	-	-	-	-	-	-
-	-	50,000	-	-	-	-	-	-	-
\$ 395,000	\$ -	\$ 410,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

City of Dayton, Minnesota  
Capital Improvement Plan - Sewer Enterprise Fund 602  
Statements of Cash Flows

	2018 Actual Amounts	2019 Estimated Amounts
<b>Cash Flows from Operating Activities</b>		
Receipts from customers and users (based on most recent utility rate analysis)	\$ 369,569	\$ 437,794
Payments to suppliers (3% growth assumption)	(257,936)	(265,674)
Payments to employees (3% growth assumption)	(76,670)	(78,970)
<b>Net Cash Provided (Used) by Operating Activities</b>	<u>34,963</u>	<u>93,150</u>
<b>Cash Flows from Noncapital Financing Activities</b>		
Transfers (to) from other funds (Sundance Woods repayment)	(275,383)	42,857
Transfer to other funds (Fund 342 - existing debt service, first 75 unit connection fees)	(180,338)	(189,354)
<b>Net Cash Provided (Used) by Noncapital Financing Activities</b>	<u>(455,721)</u>	<u>(146,497)</u>
<b>Cash Flows from Capital and Related Financing Activities</b>		
Acquisition of capital assets	(26,874)	(20,000)
Connection charges (120 units, 5% annual increase in rate charged to developers)	443,370	302,967
Connection charges (additional 20 homes, total projected connections at 140)	-	50,495
Proceeds from bonds and notes issued	-	-
Principal and interest paid on long-term debt	-	-
<b>Net Cash Used by Capital and Related Financing Activities</b>	<u>416,496</u>	<u>333,462</u>
<b>Cash Flows from Investing Activities</b>		
Investment earnings	11,022	68
<b>Net Increase (Decrease) in Cash and Cash Equivalents</b>	6,761	280,182
<b>Cash and Cash Equivalents, January 1</b>	<u>-</u>	<u>6,761</u>
<b>Cash and Cash Equivalents, December 31</b>	<u>\$ 6,761</u>	<u>\$ 286,942</u>
<b>Connection Charges (Sewer Access Charge and Trunk) Per Unit Assumption</b>	<u>\$ 2,405</u>	<u>\$ 2,525</u>

## Enterprise Fund Projected Activity

2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Estimated Amounts	Estimated Amounts	Estimated Amounts	Estimated Amounts	Estimated Amounts	Estimated Amounts	Estimated Amounts	Estimated Amounts	Estimated Amounts	Estimated Amounts
\$ 495,814	\$ 558,548	\$ 628,614	\$ 701,775	\$ 780,693	\$ 865,761	\$ 957,395	\$ 1,062,709	\$ 1,179,607	\$ 1,309,364
(273,644)	(281,854)	(290,309)	(299,019)	(307,989)	(317,229)	(326,746)	(336,548)	(346,644)	(357,044)
(81,339)	(83,779)	(86,293)	(88,882)	(91,548)	(94,294)	(97,123)	(100,037)	(103,038)	(106,129)
140,830	192,915	252,012	313,875	381,156	454,238	533,526	626,124	729,924	846,191
42,857	42,857	42,857	-	-	-	-	-	-	-
(198,822)	(208,763)	(219,201)	(230,161)	(241,669)	(253,753)	(266,441)	(279,763)	(293,751)	(308,438)
(155,965)	(165,906)	(176,344)	(230,161)	(241,669)	(253,753)	(266,441)	(279,763)	(293,751)	(308,438)
(395,000)	-	(410,000)	-	-	-	-	-	-	-
318,115	334,021	350,722	368,258	386,671	406,005	426,305	447,620	470,001	493,501
53,019	55,670	58,454	61,376	64,445	67,667	71,051	74,603	78,334	82,250
-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
(23,865)	389,691	(824)	429,635	451,116	473,672	497,356	522,224	548,335	575,752
2,869	2,508	6,700	7,516	12,724	18,758	25,687	33,588	42,610	52,881
(36,131)	419,208	81,544	520,864	603,328	692,914	790,128	902,173	1,027,118	1,166,385
286,942	250,812	670,019	751,563	1,272,427	1,875,755	2,568,669	3,358,798	4,260,971	5,288,089
\$ 250,812	\$ 670,019	\$ 751,563	\$ 1,272,427	\$ 1,875,755	\$ 2,568,669	\$ 3,358,798	\$ 4,260,971	\$ 5,288,089	\$ 6,454,473
\$ 2,651	\$ 2,784	\$ 2,923	\$ 3,069	\$ 3,222	\$ 3,383	\$ 3,553	\$ 3,730	\$ 3,917	\$ 4,113

## JOINT POWERS AGREEMENT

THIS AGREEMENT is entered into this 13<sup>th</sup> day of Nov, 2015, by and between the **City of Dayton**, a Minnesota municipal corporation, 12260 South Diamond Lake Road, Dayton, Minnesota 55327 (hereinafter the "Dayton") and **City of Rogers**, a Minnesota municipal corporation, 22350 South Diamond Lake Road, Rogers, Minnesota 55374 (hereinafter "Rogers"; Dayton and Rogers sometimes individually "City" and collectively "Cities").

