

2040 Comprehensive Plan



Spring Lake Park,
MN



Amendment

March 16, 2020



Acknowledgements

This Comprehensive Plan would not have been possible without the collaboration of City staff, Planning Commission Members, City Council Members, consultant staff, and the general public. A special thanks to these team members for the dedication and effort they gave to make this Plan a success.

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Chapter 1: Background

INTRODUCTION

A Comprehensive Plan is a tool to implement a community's long-range vision for the future. The Comprehensive Plan addresses many aspects related to City infrastructure and services, including transportation, land use, water systems, housing, parks and trails, and the overall vitality of the City. The plan provides a guide for elected officials to use when making decisions. The goal of the comprehensive planning process is to develop a plan that is a key resource for the community to use when facing issues such as redevelopment, locating a new park, or determining future transportation needs.

The Comprehensive Plan also serves as a legal foundation for rules and regulations adopted by the community, such as the zoning ordinance and subdivision regulations. The Comprehensive Plan shapes the community's zoning code and regulations, and can be used to guide land uses to best serve the community's changing needs. To ensure that the Comprehensive Plan addresses the needs of the community, full engagement from City staff, elected officials, committees and commissions, and the public is essential.

The comprehensive planning process is a systematic, ongoing, forward-looking process of analysis of opportunities and constraints, for the purpose of formulating a plan to accomplish the community's goals and objectives. To plan effectively, the City needs a clear and comprehensive understanding of current conditions, and influences and trends that will shape the community's future.

Comprehensive plans are required to be completed every ten years by the Metropolitan Council. Communities within the 7-County Metropolitan Area are required to complete comprehensive plans by the Metropolitan Land Planning Act.

This Comprehensive Plan is organized into chapters, based on the different elements affecting the City. Chapter 1 begins with a summary of the planning process and identifies existing demographic and economic conditions that shape Spring Lake Park. The following five chapters address key elements of the Plan, identifying goals and policies for future development, mapping and describing existing conditions, and describing relevant programs. These plan elements include:

- Chapter 1: Background
- Chapter 2: Land Use
- Chapter 3: Housing
- Chapter 4: Parks, Trails, and Community Facilities
- Chapter 5: Transportation
- Chapter 6: Water Resources
- Chapter 7: Implementation

The plan concludes with an implementation chapter which identifies land use controls, the plan amendment process, and the City's Capital Improvements Program. The implementation chapter is critical to the success of the Plan, as it develops action steps to turn the goals and policies identified in each chapter to tangible projects in the community.

PLANNING PROCESS

This Comprehensive Plan is the result of a process that included a series of public meetings and background data analysis. The first step in the process was a review of current conditions, as well as influences and trends that will shape the community's future. Background information included: past and current trends in demographic data; land use; surface water, public utilities and facilities; transportation; and parks and recreation areas. An assessment of these characteristics is an important element in developing goals and policies that are consistent with existing conditions in the City.

The City kicked off the planning process by reviewing and updating background and demographic data and developing a planning process that would identify issues, develop goals, policies, and alternatives, and create an implementation plan to address the future development of Spring Lake Park. The City's Planning Commission members served as guides throughout the process, sharing feedback through all phases.

Following the background analysis, a Planning Commission meeting was held with members of the Spring Lake Park Planning Commission and City Staff in February of 2018 to identify key strengths, weaknesses, and opportunities in the community. Key strengths and opportunities identified by residents included transportation access for all modes, parks and public facilities, and a diverse and affordable housing stock. Key weaknesses included maintenance of public facilities and buildings, a lack of east-west transit options, and maintaining aging housing stock. A complete summary of comments received from this meeting is included in Appendix A. These responses were used to revise goals and policies for each plan chapter, so that they reflected the concerns of the community.

In April 2018, the City hosted a community meeting to present background information, share the goals and policies, and identify any other issues that needed to be incorporated into the Plan. A complete summary of comments received from this meeting is included in Appendix A.

The information presented in the background report and input provided from community residents provided a foundation for developing the Comprehensive Plan. Following consensus on the goals and policies, a future land use plan was developed. Because the City is fully developed, the future land use plan will be used to guide redevelopment in certain areas of the City.

After development of the City's future land use plan, the City's existing sewer and water, surface water, parks and transportation plans were revised to provide consistency with the 2040 Future Land Use Plan. A final draft of the Comprehensive Plan was presented to the Planning Commission on May 29, 2018 and recommended for approval on June 25, 2018. After input from the Planning Commission, the Plan was revised and presented to the City Council for authorization to submit the plan for adjacent community review. After the six-month review period, the Council adopted the final plan contingent on Met Council approval on June 17, 2019.



CITY BACKGROUND

The City of Spring Lake Park was established in December of 1953, when residents of the township voted to approve incorporation. Today the City remains relatively small, with an estimated 2016 population of 6,519. Most of Spring Lake Park is located in southern Anoka County, but a small portion in the eastern part of the City lies within Ramsey County (Figure 1-1). The City is located approximately 12 miles north of downtown Minneapolis. Neighboring communities include Blaine to the north, Mounds View to the east, Fridley to the south and east, and Coon Rapids to the northwest. Spring Lake Park is served by several major highways. State Highway 47 (University Avenue) runs along the western edge of the City, and State Highway 65 and County Highway 10 (formerly US Highway 10) intersect in the northeast quadrant of the City.

The City’s last Comprehensive Plan Update was adopted in the year 2009. The 2009 Plan’s focus was planning for the year 2030. Conditions in the City have not changed significantly since the 2009 Plan was completed. Therefore, current planning efforts will focus on identifying City infrastructure and system needs for 2040, discussing possible redevelopment areas, and developing a plan that meets Met Council requirements. The Metropolitan Council has identified Spring Lake Park as a “Suburban Community,” which means development primarily occurred prior to and during the 1980s and 1990s. The Council forecasts a demand for walkable places where people can gather, including amenities, higher density housing, and civic and institutional spaces. It is anticipated that most development will occur through redevelopment of existing properties, since Spring Lake Park is already built-out.

Population Projections

To assist local communities in preparing their Comprehensive Plan, the Met Council has population, household, and employment forecasts for each community. These forecasts, as first presented in the City’s System Statement prepared by the Met Council in 2015 (Appendix B) and subsequently amended in August 2016, are presented in Table 1-1.

Table 1-1: Forecasts (source: 2010 Census; 2016 American Community Survey; Metropolitan Council)

	2010	2016	2020	2030	2040
Population	6,412	6,519	6,700	7,000	7,400
Households	2,672	2,698	2,880	3,000	3,200
Employment	3,000	2,879	3,280	3,450	3,600

Demographic Trends

Demographic trends within a community and the surrounding area are important, as these trends provide insight into future community issues and needs. A variety of demographic trends are analyzed on page 1-5. Comparisons are made between the City of Spring Lake Park and Anoka County as a whole to provide a point of reference.

Community Designations City of Spring Lake Park, Anoka and Ramsey Counties

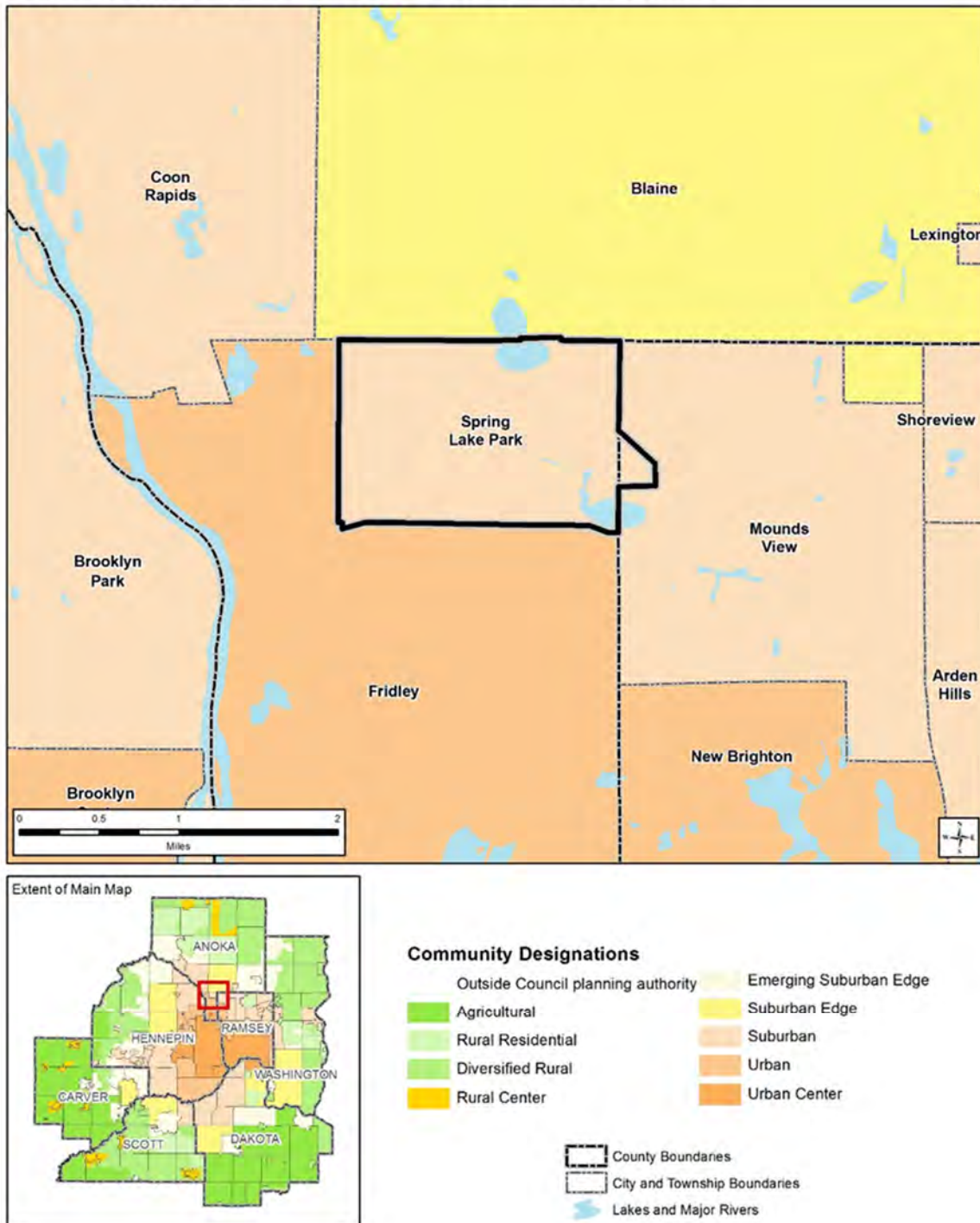


Figure 1-1: Community Designation



Population and Household Growth

As demonstrated in Figure 1-2, Spring Lake Park’s population has remained stable in recent decades. The City’s population in 1980 was 6,447. The City’s 2006 population was estimated at 6,623. As Figure 1-2 demonstrates, the City did experience some growth between 1990 and 2000, adding approximately 200 residents, an increase of nearly 4 percent. This population increase, however, was erased between 2000 and 2010 due to effects of the “Great Recession” which began December 2007. The City’s population is forecasted to increase 13.6 percent by 2040, with a projected 2040 population of 7,400. Given that the City is currently fully developed, this growth will most likely be accommodated through infill development at higher densities.

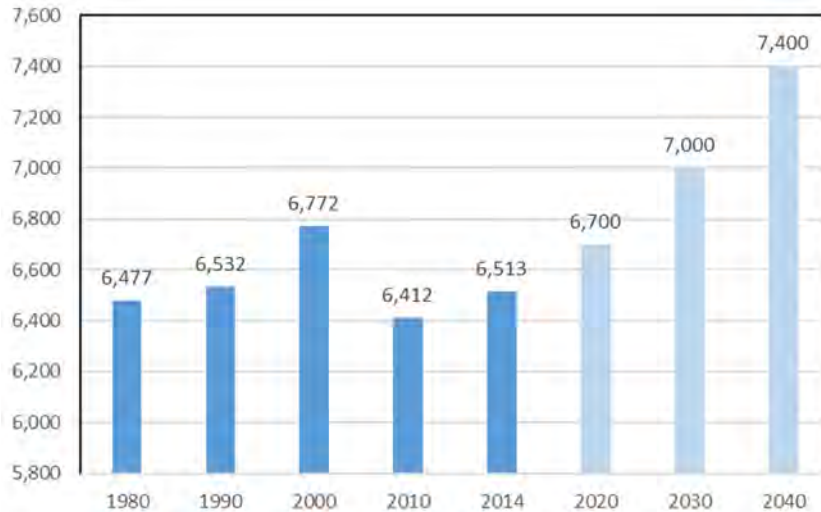


Figure 1-2: Historic and Forecasted Population (source: Metropolitan Council)

Comparatively, Anoka County’s population has increased substantially in recent decades, as demonstrated in Figure 1-3. This growth is forecasted to continue within Anoka County. The significant population increases in Anoka County can be explained by the large amount of undeveloped land within Anoka County to accommodate population increases. Conversely, because Spring Lake Park has been built-out for several decades, it has not experienced significant growth.

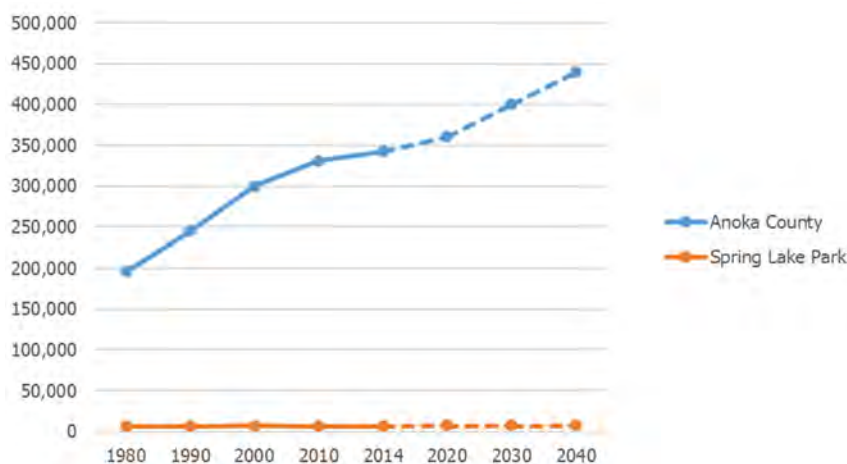


Figure 1-3: Anoka County and City Population Comparison (source: Metropolitan Council; 2010 Census)



Household trends often have more significant impacts for communities than population trends, as household numbers more directly relate to housing and land use needs and development. Household trends in the City of Spring Lake Park and Anoka County closely follow population trends in the two jurisdictions. As shown below in Figure 1-4, the number of households in Spring Lake Park has increased from 1,992 households in 1980 to 2,698 in 2014. The increase in households does not correspond to significant increase in population, which can likely be explained by the recent trend of decreasing household sizes. By 2040, it is forecasted that the number of households in the City will increase to 3,200.

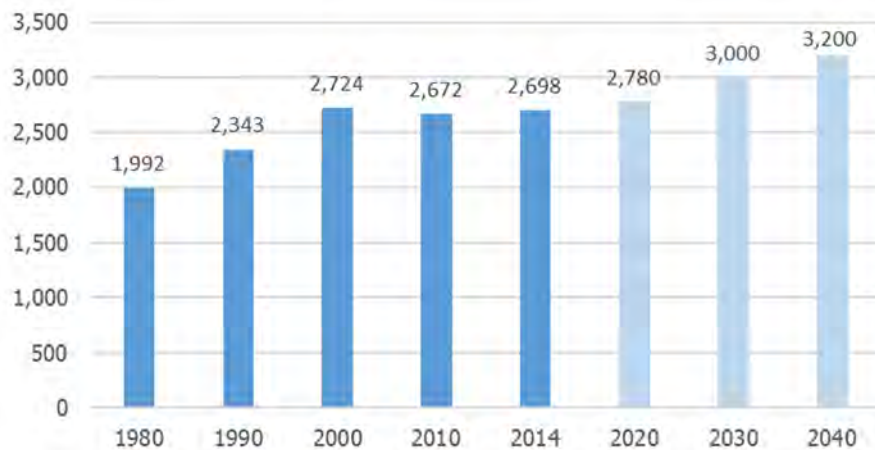


Figure 1-4: Actual and Projected Households (source: Metropolitan Council)

Figure 1-5 demonstrates significant increases in the forecasted number of households for Anoka County compared to a relatively small increase for Spring Lake Park. Again, this increase can be attributed to the large undeveloped portions of Anoka County available to accommodate additional growth. Because Spring Lake Park is fully developed, it will not absorb as large a percentage of the region’s growth as other developing communities in Anoka County.

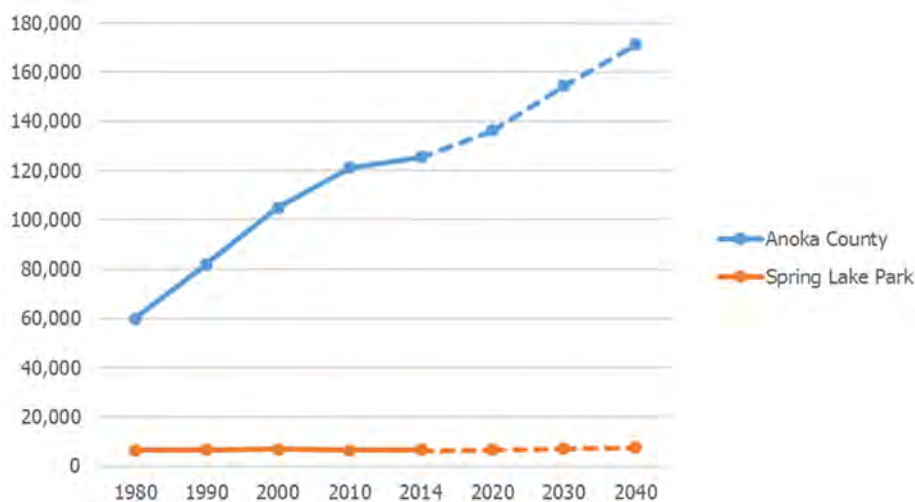


Figure 1-5: Actual and Projected Households in Anoka County and Spring Lake Park (source: Metropolitan Council, 2010 Census)

Age Distribution

In 2010, the median age of Spring Lake Park’s population was 41.2 years. The City’s historic median age trends demonstrate that the City’s population is aging. For example, in 1970, the median age was 20.5. The City’s age distribution for the year 2010 is shown below in Figure 1-6.

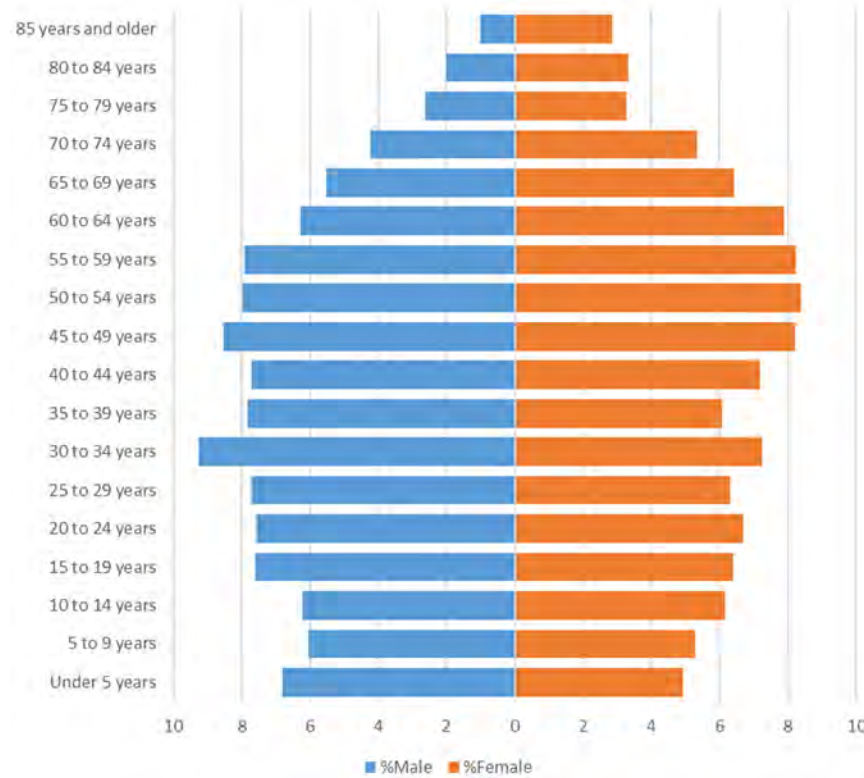


Figure 1-6: Population Pyramid for Spring Lake Park, 2010 (source: 2010 Census)

The City’s age distribution reflects a common trend, with a large percentage of the population between the ages of 45 and 64 in the year 2010. This large age group represents the baby boom generation. The aging of the baby boom generation will have a significant effect on the community in upcoming decades as the needs of its residents change.

Racial Diversity

The racial make-up of Spring Lake Park is presented below in Figure 1-7. The City of Spring Lake Park is predominately white (77 percent). The largest minority populations in Spring Lake Park are Hispanic or Latino and Asian or Pacific Islander. Approximately 6.0 percent of the population identified as Asian or Pacific Islander, and 7.0 percent identified as Hispanic or Latino. Since the 2030 Comprehensive Plan, the City has seen an increase in racial diversity, with both racial groups doubling in size.

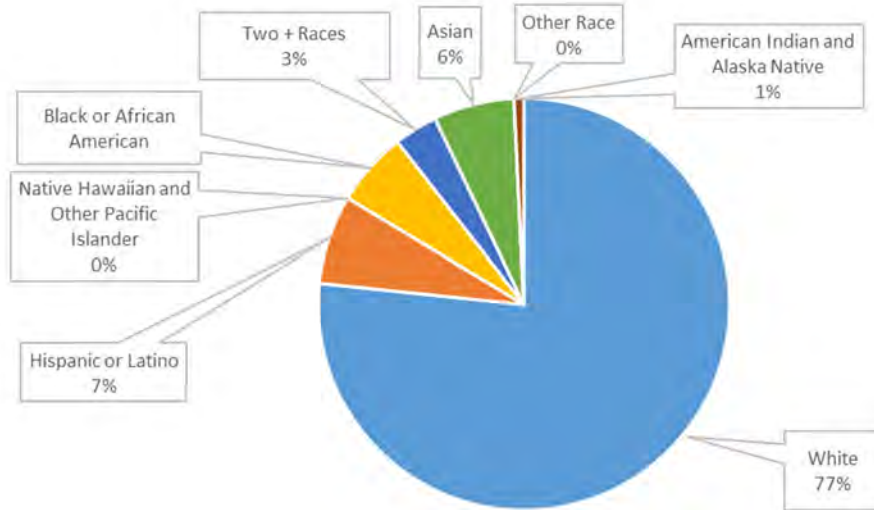


Figure 1-7: Racial Diversity in Spring Lake Park (source: 2015 American Community Survey)

Education

The educational attainment for the Spring Lake Park population is presented in Figure 1-8. This information is relevant for communities, as it affects the local economy and economic development opportunities, as well as potential needs of residents. As demonstrated below, most residents in Spring Lake Park have obtained a High School Diploma (91.0 percent) and many others have completed some college or higher education (58.0 percent). There has been significant growth in the educational attainment of the city’s residents, as the number of residents attaining a bachelor’s degree or above has increased nearly 32 percent since the 2000 census.

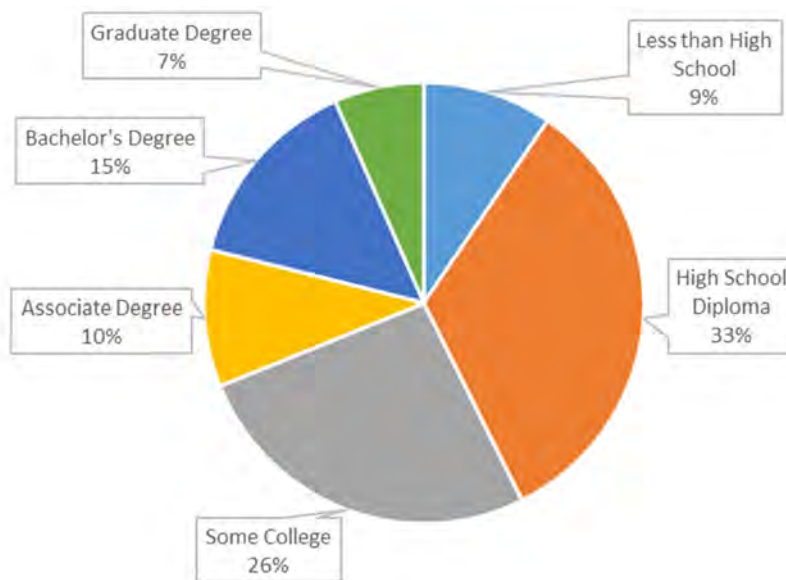


Figure 1-8: Educational Attainment (source: 2015 American Community Survey)



Economic Overview

The economic health of a community is important to maintain a high standard of living for existing residents and to attract new residents. The following information identifies employment and related economic trends.

Employment

Historic and forecasted employment data is presented below in Figure 1-9. The number of jobs in Spring Lake Park increased steadily between 1970 and 2000, as the number of jobs within the City increased from 730 in 1970 to 4,603 in 2000, an increase of 530 percent. Employment dropped significantly in the decade between 2000 and 2010; many of the jobs were lost in the latter part of the decade due to job losses from the “Great Recession” which began in December 2007. Employment growth is expected to level off, with a 2040 forecast of 3,600 total jobs. The ratio of jobs to population in Spring Lake Park is 2.3 residents for every job in the City in 2010. Major employers in Spring Lake Park include Spring Lake Park School District, Aggressive Industries, Rise, and Spring Lake Park Lumber.

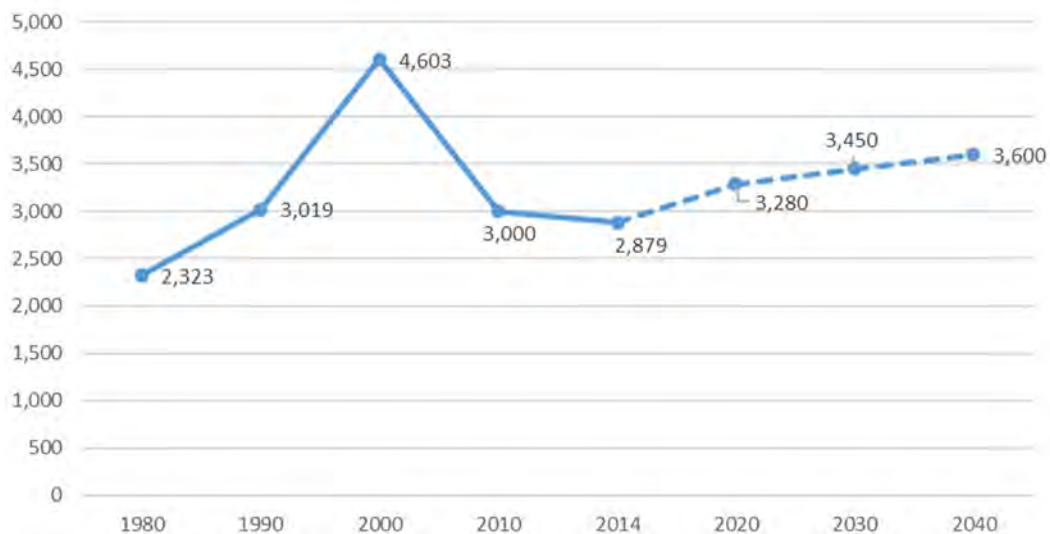


Figure 1-9: Employment in Spring Lake Park (source: Metropolitan Council)

Commute and Transportation

Figure 1-10 identifies the mode of transportation residents of Spring Lake Park use to access their jobs in 2015. A majority of residents (78 percent) drove alone to work. Approximately 11 percent of residents carpooled, and nearly five percent used public transportation. The number of residents who worked at home has doubled since the 2000 census, reflecting the technological advances that have occurred over the past 15 years that allows more residents to work productively from home.

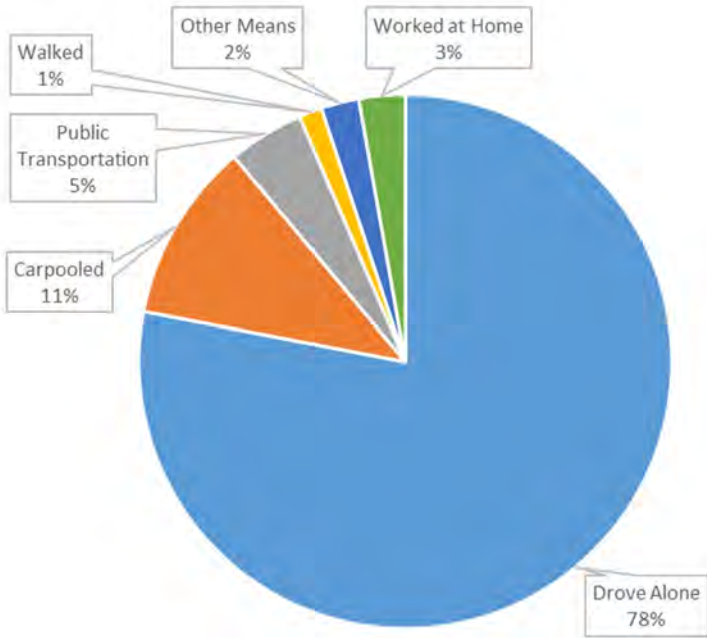


Figure 1-10: Means of Transportation to Work (source: 2015 American Community Survey)

Despite the large number of jobs within Spring Lake Park, a majority of residents worked outside of the City. The average commute time for Spring Lake Park residents in 2015 was 24.2 minutes. It is likely that this number has increased significantly in recent years due to increasing congestion in the metropolitan area.

Household Income

The median household income in 2015 in Spring Lake Party was \$51,719, an increase of 10.8% from 2000. Figure 1-11 presents a comparison of income distribution for the City of Spring Lake Park and the Minneapolis-St. Paul metropolitan area.

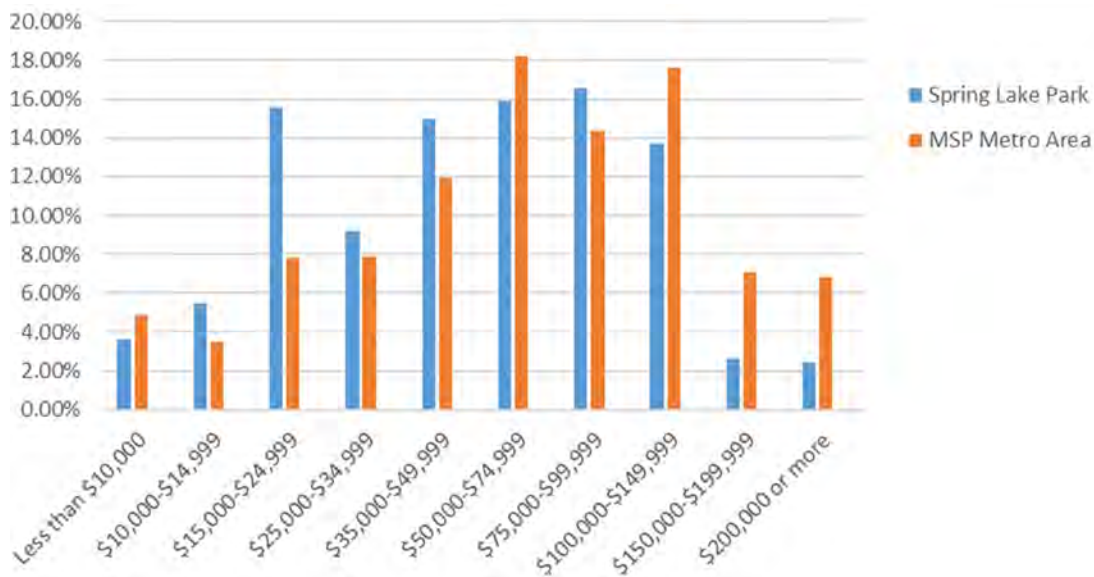


Figure 1-11: Household Income Distribution (source: 2015 American Community Survey)



The median household income for Spring Lake Park is lower than the median household income for Twin Cities metro and Anoka County as a whole (Figure 1-12).

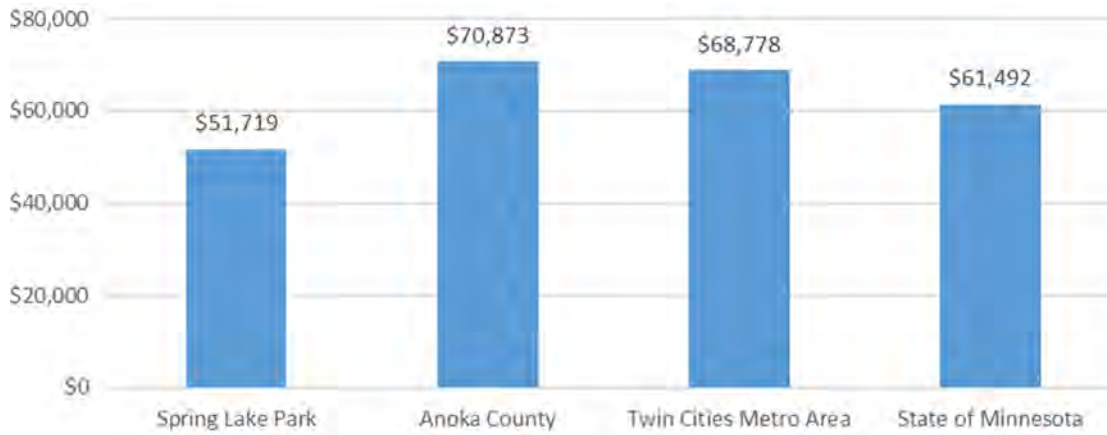


Figure 1-12: Median Household Income Comparison (source: 2015 American Community Survey)

Spring Lake Park’s median income has not kept pace with the growth in median income from either Anoka County, the Twin Cities Metro Area and the State of Minnesota. While the City’s median income grew by 10.8 percent since 2000, Anoka County’s grew by 22.7 percent, the Twin Cities Metro Area’s grew by 26.7 percent and the State of Minnesota’s grew by 30.5 percent. The City’s median income can have an impact on the local economy and housing and transportation needs for residents.

Chapter 2: Land Use

INTRODUCTION

The Land Use Chapter identifies the specific land use categories and strategies for future growth and redevelopment in Spring Lake Park. The land use categories are the framework upon which the official controls, such as the zoning ordinance and subdivision regulations, are based. The plan elements contain the regulatory concepts for residential growth, commercial and industrial development and environmental protection. The plan elements and land use planning decisions are based on Goals and Policies developed during the Comprehensive Plan update process.

Land Use Goals and Policies

The City of Spring Lake Park's land use goals include the following:

1. Provide for a mix of residential land uses to provide life-cycle housing for residents.
2. Provide for industrial uses to sustain and broaden the city's economic base.
3. Provide for a mix of commercial uses that provide goods and services to residents and that benefit from the city's proximity to major highways and roads.
4. Provide for public uses to serve the needs of residents.
5. Provide for parks that provide recreational opportunities for residents
6. Support growth consistent with the Metropolitan Council's regional growth strategy.
7. Encourage the redevelopment of under-utilized properties in a manner that achieves the highest and best use, eliminates blight, and increases the community's tax base while mitigating impacts on surrounding land uses.

Policies reflect the position of the City on the specific implementation of the Goals listed above. It is the policy of the City of Spring Lake Park to:

1. Establish a future land use plan that will enable the City to meet its population, and household and employment forecasts.
2. Provide for the rezoning of properties currently improved with residential uses but designated for commercial or industrial uses by the adopted comprehensive plan update, at such time as proposals for industrial or commercial developments are presented to the City for review, with the intent that current residential property owners with nonconforming uses shall not be jeopardized in the event that a natural or man-made disaster destroys their dwellings.
3. Work with property owners to create redevelopment standards in existing single-family residential neighborhoods that are consistent with neighboring homes.
4. Continue to provide for zoning restrictions on properties designated for commercial/industrial uses so that there will be appropriate buffers between commercial/industrial development and adjacent residential uses.
5. Approve ordinance provisions that are consistent with land use designations established in the adopted comprehensive plan update.
6. Review and amend the City's Code of Ordinances and Zoning Code as needed to reflect changes in the community.

EXISTING LAND USE

Despite its small size, Spring Lake Park includes a variety of land uses including industrial, commercial, public/semi-public, park, and low-, medium-, and high-density residential. Table 2-1 shows acreages of existing land uses. Net acreages (including wetland areas) are included in Table 2-1. It is important to note that all acreage calculations have been rounded. Figure 2-1 shows a map of existing land use in Spring Lake Park that corresponds with the information presented in Table 2-1.

As shown in Table 2-1, low density residential is the predominant land use in the City (39 percent). Two family dwellings are permitted in the low density residential district through Conditional Use Permit. The City also includes a manufactured home park, and scattered townhomes, duplexes, and apartment buildings. Housing stock throughout the City is discussed in detail in Chapter 3: Housing.

Commercial uses are concentrated along major transportation corridors in the City: University Avenue, Highway 65, and Highway 10. Commercial businesses consist mainly of retail stores or service providers, with a few office buildings. Industrial uses are mainly clustered north of the intersection of Highway 10 and Highway 65 and at the intersection of Osborne Road and Old Central (CSAH 35).

Public and Semi-Public Uses, which may consist of government buildings, churches, schools, and hospitals and clinics, also make up a large portion of the total land use in the City (7 percent of the total net acreage). Significant public uses in the City include the Spring Lake Park High School located just south of 81st Ave NE between Able St NE and Highway 65 and the Independent School District 16 administration offices located just north of 81st Avenue NE and east of Central Ave NE.

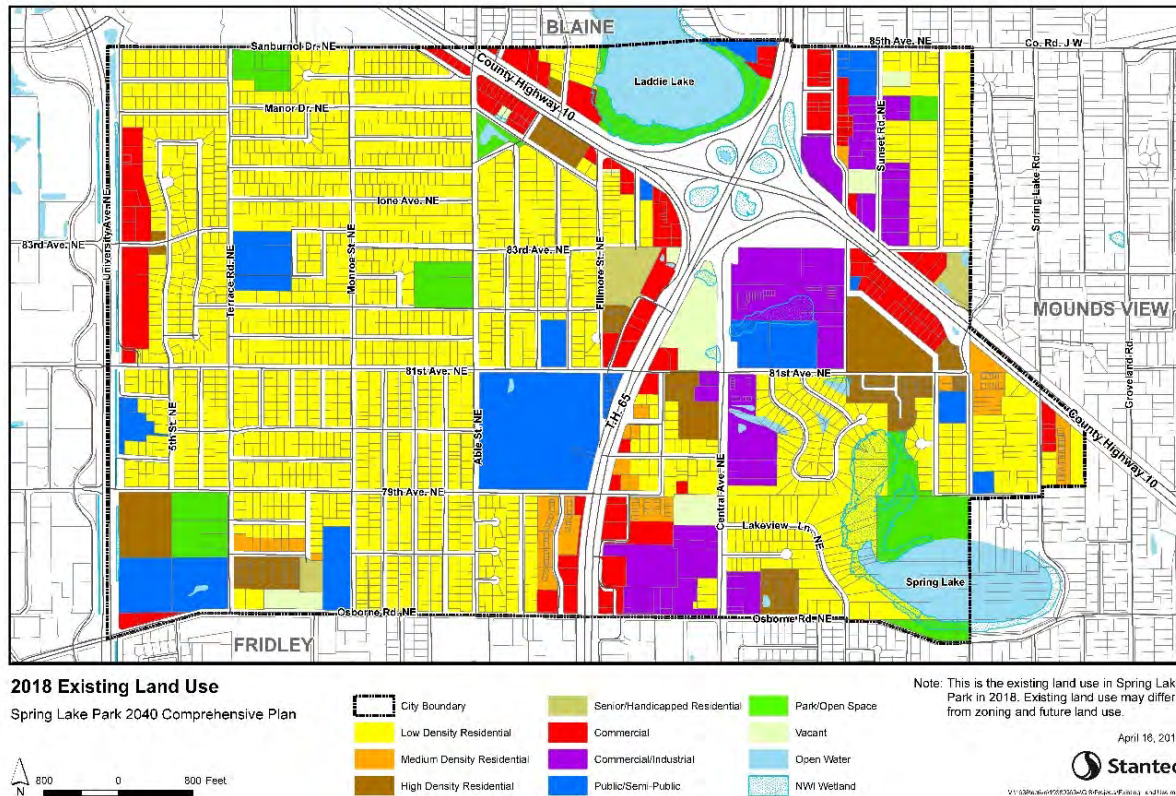


Figure 2-1: 2018 Existing Land Use



Table 2-1: Existing Land Use Acreages

2018 Existing Land Use	Gross Acres	Percent of City	Net Acres	Percent of City
Low Density	542.2	40%	529.8	39%
Medium Density	22.3	2%	22.3	2%
High Density	53.4	4%	53.3	4%
Senior/Handicapped Residential	12.4	1%	12.4	1%
Commercial	79.1	6%	79.0	6%
Commercial/Industrial	78.9	6%	76.0	6%
Public/Semi-Public	97.9	7%	96.5	7%
Park/Open Space	57.3	4%	39.9	3%
Vacant	21.1	2%	20.2	2%
Right-of-Way	334.6	25%	327.1	24%
Open Water	48.8	4%	48.8	4%
NWI Wetland	-	-	42.7	3%
Total City	1,348.0	100%	1,348.0	100%

* Right-of-Way is left white on following map

FUTURE LAND USE

Because Spring Lake Park is fully developed, land use in the City will not change significantly during this comprehensive planning period. The City's future land use categories include the following:

- **Low Density Residential:** Single-family detached housing and scattered duplexes at a density of 1 to 3 units per acre.
- **Medium Density Residential:** Attached housing, including quad homes, townhomes, and row homes at a density of 3 to 10 units per acre.
- **High Density Residential:** Attached housing, including condominiums and apartment buildings at densities between 10 units and 25 units per acre.
- **Commercial:** Retail sales and services, including professional services, hotels/motels, recreational services, and private institutional uses.
- **Commercial/Industrial:** Manufacturing of all kinds, including assembly of products produced elsewhere, facilities involved in the movement of goods, warehousing, construction, communications, utilities and wholesale sales.
- **Public/Semi-Public:** Buildings and adjacent lands of schools (both public and private), hospitals, churches, cemeteries, and all facilities of local, state, and federal government.
- **Mixed Use:** Areas designated "Mixed Use" are intended to provide flexibility to allow complementary uses within a district. Land uses include High Density residential uses (80 percent of land uses) with a density of at least 10 units per acre and commercial uses (20 percent of land uses). Site design should focus on walkability, preservation of open space, and access to commercial uses.
- **Parks/Open Space:** Park, open space, and recreational facilities owned and operated by local, regional, state and federal governments
- **Right-of-Way:** Public or private vehicular, transit, and/or pedestrian rights-of-way
- **Open Water:** Lakes
- **NWI Wetland:** Wetlands identified in the National Wetland Inventory.

Acreages for the City's future land use category are presented below in Table 2-2. It is important to note that acreages are rounded in this table. Planned future land use in the city is mapped in Figure 2-2.

Low Density residential will remain the predominant land use in Spring Lake Park, occupying 501 acres of the City. The City is planning to accommodate additional Medium Density Residential, which is defined as attached housing such as townhomes, at a density of 3 to 10 units per acre. Currently the City contains 22.3 acres of Medium Density Residential, however this is planned to increase slightly to 23.8 acres by 2040. These additional areas of Medium Density Residential will provide capacity for some of the City's projected 2040 growth. High density residential areas include existing apartment buildings, mobile home parks, and senior/housing with services at densities between 10 units and 25 units per acre.

Because the community of Spring Lake Park already has a vast supply of affordable housing, and because the community's population is aging, redevelopment in the High Density Residential Districts will be directed towards accommodating senior residents. Providing senior housing for residents will help Spring Lake Park to achieve its goals for the provision of life-cycle housing within the community.

The future land use plan also identifies additional areas of commercial and industrial areas. Currently, the City contains 79.0 acres of Commercial uses. The 2040 Plan identifies 98.1 acres, with the largest

growth in commercial areas at the future Hy-Vee site. Similarly, Industrial areas are planned to increase from 76.0 acres to 86.4 acres. Much of this development will occur on land within the City that is currently vacant. The provision of additional commercial and industrial lands will provide additional employment opportunities within the City, enabling the City to meet its projected employment. Additionally, providing new commercial and industrial areas will broaden the City’s tax base, which could potentially reduce the tax burden on residential properties.

A mixed-use area is planned along Highway 65, south of 81st Avenue NE. This area will feature a mixture of commercial and High Density residential uses. It will be an important center for the community with easy access to the High School, Highway 65, City Hall, and commercial development north of 81st Avenue NE. When developed, this area could accommodate projected household and population growth in the city.

Because the City is fully built-out, land use change will occur through redevelopment. Areas likely to redevelop are discussed in the next section of this chapter: Potential Redevelopment Areas.

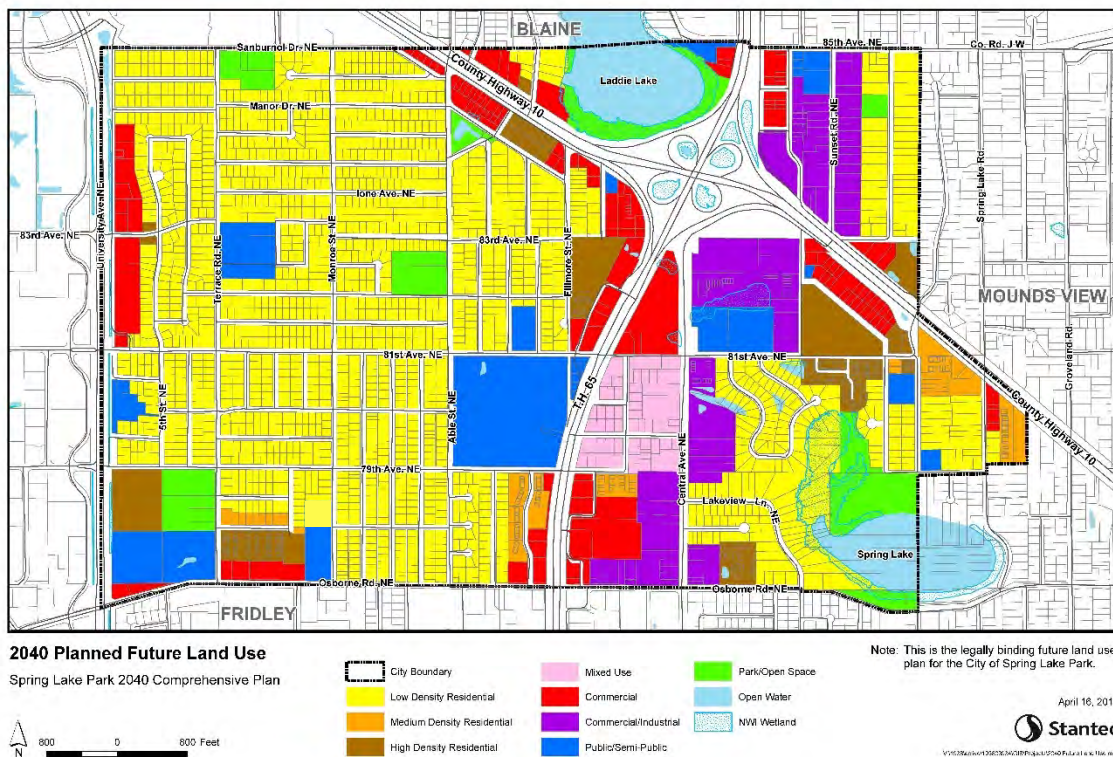


Figure 2-2: 2040 Planned Future Land Use

Table 2-2: Future Land Use

Land Use	Current - 2020		2021 - 2030		2031 - 2040	
	Net Acres	Percent	Net Acres	Percent	Net Acres	Percent
Low Density	529.8	39%	516.3	38%	501.0	37%
Medium Density	22.3	2%	23.1	2%	23.8	2%
High Density	53.3	4%	56.3	4%	59.2	4%
Mixed Use	0.0	0%	13.2	1%	26.3	2%
Senior/Handicapped Residential	12.4	1%	6.2	0%	0.0	0%
Commercial	79.0	6%	88.6	7%	98.1	7%
Commercial/Industrial	76.0	6%	81.2	6%	86.4	6%
Public/Semi-Public	96.5	7%	94.7	6%	94.7	7%
Park/Open Space	39.9	3%	39.9	3%	39.9	3%
Vacant	20.2	2%	10.1	0%	0.0	0%
Right-of-Way*	327.1	24%	327.1	25%	327.1	24%
Open Water	48.8	4%	48.8	4%	48.8	4%
NWI Wetland	42.7	3%	42.7	4%	42.7	3%
Total City	1,348.0	100%	1,348.0	100%	1348.0	100%

* Right-of-Way is left white on following maps

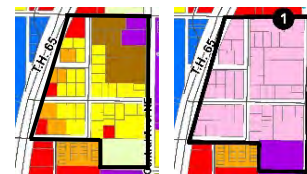
Potential Redevelopment Areas

Potential redevelopment areas have been identified because of their unique location in the community, with high visibility and access. These areas show potential for change in the city, but redevelopment will only occur if the market conditions are right. The City of Spring Lake Park will support existing and future property owners to make sure that new development works for all residents and business owners.

Each of the five possible areas are described below and with the relevant sections of the Existing Land Use map (Figure 2-1) and Future Land Use Map () shown alongside. All five potential redevelopment areas are overlaid with the Future Land Use map and shown together in Figure 2-3.

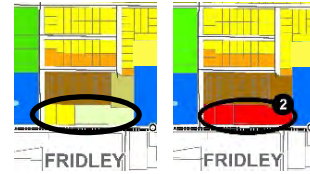
1. New Mixed-Use District

This area, bounded by Highway 65 and 81st Avenue NE, has been identified for possible mixed-use redevelopment. It currently includes a mix of low-, medium-, and high-density residential, commercial, and commercial/industrial parcels. The area is along major corridors in the community, with good access to schools, commercial areas, and a new grocery store. A transition to mixed-use will allow for more housing units with improved access to local businesses.



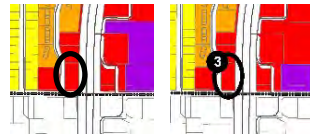
2. Osborne Road NE at Terrace Road NE

This area is across Osborne Road from the Mercy Hospital Campus in Fridley. This area currently includes vacant land and low density residential lots. This area is guided for commercial on the future land use map – a use expected to be more appropriate along the busy corridor.



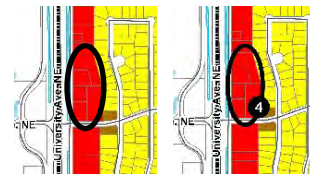
3. Intersection of Highway 65 and Osborne Road NE

This area is another highly visible and accessible intersection in Spring Lake Park. The area is not re-guided to another use but expected to redevelop as market conditions allow.



4. Intersection of University Avenue NE and 83rd Ave NE

This intersection is part of a larger commercial area along the far western side of Spring Lake Park, bordering Fridley. Like Redevelopment Area #3, the area will still be guided for commercial use, with the opportunity to redevelop as market conditions allow. Redevelopment in this area should feature improved pedestrian facilities as University Avenue has been a historically dangerous corridor for motorist-pedestrian vehicle collisions.



5. 85th Ave NE Public Works Facility

This area is located at 85th Ave, near the interchange of County Highway 10 and Highway 65. It is highly visible, but access is limited due to the interchange and presence of Laddie Lake. The area is currently a mix of restaurants and the City’s Public Works garage. As departmental needs grown and change, this area may become available for redevelopment or reuse.

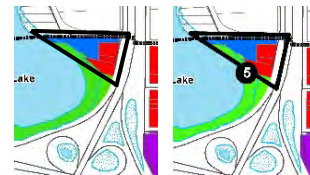


Table 2-3: Potential Redevelopment Areas (Net Developable Acres)

Redevelopment Areas	Minimum Density	Current - 2020		2021 – 2030		2031 - 2040	
		Net Acres	Minimum Units	Net Acres	Minimum Units	Net Acres	Minimum Units
Mixed Use (80% Res.)	10	0	0	13.2	105	26.3	210
Non-Residential	0	13.5	0	13.5	0	13.5	0
Net Acres within redevelopment areas	-	13.5	-	26.7	-	39.8	-

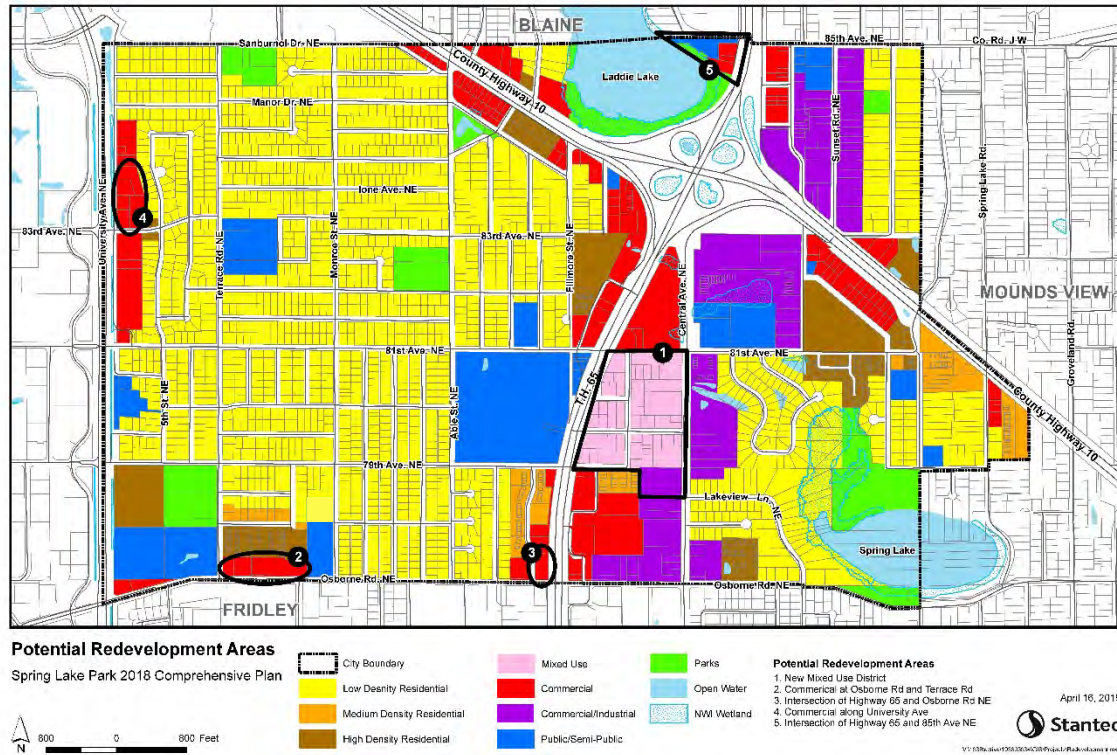


Figure 2-3: Potential Redevelopment Areas

In order to support regional services and housing affordability, the Metropolitan Council has set the net residential density for new development in Suburban communities like Spring Lake Park to a minimum of 5 units per acre. Density expectations are outlined in Table 2-3 .

Because Spring Lake Park has been completely built out, future development will take the form of redevelopment. Redevelopment in residential areas will likely be single-family tear downs and subsequent new construction, which will lead to similar densities as today.

The greatest opportunity to increase housing density in the City of Spring Lake Park is in the area designated as Mixed Use on the 2040 Future Land Use Plan. This area has the opportunity to raise average densities in those areas slated for redevelopment to as many as 25 dwelling units per acre.

It is expected that redevelopment of the new Mixed Use area will begin near the intersection of TH 65 (Central Ave) and 81st Ave NE as this is near the site of an anticipated grocery store (Hy-Vee Site). That first block is approximately 2.5 acres which could accommodate up to 62 dwelling units. An adjacent area directly to the east, designated Mixed Use, will likely redevelop second. An area of approximately 10.7 acres could accommodate 267 dwelling units. When the final area to the south and west are developed, totaling 13.1 acres in all, they may accommodate up to 327 dwelling units. In all, this Mixed Use district may support up to 656 units at high densities.



Key Employment Areas

The City of Spring Lake Park is home to numerous commercial and industrial areas, with opportunities for employment. Because many of these areas have already been developed and are operating, there will not be a significant change in trips generated or water usage. Two major commercial employment changes include the future Hy-Vee Grocery Store at 81st Avenue NE and commercial development of vacant land along Osborne Road NE. In commercial and industrial developments, property owners are required to complete a site plan review process which will minimize the impacts to utilities and traffic generated by the proposed development.

Other important employment areas in Spring Lake Park are clustered around the intersection of County Highway 10 and Highway 65 and to a lesser extent, along University Avenue at Osborne Road and stretching north. An approximate number of workers in key employment areas are outlined in Table 2-4.

Table 2-4: Employment Intensity

2040 Future Land Use	Acres	Mean FAR	Working Acres/Sqft	Sqft/Worker	Workers
Mixed Use (20% Commercial)	10.52	0.28	2.95/128.5k	1000	128
Commercial	99.08	0.28	27.75/120.9k	1200	100
Commercial/Industrial	89.38	0.32	28.5/124k	1400	88

PROTECTING SPECIAL RESOURCES

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 natural resources. 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 Spring Lake Park will, whenever possible, protect access to direct sunlight for solar energy systems on principal structures. The City of Spring Lake Park will consider solar access in the review of site plans and planning decisions.

The Metropolitan Council has calculated the gross and rooftop solar potential for the City of Spring Lake Park to identify how much electricity could be generated using existing technology. The gross solar potential and gross solar rooftop potential are expressed in megawatt hours per year (Mwh/yr), and these estimates are based on the solar map for your community. Developed areas with low building heights and open space areas have the highest potential for solar development in the City. Many of the developed neighborhoods and some natural areas in Spring Lake Park do not have high gross solar potential due to existing tree cover. This gross development potential is included in Table 2-5.

Table 2-5: Solar Potential in Spring Lake Park (source: Metropolitan Council)

Community ¹	Gross Potential (Mwh/yr)	Rooftop Potential (Mwh/yr)	Gross Generation Potential (Mwh/yr) ²	Rooftop Generation Potential (Mwh/yr) ²
Spring Lake Park	2,713,057	386,097	271,305	38,609

¹ There are a few communities where generation potential calculations could not be produced. There are areas within some maps where data was unusable. These areas were masked and excluded from gross rooftop potential and generating potential calculations.

² In general, a conservative assumption for panel generation is to use 10% efficiency for conversion of total insolation into electric generation. These solar resource calculations provide an approximation of each community's solar resource. This baseline information can provide the opportunity for a more extensive, community-specific analysis of solar development potential for both solar gardens and rooftop or accessory use installations. For most communities, the rooftop generation potential is equivalent to between 30% and 60% of the community's total electric energy consumption. The rooftop generation potential does not consider ownership, financial barriers, or building-specific structural limitations.