WHEREAS, the Rogers and Dayton share a common boundary with closely aligned roads and shared utility services which benefit both Cities; and

WHEREAS, both Cities desire to continue to cooperate and coordinate the planning and development and provision of infrastructure, including utility service; and

WHEREAS, the Cities are empowered to enter into a Joint Powers Agreement pursuant to Minn. Stat. §471.59 to carry out municipal powers possessed by each, including infrastructure and roadway planning and implementation; and

WHEREAS, the purpose of this Agreement is to provide for cooperation in the planning, location, use and funding of public infrastructure within each City in a manner that is efficient and promotes the orderly development of areas in each City near their joint boundary.

NOW, THEREFORE, it is hereby agreed by and between the Cities as follows:

1. Incorporation. The foregoing recitals are hereby incorporated into and made a part of this Agreement.
2. Utility Service. Rogers will provide permanent municipal water and temporary sewer service to area shown on the attached Exhibit A ("Dayton Utility Service Area") pursuant to Utility Service Agreement attached hereto as Exhibit B.
3. Development South of County State Aid Highway 81 (hereinafter "CSAH 81"). The area shown on Exhibit C and marked as "South CSAH 81 Service Area" shall be the subject of discussion between the parties for inclusion in Dayton's utility plan for Southwest Dayton to determine if service can be provided to the Area, and if so to negotiate with respect to the terms of any service to be provided.
4. Rogers Drive/Brockton Lane Intersection.
  - a. Hennepin County has identified the intersection of Rogers Drive and Brockton Lane as one that should be constructed to a four lane section (hereinafter "Intersection Improvement"), as shown on the attached Exhibit D (hereinafter "Intersection Plans"), a portion of which is already built by Rogers. Rogers will be the responsible contracting/lead agency in the final design, bidding and construction of the Intersection Improvements pursuant to the Intersection Plans. A preliminary design of the full intersection has been done and is shown on the

attached Exhibit E. Rogers will work with Dayton and the developer within Dayton of the French Lake Development, Liberty, to arrive at the most efficient cost-effective design that meets the County's requirements. Upon approval of the plans by all parties, the work will be bid and construction started as soon as reasonably possible. The existing portion that was completed in 2015 is estimated to cost between \$900,000.00 and \$1,000,000.00. The new improvements are estimated between \$900,000.00 and \$1,200,000.00. This brings the full intersection costs to an estimated cost of \$1,800,000.00 to \$2,200,000.00. ~~Dayton and Rogers will each be responsible for 50% of the actual costs even if it exceeds the estimates that are noted. Dayton will be responsible for 50% of the Intersection Improvement costs upon receiving full documentation and support demonstrating actual costs incurred, which based off these estimates would be \$900,000.00 to \$1,100,000.00.~~ Rogers shall not enter into a contract for or commence construction of the Intersection Improvements, if Dayton is going to be a cost participant, until such time as Dayton has entered into an agreement with the developer of the French Lake Development ("French Lake Development Agreement") obligating and providing assurance, satisfactory to Dayton, that the Developer will pay Dayton's share of Intersection Improvements. ~~After the Intersection Improvements are constructed, Dayton shall reimburse Rogers within 30 days of billing for 50% of the Intersection Improvement costs and Rogers shall provide to Dayton copies of all payment requests and such other supporting documentation as Dayton requests.~~ Rogers is willing to consider accepting payment of 1/3 of the Dayton shared costs within 30-days of billing and also assess Liberty Property Trust's two parcels in Rogers for the balance of the billing.

- b. Any future improvements beyond the Intersection Improvements as depicted on the Intersection Plans, including, but not limited to, the addition of a second north-bound left lane (hereinafter "Left Turn Lane") shall be the sole responsibility of Rogers for design and construction.
5. This Section intentionally left blank.
6. Brockton Lane Four Lane from Rogers Drive to CSAH 81. SRF is preparing a study with respect to a potential roadway improvement to Brockton Lane to expand it to four lanes from Rogers Drive to CSAH 81(hereinafter the "Study"). Once the Study has been prepared and provided to Dayton, Dayton shall pay 1/3 of the cost of the Study, provided that Rogers pays 1/3 and Hennepin County pays 1/3.
  - a. Once received the parties shall review the Study and engage in discussions concerning potential implementation of the Study recommendations.
7. 124 Avenue. Dayton may wish to vacate 124<sup>th</sup> Avenue at a future date and if it elects to do so, Rogers will agree to vacate its portion as well. The City of Rogers will maintain an access to the existing public facility (lift station) currently existing. Any improvements to the County Road for facilitating an access would be the responsibility of the benefited property owner.
8. Brockton/CSAH 81/13 Intersection. Dayton and Rogers intend to improve the Brockton, CSAH 81 and Highway 13 intersection (hereinafter "CSAH 81 Intersection

Improvements”) as shown on attached Exhibit F (hereinafter “CSAH 81 Plans”). Rogers will be the lead agency in bidding and constructing the CSAH 81 Intersection Improvements pursuant to the CSAH 81 Plans and will build and complete the CSAH 81 Intersection in accordance with CSAH Plans. Roger’s and its developers have committed \$2,800,000.00 toward these intersection improvements, Hennepin County has committed \$800,000.00. Rogers will expend the first \$2,000,000.00 in construction and project development costs including engineering and right-of-way, exclusive of the City of Rogers Cooperative Construction Agreement with Hennepin County in the amount of \$800,000.00, for right-of-way acquisition only. After the project costs have exceeded \$2,000,000.00, Rogers and Dayton agree to provide up to \$800,000.00 each, for a total of \$1,600,000.00 toward the project costs expensed as an equal (50/50) share. Provided, however, in no event will Dayton be obligated to pay more than \$800,000.00. The CSAH 81 Intersection Improvements are proposed to be constructed in 2016; if Dayton is to be a cost participant Rogers shall not enter into a contract or commence construction of the CSAH 81 Intersection Improvements until such time that Dayton has entered into the French Lake Development Agreement, to the Satisfaction of Dayton, assuring and obligating that the Developer will pay Dayton’s share, if any, of the CSAH 81 Intersection Improvements. In the event of a request for payment is made to Dayton, the request shall be accompanied by the payment applications showing project costs in excess of \$2,000,000.00 and such other documentation as requested by Dayton. Dayton shall have 30 days to review and process said payment requests from the receipt of the final documentation and shall be responsible for only actual construction costs that have been incurred and paid by Rogers. No billing will be made to Dayton unless Rogers has expended the necessary dollars as noted above on construction costs. Dayton will participate fully in discussions with property owners within Dayton regarding project development and acquisition as it relates to the improvements described herein.

9. Joint Property. The parties do not expect that there will be property of any kind or description that will result from the cooperative actions contemplated by this Agreement, nor any joint funds. Consequently, there will be no property or funds to be distributed upon termination or expiration of this Agreement.
10. Brockton Interchange. Rogers supports the Brockton Interchange with I-94 (“Brockton Interchange Project”) as shown on attached Exhibit G) and the City of Dayton’s application for the 2015 Minnesota Transportation Economic Development Pilot Project grant (“TED”). Rogers will contribute a maximum of \$1,500,000 toward the Local Match for the Brockton Interchange Project to either Dayton or the appropriate funding agency (“Rogers Local Match”). Funds shall be paid by Rogers within 30 days of completion of the First Phase of Brockton Interchange Project. Dayton shall proceed with the Brockton Interchange Project only in the event it receives \$10,000,000 in Federal or State grants after the date of this Agreement. Rogers will be obligated to

contribute the Rogers Local Match only after Dayton has contributed funds towards the Brockton Interchange Project ("Dayton Brockton Contribution"). The Rogers Local Match shall be one-half (1/2) of the actual Dayton Brockton Contribution provided with a maximum Rogers Local Match of \$1,500,000. The Rogers and/or Dayton Brockton Contribution shall be made by any combination of in kind expenditure directly related to design or construction of the Brockton Interchange Project, including without limitation, the value of contributed real estate, engineering or design services, in addition to cash, regardless of the source as allowed by any Grant(s) received to meet Rogers/Dayton's local match.

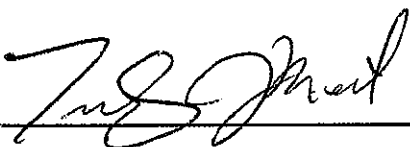
11. Liability. To the full extent permitted by law, the Agreement is intended to be and shall be construed as a "cooperative activity" under Minn. Stat. §471.59 and neither City is liable for the acts or omissions of the other City. Neither City shall be responsible for injuries or death of the other party's personnel. Each City will maintain worker's compensation coverage to the extent required by law on its personnel who perform work pursuant to this Agreement. Dayton and Rogers shall maintain their own comprehensive liability insurance policy or program in at least the amounts specified as to the extent of liability under Minn. Stat. § 466.04.

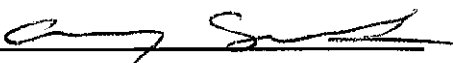
12. Miscellaneous.

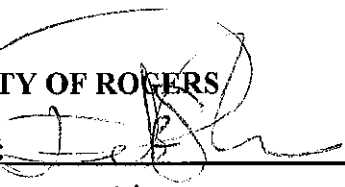
- a. Binding Effect. All of the covenants, conditions and agreements herein contained shall extend to, be binding upon, and inure to the benefit of the Cities and their respective permitted successors and assigns.
- b. Governing Law. This Agreement shall in all respects be governed by and interpreted under the laws of the State of Minnesota.
- c. Time is of the Essence. Time is of the essence in the Agreement and performance of the terms and obligations herein.

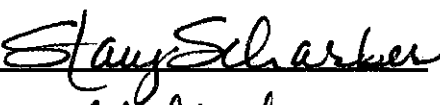
IN WITNESS WHEREOF, the Cities have subscribed their names as of the day and year first above written.