The City of Spring Lake Park has entered into an agreement with US/Solar to purchase electricity from a number of solar gardens located within Anoka County and other adjacent counties. The City has contacted with US/Solar to provide 120% of the City's annual electric use, which includes, but is not limited to, its municipal facilities, water treatment plants, lift stations, and street lights. The City's 25-year agreement with US/Solar is anticipated to provide 32.5 million kWh of renewable electricity at an estimated cost savings of \$1.3 million.

Gross solar potential in Spring Lake Park is illustrated in Figure 2-4.

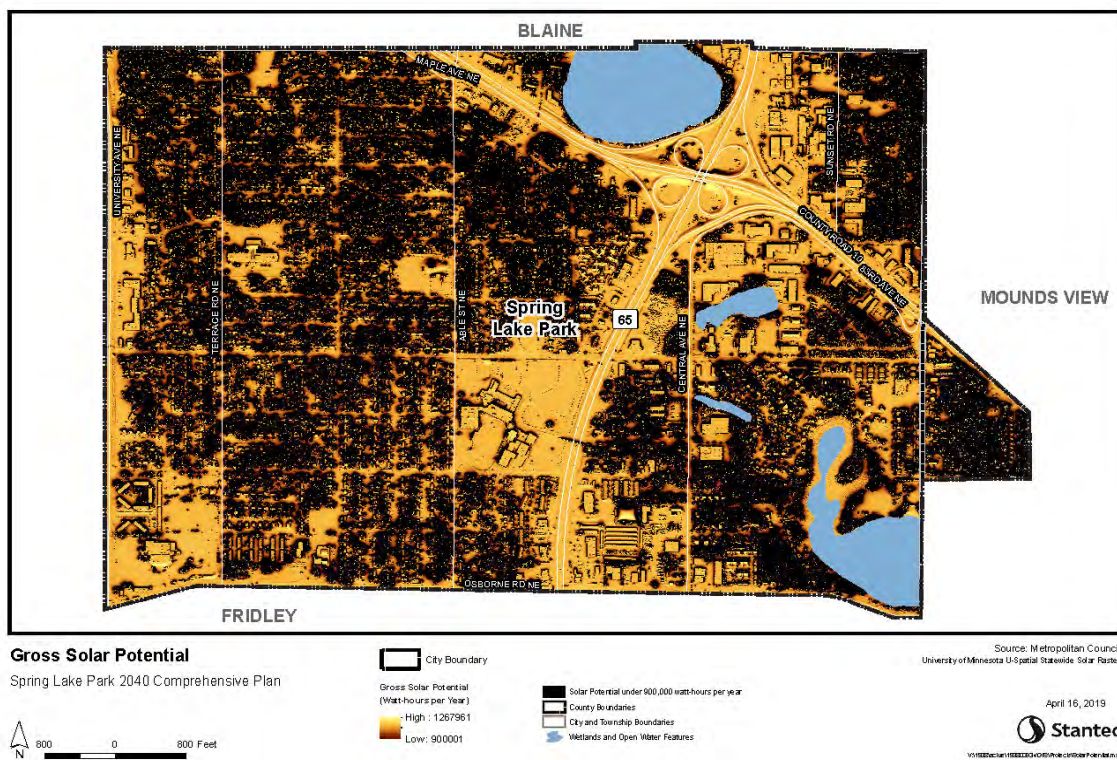


Figure 2-4: Gross Solar Potential

Supportive Programs

There are a number of programs available to Spring Lake Park that can foster solar access in the city. Such programs are offered by the Federal and State-level government, and private utility. The City of Spring Lake Park can take advantage of these programs to increase participation, awareness, and community support for renewable energy. These programs are offered with no cost to the community:

- US Dept. of Energy – SolSmart. This program is designed to consult local governments on how to remove barriers and burdensome costs to create a more accessible environment for solar companies. Local municipalities that have already taken part in the program include Falcon Heights, Minneapolis, St. Paul, and Maplewood.
- MN PCA – GreenStep Cities. This program provides a set of actionable best practices that can be implemented at a 1, 2, or 3-start level from lower investments to higher payoffs. Many local cities are already being recognized as GreenStep Cities, including Mounds View, New Brighton, and Fridley.
- Xcel Energy – Partners in Energy. This two-year program fosters a team of local residents, businesses, and stakeholders to identify energy goals, create a plan, and implement strategies that utilize local resources. A team of experts in energy consulting are available to facilitate the process.

Historic Preservation

There are no sites in the city that are listed on the National Register of Historic Places. The City of Spring Lake Park will consider the preservation of historic resources in the review of site plans and other planning decisions. The City will, whenever possible, preserve historic structures or landscapes.

Aggregate Resources

Metropolitan Council requires that metropolitan area communities identify any regionally significant aggregate resources to ensure proper planning for their use. The City of Spring Lake Park is fully developed. Therefore, the City is not impacted by aggregate resources nor are there any opportunities for mining within the community.

Natural Resources

Vibrant natural amenities help to make a community thrive. Preserving and retaining natural resources for the future is an important value in Spring Lake Park and Twin Cities Region. The City is home to numerous parks, lakes, and wetlands which provide ecological and recreational benefits to residents. As the city is built out, no new parks are planned. However, the City will work to protect existing natural areas for future generations. The City will work with the Minnesota Department of Natural Resources, local watershed districts, Anoka and Ramsey Counties, and the Metropolitan Council to protect and enhance natural resources in the area.



Chapter 3: Housing

INTRODUCTION

Housing is an integral component of a city's landscape. This chapter identifies the City's goals for its future housing stock, an inventory of existing housing in the City, and identifies future housing needs.

Housing Goals and Policies

The following goals were developed to guide development of the City's housing plan:

1. Facilitate the maintenance and rehabilitation of existing housing, so as to prevent deterioration.
2. Provide housing for a range of ages and incomes.

Policies reflect the position of the City on the specific implementation of the Goals. It is the policy of the City of Spring Lake Park to:

1. Provide qualified residents with information about housing maintenance and rehabilitation programs administered by Anoka County Housing and Redevelopment Authority and the Minnesota Housing Finance Agency.
2. Pursue the development of new housing to accommodate a range of housing needs, particularly executive and senior housing.
3. Research and engage with experts and the community on best management practices and policies regarding accessory dwelling units in residential neighborhoods.

EXISTING HOUSING STOCK

Spring Lake Park was developed mainly in the 1950s and 1960s. The rambler comprises a majority of homes in the City, a housing style typical of the era in which the City developed. The oldest neighborhoods in Spring Lake Park are located in the northern and northeastern parts of the city. Some housing developments were completed after 2000, particularly in the southeastern part of the city. Housing age is mapped in Figure 3-1.

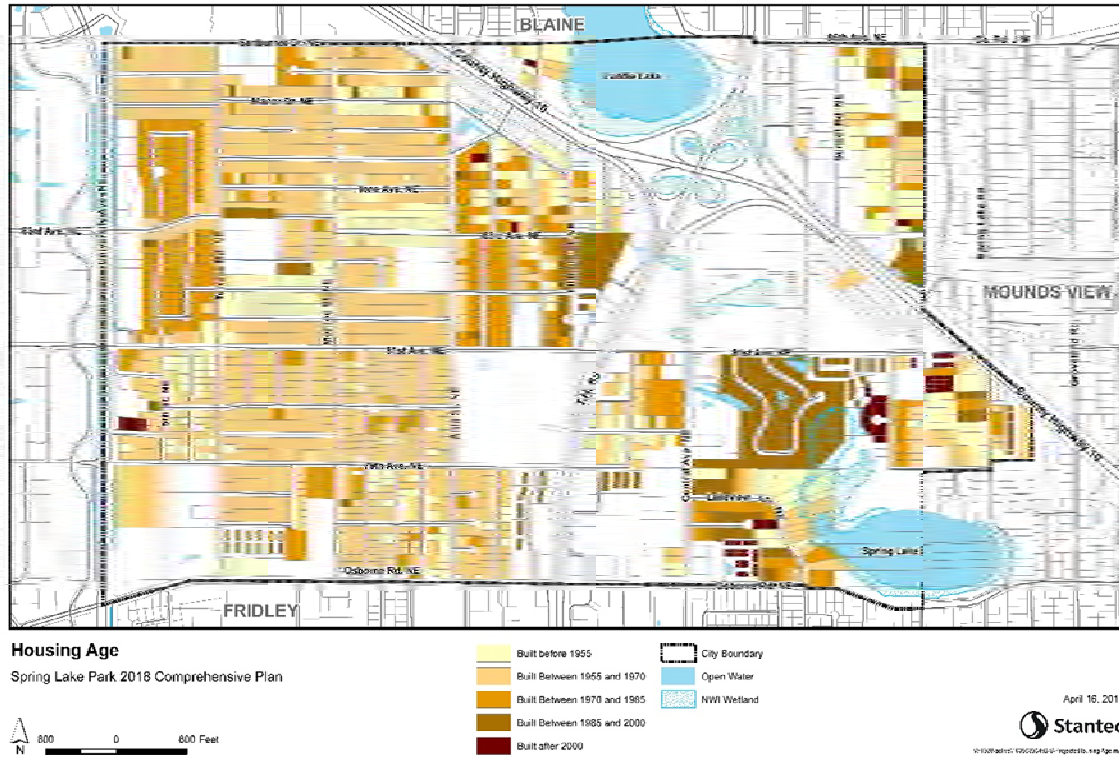


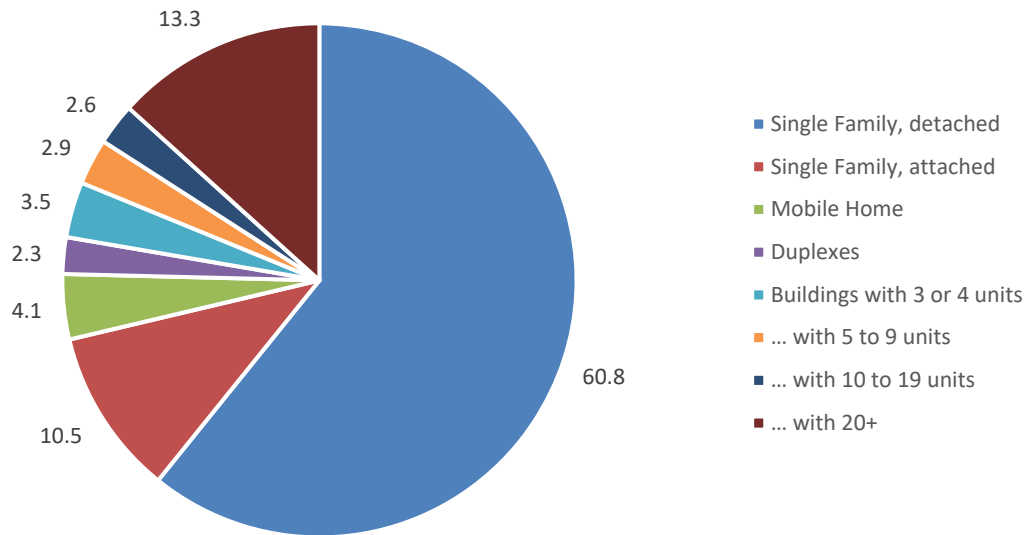
Figure 3-1: Housing Age

Housing Type

There were 2,781 occupied housing units in Spring Lake Park in 2016. Twenty-nine percent of these units were rental units. The City includes a variety of housing types, as shown in Table 3-1. A majority of units (74.0 percent) are single family detached units.

Table 3-1: Housing Type in 2016 (source: Metropolitan Council)

Single-family units	Multifamily units	Mobile homes	Other housing units
2,057	622	102	0
74.0%	22.4%	4.6%	-



Housing Values and Costs

Owned Housing Units

The median home value for Spring Lake Park in 2015 was \$158,700. In 2000, the median home value in Spring Lake Park was \$120,000 (\$165,168 in 2015 dollars). While the median home value has increased 32 percent over the past fifteen years, on an inflation adjusted basis, the median home value has declined by 3.9 percent. Home values increased at a faster rate in Anoka County as whole, with an increase from \$131,000 in 2000 (\$180,300 in 2015 dollars) to \$187,600 in 2015. The Anoka County 2015 median home value of \$187,600 is higher than Spring Lake Park’s median value. This discrepancy may in part be attributed to the large number of new homes built in Anoka County in recent years relative to the City of Spring Lake Park.

With this inflation-adjusted decline in median home value over the past year, a significant amount of the housing in Spring Lake Park qualifies as affordable housing. Out of the 2,782 housing units in the City, nearly 95% of the units are affordable to households making 80% or less of area median income. Housing values are mapped in Figure 3-2.

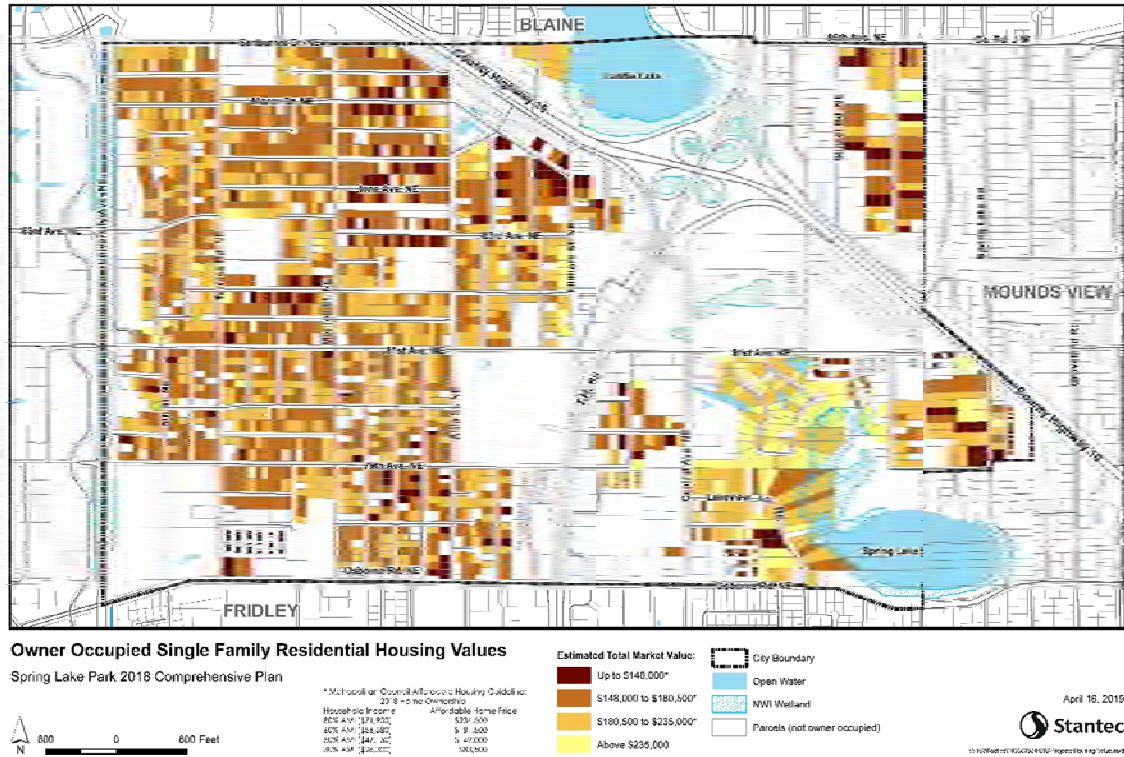


Figure 3-2: Owner Occupied Housing Values

As stated earlier in this section, the median home value in Spring Lake Park is \$158,700, which is slightly more affordable than the Anoka County median value of \$193,200 and also more affordable than the Twin Cities Metropolitan Area median of \$212,600. Spring Lake Park’s housing values are very similar to neighboring communities. Table 3-2 includes median home values in nearby communities.

Table 3-2: Median Housing Values in and around Spring Lake Park (source: American Community Survey, 2016)

Community	Median Housing Value
Spring Lake Park	\$158,700
Mounds View	\$168,600
Fridley	\$166,600
Anoka County	\$193,200
Twin Cities Metropolitan Area	\$212,600

Rental Housing Units

The median rent in Spring Lake Park is \$905 per month, which is lower than the Twin Cities Metropolitan Area (\$916) and Anoka County (\$1,000). Compared to other communities in the area, Spring Lake Park’s median rent is approximately the same or slightly higher. As the city sees housing redevelopment opportunities, such as the Dominion apartment development Legends of Spring Lake Park, median monthly rent may change. Table 3-3 includes median monthly rents in nearby communities.



Table 3-3: Median Rent in and around Spring Lake Park (source: American Community Survey, 2016)

Community	Median Monthly Rent
Spring Lake Park	\$905
Mounds View	\$869
Fridley	\$904
Anoka County	\$1,000
Twin Cities Metropolitan Area	\$916

HOUSING AFFORDABILITY

As part of the 2040 Housing Policy Plan, the Metropolitan Council estimates that approximately 37,000 additional low- and moderate-income households needing affordable housing units will be needed in the region between 2020-2030. The Metropolitan Council will be working with communities to allocate these units across the region.

Affordable Housing Stock in Spring Lake Park

The Metropolitan Council defines home ownership affordability as \$83,500 for households making less than 30 percent Area Median Income (AMI), \$149,000 for households making 31-50 percent AMI, \$181,500 for households making 51-60 percent Area Median Income (AMI), and \$243,500 for households making 51-80 percent AMI. In Spring Lake Park, the median home value is \$160,400, indicating that much of the City’s housing stock is affordable at the 51-80 percent AMI level. Housing affordability is discussed further later in this chapter.

There are approximately 2,782 total housing units in the City of Spring Lake Park. Of those 1,905 (68%) are owner occupied and 877 (32%) are renter occupied. About 1,405 units are affordable to households with incomes between 51- and 80-percent AMI. 1,037 units are affordable to households with income between 31- and 50-percent AMI. 234 units are affordable to households with income at or below 30-percent AMI.

These housing stock characteristics in Spring Lake Park are summarized in Table 3-4.

Table 3-4: Affordable Housing Stock in Spring Lake Park (source: Metropolitan Council)

Total Number of Units	2,782		
Tenure	Owner Occupied		Renter Occupied
	1,905		877
Number of Affordable Units	At or below 30% AMI	31-50% AMI	51-80% AMI
	234	1,037	1,405



There are a total of 152 publicly subsidized units within the city, of which 60 are designated specifically for seniors as outlined in Table 3-5. There are no publicly subsidized housing units within Spring Lake Park supplied specifically for people with disabilities.

Table 3-5: Publicly Subsidized Units (source: Metropolitan Council)

Number of Publicly Subsidized Units	Senior Housing	People with Disabilities	All other publicly subsidized units
		60	0

Cost Burdened Households

Many residents in communities across the Twin Cities experience challenges affording their housing costs. The Department of Housing and Urban Development (HUD) defines housing to be affordable if the residents do not pay more than 30 percent of their income towards housing costs. Housing costs can include rent or mortgage payments, utility bills, HOA fees or other fees associated with living in the home. Residents who pay more than 30 percent are considered “Cost-burdened”.

In Spring Lake Park, over six hundred households (23.8 percent of households) are considered to be cost-burdened. There are 222 households with income at or below 30-percent the Area Median Income (AMI). 274 households with income between 31- and 50-percent AMI. 140 households with income between 51- and 80-percent AMI. Table 3-6 describes the cost burdened households by median income level.

Table 3-6: Housing-Cost-Burdened Households (source: Metropolitan Council)

Household Income Level	Number of Cost-burdened Households
At or below 30% AMI	222
31 to 50% AMI	274
51 to 80% AMI	140
Total Households	636

Housing Projections and Need

Although the City of Spring Lake Park is relatively built out, it will still need to accommodate for new residents of all socioeconomic backgrounds. The Metropolitan Council requires that Spring Lake Park must supply 29 new units of affordable housing (at or below 80 percent AMI) by 2040. The greatest need of affordable units are for those household making 30-percent area median income or below. The Met Council allocates a need of fourteen additional units for that low-income population in Spring Lake Park by 2040. An additional six units are needed for household making between 31- and 50-percent AMI. Nine units are needed for household making between 51- and 80-percent AMI.

The greatest need of affordable housing units by 2040 are for households at or below 30-percent AMI. Housing units needs are outlined based on income level below in Table 3-7.



Table 3-7: Affordable Unit Allocation (source: Metropolitan Council)

Household Income Level	Number of Units
At or below 30% AMI	14
31 to 50% AMI	6
51 to 80% AMI	9
Total Households	29

A majority of housing within the Spring Lake Park is already considered affordable, however the City has guided several areas for High Density or Mixed Use Residential with minimums of **10 units per acre** on its 2040 land use plan to provide sufficient densities for additional affordable housing in the community. Two family dwellings are permitted in the low density residential district through Conditional Use Permit., supporting further affordable housing opportunities.

In addition to the new affordable housing units required by the Metropolitan Council, Spring Lake Park has identified the following existing housing needs:

- Maintenance and rehabilitation of the existing housing stock
- New housing for a range of ages and income, especially executive and senior housing

Redevelopment and anticipated residential density is addressed in Chapter 2: Land Use.

While the City is doing their part in creating a regulatory land use plan to plan for areas of density greater than 6 units per acre, where most affordable housing will occur, barriers to development of affordable housing still exist in the region as well as in Spring Lake Park. Some of these barriers are beyond the City’s control including:

- Steady increases in land prices.
- Increase in construction costs. When combined with land prices, it becomes more difficult to provide affordable units through new construction.
- Physical limitations of land due to wetlands, poor access, poor soils that would increase the cost of land development or construction thus making it more difficult to build affordable units.
- Limited amount of remaining developable land.
- State, county and local tax structures.

MANUFACTURED HOME PARKS

The City of Spring Lake Park includes over 100 manufactured housing units (commonly known as Mobile Homes). These units are naturally occurring affordable housing – meaning that they provide affordable housing without public subsidy. They also provide a unique opportunity for low-income households to attain homeownership. As land prices and incomes rise, these units may be susceptible to redevelopment, diminishing the stock of critical affordable housing within Spring Lake Park.

The City will consider available tools for the conservation of such affordable units, including the creation of co-operatives, Community Land Trust (CLT), and Low or No Cost Rehabilitation Loan Programs.

AVAILABLE HOUSING TOOLS

There are a number of widely used tools available to the City of Spring Lake Park to address housing needs within the community. Such tools include, but are not limited to:

- **Site Assembly** - *Site or land assembly is a powerful tool cities can use to support housing development. When local governments acquire or have site control of a property, they can control the final development product.* (source: Metropolitan Council) The City will use this tool when appropriate redevelopment opportunities and development interest arises. The City will specifically pursue this tool for senior or executive housing opportunities.
- **Use or creation of EDA/HRA**, or partnership with Anoka County HRA - *State law permits cities to cooperatively plan, undertake, construct, or operate projects that contribute to the economic welfare and public benefit of the community, including housing projects and developments, redevelopment projects, interest rate reduction programs, or any combination of these.* (source: Metropolitan Council) This tool will be explored to assist with the development of senior and executive housing, as well as affordable housing.
- **Housing Bond Issuance** - *Under state law, cities and counties are authorized to develop and administer programs that make or purchase mortgages to finance the acquisition or rehabilitation of affordable housing.* (source: Metropolitan Council). The City will consider issuing housing bonds for redevelopment projects that address affordability, senior or executive housing.
- **Tax Abatement** - *Tax abatement is a financing tool that reduces taxes or tax increases for owners of specific properties. Local governments offer the tax reduction to provide a financial incentive for a public benefit, such as creation of housing affordable to low and moderate-income households.* (source: Metropolitan Council) The City will work with non-profit and affordable housing developers to use this tool for the creation of new affordable housing projects when opportunities arise.
- **Tax Increment Financing (TIF)** - *A primary tool in economic development and redevelopment, tax increment financing, also known as TIF, is a legislatively authorized tool available to cities and special entities such as housing and redevelopment authorities. Used to finance real estate development costs, municipalities create TIF districts to encourage development and to pay for related public improvements and infrastructure needs such as streets, sidewalks, or sewer.* (source: Metropolitan Council) The City will work with non-profit and affordable housing developers to use this tool for the creation of new affordable housing projects when opportunities arise.
- **Minnesota Housing RFP** - *The Consolidated RFP allows Minnesota Housing and its funding partners to use a single application and advertise multiple resources at once. This provides funders the flexibility to assemble creative finance packages that best fit each project during the project review and selection processes.* (source: Metropolitan Council) When affordable housing development opportunities arise, the City will share this resource with developers. This resource will be pursued especially for affordable, senior, or executive housing opportunities.
- **Housing Improvement Areas (HIAs)** - *Under state law, a Housing Improvement Area is a defined area in which a city finances housing improvements from fees imposed on the properties within that same area. Common users of HIAs are townhome or condominium associations that lack reserves to finance maintenance and petition their city council for a HIA. In these cases, the homeowners' association invests money borrowed from the city in permanent improvements to common areas (e.g., roofing, siding, landscaping), and the units'*



owners repay the city's loan through fees. Cities create HIAs to maintain the condition of local housing stock (source: Metropolitan Council). The City would consider using this tool upon receiving a petition to the City Council.

- **Participation in housing-related organizations, partnerships, and initiatives:** *Connecting with others around meeting housing needs in our communities created opportunities for cities, counties, the Metropolitan Council and other stakeholders to learn from one another. The City does not currently participate in any established networking or collaborative housing groups. The City is not currently considering membership in a collaborative housing group.*

An introduction to these and other tools are provided by the Metropolitan Council under the Housing tab at www.metrocouncil.org/Handbook/Resources.aspx

HOUSING ACTION PLAN

The following Housing Action Plan outlines **priorities** that Spring Lake Park is exploring in addressing the **need** to maintain existing housing and create new affordable housing in the next ten years:

Regulatory Support

- The City will provide enough land guided at densities greater than 10 units per acre, within redevelopment areas close to jobs and transit.
- The City will research and consider Accessory Dwelling Unit (ADU) as a permitted use in the 2018-2028 term.

Housing Maintenance

- The City will strengthen its efforts to actively promote first-time homebuyer programs to assist residents entering the market.
- The City will also market housing rehabilitation programs available through the County and State. This can be done via the City's website, newsletter and other methods.

Enforcement

- The City will evaluate existing housing stock in order to target code enforcement and rehabilitation assistance.
- The City will actively enforce the Housing Maintenance Code.

Neighborhood Development

- Continue City programs promoting pride in the community.
- The City will partner with Anoka County to implement affordable housing programs at all three affordability levels in Spring Lake Park.

Rental Housing

- Continue to utilize Spring Lake Park's existing rental licensing program to promote safe rental housing.



HOUSING IMPLEMENTATION PLAN

Table 3-8 below details the potential tools and resources available to the City of Spring Lake Park to address existing housing needs. The City will consider the following opportunities on a case-by-case basis to achieve housing goals.

Table 3-8: Housing Implementation Plan

Housing Need	Available Tool	Circumstance and Sequence of Use	Potential Partners
Maintenance and rehabilitation of the existing housing stock	CDBG and HOME	The City will consider sponsoring an application to Anoka County HOME or CDBG to assist with maintenance and rehabilitation of housing for low and moderate income households.	Anoka County
	Rental licensing and inspection program	The City will continue to utilize the existing rental licensing program to promote safe rental housing	
New housing for a range of ages and income, especially executive and senior housing	Site Assembly	The City will use this tool when appropriate redevelopment opportunities and development interest arises. The City will specifically pursue this tool for senior or executive housing opportunities.	
	LCDA	Upon request by a qualified developer, the City will consider sponsoring an application to LCDA. The City understands that a fair housing policy must be adopted prior to application.	
	Housing Bond Issuance	The City will consider issuing housing bonds for redevelopment projects that address affordability, senior or executive housing.	



14 new housing units affordable for 30% AMI	TIF assistance to developer, tax abatement, Consolidated RFP, LCDA	The City will work with developers to accommodate the development of affordable housing	MN Housing, Affordable housing developers, nonprofit organizations
6 new housing units affordable for 31-50% AMI	TIF assistance to developer, tax abatement, Consolidated RFP, LCDA	The City will work with developers to accommodate the development of affordable housing	MN Housing, Affordable housing developers, nonprofit organizations
9 new housing units affordable for 51 to 80% AMI	TIF assistance to developer, tax abatement, Consolidated RFP, LCDA	The City will work with developers to accommodate the development of affordable housing	MN Housing, Affordable housing developers, nonprofit organizations
Tools to address multiple housing needs	Creation of an EDA/HRA or partnership with Anoka County HRA	The City will consider strategic partnerships with Anoka County and other housing related organizations to further their housing priorities	Anoka County HRA, Metropolitan Council, MN Housing, nonprofit organizations, affordable housing developers
	Preservation of expiring Low-Income Housing Tax Credit Properties	The City will consider preserving affordability for the Cottages of Spring Lake Park	
	NOAH Impact Fund, MN Housing, 4d incentives	The City will consider using these tools to preserve unsubsidized affordable housing units.	MN Housing



Chapter 4: Parks, Trails, and Community Facilities

INTRODUCTION

Parks, trails, and open space provide many important benefits for cities and their residents. In addition to providing recreational opportunities for residents, these facilities also contribute to the health of a community by providing active living opportunities for residents. Parks may also foster a sense of community by providing gathering space and programs for residents.

Parks, Trails, and Community Facilities Goals and Policies

The following goals were developed to guide development of the City's parks, trails, and community facilities plan:

1. Maintain and provide adequate funding for the existing park and trail network in Spring Lake Park.
2. Complete sidewalk and trail gaps to establish a connected network for pedestrian and bicycle facilities in the city.

Policies reflect the position of the City on the specific implementation of the Goals. It is the policy of the City of Spring Lake Park to:

1. Complete renovations of park buildings to meet the needs of park users and visitors.
2. Explore the renovation or relocation of City Hall to better meet the needs of constituents.
3. Work with Anoka County to rebuild Osborne Trail in areas needing pavement maintenance.
4. Collaborate with other agencies and partners to implement new regional or multi-jurisdictional trails in Spring Lake Park and neighboring communities.

EXISTING PARKS AND TRAIL NETWORK

Parks

The City of Spring Lake Park includes six City parks, as illustrated in Figure 4-1. These six parks and their amenities are listed in the following sections. There are no federal, state, or regional parks in the city.

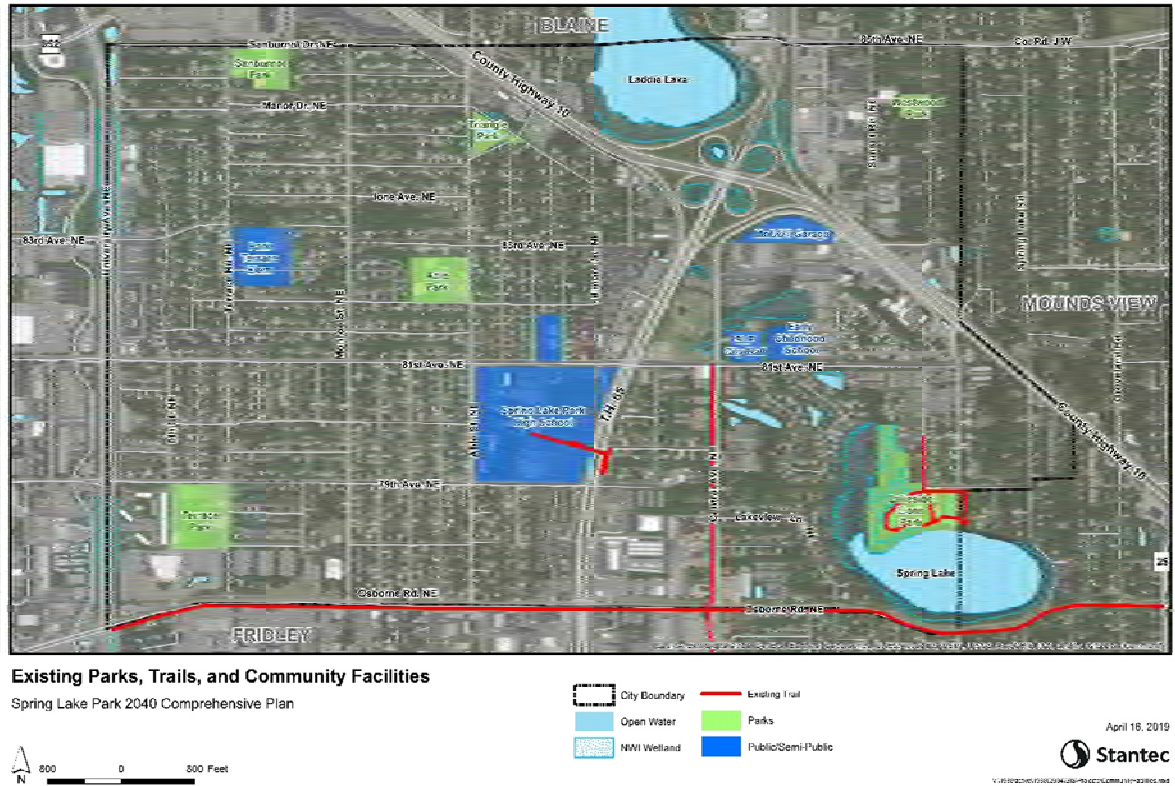


Figure 4-1: Existing Parks, Trails, and Community Facilities

Able Park

Able Park is located at 8200 Able Street NE. This park is approximately 6.7 acres, and includes playgrounds, a picnic shelter, a basketball court, volleyball courts, and athletic fields. In the winter months, the park features a hockey rink.

Triangle Park

Triangle Park is located at the intersection of Able Street and Manor Drive. This 2.5-acre park includes a pond, walking path, and picnic tables.

Lakeside Lions Park

Lakeside Lions Park is located at 79th Avenue and Pleasant View Drive. This 11.8-acre park is jointly owned with the City of Mounds View, and includes a swimming beach and beach house, picnic shelter and equipment, playground equipment, athletic fields, volleyball courts, and a walking path.

Sanburnol Park

Sanburnol Park is located at 520 Sanburnol Drive. This 5.7-acre park includes playground equipment and athletic fields.



Terrace Park

Terrace Park is located at 79th Avenue and Terrace Road. This 10.7-acre facility includes playground equipment, picnic shelters, and athletic fields. The park also features a basketball court, tennis courts, and a skate park. In the winter months, the park features a hockey rink.

Westwood Park

Westwood Park is located at 8450 Westwood Road. This 1.8-acre park includes playground equipment, a picnic shelter, and one athletic field.

Trails

The City of Spring Lake Park has two major bicycle trail facilities and two pedestrian trail facilities within the community, providing opportunities for recreation and transportation to walk and bike in Spring Lake Park. These trails include:

- A paved, east-west trail along Osborne Road from University Avenue NE to the city limits, continuing into Mounds View
- A paved north-south trail from 81st Ave NE to Osborne Road, along Old Central Avenue.
- A pedestrian bridge at 80th Avenue NE, crossing Highway 65 to Spring Lake Park High School
- Internal, paved recreational pedestrian trails at Lakeside Lions Park.

There are currently no regional trails in Spring Lake Park.

Existing trails are mapped in Figure 4-1.

Sidewalks

There are also numerous concrete sidewalks for use by pedestrians along several streets within the City, as well as a pedestrian bridge over Highway 65 near 80th Ave. Pedestrian facilities and safety are discussed further in Chapter 5: Transportation.

PLANNED PARKS AND TRAILS

Planned Parks

The City of Spring Lake Park is entirely built out and there are no new planned parks in the city.

Planned Trails

Local Trails

The City has planned one bicycle lane along 81st Avenue NE, from County Highway 10 to Old Central Avenue. This bike lane will be added by restriping 81st Ave NE from a 4-lane to a 3-lane road. There are no other planned on- or off-street bicycle facilities in the city.

The Minnesota Department of Transportation is currently performing a safety audit and corridor study of Highway 65, scheduled for completion in 2019 and 2020 respectively. Both programs are aimed in part at improving safety for pedestrians and bicyclists along and across the corridor. The MnDOT recently completed the re-construction of a bicycle and pedestrian overpass of Highway 65 between Spring Lake Park High School and the eastern side of the corridor. The City is working to improve the effectiveness of

the overpass by reviewing options to possibly extend the trail to 81st Avenue NE as a connection to Mounds View.

Regional Trails

The Metropolitan Council has not identified any regional trails or regional trail search corridors within the City in the 2040 Regional Parks Policy Plan. One Tier 1 Regional Bicycle Transportation Network (RBTN) Alignment exists in the City, along Highway 65.

Planned bicycle facilities and RBTN alignments are mapped in Figure 4-2.

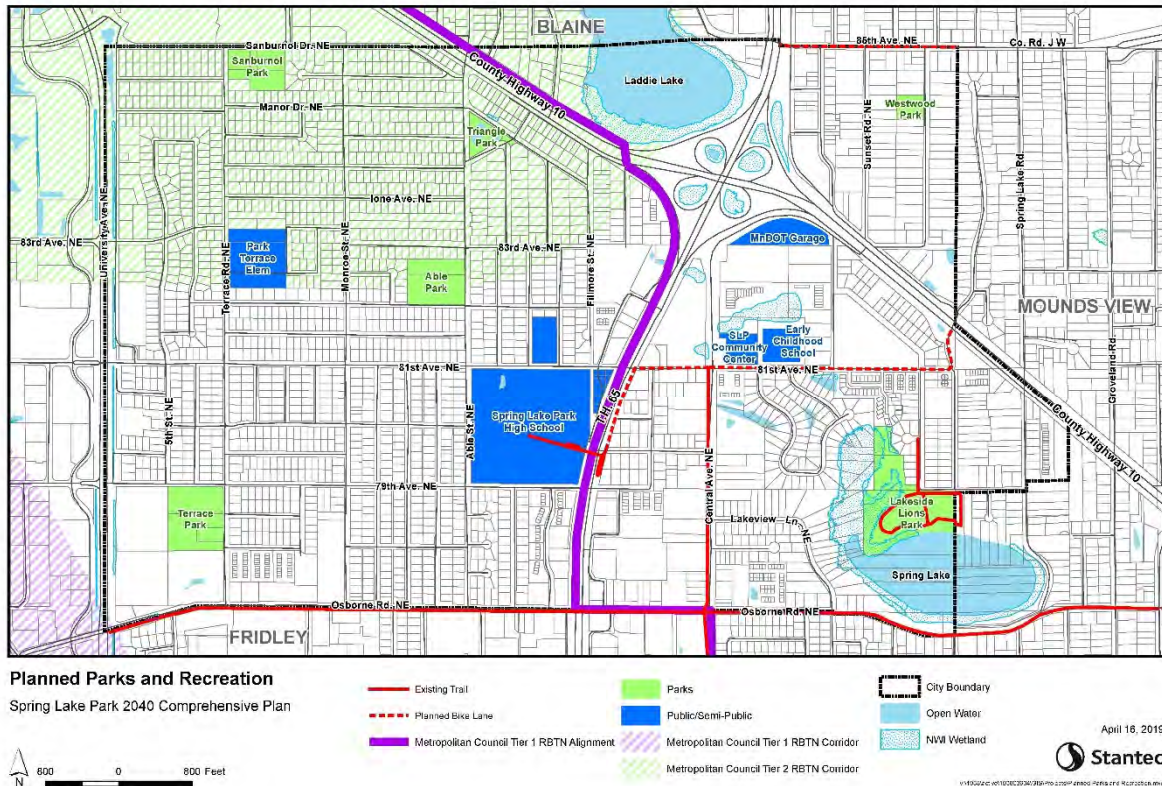


Figure 4-2: Planned Parks and Recreation

COMMUNITY FACILITIES

Community facilities include public and semi-public uses, such as schools, medical facilities, and government buildings. In general, the City’s existing facilities are in good condition and adequate for the City’s needs. However, space is limited at City Hall, which houses the City’s administrative offices and police department. The City Hall is also used regularly for City Council, Planning and Zoning Commission, and Parks and Recreation Commission meetings; community education classes; and community meetings. Space at City Hall is very limited, as there are few available conference rooms for staff meetings or adequate space for larger community meetings. Expansion or relocation of the existing City Hall will likely be necessary to accommodate additional space needs.

In addition to the physical facilities discussed above, the City provides a number of services and activities to promote the health, safety, and welfare of its residents. The City provides recycling services to



residents through curb pick-up and recycling days. The City also cooperates with Anoka County to encourage residents to utilize the Anoka County Household Waste Facility (3230 101st Ave NE, Blaine). The City communicates with residents through a variety of means, including the Spring Lake Park News in the Park quarterly newsletter, city website, and cable access channel. Other facilities that serve Spring Lake Park residents include county libraries, medical clinics and hospital, a community college (in Coon Rapids), a technical school (in Anoka), transit facilities including local and commuter bus routes and the Northstar commuter train station in Fridley, public safety, and senior services. Although some facilities are located outside City boundaries, they are provided directly to residents of Spring Lake Park from the City or through the City's collaboration with other agencies.

Existing community facilities are illustrated in Figure 4-1.

CAPITAL IMPROVEMENT PLAN

The City's CIP, including an itemized list for parks, recreation, and community facilities is included in the Appendix of this Plan.

Chapter 5: Transportation

INTRODUCTION

The purpose of the Transportation Chapter is to identify and analyze all components of a community's transportation network. This includes roads, transit, aviation, non-motorized vehicles (i.e. bicycle and pedestrian), freight and goods movement, and supporting land use. The plan develops strategies, goals, and policies for the development of a multi-modal transportation system.

Policies reflect the position of the City on the specific implementation of the Goals. The City of Spring Lake Park's transportation policies include the following:

1. Continue regular maintenance of existing City streets, including reconstruction of older streets as necessary.
2. Continue to collaborate with Anoka County on any future County-initiated improvements to County Roads.
3. Establish a program of access management in connection with the redevelopment of commercial land industrial properties.
4. Require that a developer of any proposed structure 200 feet above ground level notify the Federal Aviation Administration and the Minnesota Department of Transportation (Aeronautics) of the potential to affect navigable airspace.
5. Cooperate with the Metropolitan Council and the Metropolitan Airports Commission on potential development within the influence area of the Anoka County-Blaine Airport.
6. Cooperate with Metro Transit and Anoka County to accommodate Spring Lake Park's transit needs.
7. Limit access on Principal and A-Minor Arterials to improve the safety and capacity of these roadways.

ROADWAY SYSTEM

Functional Classification

The roadway system represents a significant component of a city's overall transportation network. Roadways are classified according to their function in the roadway network. This functional classification system creates a hierarchy of roads for the orderly movement of traffic from local residences and businesses to the highway system. A roadway functional classification is important, as it will determine a road's design features such as width, speed limit, intersection control, and access.

Roads are classified according to their degree of access and mobility:

- Principal arterials are at the top of the roadway system hierarchy. The primary purpose of principal arterials is to provide for mobility. Therefore, access on these roadways is limited. These routes are intended for travel from one region to another. Ideally, these roadways are

spaced every two to three miles in developed areas. Trunk Highway 65 is an example of a principal arterial in Spring Lake Park.

- Minor arterials are directly below principal arterials in the roadway network hierarchy. These roadways also maintain a focus on mobility, but mobility is sacrificed somewhat to allow for more access. These routes provide for travel access a region and between principal arterials. Minor arterials are ideally spaced every one-half to one mile in developed areas. Trunk Highway 47 is an example of a minor arterial in Spring Lake Park.
- Collectors provide a balance between mobility and access. Residences and businesses often have direct access to these roads. Collectors also collect traffic from local roads and distribute it onto higher order roadways. Collectors also provide for shorter trips within a small area. Ideally, collectors are spaced every ¼ to ¾ mile in developed areas. An example of a collector roadway in Spring Lake Park is Osborne Road.
- Local streets fall at the bottom of the roadway hierarchy, as their primary function is to provide for local access to homes and businesses. Local roads are intended for short trips. Typically, they connect to other local streets and to collector roadways. An example of a local street in Spring Lake Park is Filmore Street NE.

The functional classification of Spring Lake Park roadways is presented in Figure 5-1

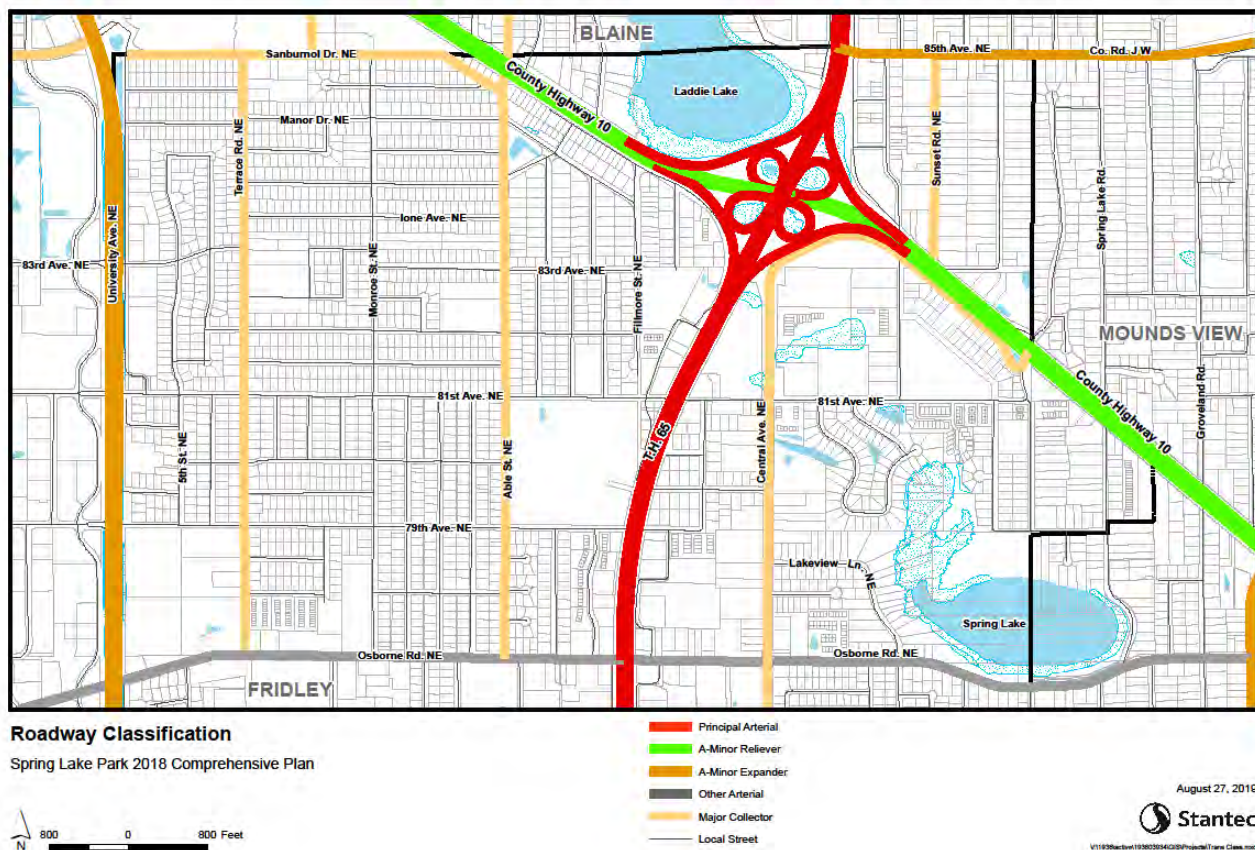


Figure 5-1: Roadway Classification

The projected 2040 traffic volumes (AADT) from the Anoka County 2040 Transportation Plan are presented in Figure 5-2.

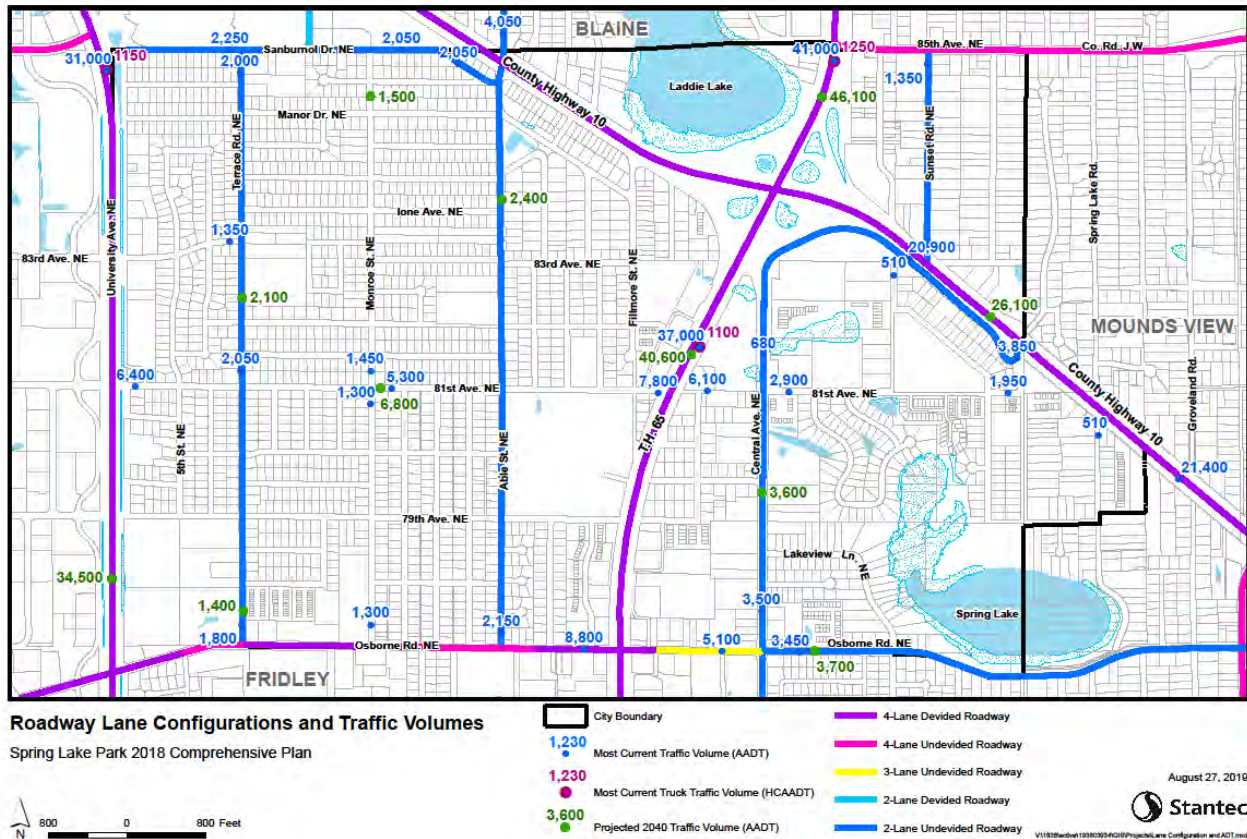


Figure 5-2: Traffic Volume and Lane Configuration

Capacity

Existing (2017) traffic volumes provided by the Metropolitan Council are shown on Figure 5-1 as well. The City currently experiences congestion at the intersection of 81st Ave and TH 65 and at the intersection of 81st Ave and TH 47. This congestion is mainly caused by the timing of the signals at these intersections. No additional lanes are planned at either of these intersections. No additional lanes are planned for any Principal or A-Minor arterial road.

Safety

Anoka County 2040 Transportation Plan

In the 2040 Transportation Plan Update, Anoka County identifies vehicle crashes from 2006 to 2015. In this 10-year period, there were 165 fatal crashes and 33,989 total crashes in the county. Of fatal and serious crashes, distracted driving accounted for approximately 20 percent and intoxicated driving accounted for approximately 18 percent.

Between 2011 and 2015, there was one fatal crash at Pleasant View Drive and County Road 10 and three serious crashes at Osborne Road and MN 65, 81st Ave and MN 65, and at Pleasant View Drive and County Road 10.



Pedestrian Safety Along University Ave NE

In the past few years, there have been numerous pedestrian fatalities along University Avenue NE, bordering Spring Lake Park and Fridley. High speed traffic, wide roadways, and limited crossing facilities make the area dangerous for people walking or running. Some of the recent incidents along the corridor include:

- Pedestrian fatality, University Avenue and 81st Street, October 14, 2016
- Pedestrian fatality, University Avenue and 57th Avenue, January 16, 2017
- Pedestrian fatality, University Avenue and Osborne Road, March 1, 2018

The Minnesota Department of Transportation is currently working with local jurisdictions to understand the issues for pedestrians and motorists along the corridor. See Chapter 4: Parks, Trails, and Community Facilities for more details on these studies.

The City will continue to cooperate with the appropriate agencies on safety issues that arise.

Access Management

Access management is a critical component of a safe and efficient roadway system. By limiting access points, safety and mobility are increased on roadways. It is also important to balance mobility needs with local access needs. As discussed above, access is limited on higher mobility roadways such as Principal Arterials, while local streets provide increased access and decreased mobility.

Anoka County has access spacing guidelines to address access, safety, and mobility issues on roadways within the County. These guidelines for urban roadways are presented below in Table 5-1.

Table 5-1: Access Spacing Guidelines (source: Anoka County)

Functional Classification	Route Speed (MPH)	Intersection (Primary Full Movement)	Spacing (Conditional Secondary)	Signal Spacing	Private Access
Principal Arterial	50 – 55	1 mile	½ mile	1 mile	Subject to conditions
	40 – 45	½ mile	¼ mile	½ mile	
	< 40	1/8 mile	300 – 600 ft	¼ mile	
Expressway	50 – 55	1 mile	½ mile	1 mile	
Minor Arterial	50 – 55	½ mile	¼ mile	½ mile	
	40 – 45	¼ mile	1/8 mile	¼ mile	
	<40	1/8 mile	300 – 660 feet	¼ mile	
Collector and Local	50 – 55	½ mile	¼ mile	½ mile	
	40 – 45	1/8 mile	N/A	¼ mile	
	< 40	1/8 mile	300 – 660 feet	1/8 mile	

Pedestrian and Bicycle System

The City of Spring Lake Park includes two bicycle trails. The first runs east to west along Osborne Road (CSAH 8/CR 108) across the length of the City. The second trail runs along Central Avenue from the Fridley City boundary to 81st Avenue NE. The City maintains both trails. There are also numerous concrete sidewalks for use by pedestrians along several streets within the City, as well as a pedestrian bridge over Highway 65 near 80th Ave.

The City does not include any regional trails. The Northtown Mall generates bicycle and pedestrian traffic.

Additional information and maps about trail facilities in Spring Lake Park can be found in Chapter 4: Parks, Trails, and Community Facilities.

Transit

Transit is an important aspect of a multi-modal transportation system. The Metropolitan Council has identified the City of Spring Lake Park as “Market Area 3.” Service options within Market Area 3 are primarily commuter express bus service with some fixed-route local service providing basic coverage. General-public dial-a-ride services are available where fixed-route service is not viable. Transit Link provides general public dial-a-ride services and Metro Mobility provides ADA dial-a-ride services in Spring Lake Park.

The City of Spring Lake Park is currently served by several bus routes, all of which are operated by Metro Transit (5-3):

- Route 10 is a local service bus route on Central Avenue (TH 65) with branches on both Monroe Street NE/Osborne Road and University Avenue NE. It terminates at the Northtown Transit Center where it connects with eight other bus lines service much of Anoka County.
- Route 59 is a limited stop bus route that runs along Central Avenue (TH 65) between Coon Rapids and downtown Minneapolis, making stops at key intersections including at Osborne Road and 81st Ave NE during weekday peak hours.
- Routes 25 and 825 offer Monday through Saturday service along 85th Avenue NE on the northeastern edge of the City.
- Route 824 is limited stop bus route that runs along University Avenue (TH 47) between Coon Rapids and downtown Minneapolis. In Spring Lake Park, this route provides service on Osborne Road and Monroe Street.
- Route 854 is an express bus route that runs along University Avenue (TH 47) between Coon Rapids and downtown Minneapolis.

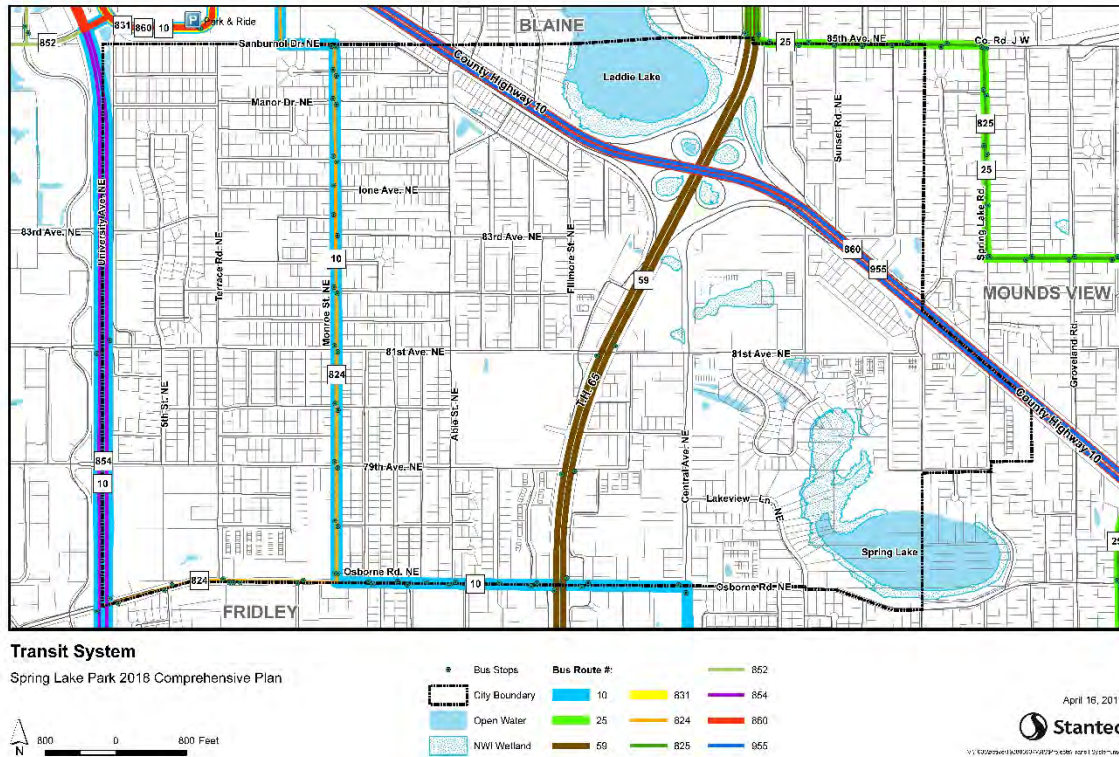


Figure 5-3: Transit System

Central Avenue BRT

In 2011 and 2012, Metro Transit studied regional corridors including Central and University Avenues for suitability of future Bus Rapid Transit lines. The Central/University alignment, if built, would travel along University Avenue (the western limit of Spring Lake Park) with approximately three stops along that border.

This segment of University Avenue - is generally two lanes in either direction with shoulder lanes on both sides and a ditch in the middle. Near intersections, the shoulder lanes generally convert to right-turn lanes and space in the ditch converts to left-turn lanes as illustrated in Figure 5-3. In the case that BRT is built along this segment of University, the shoulders could theoretically be converted to bus-only lanes. Transit priority at traffic signals may also improve performance. Any alterations to University Avenue must be coordinated with the Anoka County highway jurisdiction.