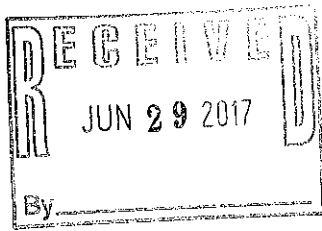
**CITY OF DAYTON**

By:   
Its: Mayor

By:   
Its: Deputy Clerk

**CITY OF ROGERS**  
By:   
Its: Mayor

By:   
Its: City Clerk



DATE	INVOICE NO
6/28/2017	0033359

BILL TO
City of Dayton 12260 So Diamond Lk Rd Dayton, MN 55327

						DUE DATE
						7/28/2017
DESCRIPTION	QUANTITY	EFFECTIVE RATE	AMOUNT	DISCOUNT	CREDIT	BALANCE

PREVIOUS ACCOUNT BALANCE 0.00

Rogers Drive Intersection Expansion/Dayton Joint Powers Agreement (Liberty):

Rogers Drive Intersection	1.00	798,200.00	798,200.00	0.00	0.00	798,200.00
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<b>INVOICE TOTAL:</b>			<b>798,200.00</b>	<b>0.00</b>	<b>0.00</b>	<b>798,200.00</b>
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PLEASE DETACH BOTTOM PORTION & REMIT WITH YOUR PAYMENT

For questions please contact us at (763) 428-2253

Customer Name: City of Dayton  
Customer No: 001120  
Account No: 0001199 - AR account for 1120

DUE DATE	INVOICE NO
7/28/2017	0033359

Please remit payment by the due date to:

City of Rogers  
22350 S Diamond Lake Road  
Rogers, MN 55374

Invoice Total:	798,200.00
Discounts:	0.00
Credit Applied:	0.00
Ending Balance:	798,200.00

**INVOICE BALANCE: \$798,200.00**  
**AMOUNT PAID:** \_\_\_\_\_



## Memorandum

**To:** Lisa Herbert, Finance Director, City of Rogers

**From:** Bret Weiss, PE, City Engineer, WSB & Associates  
Jenn Edison, PE, Project Manager, WSB & Associates

**Date:** 6/26/17

**Re:** Rogers Drive/CSAH 13 Partial Project Cost Payment  
WSB Project No. 3193-08

The Rogers Drive/Brockton Lane (CSAH 13) Intersection Improvements Project is near completion and the contractor has some remaining punch list items to complete prior to final acceptance. The current project costs are noted as follows:

Current Project Costs Brockton/Rogers Drive	
Design	\$69,497
Construction Management	\$91,100
Permits	\$10,929
Publications	\$910
Construction	\$625,763
<b>Total Project Costs</b>	<b>\$798,198</b>

Current project costs are **\$798,200** and are to be 100% funded through developer (Liberty) funds per the Developers Agreement for West French Lake Industrial Park. Staff is still working to resolve other possible costs that have been submitted by the developers engineer for consideration to be included in the total project costs for the intersection improvements. These items were completed as part of the West French Lake Industrial Park and are related to grading and stormwater management.

In 2014, the first phase of the Rogers Drive/CSAH 13 (Brockton Lane) intersection expansion was constructed for the Fedex Development. The improvements for the first phase of the intersection expansion was fully funded through developer funds as per the Developers Agreement with Scannell Properties. The total project costs for these improvements was **\$933,521**.

We will continue to evaluate the requests by the developer and determine what the final project cost will be. In accordance with the agreement, the two project costs will be added together and divided by two for the final number to be paid by the City of Dayton. At this point, it appears that Rogers will have paid more and there will be some amount of restitution from the City of Dayton to square up the two projects for an equal financial investment.

We would recommend that you invoice the City of Dayton for \$798,200 at this time.

Please contact us with any questions or concerns at 763-541-4800.

**CONTRACT FOR WATER SERVICE BETWEEN  
THE CITY OF MAPLE GROVE MINNESOTA AND THE CITY OF DAYTON MINNESOTA**

This contract made and entered in this 8th day of August 2006 by and between the City of Maple Grove, a Municipal Corporation located in Hennepin County, Minnesota hereafter called "Maple Grove" and the City of Dayton, a Municipal Corporation located in Hennepin County, Minnesota hereafter called "Dayton".

Witness:

That the said parties, in consideration of the mutual covenants and agreements herein after set forth, have agreed to and with each other as follows:

**1. Term of Contract**

This contract shall be for the term of thirty (30) years from the date of execution hereof unless terminated earlier as hereinafter provided. The contract may be cancelled pursuant to notice provided in Section 10 or may be cancelled by either party if laws are enacted by the State of Minnesota or the United States of America which substantially and adversely affect rights, duties, or obligations of either party under this contract. In the event the City of Dayton wants to terminate this contract, the contract shall be terminated provided Dayton reimburses costs incurred by Maple Grove to serve Dayton. It is expressly understood that this contract may be extended by the written consent of both parties.

**2. Water Service**

- A. Maple Grove agrees to furnish and deliver water from the Maple Grove water works system to the southwest portion of Dayton as shown on Exhibit "A" in sufficient quantity to meet an average day demand not to exceed 2.8 Million Gallons per Day (MGD) and a maximum day demand of 5.0 MGD.
- B. Maple Grove will furnish water to the City of Dayton at mutually agreed Connection Points (hereinafter Connection Points) at a minimum pressure as determined by elevation 1066 National Geodetic Vertical Datum of 1929.
- C. The water furnished by Maple Grove shall be the same treated water supplied by Maple Grove to Maple Grove residents.
- D. Dayton agrees that the use of water from the supply furnished by Maple Grove shall be at all times be governed by the applicable rules, regulations and conditions Maple Grove has now in effect or hereafter adopts for the preservation, regulation and protection of its water supply, and Dayton agrees to adopt the rules, regulations or requirements of Maple Grove now or hereafter adopted in connection with use of water in Maple Grove and to enact and enforce such rules, regulations and requirements as Dayton ordinances within one hundred and eighty (180) days after the execution of this contract and to enact any amendments to the regulations hereafter adopted by the City of Maple Grove within sixty (60) days after being notified of such adoption and to adopt the same penalties as those of Maple Grove for the violation thereof and to strictly enforce such rules, regulations and requirements. This section shall be, however, limited to water usage and related matter and does not give Maple Grove the right to prescribe rules for administration and billing for the Dayton water system.

### 3. Water System Facilities

- A. Maple Grove shall own and operate all facilities necessary to the supply, production, storage and transmission of water to the Connection Points, [but not including the master meter or master meters and backflow devices.]
- B. Dayton shall own and operate all facilities necessary for the metering, transmission, and distribution of water from the Connection Points to the points of delivery of water in Dayton. All such facilities shall conform to the Minnesota State Health Department requirements. Dayton shall maintain at no expense to Maple Grove its entire Dayton water system from point or points of delivery.
- C. Dayton shall keep accurate records of watermain construction and number of connections by category and such records shall be subject to inspection and auditing by Maple Grove.
- D. The Connection Points on Maple Grove's facilities shall be made by Maple Grove, but all expense shall be paid by Dayton within thirty (30) days of billing by Maple Grove. The water consumed by Dayton shall be measured by a master meter or meters furnished and maintained by Dayton at its own cost and expense at such reasonable locations to be designated by Maple Grove. Such meters shall be of a make and setting, and shall be installed and housed in a manner approved by Maple Grove. Such meters shall be subject to testing by Maple Grove at any reasonable time.
- E. Backflow prevention devices shall be installed at the Connection Points to assure no backflow or flow through of water through the Dayton system into the Maple Grove system. Dayton shall install and maintain at no expense to Maple Grove said backflow devices.

### 4. Connection Charge

The City of Dayton shall pay a connection charge based on the current charge then in effect at time of payment to Maple Grove properties for each connection made to the system served with water from Maple Grove based on the following residential connection charges for various types of property

<u>Land Use Type</u>	<u>Residential Equivalent Unit</u>	<u>2006 Rate</u>
Low Density	1.0/unit	\$1,700/unit
Medium and High Density with laundry facilities in each unit.		
Medium and High Density without Plumbing included for laundry facilities in each unit	.8/unit	\$1,360/unit
Commercial	4.0/acre	\$6,800/ac
Industrial	4.0/acre	\$6,800/ac
Mixed	4.0/acre	\$6,800/ac
Parks	0.5acre	\$850/ac
Institutional	4.0/acre	\$6,800/ac

connect to Maple Grove's water supply is shown in the following table:

	<u>Number of Acres</u>	<u>Number of R.E.U.'s</u>
Residential (Low, Medium, High)	2800	8800
Commercial/Industrial	800	3200
Institutional	N/A	N/A
Parks	400	200
Mixed Use	-	-
<b>Total</b>	<b>4,000</b>	<b>12,200</b>

The City of Dayton agrees to pay Maple Grove three hundred fifty thousand dollars (\$350,000) within sixty (60) days of execution of this agreement, and \$350,000 when Dayton connects to Maple Grove's water supply, which amount will allow 102.94 acres, or 411.76 R.E.U.'s to connect to Maple Grove's system provided said payments are received by end of 2006. Thereafter Dayton shall pay Maple Grove for each R.E.U. or acre that connects to the system served from Maple Grove at the then current connection charge rate for Maple Grove properties and transmit payment to Maple Grove within 45 days of permit for connection.

5. **Connections Beyond Corporate Limits of Dayton**

Water extensions beyond the Corporate Dayton limits of the City of Dayton and shall be made only with the permission of Maple Grove.

6. **Rates**

Initial water rate for water sold by Maple Grove to Dayton under this agreement shall be \$1.30 per 1000 gallons. In the future, the water rate shall be increased by the same percentage of increase for water to Maple Grove residents. Maple Grove's current water rates to Maple Grove residents is \$.90 per 1000 gallons and \$13.20 annually resulting in a current effective water rate of approximately \$1.04 per 1000 gallons based on 100,000 gallons per Residential Equivalent Unit (REU) per year.

7. **Meter Reading and Billing**

Monthly readings of the master meter or meters at the Connection Points of delivery to Dayton shall be made by Maple Grove. Billings by Maple Grove shall be mailed to Dayton and payment on such bills shall be made by Dayton to Maple Grove within 30 days.

8. **Department of Health Connection Fee**

The City of Dayton shall be responsible for collecting and transmitting the state mandated water connection fee (current rate is \$5.21/year) to the Minnesota Department of Health for connections made to the Dayton Water Distribution System.

9. **Liability of Maple Grove -**

Maple Grove shall not be liable for interruptions in service; provided, however, that Maple Grove shall not discriminate against Dayton water users in the event of such interruption, and shall reasonably attempt to provide uniform service to all water system users, to the extent possible in the event of such interruption.

10. **Default**

Either party shall have the right to terminate this agreement and the water service provided herein in the event that the other party fails to comply with any of the terms and conditions of this agreement. Any termination shall not take effect unless written notice of termination is provided containing a description the default. The defaulting party shall have thirty (30) days to cure the default. If the default is cured, this agreement shall be reinstated. If it is not cured within the time provided for cure, this agreement and the obligations here under shall terminate. However, such service may be

terminated only after reasonable notice to Dayton, and Dayton shall have a reasonable opportunity to correct any condition which is cited by Maple Grove as a cause for termination of water service.