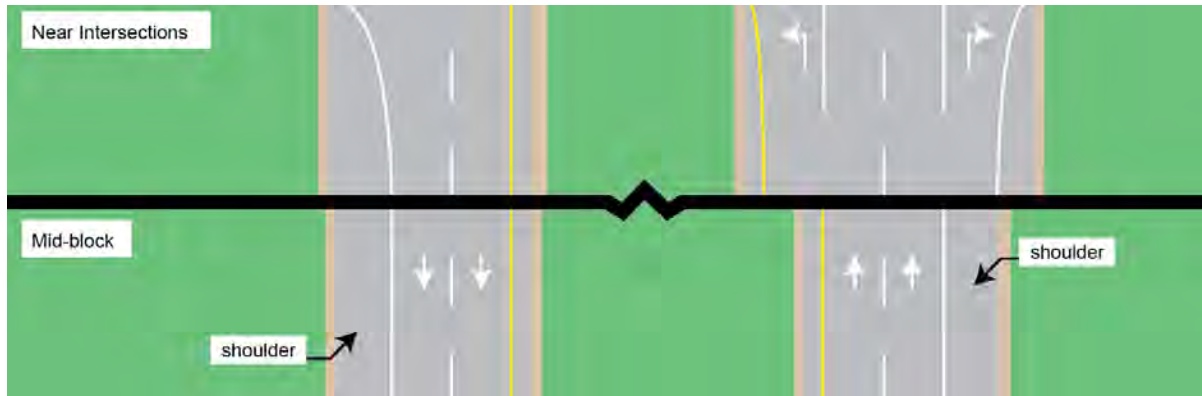


Figure 5-4: General existing condition of University Avenue (not to scale)

Although the study concluded that BRT along this corridor would improve reliability and travel speed, no further studies or implementation dates have been set. The City of Spring Lake Park will work with Metro Transit to continue to improve transit access in the area.

There are no park-and-ride facilities located within Spring Lake Park. A facility is located nearby at the Northtown Mall Transit Center, which is just north of Spring Lake Park's north boundary at University Avenue and Sanburnol Drive.

Aviation

There are no existing or planned aviation facilities within Spring Lake Park. However, the City is within the Anoka County-Blaine Airport (ANE) Influence Area. Therefore, it may be affected by planning considerations such as airport zoning, environmental mitigation, airport development and economic impacts, ground access needs, infrastructure requirements, and general land use compatibility. Development of an airspace zoning ordinance to meet the State standards is the responsibility of a joint airport/community zoning board.

In 2010, the Metropolitan Airports Commission (MAC) adopted a comprehensive plan for the Anoka County – Blaine Airport. The Plan serves as a framework for future development of the airport and compatibility with surrounding communities. The Plan also includes forecasts for air travel out of the airport with flight operations rising from 87,429 annual flights in 2015 to 88,025 flights in 2035. As such, the airport is estimated to have adequate runway capacity to support all future activity scenarios, and no new airfield expansion is currently planned.

The City will notify the Federal Aviation Administration of any alteration exceeding 200 feet above ground level or other construction or alteration as required by Federal Regulation Title 14, Part 77.

Freight

While there are some industrial and auto-oriented uses in Spring Lake Park, major trucking or freight infrastructure is limited. Heavy commercial average annual daily traffic is mapped in Figure 5-2. There are no railroads, rail terminals, or barge terminals in Spring Lake Park.



TRAFFIC ANALYSIS ZONES

TAZ Zones 250, 251, 252, and 253 fall entirely within the City of Spring Lake Park. Portions of TAZ Zones 248, 249, and 1703 are also within Spring Lake Park. All related TAZs are illustrated in Figure 5-. Population, household, and employment forecasts are allocated to the appropriate TAZs in Table 5-2. These projections assume linear growth within the time period between 2010 and 2040. The City of Spring Lake Park is entirely built-out with very few vacant parcels. New population growth in each of the six intersecting TAZs will be the result of residential and mixed-use redevelopment. More information about demographics and population growth and future land use changes are included in Chapters 1 and 2, respectively.

Table 5-2: Population, Household, and Employment Projections by TAZ (source: Metropolitan Council)

Population				
TAZ	2010	2020	2030	2040
248	23	33	35	38
249	246	291	311	335
250	1369	1409	1478	1566
251	624	709	740	787
252	1983	1929	1999	2092
253	1989	2139	2242	2368
1703	178	190	210	230
Total	6412	6700	7000	7401
Households				
TAZ	2010	2020	2030	2040
248	13	14	15	16
249	155	169	182	201
250	559	604	622	662
251	278	300	311	335
252	755	812	836	886
253	837	902	940	105
1703	75	80	100	100
Total	2672	2881	3000	3199
Employment				
TAZ	2010	2020	2030	2040
248	51	45	51	58
249	834	800	826	845
250	1265	1423	1453	1469
251	197	275	301	333
252	220	282	306	335
253	366	376	413	459
1703	66	80	100	100
Total	2999	3281	3450	3599

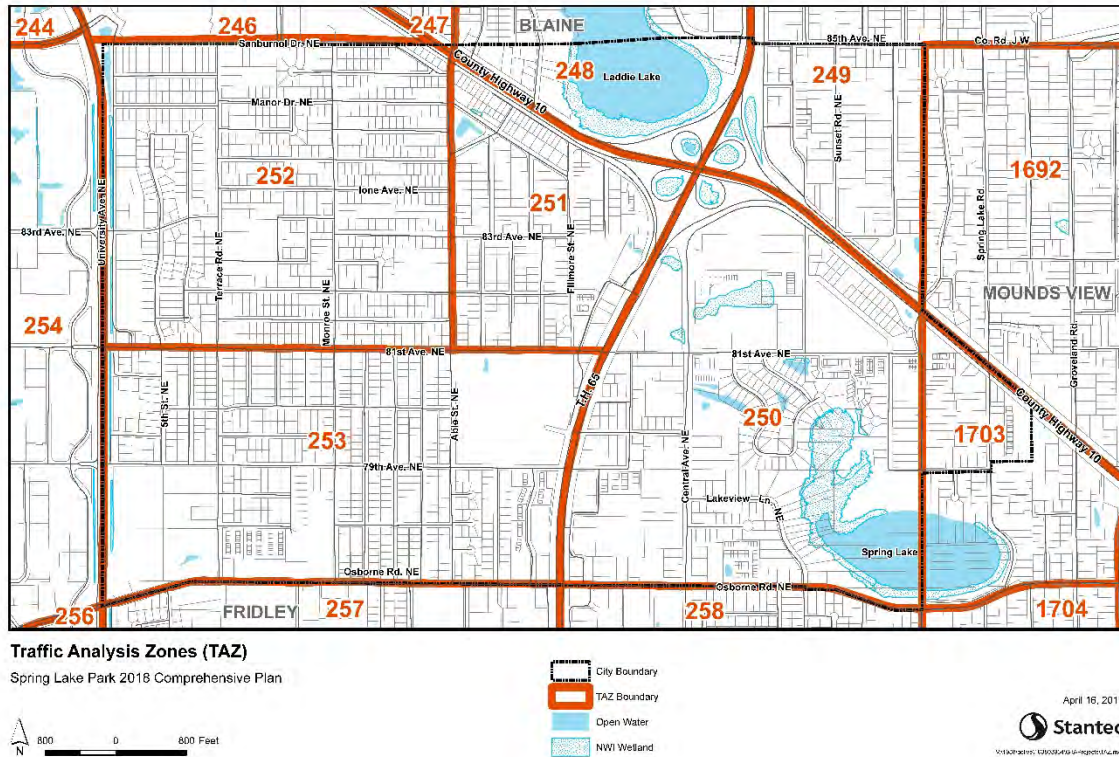


Figure 5-5: Traffic Analysis Zones (TAZ)

PLANNED IMPROVEMENTS

The City of Spring Lake Park will continue to cooperate with neighboring municipalities, Anoka and Ramsey Counties, and Mn/DOT to address access and mobility on local, county, and state roadways.

- There are no planned improvements to principle arterials in Spring Lake Park under the TPP 2040 current revenue scenario.
- There are no planned interchange improvements in Spring Lake Park.

There are no proposed MnPASS lanes within the limits of Spring Lake Park. The nearest proposed lane is along Interstate-35W approximately two miles to the east of city-limits. The proposed project involves the addition of one lane to I-35W between Roseville and Lino Lakes to accommodate a MnPASS shared high-occupancy vehicle and transit lane. No coordination between the City of Spring Lake Park and MnDOT is expected on this project.

Within the next 10-year planning period, the City will evaluate the condition of Garfield Street NE and Hayes Street NE for possible resurfacing. With the development of Hy-Vee, intersection improvements and signal timing will be implemented at 81st and MN 65. The City will continue its 7-year crack seal and seal coat maintenance program, as well as repairing any problem areas that arise.



Chapter 6: Water Resources

INTRODUCTION

The Public Facilities Chapter provides information on the City’s Sanitary Sewer, Water Supply, Local Surface Water Management Plans, and community facilities. These plans have been revised to meet new Metropolitan Council and watershed district standards. Information on these water resource plans are included as appendices to the comprehensive plan.

Water Resources Goals and Policies

The City of Spring Lake Park recognizes the importance of water resources for human and ecological services. The following goals and policies address surface water, sanitary sewer, and water supply.

1. Provide adequate sewer, water, and stormwater management to serve existing and new development.
2. Construct and operate existing and new public facilities to protect the health, safety, and welfare of residents.
3. Develop a plan consistent with the Metropolitan Council's Regional Development Framework.

Policies and Action Steps:

1. Prohibit the installation of new on-site sewer systems.
2. Encourage new development that is consistent with the capacity of the sewer and water systems.
3. Continue the City program to require polyvinyl chloride sewer pipes for all new development and redevelopment, as well as for all repairs.
4. Continue the city’s CIPP sanitary sewer lining program.
5. Continue implementation of Best Management Practices of City MS4 permit administered by the MPCA, including adoption of necessary ordinances.
6. Cooperate with the Minnesota Department of Natural Resources-Ground Level Monitoring Program to monitor groundwater levels and establish municipal baseline groundwater level information.

SANITARY SEWER

The Met Council has prepared forecasts for sewer flow to assist communities in their comprehensive planning efforts. All uses within Spring Lake Park are sewered. There are no public or privately-owned Community Wastewater Treatment Systems or individual SSTs in operation within Spring Lake Park. The sewer forecasts for Spring Lake Park are presented in Table 6-1.

Table 6-1: Sewer Forecasts

	2010	2020	2030	2040
Sewered Population	6,412	6,700	7,000	7,400
Sewered Households	2,672	2,880	3,000	3,200
Sewered Employment	3,000	3,280	3,450	3,600
Average Annual Wastewater Flow (MGD)	0.55	0.54	0.56	0.58
Allowable Peak Hourly Flow (MGD)	2.24	2.21	2.21	2.27

The City of Spring Lake Park is served by the Met Council Interceptor 4-SL-534. Currently this interceptor has an available capacity of 0.79 mgd to provide for the City’s long-term sewer and water needs. The Met Council has not scheduled any improvements for this interceptor within the Plan’s 2040 timeframe. A small area of the City near Laddie Lake is served by Interceptor 4-NS-522 in Blaine.

Spring Lake Park’s wastewater flow is treated at the Metropolitan Wastewater Treatment Plant in St. Paul. Several improvements are planned for this facility through 2040 to provide for additional plant capacity and to meet required permit standards.

There are no existing trunk sewers through the City of Spring Lake Park, and no planned trunk sewer systems requiring connection to the Metropolitan Disposal System.

As demonstrated in Table 6-1, the community’s sewer flow is anticipated to increase very slightly by the year 2040. However, the City does not anticipate any capacity issues with the existing sewer system.

There are currently no active intercommunity service agreements. The City is working on several such agreements and will supply them when they are executed.

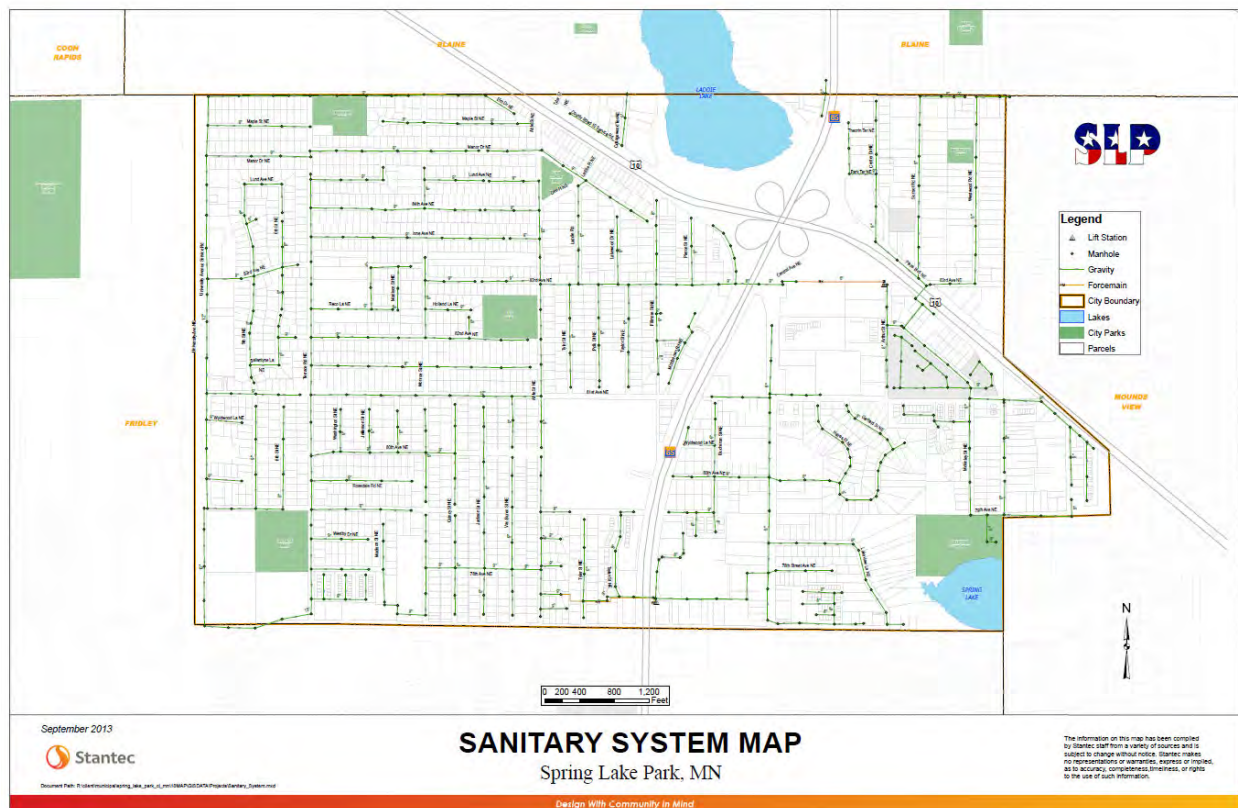


Figure 6-1 - Sanitary System Map

Inflow and Infiltration (I/I)

The Metropolitan Council has established Inflow and Infiltration (I/I) goals for all communities discharging wastewater to the Metropolitan Disposal System. Sources of I/I in the sanitary sewer system include cracks and openings in sewer mains, service laterals, joints, and deteriorated manholes, as well as possible sump pump foundation or rain leader connections. Factors that contribute to their susceptibility include age, condition, pipe material, construction, soils and water table elevation. The City has several



areas of pre-1970s era homes, especially within the northern and western portion of the City. Pre-1970 era homes have been identified by the Metropolitan Council as higher sources of potential I/I. Approximately 58.6% of homes (1529 of 2610 units) in Spring Lake Park were built prior to 1970. Those portions of the city developed prior to 1970 are prioritized for inspection.

System Evaluation

In February 2006, Metropolitan Council instituted its Inflow and Infiltration (I/I) Surcharge Program. The fundamental policy statement summarizing this program is that Metropolitan Council “will not provide additional capacity within its interceptor system to serve excessive inflow and infiltration.” The Council establishes Inflow and Infiltration thresholds for each of the communities that use its system. Communities that exceed this threshold are required to eliminate this excess flow within a reasonable timeframe or pay a surcharge fee. Spring Lake Park has not been identified by Metropolitan Council as a municipality with excessive I/I. The City does, however, take action to limit I/I and preserve capacity within its system. This program is described further in the following narrative.

The *EPA Guide for Estimating Infiltration and Inflow (June 2014)* was used to estimate the proportion of I/I contribution in the City’s wastewater system. Monthly flow data were obtained from the Metropolitan Council for the period of 2015 to 2018. Monthly average flows for the four-year period March to November (representative of a wet portion of the year) and December to February (representative of a dry portion of the year) were calculated. It was determined that the wet monthly average flow (March-November) was 19.12 mg and that the dry monthly average flow (December-February) was 17.16 mg. Thus, on average, I/I contributes roughly 1.96 mg monthly (roughly 11% of base flows). The peak flow for the City of Spring Lake Park is 25.20 mg in August 2011.

Potential sources of I/I could include:

- Groundwater infiltration in low areas around lakes within the City.
- Underground springs that may contribute to groundwater infiltration.
- The increasing frequency of high-intensity rain events in the region that contribute inflow, especially when the 100-year high-water level is exceeded, and,
- Compromised sewer lines and manholes.

Goals, Policies and Strategies to Address I/I

To reduce I/I and to achieve its I/I goal established by the Met Council, the City has adopted Ordinance §50.20 to prohibit discharge from sump pumps, foundation drains, and roof leaders to the sanitary sewer system.

§50.20 Clear Water in Sanitary Sewer System Prohibited.

“It shall be unlawful for any owner, occupant, or user of any premises to direct into or allow any storm water, ground water, or surface water, or water from air conditioning systems to drain into the sanitary sewer system of the city.”

The City does not have an ordinance that requires the disconnection of existing foundation drains, sump pumps, and roof leaders from the sanitary sewer system but the City is steadfast in maintaining its sewer system. Portions of the City’s sewer are televised regularly in a rotation, especially areas of pre-1970 homes. During these inspections, services exhibiting constant clear water flows are noted and investigated for possible illegal connections. The City requires that all new sewer construction and all repairs of existing sewers be constructed with polyvinyl chloride pipes and the City completes regular sanitary sewer lining maintenance projects. The City’s Capital Improvement Plan (CIP) allocates



\$150,000 per year for sewer lining in order to remediate I/I sources identified in the City. The CIP is attached as an appendix. The City’s implementation plan for minimizing inflow and infiltration is shown below in Table 6-2.

Table 6-2: Implementation Costs and Timeline

I/I Implementation Activity	Cost	Timeline
Televise and inspect sewer facilities for leaks	\$10,000	Annual
Inspect sewer facilities in response to backups	\$12,000	Continually (as needed)
Sewer Lining	\$150,000	Annual
Disconnect prohibited/unused connections to sewer	\$1,000	Continually (as needed)

SURFACE WATER MANAGEMENT

Spring Lake Park is within the Rice Creek Watershed District and the Coon Creek Watershed District. After watershed district plans are developed and approved, local communities are required to complete a local surface water management plan. The City of Spring Lake Park has updated their Local Surface Water Management Plan (LSWMP) to reflect the needs of the watershed districts and the Metropolitan Council. A full copy of the plan is included in the appendices of this comprehensive plan.

WATER SUPPLY PLANNING

The City of Spring Lake Park is served by four wells, with two treatment facilities. The City completed a Wellhead Protection Plan, which was approved by the Minnesota Department of Health in May 2018. The Plan establishes Drinking Water Supply Management Areas (DWSMA) around city wells and establishes goals for the protection of its water supply over the next ten years. The City also participates in the Anoka County Municipal Wellhead Planning Group, a joint power organization that promotes cooperation and coordination among area cities to protect the area’s water supply.

In lieu of completing a Water Supply Plan Chapter, the City has completed the DNR’s Emergency and Conservation Water form, which fulfills the requirements of the Water Supply Chapter. This form is included in the Appendix of this plan for reference.

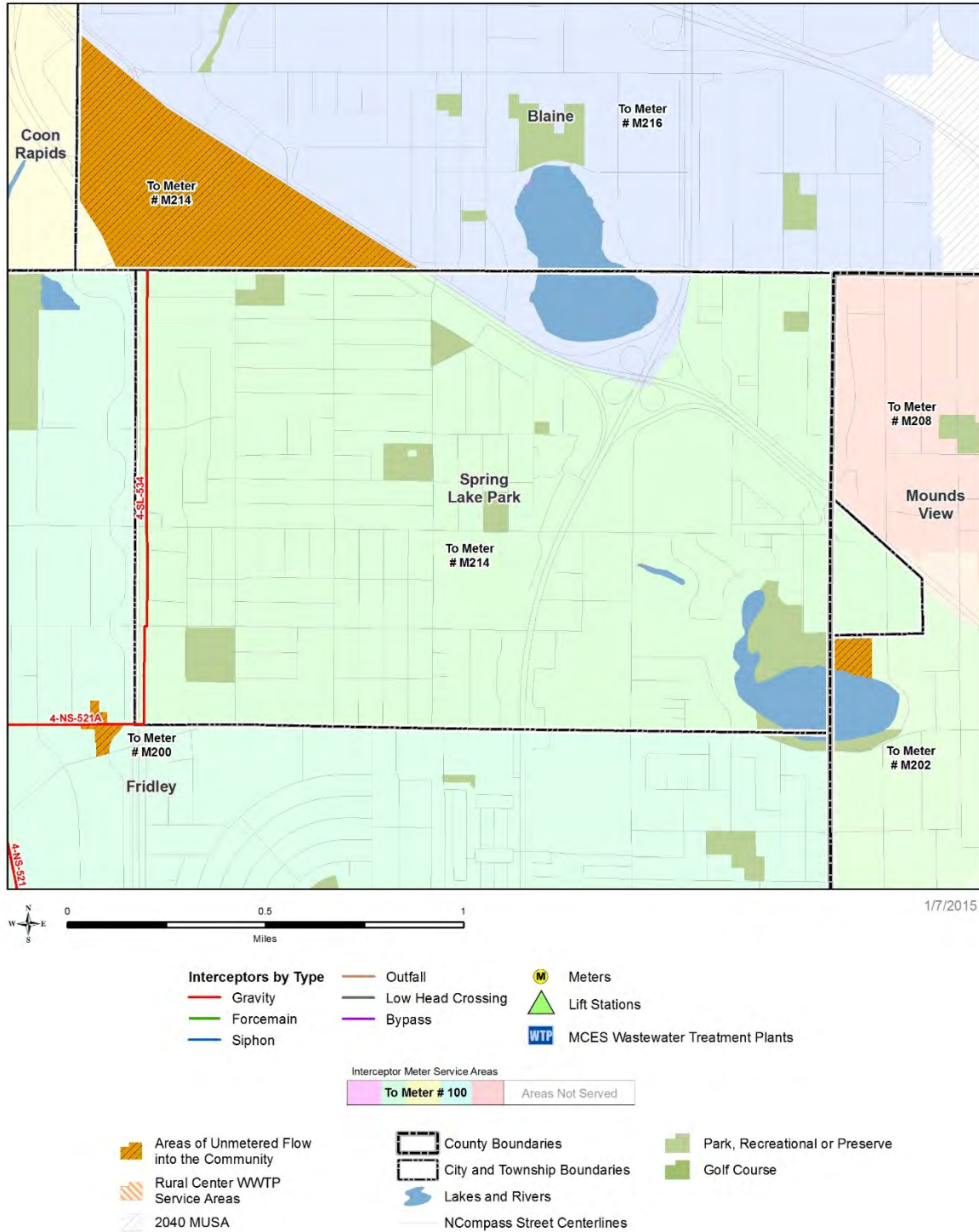


Figure 6-2: MCES Sanitary Sewer Meter Service Areas



Chapter 7: Implementation

INTRODUCTION

The implementation of the Comprehensive Plan does not end with adoption. The City's official controls, the zoning ordinance and subdivision regulations, will ensure day to day monitoring and enforcement of the policy plan. The regulatory provisions of both ordinances, as revised, will provide a means of managing development in the City in a manner consistent with the Comprehensive Plan. The City's Capital Improvements Program will enable needed improvements identified in the plan to be programmed and implemented in a timely and cost-effective manner.

OFFICIAL CONTROLS

As part of the planning process, the City will evaluate its land use controls and consider amendments to existing ordinances to eliminate inconsistencies with the Comprehensive Plan, enhance performance standards, protect public and private investments, and to conform to mandatory State and Federal regulations.

The plan identifies a number of specific changes to the zoning ordinance and subdivision regulations which need to be considered by the City. Some of these changes include:

- Changes in the zoning map to make the zoning of property consistent with the policies and provisions of this plan. The City's existing zoning map is presented in Figure 7-1. The City will also make any necessary changes to zoning text to ensure consistency with the Comprehensive Plan.
 - Completed within 9 months of approval of the Comprehensive Plan. .
- Completion of a local surface water management plan.
 - Completed by December 2018.
- Adopt an ordinance prohibiting the connection of sump pumps to the sanitary sewer system.
 - Completed within 9 months of approval of Comprehensive Plan. .
- The City will make any necessary changes to the subdivision ordinance to ensure consistency with the Comprehensive Plan.
 - Within 9 months of approval of the Comprehensive Plan

A full list of policies with timeline for implementation is outlined later in this chapter.

To achieve the goals of this Comprehensive Plan, the City of Spring Lake Park will use the following official controls, programs and fiscal devices to implement changes proposed within the plan:

1. Zoning Map and Categories

Zoning is the primary regulatory tool used by local governments to implement their comprehensive plan. City zoning code regulates land use to promote the health, safety, order, convenience and general welfare of all residents. The zoning code regulates the location, size, use and height of buildings, the arrangement of buildings on lots, and the density of the population within the City.

In 2015, the City of Spring Lake Park revised their entire zoning code to reflect changes in the community and provide a more concise and user-friendly code document. The code consists of the

official zoning map and the supporting ordinance text. The official map divides the community into a series of zoning districts and the text describes regulations for the use of land within these districts. Zoning districts in Spring Lake Park are mapped in Figure 1-1. Zoning districts are listed in the following section. Full regulations for all districts can be found in the City’s Code of Ordinances §153.

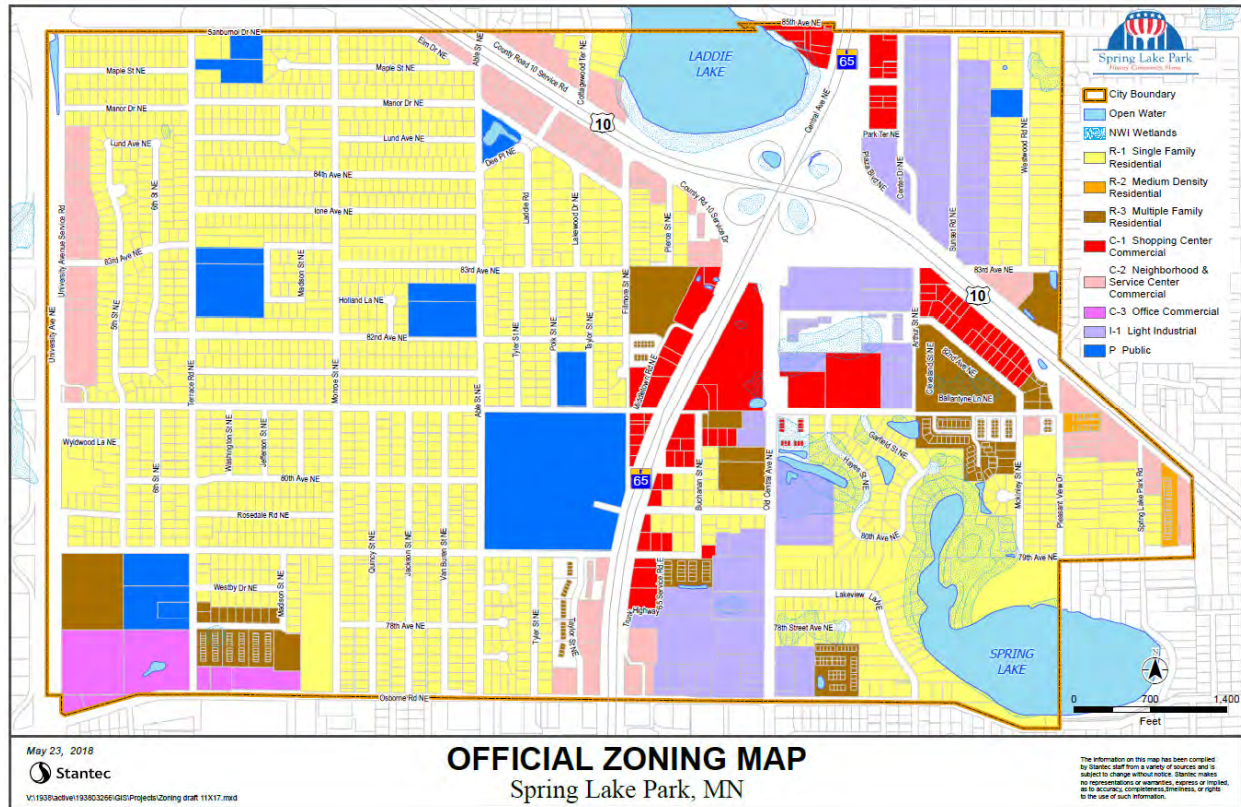


Figure 1-1 - Zoning Map

Residence Districts

R-1, single-family residence district: This district is intended to preserve, create, and enhance areas of exclusive single-family development where that development fits the Comprehensive Plan, and where two-family dwellings may be allowed by conditional use permit.

R-2, medium density residence district: This district is intended to provide for medium density residential use which stresses individually owned dwelling units to provide a transition between lower and higher densities and between incompatible land uses.

R-3, multiple-family residence district: This district is intended to provide a residence area in which multiple dwellings not exceeding six units per building may be allowed, except by conditional use permit.

Non-residence Districts

C-1, shopping center commercial district: This district is intended to provide a district which may be applied to land in single ownership or unified control for the purpose of developing a planned business center with a unified and organized arrangement of buildings and service facilities at key locations which are suitable for the use and which are centrally located within the residential area they are intended to serve.



C-2, neighborhood and service commercial district: This district is intended for the convenience of persons residing in nearby residential areas and is limited in its function to accommodating the basic day-to-day shopping needs of the typical family. It is also intended as a business district which may be located in separate areas adjacent to shopping centers and thus help to keep the basic retail areas compact and convenient, and in other separate areas to provide a district which may be located in close proximity to a major thoroughfare or highway in order that highway service types of land use can be provided.

C-3, office commercial district: This district is intended to provide a district which is related to and may reasonably adjoin high density or other residential districts for the location and development of administrative office buildings, medical uses, and related office uses which are subject to more restrictive controls.

I-1, light industrial district: The light industrial district is established to provide employment opportunities and to group industrial and certain uses in locations accessible to highways for the safe and effective movement of raw materials, finished products, and employees.

2. Subdivision Ordinance

The subdivision ordinance regulates the subdivision and platting of land within the City, ensuring that a new development or redevelopment meets the standards of the city for a safe, functional, and enjoyable community. The subdivision ordinance also facilitates adequate provision for transportation, water, sewage, storm drainage, electric utilities, streets, parks, and other public services and facilities essential to any development. The subdivision of land promotes the public health, safety and general welfare of the city and helps achieve the vision of this comprehensive plan by providing for standards in the development of land.

3. Environmental Regulations

The City of Spring Lake Park has completed a Local Surface Water Management Plan (LSWMP) and Local Water Supply Plan (LWSP) which are included as appendices to the Comprehensive Plan.

4. Building and Nuisance Codes

The purpose of the building and nuisance codes are to safeguard the public health, safety and general welfare of all residents. The building code applies statewide for construction reconstruction, alteration, and repair of buildings and other structures of the type governed by the code. The building code is adopted as a part of the Spring Lake Park code of ordinances. The nuisance code is administered directly by the City and protects against common nuisances found within the City. Both the building code and nuisance code regulate and control the physical development within the City and assist with the implementation of goals within the comprehensive plan.

5. Capital Improvement Plan (CIP)

The City will annually update a five-year capital improvements program which identifies major capital expenditures consistent with the Plan. The program should include public and private investments in infrastructure, park and trail development expenditures, infrastructure repair and replacement, building maintenance and repair and other planned capital expenditures. Like the Comprehensive Plan, the capital improvements planning process is ongoing and subject to modification, as appropriate. Spring Lake Park's Capital Improvement Program is included in the Appendix, for reference.



POLICIES AND TIMELINE FOR IMPLEMENTATION

Land Use	Implementing Body	Timeline
Establish a future land use plan that will enable the City to meet its population, and household and employment forecasts.	City staff and elected officials	Short-term
Provide for the rezoning of properties currently improved with residential uses but designated for commercial or industrial uses by the adopted comprehensive plan update, at such time as proposals for industrial or commercial developments are presented to the City for review, with the intent that current residential property owners with nonconforming uses shall not be jeopardized in the event that a natural or man-made disaster destroys their dwellings.	City staff and elected officials	Ongoing
Work with property owners to create redevelopment standards in existing single-family residential neighborhoods that are consistent with neighboring homes.	City staff and elected officials	Medium-term
Continue to provide for zoning restrictions on properties designated for commercial/industrial uses so that there will be appropriate buffers between commercial/industrial development and adjacent residential uses.	City staff and elected officials	Ongoing
Approve ordinance provisions that are consistent with land use designations established in the adopted comprehensive plan update.	City staff and elected officials	Short-term
Review and amend the City’s Code of Ordinances and Zoning Code as needed to reflect changes in the community.	City staff and elected officials	Short-term
Housing	Implementing Body	Timeline
Provide qualified residents with information about housing maintenance and rehabilitation programs administered by Anoka County Housing and Redevelopment Authority and the Minnesota Housing Finance Agency.	City staff	Short-term
Pursue the development of new housing to accommodate a range of housing needs, particularly executive and senior housing.	City staff	Long-term
Research and engage with experts and the community on best management practices and policies regarding accessory dwelling units in residential neighborhoods.	City staff	Medium-term



Parks, Trails, and Community Facilities	Implementing Body	Timeline
Complete renovations of park buildings to meet the needs of park users and visitors.	City staff	Medium-term
Explore the renovation or relocation of City Hall to better meet the needs of constituents.	City staff	Long-term
Work with Anoka County to rebuild Osborne Trail in areas needing pavement maintenance.	City staff and Anoka County	Medium-term
Collaborate with other agencies and partners to implement new regional or multi-jurisdictional trails in Spring Lake Park and neighboring communities.	City staff and multi-jurisdictional staff	Medium-term
Transportation	Implementing Body	Timeline
Continue regular maintenance of existing City streets, including reconstruction of older streets as necessary.	City staff and elected officials	Ongoing
Continue to collaborate with Anoka County on any future County-initiated improvements to County Roads.	Anoka County and City staff	Ongoing
Establish a program of access management in connection with the redevelopment of commercial land industrial properties.	City staff and elected officials	Medium-term
Require that a developer of any proposed structure 200 feet above ground level notify the Federal Aviation Administration and the Minnesota Department of Transportation (Aeronautics) of the potential to affect navigable airspace.	City staff	Ongoing
Cooperate with the Metropolitan Council and the Metropolitan Airports Commission on potential development within the influence area of the Anoka County-Blaine Airport.	City staff and elected officials	Long-term
Cooperate with Metro Transit and Anoka County to accommodate Spring Lake Park’s transit needs.	City staff and elected officials	Ongoing
Limit access on Principal and A-Minor Arterials to improve the safety and capacity of these roadways.	City staff and elected officials	Ongoing



Water Resources	Implementing Body	Timeline
Prohibit the installation of new on-site sewer systems.	City staff and elected officials	Short-term and ongoing
Encourage new development that is consistent with the capacity of the sanitary sewer and water systems.	City staff and elected officials	Ongoing
Continue the City program to require polyvinyl chloride sewer pipes for all new development and redevelopment, as well as for all repairs.	City staff and elected officials	Ongoing
Continue implementation of Best Management Practices of City MS4 permit administered by the MPCA, including adoption of necessary ordinances.	City staff and elected officials	Ongoing
Cooperate with the Minnesota Department of Natural Resources-Ground Level Monitoring Program to monitor groundwater levels and establish municipal baseline groundwater level information.	City staff and elected officials	Ongoing



PLAN AMENDMENT PROCESS

The Comprehensive Plan is intended to be general and flexible; however, formal amendments to the Plan will be required when land use elements are revised. Periodically, the City should undertake a formal review of the plan to determine if amendments are needed to address changing factors or events in the community. While a plan amendment can be initiated at any time, the City should carefully consider the implications of the proposed changes before their adoption.

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

1. Amendments may be initiated by land owners, land developers, the Planning and Zoning Commission or the City Council.
2. The Planning and Zoning Commission will direct the City staff to prepare a thorough analysis of the proposed amendment.
3. The City staff will present to the Planning and Zoning Commission a report analyzing the proposed changes, including their findings and recommendations regarding the proposed plan amendment.
4. The Planning and Zoning Commission will decide whether or not to proceed with the proposed amendment. If a decision to proceed is made, a formal public hearing will be held on the proposed amendment.
5. Following the public hearing the Planning and Zoning Commission will make a recommendation to the City Council.
The City Council will receive the recommendation from the Planning and Zoning Commission and make a final decision on whether to adopt the amendment.

All amendments to the plan must be submitted to the Metropolitan Council for review prior to implementation.

Appendix A: Capital Improvement Plan

City of Spring Lake Park
2019-2023 Capital Improvement Plan - Projects by Department

Department	Project	2019	2020	2021	2022	2023	Total
Administration							
	Photocopier	\$ -	\$ -	\$ -	22,000	\$ -	22,000
	City Council Technology	\$ 5,600	\$ -	\$ -	\$ -	\$ -	5,600
	Computer System Replacement	\$ 173,813	\$ -	\$ -	\$ -	\$ -	173,813
	Administration Total	\$ 179,413	\$ -	\$ -	22,000	\$ -	201,413
City Facilities							
	City Hall Renovation/Expansion	\$ -	\$ -	500,000	7,768,597	\$ -	8,268,597
	Gun Range Renovation/Range Filtration System	\$ -	\$ -	\$ -	500,000	\$ -	500,000
	City Facilities Total	\$ -	\$ -	500,000	8,268,597	\$ -	8,768,597
Code Enforcement							
	Code Enforcement Vehicle Replacement	\$ -	24,500	\$ -	\$ -	\$ -	24,500
	Code Enforcement Total	\$ -	24,500	\$ -	\$ -	\$ -	24,500
Police Department							
	Inner Evidence Room Expansion	\$ 10,000	\$ -	\$ -	\$ -	\$ -	10,000
	Patrol Squad Car Light Bars	\$ -	\$ -	15,000	\$ -	\$ -	15,000
	Photocopier	\$ -	\$ -	\$ -	\$ -	20,000	20,000
	Squad Car Replacement	\$ 36,521	\$ 36,521	\$ 36,521	\$ 36,521	\$ 36,521	182,605
	Police Department Total	\$ 46,521	\$ 36,521	\$ 51,521	\$ 36,521	\$ 56,521	227,605
Fire Department							
	Engine 1 Mini	\$ -	\$ -	27,020	\$ -	\$ -	27,020
	Engine 3 Mini	\$ -	\$ -	\$ -	\$ -	27,659	27,659
	Staff Vehicles	\$ 5,596	\$ -	5,276	\$ -	5,836	16,707
	Tanker 3 Refurbishment and Apparatus Equipment	\$ -	30,137	\$ -	\$ -	\$ -	30,137
	Rescue 4 Refurbishment	\$ -	\$ -	\$ -	18,546	\$ -	18,546
	Utility 14 Replacement	\$ -	\$ -	\$ -	18,546	\$ -	18,546
	Station 4 Roof	\$ -	\$ -	\$ -	3,997	\$ -	3,997
	Station Infrastructure	\$ 5,196	3,797	3,997	4,197	4,397	21,584
	Radios	\$ 10,392	\$ -	\$ -	\$ -	\$ -	10,392
	RMS/Computer	\$ 1,599	1,599	1,599	1,599	3,198	9,593
	Fitness Equipment	\$ -	\$ -	1,999	\$ -	\$ -	1,999
	Personal Protective Equipment	\$ 3,198	3,517	3,677	3,837	3,997	18,226
	Apparatus Equipment	\$ -	3,597	4,796	5,436	\$ -	13,830
	Auto Extraction	\$ 3,198	\$ -	\$ -	\$ -	\$ -	3,198
	Washers and Dryers	\$ -	\$ -	\$ -	\$ -	5,996	5,996
	SCBA	\$ -	\$ -	23,422	\$ -	24,941	48,364
	Fire Total	\$ 29,178	\$ 42,648	\$ 71,786	\$ 56,158	\$ 76,023	275,793

Department	Project	2019	2020	2021	2022	2023	Total
Park & Recreation							
	Osborne Road Trail Reconstruction - Phase II	\$ 60,000	\$ -	\$ -	\$ -	\$ -	60,000
	Osborne Road Trail Reconstruction - Phase III	\$ -	\$ 150,000	\$ -	\$ -	\$ -	150,000
	Terrace Park - Trees - west fence line	\$ 3,000	\$ -	\$ -	\$ -	\$ -	3,000
	Terrace Park Sidewalk, Sod, Seating Area, etc.	\$ -	\$ 5,000	\$ -	\$ -	\$ -	5,000
	Terrace Park Sport Court Resurface	\$ 6,000	\$ -	\$ -	\$ -	\$ -	6,000
	Terrace Park Playground Equipment - Pre-school	\$ 50,000	\$ -	\$ -	\$ -	\$ -	50,000
	Terrace Park Ballfield Lighting	\$ -	\$ -	\$ -	\$ 25,000	\$ -	25,000
	Terrace Park Gaga Ball Pit	\$ 1,500	\$ -	\$ -	\$ -	\$ -	1,500
	Able Park Basketball Court Resurface	\$ 3,000	\$ -	\$ -	\$ -	\$ -	3,000
	Able Park Building	\$ -	\$ -	\$ -	\$ -	\$ 425,000	425,000
	Able Park Hockey Rink Concrete/New Boards	\$ -	\$ -	\$ 60,000	\$ -	\$ -	60,000
	Sanburnol Park Grills/Picnic Tables	\$ -	\$ 3,000	\$ -	\$ -	\$ -	3,000
	Sanburnol Park Sidewalk	\$ -	\$ -	\$ -	\$ 6,000	\$ -	6,000
	Sanburnol Park Irrigation Expansion	\$ -	\$ -	\$ -	\$ 30,000	\$ -	30,000
	Sanburnol Park Playground Equipment	\$ -	\$ -	\$ 100,000	\$ -	\$ -	100,000
	Sanburnol Park Ballfield Lighting	\$ -	\$ -	\$ -	\$ 60,000	\$ -	60,000
	Sanburnol Ballfield Player Bench Sunscreens	\$ -	\$ -	\$ -	\$ -	\$ 42,000	42,000
	Triangle Park Monument Sign	\$ 15,000	\$ -	\$ -	\$ -	\$ -	15,000
	Triangle Park Irrigation	\$ 20,000	\$ -	\$ -	\$ -	\$ -	20,000
	Triangle Park Grills	\$ 1,200	\$ -	\$ -	\$ -	\$ -	1,200
	Westwood Park Flower Garden/Rain Garden	\$ -	\$ -	\$ 2,000	\$ -	\$ -	2,000
	Westwood Park Half-Court Basketball Court	\$ -	\$ -	\$ 10,000	\$ -	\$ -	10,000
	Westwood Park Irrigation	\$ -	\$ -	\$ -	\$ -	\$ 50,000	50,000
	Lakeside Lions Park Irrigation Expansion	\$ 8,000	\$ -	\$ -	\$ -	\$ -	8,000
	Lakeside Lions Park Flower Garden	\$ -	\$ 5,000	\$ -	\$ -	\$ -	5,000
	Lakeside Lions Park Rain Garden	\$ -	\$ 4,000	\$ -	\$ -	\$ -	4,000
	Lakeside Lions Park Ballfield Lighting	\$ -	\$ -	\$ -	\$ 60,000	\$ -	60,000
	Parks and Recreation Total	\$ 167,700	\$ 167,000	\$ 172,000	\$ 181,000	\$ 517,000	\$ 1,204,700

Public Works

	Ballfield Groomer	\$ 30,000	\$ -	\$ -	\$ -	\$ -	30,000
	Replace Dump Truck/Plow/Sander/Wing	\$ 210,000	\$ -	\$ -	\$ -	\$ -	210,000
	Air compressor	\$ -	\$ 30,000	\$ -	\$ -	\$ -	30,000
	Wood Chipper	\$ -	\$ 40,000	\$ -	\$ -	\$ -	40,000
	Bobcat	\$ -	\$ -	\$ -	\$ 40,000	\$ -	40,000
	Parks Mower	\$ -	\$ -	\$ -	\$ -	\$ 60,000	60,000
	One-ton truck with Box & Plow	\$ -	\$ -	\$ -	\$ -	\$ 60,000	60,000
	Front end loader with Plow & Wing	\$ -	\$ -	\$ -	\$ -	\$ 250,000	250,000
	Sealcoating	\$ 85,000	\$ 85,000	\$ 85,000	\$ 85,000	\$ 85,000	425,000
	Public Works Total	\$ 325,000	\$ 155,000	\$ 85,000	\$ 125,000	\$ 455,000	\$ 1,145,000

Department	Project	2019	2020	2021	2022	2023	Total
Public Utilities							
	Pickup Replacement	\$ 40,000	\$ 40,000	\$ 40,000	\$ 40,000	\$ 40,000	\$ 200,000
	SCADA System Upgrade	\$ -	\$ -	\$ 30,000	\$ -	\$ -	\$ 30,000
	Televising Camera	\$ -	\$ -	\$ 125,000	\$ -	\$ -	\$ 125,000
	Arthur Street Treatment Plant Rehabilitation	\$ 200,000	\$ -	\$ -	\$ -	\$ -	\$ 200,000
	Water Main Lining	\$ -	\$ -	\$ -	\$ 200,000	\$ 200,000	\$ 400,000
	Fridley/SLP Water Interconnect	\$ -	\$ 60,000	\$ -	\$ -	\$ -	\$ 60,000
	Sewer Lining	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 750,000
	Public Utilities Total	\$ 390,000	\$ 250,000	\$ 345,000	\$ 390,000	\$ 390,000	\$ 1,765,000
Storm Water							
	Fillmore Street/83rd Avenue Pond	\$ -	\$ 50,000	\$ -	\$ -	\$ -	\$ 50,000
	81st Avenue/Garfield Area Pond	\$ 320,000	\$ -	\$ -	\$ -	\$ -	\$ 320,000
	Pleasant View Drive/79th Avenue	\$ -	\$ 15,000	\$ -	\$ -	\$ -	\$ 15,000
	Pond Dredging	\$ -	\$ -	\$ -	\$ -	\$ 50,000	\$ 50,000
	Storm Water Total	\$ 320,000	\$ 65,000	\$ -	\$ -	\$ 50,000	\$ 435,000
	GRAND TOTAL	\$ 1,457,812	\$ 740,669	\$ 1,225,307	\$ 9,079,276	\$ 1,544,544	\$ 14,047,608

City of Spring Lake Park
2019-2023 Capital Improvement Plan - Projects by Funding Source

Fund/Dept	Project	2019	2020	2021	2022	2023	Total
101 - General Fund							
Police Department	Squad Car Replacement	\$ 36,521	\$ 36,521	\$ 36,521	\$ 36,521	\$ 36,521	\$ 182,605
Fire Department	Engine 1 Mini	\$ -	\$ -	\$ 27,020	\$ -	\$ -	\$ 27,020
Fire Department	Engine 3 Mini	\$ -	\$ -	\$ -	\$ -	\$ 27,659	\$ 27,659
Fire Department	Staff Vehicles	\$ 5,596	\$ -	\$ 5,276	\$ -	\$ 5,836	\$ 16,707
Fire Department	Tanker 3 Refurbishment and Apparatus Equipment	\$ -	\$ 30,137	\$ -	\$ -	\$ -	\$ 30,137
Fire Department	Rescue 4 Refurbishment	\$ -	\$ -	\$ -	\$ 18,546	\$ -	\$ 18,546
Fire Department	Utility 14 Replacement	\$ -	\$ -	\$ -	\$ 18,546	\$ -	\$ 18,546
Fire Department	Station 4 Roof	\$ -	\$ -	\$ -	\$ 3,997	\$ -	\$ 3,997
Fire Department	Station Infrastructure	\$ 5,196	\$ 3,797	\$ 3,997	\$ 4,197	\$ 4,397	\$ 21,584
Fire Department	Radios	\$ 10,392	\$ -	\$ -	\$ -	\$ -	\$ 10,392
Fire Department	RMS/Computer	\$ 1,599	\$ 1,599	\$ 1,599	\$ 1,599	\$ 3,198	\$ 9,593
Fire Department	Fitness Equipment	\$ -	\$ -	\$ 1,999	\$ -	\$ -	\$ 1,999
Fire Department	Personal Protective Equipment	\$ 3,198	\$ 3,517	\$ 3,677	\$ 3,837	\$ 3,997	\$ 18,226
Fire Department	Apparatus Equipment	\$ -	\$ 3,597	\$ 4,796	\$ 5,436	\$ -	\$ 13,830
Fire Department	Auto Extraction	\$ 3,198	\$ -	\$ -	\$ -	\$ -	\$ 3,198
Fire Department	Washers and Dryers	\$ -	\$ -	\$ -	\$ -	\$ 5,996	\$ 5,996
Fire Department	SCBA	\$ -	\$ -	\$ 23,422	\$ -	\$ 24,941	\$ 48,364
	General Fund Total	\$ 65,699	\$ 79,169	\$ 108,307	\$ 92,679	\$ 112,544	\$ 458,398
225 - Park Acquisition & Improvements							
Park & Rec	Terrace Park - Trees - west fence line	\$ 3,000	\$ -	\$ -	\$ -	\$ -	\$ 3,000
Park & Rec	Terrace Park Ballfield Lighting	\$ -	\$ -	\$ -	\$ 25,000	\$ -	\$ 25,000
Park & Rec	Terrace Park Gaga Ball Pit	\$ 1,500	\$ -	\$ -	\$ -	\$ -	\$ 1,500
Park & Rec	Sanburnol Park Grills/Picnic Tables	\$ -	\$ 3,000	\$ -	\$ -	\$ -	\$ 3,000
Park & Rec	Sanburnol Park Sidewalk	\$ -	\$ -	\$ -	\$ 6,000	\$ -	\$ 6,000
Park & Rec	Sanburnol Park Irrigation Expansion	\$ -	\$ -	\$ -	\$ 30,000	\$ -	\$ 30,000
Park & Rec	Sanburnol Park Playground Equipment	\$ -	\$ -	\$ 100,000	\$ -	\$ -	\$ 100,000
Park & Rec	Sanburnol Park Ballfield Lighting	\$ -	\$ -	\$ -	\$ 60,000	\$ -	\$ 60,000
Park & Rec	Sanburnol Ballfield Player Bench Sunscreens	\$ -	\$ -	\$ -	\$ -	\$ 42,000	\$ 42,000
Park & Rec	Triangle Park Irrigation	\$ 20,000	\$ -	\$ -	\$ -	\$ -	\$ 20,000
Park & Rec	Triangle Park Grills	\$ 1,200	\$ -	\$ -	\$ -	\$ -	\$ 1,200
Park & Rec	Westwood Park Flower Garden/Rain Garden	\$ -	\$ -	\$ 2,000	\$ -	\$ -	\$ 2,000
Park & Rec	Westwood Park Half-Court Basketball Court	\$ -	\$ -	\$ 10,000	\$ -	\$ -	\$ 10,000
Park & Rec	Westwood Park Irrigation	\$ -	\$ -	\$ -	\$ -	\$ 50,000	\$ 50,000
Park & Rec	Lakeside Lions Park Irrigation Expansion	\$ 8,000	\$ -	\$ -	\$ -	\$ -	\$ 8,000
Park & Rec	Lakeside Lions Park Flower Garden	\$ -	\$ 5,000	\$ -	\$ -	\$ -	\$ 5,000
Park & Rec	Lakeside Lions Park Rain Garden	\$ -	\$ 4,000	\$ -	\$ -	\$ -	\$ 4,000
	Park Acquisition/Improvements Total	\$ 33,700	\$ 12,000	\$ 112,000	\$ 121,000	\$ 92,000	\$ 370,700

Fund/Dept	Project	2019	2020	2021	2022	2023	Total
400 - Revolving Construction Fund							
Police Department	Inner Evidence Room Expansion	\$ 10,000	\$ -	\$ -	\$ -	\$ -	10,000
Park & Rec	Osborne Road Trail Reconstruction - Phase II	\$ 60,000	\$ -	\$ -	\$ -	\$ -	60,000
	Revolving Construction Fund Total	\$ 70,000	\$ -	\$ -	\$ -	\$ -	70,000
403 - Capital Replacement							
Public Works	Air Compressor	\$ -	\$ 30,000	\$ -	\$ -	\$ -	30,000
Public Works	Bobcat	\$ -	\$ -	\$ -	\$ 40,000	\$ -	40,000
Park & Rec	Terrace Park Sidewalk, Sod, Seating Area	\$ -	\$ 5,000	\$ -	\$ -	\$ -	5,000
Park & Rec	Terrace Park Sport Court Resurface	\$ 6,000	\$ -	\$ -	\$ -	\$ -	6,000
Park & Rec	Terrace Park Playground Equipment - Pre-K	\$ 50,000	\$ -	\$ -	\$ -	\$ -	50,000
Park & Rec	Able Park Basketball Court Resurface	\$ 3,000	\$ -	\$ -	\$ -	\$ -	3,000
Park & Rec	Able Park Hockey Rink Concrete/New Boards	\$ -	\$ -	\$ 60,000	\$ -	\$ -	60,000
Park & Rec	Triangle Park Monument Sign	\$ 15,000	\$ -	\$ -	\$ -	\$ -	15,000
	Capital Replacement Total	\$ 74,000	\$ 35,000	\$ 60,000	\$ 40,000	\$ -	209,000
407 - Sealcoating							
Public Works	Sealcoating	\$ 85,000	\$ 85,000	\$ 85,000	\$ 85,000	\$ 85,000	425,000
	Sealcoating Fund Total	\$ 85,000	\$ 85,000	\$ 85,000	\$ 85,000	\$ 85,000	425,000
410 - Lakeside/Lions Park Improvement							
Park & Rec	Lakeside Lions Park Ball Field Lighting	\$ -	\$ -	\$ -	\$ 60,000	\$ -	60,000
	Lakeside/Lions Park Improvement Total	\$ -	\$ -	\$ -	\$ 60,000	\$ -	60,000
425 - Storm Sewer Rehab							
Storm Water	Fillmore Street/83rd Avenue Pond	\$ -	\$ 50,000	\$ -	\$ -	\$ -	50,000
Storm Water	81st Avenue/Garfield Area Pond	\$ 320,000	\$ -	\$ -	\$ -	\$ -	320,000
Storm Water	Pleasant View Drive/79th Avenue	\$ -	\$ 15,000	\$ -	\$ -	\$ -	15,000
Storm Water	Pond Dredging	\$ -	\$ -	\$ -	\$ -	\$ 50,000	50,000
	Storm Sewer Rehab Total	\$ 320,000	\$ 65,000	\$ -	\$ -	\$ 50,000	435,000

Fund/Dept	Project	2019	2020	2021	2022	2023	Total
600 - Public Utility Renewal and Replacement							
Public Utilities	Pickup Replacement	\$ 40,000	\$ 40,000	\$ 40,000	\$ 40,000	\$ 40,000	\$ 200,000
Public Utilities	SCADA System Upgrade	\$ -	\$ -	\$ 30,000	\$ -	\$ -	\$ 30,000
Public Utilities	Televising Camera	\$ -	\$ -	\$ 125,000	\$ -	\$ -	\$ 125,000
Public Utilities	Arthur Street Treatment Plant Rehabilitation	\$ 200,000	\$ -	\$ -	\$ -	\$ -	\$ 200,000
Public Utilities	Water Main Lining	\$ -	\$ -	\$ -	\$ 200,000	\$ 200,000	\$ 400,000
Public Utilities	Fridley/SLP Water Interconnect	\$ -	\$ 30,000	\$ -	\$ -	\$ -	\$ 30,000
Public Utilities	Sewer Lining	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 150,000	\$ 750,000
Public Utility Renewal/Replacement Total		\$ 390,000	\$ 220,000	\$ 345,000	\$ 390,000	\$ 390,000	\$ 1,735,000
2018 Equipment Certificate							
Administration	Photocopier	\$ -	\$ -	\$ -	\$ 22,000	\$ -	\$ 22,000
Administration	Computer System Replacement	\$ 173,813	\$ -	\$ -	\$ -	\$ -	\$ 173,813
City Council	Council Technology	\$ 5,600	\$ -	\$ -	\$ -	\$ -	\$ 5,600
Code Enforcement	Code Enforcement Vehicle Replacement	\$ -	\$ 24,500	\$ -	\$ -	\$ -	\$ 24,500
Police Department	Patrol Squad Car Light Bars	\$ -	\$ -	\$ 15,000	\$ -	\$ -	\$ 15,000
Public Works	Ballfield Groomer	\$ 30,000	\$ -	\$ -	\$ -	\$ -	\$ 30,000
Public Works	Dump Truck/Plow/Sander/Wing	\$ 210,000	\$ -	\$ -	\$ -	\$ -	\$ 210,000
2018 Equipment Certificate Total		\$ 419,413	\$ 24,500	\$ 15,000	\$ 22,000	\$ -	\$ 480,913
EDA Lease Revenue Bond							
Park & Rec	Able Park Building	\$ -	\$ -	\$ -	\$ -	\$ 425,000	\$ 425,000
EDA Lease Revenue Bond Total		\$ -	\$ -	\$ -	\$ -	\$ 425,000	\$ 425,000
Other Aids/Grants							
Public Works	Wood Chipper (SLP Lions)	\$ -	\$ 40,000	\$ -	\$ -	\$ -	\$ 40,000
Police Department	Photocopier (2023 Equip Cert)	\$ -	\$ -	\$ -	\$ -	\$ 20,000	\$ 20,000
Public Works	Parks Mower (2023 Equip Cert)	\$ -	\$ -	\$ -	\$ -	\$ 60,000	\$ 60,000
Public Works	Front End Loader with Plow & Wing (2023 Equip Cert)	\$ -	\$ -	\$ -	\$ -	\$ 250,000	\$ 250,000
Public Works	One ton truck with Box and Plow (2023 Equip Cert)	\$ -	\$ -	\$ -	\$ -	\$ 60,000	\$ 60,000
Public Utilities	Fridley/SLP Water Interconnect (City of Fridley)	\$ -	\$ 30,000	\$ -	\$ -	\$ -	\$ 30,000
Parks and Rec	Osborne Road Trail Reconstruction - Phase III	\$ -	\$ 150,000	\$ -	\$ -	\$ -	\$ 150,000
Other Aids/Grants Total		\$ -	\$ 220,000	\$ -	\$ -	\$ 390,000	\$ 610,000

Fund/Dept	Project	2019	2020	2021	2022	2023	Total
Capital Improvement Plan Bond							
City Facilities	City Hall Renovation/Expansion	\$ -	\$ -	\$ 500,000	\$ 7,768,597	\$ -	\$ 8,268,597
City Facilities	Gun Range Renovation/Range Filtration System	\$ -	\$ -	\$ -	\$ 500,000	\$ -	\$ 500,000
	Capital Improvement Plan Bond	\$ -	\$ -	\$ 500,000	\$ 8,268,597	\$ -	\$ 8,768,597
	Grand Total	\$ 1,457,812	\$ 740,669	\$ 1,225,307	\$ 9,079,276	\$ 1,544,544	\$ 14,047,608

**Appendix B: Resolution Authorizing Submittal of
2040 Comprehensive Plan**

RESOLUTION NO. 19-13

**A RESOLUTION AUTHORIZING SUBMITTAL OF THE CITY OF SPRING LAKE PARK 2040
COMPREHENSIVE PLAN TO THE METROPOLITAN COUNCIL**

WHEREAS, Minnesota Statutes section 473.864 requires each local governmental unit to review and, if necessary, amend its entire comprehensive plan and its fiscal devices and official controls at least once every ten years to ensure its comprehensive plan conforms to metropolitan system plans and ensure its fiscal devices and official controls do not conflict with the comprehensive plan or permit activities that conflict with metropolitan system plans; and

WHEREAS, Minnesota Statutes sections 473.858 and 473.864 require local governmental units to complete their “decennial” reviews by December 31, 2018; and

WHEREAS, the City Council, Planning Commission, and City Staff have prepared a proposed Comprehensive Plan intended to meet the requirements of the Metropolitan Land Planning Act and Metropolitan Council guidelines and procedures; and

WHEREAS, pursuant to Minnesota Statutes section 473.858, the proposed Comprehensive Plan was submitted to adjacent governmental units and affected special districts and school districts for review and comment on July 4, 2018, and the statutory six-month review and comment period has elapsed; and

WHEREAS, the Planning Commission has considered the proposed Comprehensive Plan and all public comments, and thereafter submitted its recommendations to the City Council; and

WHEREAS, the Planning Commission conducted a public hearing on June 25, 2018 relative to the adoption of the proposed Comprehensive Plan; and

WHEREAS, the City Council has reviewed the proposed Comprehensive Plan and those recommendations, public comments, and comments from adjacent jurisdictions and affected districts; and

WHEREAS, Minnesota Statutes section 473.858 requires a local governmental unit to submit its proposed comprehensive plan to the Metropolitan Council following recommendation by the planning commission and after consideration but before final approval by the governing body of the local governmental unit.

WHEREAS, based on its review of the proposed Comprehensive Plan and Planning Commission and staff recommendations, the City Council is ready to submit its proposed plan to the Metropolitan Council for review pursuant to Minnesota Statutes section 473.864; and

**NOW THERE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF
SPRING LAKE PARK, MINNESOTA, AS FOLLOWS:**

1. The Administrator, Clerk/Treasurer is directed to distribute said Comprehensive Plan to the Metropolitan Council pursuant to Minnesota Statutes section 473.864.

The foregoing Resolution was moved for adoption by Mayor Hansen.

Upon Vote being taken thereon, the following voted in favor thereof: Councilmembers Nelson, Wendling, Delfs, Goodboe-Bisschoff and Mayor Hansen.

And the following voted against the same: None.

Whereon the Mayor declared said Resolution duly passed and adopted the 17th day of June, 2019.

APPROVED BY:

Cindy Hansen, Mayor

ATTEST:

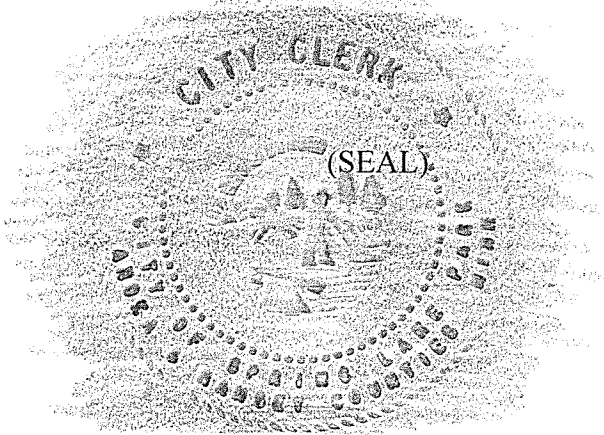
Daniel R. Buchholtz, Administrator, Clerk/Treasurer

State of Minnesota)
Counties of Anoka and Ramsey)ss
City of Spring Lake Park)

I, Jennifer Gooden, duly appointed and qualified Executive Assistant in and for the City of Spring Lake Park, Anoka and Ramsey Counties, Minnesota, do hereby certify that the foregoing is a true and correct copy of Resolution 19-13, A Resolution Authorizing Submittal of the City of Spring Lake Park 2040 Comprehensive Plan to the Metropolitan Council adopted by the Spring Lake Park City Council at their City Council meeting on the seventeenth day of June 2019.

Jennifer Gooden
Jennifer Gooden, Executive Assistant

Dated: June 26, 2019



Appendix C: Affected Jurisdiction Review

The City of Spring Lake Park received no response from the following adjacent or affected jurisdictions:

- Blaine
- Fridley
- Mounds View
- Ramsey County
- Spring Lake Park School District
- Coon Creek Watershed District



City of Spring Lake Park Comprehensive Plan Review

Adjacent or Affected Jurisdiction Name: Rice Creek Watershed Dist

Please check the appropriate box:

- We have reviewed the proposed Plan Update, do not have any comments, and are therefore waiving further review.
- We have reviewed the proposed Plan Update and offer the following comments (attach additional sheets if necessary)

Chapter 6 Water Resources or Appendix: RCWD received a draft of the City's Local Surface Water Management Plan (LSWMP) on July 18, 2018. RCWD submitted comments on this LSWMP on September 11, 2018. Please ensure the City addresses RCWD's comments from September 11, 2018 and submits the revisions to RCWD for formal review. The final version of the City's 2040 Comprehensive Plan must include the LSWMP that is approved by the watershed districts.

Name of Reviewer Lauren Sampedro

Date 10/8/2018

Signature of Reviewer *Lauren Sampedro*

July 31st, 2018

Dan Buchholtz
Administrator
City of Spring Lake Park
1301 81st Ave NE
Spring Lake Park, MN 55432

SUBJECT: CPA 18-062
Spring Lake Park 2040 Comp Plan
Spring Lake Park, Anoka and Ramsey County

Dear Mr. Buchholtz:

Thank you for the opportunity to review the Spring Lake Park 2040 Comprehensive plan. MnDOT's staff has reviewed the document and has the following comments:

Bike-Ped:

One of the goals discussed by the city is to "Complete sidewalk and trail gaps to establish a connected network for pedestrian and bicycle facilities." It is suggested that the city have a map or more discussion showing what they would consider "gaps" in the system.

Please contact Cameron Muhic at 651-234-7797 or cameron.muhic@state.mn.us if you have any questions about these comments.

Review Submittal Options:

MnDOT's goal is to complete the review of plans within 30 days. Submittals sent in electronically can usually be turned around faster. There are four submittal options. Please submit either:

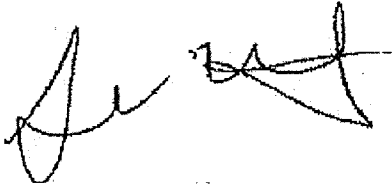
1. An electronic .pdf version of the plans. MnDOT can accept the plans via e-mail at metrodevreviews.dot@state.mn.us provided that each separate e-mail is less than 20 megabytes.
2. A compact disc with the plans in .pdf format. The disc can be sent to:

MnDOT – Metro District Planning Section
Development Reviews Coordinator
1500 West County Road B-2
Roseville, MN 55113

3. A .pdf version of the plans sent to MnDOT's external shared workspace site located at: <https://mft.dot.state.mn.us>. Please contact MnDOT development review staff gain access to the shared workspace site. Also, please send a note to metrodevreviews.dot@state.mn.us indicating the file name and stating that the plans have been submitted on the shared workspace site.
4. If you are unable to send the plans electronically, please submit a set of full size plans to the above address.

If you have any questions concerning this review, please contact me at 651-234-7788.

Sincerely,

A handwritten signature in black ink, appearing to read 'Jennifer Wiltgen', with a stylized flourish at the end.

Jennifer Wiltgen
Principal Planner

Copy sent via E-Mail:

Buck Craig, Permits
Shane Rowbotham, Design
Brian Kelly, Water Resources
Ashley Roup, Right-of-Way
Cameron Muhic, Bike-Ped
Mackenzie Turner-Bargen, Bike-Ped
Carl Jensen, Transit
John Tompkins, Freight
Rylan Juran, Aeronautics
Russ Owen, Metropolitan Council
Gayle Gedstad, Traffic
Melissa Barnes, Area Engineer



City of Spring Lake Park Comprehensive Plan Review

Adjacent or Affected Jurisdiction Name: Select One

Please check the appropriate box:

- We have reviewed the proposed Plan Update, do not have any comments, and are therefore waiving further review.
- We have reviewed the proposed Plan Update and offer the following comments (attach additional sheets if necessary)

The Mounds View Public Schools has an interest in the Comprehensive Plan as it impacts enrollment and quality of life/programming in our district. We would like city planners to consider this fact as they do their planning work both now and in the future.

Name of Reviewer John Ward Date 7-12-18
Signature of Reviewer John Ward

**Spring Lake Park Draft 2040 Comprehensive Plan Review
MAC Review Items (comments due January 4, 2018)**

Transportation Plan

Transportation Goals and Policies (page 5-1)

- potential to affect navigable airspace.
5. Cooperate with the Metropolitan Council and the Metropolitan Airports Commission on potential development within the influence area of the Anoka County-Blaine Airport.

Comments: None

Aviation section (page 5-4)

Aviation

There are no existing or planned aviation facilities within Spring Lake Park. However, the City is within the Anoka County-Blaine Airport (ANE) Influence Area. Therefore, it may be affected by planning considerations such as airport zoning, environmental mitigation, airport development and economic impacts, ground access needs, infrastructure requirements, and general land use compatibility. Development of an airspace zoning ordinance to meet the State standards is the responsibility of a joint airport/community zoning board.

In 2010, the Metropolitan Airports Commission (MAC) adopted a comprehensive plan for the Anoka County – Blaine Airport. The Plan serves as a framework for future development of the airport and compatibility with surrounding communities. The Plan also includes forecasts for air travel out of the airport with flight operations falling from 86,838 annual flights in 2007 to 79,560 flights in 2025. As such, the airport is estimated to be under capacity and no expansions are planned.

The City will notify the Federal Aviation Administration of any alteration exceeding 200 feet above ground level or other construction or alteration as required by Federal Regulation Title 14, Part 77.

Comments:

Consider adding an exhibit showing the extents of the ANE Influence Area.

Second paragraph: We have newer (2015) aviation activity forecasts for ANE if you would like to update aircraft operations projections in this section. The updated forecast summary is on the next page.

Also, consider revising the last sentence to "As such, the airport is estimated to have adequate runway capacity to support all future activity scenarios, and no new airfield expansion is currently planned."

Table 14

Summary of Aircraft Operations Forecast: Anoka County

Year	Single Engine Piston	Multi-Engine Piston	Turboprop	Jets	Rotor	Sport	Experimental – Excluding Ultralights	Other (a)	Total
2014	55,353	4,227	3,207	3,610	1,259	556	5,739	-	73,951
2015	67,226	4,619	3,053	3,511	1,376	675	6,969	-	87,429
2020	61,383	4,387	3,122	4,260	1,811	937	8,292	-	84,192
2025	59,062	4,155	3,138	4,908	1,960	1,463	9,171	-	83,857
2030	57,610	4,279	3,662	5,842	1,972	1,515	9,696	-	84,576
2035	57,108	4,394	4,708	7,209	2,255	1,574	10,777	-	88,025
Average Annual Growth Rate									
	-0.8%	-0.2%	2.2%	3.7%	2.5%	4.3%	2.2%		0.0%

Source: Table J.2.

Source:

<https://metroairports.org/General-Aviation/General-Aviation-Documents/MSP-Reliever-Technical-Report-10-30-2015.aspx>



Anoka County

TRANSPORTATION DIVISION

Respectful, Innovative, Fiscally Responsible

Highway
Transit
Surveyor
GIS
Fleet

Date: September 11, 2018

To: Dan Buchholtz (dbuchholtz@slpmn.org)
City Administrator
City of Spring Lake Park
1301 81st Ave NE
Spring Lake Park MN 55432

RE: Comments on the Transportation Section of the Spring Lake Park 2040 Comprehensive Plan

Dear Mr. Buchholtz:

Thank you for providing us the opportunity to comment on the draft 2040 Comprehensive Plan for the city of Spring Lake Park.

The following contains the Anoka County Highway Department review of the Transportation Section of your Plan. To provide better clarity, comments on the transportation section were made on the pdf of the document and are posted below.

Capacity

Existing (2017) traffic volumes provided by the Metropolitan Council are shown on Figure 5-1 as well. The City currently experiences congestion at the intersection of 81st Ave and TH 65 and at the intersection of 81st Ave and TH 47. This congestion is mainly caused by the timing of the signals at these intersections. No additional lanes are planned at either of these intersections.

In addition to existing traffic volumes (shown on Figure 5-1), it would be useful to show forecast 2040 traffic volumes. Anoka County has developed 2040 traffic forecasts (using the Met Council ABM Model), which are available on the web at: <http://www.sehinc.com/online/2040>

Thank you again for allowing us the opportunity to comment on the Transportation Section/Chapter of the City's Comprehensive Plan. If you have any questions on the comments, please feel free to contact me at 763-324-3179.

Sincerely,

Jack Forslund
Transportation Planner
Anoka County Highway Department

cc (by email):

Douglas Fischer, P.E., Transportation Division Manager/County Engineer
Joe MacPherson, P.E., Assistant County Engineer
Mark Schermerhorn, Transit Planner
Bart Biernat, Environmental Health Specialist
Karen Blaska, Park Planner



City of Spring Lake Park Comprehensive Plan Review

Adjacent or Affected Jurisdiction Name: MN DNR

Please check the appropriate box:

- We have reviewed the proposed Plan Update, do not have any comments, and are therefore waiving further review.
- We have reviewed the proposed Plan Update and offer the following comments (attach additional sheets if necessary)

The mission of the Minnesota Department of Natural Resources is to work with citizens to conserve and manage the state's natural resources, to provide outdoor recreation opportunities and to provide for commercial uses of natural resources in a way that creates a sustainable quality of life. With these things in mind, we appreciate the opportunity to provide comments on Spring Lake Park's draft 2040 comprehensive plan. We commend the city's statement that "Preserving and retaining natural resources for the future is an important value in Spring Lake Park. The following comments outline other ways to further these goals:

Development / Transportation Policies to Protect Wildlife. Consider adding policies that take wildlife into consideration as transportation and redevelopment projects occur. To enhance the health and diversity of wildlife populations, encourage private and public developments to retain or restore natural areas planted with native species. One larger area is better than several small "islands" or patches; and connectivity of habitat is important. Animals such as frogs and turtles need to travel between wetlands and uplands throughout their life cycle. Consult [DNR's Best Practices for protection of species](#) and [Roadways and Turtles Flyer](#) for self-mitigating measures to incorporate into design and construction plans.

Examples of more specific measures include:

- Preventing entrapment and death of small animals especially reptiles and amphibians, by specifying biodegradable erosion control netting ('bio-netting' or 'natural netting' types (category 3N or 4N)), and specifically not allow plastic mesh netting. (p. 25)
- Providing wider culverts or other passageways under paths, driveways and roads while still considering impacts to the floodplain.
- Including a passage ben
- ch under bridge water crossings. (p. 17) because typical bridge riprap can be a barrier to animal movement along streambanks.
- Curb and storm water inlet designs that don't inadvertently direct small mammals and reptiles into the storm sewer. (p. 24). Installing "surmountable curbs" (Type D or S curbs) allows animals (e.g., turtles) to climb over and exit roadways. Traditional curbs/gutters tend to trap animals on the roadway. Another option is to install/create curb breaks every, say, 100 feet (especially important near wetlands).
- Using smart salting practices to reduce impacts to downstream mussel beds, as well as other species.

- Fencing could be installed near wetlands to help keep turtles off the road (fences that have a j-hook at each end are more effective than those that don't).

For further conservation planning and to ensure compliance with the Minnesota endangered species laws, the DNR encourages communities to check the NHIS Rare Features Data for known occurrences of state-listed species. The NHIS Rare Features Data contains nonpublic data and can only be accessed by submitting a License Agreement Application Form for a GIS shapefile or by submitting a NHIS Data Request Form for a database printout. Both of these forms are available at [the NHIS webpage](#). For more information on the biology, habitat use, and conservation measures of these rare species, please visit [the DNR Rare Species Guide](#). NHIS training includes rules for using/displaying nonpublic data in public documents.

Native Plantings. We suggest adding policies that encourage private and public developers to use native flowers, grasses, shrubs and tree species when replanting disturbed areas. It would also be appropriate to incorporate this concept into the city's storm water education outreach and engagement targeted to homeowners. Species such as monarchs rely on these plants, and it does not take many plants to attract butterflies, other beneficial pollinators as well as migrating and resident birds. Adding more native plants into landscaping, not only enhances the health and diversity of pollinators and wildlife populations, these plants can also help filter and store storm water, so this strategy would help to fulfill other goals in your plan. For more information, consult DNR's [pollinator page](#).


Plant lists and suggestions for native plants can be incorporated into:

- Proposed landscape guidelines for commercial and industrial areas
- Street tree planting plans
- City gateway feature
- Along ponds and waterways.
- Small nature play areas in children's parks
- Along the edges of ballfield complexes.

Community Forestry. The loss of tree canopy due to threats such as emerald ash borer and oak wilt has negative impacts on the county's health and environment, and a planned community forest can provide numerous community benefits. The first step to achieving a resilient community forest is conducting a tree inventory. The second step is developing a community forestry management plan that includes strategies for managing trees, especially ash, and encouraging a diverse tree canopy on private and public lands. If Spring Lake Park has developed a forestry management plan, it would be helpful to include a mention of this in the narrative, as part of a strategy to meet environmental goals and policies.

Reviewer: Martha Vickery, regional coordinator Lands and Minerals Division, DNR

Date: 12/14/18

Signature of Reviewer: 

Appendix D: Sanitary Sewer Map

COON RAPIDS

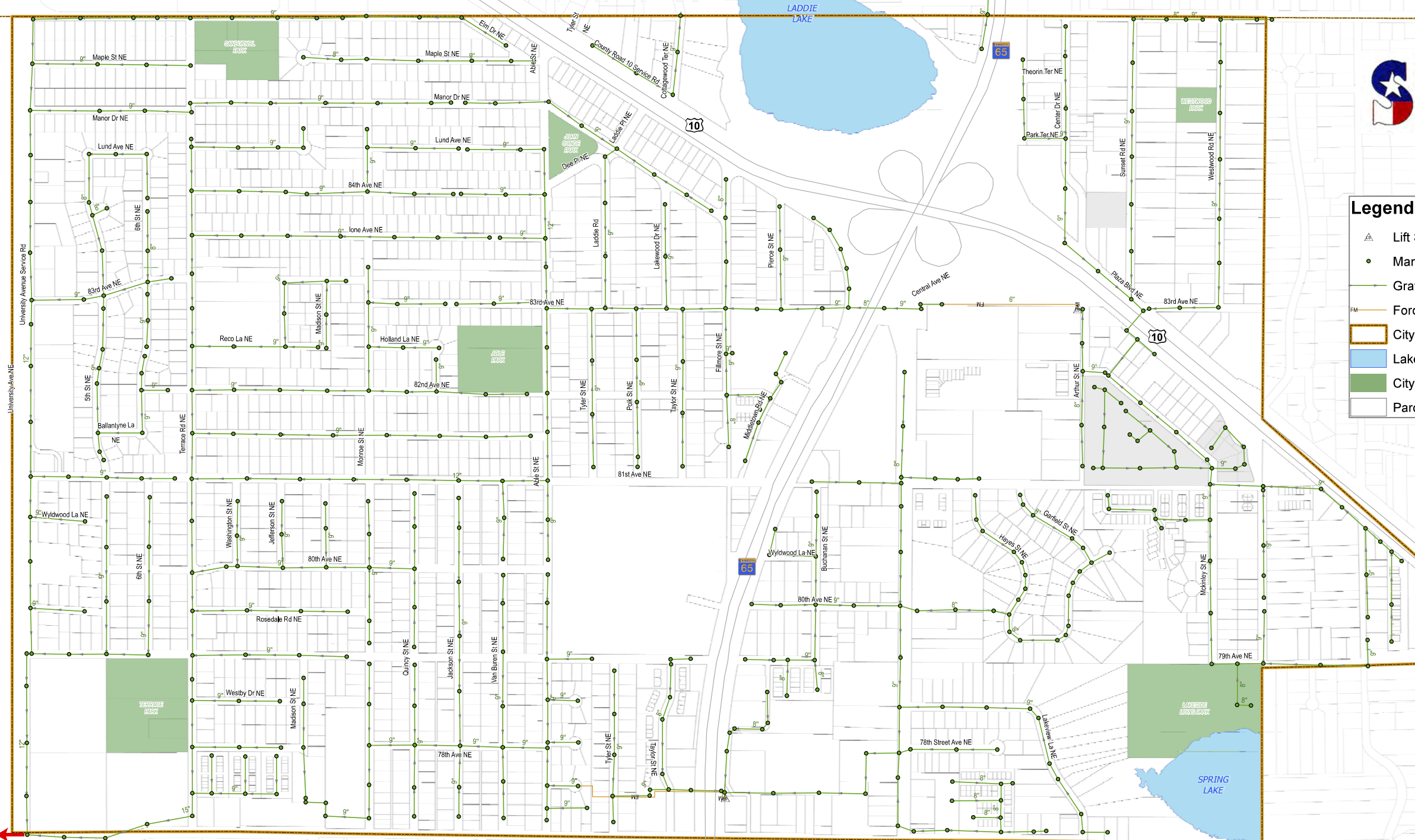
BLAINE

BLAINE



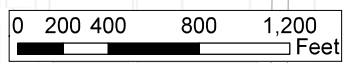
Legend

- Lift Station
- Manhole
- Gravity
- Forcemain
- City Boundary
- Lakes
- City Parks
- Parcels



TO NSSSD

MOUNDS VIEW



September 2013



Document Path: R:\client\municipal\spring_lake_park_cl_mn\18MAP\GISDATA\Projects\Sanitary_System.mxd

SANITARY SYSTEM MAP

Spring Lake Park, MN

The information on this map has been compiled by Stantec staff from a variety of sources and is subject to change without notice. Stantec makes no representations or warranties, express or implied, as to accuracy, completeness, timeliness, or rights to the use of such information.

Appendix E: Local Surface Water Management Plan

CITY OF SPRING LAKE PARK – LOCAL SURFACE WATER MANAGEMENT PLAN

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CITY OF SPRING LAKE PARK – LOCAL SURFACE WATER MANAGEMENT PLAN

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CITY OF SPRING LAKE PARK – LOCAL SURFACE WATER MANAGEMENT PLAN

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- Appendix C** City of Blaine Joint Powers Agreement
- Appendix D** City of Spring Lake Park Stormwater Pollution Prevention Program (SWPPP)
- Appendix E** City of Spring Lake Park Ordinances (Construction Site Runoff Ordinance and Floodplain Management Ordinance)

EXECUTIVE SUMMARY

This Local Surface Water Management Plan (LSWMP) has been developed to serve as a comprehensive planning document to guide the City of Spring Lake Park in conserving, protecting, and managing its surface water resources and comply with the requirements detailed in Minnesota Statutes 103B and Minnesota Rules 8410, administered by the Board of Soil and Water Resources (BWSR). This plan is also consistent with the goals and policies of the Metropolitan Council's *2040 Water Resources Policy Plan*, and the watershed districts having authority within the City. This plan may be periodically amended to remain current with local practices and policies.

This document provides an inventory of water resource related information including the results of assessments conducted by other governmental units, both local and state. From this inventory and assessment, Spring Lake Park sets forth its goals and policies and implementation program.

The Coon Creek Watershed District (CCWD) of which the City of Spring Lake Park is a part, requires each City to include a brief discussion of problems in the City and general strategies to address them. The City previously completed a drainage study to identify flood-prone areas throughout the City. Specific areas of concern are discussed later in this report, in the Implementation section (Section 8). To address flood-prone areas and areas with poor drainage throughout the City, the City will consider adding storage to its stormwater features and implementing water quality features where appropriate.

The plan is organized as follows:

- **Section 1** offers an introduction to and purpose of the Plan, including the plan content requirements of the local watershed districts.
- **Section 2** of this Plan provides an inventory of land and water resources within the City including a description of the physical environment, available and pertinent water resources data, and land use maps.
- **Section 3** includes a comprehensive documentation of the regulatory agencies influencing the management of surface water resources in Spring Lake Park.
- **Section 4** describes surface water management plans, studies, and rules in the city.
- **Section 5** identifies the stormwater management agreements between Spring Lake Park and other entities.

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- **Section 6** provides a current assessment of surface water management in Spring Lake Park, including the National Pollution Discharge Elimination System (NPDES) permitting process, Total Maximum Daily Load (TMDL) discussions, comparison of regulatory standards, and identification of issues and corrective actions.
- **Section 7** lists the goals and policies identified to address surface water management needs in the City.
- **Section 8** identifies implementation projects and activities to address assessment items from Section 6 and the goals and policies from Section 7.
- **Section 9** outlines the continued administration of this plan with respect to plan updates and amendments.

SECTION 1 – PURPOSE AND SCOPE

1.1 PURPOSE

This Local Surface Water Management Plan (LSWMP) will serve as a comprehensive planning document to guide the City of Spring Lake Park (City) in conserving, protecting, and managing its surface water resources. This plan has been created to meet the requirements detailed in Minnesota Statutes 103B and Minnesota Rules 8410, administered by the Minnesota Board of Water and Soil Resources. This plan is also consistent with the goals and policies of the Metropolitan Council's *2040 Water Resources Policy Plan* (adopted May 2015), and the two watershed management organizations having jurisdiction within the City: Coon Creek Watershed District (CCWD) and Rice Creek Watershed District (RCWD). This plan may be periodically amended to remain current with local practices and policies.

1.2 SCOPE

This LSWMP serves multiple purposes including statutory and rule compliance. Minnesota statute 103B.235 defines content for local water management plans. According to the statute's text:

Each local plan, in the degree of detail required in the watershed plan, shall:

- (1) describe 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) define water quality and water quality protection methods adequate to meet performance standards established in the watershed plan;*
- (5) identify regulated areas; and*
- (6) set forth an implementation program, including a description of official controls and, as appropriate, a capital improvement program.*

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Minnesota Rules 8410, written for the Board of Water and Soil Resources, provide more detail on local plan content. Though the BWSR guidance applies specifically to watershed management organizations, this guidance has historically been used to frame expectations for municipal plans. According to Minnesota Rules 8410, local plans must provide or address:

1. Executive summary
2. Land and water resource inventory
3. Impact on other units of government
4. Establishment of goals and policies
5. Assessment of problems
6. Implementation programs
7. Implementation priorities
8. Plan contents; amendments
9. Annual reporting requirements

The Spring Lake Park LSWMP is structured to provide the information required by 8410 without holding strictly to the outline contained in the rules. Through this document the City provides signposts identifying where a statutory or rulemaking requirement might be addressed.

The LSWMP must also satisfy Metropolitan Council requirements as contained in their *2040 Water Resources Policy Plan*. These requirements build on those of Rules Chapter 8410.

Beyond state level requirements and those of Metropolitan Council, this plan must conform to the underlying Watershed Management Organization (WMO) Watershed Management Plans. WMOs often outline specific content for local plans that go beyond that required by statute and rule. For Spring Lake Park, the following WMO local plan requirements pertain:

Coon Creek Watershed District (CCWD)

The 2013-2023 CCWD Watershed Management Plan and amendments. The CCWD will remain as the permitting authority in the city.

Rice Creek Watershed District (RCWD)

The January 2010 RCWD Watershed Management Plan (as amended November 2016). Specific requirements (as detailed in Section 8.3.1 – Content Requirements for Local Water Management Plans) pertain. The Spring Lake Park plan meets the District requirements for Level 1 communities. The RCWD will remain as the permitting authority in the City.

CITY OF SPRING LAKE PARK – LOCAL SURFACE WATER MANAGEMENT PLAN

This LSWMP is organized as follows:

- Section 1:** Purpose and scope of the LSWMP
- Section 2:** Description of the physical setting; the history, natural resources and land uses within the City.
- Section 3:** Summary of the regulatory agencies having jurisdiction in Spring Lake Park.
- Section 4:** Identification of related stormwater management studies, plans and reports affecting Spring Lake Park.
- Section 5:** Presentation of the water resources related agreements within the City.
- Section 6:** Presentation of a collection of the stormwater management related assessments within the City, identifying stormwater management issues and corrective actions, as well as other regulatory assessments to be addressed by the City.
- Section 7:** Listing of the goals and policies identified to address surface water management needs in the City.
- Section 8:** Identification of implementation projects and activities to address assessment items from Section 6 and the goals and policies from Section 7.
- Section 9:** Outline of the continued administration of this plan.

CITY OF SPRING LAKE PARK – LOCAL SURFACE WATER MANAGEMENT PLAN

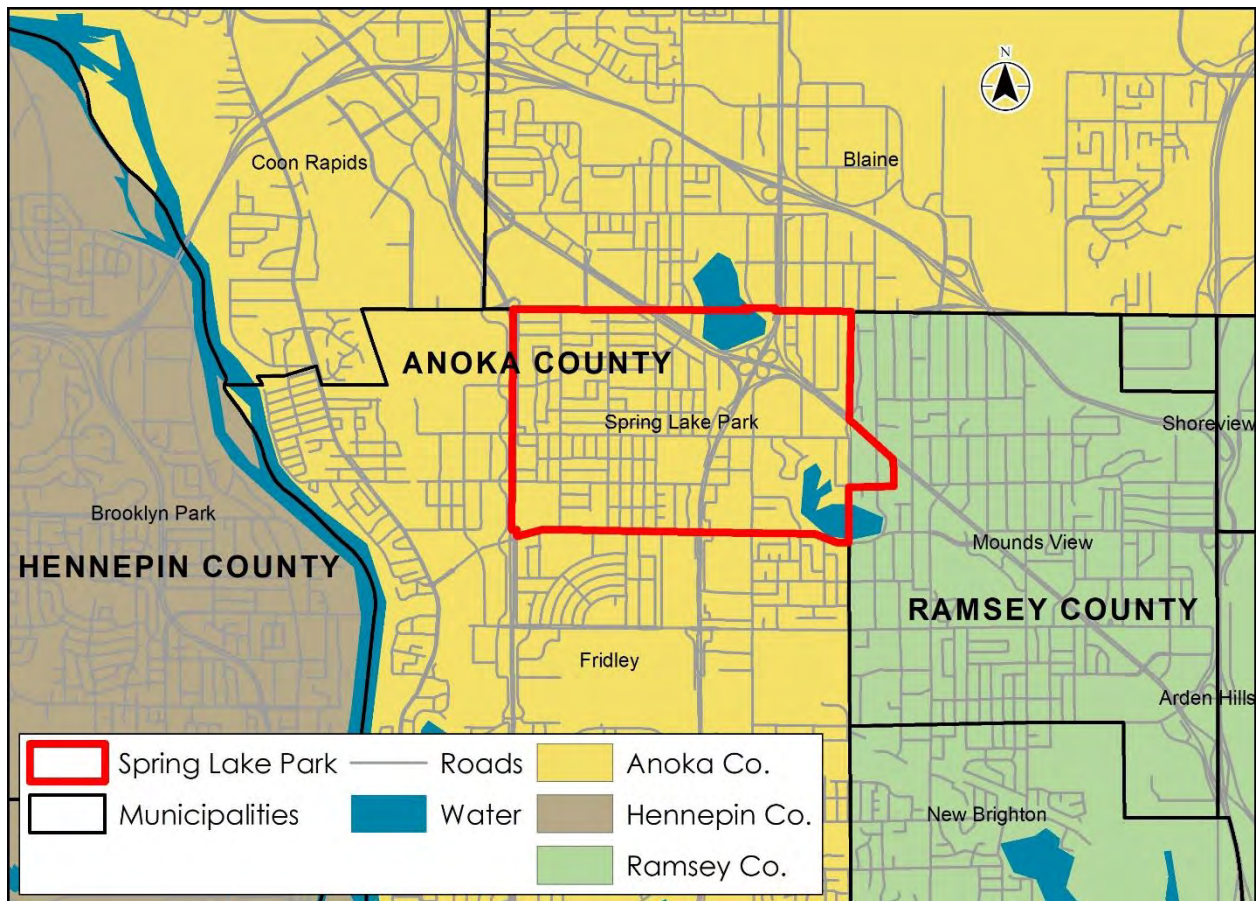
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SECTION 2 – PHYSICAL SETTING

2.1 LOCATION AND HISTORY

Spring Lake Park is an established residential community located primarily in southern Anoka County, with a small portion of the City’s eastern edge within Ramsey County. Bordering communities include Blaine to the north, Mounds View to the east, and Fridley to the west and south, as shown in Figure 2.1.

Figure 2.1 - Location Map



The City of Spring Lake Park was established in 1953 and has a total land area of 1,308 acres. The City is now fully urbanized, including a diverse residential population, and a variety of commercial and industrial development. Quick access to three major highways allows for easy access to neighboring communities and the entire metro area. Population and household figures for Spring Lake Park to the year 2040 are shown in Table 2.1.

CITY OF SPRING LAKE PARK – LOCAL SURFACE WATER MANAGEMENT PLAN

Table 2.1 - Spring Lake Park Population and Households

Year	Population	Households
1990	6,532	2,343
2000	6,772	2,724
2010	6,412	2,672
2020	6,700	2,880
2030	7,000	3,000
2040	7,400	3,200

Source: Metropolitan Council – Spring Lake Park Community Page. Note projections differ slightly from Metropolitan Council *Thrive MSP 2040* and *2015 System Statement for Spring Lake Park*

2.2 TOPOGRAPHY

Topography in the City of Spring Lake Park is influenced primarily by the Anoka Sandplain, which leads to the gently rolling terrain seen today. The physical environment characterizing Spring Lake Park historically included prairies, forests, and wetlands; followed by agricultural fields; and the current urban setting.

Spring Lake Park lies within the Anoka Sandplain. As large glacial blocks from the Grantsburg Sublobe (of the larger Des Moines glacial lobe) melted, glacial streams deposited sand in broad, level plains. Shallow lakes formed as these glacial streams became dammed. The particular glacial lake that covered Spring Lake Park is known as glacial Lake Fridley.

Spring Lake Park slopes gradually from an approximate elevation of 910 at the eastern boundary to approximately 880 at its western boundary. Numerous shallow depressions appear amid this gradual east to west slope.

In the post-glacial period no significant streams have drained Spring Lake Park, though the southwestern part of the City does discharge into Stony Brook Creek.

2.3 SOILS

The Soil Conservation Service (SCS) developed a Soil Survey for both Anoka County and Ramsey County. One aspect of this survey characterizes most soil types into Hydrologic Soil Groups (HSG). The HSG reflects a given soil's ability to infiltration stormwater during long-duration storms. The four hydrologic soil groups are: Group A - high infiltration, Group B - moderate infiltration, Group C - slow infiltration, and Group D – very slow infiltration.

According to the Soil Survey, Spring Lake Park includes a mix of urban and wetland soil classifications. The urban soils are not assigned a hydrologic soil group (HSG) due to the level of soil disturbance from construction activities prior to the soil survey. However, prior to

CITY OF SPRING LAKE PARK – LOCAL SURFACE WATER MANAGEMENT PLAN

development, soils in the City were characteristic of soils found in the Zimmerman-Isanti-Lino association. These soils are typically found in level to gently-rolling terrain of the Anoka Sandplain and can range from poorly drained to excessively drained. In an undisturbed state, these soils are classified as HSG A and B soils, reflecting a moderate to high infiltration capacity. This classification is consistent with the soil characterizations of long-time city staff.

2.4 GEOLOGY

The geology of the region surrounding Spring Lake Park is the result of two different geologic processes:

- Warm, shallow seas covered the area and created conditions for the formation of sedimentary rocks. These formations are present as bedrock in the area.
- Glacial processes have resulted in the development of surficial geology, and therefore, current landforms.

The City's geology is generally characterized by approximately 100 feet of glacial till and outwash overlying sedimentary bedrock. The bedrock units beneath the City are marine sedimentary rocks primarily of the Upper Cambrian to Middle Ordovician ages (± 450 to ± 500 million years old). Ranging from deeper/older bedrock to relatively shallow/young bedrock, the specific geologic units include the St. Lawrence/Franconia formation, Jordan Sandstone, and the Prairie du Chien group.

Glacial influence on this area began around 2.5 million years ago and continued until about 10,000 years ago. However, present landscape features in this area and across Minnesota were created by the last episode of glaciation. This episode lasted from about 35,000 to about 10,000 years ago. Two major glacial ice sheet movements constituted this episode during what is known as the late Wisconsin glaciation. The first, the Superior lobe, advanced from the north. The second, the Grantsburg sublobe, advanced from the southwest.

In one period of retreat during the Superior lobe glaciation, melt waters deposited a thick layer of glacial outwash made up of sand and gravel over a widespread area including Spring Lake Park. Another layer of till subsequently covered this outwash. This period of glacial activity lasted from about 30,000 to about 20,000 years ago.

The more recent Grantsburg sublobe glaciation took place between 20,000 and 10,000 years ago. The Grantsburg sublobe, in addition to moving and redepositing materials from the Superior lobe, deposited new materials over the area. As the Grantsburg sublobe retreated and melted, large streams were formed that carried significant amounts of sands. These streams deposited broad level plains of sand and gravel that are referred to as the Anoka sandplain.

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2.5 GROUNDWATER

In Anoka County, there are four significant aquifers from which groundwater is typically drawn. In order of depth from shallow to deep, they are:

- **The Quaternary (or water table) Aquifer:** found in glacial deposits.
- **The Prairie du Chien-Jordan Aquifer:** found in dolomite-sandstone.
- **The Franconia-Ironton-Galesville sandstone Aquifer:** exists beneath a confining layer separating it from the Prairie du Chien-Jordan aquifer.
- **The Mount Simon-Hinckley Aquifer:** located beneath a siltstone, shale, and silty sandstone confining layer that lies between this aquifer and the Franconia-Ironton-Galesville aquifer.

The Franconia-Ironton-Galesville and Mount Simon-Hinckley aquifers are usually utilized as domestic well sources. Groundwater flow direction in the Franconia-Ironton-Galesville aquifer is not well understood, but likely is toward the Mississippi River, while the flow of the Mt. Simon-Hinckley is unknown.

Spring Lake Park obtains its drinking water supply from four municipal wells. Well 1 and Well 2 are multi-aquifer wells capable of drawing from the Franconia-Ironton-Galesville (FIG) aquifer and the Mount Simon-Hinckley aquifer. Well 4 and Well 5 are single-aquifer wells drawing from the Mount Simon-Hinckley aquifer. Well 3 is an abandoned well which was capable of drawing from the same aquifers as Wells 1 and 2.

In 1995, Anoka County, with input from the cities within the County – including Spring Lake Park, produced a Ground Water Protection Assessment that identified activities that should be implemented to protect city water supplies and areas where special measures are most needed. Under the guidance of this document, 10 Anoka County cities collaborated to jointly write a city-level Wellhead Protection Plan (WPP).

In February 2001, Part 1 of the Spring Lake Park Wellhead Protection Plan was prepared. The primary purpose of a WPP Part 1 was to identify potential sources of contamination or areas that would be most susceptible to contamination and develop a plan to protect groundwater supplies in these areas. Part 2 of the City's WHP was prepared in 2008 and approved by the MDH on July 28, 2008. The Wellhead Protection Goals identified in the City's WPP affecting surface water management in the City are included in the goals and policies section (Section 7). The City has been identified as a non-vulnerable city by the MDH. It is anticipated that the city will be granted a 10-year waiver from the MDH requirement to update the WPP sometime in 2018. Per the WPP, a small portion of the City lies in a Drinking Water Supply Management Area (DWSMA). DWSMA areas have requirements which limit infiltration as a stormwater practice. For more information, see the *Minnesota Stormwater Manual*.

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2.6 CLIMATE/PRECIPITATION

Spring Lake Park has a climate that is uniform. Summers are warm, with a mean temperature of 70.7 degrees in June, July, and August. Winters are cold, having a mean December, January, and February temperature of 16.8 degrees. About 70% of the precipitation occurs in the period of April through September. The yearly precipitation total is roughly 30 inches.

Climate data for the Twin Cities are published by the National Weather Service (NWS) station at Chanhassen, MN. The NWS is a branch of the National Oceanic and Atmospheric Administration (NOAA). Table 2.2 shows a summary of average precipitation data for the area.

Table 2.2 – Average Monthly Precipitation, 1971-2016

Mont	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Annua
inche	0.89	0.84	1.79	2.67	3.46	4.52	3.85	4.15	2.79	2.24	1.71	1.12	30.03

Rainfall frequency estimates are used as design tools in water resource projects. Rainfall frequencies are summarized in the National Oceanographic and Atmospheric Administration’s (NOAA) Atlas 14-Point Precipitation Frequency Estimates.

Previously, Technical Paper No. 40 (TP-40) Rainfall Frequency Atlas of the United States (NOAA) (published in 1961) was used to determine rainfall frequency estimates. TP-40 was developed using available rainfall information from far fewer stations than exist today; in Minnesota, there are 110 daily observation stations used in TP-40 estimates, whereas there are 320 daily observation stations used in Atlas 14. In addition to the fact that Atlas 14 estimates rely on a denser data network than TP-40, the stations have a longer period of record, and regional frequency analyses and new spatial interpolation techniques are used in the Atlas 14 method.

Table 2.3 lists rainfall frequencies from NOAA Atlas 14 estimates applicable to the City of Spring Lake Park. The data taken from Atlas 14 are solely based on historical rainfall events and are not an extrapolation of data trends to predict future events.

Table 2.3 – NOAA Atlas 14 24-Hour Rainfall Depths and Frequency

Recurrence Interval (years)	24-hr Rainfall Depth (inches)
1	2.46
2	2.84
5	3.56
10	4.24
25	5.32
50	6.27
100	7.30

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2.7 WATER RESOURCES

The section provides an overview of the water resources in and around the City. Waterbodies classified by the Minnesota Department of Natural Resources (DNR) as public waters, as identified by the Public Waters Inventory (PWI), and wetlands included in the National Wetland Inventory (NWI) are identified on Figure 2.2.

Discussion regarding specific assessments or implementation activities associated with these waterbodies is included in Section 6 and 8 of this LSWMP, respectively. In addition to those identified on Figure 2.2, DNR public waters receiving stormwater runoff from Spring Lake Park are listed in Table 2.4 below.

Table 2.4 - Minnesota DNR Public Waters List

Type	Name	DNR ID ¹	LSWMP ID
Lakes	Laddie Lake	2-72P	LL-A1
	Spring Lake	2-71P	SL-A1
Wetlands	Unnamed Wetland	2-681W	RC-A3
Rivers	Mississippi River	--	--
Creeks	Rice Creek	--	--
	Unnamed to Mississippi River (Spring Brook Creek)	--	--

¹ Source: Minnesota DNR PWI Maps and Lists

2.7.1 MISSISSIPPI RIVER

All Spring Lake Park's surface runoff reaches the Mississippi River, though by various routes. The Mississippi River and its tributaries form the largest river system in North America, draining roughly forty percent of the continental United States. Spring Lake Park is in the Middle Mississippi River Basin (upstream of Saint Anthony Falls) of the Upper Mississippi River (upstream of St. Louis, MO).

According to the US Geological Survey, at gauging station Number 05288500, located at 95th Street in Coon Rapids, the normal elevation of the river is approximately 804.5 feet.

The Minnesota Department of Natural Resources (DNR) classifies the Mississippi River as a warm water game fish resource. It is a DNR public watercourse and has a varying ordinary high-water elevation that generally coincides with the top of the riverbank.

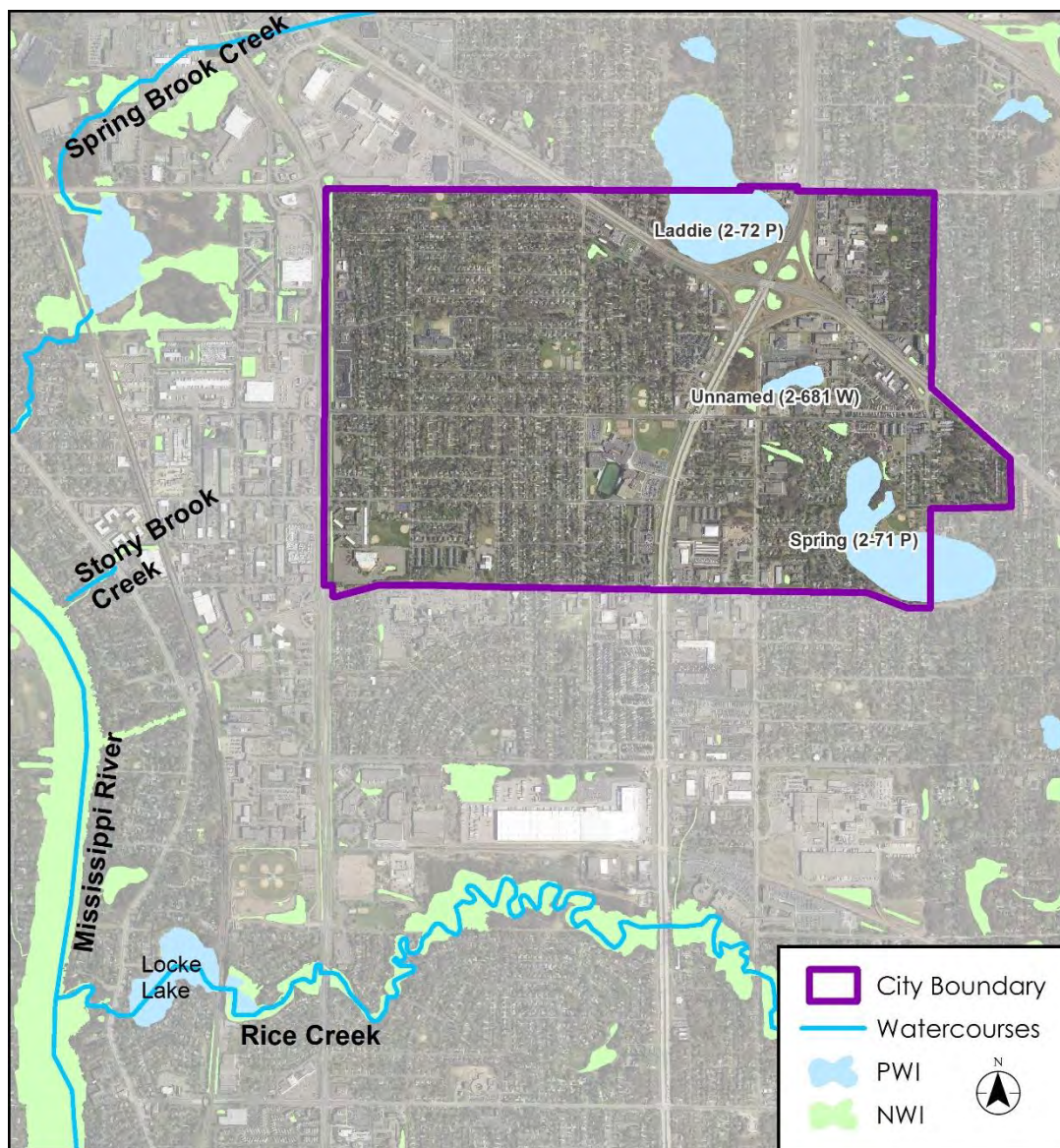
2.7.2 PUBLIC DITCHES AND STREAMS

There are no public ditches or streams identified in Spring Lake Park. However, all surface water runoff from the City ultimately reaches one of three streams: Spring Brook Creek, Stony Brook Creek, and Rice Creek.

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Rice Creek, which is located south of the city limits, is a relatively large watercourse with a drainage area of approximately 200 square miles. Approximately 429 acres located in the east area of Spring Lake Park are tributary to Rice Creek via the city of Fridley storm sewer system and the TH 65 drainage ditch system. According to a recent survey by DNR Fisheries, Rice Creek has two different types of fisheries. From its confluence with the Mississippi River up to the Locke Lake Dam, the game fish species composition is like that found in the Mississippi River (catfish, smallmouth bass, walleye and northern). Above Locke Lake and upstream to where Rice Creek crosses into the City of Mounds View, game fish are limited to fingerling size walleye.

Figure 2.2 - PWI and NWI Map



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Spring Brook Creek, located to the northwest of the City limits, flows out of a large wetland located in the City of Fridley at its northern border with Coon Rapids. Between this wetland and the Burlington Northern rail yard, the creek is sluggish. Downstream of the rail yard, the stream runs through a steep-sided ravine that extends to its confluence with the Mississippi River. Spring Brook Creek is a DNR public watercourse. Approximately 305 acres located in the northwest area of the City are tributary to Spring Brook Creek.

Approximately 599 acres of Spring Lake Park are tributary to Stony Brook Creek, which is located southwest of the city limits. Spring Lake Park discharges to this creek via culverts under University Avenue in the southwest part of the City. Ditches and culverts predominate in Stony Brook Creek, which is not a DNR public watercourse.

2.7.3 LAKES

Laddie Lake (DNR ID 2-72P) is in the northern part of the City, on its border with Blaine and northwest of the TH 65/CSAH 10 interchange. Laddie Lake is approximately 77 acres in size, with a maximum depth of approximately five feet.

Spring Lake (DNR ID 2-71P) is in the southeast corner of the City, on its border with Mounds View. Spring Lake is approximately sixty acres in size, with a maximum depth of approximately eighteen feet. The locations of these lakes are identified in Figure 2.2 and Map 1 in Appendix A.

2.7.4 WETLANDS

The Wetland Conservation Act (WCA) was passed in 1991 to maintain and protect wetland areas throughout the State of Minnesota. The WCA created a “no net loss policy” so that there are mitigation measures for drained or filled wetlands. The Act also established that local government units (LGUs) would have administrative responsibility for the implementation of the WCA. The LGUs responsible for administrative responsibility relating to the WCA for the city of Spring Lake Park are CCWD and RCWD.

There are twenty wetland basins identified in the city based on the National Wetlands Inventory map. However, a survey of these locations revealed that there are fifteen jurisdictional wetlands in the City. Three of these are DNR public waters, Laddie Lake, Spring Lake, and an unnamed wetland located northeast of the intersection of Central Avenue and 81st Avenue. The location and boundaries of the Public Waters Wetlands can be obtained from the MnDNR Geospatial Commons: <https://gisdata.mn.gov/>.

Most of the wetlands in Spring Lake Park are situated in the area east of TH 65 and south of CSAH 10. Of these, the majority are in what may have historically been a natural drainage way or low area between Laddie Lake and Spring Lake. Other sites include a wetland fringe around the south end of Laddie Lake and a few small, isolated wetlands scattered throughout the City. The locations of all NWI wetlands within Spring Lake Park are identified in Figure 2.2. Additional information regarding the assessment of wetlands in Spring Lake Park can also be found in Section 6 of this LSWMP.

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2.8 NATURAL RESOURCES

The City of Spring Lake Park includes no regional open space elements. Significant local open space elements are in the form of parks, trails, lakes, wetlands, and a public beach. Current city parks incorporate traditional park amenities like athletic fields, picnic areas, play areas, and pedestrian trails.

Two bike trails serve the City. One runs along Osborne Road from the City's eastern boundary to Central Avenue and is provided by Anoka County. Another runs along Central Avenue from Fridley and ends at 81st Avenue NE. Local sidewalks within street boulevards carry the bulk of pedestrian traffic within the City.

2.8.1 RARE FISH, WILDLIFE AND PLANT SPECIES

According to the DNR's County Biological Survey, "rare plants or animals are either protected under the provisions of the Federal or Minnesota Endangered Species Acts, or are being considered for protection". The County Biological Survey Map for Anoka County (Map Series Number 7, 1994) indicates no occurrences of rare plant species but two occurrences of rare animal species within Spring Lake Park. The County Biological Survey map indicates no occurrence of natural communities in Spring Lake Park.

2.9 DRAINAGE SYSTEMS

The bulk of Spring Lake Park's surface water management system was built prior to 1980. As was the practice at that time, stormwater management relied heavily on trunk storm sewer to route stormwater away from impervious areas quickly and discharge this stormwater directly into a nearby receiving waterbody. In many areas of the City, the primary conveyance for surface water runoff is street flow. At points where flows from several streets converge, catch basins are installed to direct flow into pipes. There are no public ditches or streams identified within the City.

The City's current drainage system resulted from the economic realities prevalent during system construction in the 1960s and 1970s. Portions of the system do not meet the City's current 5-year storm sewer design standard. In general, the drainage system has not led to any notable flooding problems, due mainly to the gently rolling terrain providing overflows for localized surface ponding and relatively sandy soils allowing surface ponding to infiltrate prior to impacting adjacent structures. A few areas known to have street flooding issues have been identified. Mitigation plans have been developed for these areas as detail further in the issues and CIP sections of this document.

The storm sewer and stormwater pond system in Spring Lake Park is fully constructed to serve the needs of the City. Modifications to this system continue as small parcel infill development, redevelopment, and street reconstruction activities warrant.

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2.10 EXISTING FLOOD INSURANCE STUDIES

Federal Emergency Management Agency (FEMA) does not identify a completed Flood Insurance Study (FIS) or any Flood Insurance Rate Maps (FIRM) for Spring Lake Park. Floodplain mapping covering Spring Lake Park provide some basic information benefiting Spring Lake Park and are identified as follows:

- **FIRM Map:** 27003C0382E
- **FIRM Map:** 27003C0338E
- **FIRM Map:** 27003C0401E

2.11 COMPREHENSIVE PLANNING AND LAND USE

The comprehensive planning process is a systematic, ongoing, forward-looking process of analysis of opportunities and constraints, to formulate a plan to accomplish the community's goals and objectives. The City has a clear and comprehensive understanding of current conditions, influences, and trends that will shape the community's future. The Spring Lake Park's 2040 comprehensive planning process has reviewed these trends and current conditions to aid in creating an effective plan for 2040. Conditions in the City have not changed significantly since previous plans for 2020 and 2030 were completed. Current planning efforts focus on identifying city infrastructure and system needs for 2040, discussion of possible small redevelopment areas, and developing a plan that meets the Metropolitan Council requirements.

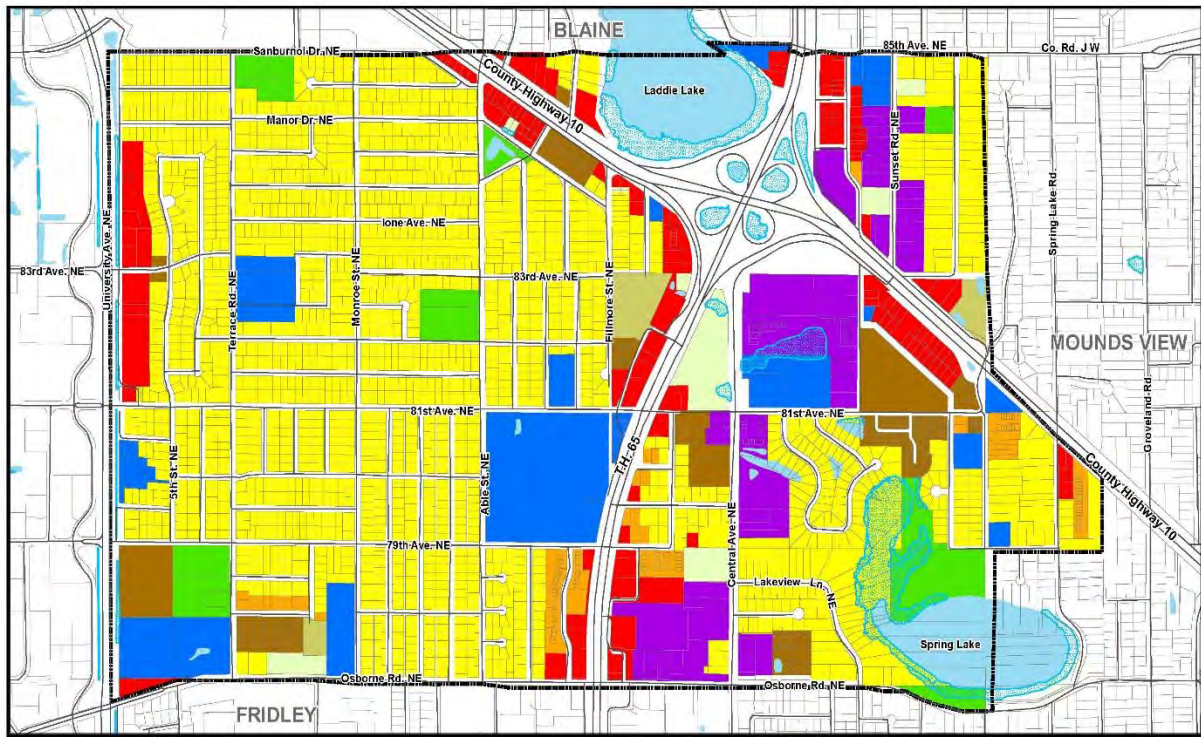
Despite its small size, Spring Lake Park includes a variety of land uses including industrial, commercial, park, and single and multi-family residential. Single family residential is the predominant land use in the City. The City also includes two manufactured home parks, and scattered townhomes, duplexes, and apartment buildings.

Commercial uses are concentrated along major transportation corridors in the City: University Avenue, Highway 65, and Highway 10. Commercial businesses consist mainly of retail stores or service providers, with a few office buildings. Industrial uses are mainly clustered the intersection of Highway 10 and Highway 65.

Current land uses within the City are shown in Figure 2.3. Land uses proposed for the 2040 Comprehensive Plan are shown in Figure 2.4. Figure 2.5 illustrates land cover within the city based on MnDNR's Minnesota Land Cover Classification System (MLCCS), as obtained from the Minnesota Department of Natural resources (www.dnr.state.mn.us/mlccs).

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Figure 2.3 - Existing Land Use



2018 Existing Land Use

Spring Lake Park 2040 Comprehensive Plan

Note: This is the existing land use in Spring Lake Park in 2018. Existing land use may differ from zoning and future land use.