**11. Indemnification**

Dayton agrees to indemnify and save Maple Grove harmless in accordance with acceptable standards from any and all claims or demands for damages rising out of or which may result from the water supplied pursuant to this agreement and from the use, installation, and maintenance and repair of its facilities as set forth in the contract.

**12. Non-Waiver**

The non-enforcement by either party hereunder of a right provided by this Agreement shall not constitute a waiver of that party's rights to enforce the term or provision of the Contract at a later date.

**13. Effective Date of Agreement**

Effective date of this agreement shall be the date of execution thereof of both parties.

\_\_\_\_\_  
Date

October 3, 2006  
Date

**CITY OF MAPLE GROVE**

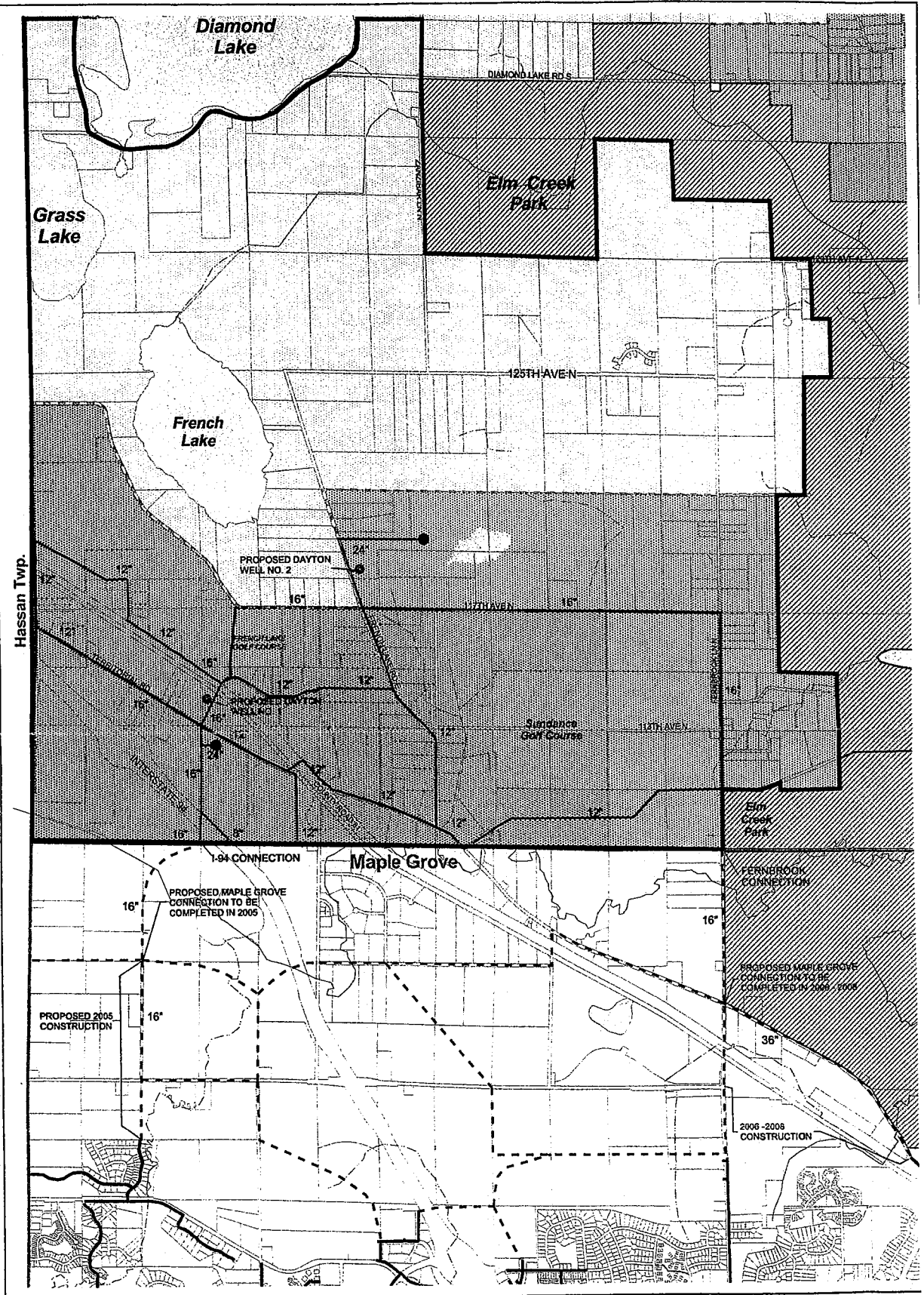
\_\_\_\_\_  
Mayor

\_\_\_\_\_  
City Clerk

**CITY OF DAYTON**

\_\_\_\_\_  
Mayor

\_\_\_\_\_  
City Clerk



- Proposed Well
  - Proposed Storage Tank
  - Trunk Water Meins
  - Proposed SW Dayton
  - - - Proposed Maple Grove
  - Maple Grove Trunk
  - City Boundary
- |                      |             |
|----------------------|-------------|
| 2001 Phasing         | 2000 - 2010 |
|                      | 2010 - 2020 |
|                      | 2020+       |
| - - - 2020 MUSA      |             |
| — Water Service Area |             |