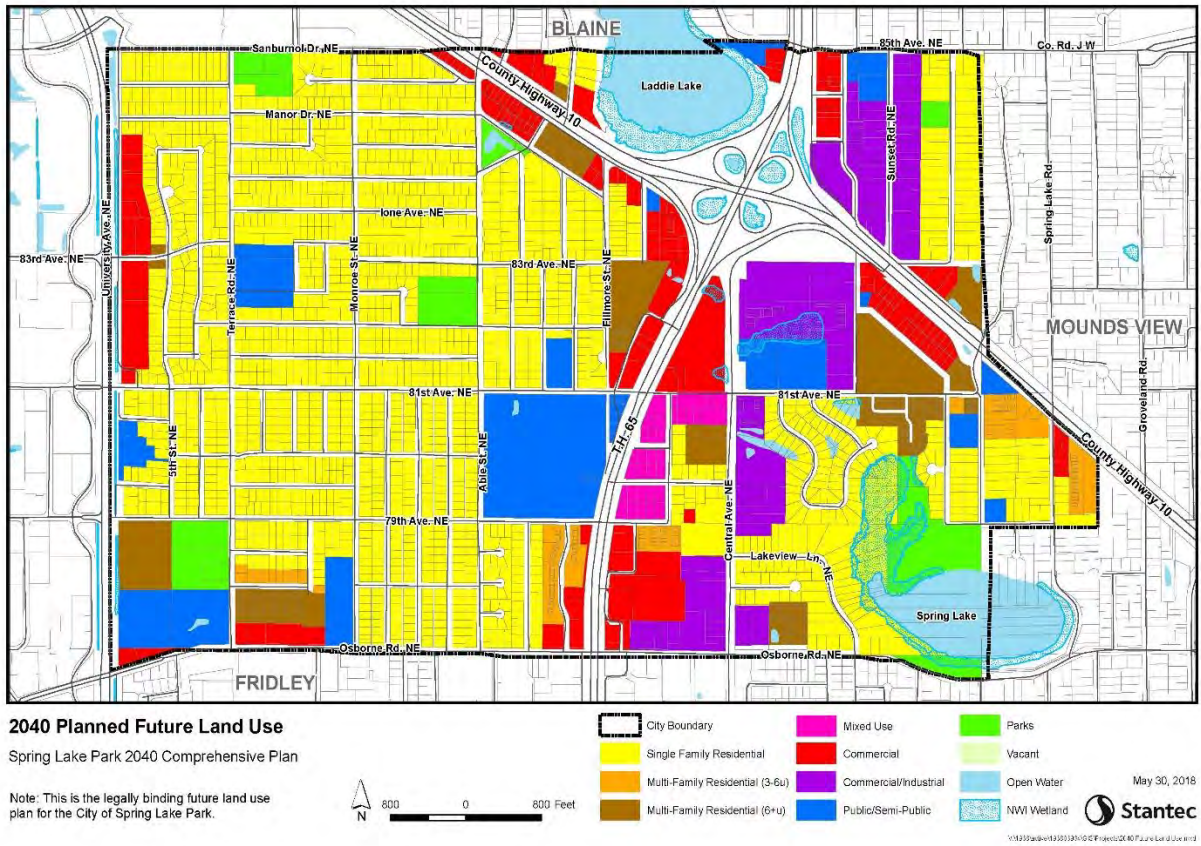
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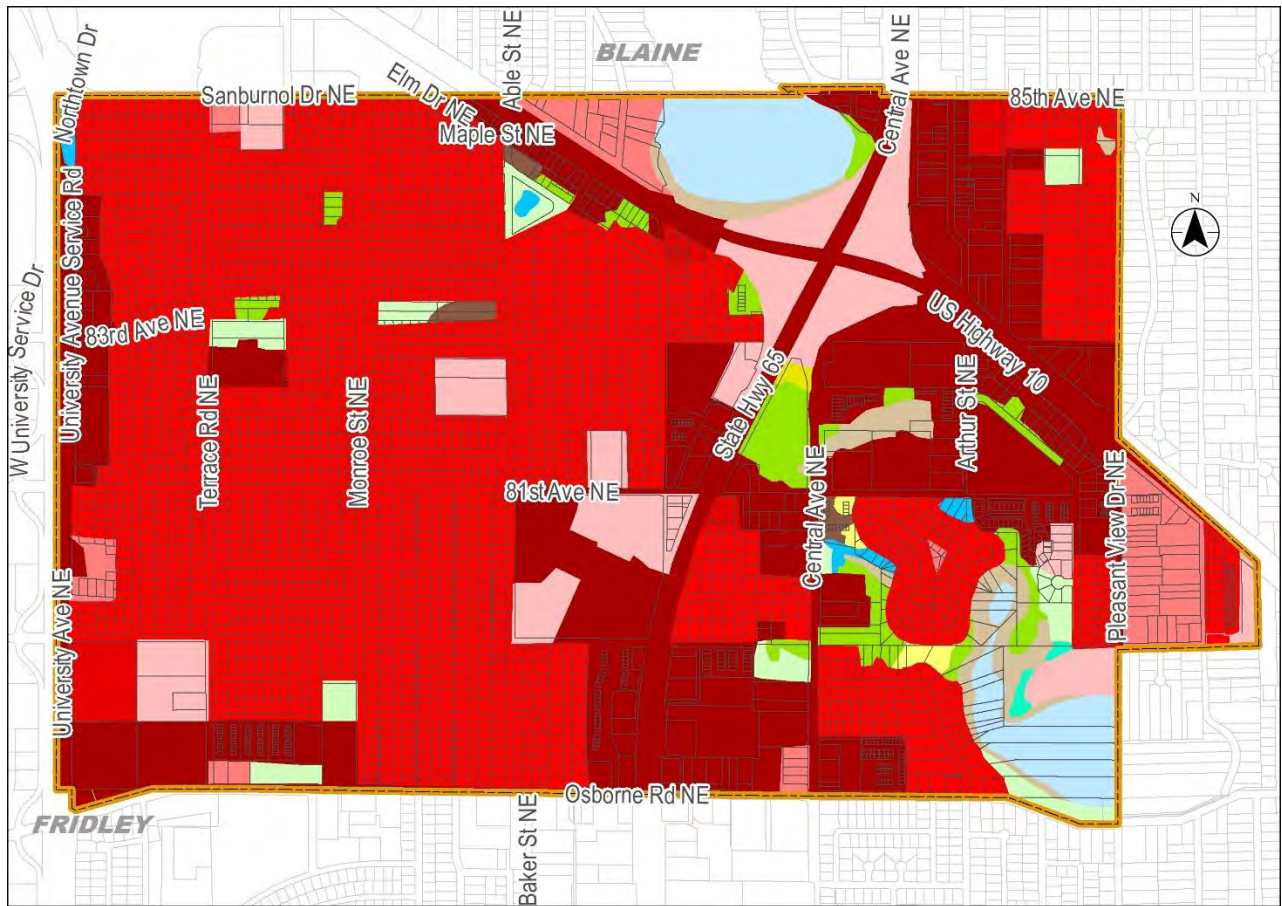
CITY OF SPRING LAKE PARK – LOCAL SURFACE WATER MANAGEMENT PLAN

Figure 2.4 - 2040 Comprehensive Plan Land Use



CITY OF SPRING LAKE PARK – LOCAL SURFACE WATER MANAGEMENT PLAN

Figure 2.5 – MLCCS Land Cover Classification Map



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SECTION 3 – REGULATORY SETTING

3.1 OVERVIEW

This section describes the City's current surface water resources management programs and practices and the agencies and organizations having roles in the City's management of these resources. Table 3.1 summarizes the City's and other agencies' respective regulatory controls related to water resources management and protection.

3.2 CITY SERVICES

Municipal infrastructure including municipal streets, sanitary sewers, water mains, stormwater management facilities, and park lands within Spring Lake Park are maintained by the City. Drinking water within Spring Lake Park is supplied by several municipal wells within the City. Wastewater is collected in the City sewer system and is ultimately treated at the Metro Wastewater Treatment Facility.

The City will continue the current arrangement with both RCWD and CCWD regarding Wetland Conservation Act (WCA) administration and permitting activities. The City will coordinate site plan review efforts concurrently with RCWD or CCWD for projects in their jurisdiction, but ultimately defer to either RCWD or CCWD for WCA administration and permitting activities.

City staff coordinates with watershed management organizations and other outside agencies in water resource management and conservation. The City's current regulations are available on the City's website at http://www.amlegal.com/codes/client/spring-lake-park_mn/.

3.3 ANOKA COUNTY

Anoka County was officially formed in 1857, separating from Ramsey County to the southeast. The County provides services to Spring Lake Park residents, including health and environmental services and property records. In addition, the Anoka Conservation District helps in planning and implementing wise resource management strategies.

The Anoka County Public Health Department also coordinates the county groundwater planning and management activities within Spring Lake Park. Though not participating in the official metropolitan groundwater planning process, in 1995, Anoka County CHES Department prepared a Groundwater Protection Assessment. Following this effort, Anoka County formed a Water Resources and Supply Management Task Force to monitor water issues and coordinate water management efforts.

CITY OF SPRING LAKE PARK – LOCAL SURFACE WATER MANAGEMENT PLAN

3.4 RAMSEY COUNTY

Ramsey County was created in 1849 and is one of Minnesota's original nine counties. The County provides many services to Spring Lake Park residents, including health services and property records. County government also includes the Ramsey Conservation District (RCD), which encourages the protection of natural resources.

Table 3.1 - Regulatory Control

Official Control	Regulatory Responsibility	Mechanism
Erosion and Sediment Control	City, RCWD, CCWD, RCD	<ul style="list-style-type: none"> • City Code Chapter 150 • NPDES General Permit • RCWD – Rule D • CCWD – Rules in Section 9.4 • Ramsey Conservation District – Site inspections
Floodplain	City, RCWD, CCWD	<ul style="list-style-type: none"> • City Code Chapter 156 • RCWD – Rule E • CCWD – Rules in Section 9.2 • FEMA FIRM Maps
Groundwater	City, MDH, CCWD	<ul style="list-style-type: none"> • NPDES General Permit • Wellhead Protection Plan • CCWD – Rules in Section 9.3
Illicit Discharge and Connection	City, CCWD, RCWD	<ul style="list-style-type: none"> • City Code Chapter 52 • NPDES General Permit • RCWD – Rule H
Post Construction Runoff Control	City, RCWD, CCWD	<ul style="list-style-type: none"> • City Code Chapter 150 • NPDES General Permit • RCWD – Rules C and I • CCWD - Rules in Sections 9.1, 9.5 and 9.6
Private Surface Water Facilities Maintenance	City	<ul style="list-style-type: none"> • NPDES General Permit
Wetlands and Public Waters	City, DNR, USACE, RCWD, CCWD	<ul style="list-style-type: none"> • NPDES General Permit • DNR – Public Waters Work Permit • USACE – Section 404 of the Clean Water Act • RCWD – Rule F (RCWD is the LGU) • CCWD – Rules in Section 9.7
Shoreland	City, DNR	<ul style="list-style-type: none"> • No City official control • DNR shoreland regulations apply
*Acronyms are defined in Sections 3.2 – 3.16 of this Plan		

CITY OF SPRING LAKE PARK – LOCAL SURFACE WATER MANAGEMENT PLAN

3.5 WATERSHED MANAGEMENT ORGANIZATIONS

In 1955, the Minnesota State Legislature established the Watershed Act. This act provided the means to create watershed districts, special purpose units of local government with broad authority to regulate land use planning, flood control and conservation issues.

In 1982, the legislature approved the Metropolitan Surface Water Management Act, Chapter 103B of Minnesota Statutes. This act requires all metro-area local governments to address surface water management through participation in a Watershed Management Organization (WMO). WMOs are based on watershed boundaries, and can be organized in three ways¹

1. As a Joint Powers Agreement (JPA) between the cities and townships within the watershed;
2. As a function of county government, usually administered by the county planning department;
3. As a watershed district, a special unit of local government which in addition to operating under Minnesota Statutes Chapter 103B, concurrently operates under Minnesota Statutes Chapter 103D.

There are forty-six WMOs within the metropolitan area. The powers and duties of these Minnesota statutory authorities include:

- Approval authority over local water management plans.
- Ability to develop rules regarding management of the surface water system.
- Ability to determine a budget and raise revenue to covering administrative and capital improvement costs.
- Regulation of land use and development when one or more of the following apply:
 - The City does not have an approved local plan in place.
 - The City is in violation of their approved local plan.
 - The City authorizes the watershed toward such regulation.
- Wetland Conservation Act administration when designated as the LGU for a city.
- Other powers and duties as given in statute and JPAs².

Spring Lake Park is located within the jurisdictional boundaries of two watershed districts: the Coon Creek Watershed District and the Rice Creek Watershed District. See Figure 3.1 for the boundaries of these watersheds.

3.5.1 RICE CREEK WATERSHED DISTRICT (RCWD)

Rice Creek Watershed District encompasses approximately 185 square miles of Anoka, Hennepin, Ramsey and Washington counties in Minnesota. Portions of RCWD can be found in the following municipalities: Arden Hills, Birchwood Village, Blaine, Centerville, Circle Pines,

¹ Board of Soil and Water Resources website, <http://www.bwsr.state.mn.us/>

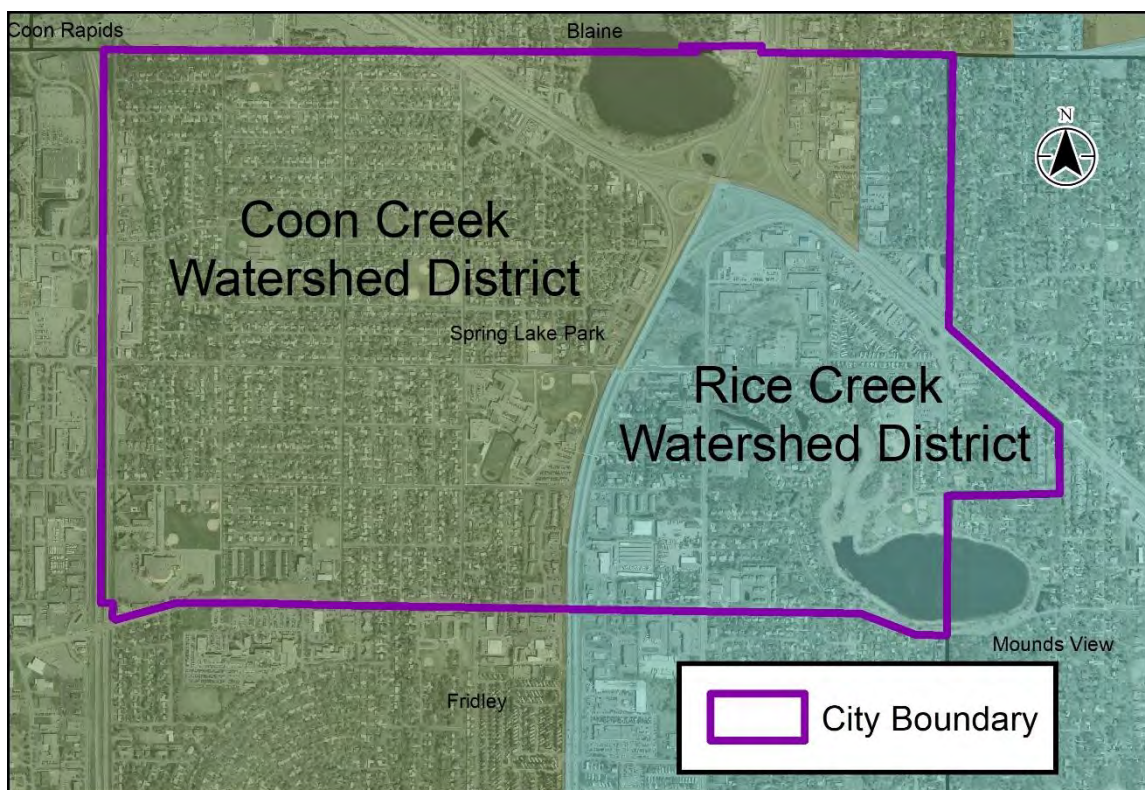
² Excerpts from State of Minnesota Statute 103B.211

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Columbia Heights, Columbus, Dellwood, Falcon Heights, Forest Lake, Fridley, Grant, Hugo, Spring Lake Park, Lexington, Lino Lakes, Mahtomedi, May Township, Mounds View, New Brighton, Scandia, Roseville, Shoreview, Spring Lake Park, Saint Anthony, White Bear Lake, White Bear Township, Willernie.

RCWD updated their rules effective January 2017. They adopted a Watershed Management Plan (WMP) in January 2010, with the most recent Amendment in November 2016. This LSWMP reflects both the updated RCWD WMP and rules. A copy of the RCWD rules is included in Appendix B for reference.

Figure 3.1 - Watershed Management Organization Boundaries



RCWD is active in the regulatory process, issuing permits to ensure that water resources within RCWD are managed in accordance with RCWD goals and policies. In general, as defined in RCWD rules, the types of projects that may be regulated by RCWD include, but are not limited to:

- Land development and redevelopment,
- Road projects,
- Trail projects,
- Utility projects.

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3.5.2 COON CREEK WATERSHED DISTRICT (CCWD)

CCWD is charged with managing 107 square miles of water resources in Anoka County, Minnesota, that includes 92 square miles of the Coon Creek watershed plus fifteen square miles that drain directly into the Mississippi River. CCWD was formed by citizen petition in 1959 and has the legal authority and obligation to develop and manage a uniform program of water and related land management under the MN Watershed District Act and the Metropolitan Water Management Act. CCWD has jurisdiction within portions of seven cities: Andover, Blaine, Columbus, Coon Rapids, Fridley, Ham Lake, and Spring Lake Park.³

CCWD is currently in the process of updating their 2013-2023 Watershed Management Plan (WMP). The current WMP and all amendments are adopted by reference into this LSWMP. CCWD rules are also adopted by reference. A copy of the current CCWD rules is included in Appendix B.

CCWD administers a permit process for all land disturbing activities that meet the CCWD permit thresholds. Generally, CCWD permits are needed for grading and development, ditch maintenance, culvert installation, water appropriation, public utility & drainage easement crossing, or wetland alteration or exemption projects.

3.6 METROPOLITAN COUNCIL

Established by the Minnesota Legislature in 1967, the Metropolitan Council is the regional planning organization for the Twin Cities, seven-county area. The Council manages public transit, housing programs, wastewater collection and treatment, regional parks and regional water resources. Council members are appointed by the Minnesota Governor⁴.

The Metropolitan Council reviews various municipal comprehensive planning documents including local surface water management plans. The Council's *2040 Water Resources Policy Plan* adopted in 2015 includes expectations and requirements for local plans. The Council's plan includes policies and strategies to protect the regions groundwater and surface water.

3.7 STATE BOARD OF WATER AND SOIL RESOURCES (BWSR)

The Minnesota Board of Water and Soil Resources (BWSR) works through local government agencies to implement Minnesota's water and soil conservation policies. The BWSR is the administrative agency for soil and water conservation districts, watershed districts, watershed management organizations and county water managers. The BWSR is responsible for implementation of the Metropolitan Surface Water Management Act and the Wetland Conservation Act. Staff members are in eight field offices throughout the state.

First established in 1937 as the State Soil Conservation Committee, the agency became part of the University of Minnesota in the 1950s, transferred to the Department of Natural Resources in

³ Excerpts from the CCWD website: www.cooncreekwd.org

⁴ Metropolitan Council website, www.metrocouncil.org/about

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1971, then transferred to the Department of Agriculture in 1982. In 1987 the State Legislature established the current Board of Water and Soil Resources. The Board consists of seventeen members, appointed by the governor to four-year terms. Multiple state and local agencies are represented on the Board. In 1992, the BWSR adopted rules (8410), establishing the required content for local surface water management plans.

3.8 MINNESOTA POLLUTION CONTROL AGENCY (MPCA)

The MPCA is the state's lead environmental protection agency. Created by the State Legislature in 1967, the MPCA is responsible for monitoring environmental quality and enforcing environmental regulations to protect land, air, and water in the state of Minnesota. The MPCA regulates the City's management of wastewater, stormwater and solid waste. The MPCA administers the federal Clean Water Act (CWA) in Minnesota.

The MPCA is the permitting authority in Minnesota for the Municipal Separate Storm Sewer Systems (MS4) program under the National Pollutant Discharge Elimination System (NPDES), the federal program administered by the Environmental Protection Agency to address polluted stormwater runoff. Certain MS4s in Minnesota are subject to stormwater regulation under the Clean Water Act and Minnesota Rule 7090. There are multiple ways for a City or township to be subject to the MPCA's stormwater regulation under the MPCA's general permit. The MPCA regulates the entire jurisdiction of a city (or township) that is located fully or partially within an urbanized area as determined by the latest Decennial Census and that owns or operates an MS4. Consequently, Spring Lake Park has developed a stormwater pollution prevention program (SWPPP) to address six minimum control measures: 1) public education, 2) public involvement, 3) illicit discharge detection and elimination, 4) construction site runoff control, 5) post-construction runoff control, and 6) pollution prevention in municipal operations.

In addition to the NPDES program, the MPCA is required to publish a list of impaired waters; lakes and streams in the state that are not meeting federal water quality standards. For each water body on the list, the MPCA is required to conduct a study to determine the allowable Total Maximum Daily Load (TMDL) for each pollutant that exceeds the standards. The 2016 MPCA list of impaired waters identifies 2,660 TMDL reports needed for 1,808 lakes, rivers and streams in the state. Local governments are required to incorporate completed TMDL studies into their Local Surface Water Management Plans and review their SWPPPs to determine if additional BMPs are needed to comply with the TMDL waste load allocation. Currently, there are no listed waters within the City of Spring Lake Park.

In response to these multiple regulatory activities, the MPCA published the *Minnesota Stormwater Manual*, which is frequently updated, providing stormwater management tools and guidance. The Manual presents a unified statewide approach to stormwater practices.

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3.9 MINNESOTA DEPARTMENT OF NATURAL RESOURCES (DNR)

Originally created in 1931 as the Department of Conservation, the DNR has regulatory authority over the natural resources of the state. DNR divisions specialize in waters, forestry, fish and wildlife, parks and recreation, land and minerals, and related services. The Division of Waters administers programs in lake management, shoreland management, dam safety, floodplain management, wild and scenic rivers, the Public Waters Inventory (PWI), and permitting of development activity within public waters.

3.10 MINNESOTA DEPARTMENT OF HEALTH (MDH)

The MDH manages programs to protect the public health, including implementation of the Safe Drinking Water Act. The MDH has regulatory authority for monitoring water supply facilities such as water wells, surface water intakes, water treatment, and water distribution systems. The MDH also is responsible for the development and implementation of the wellhead protection program.

3.11 MINNESOTA ENVIRONMENTAL QUALITY BOARD (EQB)

The EQB is comprised of five citizen members and the heads of ten state agencies that play an important role in Minnesota's environment and development. The EQB develops policy, creates long-range plans and reviews proposed projects that may significantly influence Minnesota's environment.

3.12 MINNESOTA DEPARTMENT OF TRANSPORTATION (MNDOT)

Within the City, MnDOT administers several state highway systems. MnDOT approval is required for any construction activity within state rights-of-way. MnDOT also administers a substantial amount of funding for transportation projects completed in the City. Anticipated activities of MnDOT are periodically published in their State Transportation Improvement Plan.

3.13 U.S. ENVIRONMENTAL PROTECTION AGENCY (EPA)

The EPA develops and enforces the regulations that implement environmental laws enacted by Congress; however, the MPCA bears responsibility for implementing many of the resulting programs within Minnesota. The NPDES program and the List of Impaired Waters are both the result of the Clean Water Act, administered by the EPA.

3.14 U.S. ARMY CORP OF ENGINEERS (USACE)

Under Section 404 of the Clean Water Act, including subsequent modifications, the EPA and the USACE regulate the placement of fill into all wetlands of the U.S. In 1993, there was a modification of the definition of "discharge of dredged material" to include incidental discharges associated with excavation. This modification meant that any excavation done within a wetland required the applicant to go through Section 404 permitting procedures. In 1998, however, this

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decision was modified so that excavation in wetlands is now regulated by the USACE only when it is associated with a fill action.

3.15 FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA)

FEMA manages federal disaster mitigation and relief programs, including the National Flood Insurance Program (NFIP). This program includes floodplain management and flood hazard mapping. Additional information regarding floodplain mapping can be found in Section 2.10.

3.16 NATURAL RESOURCES CONSERVATION SERVICE (NRCS)

The Natural Resources Conservation Service (NRCS) is a division of the U.S. Department of Agriculture. Formerly named the Soil Conservation Service (SCS), the NRCS provides technical advice and engineering design services to local conservation districts across the nation. The official soils survey for both Anoka and Ramsey Counties was published by the Soil Conservation Service. The SCS also developed hydrologic calculation methods that are widely used in water resources design.

3.17 U.S. GEOLOGICAL SURVEY (USGS)

The USGS provides mapping and scientific study of the nation's landscape and natural resources. USGS maps provide the basis for many local resource management efforts.

SECTION 4 – RELATED PLANS, STUDIES, AND RULES

4.1 CITY OF SPRING LAKE PARK – 2013 LSWMP

The City of Spring Lake Park previously adopted its Local Surface Water Management Plan in 2013 (Resolution 13-18). The 2013 LSWMP was an update of the 2009 LSWMP and included references to new Rice Creek Watershed District and Coon Creek Watershed District information. With the adoption of this 2018 LSWMP, the 2013 Local Surface Water Management Plan will be superseded.

4.2 2013-2023 CCWD WATERSHED MANAGEMENT PLAN

The 2013-2023 CCWD Watershed Management Plan (WMP) and amendments are incorporated by reference into this 2018 LSWMP. The 2013-2023 CCWD WMP identifies the mission of the CCWD as follows:

“To manage groundwater and the surface water drainage system to prevent property damage, maintain hydrologic balance, protect water quality for the safety and enjoyment of citizens, and the preservation and enhancement of wildlife habitat.”

In addition, CCWD Mission Goals are the primary focus of [CCWD] programs and activities. They distill the various legislative mandates as they apply to the watershed. These goals, as drawn from the mission statement are:

1. To prevent property damage from flooding, erosion or degraded water quality.
2. To ensure balance between inflow, outflow and storage of water.
3. To ensure that water is protected from contamination.
4. To provide for a variety of beneficial uses including the safety and enjoyment of the watershed's residents.
5. To preserve and enhance wildlife.

The Coon Creek Watershed District seeks to assist people and local units of government in being good stewards of water and related land resources within the watershed. For the period of 2013 to 2023 we have defined the following strategies. In the next ten years the CCWD will:

1. Seek to promote collaborative efforts to achieve water and related resource goals.
2. Provide information and assistance to encourage and enable locally led, watershed, subwatershed and minor subwatershed scale management.
3. Facilitate the growth of performance-based solutions that recognize the multi-scale nature of comprehensive water management.

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4. Utilize an adaptive management process that allows the District to continually evaluate the performance of the resource and adjust its programs and activities to increase effectiveness.⁵

Stormwater management implementation items identified in the CCWD WMP impacting Spring Lake Park are included in the system assessment section (Section 6) of this LSWMP. The goals and policies section (Section 7) of this LSWMP reflects the CCWD goals as they apply to Spring Lake Park.

4.3 2017 RCWD RULES

RCWD officially adopted revised rules on December 14, 2016, that became effective on January 1, 2017. As stated in the introduction of the rules, “In these rules the [RCWD] seeks to protect the public health and welfare and the natural resources of the [RCWD] by providing reasonable regulation of the modification or alteration of the [RCWD]'s lands and waters to reduce the severity and frequency of flooding and high water, to preserve floodplain and wetland storage capacity, to improve the chemical, physical and biological quality of surface water, to reduce sedimentation, to preserve waterbodies' hydraulic and navigational capacity, to preserve natural wetland and shoreland features, and to minimize public expenditures to avoid or correct these problems in the future.”⁶

As the clear majority of Spring Lake Park is fully developed at this time, the primary application of the RCWD rules will be for city street projects and redevelopment projects.

The RCWD rules combine the water quality and volume control requirements into a single requirement. The depth of runoff to be infiltrated varies, depending on the type of project. The City will defer the enforcement of RCWD Water Quality and Volume Control requirement to RCWD and coordinate permitting efforts with RCWD. The 2017 RCWD rules are included in Appendix B.

4.4 2009 CCWD RULES

Current CCWD rules are dated March 2009. As stated in the rules, “The purpose of these rules is to enable the District to evaluate, permit and monitor activities affecting the water and related land resources of the District in an orderly and informed fashion.”

“In general, a permit from the Watershed District shall be required for activities affecting the course, current, cross section, quantity, or quality of surface water, groundwater or related land resource features within the Coon Creek Watershed. This includes, but is not limited to drainage, conveyance, retention or detention of water, including lakes and wetlands.”⁷

⁵ Excerpts from the 2013 CCWD WMP

⁶ Excerpt from RCWD rules, found at <http://www.ricecreek.org>

⁷ Excerpt from CCWD rules

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As Spring Lake Park is essentially fully developed, CCWD permits would primarily focus on redevelopment activities and City infrastructure improvement projects. The City will coordinate project submittals with the CCWD to determine if a watershed permit is applicable for a given submittal. A copy of the 2009 CCWD rules is included in Appendix B.

4.5 SOUTHWEST URBAN LAKE STUDY REPORT: PHASES I & II

RCWD completed Phase I of the Southwest Urban Lake Study. This study analyzed twenty-four urban lakes in the southwest portion of RCWD, which included Spring Lake. This report detailed the first phase of a two-phase study, which included:

- An assessment of existing lake quality data
- Lake-bottom sediment sampling and analysis
- Delineation of sub-watersheds boundaries and land use determinations for each lake studied
- Listing of current impairments for the 24 lakes studied
- Summary of available lake quality data
- Recommendations for additional lake quality monitoring via the Metropolitan Council's Citizen Assisted Monitoring Program (CAMP)
- Identification of available in-lake and watershed BMPs to address impairments of the lakes studied

This report identifies that the existing lake quality data for Spring Lake is limited, with only one full year of sampling in the last ten and recommends that Spring Lake be added to the CAMP in 2008 to begin to compile additional lake quality data. The report also notes that Spring Lake has experienced significant water level fluctuations in the recent past. New data could provide insight into the level of impact the water level fluctuations are having on lake quality.

Phase II of the Southwest Urban Lakes Study was completed in 2009. This phase focused on soliciting input from lake stakeholders to identify any "impairments" to the beneficial uses they identify. This phase used the existing lake quality data and identified impairments to develop Management Action Plans (MAPs) for each of the 24 lakes studied. The Spring Lake's MAP recommends specific BMPs to address the impairments to the beneficial uses identified. Implementation of MAP recommendations will be discussed in the Implementation Section (Section 8) of this LSWMP.

4.6 SPRING BROOK PHASE I CLEAN WATER PARTNERSHIP RESOURCE INVESTIGATION

This study, and subsequent implementation projects, involved a few partners including Spring Lake Park, to address poor water quality and stormwater quantity management issues in Spring Brook Creek, and more specifically in the Spring Brook Nature Center. This multi-year project began with studies to better understand the water quality and hydrology problems. Then, using this new knowledge, management strategies were developed and implemented to work toward correcting the problems.

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The project focused on the Spring Brook Nature Center Area, where stormwater from the surrounding urbanized watershed enters an impoundment. The water entering the nature center area has two problems:

- It has poor water quality
- During rainfall, intense pulses of water are flushed through the stormwater conveyances and streams, resulting in damage to stream ecology, stream bank erosion, and damage to the impoundment.

A few projects have been constructed to address the above issues, including:

- Drawing down water levels in the impoundment for several years to promote the recovery of aquatic vegetation that had been previously decimated by large pulses of stormwater and sediment. The vegetation is recovering well, and the ecological value of the impoundment within the Nature Center has grown considerably.
- Major restoration of the stream that enters the Nature Center from the east. Previously, the stream was badly eroded and degraded. Through this project the stream was re-meandered, erosion issues were corrected, and new infrastructure to handle stormwater pulses was installed. The new infrastructure included several water control structures to prevent downcutting, as well as a diversion mechanism to prevent massive stormwater pulses from damaging the stream in the future.⁸

4.7 SPRING LAKE PARK WELLHEAD PROTECTION PLAN

Most ground water quality protection is in the form of Wellhead Protection Planning. The primary purpose of these plans is to identify potential sources of contamination and areas that are most susceptible to contamination, and to put a plan in place to protect groundwater supplies given these data. In 1995 Anoka County, with input from member cities, produced a Ground Water Protection Assessment that identified activities that should be implemented to protect city water supplies and areas where special measures are most needed. Under the guidance of this document, 10 Anoka County cities formed a Joint Powers Organization to jointly write a city-level Wellhead Protection Plan. In 2001 The City completed Part I of their Wellhead Protection Plan. In 2008, the City completed Part 2 of their Wellhead Protection Plan.

Part 1 and Part 2 of the city's Wellhead Protection Plan have been compiled in a combined document posted on the City's website: www.slpmn.org. The Wellhead Protection Goals identified in the City's Wellhead Protection Plan are discussed in the goals and policies Section (Section 7) of this LSWMP.

⁸ Excerpts from the SCWMO website: http://www.anokanaturalresources.com/scwmo/Spring_Brook.htm

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4.8 ANOKA CONSERVATION DISTRICT COMPREHENSIVE PLAN

The Anoka Soil and Water Conservation District (Anoka Conservation District or ACD) has prepared a Comprehensive Plan to provide a framework for an overall natural resource management program in Anoka County. Pursuant to this natural resource management program, future annual work plans will be developed to identify objectives and goals within the Comprehensive Plan. The Anoka Conservation District Comprehensive Plan promotes inter-agency cooperation and coordination for the preservation and conservation of the natural resource base in Anoka County.

This plan identifies many resource conservation issues where the ACD will focus its limited staff and financial resources. The plan provides the framework as to how the ACD will contribute resources to address issues facing natural resource conservation within the county and identifies the services that are available to city's such as Spring Lake Park, including:

- Monitoring the water quality in Laddie Lake
- Streambank restoration projects
- Assisting residents with the designing and finding raingardens retrofits in urban areas
- Providing educational services to assist city's in fulfilling the educational component of their SWPPP

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SECTION 5 – WATER RESOURCES RELATED AGREEMENTS

5.1 CITY OF BLAINE

On August 29, 1988, Spring Lake Park entered into a JPA with the City of Blaine to address a number of utility considerations, including stormwater management. At the time of this agreement, Spring Lake Park provided sanitary sewer and storm sewer service to an existing development in Blaine, Poplar Homes. At the time, this site was to be redeveloped and this agreement identifies the responsibilities of each party regarding the various utility considerations. A copy of the agreement is included in Appendix C for reference.

5.2 SPRING LAKE TRI-CITY TASK FORCE

Although not an official agreement, the Cities of Spring Lake Park, Mounds View, and Fridley are members of the Spring Lake tri-city task force. Since its inception, the task force has been focusing on the aesthetic, recreational, and functional uses of Spring Lake. It is critical to have consensus among the three bordering cities as to the appropriate lake management strategy to address the identified target uses of Spring Lake.

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SECTION 6 – CURRENT ASSESSMENT

The following section summarizes the assessment of the City’s surface water management system. The assessment includes surface water management issues identified by the City, found in the watershed management plans for Rice Creek Watershed District and Coon Creek Watershed District, or as discussed in a specific plan or study identified in Section 4.

Based on the assessment presented in this section, the City will develop effective surface water management goals and policies (Section 7) and with the coordination of the two WMOs, establish the implementation measures (Section 8) necessary to address surface water management issues and enact the goals and policies.

6.1 OFFICIAL CONTROL ASSESSMENT

Codes and ordinances (official controls) are necessary tools supporting implementation of this LSWMP. The intent of assessing the City’s existing official controls is to identify the adequacy of these controls to address current regulatory requirements.

After adoption of this LSWMP, all applicable portions of city code will need to be updated to achieve consistency with local watershed plans. Per State statute, this implementation step must be completed within 180 days after adoption of this plan. In addition, periodically codes must be updated to remain consistent with city goals, policies, and practices. Table 6.1 presents an assessment of city codes related to surface water management as listed in Table 3.1 in Section 3.

Table 6.1 - Surface Water Management Official Control Assessment

Official Control	City Code	Current City Assessment
Erosion and Sediment Control	Section 150.200	Last Updated 10-20-2014
Illicit Discharge and Connection	Section 52	Last Updated 10-20-2014
Plan Review and Approval	--	No current ordinance. Review and update.
Post Construction Runoff Control	Section 150.209	Last Updated 10-20-2014
Private Surface Water Facilities Maintenance	--	No current ordinance. Review and update.
Wetlands, Public Waters, and LGU Responsibilities	--	No current ordinance. Easements required per Section 152.016
Floodplain	Section 156	Last Updated 12-07-2015
Shoreland	--	No current ordinance, DNR Regulations Apply

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6.2 SURFACE WATER REGULATORY RESPONSIBILITY ASSESSMENT

The City will coordinate plan review activities with the jurisdictional watershed district. The City defers the enforcement of watershed rules to the jurisdictional watershed district via their existing permit programs, for public and private projects that meet permit thresholds.

For wetland permitting issues, the City defers WCA administration to the jurisdictional watershed district.

6.3 WETLAND MANAGEMENT

As Spring Lake Park is nearly fully developed, the City has not completed a full function and value assessment of the wetlands in the City. However, the City does require that a wetland function and value assessment be performed for any wetland immediately adjacent to new development, redevelopment, or site expansion projects.

The City will continue to recognize RCWD and CCWD as the LGUs responsible for administering the WCA and requiring the completion of wetland function and value assessments consistent with the WCA. The City presumes that the assessments will be done in accordance with the methods defined in the most current version Minnesota Routine Assessment Method (MnRAM) or other acceptable methods.

The City will continue to coordinate wetland management issues with either RCWD or CCWD, depending on the location of the issue. In addition, Spring Lake Park intends to update city code to include wetland management requirements, which reflect consistency with RCWD and CCWD rules and specifically reference the role of RCWD and CCWD in WCA administration in the City.

6.3.1 WETLAND MANAGEMENT AND WETLAND BUFFERS

Spring Lake Park is committed to maintaining wetland buffers. A wetland buffer of undisturbed vegetation around a wetland can provide a variety of benefits. The buffer can consist of trees, shrubs, grasses, wildflowers, or a combination of plant forms. Buffers reduce the impacts of surrounding land uses on wetland functions by stabilizing soil to prevent erosion; filtering solids, nutrients, and other harmful substances; and moderating water level fluctuations during storms. Buffers also provide essential habitat for feeding, roosting, breeding and rearing of young birds and animals; and cover for safety, movement and thermal protection for many species of birds and animals. Buffers can reduce problems related to human activities by blocking noise and glare from lights and reducing disturbance. Wetland buffers will be most effective if the landowners around a wetland make a continuous buffer and connect desirable wetland and upland habitats.

Cutting vegetation, dumping grass clippings or other debris, and trampling should be avoided in buffer areas. If a path is desired through the buffer, it should be mown only as wide as

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necessary for walking, and gently meandered so that it does not encourage erosion or carry sediments and nutrients from surrounding areas to the wetland.

Spring Lake Park will continue to defer to the CCWD in identifying wetland buffer standards. The CCWD identifies wetland buffer standards in Section 8.2 (Buffer Strips) of their current rules. The RCWD does not currently have wetland buffer requirements in Spring Lake Park. Wetland buffers are only required in the RCWD for wetlands in Comprehensive Wetland Protection Management Plan (CWPMP) areas, which do not exist in the City.

6.4 IMPAIRED WATERS AND TMDL STUDIES

There are no waterbodies within Spring Lake Park currently identified on the state List of Impaired Waters. However, three other waterbodies in adjacent communities receiving discharge from Spring Lake Park are currently identified on the state List of Impaired Waters: Spring Brook Creek, Rice Creek, and Mississippi River. The List of Impaired Waters is known as the 303(d) List from the applicable section of the Federal Clean Water Act, these waters are ones that do not currently meet their designated use due to the impact of a pollutant or stressor. If monitoring and assessment indicate that a waterbody is impaired by one or more pollutants, it is placed on the list.

Responsibility for implementing the requirements of the Federal Clean Water Act falls to the U.S. Environmental Protection Agency. In Minnesota, the EPA delegates much of the program responsibility to the Minnesota Pollution Control Agency (MPCA). Information on the MPCA program can be obtained at the following web address:
www.pca.state.mn.us/water/tmdl/index.html

Information for impaired waters identified in adjacent communities receiving flows from Spring Lake Park is identified in Table 6.2 below. The absence of a waterbody from the 303(d) List does not necessarily mean the waterbody is meeting its designated uses. It may be that it has either not been sampled or there is not enough data to make an impairment determination.

Known TMDL Studies affecting the City of Spring Lake Park include:

- Coon Creek Watershed District TMDL
- South Metro Mississippi River Sediment TMDL
- Twin Cities Metro Area Chloride TMDL
- Upper Mississippi River Bacteria TMDL

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Table 6.2 - Impaired Waters Receiving Discharge from Spring Lake Park¹

Impaired Water ²	Waterbody ID	Year Listed	Affected Use	Pollutant or Stressor	TMDL Target Completion
Mississippi River – Coon Creek to Upper St. Anthony Falls	07010206-509	2006	Aquatic recreation	Fecal coliform	2015
		1998	Aquatic consumption	PCB in fish tissue	2025
		1998	Aquatic consumption	Mercury in fish tissue	2025
Rice Creek – Long Lake to Locke Lake	07010206-584	2006	Aquatic life	Aquatic macroinvertebrate bioassessments	2025
		2014	Aquatic recreation	E. coli	N/A
		2014	Aquatic Life	Fishes bioassessments	2025
County Ditch 17 (Spring Brook Creek)	07010206-557	2006	Aquatic life	Aquatic macroinvertebrate bioassessments	2016
		2014	Aquatic recreation	E. coli	2016

¹From final draft MPCA 2018 303(d) List

²The locations of these impaired waters in relation to Spring Lake Park are identified on Figure 2.2.

In addition to the impaired water bodies above, the Twin Cities Metro Area Chloride TMDL lists Spring Brook Creek as a High-Risk Stream having at least one chloride concentration value within 10% of exceeding the water quality standard.

At some point, a strategy would be developed by the MPCA or a delegated agent (Watershed Management Organization, Joint Powers Organization, Cooperative Partnership, municipality, etc.) that would lead to attainment of the applicable water quality standard for these impaired waters. The process of developing this strategy is commonly known as the Total Maximum Daily Load (TMDL) process and involves the following phases:

1. Assessment and listing
2. TMDL study
3. Implementation plan development and implementation
4. Monitoring of the effectiveness of implementation efforts

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The MPCA has identified a target schedule for starting and completing TMDL studies for each impairment on the 303(d) List and reflected in Table 6.2. The following is an excerpt from the MPCA website describing the program and its need:

“Assessment of all Minnesota’s waters will require more monitoring capabilities than MPCA currently has. Significantly more resources need to be dedicated to water quality monitoring to assess all waters. For example, developing an in-depth study for just one waterbody typically requires several years of data collection and analysis.

While current resources do not allow for an adequate assessment of all Minnesota’s waters, MPCA officials predict that Minnesota’s list of impaired waters will grow to many times its present size as the state expands its existing monitoring program. Once all Minnesota waters have been assessed, more than 10,000 impairments are expected to be included on the state’s Impaired Waters List, with impaired waters located in nearly every watershed statewide.

The Impaired Waters Program (Section 303(d)) requires MPCA to prepare a list of impaired waters every two years, which is transmitted to the EPA for review and approval. In addition, MPCA must prioritize these waters and develop an in-depth study of each, called a Total Maximum Daily Load (TMDL) study. TMDL studies are intended to be a first step toward improving water quality and restoring beneficial uses for each impaired water.

EPA requires that TMDLs be developed and completed within 15 years of a waterbody being placed on the 303(d) list. MPCA’s Impaired Waters Program exists with the goal of ensuring that impaired waterbodies are listed, TMDLs are developed for each and that waters are eventually restored to meet water quality standards.”

Discussion regarding the directives for impaired waters and ultimately TMDL studies addressing the impairments for the waterbodies listed in Table 6.2 is presented in the implementation section (Section 8) of this LSWMP. Section 8 will also identify how the City intends to be involved in these directives and the City’s strategy for implementing these directives.

6.5 PHASE II NPDES MS4 PERMIT AND SWPPP

The MPCA is the permitting authority in Minnesota for the National Pollutant Discharge Elimination System (NPDES). The MPCA has designated Spring Lake Park as an NPDES Phase II MS4 community (MN Rules 7090). Spring Lake Park received initial permit coverage in 2003. Coverage was last extended on March 17, 2014. The current NPDES MS4 permit is effective as of August 1, 2013.

As part of the MS4 permit extension process, the City completed a Stormwater Pollution Prevention Program (SWPPP) Application for Reauthorization. The SWPPP Document was approved by MPCA on March 17, 2014 as part of the permit coverage extension.

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Spring Lake Park's SWPPP addresses six minimum control measures:

1. Public education
2. Public involvement
3. Illicit discharge detection and elimination
4. Construction site runoff control
5. Post-construction runoff control
6. Pollution prevention in municipal operations

The City's SWPPP contains several best management practices (BMPs) within each of the listed control measures. These were identified using a self-evaluation and input process with City Staff. A copy of the City's current SWPPP is posted on the City's website: www.slpmn.org.

Per the requirements of the MS4 Permit, the City reviews its SWPPP and implementation practices on an annual basis. A report on the implementation actions of the city is submitted to the MPCA annually.

6.6 COMPARISON OF REGULATORY STANDARDS

The City is committed to coordinating project review efforts to facilitate RCWD and CCWD permit processed. See Figure 3.1 for the location of the jurisdictional boundaries for these WMOs.

Each WMO has established standards governing stormwater management and protection of natural resources. The governing document for these standards for each WMO is identified as follows:

- Rice Creek Watershed District Rules – effective January 2017
- Coon Creek Watershed District Rules – effective March 2009

A comparison of current WMO standards, per the governing documents identified above, and the current city stormwater management standards is included in Appendix D. Where the City's standards are not consistent with WMO standards, recommended actions to bring the City's standards into alignment with the WMOs are provided.

6.7 SURFACE WATER SYSTEM MODEL

The preparation of this plan included an assessment of the City's current surface water system, including storm sewer, regional stormwater basins, and drainage areas. Data related to the City's surface water system was collected from a variety of sources including:

- City storm sewer base mapping
- RCWD and CCWD
- Site specific development review submittals

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- City, County, and MnDOT road projects

As part of the assessment of the City's surface water system, drainage boundaries and flow paths were delineated based on the best available data. A map of the City's surface water system, including drainage boundaries, can be found on Map 1 in Appendix A. The City is divided into three major drainage districts, namely Rice Creek, Stony Brook Creek, and Spring Brook Creek major drainage districts. These major drainage districts are further divided into subdistricts, to account for specific surface water features within these subdistricts.

To address statutory requirements, the City has developed a broad scale hydrologic and hydraulic model for the City, to estimate general flow patterns, rates, and volumes at key locations, including inter-jurisdictional discharges. The City's model is augmented by information for Spring and Laddie Lakes from RCWD and CCWD, respectively. The modeling assessment information is summarized in the table found in Appendix A. The City will consider more detailed modeling efforts within specific sub-districts when the modeling efforts are being driven by a specific issue or projects within Spring Lake Park or a neighboring community. At this time, no specific issues or projects warranting more detailed modeling have been identified.

6.8 SURFACE WATER MANAGEMENT ISSUES AND POSSIBLE CORRECTIVE ACTIONS

The list of items presented in Table 6.3 includes some current stormwater management issues or concerns as identified by the documents included in Section 4 of this plan. It is not the intent of this list to include all the current stormwater management issues identified in the documents in Section 4, only those issues with a possibly corrective action that directly affects the City. The implementation of the possible corrective actions will be addressed in the implementation section (Section 8).

The City will be incorporating the possible corrective actions identified in Table 6.3, into the LSWMP goals and policies (Section 7) and/or implementation efforts (Section 8), as necessary.

6.9 PUBLIC PARTICIPATION

The City implements a public information and education program through the City website. Future website pages will contain information about different topics concerning water resources within the City, as well as summaries of continuing water resource management programs.

Some possible future topics for the website are listed below:

- Educational articles on stormwater management treatment.
- Educational articles on environmental policies.
- Storm sewer maintenance schedules.
- Watershed district policy changes.
- City policy changes.
- Property owner impacts on water quality.

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Table 6.3 – Surface Water Management Issues and Possible Corrective Actions

Issue Number	Stormwater Issue	Issue Identified by:	Possible Corrective Actions
1	The City has limited financial ability to implement water quality BMPs	City	<ul style="list-style-type: none"> • The City would like to work with RCWD on funding water quality BMPs.
2	Water quantity and erosion issues in Spring Brook Creek and wetland, and Stony Brook Creek	CCWD WMP	<ul style="list-style-type: none"> • Assist CCWD with regular inspection and maintenance of projects within Spring Lake Park.
3	Portions of the City discharge to downstream impaired waters	MPCA	<ul style="list-style-type: none"> • Follow strategies put forth by the MPCA and other outside agents to address TMDLs for the impaired water bodies, including the Upper Mississippi River Bacteria TMDL.
4	Chloride levels approaching TMDL in Spring Brook Creek	MPCA	<ul style="list-style-type: none"> • Review the findings in the Metro Chloride TMDL regarding high-risk water bodies, and continue to implement action items regarding salt use. The City of Spring Lake Park requires its snowplow operators to attend smart salting trainings to learn salt application rates, equipment calibration and adjust road salt application rates based on weather conditions and pavement temperatures.
5	Low water levels and water quality issues in Spring Lake	City	<ul style="list-style-type: none"> • Review the findings in the 2009 Southwest Urban Lakes Study regarding low water levels in Spring Lake, and potentially implement the recommended activities
6	Maintenance of private stormwater BMPs	City	<ul style="list-style-type: none"> • Research, develop, and implement a private stormwater BMP maintenance ordinance
7	Excessive sediment in ditches, ponds, and wetlands	City	<ul style="list-style-type: none"> • Continue street sweeping activities twice annually • Clean sediment out of existing ditches, ponds, and wetlands
8	Excessive peak flow rates	City	<ul style="list-style-type: none"> • Pursue select improvement projects. Enforce stormwater design standards to address peak discharge rates for new development, redevelopment, and site expansion projects. At the time of this plan submittal, the City had not yet completed its drainage report. Once the drainage report is complete, the City will work to identify specific areas that experience flooding, if applicable.

SECTION 7 – GOALS AND POLICIES

7.1 SUMMARY

Surface water management issues within the City are primarily defined by the requirements of current or pending programs. The goals and policies outlined in this plan are grouped by their relationship to the key issues listed below:

- **Section 7.2 - Land Development and Redevelopment** – Goals and policies to prevent flooding and adverse impacts to water resources from land disturbance and impervious surfaces.
- **Section 7.3 - Resource Management** – Goals and policies for managing Spring Lake Park's wetlands, lakes, and groundwater, to preserve and protect these resources.
- **Section 7.4 - Citywide Program Elements** – Goals and policies for managing water resources and drainage systems on a citywide scale, to effectively achieve surface water management goals.
- **Section 7.5 - Support of Other Agencies** – Goals and policies to coordinate local surface water management with the work of watershed management organizations and state agencies.

The following goals and policies reflect current City policy and the City's current SWPPP, as well as additional goals and policies necessary for consistency with the goals and policies of state, regional, and local watershed authorities.

7.2 LAND DEVELOPMENT AND REDEVELOPMENT

Overall Goal: Manage land disturbance and increased impervious surfaces to prevent flooding and adverse impacts to water resources through the cooperation with the stormwater management standards identified by the WMOs with jurisdiction in Spring Lake Park.

7.2.1 RUNOFF RATE

Goal: Control the rate of stormwater runoff from development to reduce downstream flooding and erosion.

Policy 1: Peak runoff rates from regulated new development, redevelopment, or site expansion projects shall not exceed existing rates for the 2-year (2.84-inches in 24 hours), 10-year (4.24-inches in 24-hours), and 100-year (7.30-inches in 24 hours) rainfall events. Rate control below existing rates may be necessary where downstream capacity issues are identified, which will require coordination with

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the local WMOs and adjacent municipalities. Rainfall amounts used for calculating runoff rates shall be per NOAA Atlas 14 as determined by the jurisdictional watershed.

Policy 2: The City will review and update city code as necessary to include the rate control policy identified above. This policy is consistent with the City's SWPPP.

Policy 3: The City will require that the maximum duration for rainfall critical event analysis shall be 24 hours. The City will require the use of the hydrograph method of analysis and the MSE Type III storm distribution, unless otherwise required using NOAA Atlas 14 rainfall depths.

7.2.2 FLOOD PREVENTION AND FLOODPLAIN MANAGEMENT

Goal: Provide adequate storage and conveyance of runoff and control development in flood prone areas to protect the public safety and minimize property damage.

Policy 4: The City will require that the low opening elevation of new structures provide a minimum of 2-feet of freeboard above the 100-year High Water Level (HWL from NOAA Atlas 14 rainfall depths) and 1-foot of freeboard above the emergency overflow of an adjacent pond.

Policy 5: Through on-going site plan reviews, the City will require on-site mitigation for any loss in existing flood storage volume for new developments. For redevelopment sites and sites undergoing minor modifications, the City will act to preserve the existing water storage capacity of storm water facilities and to minimize the frequency and severity of high water issues.

Policy 6: The City will evaluate ongoing capital improvement projects to improve stormwater management facilities in known flood-prone areas

7.2.3 RUNOFF VOLUME

Goal: Reduce pollutant loads and impacts to water bodies and encourage groundwater recharge, by reducing the volume of stormwater runoff from development and redevelopment areas.

Policy 7: The City will defer the enforcement of volume control requirements to RCWD and CCWD for construction projects within their jurisdiction.

Policy 8: The City will review and update city code as necessary to reference the volume control requirements of the jurisdictional watersheds. This policy is consistent with the City's SWPPP.

Goal: Reduce the volume of stormwater runoff from existing developed areas.

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- Policy 9:** The City will coordinate efforts with the local WMOs to minimize impervious surfaces where feasible when reconstructing streets and other paved surfaces and provide volume control mitigation as identified in Policy 7.
- Policy 10:** Where practical, the City will encourage the use of infiltration BMPs in existing developed areas, taking into consideration site limitations such as soil conditions, depth to groundwater, and maintenance issues.

7.2.4 NUTRIENT AND SEDIMENT LOADING

Goal: Reduce the nutrient and sediment loads discharged from land development or redevelopment.

- Policy 11:** The City will strive for the non-degradation of receiving waters within the City by enforcing current stormwater management standards, and in cooperation with the local WMOs stormwater management standards.
- Policy 12:** For the portions of the City within the jurisdiction of RCWD, the nutrient and sediment load requirements are incorporated into RCWD's Rule C. The nutrient and sediment load requirements for projects in CCWD are found in Section 9.4 of their rules.
- Policy 13:** The City will review and update city code as necessary to reference the nutrient and sediment load requirements of the jurisdictional watersheds. This policy is consistent with the City's SWPPP.
- Policy 14:** The City shall develop an ordinance to address the maintenance of private stormwater BMPs. This policy is consistent with the City's SWPPP.
- Policy 15:** The City will require outlet skimming up to the 5-year storm event (3.6-inches in 24 hours) High Water Level in all new stormwater ponds.

7.2.5 EROSION AND SEDIMENT CONTROL

Goal: Prevent sediment from construction sites from entering the City's surface water resources.

- Policy 16:** The City will review and update city code as necessary to include the erosion and sediment control ordinance as outlined in the NPDES MS4 permit. This policy is consistent with the City's SWPPP.
- Policy 17:** The City will require that erosion and sediment control practices are consistent with the standards identified in the current MPCA Construction General Permit and the Minnesota Stormwater Manual. This policy is consistent with the City's SWPPP.

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7.3 RESOURCE MANAGEMENT

Overall Goal: Protect the City's wetlands, lakes, groundwater, and natural areas to preserve the functions and values of these resources for future generations through the Wetland Conservation Act, buffer standards, groundwater protection rules and coordination with outside agencies.

7.3.1 WETLAND MANAGEMENT

Goal: Protect and preserve wetlands to maintain or improve their function and value.

Policy 18: The City will defer the administration of Wetland Conservation Act (WCA) responsibilities to RCWD and CCWD for the portions of the City that lie within the jurisdictional boundary of each. As projects are submitted, the City will continue to coordinate WCA activities with RCWD or CCWD.

Policy 19: The City will coordinate wetland restoration activities with the local WMOs.

Policy 20: The City will require that runoff from new development, redevelopment, or site expansion projects be treated prior to discharge to wetlands.

Policy 21: The City will require that, prior to development activities or public projects, a wetland delineation must be completed, including a field delineation and report detailing the findings of the delineation.

Policy 22: The City will require that a wetland inventory and assessment be prepared for any new development, redevelopment, or site expansion project immediately adjacent to a wetland. Minnesota Routine Assessment Methodology (current version) is the required method of assessment for evaluating wetland functions and values.

Policy 23: Where required by CCWD rules, appropriate wetland buffers on wetlands will be required.

7.3.2 LAKE MANAGEMENT

Goal: Improve water quality and protect resource values of lakes.

Policy 24: The City will cooperate with RCWD and CCWD to implement activities to improve water quality in Spring Lake and Laddie Lake. This includes the findings presented in Phase II of RCWD Southwest Urban Lakes Study.

7.3.3 GROUNDWATER RECHARGE AND PROTECTION

Goal: Protect groundwater resources and groundwater-dependent surface water and natural resources.

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- Policy 25:** The City will cooperate with Anoka County, Ramsey County, the Minnesota Department of Health, and the local WMOs to identify and protect critical groundwater resource areas.
- Policy 26:** To address the action items identified in the City's 2008 Wellhead Protection Plan (WPP), the Wellhead Protection Goals identified in Chapter 4 of the WPP are incorporated by reference into this LSWMP.
- Policy 27:** The City will cooperate with other agencies to implement the recommendations identified in the City's Wellhead Protection Plan and Ramsey County Groundwater Quality and Protection Plan.

Goal: Cooperate with other organizations working to protect groundwater resources.

- Policy 28:** The City will cooperate with local WMOs, Anoka County, Ramsey County, and others to implement the recommendations of the Ramsey County Groundwater Quality and Protection Plan and the City's Wellhead Protection Plan, to protect groundwater quality by reducing the potential for transport of storm water pollutants into the groundwater and maintaining the functions of groundwater recharge areas.

7.3.4 NATURAL AREA MANAGEMENT

Goal: Protect and enhance natural areas within the City to provide wildlife habitat and water resource benefits.

- Policy 29:** The City will support programs to maintain and restore the resource value of natural areas and enhance water based recreational opportunities.
- Policy 30:** The City will support the efforts of the Department of Natural Resources to enhance fish and wildlife habitats and protect rare and endangered species.

7.4 CITYWIDE PROGRAM ELEMENTS

Overall Goal: Manage water resources and drainage systems on a citywide scale, including monitoring and maintenance of drainage systems, targeted pollution prevention, public education, system reconstruction projects, and equitable collection of supporting funds.

7.4.1 POLLUTION PREVENTION

Goal: Detect and address urban pollutants discharged to storm sewers.

- Policy 31:** The City will actively implement the NPDES Stormwater Pollution Prevention Plan as stated in the most current version of the MS4 permit.

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Policy 32: The City will maintain an effective spill response plan. This policy is consistent with the City's SWPPP.

Policy 33: The City will continue employee training in the operation, maintenance and inspection of stormwater facilities, as included in the SWPPP. This policy is consistent with the City's SWPPP.

Policy 34: The City will inspect public stormwater system facilities for pollutants in accordance with the frequency in their SWPPP and develop an ordinance (if necessary) to address maintenance requirements for private stormwater facilities. This policy is consistent with the City's SWPPP.

7.4.2 MONITORING AND MAINTENANCE

Goal: Maintain the function and effectiveness of stormwater management structures through monitoring and maintenance.

Policy 35: The City will continue to conduct bi-annual street sweeping. This policy is consistent with the City's SWPPP.

Policy 36: The City will continue inspection and maintenance of the City's stormwater conveyance and ponding system as outlined in the City's SWPPP.

7.4.3 PUBLIC EDUCATION

Goal: Inform and educate residents about stormwater pollution, the effects of urban runoff and the need to protect natural resources.

Policy 37: The City will implement a public education and outreach program as identified in the City's MS4 permit, and coordinate these activities with the Anoka Conservation District, Ramsey Conservation District, and local WMOs where feasible to maximize the impact of these efforts. This policy is consistent with the City's SWPPP.

Policy 38: The City will promote citizen and volunteer efforts to protect, restore and enhance local water and natural resources. This policy is consistent with the City's SWPPP.

Policy 39: The City will use available opportunities through its newsletter, public meetings, website, Comprehensive Plan, or interpretive elements at parks and open space sites to inform its residents about the value of local water resources, the effects of stormwater runoff, and opportunities for stewardship of water and natural resources. This policy is consistent with the City's SWPPP.

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7.4.4 FUNDING

Goal: Secure adequate funding to support implementation of the Local Surface Water Management Plan.

Policy 40: The City will explore available funding opportunities to pay for the implementation of the projects and actions identified in Section 8.

Policy 41: The City will consider grant funding, cost share programs, or other revenue resources to assist with special projects or implementation of plan goals. Potential sources are outlined in Section 8.

7.5 SUPPORT OF OTHER AGENCIES

Overall Goal: Cooperate and coordinate local surface water management with the work of local WMOs and state agencies.

Goal: Facilitate WMO review of development and redevelopment projects and enforcement of watershed standards.

Policy 42: The City will defer to RCWD and CCWD for review and enforcement of RCWD and CCWD stormwater management standards for all new and redevelopment projects within the jurisdiction of RCWD or CCWD in accordance with their permit programs.

Policy 43: The City will review all new development, redevelopment, or site expansion activities in accordance with the City's surface water management standards. The City will notify and include the applicable WMO in development concept reviews. This policy is consistent with the City's SWPPP.

Goal: Cooperate with other organizations to complete management plans and studies for water resources in Spring Lake Park.

Policy 44: The City will work with local WMOs, Anoka County, Ramsey County, and others when appropriate and as resources are available to participate in resource management plans or studies that benefit water and natural resources in Spring Lake Park.

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SECTION 8 – IMPLEMENTATION

8.1 OFFICIAL CONTROLS

Codes and ordinances (official controls) are necessary tools supporting implementation of this surface water management plan. Many of the stated goals and policies specifically reference city codes that exist or need to be created. The City’s MS4 permit includes a summary of ordinances required to comply with NPDES requirements.

The City has reviewed and revised Stormwater Management Practices sections of the city code to achieve consistency with local watershed plans.

Over time, codes must be updated to remain consistent with goals, policies and practices. The City will periodically review the zoning and subdivision regulations related to surface water management. Table 8.1 lists relevant city codes sections and a history of related actions.

The City will work with the RCWD and CCWD to ensure that developments meet the Districts’ permitting requirements.

Table 8.1 – City Code Implementation History and Actions

Official Control	City Code Implementation
Erosion and Sediment Control	Ordinance compliant with the MS4 permit - Passed 12-7-2015 (Chapters 52, 150, and 152).
Illicit Discharge and Connection	Ordinance compliant with the MS4 permit – Passed 2-16-2010 (Chapter 52).
Plan Review and Approval	Update Chapters 150 and 156. Include requirement that no local permits or subdivision approvals will be issued without evidence of watershed district review and approval.
Post Construction Runoff Control	Chapter 150.200 to 150.210 amended on 10-20-2014.
Private Surface Water Facilities Maintenance	Create new ordinance per SWPPP BMP 5-10.
Wetlands, Public Waters, and LGU Responsibilities	Add language to Chapters 150 and 156 to reference requirements and LGU responsibilities.
Floodplain	No action is necessary.
Shoreland	DNR Shoreland Regulations apply, no implementation action is necessary.

8.2 STORMWATER SYSTEM OPERATION AND MAINTENANCE

Spring Lake Park’s existing stormwater management system represents a major investment for the City. The ongoing inspection and maintenance of this existing stormwater management system is critical to protecting this valuable investment. Table 8.2 provides the City’s stormwater

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system inspection and maintenance schedule. The City’s stormwater system maintenance responsibilities include the following:

- Street sweeping
- Cleaning of catch basins
- Repair of catch basins and manholes
- Assessing pipe condition (typically by televising)
- Inspection of storm sewer inlet and outlet structures
- Excavation of accumulated sediments from ponds
- Structural treatment devices, including sump manholes and grit chambers

Table 8.2 – Surface Water System Inspection and Maintenance Schedule

BMP ¹	Schedule ¹
Catch basins	Inspected every 5 years, cleaned as needed
Trunk storm sewer	Jetted on a scheduled rotation
Stormwater ponds	Inspected every 5 years, cleaned as needed
Stormwater pond inlets/outlets	Inspected every 5 years, cleaned as needed
Structural treatment devices, including sump manholes and grit chambers	Inspected annually, cleaned as needed
Street sweeping	Twice annually

¹Staff training regarding proper BMP inspection and maintenance procedures occurs annually

Generally, stormwater system maintenance is funded by the City’s general fund. However, with the rising cost of system maintenance and new regulatory responsibilities (MS4 permit, TMDL implementation, etc.), it is recommended the City consider options to provide a consistent, dedicated funding source to specifically address the cost of surface water management.

8.3 PHASE II NPDES MS4 IMPLEMENTATION

The MPCA has designated Spring Lake Park as an NPDES Phase II MS4 community (MN Rules 7090). Spring Lake Park is currently in the process of submitting documentation for extension of permit coverage. The process involves an evaluation of the City’s current SWPPP to identify areas that need expansion or revision to meet the new MS4 permit requirements. Modifications to the City’s current SWPPP could include, but are not limited to the following:

- Review of ordinances.

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- Continued public education and public involvement efforts. Increase public education partnerships with RCWD and CCWD.
- Ongoing stormwater system mapping and inventory updates.
- Municipal and private facilities inventory.
- Stormwater system treatment effectiveness evaluation and field assessment.

As the City completes the next SWPPP evaluation process, specific SWPPP update tasks and associated costs will be identified. Until these tasks are identified, only general implementation actions are included in Table 8.3. It is recommended that the City consider possible funding options to provide a consistent, dedicated funding source to pay for the ongoing costs associated with the City's SWPPP implementation.

8.4 SYSTEM IMPROVEMENT PROJECTS AND ACTIVITIES

Based on the assessment of the City's current stormwater management program and the implementation items in the preceding sections, a list of system improvement projects and activities has been identified. The system improvements identified range from those being driven by regulatory requirements, to others driven more by the functionality of the City's regional stormwater management system. Table 8.3 presents a summary of recommended stormwater and water resource management projects and activities. The proposed project start dates listed in Table 8.3 are based on priorities as identified by the City Council. The actual timing of projects will be largely dependent upon available grant funding. The budget amounts included in this table should be considered planning-level cost estimates, with more specific cost estimates to be determined as the project or activity approaches.

For capital improvement projects, the City will continue to rely on its five-year capital improvement planning process to schedule and plan for funding these projects. This planning process is updated periodically by City staff and reviewed and approved by the City Council. The items listed in Table 8.3 will be used as a reference for projects and activities specific to stormwater and water resources management to be included in the capital improvement planning process.

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Table 8.3 – System Capital Improvement Projects (CIP) and Activities

Project	Description	Estimated Cost	Potential Funding	Comments	Proposed Start
Street Sweeping	Sweep streets once in the spring and once in the fall.	\$8,000 annually	Annual budget	Addresses water quality and excessive sediment issues.	Ongoing
Annual Stormwater System Inspection and Maintenance	Inspection and maintenance of the City's stormwater system	\$2,000 annually	Annual budget	Includes pond and storm sewer inspection, cleaning, and maintenance in accordance with the City's SWPPP.	Ongoing
Annual NPDES Reporting	Writing and administering MS4 annual reports	\$8,000 annually	Annual budget	Addresses maintenance issues.	Ongoing
Review Funding Options	Review funding options available to the City.	\$2,000	Budget	Considers affordability issue.	2019
General SWPPP Implementation	Education coordination with the local WMOs, staff training, website updates, mailings etc.	\$5,000 annually plus city staff time that varies	Annual budget	This is expected to be an on-going activity throughout the term of this LSWMP, should coordinate efforts with the ACD, RCWD, and CCWD	Ongoing
Monroe Street and 81 st Avenue Improvements	Provide water management and water quality improvements.	\$500,000	Grants and/or bonding	Provide infiltration and storage as outlined in 2018 SLP drainage report. Addresses water quality and excessive peak flow issues.	2028
Terrace Street and 78 th Avenue Improvements	Provide water management and water quality improvements.	\$200,000	Grants and/or bonding	Provide infiltration area as outlined in 2018 SLP drainage report. Addresses water quality and excessive peak flow issues.	2026
Fillmore Street and 83 rd Avenue Pond	Water management and quality improvements.	\$50,000	Grants and/or bonding	Enlarge pond and add infiltration per 2018 SLP drainage report. Addresses water quality and excessive peak flow issues.	2019 or 2020
Private Surface Water Facilities Maintenance Ordinance	Draft and implement a private surface water facilities maintenance ordinance.	\$10,000	Budget	Includes an inventory and creating a list of private facilities in the City	2019
Triangle Park Drainage Area	Miscellaneous water quality improvements.	\$70,000	Budget	As outlined in 2018 SLP drainage report. Addresses water quality and excessive peak flow issues.	2018

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Table 8.3 contd. – System Capital Improvement Projects (CIP) and Activities

Project	Description	Estimated Cost	Potential Funding	Comments	Proposed Start
81 st Avenue Garfield Area Pond	Water management and quality improvements.	\$499,000	Grant such as RCWD USWR or BWSR WBFPP, and/or bonding	Provide infiltration swale as outlined in 2018 SLP drainage report. Addresses water quality and Spring Lake low water level issues.	2019
North of Hill View Road and east of Pleasant View Drive	Water management and quality improvements	\$10,000	Grant such as RCWD USWR or BWSR WBFPP or private	As identified in the 2009 RCWD Southwest Urban Lakes Study. Addresses Spring Lake water quality issues.	2025
Pleasant View Drive and 79 th Avenue	Water management and quality improvements	\$15,000	RCWD Demonstration Project	As identified in the 2009 RCWD Southwest Urban Lakes Study. Addresses Spring Lake water quality issues.	2020
West of Pleasant View Dr. & south of 81 st Ave. (VFW)	Water management and quality improvements	\$100,000	Grant such as RCWD USWR or BWSR WBFPP or private	As identified in the 2009 RCWD Southwest Urban Lakes Study. Addresses Spring Lake water quality issues.	2026
East of Spring Lake Park Road and South of County Road 10	Water management and quality improvements	\$5,000	Grant such as RCWD USWR or BWSR WBFPP or private	As identified in the 2009 RCWD Southwest Urban Lakes Study. Addresses Spring Lake water quality issues.	2027
East of Spring Lake Park Road and South of County Road 10 (Spring Lake Park Auto)	Water management and quality improvements	\$10,000	Grant such as RCWD USWR or BWSR WBFPP or private	As identified in the 2009 RCWD Southwest Urban Lakes Study. Addresses Spring Lake water quality issues.	2028

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8.5 FUTURE IMPLEMENTATION ACTIVITIES

These future activities generally include coordination efforts with other agencies or potential activities that have yet to be finalized. These future implementation activities identified below are relevant to overall stormwater management within the City and should be considered in future Capital Improvement Plan discussions.

8.5.1 TOTAL MAXIMUM DAILY LOAD (TMDL) STUDIES

As discussed in Section 6.4, at this time there are no water bodies within Spring Lake Park that are listed on the Minnesota Pollution Control Agency's List of Impaired Waters. However, drainage from Spring Lake Park ultimately discharges into a few impaired waters, including: Spring Brook Creek, Rice Creek, and the Mississippi River.

The City recognizes that the responsibility for completion and implementation of the TMDL studies lies with the primary stakeholders contributing to the impairment. The City intends to cooperate with the local WMOs and other agencies in the development of the TMDL studies, acknowledging that these outside agencies will take the lead on these studies. It is the intention of the City to implement the items/actions identified in future TMDL implementation plans, funding the implementation items/actions as necessary.

The Upper Mississippi River Bacteria TMDL focuses on the bacteria impairments of tributaries of the Mississippi River, including Rice Creek. The City will continue to enforce its animal waste ordinance to reduce bacteria loading to these water bodies. The City will work with the RCWD to identify further strategies to address degraded stormwater runoff quality.

8.5.2 ADDRESS DEGRADED WATER QUALITY IN SPRING LAKE

In 2009, RCWD finalized the Spring Lake Management Action Plan (MAP). This plan summarizes water quality of Spring Lake, and details watershed management approaches. In addition to this plan, RCWD completed Phase II of the Southwest Urban Lakes Study. This study details issues and recommendations for twenty-four lakes within RCWD jurisdiction.

RCWD identifies specific programs on their website (www.ricecreek.org) that are available to provide funding assistance to Spring Lake Park for stormwater management improvements, including:

- RCWD Urban Stormwater Remediation Cost-Share Program
- RCWD Water Quality Grant Program
- RCWD Mini-Grant Program

8.5.3 URBAN WATER QUALITY RETROFIT PROJECTS

The City will take advantage of opportunities in developed areas to install retrofit water quality improvement BMPs to improve the overall water quality in the City. The City will also consider working with private property owners to implement improvement projects to improve water

CITY OF SPRING LAKE PARK – LOCAL SURFACE WATER MANAGEMENT PLAN

quality. RCWD identifies specific programs on their website (www.ricecreek.org) that could be applied when partnering with Spring Lake Park, including:

- RCWD Urban Stormwater Remediation Cost-Share Program
- RCWD Water Quality Grant Program
- RCWD Mini-Grant Program

8.5.4 CCWD WATER QUANTITY, QUALITY, AND EROSION ISSUES

Spring Lake Park recognizes that certain downstream waters within the jurisdiction of CCWD that receive discharge from the City are sensitive to the quality, volume, and rate of stormwater runoff. Degraded water quality and erosion issues in Spring Brook Creek, Stony Brook Creek, and the Spring Brook wetland have been identified by the CCWD, as identified in Table 6.3. Spring Lake Park will look for opportunities to improve the quality, volume, and rate of stormwater runoff through redevelopment activities within the City. The City will also support, as appropriate, the City of Fridley and the CCWD in developing specific projects aimed at improving water quality and erosion issues within these waters.

8.6 POTENTIAL FUNDING

Implementation of the proposed improvements and programs identified in this plan will affect City finances. Below is a listing of various revenue sources that the City will attempt to utilize:

- City Funds including franchise fees, the Stormwater Utility fund, City's General fund.
- Grant and partnership monies from various agencies for projects.
- Cost-share programs for projects being completed by or in RCWD, including watershed district levies (Minnesota Statutes Chapter 103D.905). Specific information regarding the most current RCWD cost share programs can be found on their website.
- Special assessments for local improvements under authority of Statutes Chapter 429.
- Revenue generated by Watershed Management Special Tax Districts provided for under Minnesota Statutes Chapter 473.882.
- Other sources potentially including tax increment financing, tax abatement, state aid, and others.

The City's current primary funding source for improvements identified in this LSWMP is the City's General fund. However, with the rising cost of system maintenance and new regulatory responsibilities (MS4 permit, TMDL implementation, etc.), it is recommended the City consider various funding options to provide a consistent, dedicated funding source to specifically address the cost of surface water management. This recommendation is consistent with Policy 41 in this LSWMP.

CITY OF SPRING LAKE PARK – LOCAL SURFACE WATER MANAGEMENT PLAN

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SECTION 9 – ADMINISTRATION

9.1 REVIEW AND ADOPTION PROCESS

Review and adoption of this Surface Water Management Plan will follow the procedure outlined in Minnesota Statutes 103B.235:

‘After consideration but before adoption by the governing body, each local unit shall submit its water management plan to the watershed management organization for review for consistency with the watershed plan adopted pursuant to section 103B.231...The organization shall approve or disapprove the local plan or parts of the plan. The organization shall have 60 days to complete its review; provided, however, that the watershed management organization shall, as part of its review, consider the comments submitted to it by the Metropolitan Council pursuant to subdivision 3a. If the organization fails to complete its review within the prescribed period, the local plan shall be deemed approved unless an extension is agreed to by the local unit.’

‘Concurrently with its submission of its local water management plan to the watershed management organization as provided in subdivision 3, each local unit of government shall submit its water management plan to the Metropolitan Council for review and comment by the council. The council shall have 45 days to review and comment upon the local plan or parts of the plan with respect to consistency with the council’s comprehensive development guide for the metropolitan area. The council’s 45-day review period shall run concurrently with the 60-day review period by the watershed management organization and shall send a copy of its comments to the local government unit. If the Metropolitan Council fails to complete its review and make comments to the watershed management organization within the 45-day period, the watershed management organization shall complete its review as provided in subdivision 3.’

‘After approval of the local plan by the organization, the local government unit shall adopt and implement its plan within 120 days and shall amend its official controls accordingly within 180 days.’

9.2 PLAN AMENDMENTS AND FUTURE UPDATES

The Spring Lake Park Local Surface Water Management Plan will be incorporated into the City’s Comprehensive Plan, revised every ten years. Periodic amendments following the Comprehensive Plan cycle may be required to incorporate changes in local practices. Plan amendments will be incorporated by following the review and adoption steps outlined above. Major amendments will be sent to the RCWD, CCWD, and Metropolitan Council for review prior to City approval.

Appendix A

Stormwater Management System Information

Appendix A - Surface Water System Information¹

Drainage Area ID	Tributary Area			Basin NWL (feet)	100-year Storm Event				Basin Area	Outlet Size	Comments
	Direct	Indirect from Upstream	Total		Total Runoff Volume	HWL	Storage Volume	Peak Outflow	At NWL		
	(acres)	(acres)	(acres)		(ac-ft)	(feet)	(ac-ft)	(cfs)	(acres)		
SpBC-A1	50.1	0.0	50.1	--	16.6	--	--	74	--	15" pipes	Discharges to University Avenue system
SpBC-A2	80.9	0.0	80.9	--	35.0	--	--	459	--	27" pipe	Discharges to University Avenue system
StBC-A1	70.2	0.0	70.2	--	26.8	--	--	251	--	33" pipe	Discharge to Fridley trunk storm sewer
StBC-A2	233.0	296.4	529.4	--	150.6	--	--	467	--	60" pipe	Peak discharge and volume from StBC-A2, A3, and A4 to Fridley trunk storm sewer.
StBC-A3	138.1	0.0	138.1	--	53.2	--	--	--	--	27" pipe	Drains to StBC-A2
StBC-A4	158.3	0.0	158.3	--	78.6	--	--	--	--	36" pipe	Drains to StBC-A2
LL-A1	174.2	0.0	174.2	903.0	78.6	--	--	--	77.0	15" pipe	Laddie Lake information from the Coon Creek WD Watershed Management Plan.
SL-A1	144.8	0.0	144.8	902.9	60.8	904.8	180.0	3	60.2	12" pipe	Spring Lake info from the RCWD WMP and Phase 1 Urban Shallow Lakes Report, 100-yr critical event = 10-day runoff event
RC-A1	124.1	304.4	428.5	--	113.5	--	--	290	--	--	Peak discharge and volume from RC-A1, A2, A3, and SL-A1 to Fridley trunk storm sewer.
RC-A2	71.6	0.0	71.6	899.5	45.9	904.3	13.6	18	1.4	15" pipe	Discharges into the County Rd 35 (Old Central Avenue) storm sewer
RC-A3	88.0	0.0	88.0	--	39.7	--	--	78	--	18" pipe	Ties into the County Rd 35 (Old Central Avenue) storm sewer

¹Modeling information from City XPSWMM model created for the 2018 LSWMP, unless otherwise noted. Updated XPSWMM model includes both piped flow and overland flows (i.e. street flows) experienced during large storm events.

Appendix B
Watershed District Rules
Rice Creek Watershed District (RCWD)
Coon Creek Watershed District (CCWD)

RICE CREEK WATERSHED DISTRICT RULES

BOARD APPROVED: DECEMBER 14, 2016

EFFECTIVE DATE: JANUARY 1, 2017

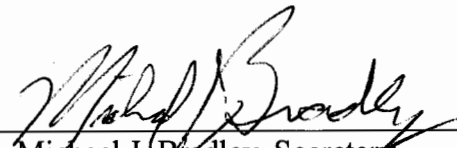
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CERTIFICATION OF
REVISED WATERSHED DISTRICT RULES

I, Michael J. Bradley, Secretary of the Rice Creek Watershed District Board of Managers, certify that the attached is a true and correct copy of the Rules of the Rice Creek Watershed District as revised and adopted by the Board of Managers on December 14, 2016, and effective January 1, 2017.

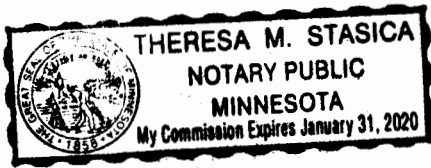
Dated: 12-14-2016

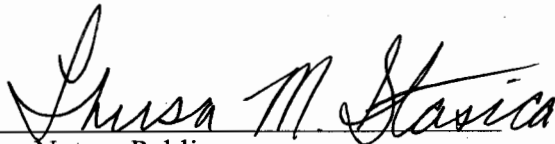

Michael J. Bradley, Secretary

ACKNOWLEDGEMENT

State of Minnesota
County of Anoka

This instrument was acknowledged before me on December 14, 2016, by Michael J. Bradley, as Secretary of the Rice Creek Watershed District Board of Managers.




Notary Public

GENERAL POLICY STATEMENT

The Rice Creek Watershed District (District) is a political subdivision of the State of Minnesota, established under the Minnesota Watershed Law. The District is also a watershed management organization as defined under the Minnesota Metropolitan Surface Water Management Act, and is subject to the directives and authorizations in that Act. Under the Watershed Law and the Metropolitan Surface Water Management Act, the District exercises a series of powers to accomplish its statutory purposes. The District's general statutory purpose is to conserve natural resources through development planning, flood control, and other conservation projects, based upon sound scientific principles.

As required under the Metropolitan Surface Water Management Act, the District has adopted a Watershed Management Plan, which contains the framework and guiding principles for the District in carrying out its statutory purposes. It is the District's intent to implement the Plan's principles and objectives in these rules.

Land alteration affects the rate, volume, and quality of surface water runoff which ultimately must be accommodated by the existing surface water systems within the District. The watershed is large, 186 square miles, and its outlet, Rice Creek, has limited capacity to carry flows. Flooding problems already occur in urbanized areas along Lower Rice Creek and other localized areas.

Land alteration and utilization also can degrade the quality of runoff entering the streams and waterbodies of the District due to non-point source pollution. Lake and stream sedimentation from ongoing erosion processes and construction activities reduces the hydraulic capacity of waterbodies and degrades water quality. Water quality problems already exist in many of the lakes and streams throughout the District.

Projects which increase the rate or volume of stormwater runoff can aggravate existing flooding problems and contribute to new ones. Projects which degrade runoff quality can aggravate existing water quality problems and contribute to new ones. Projects which fill floodplain or wetland areas can aggravate existing flooding by reducing flood storage and hydraulic capacity of waterbodies, and can degrade water quality by eliminating the filtering capacity of those areas.

In these rules the District seeks to protect the public health and welfare and the natural resources of the District by providing reasonable regulation of the modification or alteration of the District's lands and waters to reduce the severity and frequency of flooding and high water, to preserve floodplain and wetland storage capacity, to improve the chemical, physical and biological quality of surface water, to reduce sedimentation, to preserve waterbodies' hydraulic and navigational capacity, to preserve natural wetland and shoreland features, and to minimize public expenditures to avoid or correct these problems in the future.

The District rules include certain rules adopted to implement area-specific Comprehensive Wetland Protection and Management Plans (CWPMP) as provided under the Wetland Conservation Act (WCA). CWPMPs are designed to achieve identified wetland resource management needs within specific drainage areas of the watershed. These rules (within Rule F) apply to a delineated geographic area. Accordingly, a property owner intending an activity subject to District permitting requirements first should determine whether the activity will be governed by the CWPMP rule.

RELATIONSHIP OF RICE CREEK WATERSHED DISTRICT TO MUNICIPALITIES

The District recognizes that the primary control and determination of appropriate land uses is the responsibility of the municipalities. Accordingly, the District will coordinate permit application reviews involving land development with the municipality where the land is located.

The District intends to be active in the regulatory process to ensure that its water resources are managed in accordance with District goals and policies. Municipalities have the option of assuming a more active role in the permitting process after adoption of a local water management plan approved by the District and adoption and implementation of local ordinances consistent with the approved plan.

The District will also review projects sponsored or undertaken by municipalities and other governmental units, and generally will require permits for governmental projects impacting water resources of the District. These projects include but are not limited to, land development, road, trail, and utility construction and reconstruction.

The District desires to serve as technical advisor to the municipalities in their preparation of local surface water management plans and the review of individual development proposals prior to investment of significant public or private funds. To promote a coordinated review process between the District and the municipalities, the District encourages the municipalities or townships to contact the District early in the planning process.

RULE A: DEFINITIONS

For the purposes of these rules, the following words have the meanings set forth below.

References in these rules to specific sections of the Minnesota Statutes include any amendments, revisions or recodification of those sections.

As Constructed and Subsequently Improved Condition (ACSIC): the geometry of the public drainage system as constructed, including all subsequent legal repairs and alterations.

Beds of Protected Waters: all portions of public waters and public waters wetlands located below the ordinary high water level.

Best Management Practices (BMPs): measures taken to minimize the negative effects on water resources and systems as referenced in the Minnesota Construction Site Erosion and Sediment Control Planning Handbook (BWSR, 1988), Protecting Water Quality in Urban Areas (MPCA, 1989) and the Minnesota Stormwater Manual (MPCA, 2006) or similar guidance documents.

Better Site Design (BSD): an approach to managing runoff that seeks to attain post development hydrology which mimics the undeveloped condition in terms of volume, rate and timing of runoff. The goals of Better Site Design include reducing the amount of impervious cover, increasing the amount of natural lands set aside for conservation, using pervious areas for more effective stormwater treatment, innovative grading and drainage techniques and through the review of every aspect of the project site planning process. Better Site Design involves techniques applied early in the design process to reduce impervious cover, conserve natural areas and use pervious areas to more effectively treat stormwater runoff and promote a treatment train approach to runoff management.

Bridge: a road, path, railroad or utility crossing over a waterbody, wetland, ditch, ravine, road, railroad, or other obstacle.

Bridge Span: the clear span between the inside surfaces of a bridge's terminal supports.

Channel: a perceptible natural or artificial depression, with a defined bed and banks that confines and conducts water flowing either continuously or periodically.

Comprehensive Wetland Protection and Management Plan (CWPMP): a locally developed comprehensive wetland protection and management plan approved by the Minnesota Board of Soil and Water Resources, pursuant to Minnesota Rules 8420.0830.

Criteria: specific details, methods and specifications that apply to all permits and reviews and that guide implementation of the District's goals and policies.

Critical Duration Flood Event: the 100-year precipitation or snow melt event with a duration resulting in the maximum 100-year return period water surface elevation. The critical duration flood event is generally either the 100-year, 24-hour rainfall event as found in NOAA Atlas 14 or the ten-day snow melt event assumed to be 7.2 inches of runoff occurring on frozen ground (CN=100); however, other durations (e.g., 6-hour) may result in the maximum 100 year return period water surface elevation.

CWPMP Contributing Drainage Area: the areas tributary to CWPMP jurisdictional areas from which banked or off-site wetland replacement credits may be used to replace wetland impacts under Rule F.6(c). Figure 4 illustrates the Contributing Drainage Area; however, the precise boundary will be determined on a hydrologic basis at the time of permitting.

Detention Basin: any natural or man-made depression that stores stormwater runoff temporarily.

Development: any land-disturbing activity resulting in creation or reconstruction of impervious surface including, but not limited to, municipal road construction. Normal farming practices part of an ongoing farming operation shall not be considered development.

District: the Rice Creek Watershed District established under the Minnesota Watershed Law, Minnesota Statutes Chapter 103D.

Drainage System: a system of open channel, pipe or tile, to drain property, including laterals, improvements, and improvements of outlets, which may or may not be a public system under the jurisdiction of the District under Minnesota Statutes Chapters 103B, 103D, or 103E.

Effectively Drained Wetland: an area whose natural hydrology has been altered to the point that it is no longer considered wetland.

Emergency Overflow (EOF): a primary overflow to pass flows above the design capacity around the principal outlet safely downstream without causing flooding.

Excavation: the displacement or removal of soil, sediment or other material.

Floodplain: the areas adjoining a waterbody that are inundated during the 100-year flood.

Floodway: the channel of a watercourse, the bed of waterbasins and those portions of adjoining floodplains that must be kept free of encroachment to accommodate the 100-year flood.

Floodway Fringe: the area between the floodway and the boundary of the 100-year flood.

Flood Management Zone: land within the Rice Creek Watershed District draining to and entering Rice Creek downstream from the outlets of Baldwin Lake and Golden Lake.

Freeboard: vertical distance between the 100-year flood elevation or emergency overflow elevation of a waterbasin or watercourse and the elevation of the regulatory elevation of a structure.

Governmental Project: projects sponsored or paid for by a governmental agency.

High Quality Wetland: an existing wetland reflecting a score of “high/high” for the functional indicators “outlet condition” and “vegetative quality”, respectively, using MnRAM 3.4 (or most recent version) or other state approved wetland functional model.

Impervious Surface: a compacted surface or a surface covered with material (i.e., gravel, asphalt, concrete, Class 5, etc.) that increases the depth of runoff compared to natural soils and land cover. Including but not limited to roads, driveways, parking areas, sidewalks and trails, patios, tennis courts, basketball courts, swimming pools, building roofs, covered decks, and other structures.

Infiltration: water entering the ground through the soil.

Land-Disturbing Activity: any disturbance to the ground surface that, through the action of wind or water, may result in soil erosion or the movement of sediment into waters, wetlands or storm sewers or onto adjacent property. Land-disturbing activity includes but is not limited to the demolition of a structure or surface, soil stripping, clearing, grubbing, grading, excavating, filling and the storage of soil or earth materials. The term does not include normal farming practices as part of an ongoing farming operation.

Landlocked Basin: a waterbasin lacking an outlet at an elevation at or below the water level produced by the critical duration flood event, generally the 10-day snowmelt event.

Local Government Unit (LGU): the public body responsible for implementing the Minnesota Wetland Conservation Act, as defined at Minnesota Statutes §103G.005, subdivision 10e.

Low Entry Elevation: the elevation of the lowest opening in a structure.

Low Floor Elevation: the elevation of the lowest floor of a habitable or uninhabitable structure, which is often the elevation of the basement floor or walk-out level.

Major Watercourse: any watercourse having a tributary area of 200 acres or more.

Marginally Degraded Wetland: an existing wetland reflecting a score of “high/low” or “low/high” for the functional indicators “outlet condition” and “vegetative quality”, respectively, using MnRAM 3.4 (or most recent version) or other state approved wetland functional model.

Mill, Reclamation and Overlay: removal of the top layer(s) of an impervious surface (e.g. roadway, parking lot, sport court) by mechanical means, followed by the placement of a new layer of impervious surface, without exposure of the underlying native soil.

Moderately Degraded Wetland: an existing wetland reflecting a score of “medium/medium” or “low/medium” for the functional indicators “outlet condition” and “vegetative quality”, respectively, using MnRAM 3.4 (or most recent version) or other state approved wetland functional model.

Municipal Separate Storm Sewer System (MS4): the system of conveyances owned or operated by the District and designed or used to collect or convey storm water, and that is not used to collect or convey sewage.

Municipality: any city or township wholly or partly within the Rice Creek Watershed District.

Native Vegetation: plant species that are indigenous to Minnesota or that expand their range into Minnesota without being intentionally or unintentionally introduced by human activity and that are classified as native in the Minnesota Plant Database.

NPDES Permit: general permit authorization to discharge storm water associated with construction activity under the National Pollutant Discharge Elimination System (NPDES), issued by the Minnesota Pollution Control Agency.

Non-Degraded Wetland: an existing wetland reflecting a score of “high/medium” or “medium/high” for the functional indicators “outlet condition” and “vegetative quality”, respectively, using MnRAM 3.4 (or most recent version) or other state approved wetland functional model.

Non-Invasive Vegetation: plant species that do not typically invade or rapidly colonize existing, stable plant communities.

NURP: Nationwide Urban Runoff Program.

100-Year Flood Elevation: the elevation of water resulting from the critical duration flood event.

Ordinary High Water Level (OHW): the highest water level elevation that has been maintained for a sufficiently long period of time to leave evidence upon the landscape. The OHW is commonly that point where the natural vegetation changes from predominantly aquatic to predominantly terrestrial. If an OHW has been established for a waterbody by the Minnesota Department of Natural Resources, it will constitute the OHW under this definition.

Parcel: a lot of record in the office of the county recorder or registrar or that otherwise has a defined legal existence.

Person: any natural person, partnership, unincorporated association, corporation, limited liability company, municipal corporation, state agency, or political subdivision of the State of Minnesota.

Political Subdivision: a municipality, county, town, school district, metropolitan or regional agency, or other special purpose district of Minnesota.

Pollutant: Anything that causes or contributes to pollution. Pollutants may include, but are not limited to: paints, varnishes, and solvents; oil and other automotive fluids; non-hazardous liquid and solid wastes and yard wastes; refuse, rubbish, garbage, litter, or other discarded or abandoned objects, ordinances, and accumulations, so that same may cause or contribute to pollution; floatables; pesticides, herbicides, and fertilizers; hazardous substances and wastes; sewage, fecal coliform and pathogens; dissolved and particulate metals; animal wastes; wastes and residues that result from constructing a building or structure; and noxious or offensive matter of any kind. (This definition is for the purpose of Rule H only and is incorporated from the U.S. EPA model ordinance.)

Public Linear Project: a project involving a roadway, sidewalk, trail or utility not part of an industrial, commercial, institutional or residential development.

Public Waters: waters identified as public waters under Minnesota Statutes section 103G.005, Subdivision 15.

Public Waters Wetlands: all wetlands identified as public waters wetlands under Minnesota Statutes section 103G.005, subdivision 15a.

Reconstruction: removal of an impervious surface such that the underlying structural aggregate base is effectively removed and the underlying native soil exposed.

Resource of Concern: lakes classified as Tier I, Tier II, Tier III and Tier IV within Table 4-6 of the District's 2010 Watershed Management Plan and subsequently amended Watershed Management Plans approved by BWSR. If an area within the jurisdictional boundary of the District drains to a location outside the District without reaching an ROC, the District will identify the receiving water outside of the District that is the ROC for the purpose of the permit.

Resource of Concern Drainage Area: Land draining to a Resource of Concern. The Resource of Concern drainage area excludes lands draining first to an upstream Resource of Concern.

Seasonal High Water Table: The highest known seasonal elevation of groundwater as indicated by redoximorphic features such as mottling within the soil.

Severely Degraded Wetland: an existing wetland reflecting a score of "medium/low" or "low/low" for the functional indicators "outlet condition" and "vegetative quality", respectively, using MnRAM 3.4 (or most recent version) or other state approved wetland functional model.

Site: All contiguous lots of record on which activity subject to any District rule is proposed to occur or occurs, as well as all other lots of record contiguous to any such lot under common ownership at the time of the permitted activity. Linear right of way does not disturb contiguity. For public linear projects not occurring in conjunction with land development, the term means the portion of right-of-way defined by the project work limits.

Storm Sewer: a pipe system for stormwater conveyance.

Stormwater Pond: Constructed basins placed in the landscape to capture stormwater runoff.

Structure: a building with walls and a roof, excluding structures such as pavilions, playgrounds, gazebos, and garbage enclosures.

Subdivision, Subdivide: the legal separation of an area, parcel, or tract of land under single ownership into two or more parcels, tracts, lots.

Technical Evaluation Panel (TEP): The body described in Minnesota Rules 8420.0240.

Upland Habitat Area: A non-wetland area that is contiguous with an existing, restored, or created wetland and scores "C" or better using the Natural Heritage Ranking methodology.

Waterbasin: an enclosed natural depression with definable banks capable of containing water.

Waterbody: a waterbasin, watercourse or wetland as defined in these Rules.

Watercourse: a channel that has definable beds and banks capable of conducting confined runoff from adjacent land.

Wetland: area identified as wetland under Minnesota Statutes section 103G.005, subdivision 19.

Wetland Management Corridor (WMC): A contiguous corridor encompassing high priority wetland resources identified at a landscape scale in Figure F1 and refined at the time of individual project permitting at a site level as provided for in Rule F, section 6.

RULE B: PROCEDURAL REQUIREMENTS

1. **APPLICATION AND NOTICE OF INTENT REQUIRED.** Any person undertaking an activity for which a permit is required by these rules must obtain the required permit prior to commencing the activity that is subject to District regulation. Applications for permit must be submitted to the District in accordance with the procedures described in this rule. Required exhibits are specified for each substantive rule below. Applicants are encouraged to contact District staff before submission of an application to review and discuss application requirements and the applicability of specific rules to a proposed project. When the rules require a criterion to be met, or a technical or other finding to be made, the District makes the determination except where the rule explicitly states otherwise. The landowner or, in the District's judgment, easement holder, must sign the permit application and will be the permittee or a co-permittee. For governmental projects, the selected contractor may sign the application on behalf of the governmental applicant.
2. **FORMS.** A District permit application or notice of intent, and District checklist of permit submittal requirements, must be submitted on the forms provided by the District. Applicants may obtain forms from the District office or website at <http://www.ricecreek.org/permits>.
3. **ACTION BY BOARD OF MANAGERS.** The Board of Managers shall act within sixty days of receipt of a complete permit application. A complete permit application includes all required information, exhibits, and fees. An application will not be ready for Board consideration unless all substantial technical questions have been addressed and all substantial plan revisions resulting from staff review have been accomplished. Permit decisions will be made by the Board except as delegated to the Administrator by written resolution.
4. **ISSUANCE OF PERMITS.** The permit will be issued only after applicant has satisfied all requirements and conditions for the permit, has paid all required District fees, and the District has received any required surety.
5. **CONDITIONAL APPROVAL PENDING RECEIPT OF CHANGES (CAPROC).** The District may conditionally approve an application, but such approval does not result in the issuance of a permit until all conditions precedent to the approval have been resolved. All conditions must be satisfied within twelve (12) months of the date of conditional approval. If a permit is not obtained within the 12-month period, the applicant will be required to reapply for a permit and pay applicable permit fees.
6. **PERMIT TERM.** Permits are valid for an eighteen-month period from the date of issuance unless otherwise stated within the permit, suspended or revoked. To extend a permit, the permittee must apply to the District in writing, stating the reasons for the extension. Any plan changes, and related project documents must also be included in the extension application. The District must receive this application at least thirty (30) days prior to the permit expiration date. The District may impose different or additional conditions on a renewal or deny the renewal in the event of a material change in circumstances. On the first renewal, a permit will not be subject to change because of a change in District rules. An extended stormwater management permit for phased development may be issued pursuant to Rule C.13.

7. **PERMIT ASSIGNMENT.** A permittee must be assigned when title to the property is transferred or, if the permittee is an easement holder, in conjunction with an assignment of the easement. The District must approve a permit assignment and will do so if the following conditions have been met:
- (a) The proposed assignee in writing agrees to assume all the terms, conditions and obligations of the permit as originally issued to the permittee;
 - (b) The proposed assignee has the ability to satisfy the terms and conditions of the permit as originally issued;
 - (c) The proposed assignee is not changing the project as originally permitted;
 - (d) There are no violations of the permit conditions as originally issued; and
 - (e) The District has received from the proposed assignee a substitute surety to secure performance of the assigned permit.

Until assignment is approved, the permittee of record as well as the current title owner will be responsible for permit compliance.

8. **PERMIT FEES.** The District will charge applicants permit fees in accordance with a schedule that will be maintained and revised from time to time by the Board of Managers to ensure that permit fees cover the District's actual costs of administrating and enforcing permits. The current fee schedule may be obtained from the District office or the District website at <http://www.ricecreek.org/permits>. An applicant must submit the required permit fee to the District at the time it submits its permit application. No permit fee will be charged to the federal government, the State of Minnesota or a political subdivision of the State of Minnesota.

9. **PERFORMANCE SURETY.**

- (a) **POLICY.** It is the policy of the Board of Managers to conserve the District's water resources by assuring compliance with its rules. The District ensures compliance by requiring a bond or other surety to secure performance of permit conditions and compliance with District rules, as well as protection of District water resources in the event of noncompliance with permit conditions and/or rules. A project for which the applicant is the federal government, the State of Minnesota or a political subdivision of the State of Minnesota is exempt from surety requirements.
- (b) **PERFORMANCE SURETY REQUIREMENT.** A surety or sureties, when required, must be submitted in a form acceptable to the District. When a cash escrow is used, it will be accompanied by an escrow agreement bearing the original signature of the permittee and the party providing the escrow, if not the permittee. The District will require applicants to submit a surety or sureties in accordance with a schedule of types and amounts that will be maintained and revised from time to time by the Board of Managers. The current schedule of surety amounts and acceptable forms and sources as well as surety agreement may be obtained from the District office or the District website at <http://www.ricecreek.org/permits>.

An applicant may submit a bond or an irrevocable letter of credit to the District to secure performance of permit conditions for activities for which the required surety amount as determined above is in excess of \$5,000; however, the first \$5,000 of any performance surety must be submitted to the District as a cash escrow. The bond or letter of credit must be submitted before the permit is issued.

(c) **FORM AND CONTENT OF BOND OR LETTER OF CREDIT.**

- (1) The bond or irrevocable letter of credit must be in a form acceptable to the District and from a surety licensed to do business in Minnesota.
- (2) The bond or irrevocable letter of credit must be in favor of the District and conditioned upon the performance of the party obtaining the bond or letter of credit of the activities authorized in the permit, and compliance with all applicable laws, including the District's rules, the terms and conditions of the permit and payment when due of any fees or other charges required by law, including the District's rules. The bond or irrevocable letter of credit must provide that if the bond conditions are not met, the District may make a claim against the bond or letter of credit.

- (d) **RELEASE OF PERFORMANCE SURETY.** Upon written notification from permittee of completion of the permitted project, the District will inspect the project to determine if it is constructed in accordance with the terms of the permit and District rules. If the project is completed in accordance with the terms of the permit and District rules and the party providing the performance surety does not have an outstanding balance of money owed to the District for the project, including but not limited to unpaid permit fees, the District will release the bond or letter of credit, or return the cash surety if applicable. Final inspection compliance includes, but is not limited to, confirmation that all erosion and sediment control BMPs and stormwater management features have been constructed or installed as designed and are functioning properly, and completion of all required monitoring of wetland mitigation areas. The District may return a portion of the surety if it finds that a portion of the surety is no longer warranted to assure compliance with District rules.

RULE C: STORMWATER MANAGEMENT PLANS

1. **POLICY.** It is the policy of the Board of Managers to manage stormwater and snowmelt runoff on a local, regional and watershed basis; to promote natural infiltration of runoff throughout the District to preserve flood storage and enhance water quality; and to address the unique nature of flooding issues within the Flood Management Zone, through the following principles:
 - (a) Maximize water quality and flood control on individual project sites through Better Site Design practices and stormwater management.
 - (b) Minimize land use impacts and improve operational and maintenance efficiency by siting stormwater BMPs, when needed, regionally unless local resources would be adversely affected.
 - (c) Treat stormwater runoff before discharge to surface waterbodies and wetlands, while considering the historic use of District water features.
 - (d) Ensure that future peak rates of runoff are less than or equal to existing rates.
 - (e) Reduce the existing conditions peak rate of discharge along Lower Rice Creek and the rate of discharge and volume of runoff reaching Long Lake, to preserve the remaining floodplain storage volume within Long Lake and mitigate the historic loss of floodplain storage.
 - (f) Preserve remaining floodplain storage volume within the Rice Creek Watershed to minimize flood potential throughout the District.

2. **REGULATION.** A permit incorporating an approved stormwater management plan is required under this rule for development, consistent with the following:
 - (a) A permit is required for subdivision of an area exceeding one acre. This includes subdivision for single-family residential, multi-unit residential, commercial, industrial, or institutional development.
 - (b) A permit is not required for single-family residential construction on an individual lot of record. If the lot is within a development previously approved by the District, the construction must conform to the previous approval.
 - (c) A permit is required for development, other than Public Linear Projects, that creates or reconstructs 10,000 square feet or more of impervious surface. This threshold is cumulative of all impervious surface created or reconstructed through multiple phases or connected actions of a single complete project, as defined by the District, on a single parcel or contiguous parcels of land under common ownership, development or use.
 - (d) For Public Linear Projects, a permit is required to create 10,000 square feet or more of impervious surface through multiple phases or connected actions of a single complete project, as defined by the District, within a Resource of Concern Drainage Area.
 - (e) Rule C requirements do not apply to sidewalks and trails 10 feet wide or less that are bordered down-gradient by vegetated open space or vegetated filter strip with a minimum width of 5 feet.
 - (f) Rule C requirements do not apply to Bridge Spans and Mill, Reclamation & Overlay projects.
 - (g) Rule C.6 requirements do not apply to single family residential subdivisions creating

seven or fewer lots that:

- (1) Establish no new public roadway; and
- (2) Include no private roadway/driveway serving three or more lots.

Rate control provisions of Rule C.7 still apply.

3. STORMWATER MANAGEMENT PLAN REQUIRED. A stormwater management plan shall be submitted with the permit application for a project equaling or exceeding the threshold of Section 2. The stormwater management plan shall fully address the design and function of the project proposal and the effects of altering the landscape relative to the direction, rate of discharge, volume of discharge and timing of runoff.

4. MODELING REQUIREMENTS FOR STORMWATER MANAGEMENT PLANS.

- (a) A hydrograph method or computer program based on NRCS Technical Release #20 (TR-20) and subsequent guidance must be used to analyze stormwater runoff for the design or analysis of discharge and water levels within and off the project site. The runoff from pervious and impervious areas within the model shall be modeled separately.
- (b) In determining Curve Numbers for the post-development condition, the Hydrologic Soil Group (HSG) of areas within construction limits shall be shifted down one classification for HSG B (Curve Number 74) and ½ classification for HSG A (Curve Number 49) to account for the impacts of grading on soil structure unless the project specifications incorporate soil amendments in accordance with District Soil Amendment Guidelines. This requirement only applies to that part of a site that has not been disturbed or compacted prior to the proposed project.
- (c) The analysis of flood levels, storage volumes, and discharge rates for waterbodies and stormwater management basins must include the NOAA Atlas 14 values, as amended, for the 2 year, 10 year and 100 year return period, 24-hour rainfall events and the 10-day snowmelt event (Curve Number 100), in order to identify the critical duration flood event. The District Engineer may require analysis of additional precipitation durations to determine the critical duration flood event. Analysis of the 10-day snowmelt event is not required for stormwater management detention basins with a defined outlet elevation at or below the 100 year return period, 24-hour rainfall event elevation.

5. STORMWATER MANAGEMENT PLAN FRAMEWORK.

- (a) When an existing regional BMP is proposed to manage stormwater runoff, the applicant shall show that the BMP was designed and constructed to manage the stormwater runoff from the project site, the applicant has permission to utilize any remaining capacity in the BMP, the BMP is subject to maintenance obligations enforceable by the District, and it is being maintained to its original design.
- (b) A combination of Stormwater BMPs may be used to meet the requirements of section(s) 6, 7, and 8.
- (c) A local surface water management plan or ordinance of the local land use authority may contain standards or requirements more restrictive than these rules. The stormwater management plan must conform to the local surface water management plan or ordinance of the local land use authority.

- (d) The proposed project must not adversely affect off-site water levels or resources supported by local recharge, or increase the potential for off-site flooding, during or after construction.
- (e) A landlocked basin may be provided an outlet only if it:
 - (1) Conforms with District Rule F, as applicable.
 - (2) Provides sufficient dead storage volume to retain the runoff resulting from back-to-back 100-year, 24-hour rainfall events.
 - (3) Does not create adverse downstream flooding or water quality conditions as a result of the change in the rate, volume or timing of runoff or a change in drainage patterns.
- (f) A municipality or public road authority may prepare a comprehensive stormwater management plan setting forth an alternative means of meeting the standards of sections 6 and 7 within a defined subwatershed. Once approved by the District and subject to any stated conditions, the plan will apply in place of those sections.

6. WATER QUALITY TREATMENT.

- (a) Development creating or reconstructing impervious surface shall apply Better Site Design (BSD) techniques as outlined in Chapter 4 of the MPCA Minnesota Stormwater Manual as amended (www.stormwater.pca.mn.us). A BSD guidance document and checklist is available on the District’s website.
- (b) Sediment shall be managed on-site to the maximum extent practicable before runoff resulting from new or reconstructed impervious surface enters the off-site drainage system.

(c) WATER QUALITY TREATMENT STANDARD.

- (1) The required water quality treatment volume standard for all projects, except Public Linear Projects, is determined as follows:

$$\text{Required Water Quality Treatment Volume (ft}^3\text{)} = \text{Area of New or Reconstructed Impervious Surface (ft}^2\text{)} \times 1.1 \text{ (in)} \div \text{TP Removal Factor from Table C1} \div 12 \text{ (in/ft)}$$

- (2) The required water quality treatment volume standard for Public Linear Projects is determined as follows:

$$\text{Required Water Quality Treatment Volume (ft}^3\text{)} = \text{Area of New Impervious Surface (ft}^2\text{)} \times 0.75 \text{ (in)} \div 12 \text{ (in/ft)}$$

- (3) For alternative Stormwater BMPs not found in Table C1 or to deviate from TP Removal Factors found in Table C1, the applicant may submit a TP Removal Factor, expressed as annual percentage removal efficiency, based on supporting technical data, for District approval.
- (4) Stormwater runoff treated by the BMP during a rain event will not be credited towards the treatment requirement.

TABLE C1. TP REMOVAL FACTORS FOR PROPERLY DESIGNED BMPS.

BMP	BMP Design Variation	TP Removal Factor *
Infiltration **	Infiltration Feature	1.00
Water Reuse **	Irrigation	1.00
Biofiltration	Underdrain	0.65
Filtration	Sand or Rock Filter	0.50
Stormwater Wetlands	Shallow Wetland	0.40
	Pond/Wetland	0.55
Stormwater Ponds ***	Wet Pond	0.50
	Multiple Pond	0.60

Source: Adapted from Table 7.4 from the Minnesota Stormwater Manual, MPCA.

* Refer to MPCA Stormwater Manual for additional information on BMP performance.

Removal factors shown are average annual TP percentage removal efficiencies intended solely for use in comparing the performance equivalence of various BMPs.

** These BMPs reduce runoff volume.

*** Stormwater ponds must also provide 2.5” of dead storage as required by Section 9(d)(2).

(d) BMP LOCATIONAL SITING.

- (1) BMPs shall be located either on-site to treat runoff at the point of generation, or regionally within the Resource of Concern Drainage Area.
- (2) If infiltration is feasible on site (see Table C2), on-site or regional BMPs must provide volume control to meet the standard of subsection 6(c). If infiltration is not feasible, any BMP may be used.
- (3) Off-site and/or regional BMPs must be sited in the following priority order:
 - (i) In a downstream location that intercepts the runoff volume leaving the project site prior to the Resource of Concern.
 - (ii) Anywhere within the same Resource of Concern Drainage Area (see Figures C1A-C1E) that results in no greater mass of Total Phosphorus reaching the resource of concern than on-site BMPs.

TABLE C2. SPECIFIC CONDITIONS THAT MAY RESTRICT INFILTRATION.

Type	Specific Project Site Conditions	Required Submittals
Potential Contamination	Potential Stormwater Hotspots (PSH)	PSH Locations and Flow Paths
	Contaminated Soils	Documentation of Contamination Soil Borings
Physical Limitations	Low Permeability Soils (HSG C & D)	Soil Borings
	Bedrock within three vertical feet of bottom of infiltration area	Soil Borings
	Seasonal High Water Table within three vertical feet of bottom of infiltration area	Soil Borings High Water Table
	Karst Areas	Soil Borings
Land Use Limitations	Utility Locations	Site Map
	Nearby Wells (Private and/or Municipal) *	Well Locations

* Refer to Minnesota Stormwater Manual or the Minnesota Department of Health for setback requirements.

- (e) Stormwater runoff from all new and reconstructed impervious surface must be treated for total phosphorus if feasible. Notwithstanding, runoff from undisturbed site impervious surface may be treated in lieu of treating new or reconstructed impervious surface, provided the runoff from that surface drains to the same Resource of Concern as the new/reconstructed surface not being treated. Except for Public Linear projects, the area not treated for phosphorus may not exceed 15 percent of all the new or reconstructed impervious surface. For all untreated surface, TSS must be removed to the maximum extent practicable.. Total water quality treatment volume for the project must be provided in aggregate pursuant to subsections 6(c) and 6(d).
- (f) For single-family residential development, the runoff from impervious surface other than parking or driving surface that, in the District’s judgment, cannot reasonably be routed to a stormwater BMP is considered effectively treated for water quality if:
 - (1) The length of the flow path across the impervious surface is less than the length of the flow path across the pervious surface to which it discharges; and
 - (2) The pervious surface is vegetated and has an average slope of five percent or less.
- (g) Banked “volume control” credits and debits established by public entities for Public Linear Projects with the RCWD prior to the effective date of this rule will continue to be recognized and enforced until all credits are used or all debits are fulfilled. Existing credits and debits may be used and fulfilled, respectively, anywhere within the applicant’s jurisdiction.

7. PEAK STORMWATER RUNOFF CONTROL.

- (a) Peak stormwater runoff rates for the proposed project at the project site boundary, in aggregate, must not exceed existing peak runoff rates for the 2-year, 10-year and 100-year, 24-hour rainfall events, or a different critical event duration at the discretion of the District Engineer. Notwithstanding, peak runoff may be controlled to this standard in a regional facility consistent with paragraph 7(b). Aggregate compliance for all site boundary discharge will be determined with respect to runoff not managed in a regional facility.
- (b) Any increase in a critical duration flood event rate at a specific point of discharge from the project site must be limited and cause no adverse downstream impact. Table C3 shows the maximum curve numbers that may be utilized for existing condition modeling of those project site areas not covered by impervious surface.
- (c) Within the Flood Management Zone only (see Figure C2), the applicant shall provide peak rate control for the 2, 10 and 100 year 24-hour rainfall events beyond the existing condition peak rate of runoff by reducing the peak rate to ≤80% of the existing condition. This requirement does not apply if the project is a Public Linear Project.

TABLE C3. CURVE NUMBERS FOR EXISTING CONDITION PERVIOUS AREAS.

Hydrologic Soil Group	Runoff Curve Number *
A	39
B	61
C	74
D	80

* Curve numbers from NRCS Technical Release #55 (TR-55).

TABLE C4. HYDROPERIOD STANDARDS.

Wetland Susceptibility Class	Permitted Storm Bounce for 2-Year and 10-Year Event *	Inundation Period for 2-Year Event *	Inundation Period for 10-Year Event *
Highly susceptible	Existing	Existing	Existing
Moderately susceptible	Existing plus 0.5 ft	Existing plus 1 day	Existing plus 7 days
Slightly susceptible	Existing plus 1.0 ft	Existing plus 2 days	Existing plus 14 days
Least susceptible	No limit	Existing plus 7 days	Existing plus 21 days

Source: Adapted from: Stormwater and Wetlands Planning and Evaluation Guidelines for Addressing Potential Impacts of Urban Stormwater and Snowmelt Runoff on Wetlands.

* Duration of 24-hours for the return periods utilizing NOAA Atlas 14.

8. BOUNCE AND INUNDATION PERIOD.

- (a) The project must meet the hydroperiod standards found in Table C4 with respect to all down-gradient wetlands.
- (b) Wetland Susceptibility Class is determined based on wetland type, as follows:
 - (1) Highly susceptible wetland types include: sedge meadows, bogs, coniferous bogs, open bogs, calcareous fens, low prairies, coniferous swamps, lowland hardwood forests, and seasonally flooded waterbasins.
 - (2) Moderately susceptible wetland types include: shrub-carrs, alder thickets, fresh (wet) meadows, and shallow & deep marshes.
 - (3) Slightly susceptible wetland types include: floodplain forests and fresh wet meadows or shallow marshes dominated by cattail giant reed, reed canary grass or purple loosestrife.
 - (4) Least susceptible wetland includes severely degraded wetlands. Examples of this condition include cultivated hydric soils, dredge/fill disposal sites and some gravel pits.

9. DESIGN CRITERIA.

- (a) Infiltration BMPs must be designed to provide:
 - (1) Adequate pretreatment measures to remove sediment before runoff enters the primary infiltration area;
 - (2) Drawdown within 48-hours or 72-hours from the end of a storm event, for surface or sub-surface features, respectively. Soil infiltration rates shall be based on the appropriate HSG classification and associated infiltration rates (see Table C5). The least permeable layer of the soil boring column must be utilized in BMP calculations (see Design Criteria (e)). Alternate infiltration rates based on a recommendation and certified measurement testing from a licensed geotechnical engineer or licensed soil scientist will be considered. Infiltration area will be limited to horizontal areas subject to prolonged wetting;
 - (3) A minimum of three feet of separation from the Seasonal High Water Table; and
 - (4) Consideration of the Minnesota Department of Health guidance document Evaluating Proposed Stormwater Infiltration Projects in Vulnerable Wellhead Protection Areas. Documentation shall be submitted to support implementation of this guidance document and will be accepted at the discretion of the District Engineer.
- (b) Water Reuse BMPs must conform to the following:
 - (1) Design for no increase in stormwater runoff from the irrigated area or project site.
 - (2) Required design submittal packages for water reuse BMPs must include:
 - (i) An analysis using Metropolitan Council Stormwater Reuse Guide 'Water Balance Tool Irrigation Constant Demand' spreadsheet for irrigation practices or 'Water Balance Too Non-Irrigation Constant Demand' Spreadsheet for non-irrigation practices. The tools are available for download at:
[http://www.metrocouncil.org/wastewater-water/planning/water-supply-planning/studies-projects-workgroups-\(1\)/completed-studies-projects/stormwater-reuse-guide.aspx](http://www.metrocouncil.org/wastewater-water/planning/water-supply-planning/studies-projects-workgroups-(1)/completed-studies-projects/stormwater-reuse-guide.aspx);

- (ii) Documentation demonstrating adequacy of soils, storage system, and delivery system; and
 - (iii) Operations plan.
 - (3) Approved capacity of an irrigation practice will be based on:
 - (i) An irrigation rate of 0.5 inches per week over the irrigated pervious area(s) or the rate identified through the completion of the Metropolitan Council Stormwater Reuse Guide 'Water Balance Tool Irrigation Constant Demand' Spreadsheet (whichever is less); or as approved by the District; and
 - (ii) No greater than a 26 week (April 15th to October 15th) growing season.