**SW Dayton Trunk Water/  
Maple Grove Connection  
Distribution Plan**

Water Supply Investigation

1000 0 1000  
Feet



May 2005

**Bonestroo  
Rosene  
Associates**  
Engineers & Architects

E:\174117405121\cad\dwg\proj\MO\_connect.dwg

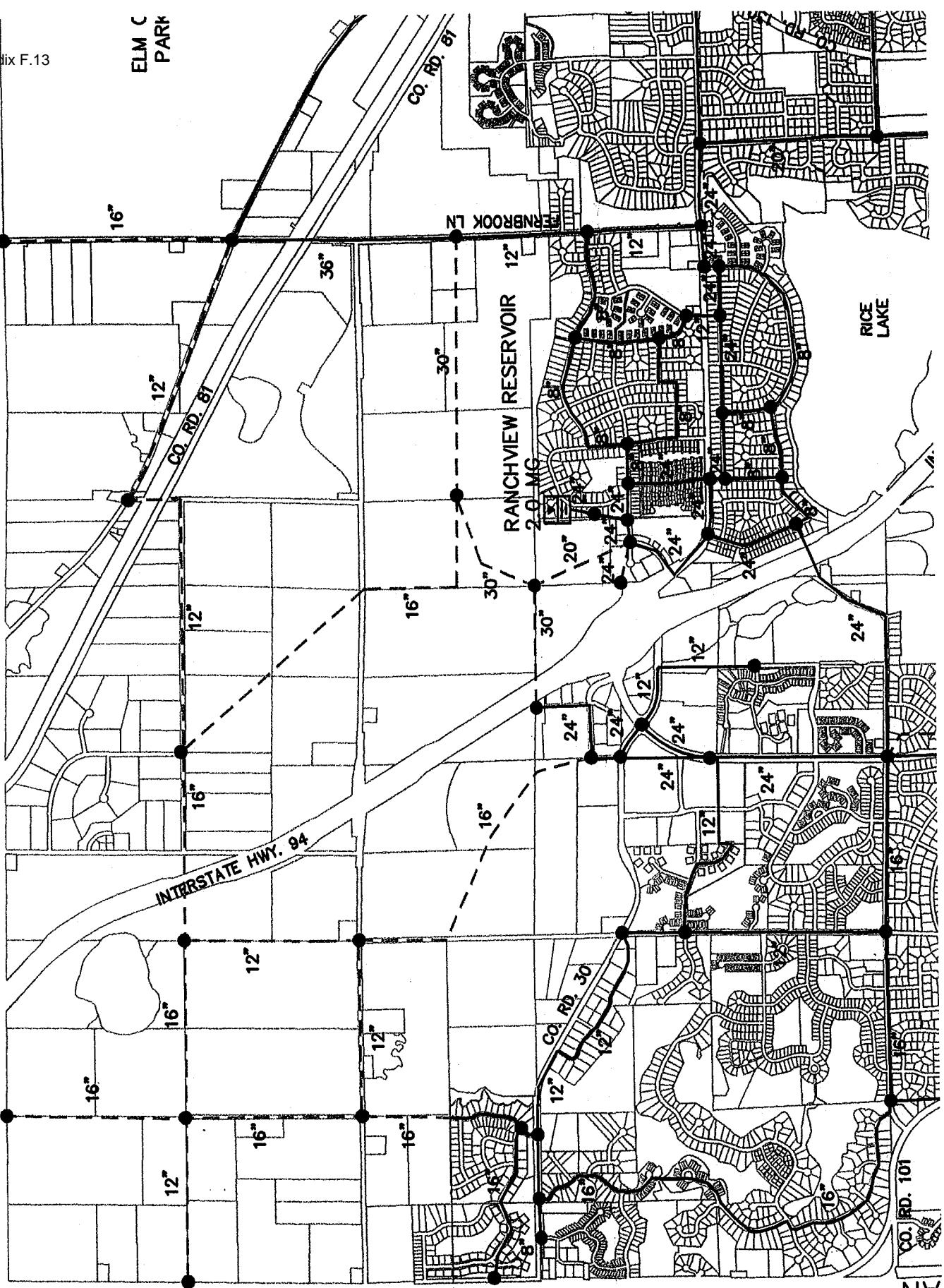
POTENTIAL  
DAYTON  
CONNECTION

DAYTON

POTENTIAL  
DAYTON  
CONNECTION

POTENTIAL  
CORCORAN  
CONNECTION

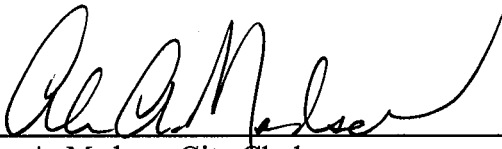
POTENTIAL  
CORCORAN  
CONNECTION



STATE OF MINNESOTA )  
COUNTY OF HENNEPIN ) SS.  
CITY OF MAPLE GROVE

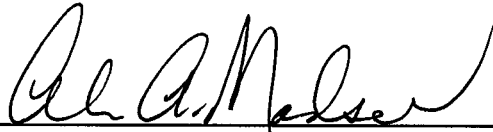
I, the undersigned, being the duly qualified City Clerk of the City of Maple Grove, Hennepin County, Minnesota, hereby certify that I have carefully compared the attached Resolution with the original thereof on file and of record in my office, and the same is a full, true and correct copy of City Council Resolution No. 06-096 as adopted on the 15th day of May, 2006.