An additional water quality treatment capacity beyond 0.5 inches per week may be recognized under a subsection C.5(f) plan or a C.13 phased development permit based on a three-year average of monitoring records of volume irrigated.
 - (4) Approved capacity of a non-irrigation practice shall be based on the rate identified through the completion of the Metropolitan Council Stormwater Reuse Guide 'Water Balance Tool Non-Irrigation Constant Demand' spreadsheet, or as approved by the District.
- (c) Biofiltration/filtration BMPs must be designed to provide:
 - (1) Adequate pretreatment measures to remove sediment before runoff enters the primary biofiltration area;
 - (2) Drawdown within 48-hours or 72-hours from the end of a storm event, for surface or sub-surface features, respectively;
 - (3) A minimum of 12-inches of organic material or sand above the rock trench or draintile system; and
 - (4) Drain tile system must be designed above the Seasonal High Water Table.

TABLE C5. SOIL TYPE AND INFILTRATION RATES.

Hydrologic Soil Group	Soil Textures	Corresponding Unified Soil Classification		Infiltration Rate (in/hr)
A	Gravel Sandy Gravel Silty Gravels	GW	Well-graded gravels, sandy gravels	1.63
		GP	Gap-graded or uniform gravels, sandy gravels	
		GM	Silty gravels, silty sandy gravels	
		SW	Well-graded gravelly sands	
	Sand Loamy Sand Sandy Loam	SP	Gap-graded or uniform sands, gravelly sands	0.8
B	Loam Silt Loam	SM	Silty sands, silty gravelly sands	0.45
		MH	Micaceous silts, diatomaceous silts, volcanic ash	0.3
C	Sandy Clay Loam	ML	Silts, very fine sands, silty or clayey fine sands	0.2
D	Clay Loam Silty Clay Loam Sandy Clay Silty Clay Clay	GC	Clayey gravels, clayey sandy gravels	0.06
		SC	Clayey sands, clayey gravelly sands	
		CL	Low plasticity clays, sandy or silty clays	
		OL	Organic silts and clays of low plasticity	
		CH	Highly plastic clays and sandy clays	
		OH	Organic silts and clays of high plasticity	

Source: Adapted from the “Design infiltration rates” table from the Minnesota Stormwater Manual, MPCA, (January 2014).

- (d) Stormwater ponds must be designed to provide:
 - (1) Water quality features consistent with NURP criteria and accepted design standards for average and maximum depth;
 - (2) A permanent wet pool with dead storage at least equal to the runoff volume from a 2.5-inch rainfall over the area tributary to the pond;
 - (3) An outlet structure capable of preventing migration of floating debris and oils for at least the one-year storm;
 - (4) An identified emergency overflow spillway sufficiently stabilized to convey flows greater than the 100-year critical storm event; and
 - (5) An outlet structure to control the 2-year, 10-year & 100-year frequency events.
- (e) Soil borings (utilizing ASTM D5921 and D5879, as amended) shall be considered for design purposes, and provided to the District, for each proposed BMP. The soil borings must be taken to a depth of at least 5 feet below the bottom of the proposed feature.
- (f) An outfall structure discharging directly to a wetland, public water or public water wetland must incorporate a stilling-basin, surge-basin, energy dissipater, placement of ungrouted natural rock riprap or other feature to minimize disturbance and erosion of natural shoreline and bed resulting from stormwater discharges. Where feasible, outfall structures are to be located outside of the natural feature.

TABLE C6. LOW FLOOR AND LOW ENTRY FREEBOARD REQUIREMENTS.

Freeboard	Regional Flood Elevations		Detention Basins , Wetlands & Stormwater Ponds		Infiltration and Biofiltration Basins			Rain Gardens*
	100-yr	EOF	100-yr	EOF	Bottom	100-yr	EOF	EOF
Low Floor	2.0 ft	1.0 ft	0.0 ft	NA	0.0 ft	NA	NA	NA
Low Entry	NA	NA	2.0 ft	1.0 ft	NA	2.0 ft	1.0 ft	0.5 ft

- (g) All new residential, commercial, industrial and other habitable or non-habitable structures, and all stormwater BMPs, must be constructed so that the lowest floor and lowest entry elevations comply with Table C6.

The low entry freeboard criterion of Table C6 may be deemed met when the structure does not have the required vertical separation, but is protected from surface flooding to the required elevation by a berm or other natural or constructed topographic feature capable of providing flood protection.

Within a landlocked basin, minimum low floor elevations must be at least one foot above the surveyed basin run out elevation. Where a structure is proposed below the run out elevation of a land-locked basin, the low floor elevation will be a minimum of two feet above the highest water level of either the 10-day snowmelt event or back-to-back 100-year, 24-hour rainfalls. Aerial photos, vegetation, soils, and topography may be used to derive a "normal" water elevation for the purpose of computing the basin's 100-year elevation.

- (h) All stormwater management structures and facilities must be designed for maintenance access and be properly operated and maintained in perpetuity to assure that they continue to function as designed. The maintenance responsibility must be memorialized in a document executed by the property owner in a form acceptable to the District and filed for record on the deed. Alternatively, a public permittee may meet its perpetual maintenance obligation by executing a programmatic or project-specific maintenance agreement with the District. Regional ponds owned by public entities that are only used to meet the rate control requirements of the District rule do not need a maintenance agreement with the District.
- (i) The permittee must use construction best practices so that the facility as constructed will conform to design specifications and the soil and surrounding conditions are not altered in a way adverse to facility performance.
- (j) Before work under the permit is deemed complete, the permittee must submit as-built plans demonstrating that at the time of final stabilization, stormwater facilities conform to design specifications. If at any time the District finds that the stormwater facility is not performing as designed, on District request the permittee must undertake reasonable investigation to determine the cause of inadequate performance.

10. EASEMENTS.

- (a) Before permit issuance, the permittee must, submit a copy of any plat or easement required by the local land use authority establishing drainage or flowage over stormwater management facilities, stormwater conveyances, ponds, wetlands, on-site floodplain up to the 100-year flood elevation, or any other hydrologic feature.
- (b) Before permit issuance, the permittee must convey to the District an easement over the public drainage system specifying a District right of maintenance access over the following minimum widths:
 - (1) For tiled/piped systems, 66 feet wide perpendicular to the direction of flow, centered on the tile line or pipe;
 - (2) For open channel systems, a variable width perpendicular to the direction of flow, to include the open channel itself and all areas within 16.5 feet from the top of the ditch bank.
- (c) Public Linear Projects are exempt from the public drainage system easement requirement of Section 10(b).
- (d) For projects within the District's Comprehensive Wetland Protection and Management Plan (CWPMP) areas, the Wetland Management Corridor (WMC) boundary delineation, buffer and easement requirements found at Rule F.6 apply. As stated in Rule F.5(e), Public Linear Projects are not subject to the requirements of Rule F.6.

11. REQUIRED EXHIBITS. The following exhibits must accompany the permit application. One set, full size (22 inches by 34 inches) and one reduced (maximum size of 11 inches by 17 inches) or electronic version.

- (a) An erosion & sediment control plan and, for projects that require an NPDES permit, a Storm Water Pollution Prevention Plan.

- (b) Property lines and delineation of lands under ownership of the applicant.
- (c) Delineation of the subwatershed contributing runoff from off-site, proposed and existing subwatersheds onsite, emergency overflows, and drainageways.
- (d) Geotechnical analysis including soil borings at all proposed stormwater management facility locations utilizing ASTM D5921 and D5879, as amended.
- (e) Proposed and existing stormwater facilities' location, alignment and elevation.
- (f) Delineation of existing on-site wetland, marshes and floodplain areas.
- (g) Identification of existing and proposed normal, ordinary high and 100-year water elevations on-site.
- (h) Identification of existing and proposed contour elevations within the project site related to NAVD 88.
- (i) Construction plans and specifications of all proposed stormwater management facilities, including design details for outlet control structures.
- (j) Stormwater runoff volume and rate analyses for the 2- 10- and 100-year critical events, existing and proposed conditions utilizing NOAA Atlas 14.
- (k) All hydrologic, water quality and hydraulic computations completed to design the proposed stormwater management facilities.
- (l) Narrative including a project description, discussion of BMP selection, and revegetation plan for the project site.
- (m) Other project site-specific submittal requirements as may be required by the District.

12. EXCEPTIONS.

- (a) Rate control criteria of Section 7 may be waived if the project site discharges directly to a water body with large storage capacity (such as a public water), the volume discharged from the project site does not contribute to a downstream flood peak, and there are no downstream locations susceptible to flooding.
- (b) Section 6 and Section 7 are waived for a portion of a project that paves a gravel roadway if the right-of-way ditch is maintained and does not discharge a concentrated flow directly to a wetland or another sensitive water body.

13. EXTENDED PERMIT TERM AND REGIONAL FACILITIES FOR NON-RESIDENTIAL PHASED DEVELOPMENT.

- (a) The following definitions apply to this section:
 - (1) "Area Development Permit" (ADP) means a District stormwater management permit for non-residential development that includes construction of a stormwater management facility explicitly intended to serve compliance requirements for a parcel other than that on which the facility is located.
 - (2) "Phased Development Permit" (PDP) means a District stormwater management permit for non-residential development that includes construction of a stormwater management facility explicitly intended to serve compliance requirements not just

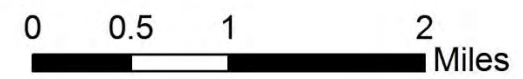
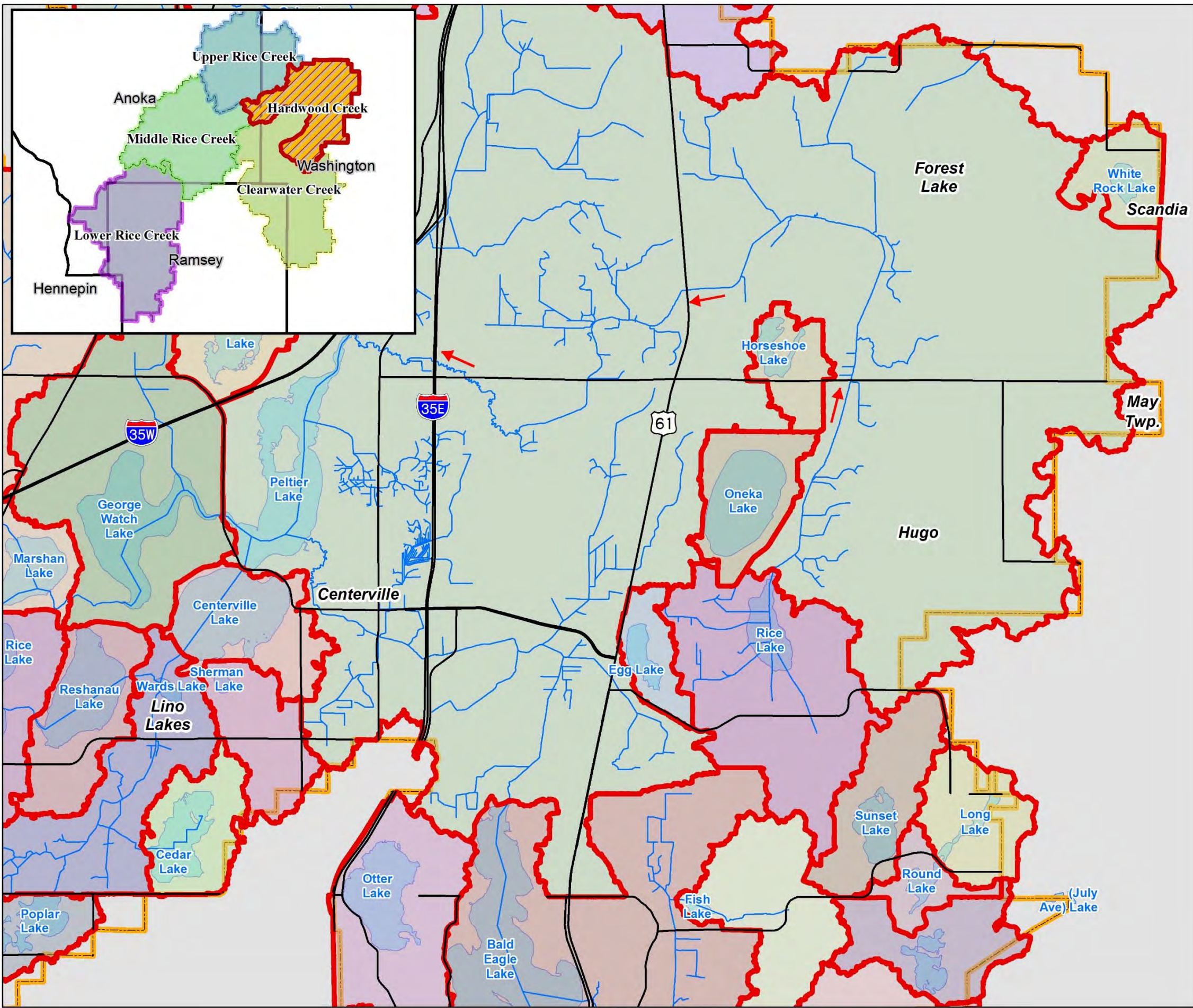
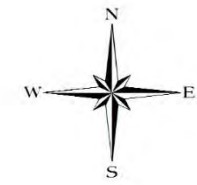
for development under the permit, but also for subsequent development on that parcel or a contiguous parcel under common ownership.

- (b)** If an off-site stormwater management facility approved under a prior ADP cannot be used for compliance due to a rule change occurring since the date of ADP approval, the District nevertheless by permit will approve its use, subject to the following:
 - (1)** The applicant must demonstrate that the facility was built in compliance with the ADP, that the ADP identified the development site as one that may use the facility, and that the requirements of subsection 5(a), above, are met.
 - (2)** If the current rule requires a level of peak flow or volume control, or of water quality treatment, beyond that provided by the off-site facility, the applicant must provide for the additional treatment. This does not disallow use of an existing facility on the ground that it does not meet a sequencing requirement with respect to the BMP location or type.

The protection against rule change provided by this subsection 13(b) does not apply if the District makes written findings, on the basis of new knowledge or information, that use of the facility would have a material adverse impact on a water quality, flood management or other specific public interest, or if the approval date of the development permit is more than 10 years after the date of ADP approval.

- (c)** The District may issue a PDP with a permit term of up to 10 years.
 - (1)** During the permit term, development using the stormwater management facilities approved under the PDP will not be subject to a rule change occurring after the date of PDP approval, provided the PDP states the design criteria to which subsequent development will conform and the proposed development meets those criteria.
 - (2)** If a PDP is in effect as of December 1, 2014, on request the District will extend the permit expiration date in accordance with this subsection 13(c). In such a case, the requirement that the permit state design criteria is relaxed. However, the applicant must demonstrate the design and constructed capacity of the facilities and the capacity allocated to the proposed development.
 - (3)** If a PDP was approved after December 1, 2004 but has expired, an application for a subsequent development phase may be considered under the terms of subsection 13(b), above.
- (d)** This section does not apply to an ADP or a PDP approved before December 1, 2004.

Rice Creek Watershed District

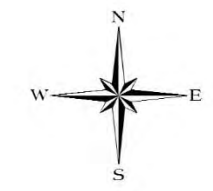


Sources: RCWD, TLG, MN DOT

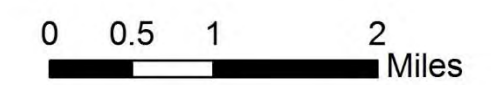
**C1A: Resources of Concern
Drainage Area of Hardwood Creek**



Rice Creek Watershed District

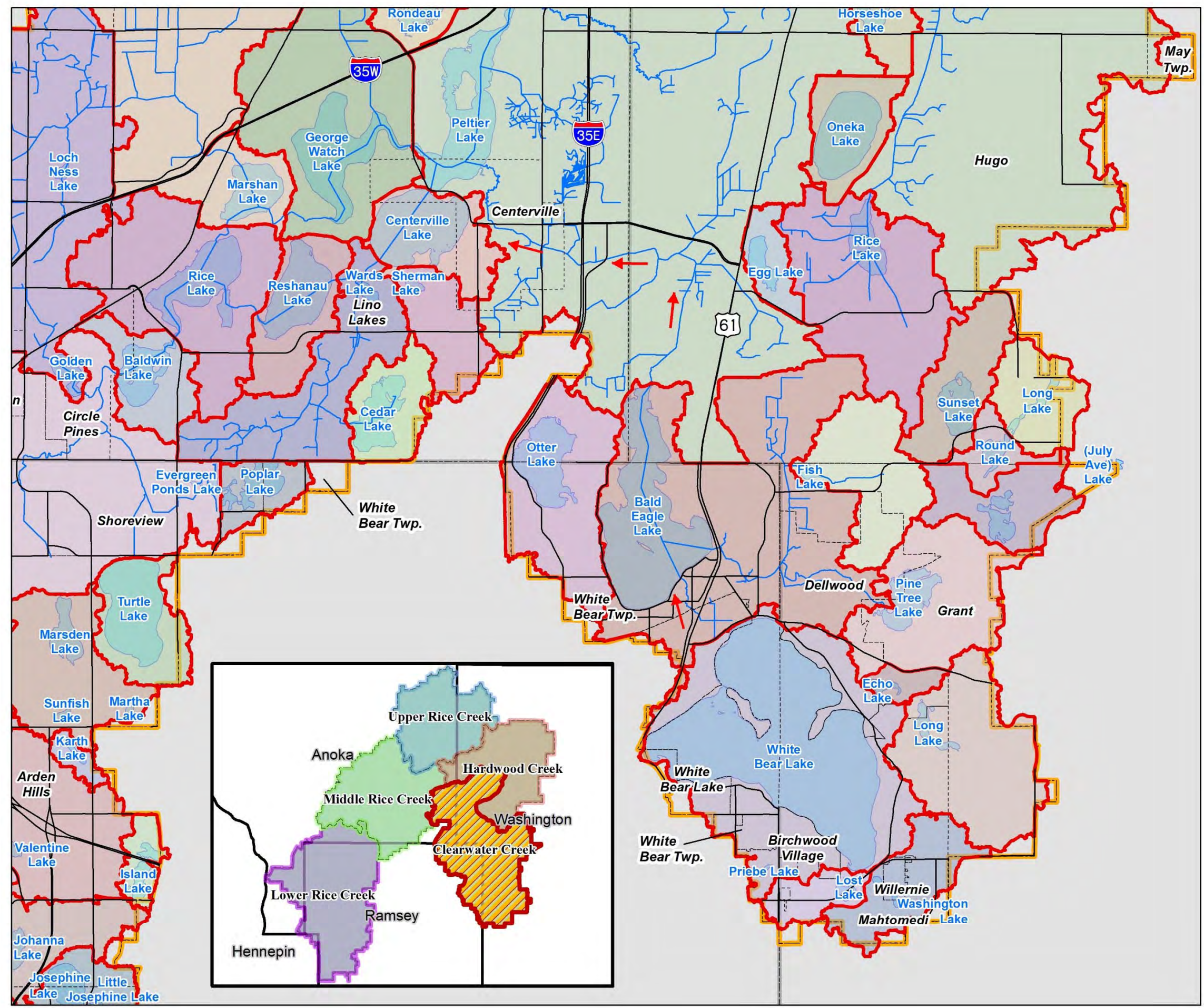


← Flow Direction
— RCWD Watercourses
 Lakes
 RCWD Legal Boundary
 Resource of Concern Drainage Area
 Transportation System
 Cities
 Counties

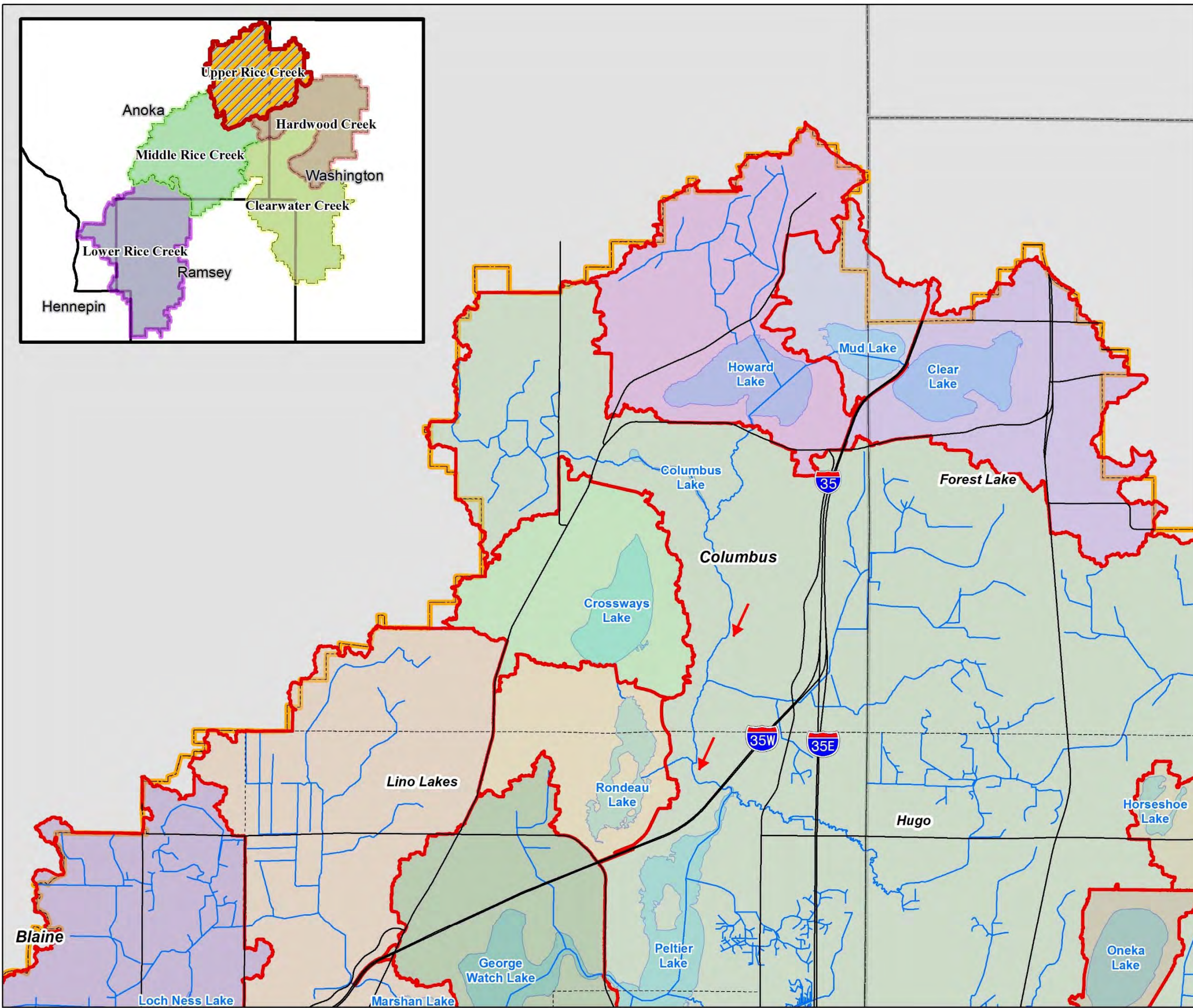
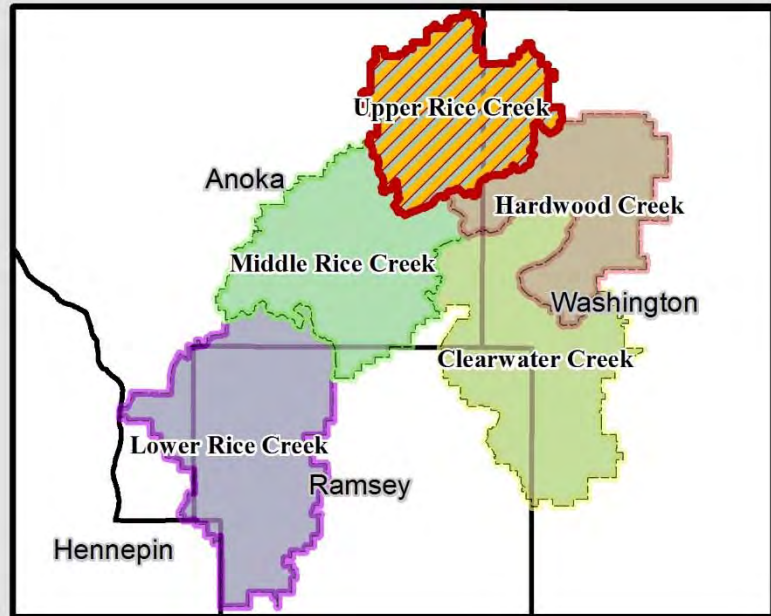


Sources: RCWD, TLG, MN DOT

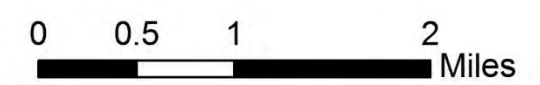
**C1B: Resources of Concern
Drainage Area of Clearwater Creek**



Rice Creek Watershed District



- Flow Direction
- RCWD Watercourses
- Lakes
- RCWD Legal Boundary
- Resource of Concern Drainage Area
- Transportation System
- Cities
- Counties

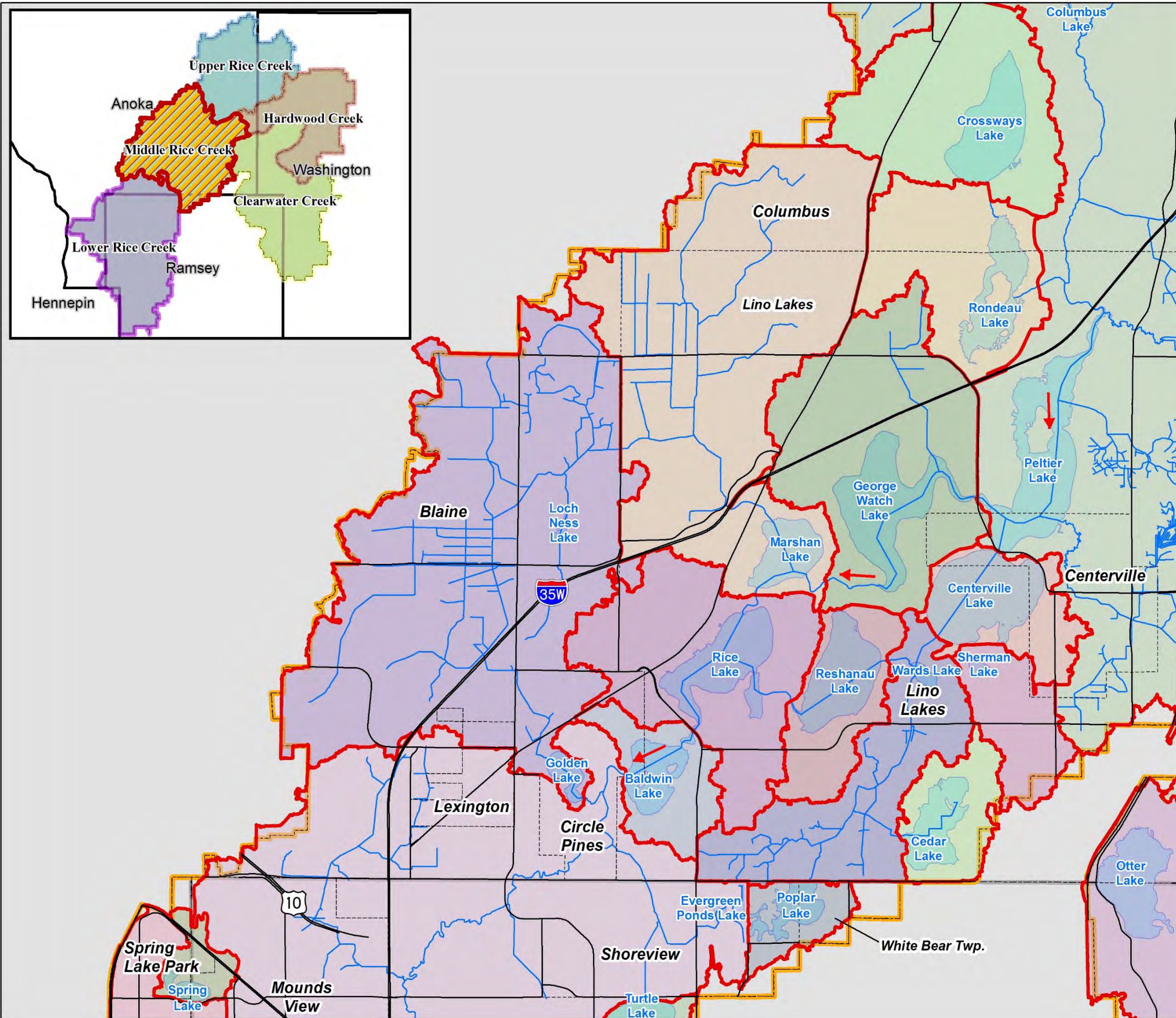
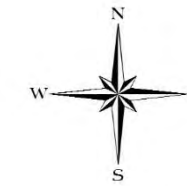


Sources: RCWD, TLG, MN DOT

**C1C: Resources of Concern
Drainage Area of Upper Rice Creek**



Rice Creek Watershed District



- Flow Direction
- RCWD Watercourses
- Lakes
- RCWD Legal Boundary
- Resource of Concern Drainage Area
- Transportation System
- Cities
- Counties



Sources: RCWD, TLG, MN DOT

**C1D: Resources of Concern
Drainage Area of Middle Rice Creek**



Rice Creek Watershed District

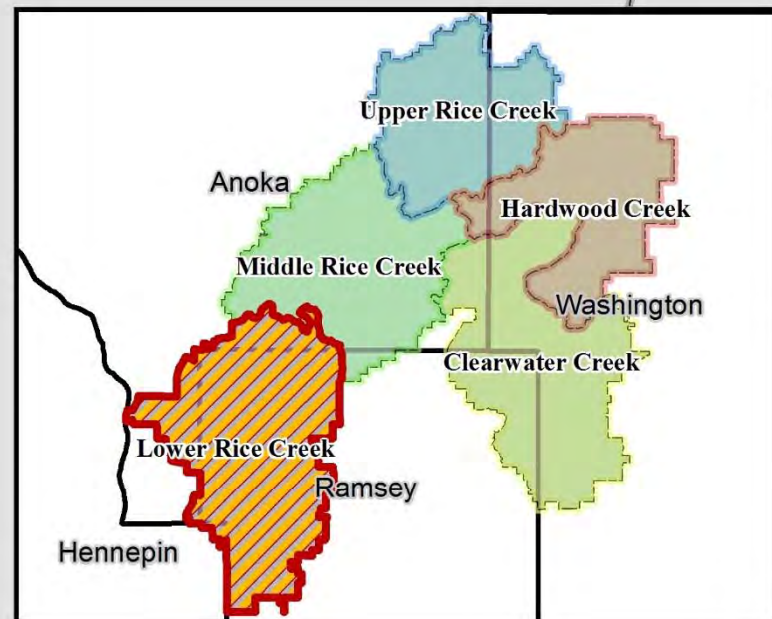
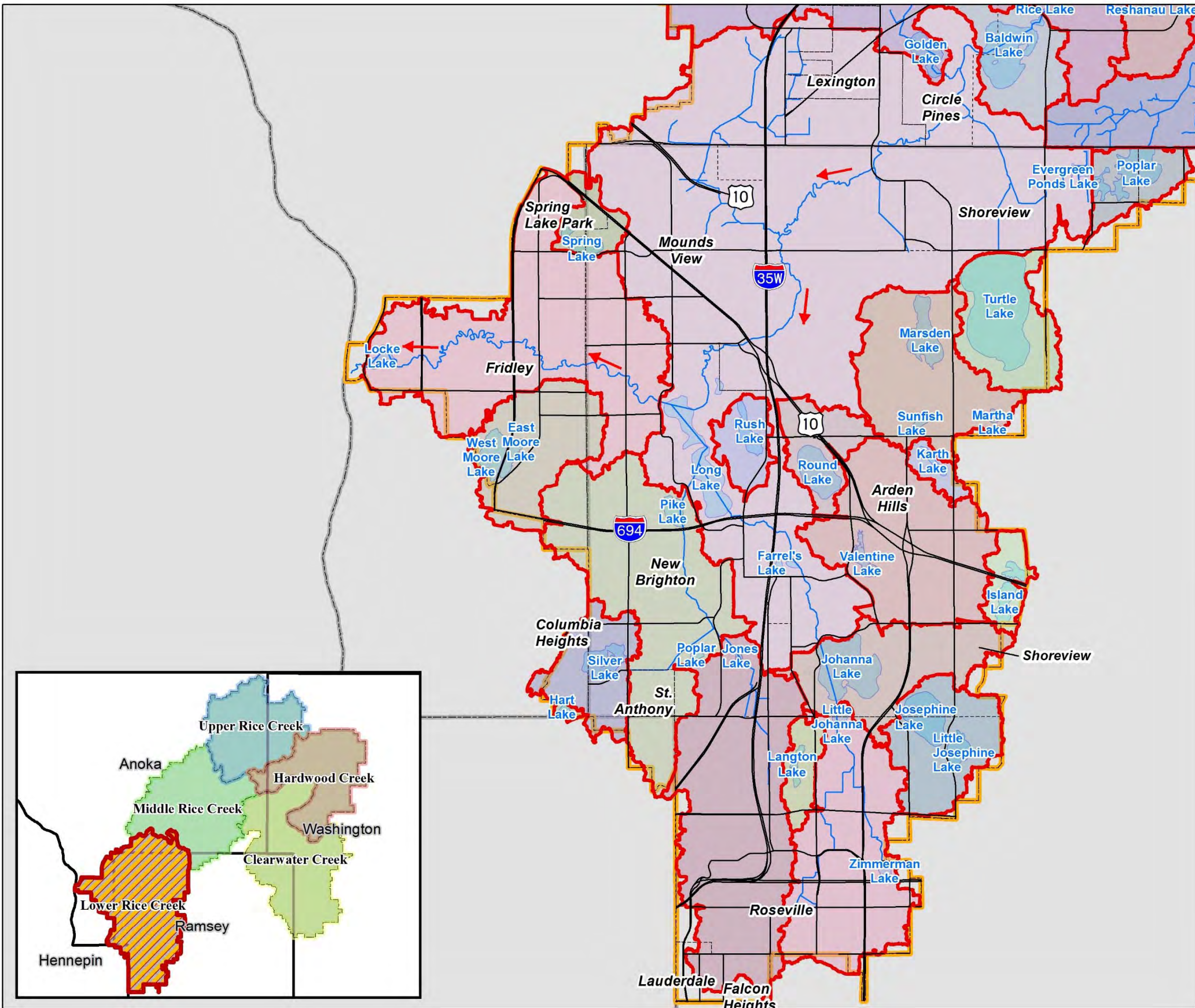


- Flow Direction
- RCWD Watercourses
- Lakes
- RCWD Legal Boundary
- Resource of Concern Drainage Area
- Transportation System
- Cities
- Counties

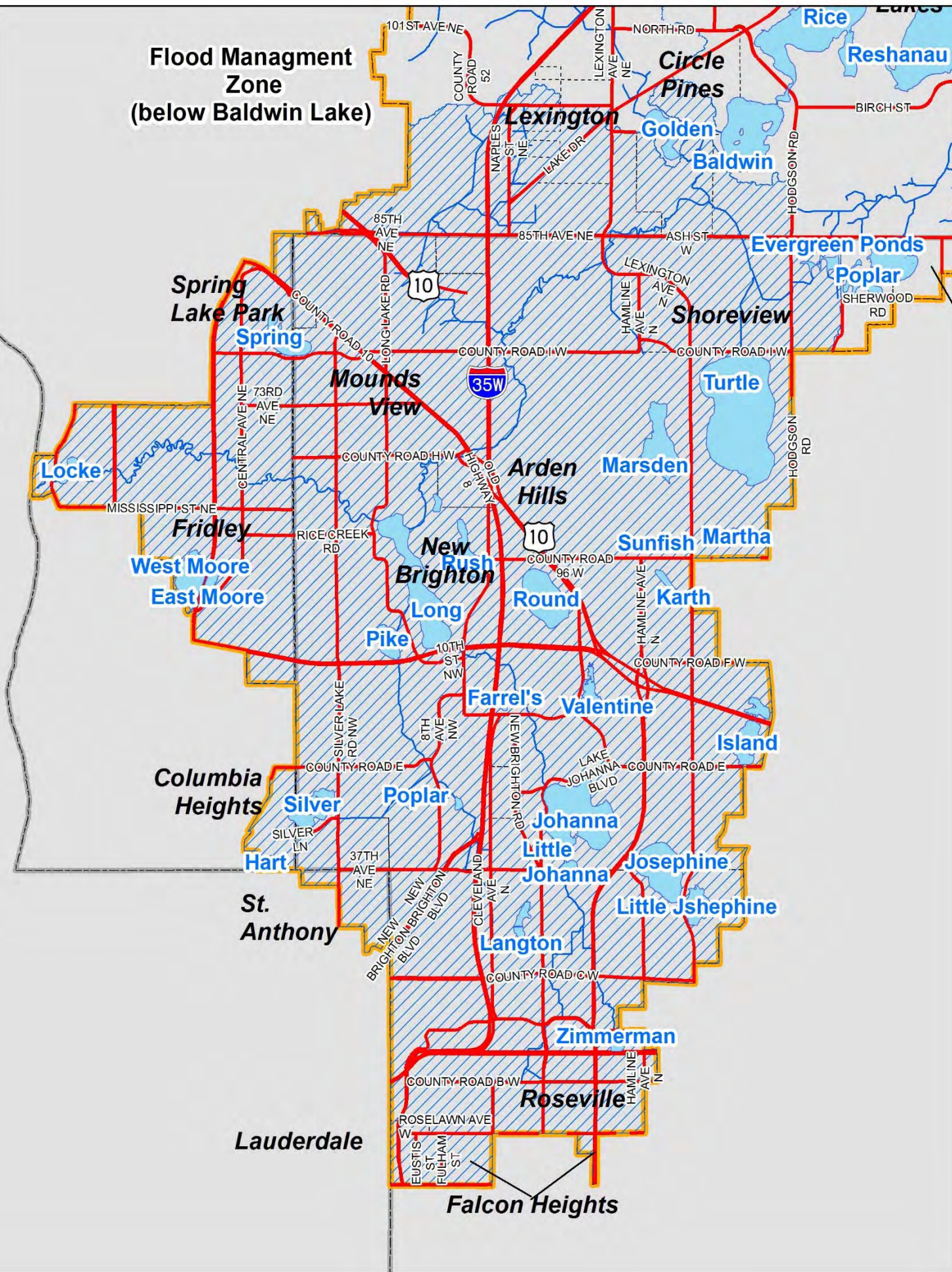
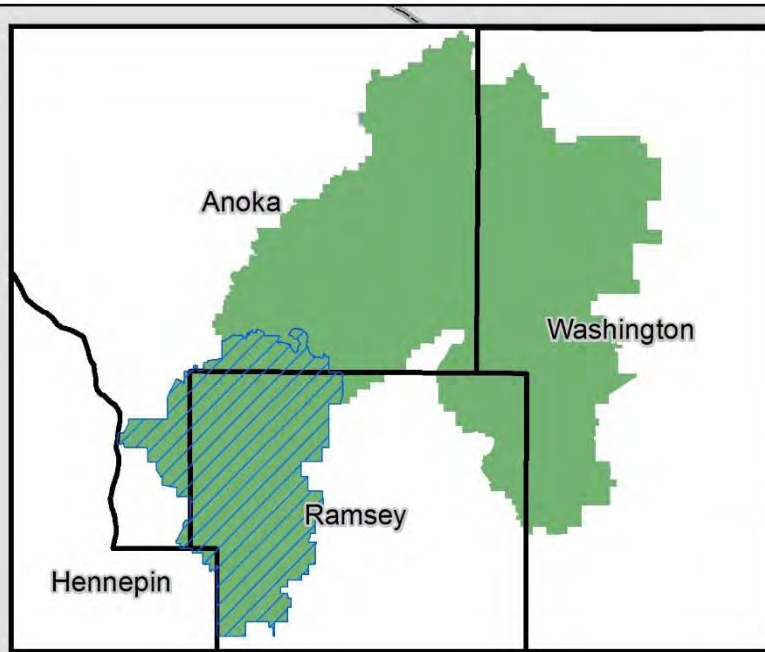
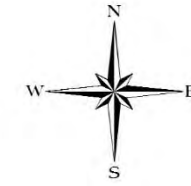


Sources: RCWD, TLG, MN DOT

**C1E: Resources of Concern
Drainage Area of Lower Rice Creek**



Rice Creek Watershed District



- RCWD Watercourses
- Lakes
- Flood Management Zone
- RCWD Legal Boundary
- Transportation System
- Cities
- Counties



Sources: RCWD, TLG, MN DOT

C2: Flood Management Zone



RULE D: EROSION AND SEDIMENT CONTROL PLANS

1. **POLICY.** It is the policy of the Board of Managers to prevent erosion of soil into surface water systems by requiring erosion and sediment control for land-disturbing activities.
2. **REGULATION.**
 - (a) An erosion and sediment control plan must be submitted, and a permit received from the District, for:
 - (1) Surface soil disturbance or removal of vegetative cover on one acre or more of land;
 - (2) Surface soil disturbance or removal of vegetative cover on 10,000 square feet or more of land, if any part of the disturbed area is within 300 feet of and drains to a lake, stream, wetland or public drainage system; or
 - (3) Any land-disturbing activity that requires a District permit under a rule other than Rule D.
 - (b) A person disturbing surface soils or removing vegetative cover on more than 5,000 square feet of land, or stockpiling on-site more than fifty (50) cubic yards of earth or other erodible material, but not requiring a permit under the criteria of this rule, must submit a notice in advance of disturbance on a form provided by the District and conform the activity to standard best practices established by and available from the District.
 - (c) Rule D does not apply to normal farming practices that are part of an ongoing farming operation.
 - (d) Rule D does not apply to milling, reclaiming or overlay of paved surfaces that does not expose underlying soils.
3. **DESIGN CRITERIA FOR EROSION CONTROL PLANS.** The applicant must demonstrate that the standards of Rule C, subsections 7(a) and (b), are met. In addition, Erosion and Sediment Control Plans must comply with the following criteria:
 - (a) Natural project site topography and soil conditions must be specifically addressed to reduce erosion and sedimentation during construction and after project completion.
 - (b) Site erosion and sediment control practices must be consistent with the Minnesota Pollution Control Agency document "Protecting Water Quality in Urban Areas" (1994), as amended, and District-specific written design guidance and be sufficient to retain sediment on-site.
 - (c) The project must be phased to minimize disturbed areas and removal of existing vegetation, until it is necessary for project progress.
 - (d) The District may require additional erosion and sediment control measures on areas with a slope to a sensitive, impaired or special water body, stream, drainage system or wetland to assure retention of sediment on-site.
 - (e) The plan must include conditions adequate to protect facilities to be used for post-construction stormwater infiltration.

- 4. REQUIRED EXHIBITS.** The following exhibits must accompany the permit application. One set, full size (22 inches by 34 inches) and one reduced (maximum size of 11 inches by 17 inches) or electronic version.
- (a) An existing and proposed topographic map which clearly indicates all hydrologic features and areas where grading will expose soils to erosive conditions. The Plan must also indicate the direction of all project site runoff.
 - (b) Tabulation of the construction implementation schedule.
 - (c) Name, address and phone number of party responsible for maintenance of all erosion and sediment control measures.
 - (d) Quantification of the total disturbed area.
 - (e) Clear identification of all temporary erosion and sediment control measures that will remain in place until permanent vegetation is established. Examples of temporary measures include, but are not limited to, seeding, mulching, sodding, silt fence, erosion control blanket, and stormwater inlet protection devices.
 - (f) Clear identification of all permanent erosion control measures such as outfall spillways and riprap shoreline protection, and their locations.
 - (g) Clear Identification of staging areas, as applicable.
 - (h) Documentation that the project applicant has applied for the NPDES Permit from the Minnesota Pollution Control Agency (MPCA), when applicable.
 - (i) A stormwater pollution prevention plan for projects that require an NPDES Permit.
 - (j) Delineation of any floodplain and/or wetland area changes.
 - (k) Other project site-specific submittal requirements as may be required by the District.
- 5. CONSTRUCTION ACTIVITY REQUIREMENTS.** Any activity subject to a permit under this rule must conform to the standards of the NPDES construction general permit, as amended, regarding construction-site erosion and sediment control.
- 6. INSPECTIONS.**
- (a) The permittee shall be responsible for inspection, maintenance and effectiveness of all erosion and sediment control measures until final soil stabilization is achieved or the permit is assigned (see Rule B), whichever comes first.
 - (b) The District may inspect the project site and require the permittee to provide additional erosion control measures as it determines conditions warrant.
- 7. FINAL STABILIZATION.**
- (a) Erosion and sediment control measures must be maintained until final vegetation and ground cover is established to a density of 70%.
 - (b) Temporary erosion and sediment control BMPs will be removed after disturbed areas have been permanently stabilized.

RULE E: FLOODPLAIN ALTERATION

1. **POLICY.** It is the policy of the Board of Managers to:
 - (a) Utilize the best information available in determining the 100-year flood elevation.
 - (b) Preserve existing water storage capacity within the 100-year floodplain of all waterbodies and wetlands in the watershed to minimize the frequency and severity of high water.
 - (c) Enhance floodplain characteristics that promote the natural attenuation of high water, provide for water quality treatment, and promote groundwater recharge.
 - (d) Preserve and enhance the natural vegetation existing in floodplain areas for aquatic and wildlife habitat.

2. **REGULATION.** No person may alter or fill land within the floodplain of any lake, stream, wetland, drainage system, major watercourse, or public waters without first obtaining a permit from the District. Shoreline/streambank restoration or stabilization, approved in writing by the District and/or County Conservation District as necessary to control erosion and designed to minimize encroachment and alteration of hydraulic forces, does not require a permit under this Rule.

3. **CRITERIA FOR FLOODPLAIN ALTERATION.**
 - (a) Fill within a designated floodway is prohibited.
 - (b) Fill within the floodplain is prohibited unless compensatory floodplain storage volume is provided within the floodplain of the same water body, and within the permit term. If offsetting storage volume will be provided off-site, it shall be created before any floodplain filling by the applicant will be allowed.
 - (c) Any structure or embankments placed within the floodplain will be capable of passing the 100-year flood without increasing the elevation of the 100-year flood profile.
 - (d) Compensatory floodplain storage volume is not required to extend an existing culvert, modify an existing bridge approach associated with a Public Linear Project, or place spoils adjacent to a public or private drainage channel during channel maintenance, if there is no adverse impact to the 100-Year Flood Elevation.
 - (e) Compensatory floodplain storage volume is not required for a one-time deposition of up to 10 cubic yards of fill, per parcel, if there is no adverse impact to the 100-Year Flood Elevation. The one-time deposition does not include public linear projects.
 - (f) Floodplain alteration is subject to the District's Wetland Alteration Rule F, as applicable.
 - (g) Structures to be built within the 100-year floodplain will have two feet of freeboard between the lowest floor and the 100-year flood profile.

4. **DRAINAGE EASEMENTS.**
 - (a) Before permit issuance, the permittee must submit a copy of any plat or easement required by the local land use authority establishing drainage or flowage over stormwater

management facilities, stormwater conveyances, ponds, wetlands, on-site floodplain up to the 100-year event, or any other hydrological feature.

- (b) Before permit issuance, the permittee must convey to the District an easement over the public drainage system specifying a District right of maintenance access over the following minimum widths:
 - (1) For tiled/piped systems, 66 feet wide perpendicular to the direction of flow, centered on the tile line or pipe;
 - (2) For open channel systems, a variable width perpendicular to the direction of flow, to include the open channel itself and all areas within 16.5 feet from the top of the ditch bank.
- (c) Public Linear Projects are exempt from the public drainage system easement requirement of Section 4(b).

5. **REQUIRED EXHIBITS.** The following exhibits must accompany the permit application. One set, full size (22 inches by 34 inches) and one reduced (maximum size of 11 inches by 17 inches) or electronic version.

- (a) Site plan showing property lines, delineation of the work area, existing elevation contours of the work area, ordinary high water elevations, and 100-year flood elevations. All elevations must be reduced to NAVD 1988 datum.
- (b) Grading plan showing any proposed elevation changes.
- (c) Determination by a professional engineer or qualified hydrologist of the 100-year flood elevation before and after the project.
- (d) Computation of change in flood storage capacity resulting from proposed grading.
- (e) Erosion and sediment control plan in accordance with District Rule D.
- (f) Other project site-specific submittal requirements as may be required by the District.

RULE F: WETLAND ALTERATION

1. **POLICY.** It is the policy of the Board of Managers to:
 - (a) Maintain no net loss in the quantity, quality, and biological diversity of Minnesota's existing wetlands.
 - (b) Increase the quantity, quality, and biological diversity of Minnesota's wetlands by restoring or enhancing diminished or drained wetlands.
 - (c) Avoid direct or indirect impacts from activities that destroy or diminish the quantity, quality, and biological diversity of wetlands.
 - (d) Replace wetland values where avoidance of activity is not feasible or prudent.
 - (e) Accomplish goals of the adopted Comprehensive Wetland Protection and Management Plans (CWPMPs).

2. **REGULATION.** No person may fill, drain, excavate or otherwise alter the hydrology of a wetland without first obtaining a permit from the District.
 - (a) The provisions of the Minnesota Wetland Conservation Act (WCA), Minnesota Statutes §§103G.221 through 103G.2372, and its implementing rules, Minnesota Rules 8420, apply under this Rule and govern District implementation of WCA as well as District regulation of non-WCA wetland impacts, except where the Rule provides otherwise.
 - (b) This rule does not regulate alteration of incidental wetlands as defined in Minnesota Rules chapter 8420, as amended. An applicant must demonstrate that the subject wetlands are incidental.
 - (c) An activity for which a No-Loss decision has been issued under Minnesota Rules chapter 8420 is subject to the applicable requirements of chapter 8420 but not otherwise subject to this Rule.
 - (d) Clearing of vegetation, plowing or pasturing in a wetland as part of an existing and ongoing farming operation is not subject to this rule unless the activity results in draining or filling the wetland.

3. **LOCAL GOVERNMENT UNIT.** The District intends to serve as the "Local Government Unit" (LGU) for administration of the Minnesota Wetland Conservation Act (WCA), except where a particular municipality in the District has elected to assume that role in its jurisdictional area or a state agency is serving as the local government unit on state land. Pursuant to its regulatory authority under both WCA and watershed law, when the District is serving as the LGU it will require wetland alteration permits for wetland-altering activities both as required by WCA and otherwise as required by this Rule.

4. **CRITERIA.**
 - (a) When the District is serving as the LGU, it will regulate wetland alterations that are not subject to WCA rules and do not qualify for an exemption at Minnesota Rules 8420.0420 or do not meet the "no-loss" criteria of Minnesota Rules 8420.0415 according to the rules and procedures of WCA, except as specifically provided in this Rule. Alteration under

this paragraph requires replacement at a minimum ratio of 1:1 to ensure no loss of wetland quantity, quality or biological diversity. Replacement activities will be credited consistent with the actions eligible for credit in Minnesota Rules 8420.0526.

- (b) A wetland alteration not subject to WCA that does not change the function of a wetland and results in no net loss of wetland quantity, quality or biological diversity is exempt from the replacement requirement in Section 4(a) of this Rule.
- (c) The wetland replacement exemptions in Minnesota Rules 8420.0420 are applicable under this Rule, except as modified within CWPMP areas under Section 6.
- (d) Alterations in wetlands for the purposes of wildlife enhancement must be certified by the local Soil and Water Conservation District as compliant with the criteria described in Wildlife Habitat Improvements in Wetlands: Guidance for Soil and Water Conservation Districts and Local Government Units.

5. ADDITIONAL DISTRICT REQUIREMENTS. In addition to the wetland replacement plan components and procedures in WCA, the following more specific requirements will apply to the District's review of WCA and, except as indicated, non-WCA wetland alterations:

- (a) Applicants must adequately explain and justify each individual contiguous wetland alteration area in terms of impact avoidance and minimization alternatives considered.
- (b) Where the wetland alteration is proposed in the context of land subdivision, on-site replacement wetland and buffer areas, as well as buffers established under section 6(e), must:
 - (1) Be located within a platted outlot.
 - (2) Be protected from future encroachment by a barrier (i.e. stormwater pond, infiltration basin, existing wetland, tree line, fence, trail or other durable physical feature).
 - (3) Have boundaries posted with signage approved by the District identifying the wetland/buffer protected status. On installation, the applicant must submit a GIS shapefile, or CADD file documenting sign locations.
- (c) The upland edge of new wetland creation must have an irregular and uneven slope. The slope must be no steeper than 8:1 over the initial 25 feet upslope from the projected wetland elevation contour along at least 50 percent of the upland/wetland boundary and no steeper than 5:1 along the remaining 50 percent of the boundary.
- (d) The District will not allow excess replacement credits to be used for replacement on a different project unless the credits were designated for wetland banking purposes in the original application in accordance with WCA rules and have been deposited into the WCA wetland banking system.
- (e) Within the boundary of a District developed and BWSR approved CWPMP (see Figure F1), Rule F and WCA are further modified to include Section 6. Public Linear Projects located in a CWPMP jurisdictional area and not part of an industrial, commercial, institutional or residential development are not subject to Section 6 of this Rule.

6. COMPREHENSIVE WETLAND PROTECTION AND MANAGEMENT PLANS. All District Comprehensive Wetland Protection and Management Plans (CWPMPs) are incorporated into this Rule. The specific terms of Rule F will govern, but if a term of Rule F is susceptible to more than one interpretation, the District will apply the interpretation that best carries out the intent and purposes of the respective CWPMP.

(a) PRE-APPLICATION REVIEW.

- (1) In cases where wetland fill, excavation or draining, wholly or partly, is contemplated, the applicant is encouraged to submit a preliminary concept plan for review with District staff and the Technical Evaluation Panel (TEP) before submitting a formal application. The following will be examined during pre-application review:
 - (i) Sequencing (in accordance with WCA and Federal Clean Water Act requirements, reducing the size, scope or density of each individual proposed action, and changing the type of project action to avoid and minimize wetland impacts).
 - (ii) Wetland assessment.
 - (iii) Applying Better Site Design principles as defined in Rule A.
 - (iv) Integrating buffers and other barriers to protect wetland resources from future impacts.
 - (v) Exploring development code flexibility, including conditional use permits, planned unit development, variances and code revisions;
 - (vi) Reviewing wetland stormwater susceptibility (see Rule C.8) and coordinating Wetland Management Corridor (WMC) establishment with existing adjacent WMCs.
- (2) At the pre-application meeting, the applicant shall provide documentation sufficient to assess project alternatives at a concept level and such other information as the District specifically requests.
- (3) On receipt of a complete application, the District will review and act on the application in accordance with its procedural rules and WCA procedures.
- (4) The TEP shall be consulted on decisions related to replacement plans, exemptions, no-loss, wetland boundaries and determination of the WMC.

(b) WETLAND MANAGEMENT CORRIDORS.

- (1) At the time of permitting, the preliminary Wetland Management Corridor (WMC) boundary (see Figure F1) will be adjusted in accordance with subsections F(6)(b)(2) and (3), below. Notwithstanding, within the Columbus CWPMP, commercial/Industrial zoned areas within Zone 1 will remain outside of the WMC (see Figure F2).
- (2) The applicant must delineate the site level WMC when wetland impacts are proposed:
 - (i) Within the Preliminary WMC; or
 - (ii) Within 150 feet of the Preliminary WMC and greater than the applicable *de minimis* exemption amount, per Minnesota Rules 8420.0420;

If the proposed project does not meet criterion (b)(2)(i) or (b)(2)(ii), above, an applicant may accept the Preliminary WMC boundary on the project site, as made more precise on a parcel basis by the use of landscape-scale delineation methods applied or approved by the District and need not comply with Section 6(b)(3) and 6(b)(4).

- (3) The applicant shall complete a wetland functional analysis using MnRAM 3.4 (or most recent version) when defining the site level WMC boundary.
 - (i) The WMC boundary will be expanded to encompass any delineated wetland lying in part within the preliminary WMC and any wetland physically contiguous with (not separated by upland from) the landscape-scale WMC.
 - (ii) The District, in its judgment, may retract the WMC boundary on the basis of site-level information demonstrating that the retraction is consistent with the associated CWPMP and does not measurably diminish the existing or potential water resource functions of the WMC. In making such a decision, the District may consider relevant criteria including wetland delineation, buffer and floodplain location, WMC connectivity, protection of surface waters and groundwater recharge, and whether loss would be reduced by inclusion of compensating area supporting WMC function.
 - (iii) If the site level functional analysis shows the presence of Non-degraded or High Quality wetland within 50 feet of the site level WMC, the WMC will be expanded to the lateral extent of the Non-degraded or High Quality wetland boundary plus the applicable buffer as defined in section 6(e).
 - (iv) If the WMC lies within or contiguous to the parcel boundaries of the project, the lateral extent of the final WMC may be increased by the applicant to include all wetland or other action eligible for credit contiguous with the site level WMC. The extended WMC boundary must connect property to the WMC boundary on adjacent properties and reflect local surface hydrology.
- (4) A map of the final WMC boundary must be prepared and submitted to the District for approval. The map will reflect any change to the boundary as a result of the permitted activity. A GIS shapefile or CADD file of the final WMC boundary shall be submitted to the District.
- (5) A variance from a requirement of Section 6(b) otherwise meeting the criteria of District Rule L may be granted if the TEP concurs that the wetland protection afforded will not be less than that resulting from application of standard WCA criteria.

(c) WETLAND REPLACEMENT.

- (1) The wetland replacement exemptions in Minnesota Rules 8420.0420 are not applicable within CWPMP areas, except as follows:
 - (i) The agricultural, wetland restoration, utilities, *de minimis* and wildlife habitat exemptions found at Minnesota Rules 8420.0420, subparts 2, 5, 6, 8 and 9, respectively, are applicable, subject to the scope of the exemption standards found at Minnesota Rules 8420.0420, subpart 1.