WITNESS, my hand and seal this 16th day of May, 2006.

  
\_\_\_\_\_  
Alan A. Madsen, City Clerk

STATE OF MINNESOTA )  
COUNTY OF HENNEPIN ) SS.  
CITY OF MAPLE GROVE)

I, the undersigned, being the duly qualified and acting Clerk of the City of Maple Grove, Hennepin County, Minnesota, a Minnesota municipal corporation, hereby certify that the above and foregoing Resolution No. 06-096 is a true and correct copy of the Resolution as adopted by the City Council on the 15th day of May, 2006.

  
\_\_\_\_\_  
Alan A. Madsen, City Clerk

RESOLUTION NO. 06-096

RESOLUTION APPROVING CONTRACT FOR WATER SERVICE BETWEEN THE CITY OF MAPLE GROVE, MINNESOTA AND THE CITY OF DAYTON, MINNESOTA

---

WHEREAS, a request has been submitted to have the City of Maple Grove supply the City of Dayton with water for both domestic and fire flow purposes; and

WHEREAS, Maple Grove's water system is designed to accommodate the requested amount of water needed by the City of Dayton; and

WHEREAS, a contract has been drafted for approval and execution by Dayton and Maple Grove City officials, which sets forth provisions of the sale of water to the City of Dayton; and

WHEREAS, the Maple Grove City Council concurs with the provisions of said contract.

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Maple Grove, Minnesota:

1. The contract for water service between the City of Maple Grove, Minnesota and the City of Dayton, Minnesota is hereby approved.
2. The Mayor and City Clerk are hereby authorized to execute said contract.

Adopted by the City Council on this 15th day of May, 2006.

The motion for the adoption of the foregoing resolution was made by Councilmember Jaeger, seconded by Councilmember Sargent, and upon vote being duly taken thereon, the following voted in favor thereof: Mayor Steffenson, Councilmembers Campbell, Jaeger, Koski and Sargent

and the following voted against the same: None.

and the following were absent: None.

whereupon said resolution was declared duly passed and adopted.



8899 Nashua Avenue N.E.  
Elk River, MN 55330

(612) 441-4414  
Fax: (612) 441-8823

April 27, 1999

Sandra Borders, City Clerk  
City of Dayton  
12260 South Diamond Lake Road  
Dayton, Minnesota, 55327

**RE: SIGNED SEWER USE AGREEMENT  
CITY OF OTSEGO AND CITY OF DAYTON**

Dear Sandy:

Enclosed is a signed original of the above agreement for your file. Thank you for your help with this agreement and we at Otsego look forward to continued joint endeavors with the City of Dayton.

Sincerely,

CITY OF OTSEGO

Elaine Beatty,  
City Clerk/Zoning Administrator

eb

enclosure (1)

## AGREEMENT

### CITY OF DAYTON AND CITY OF CHAMPLIN

THIS AGREEMENT is made and entered into between the City of Dayton, a Minnesota municipal corporation (hereinafter referred to as "Dayton") and the City of Champlin, a Minnesota municipal corporation (hereinafter referred to as "Champlin")

#### RECITALS:

WHEREAS, Champlin owns and operates a municipal water system in the northwest corner of Champlin adjacent to the northeast corner of Dayton; and

WHEREAS, Dayton owns and operates a municipal water system in the northeast corner of Dayton adjacent to the northwest corner of Champlin; and

WHEREAS; an inter-community water main connection exist along French Lake Road at the border of the two communities; and

WHEREAS, the Dayton water system has approximately 66 connections in the northeastern portion of the City; and

WHEREAS, winter operations of a water tower with low demand is difficult; and

WHEREAS, Champlin has capacity and a water distribution system adequate to provide service to the northeast area of Dayton during the winter months.


NOW, THEREFORE, it is agreed by and between the parties as follows:

1. Champlin shall provide water for the Dayton water customers during the winter months of December 2008 through approximately April 1, 2009, exact dates to be determined upon interconnection of the systems.
2. Dayton shall perform meter readings of their water customers just prior to Champlin supplying water to Dayton.
3. Dayton shall perform meter readings of their water customers immediately after Champlin ceases to supply water to Dayton.
4. Dayton shall complete all billing and administrative tasks for their water customers during the time when Champlin is supplying water to Dayton.

5. Dayton shall maintain its water distribution system during the time period that Champlin is supplying water to Dayton.
6. Watermain breaks, Fire suppression, or other unaccounted uses of water shall be reported to Champlin and a volume of usage determined.
7. Dayton shall pay Champlin \$2.12 / 1,000 gallons of water supplied as determined from the meter readings or billings.

IN WITNESS, WHEREOF, the parties have agreed to the foregoing terms.

The City of Dayton


By:   
Its: Administrator

Dated: 12/11/08


Its: City Clerk

Dated: 12/9/08

The City of Champlin

By:   
Its: Mayor

Dated: 11/12/09

By:   
Its: City Clerk

Dated: 11/12/09