- (ii) The drainage exemption, Minnesota Rules 8420.0420, subpart 3, is applicable if the applicant demonstrates, through adequate hydrologic modeling, that the drainage activity will not change the hydrologic regime of a CWPMP-mapped high quality wetland (see Figure F3) within the boundary of a WMC. Wetland and plant community boundaries will be field-verified.
 - (iii) Buffer and easement requirements of Section 6(e) and 6(f) do not apply to wetland alterations that qualify for one of the exemptions listed in Section 6(c)(1)(i), unless the project of which the wetland alteration is a part is subject to Rule C.10(d).
- (2) Replacement plans will be evaluated and implemented in accordance with Minnesota Rules 8420.0325 through 8420.0335, 8420.0500 through 08420.0544 and 8420.0800 through 8420.0820, except that the provisions of this Rule will apply in place of Minnesota Rules 8420.0522, and 8420.0526. The foundation of the CWPMPs is to limit impact to, and encourage enhancement of, high-priority wetlands and direct unavoidable impact to lower-priority wetlands in establishing the WMC. In accordance with Minnesota Rules 8420.0515, subpart 10, this principle will guide sequencing, replacement siting, WMC boundary adjustment and other elements of replacement plan review. The District will use the methodology of Minnesota Rules 8420.0522, subpart 2 to determine wetland replacement requirements for partially drained wetlands.
- (3) A replacement plan must provide at least one replacement credit for each wetland impact acre, as shown in Table F1. The replacement methods must be from the actions listed in Table F2 or an approved wetland bank consistent with Section 6(d)(1).
- (4) Acres of impact and replacement credit are determined by applying the following two steps in order:
 - (i) Multiply actual wetland acres subject to impact by the ratios stated in Table F1.
 - (ii) Calculate the replacement credits by multiplying the acreage for each replacement action by the percentage in Table F2. All replacement areas that are not within the final WMC will receive credit based on a replacement location outside the final WMC. However, when the replacement area is within the parcel boundaries of the project and there is no Preliminary WMC within those boundaries, and there is no opportunity to extend the WMC boundary from adjacent parcels of land, then the mitigation area will be credited as replacement inside the final WMC. If an applicant intends replacement also to fulfill mitigation requirements under Section 404 of the Clean Water Act, then the applicant may elect replacement credit based on a replacement location outside the final WMC.
- (5) The replacement plan must demonstrate that non-exempt impacts will result in no net loss of wetland hydrological regime, water quality, or wildlife habitat function through a wetland assessment methodology approved by BWSR pursuant to the Wetland Conservation Act, Minnesota Statutes §103G.2242.

TABLE F1. WETLAND REPLACEMENT RATIOS FOR CWPMP AREAS.

Wetland Degradation Type	Anoka County		Washington County	
	Outside WMC	Inside WMC	Outside WMC	Inside WMC
Moderately or Severely Degraded Wetland	1:1	2:1	2:1	3:1
Marginally or Non-Degraded Wetland	1.5:1	2.5:1	2.5:1	3.5:1
High Quality Wetland and/or hardwood, coniferous swamp, floodplain forest or bog wetland communities of any quality	2:1	3:1	3.5:1	4:1

TABLE F2. ACTIONS ELIGIBLE FOR CREDIT FOR CWPMP AREAS.

Actions Eligible for Credit	Inside of the Final WMC	Outside of the Final WMC
Wetland Restoration		
Hydrologic and vegetative restoration of moderately and severely degraded wetland	up to 75% Determined by LGU and TEP	up to 50% Determined by LGU and TEP
Hydrologic and vegetative restoration of effectively drained, former wetland	100%	75%
Wetland Creation		
Upland to wetland conversion	50%	50%
Wetland Protection & Preservation		
Protection via conservation easement of wetland previously restored consistent with MN Rule 8420.0526 subpart 6	up to 75% Determined by LGU and TEP	up to 75% Determined by LGU and TEP
Columbus CWPMP Only: Preservation of wetland or wetland/upland mosaic (requires a 3rd party easement holder and other matching action eligible for credit)	25% Determined by LGU and TEP	12.5% Determined by LGU and TEP
Restoration or protection of wetland of exceptional natural resource value consistent with MN Rule 8420.0526, subpart 8	Up to 100% Determined by LGU and TEP	Up to 100% Determined by LGU and TEP
Buffers		
Non-native, non-invasive dominated buffer around other action eligible for credit, consistent with Section 6(e)	10%	10%
Native, non-invasive dominated buffer around other action eligible for credit, consistent with Section 6(e)	25%	25%
Upland habitat area contiguous with final WMC wetland (2 acre minimum), as limited by Rule F.6(e)(5)	100%	NA
Vegetative Restoration		
Positive shift in MnRAM assessment score for "Vegetative Integrity" from "Low" to "Medium" or "High"	Up to 50% Determined by LGU and TEP	NA

- (6) The location and type of wetland replacement will conform as closely as possible to the following standards:
- (i) No wetland plant community of high or exceptional wildlife habitat function and high or exceptional vegetative integrity, as identified in the required wetland assessment, may be disturbed.
 - (ii) No replacement credit will be given for excavation in an upland natural community with Natural Heritage Program rank B or higher, or with identified Endangered, Threatened or Special Concern species.
- (7) In the Columbus CWPMP only, preservation credit can be used for up to 50% of the wetland replacement required. The remaining 50% must be supplied by a non-preservation replacement action as shown within Table F2. Additionally:
- (i) All other eligible actions for credit within this rule must be considered before preservation is approved as an action eligible for credit.
 - (ii) The Technical Evaluation Panel must find that there is a high probability that, without preservation, the wetland area to be preserved would be degraded or impacted and that the wetland meets the criteria of Minnesota Rules 8420.0526 subpart 9.A through 9.D.
 - (iii) Non-degraded, High Quality, and Moderately Degraded wetland is eligible for Preservation Credit within Zone 1 (see Figure F2).
 - (iv) Non-degraded and High Quality wetland is eligible for Preservation Credit within Zone 2 (see Figure F2).
 - (v) Wetland ranked “Low” for “vegetative integrity” is not eligible for replacement credit through Preservation.
 - (vi) Banked preservation credit may be used only within the Columbus CWPMP area (see Figure F1).
- (8) Replacement credit for Wetland Protection and Preservation (see Table F2) requires that a perpetual Conservation Easement be conveyed to and accepted by the District. The easement must encompass the entire replacement area, and must provide for preservation of the wetland’s functions by the fee owner and applicant. The applicant must provide a title insurance policy acceptable to the District, naming the District as the insured. The fee owner and the applicant also must grant an access easement in favor of the District, the local government unit and any other state, local or federal regulatory authority that has authorized use of credits from the mitigation site for wetland replacement. The fee owner must record or register these easements on the title for the affected property.

- (9) Replacement credit for Vegetative Restoration (see Table F2) may be granted only for wetland communities scoring “Low” for Vegetative Integrity. The TEP must find that there is a reasonable probability for restoration success.
 - (10) Unless a different standard is stated in the approved replacement or banking plan, the performance standard for upland and wetland restored or created to generate credit is establishment, by the end of the WCA monitoring period, of a medium or high quality plant community ranking with 80% vegetative coverage consisting of a native, non-invasive species composition.
 - (11) Notwithstanding any provision in this rule to the contrary, for wetland impacts resulting from public drainage system repairs undertaken by the Rice Creek Watershed District that are exempt from Clean Water Act Section 404 permit requirements but are not exempt from replacement under Section 6(c)(1) of this Rule, replacement may occur subject to the following priority of replacement site sequencing:
 - (i) Within bank service areas 6 or 7 or with the concurrence of governing board of the local county or watershed district, within any county or watershed district whose county water plan, watershed management plan, or other water resource implementation plan contains wetland restoration as a means of implementation.
 - (ii) Throughout the state in areas determined to possess less than 80% of pre-settlement wetland acres.
 - (12) A variance from a requirement of Section 6(c) otherwise meeting the criteria of District Rule L may be granted if the TEP concurs that the wetland protection afforded will not be less than that resulting from application of standard WCA criteria.
- (d) **WETLAND BANKING.**
- (1) Replacement requirements under Section 6(c) of this Rule may be satisfied in whole or part by replacement credits generated off-site within any CWPMP area, but not by credits generated outside of a CWPMP area except as provided in Section 6(d)(5).
 - (2) The deposit of replacement credits created within a CWPMP area for banking purposes and credit transactions for replacement will occur in accordance with Minnesota Rules 8420.0700 through 8420.0745. Credits generated within a CWPMP area may be used for replacement within or outside of a CWPMP area.
 - (i) The District will calculate the amount of credit in accordance with the standard terms of WCA. This measure of credit will appear in the BWSR wetland banking account.

- (ii) The District also will calculate the amount of credit in accordance with Section 6(c) of this rule. The District will record this measure of credit internally within the CWPMP's wetland bank accounting. The District will adjust this internal account if the BWSR account is later debited for replacement outside of a CWPMP area. Where credits are used for replacement within a CWPMP area, the District will convert credits used into standard WCA credits so that the BWSR account is accurately debited.
- (3) To be recognized, bank credit from Preservation in the Columbus CWPMP (see Table F2) must be matched by an equal amount of credit from a non-Preservation replacement action.
 - (i) Credit derived from Preservation as the replacement action may be used only within the Columbus CWPMP boundary.
 - (ii) If the matching non-Preservation credit is used outside of the Columbus CWPMP area, the Preservation credit within the Columbus CWPMP wetland bank account will be debited in the amount of the matching non-Preservation credit.
- (5) Banked wetland credit created outside of the CWPMP areas, but within the CWPMP Contributing Drainage Area, may be used to replace impact within the CWPMP areas. An applicant proposing to use credits under this paragraph must field verify at the time of application that the banked wetlands are located within the CWPMP Contributing Drainage Area.
- (6) Credits generated under an approved wetland banking plan, inside a CWPMP or its contributing drainage area (See Figure F4), utilized to replace impact within a CWPMP area will be recognized in accordance with the approved banking plan.
- (e) **VEGETATED BUFFERS.** Vegetated buffers are required to be established adjacent to wetlands within CWPMP areas as described below.
 - (1) Wetland buffer will consist of non-invasive vegetated land; that is not cultivated, cropped, pastured, mowed, fertilized, used as a location for depositing snow removed from roads, driveways or parking lots, subject to the placement of mulch or yard waste, or otherwise disturbed except for periodic cutting or burning that promotes the health of the buffer, actions to address disease or invasive species, or other actions to maintain or improve buffer or habitat area quality, each as approved in writing by District staff. The application must include a vegetation management plan for District approval. For public road authorities, the terms of this subsection will be modified as necessary to accommodate safety and maintenance feasibility needs.
 - (2) Buffer adjacent to wetland within the final WMC must average at least 50 feet in width, measure at least 25 feet at all points, and meet the average width at all points of concentrated inflow. For private projects dedicating

public right of way, the buffer requirement may be reduced based on compelling need and a TEP recommendation to the District in support that the wetland protection afforded is reasonable given the circumstances.

- (3) Buffer adjacent to wetland restored, created or preserved for replacement credit, not within the final WMC, must meet the minimum width standards as described in MN Rule 8420.0522, subpart 6.
- (4) Buffer adjacent to High Quality Wetland, or to replacement wetland adjacent to High Quality Wetland, must be at least 50 feet wide at all points. For private projects dedicating public right of way, the minimum width may be reduced based on compelling need and a District finding that the wetland protection afforded is reasonable given the circumstances. In making this finding, the District will give substantial weight to the TEP recommendation.
- (5) The area of buffer for which replacement credit is granted must not exceed the area of the replacement wetland except and specific to when the buffer is to meet the 50-foot requirement of Sections 6(e)(2) and 6(e)(4) and is further limited to the buffer area required to encapsulate another action eligible for credit.
- (6) Buffer receiving replacement credit as upland habitat area contiguous with the final WMC must be at least two acres in size.
- (7) No above- or below-ground structure or impervious surface may be placed within a buffer area permanently or temporarily, except as follows:

 - (i) A structure may extend or be suspended above the buffer if the impact of any supports within the buffer or habitat area is negligible, the design allows sufficient light to maintain the species shaded by the structure, and the structure does not otherwise interfere with the function afforded by the buffer.
 - (ii) A public utility, or a structure associated with a public utility, may be located within a buffer on a demonstration that there is no reasonable alternative that avoids or reduces the proposed buffer intrusion. The utility or structure shall minimize the area of permanent vegetative disturbance.
 - (iii) Buffer may enclose a linear surface for non-motorized travel no more than 10 feet in width. The linear surface must be at least 25 feet from the wetland edge. The area of the linear surface will not be eligible for replacement credit. For projects proposing non-motorized travel no more than 10 feet in width, the linear surface may be reduced to less than 25 feet from the wetland edge based on compelling need and a TEP recommendation to the District in support that the wetland protection afforded is reasonable given the circumstances.

- (iv) A stormwater features that is vegetated consistent with Section 6(e)(1), including NURP ponds, may be located within buffer and count toward buffer width on site-specific approval.
- (8) Buffer area is to be indicated by permanent, freestanding markers at the buffer edge, with a design and text approved by District staff in writing. A marker shall be placed at each lot line, with additional markers placed at an interval of no more than 200 feet and as necessary to define variation in a meandering boundary. If a District permit is sought for a subdivision, the monumentation requirement will apply to each lot of record to be created. On public land or right-of-way, the monumentation requirement may be satisfied by the use of markers flush to the ground, breakaway markers of durable material, or a vegetation maintenance plan approved by District staff in writing.
- (9) As a condition of permit issuance under this Rule, a property owner must file on the deed a declaration in a form approved by the District establishing a vegetated buffer area adjacent to the delineated wetland edge within the final WMC and other wetland buffers approved as part of a permit under this Rule. The declaration must state that on further subdivision of the property, each subdivided lot of record shall meet the monumentation requirement of Section 6(e)(8). On public land or right-of-way, in place of a recorded declaration, the public owner may execute a written maintenance agreement with the District. The agreement will state that if the land containing the buffer area is conveyed to a private party, the seller must file on the deed a declaration for maintenance in a form approved by the District.
- (10) Buffer may be disturbed to alter land contours or improve buffer function if the following criteria are met:

 - (i) An erosion control plan is submitted under which alterations are designed and conducted to expose the smallest amount of disturbed ground for the shortest time possible, fill or excavated material is not placed to create an unstable slope, mulches or similar materials are used for temporary soil coverage, and permanent vegetation is established as soon as possible after disturbance is completed.
 - (ii) Wooded buffer and native riparian canopy trees are left intact;
 - (iii) When disturbance is completed, sheet flow characteristics within the buffer are improved; average slope is not steeper than preexisting average slope or 5:1 (horizontal: vertical), whichever is less steep; preexisting slopes steeper than 5:1 containing dense native vegetation will not require regrading; the top 18 inches of the soil profile is not compacted, has a permeability at least equal to the permeability of the preexisting soil in an uncompacted state and has organic matter content of between five and 15 percent; and habitat diversity and riparian shading are maintained or improved. Any stormwater feature within the buffer will not have exterior slopes greater than 5:1.

- (iv) A re-vegetation plan is submitted specifying removal of invasive species and establishment of native vegetation suited to the location.
- (v) A recorded Declaration or, for a public entity, maintenance agreement is submitted stating that, for three years after the project site is stabilized, the property owner will correct erosion, maintain and replace vegetation, and remove invasive species to establish permanent native vegetation according to the re-vegetation plan.
- (vi) Disturbance is not likely to result in erosion, slope failure or a failure to establish vegetation due to existing or proposed slope, soil type, root structure or construction methods.

(11) Material may not be excavated from or placed in a buffer, except for temporary placement of fill or excavated material pursuant to duly-permitted work in the associated wetland, or pursuant to paragraph 6(e)(10) of this Rule.

(f) **EASEMENT.** The property owner must convey to the District and record or register, in a form acceptable to the District, a perpetual, assignable easement granting the District the authority to monitor, modify and maintain hydrologic and vegetative conditions within the WMC wetland and buffer adjacent to WMC wetland, including the authority to install and maintain structural elements within those areas and reasonable access to those areas to perform authorized activities. The WMC shall be identified and delineated as part of the recorded easement.

(g) **PARTIAL ABANDONMENT.** As a condition of permit issuance, the District may require a property owner to petition the District for partial abandonment of a public drainage system pursuant to Minnesota Statutes §103E.805. A partial abandonment under this Section may not diminish a benefited property owner's right to drainage without the owner's agreement.

7. **REQUIRED EXHIBITS.** The following exhibits must accompany a permit application for both WCA and non-WCA wetland alterations.

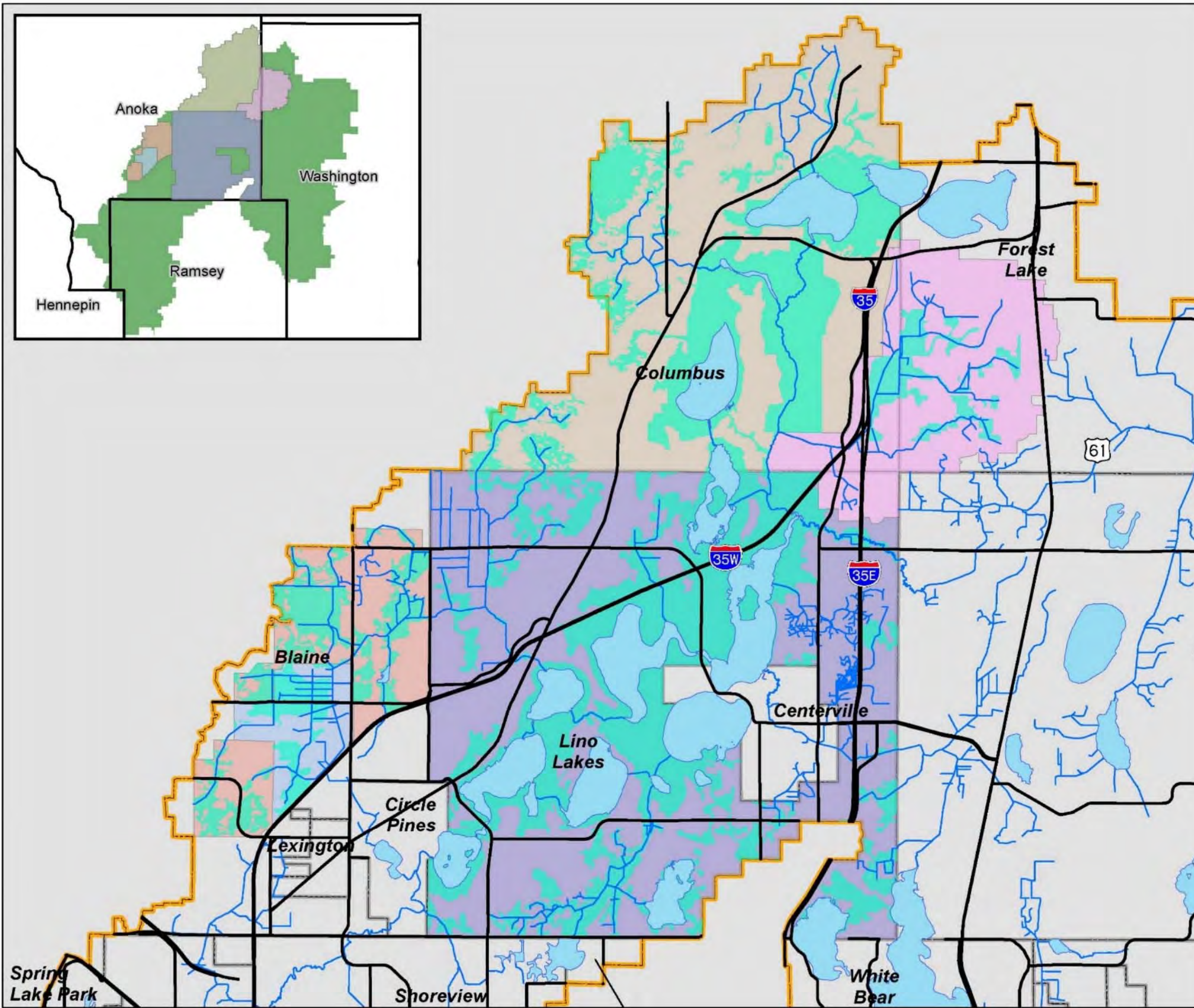
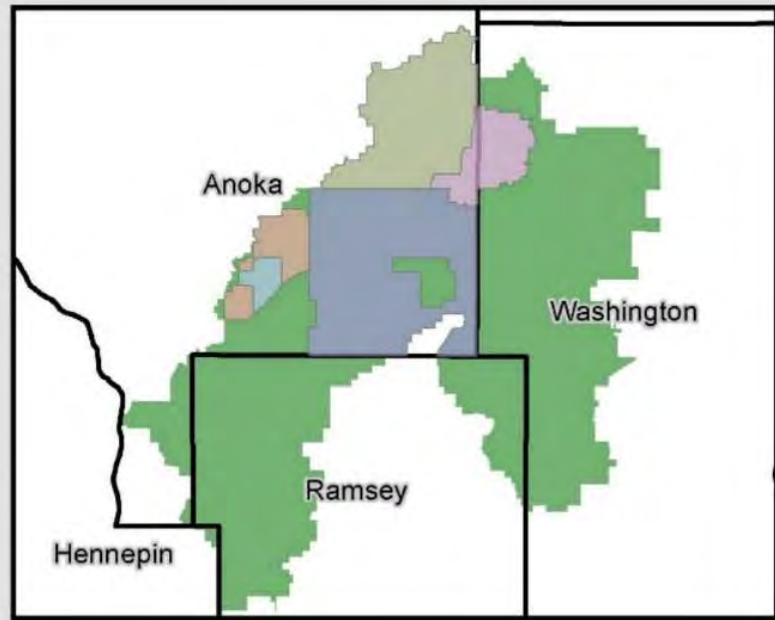
(a) **SITE PLAN.** An applicant must submit one full size (22 inches by 34 inches) and one reduced (maximum size of 11 inches by 17 inches) or electronic version of a site plan showing:

- (1) Property lines and delineation of lands under ownership of the applicant.
- (2) On-site location of all public and private ditch systems
- (3) Existing and proposed elevation contours, including the existing run out elevation and flow capacity of the wetland outlet, and spoil disposal areas.
- (4) Area of wetland to be filled, drained, excavated or otherwise altered.

- (b) **WETLAND DELINEATION REPORT.** An applicant must submit one hard copy and one electronic copy of a wetland delineation report conforming to a methodology authorized for WCA use and otherwise consistent with Minnesota Board of Water & Soil Resources guidance. The following requirements and clarifications apply to submittals of wetland delineation reports to the District and supplement the approved methodology and guidance:
- (1) Wetland delineations should be conducted and reviewed during the period of May 1 - October 15. The District may accept delineations performed outside this time frame on a case-by-case basis. The District will determine if there is sufficient information in the report and visible in the field at the time to assess the three wetland parameters (hydrophytic vegetation, hydric soils, hydrology) in relation to the placement of the wetland delineation line. If proper assessment of the delineation is not possible, the District may consider the application incomplete until appropriate field verification is possible.
 - (2) An applicant conducting short- or long-term wetland hydrology monitoring for the purpose of wetland delineation/determination must coordinate with the District prior to initiating the study.
 - (3) For a project site with row-cropped agricultural areas, the wetland delineation report must include a review of Farm Service Agency aerial slides (if available) for wetland signatures per Guidance for Offsite Hydrology/Wetland Determinations (July 1, 2016), as amended, and Section 404 Clean Water Act or subsequent State-approved guidance. This review is to be considered along with field data and other pertinent information, and is not necessarily the only or primary basis for a wetland determination in an agricultural row-cropped area.
 - (4) The wetland delineation report must follow current BWSR/ACOE Guidance for Submittal of Delineation Reports, and include:
 - (i) Documentation consistent with the 1987 Corps of Engineers Wetlands Delineation Manual and Northcentral and Northeast Regional Supplement.
 - (ii) National Wetland Inventory (NWI) map, Soil Survey Map, and Department of Natural Resources (DNR) Protected Waters Map of the area being delineated.
 - (iii) Results of a field investigation of all areas indicated as potential wetland by mapping sources including: NWI wetlands, hydric soil units, poorly drained or depressional areas on the Soil Survey Map, and DNR Protected Waters or Wetlands.
 - (iv) Classifications of each delineated wetland using the following systems:
 - Classification of Wetlands and Deep Water Habitats of the United States (Cowardin et al. 1979)
 - Fish and Wildlife Service Circular 39 (Shaw and Fredine 1971)
 - Wetland Plants and Plant Communities of Minnesota and Wisconsin (Eggers & Reed, 3rd Edition, 2011)

- (v) A survey map (standard land survey methods or DGPS) of delineated wetland boundaries.
- (5) As a condition of District approval of any wetland delineation, applicants shall submit X/Y coordinates (NAD 83 state plane south coordinate system) and a GIS shapefile of the delineated wetland boundaries. All data shall be collected with a Trimble Geoexplorer or equivalent instrument with sub-meter accuracy.
- (c) **WETLAND REPLACEMENT PLAN APPLICATION.** An applicant submitting a plan involving a wetland alteration requiring replacement must submit five copies of a replacement plan application and supporting materials conforming to WCA replacement plan application submittal requirements and including the following additional documents:
 - (1) Plan sheet(s) clearly identifying, delineating, and denoting the location and size of each wetland impact area and all replacement actions for credit.
 - (2) Plan sheet(s) with profile views and construction specifications of each replacement wetland including proposed/estimated normal water level, proposed/estimated boundary of replacement wetland, topsoiling specifications (if any), grading specifications, and wetland/buffer seeding specifications.
- (d) **FUNCTIONS AND VALUES ASSESSMENT.** An applicant must submit a before-and-after wetland functions and values assessment using a WCA-accepted methodology for a project in a CWPMP area or otherwise involving at least one acre of wetland impact requiring replacement.
- (e) Erosion and sediment control plan in accordance with District Rule D.
- (f) On District request, the applicant will conduct an assessment of protected plant or animal species within the project site, where such assessment is not available from existing sources.
- (g) Other project site-specific submittal requirements as may be required by the District.

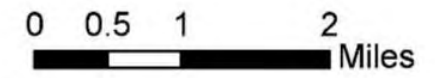
Rice Creek Watershed District



- Major Roads
- RCWD Watercourses
- Lakes
- Wetland Management Corridor
- Cities
- RCWD Legal Boundary
- Counties

CWPMPs

- Village Meadows
- Anoka County Ditch 53-62
- Anoka/Washington Judicial Ditch 4
- Lino Lakes CWPMP
- Columbus CWPMP

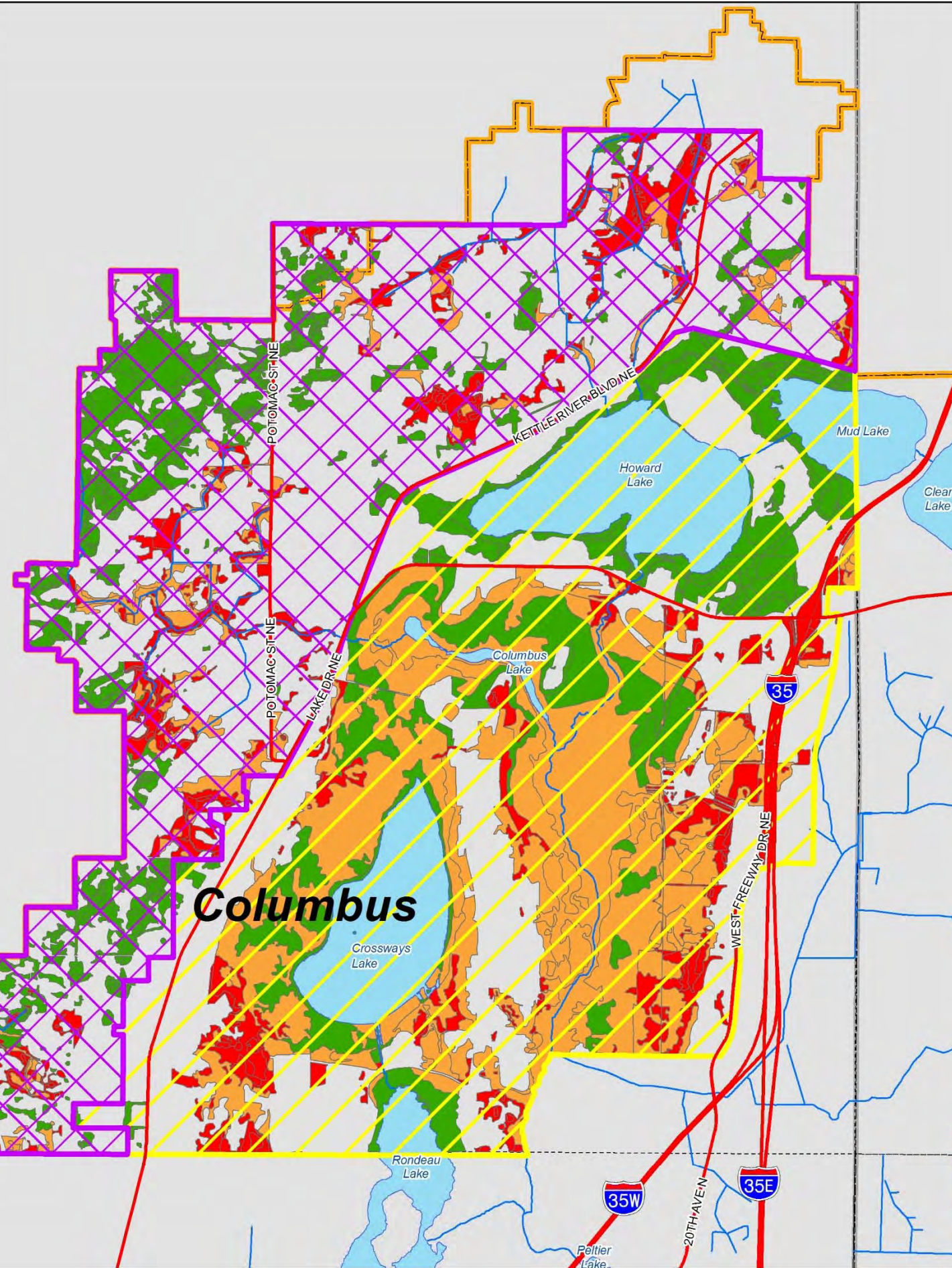
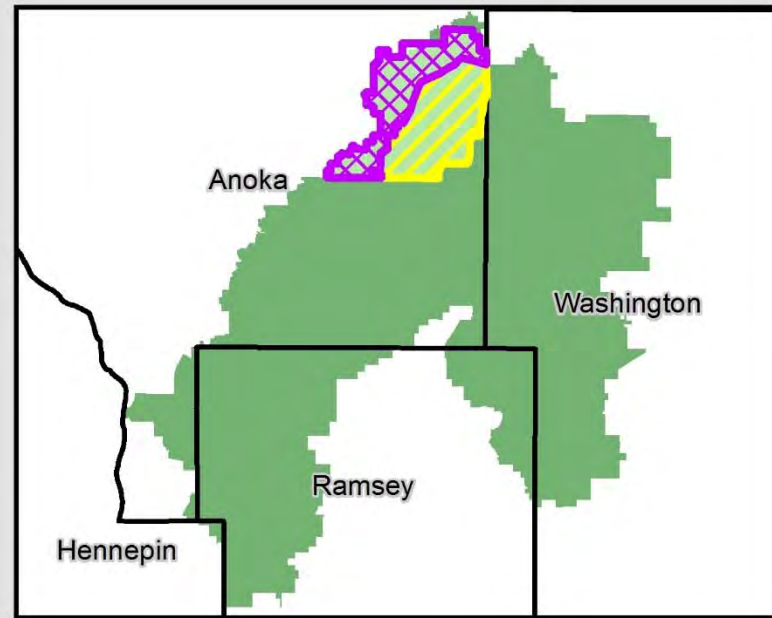
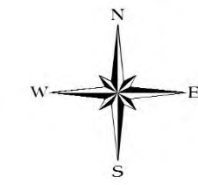


Sources: RCWD, TLG, MN DOT
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F1: Comprehensive Wetland Protection and Management Plan Boundaries and Wetland Management Corridor



Rice Creek Watershed District



- Transportation System
- RCWD Watercourses
- Lakes
- RCWD Legal Boundary
- Cities
- Counties
- WMC Adjustment Zones**
- Zone I
- Zone II
- Wetland Degredation Status**
- Non-Degraded
- Moderately
- Severely

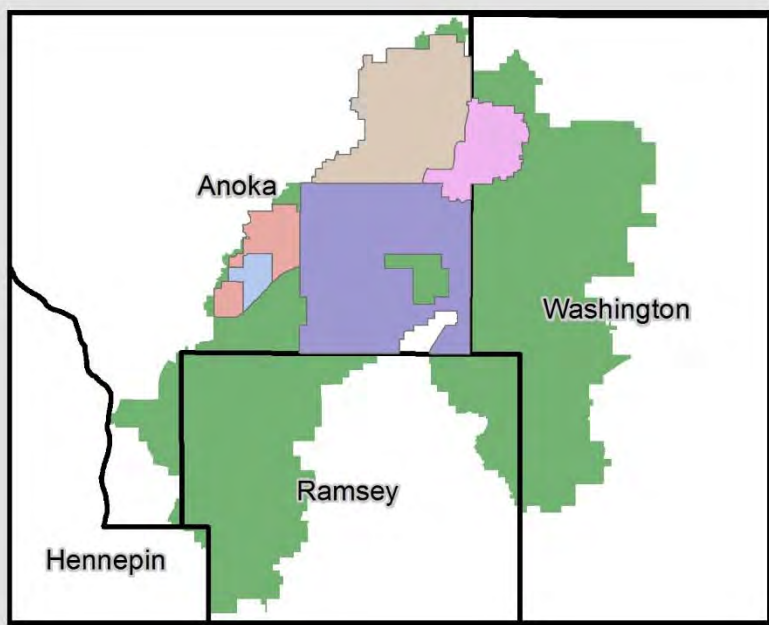
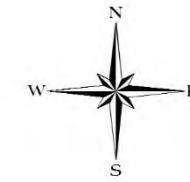
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Sources: RCWD, TLG, MN DOT

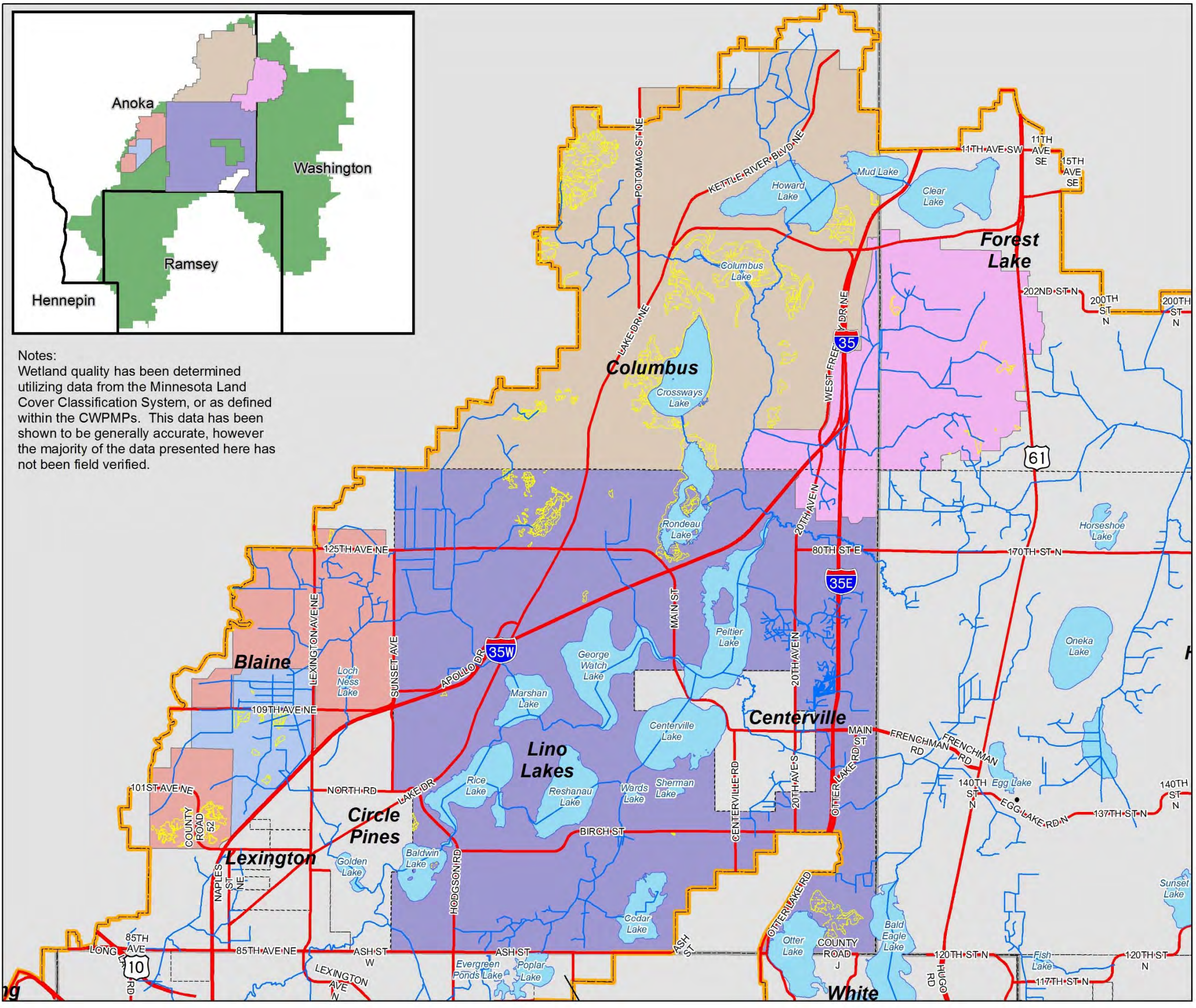
F2: Columbus Commerical/Industrial Zoned Areas and Wetland Degredation Status



Rice Creek Watershed District



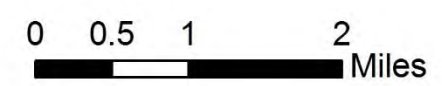
Notes:
Wetland quality has been determined utilizing data from the Minnesota Land Cover Classification System, or as defined within the CWPMPs. This data has been shown to be generally accurate, however the majority of the data presented here has not been field verified.



- RCWD Watercourses
- Lakes
- High Quality Wetland (see Notes)
- RCWD Legal Boundary
- Transportation System
- Cities
- Counties

CWPMPs

- Village Meadows
- Anoka County Ditch 53-62
- Anoka/Washington Judicial Ditch 4
- Lino Lakes CWPMP
- Columbus CWPMP

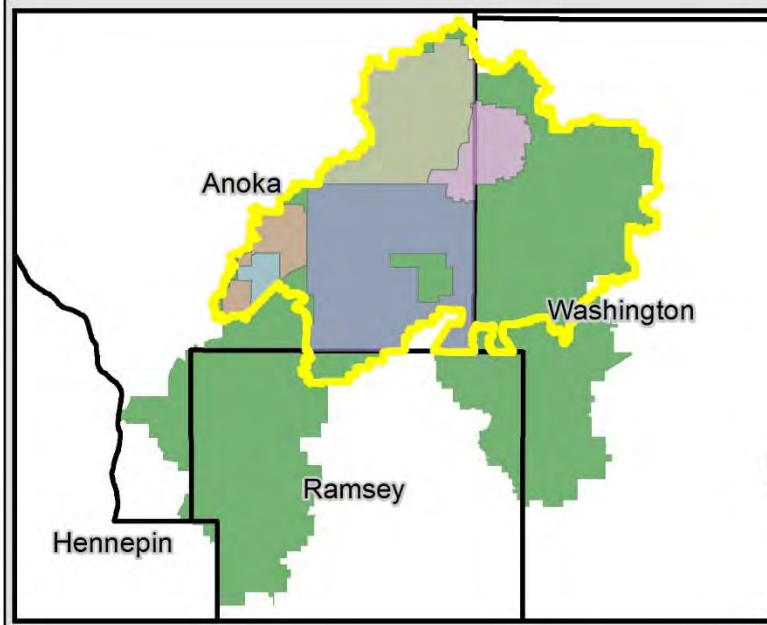
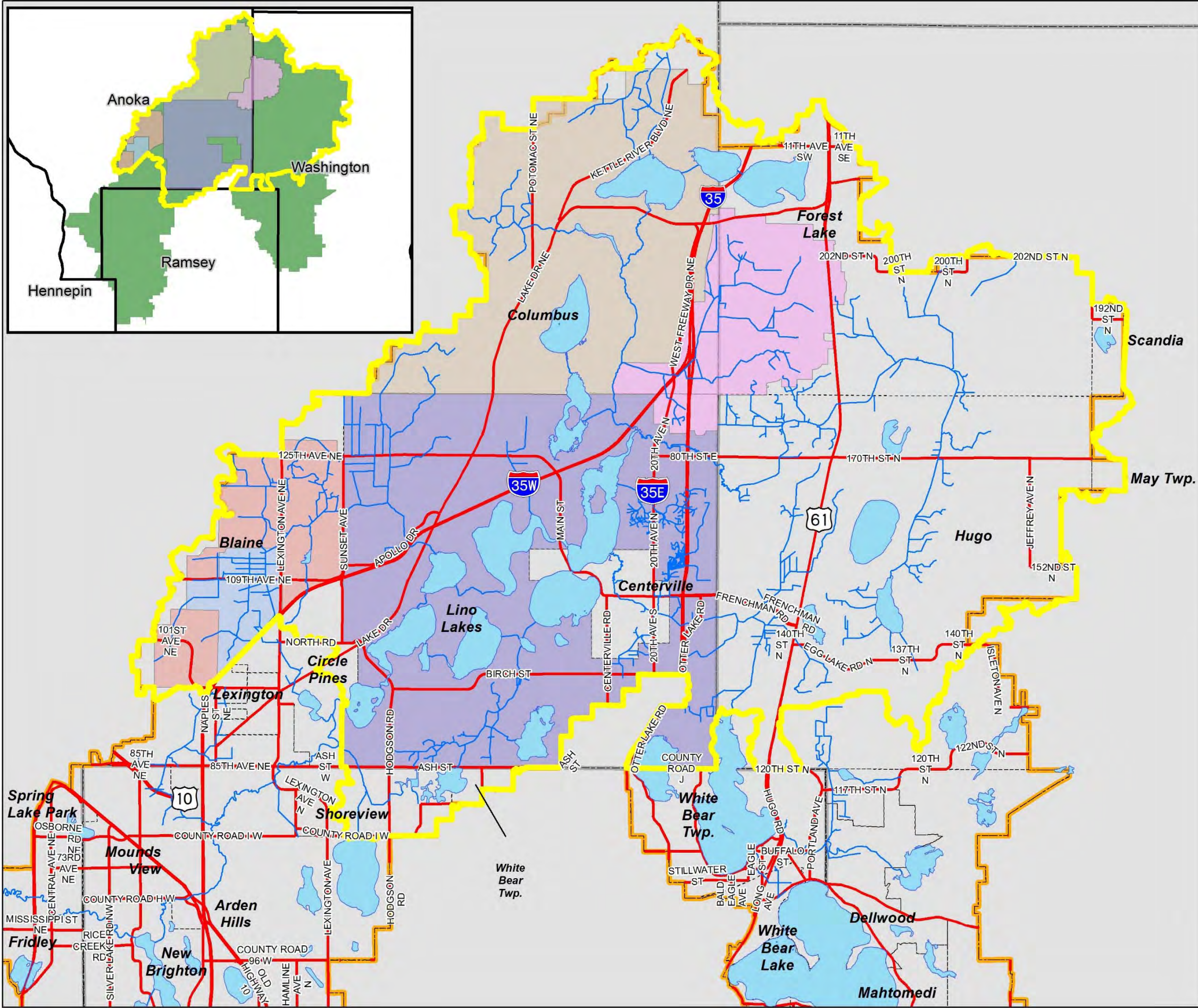
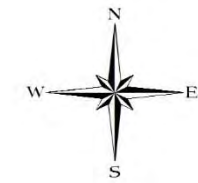


Sources: RCWD, TLG, MN DOT

F3: High Quality Wetlands Within CWPMPs



Rice Creek Watershed District



Contributing_Drainage_Area_to_CWPMP

- RCWD Watercourses
- Lakes
- RCWD Legal Boundary
- Transportation System
- Cities
- Counties

CWPMPs

- Village Meadows
- Anoka County Ditch 53-62
- Anoka/Washington Judicial Ditch 4
- Lino Lakes CWPMP
- Columbus CWPMP



Sources: RCWD, TLG, MN DOT

F4: Contributing Drainage Area to CWPMPs



RULE G: CROSSINGS OF NATURAL & ARTIFICIAL CONVEYANCE SYSTEMS

1. **POLICY.** It is the policy of the Board of Managers to preserve the capacity of the present drainage systems to accommodate future needs.
2. **REGULATION.** No person may construct, improve, repair or alter the hydraulic characteristics of a utility, bridge or culvert structure (i.e., crossing) on a creek, public drainage system or major watercourse in the District, without first obtaining a permit from the District.
3. **CRITERIA.** A permit application for a crossing of a public drainage system will not obligate the District, in its function as drainage authority, to investigate or hold proceedings to establish the As Constructed and Subsequently Improved Condition (ACSIC) of the drainage system. Permit issuance is not a warranty and the crossing owner will remain responsible should the crossing at any time be found to be an obstruction or subject to future modification or replacement under the drainage law. In addition, a crossing must:
 - (a) Preserve existing design hydraulic capacity or, if on a public drainage system, hydraulic capacity conforming to the drainage right of benefited lands consistent with existing drainage proceedings.
 - (b) Retain existing navigational capacity.
 - (c) Not adversely affect water quality.
 - (d) Be designed to allow for future erosion, scour, and sedimentation considerations.
 - (e) Be designed for maintenance access and be maintained in perpetuity to continue to meet the criteria of Section 3. The maintenance responsibility must be memorialized in a document executed by the property owner in a form acceptable to the District and filed for record on the deed. Alternatively, a public permittee may meet its perpetual maintenance obligation by executing a programmatic or project-specific maintenance agreement with the District.
4. **SUBSURFACE CROSSINGS.** A crossing beneath a creek, public drainage system or major watercourse must maintain adequate vertical separation from the bed of the watercourse. The District will determine adequate separation by reference to applicable guidance and in view of relevant considerations such as soil condition, the potential for upward migration of the utility, and the likelihood that the bed elevation may decrease due to natural processes or human activities. The District also will consider the feasibility of providing separation and the risks if cover diminishes. Nothing in this paragraph diminishes the crossing owner's warranty or responsibility under Section 3, above. The applicant must submit a record drawing of the installed utility.
5. **REQUIRED EXHIBITS.** The following exhibits must accompany the permit application. One set, full size (22 inches by 34 inches) and one reduced (maximum size of 11 inches by 17 inches) or electronic version.
 - (a) Construction details showing:
 - (1) Size and description of structure including existing and proposed flow line (invert) elevations.

- (2) Existing and proposed elevations of utility, bridge or culvert.
 - (3) End details with flared end sections or other appropriate energy dissipaters.
 - (4) Emergency overflow elevation and route.
- (b) Narrative describing construction methods and schedule
 - (c) Erosion and sediment control plan in accordance with District Rule D.
 - (d) Computations of watershed area, peak flow rates and elevations, and discussion of potential effects on water levels above and below the project site.
6. **EXCEPTION.** Criterion 3(a) may be waived if the applicant can demonstrate with supporting hydrologic calculations the need for an increase in discharge rate in order to provide for reasonable surface water management in the upstream area and that the downstream impacts of the increased discharge rate can be reasonably accommodated and will not exceed the existing rate at the municipal boundary.

RULE H: ILLICIT DISCHARGE AND CONNECTION

1. **POLICY.** It is the policy of the Board of Managers to:
 - (a) Regulate the contribution of pollutants to the District's Municipal Separate Storm Sewer System (MS4) by any user;
 - (b) Prohibit Illicit Connections and Discharges to the District's MS4;
 - (c) Carry out inspection and monitoring procedures necessary to ensure compliance with this Rule under statutory and related authority.
2. **PROHIBITION.** No person shall discharge or cause to be discharged into a public drainage system within the District any materials, including but not limited to pollutants or waters containing any pollutants that cause or contribute to a violation of applicable water quality standards, other than stormwater.
3. **EXCEPTIONS.** The commencement, conduct or continuance of any illegal discharge to the waters of the District is prohibited except as described as follows:
 - (a) The following discharges are exempt from discharge prohibitions established by this rule:
 - (1) Water line flushing or other potable water sources
 - (2) Landscape irrigation or lawn watering
 - (3) Diverted stream flows
 - (4) Rising ground water
 - (5) Ground water infiltration to storm drains
 - (6) Uncontaminated pumped ground water
 - (7) Foundation and footing drains
 - (8) Firefighting activities
 - (b) Discharges specified in writing by the District, or other federal, state or local agency as being necessary to protect the public health and safety.
 - (c) Dye testing is an allowable discharge, but requires a verbal notification to the District prior to the time of the test.
 - (d) The prohibition shall not apply to any non-storm water discharge permitted under an NPDES permit, waiver, or waste discharge order issued to the discharger and administered under the authority of the Federal Environmental Protection Agency, provided that the discharger is in full compliance with all requirements of the permit, waiver, or order and other applicable laws and regulations, and provided that written approval has been granted for any discharge to the storm drain system.
4. **ILLICIT CONNECTIONS PROHIBITED**
 - (a) The construction, use, maintenance or continued existence of illicit connections to the public drainage system is prohibited.
 - (b) This prohibition expressly includes, without limitation, illicit connections made in the past, regardless of whether the connection was permissible under law or practices applicable or prevailing at the time of connection.
 - (c) A person is considered to be in violation of this rule if the person connects a line conveying sewage to the public drainage system, or allows such a connection to continue.

RULE I: DRAINAGE SYSTEMS

1. **POLICY.** It is the policy of the Board of Managers to regulate new construction, improvement or repair of drainage systems (open and tiled) for the following purposes:
 - (a) To preserve the capacities of drainage systems to accommodate future needs.
 - (b) To improve water quality and prevent localized flooding.
 - (c) To prevent the loss of drainage.
2. **REGULATION.** No drainage system may be altered, constructed, improved or repaired without first obtaining a permit from the District. The permit is in addition to any formal procedures or District approvals that may be required under Minnesota Statutes Chapter 103E or other drainage law. The Board of Managers may waive the requirement of a permit under this rule for repair to a drainage system if the applicant proposes to repair a tiled system of less than fifty feet in length, and where such repair would not alter the invert of the system.
3. **CRITERIA.** A project proposing to alter, construct, improve or repair a drainage system must:
 - (a) Comply with orders or findings issued by the District or a previous Drainage Authority.
 - (b) Comply with all Federal, State and District wetland protection rules and regulations.
 - (c) Demonstrate that such activity will not adversely impact upstream and/or downstream water quality or quantity.
 - (d) Provide stable channel and outfall.
 - (e) Demonstrate concurrence with regional pond or subdivision drainage plans approved by the District, if applicable.
 - (f) Conform to District Rule F (Wetland Alteration), as applicable.
 - (g) If drainage system is proposed to outlet a landlocked basin, provide sufficient dead storage volume to retain back-to-back 100-year, 24-hour rainfalls and runoff.
 - (h) Be designed for maintenance access and be maintained in perpetuity to avoid constituting an obstruction and otherwise to continue to meet the criteria of Section 3. The maintenance responsibility must be memorialized in a document executed by the property owner in a form acceptable to the District and filed for record on the deed. Alternatively, a public permittee may meet its perpetual maintenance obligation by executing a programmatic or project-specific maintenance agreement with the District.
4. **REQUIRED EXHIBITS.** The following exhibits must accompany the permit application. One full size (22 inches by 34 inches) and one reduced (maximum size of 11 inches by 17 inches).
 - (a) Map showing location of project and tributary area.
 - (b) Existing and proposed cross sections and profile of affected area.
 - (c) Description of bridges or culverts required.
 - (d) Narrative and calculations describing wetland impacts and effects on water levels above and below the project site.
 - (e) Erosion and sediment control plan in accordance with District Rule D.
 - (f) Hydrologic and hydraulic analysis of the proposed project.

RULE J: APPROPRIATION OF PUBLIC WATERS

1. **POLICY.** It is the policy of the Board of Managers to regulate the appropriation of public waters as follows.
2. **REGULATION.** A permit from the District is required for the appropriation of water from:
 - (a) A public waterbasin or wetland that is less than 500 acres and is wholly within Hennepin or Ramsey County.
 - (b) A protected watercourse within Hennepin or Ramsey County that has a drainage area of less than 50 square miles.
3. **CRITERIA.** A permit applicant for appropriation of public waters as described above must complete and submit to the District an appropriation checklist. The appropriation checklist form may be obtained from the District office.

RULE K: ENFORCEMENT

1. **VIOLATION OF RULES IS A MISDEMEANOR.** Violation of these rules, a stipulation agreement made, or permit issued by the Board of Managers under these rules, is a misdemeanor subject to a penalty as provided by law.
2. **DISTRICT COURT ACTION.** The District may exercise all powers conferred upon it by Minnesota Statutes Chapter 103D in enforcing these rules, including criminal prosecution, injunction, or action to compel performance, restoration or abatement.
3. **ADMINISTRATIVE ORDER.** The District may issue a cease and desist or compliance order when it finds that a proposed or initiated project presents a serious threat of soil erosion, sedimentation, or an adverse effect upon water quality or quantity, or violates any rule or permit of the District.

RULE L: VARIANCES

1. **VARIANCES AUTHORIZED.** The Board of Managers may hear a request for variance from a literal provision of these rules where strict enforcement would cause undue hardship or practical difficulty because of circumstances unique to the property under consideration. The Board of Managers may grant a variance if an applicant demonstrates that such action will be in keeping with the spirit and intent of these rules and in doing so may impose conditions on the variance as necessary to find that it meets the standards of section 2, below. A variance request must be addressed to the Board of Managers as part of a permit application and must address each of the four criteria listed in the standard.
2. **STANDARD.** In order to grant a variance, the Board of Managers must determine that:
 - (a) Special conditions apply to the structures or lands under consideration that do not apply generally to other land or structures in the District.
 - (b) Because of the unique conditions of the property involved, undue hardship or practical difficulty to the applicant would result, as distinguished from mere inconvenience, if the strict letter of the rules were applied. Economic considerations alone do not constitute undue hardship or practical difficulty if any reasonable use of the property exists under the terms of the District's rules.
 - (c) The proposed activity for which the variance is sought will not adversely affect the public health, safety or welfare; will not create extraordinary public expense; and will not adversely affect water quality, water control or drainage in the District.
 - (d) The intent of the District's rules is met.
3. **PRACTICAL DIFFICULTY DEFINED.** In evaluating practical difficulty, the Board of Managers will consider the following factors:
 - (a) How substantial the variation is from the rule provision;
 - (b) The effect of the variance on government services;
 - (c) Whether the variance will substantially change the character of watershed resources or be a substantial detriment to neighboring properties;
 - (d) Whether the practical difficulty can be alleviated by a technically and economically feasible method other than a variance;
 - (e) How the practical difficulty occurred, including whether the landowner created the need for the variance; and
 - (f) In light of all of the above factors, whether allowing the variance will serve the interests of justice.
4. **TERM.** A variance expires on expiration of the CAPROC approval or permit associated with the variance request.
5. **VIOLATION.** A violation of any condition set forth in a variance is a violation of the District permit that it accompanies and automatically terminates the variance.

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9.0	APPROVAL STANDARDS
9.1	Drainage
9.2	Floodplain
9.3	Groundwater
9.4	Soils And Erosion Control
9.5	Stormwater
9.6	Water Quality
9.7	Wetlands
9.8	Wildlife

9.0 APPROVAL STANDARDS

All permit applicants must comply with the applicable standards set forth in this section:

9.1 DRAINAGE

Policy

It is the policy of the District to:

1. Maintain ditch and conveyance systems within the watershed to fulfill the role identified within the District's Comprehensive Management Plan and the drainage law.
2. Promote, preserve and enhance the water and related land resources of the Coon Creek Watershed.
3. Protect the water and related land resources of the Coon Creek Watershed from the adverse effects resulting from poor or incompatible land use activities.
4. Encourage compatibility between land use activities upstream and down stream.
5. Regulate land-disturbing activities affecting the course, current, cross section and quality of ditches and water courses.
6. Regulate improvements by riparian property owners of the bed, banks, and shores of lakes, streams, and wetlands for preservation and beneficial use.
7. Protect stream channels from degradation.
8. To regulate crossings of ditches and watercourses in the District to maintain channel profile stability and conveyance capacity.

Scope and Applicability

This policy, regulation and criteria apply to:

1. All public and private ditches within the Watershed District.

Regulation

This permit requirement is in addition to any procedures that may be required for public ditches under Minnesota Statutes 103E or other ditch law.

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No person shall commence a land disturbing activity in or adjacent to a ditch or conveyance without:

1. Submitting plans for work within and/or adjacent to public or private ditches, or water courses and
2. Obtaining a permit from the District.

No person shall construct, improve, repair or alter the hydraulic characteristics of a bridge profile control or culvert structure on a creek, public ditch or major watercourse in the District, without first obtaining a permit from the District.

Every person owning property through which a ditch or watercourse passes, or such person's lessee, shall keep and maintain that part of the ditch or watercourse within the property, free of trash, debris, excessive vegetation, and other obstacles that would pollute, contaminate, obstruct or significantly retard the flow of water, or access for maintenance or repair of the watercourse.

In addition, the owner or lessee shall maintain existing privately owned structures within or adjacent to a watercourse, so that such structures will not become a hazard to the use, function, or physical integrity of the watercourse.

The natural drainage system shall be used as far as is feasible for storage and flow of runoff. Stormwater drainage may be discharged to wetlands, retention basins or other treatment facilities. Temporary storage areas or retention basins scattered throughout developed areas shall be encouraged to reduce peak flow, erosion damage, and construction cost.

The widths of a constructed waterway shall be sufficiently large to adequately channel runoff from a ten (10) year storm. Adequacy shall be determined by the expected runoff when full development of the drainage area is reached.

No fences or structures shall be constructed across the waterway that will reduce or restrict the flow of water.

The banks of the waterway shall be protected with permanent vegetation.

The gradient of the waterway bed should not exceed a grade that will result in a velocity that will cause erosion of the banks of the waterway.

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The bed of the waterway should be protected with turf, sod, or rip-rap. If turf or sod will not function properly, rip-rap shall be used. Rip-rap, in conformity with engineering specifications, shall consist of MnDOT 3601 material Class A with filter blanket Type 1.

If the flow velocity in the waterway is such that erosion of the turn side wall will occur and said velocity cannot be decreased by velocity control structures, then rip-rap shall replace turf on the side walls.

Sediment Control of Waterways

To prevent sedimentation of waterways, pervious and impervious sediment traps and other sediment control structures shall be incorporated throughout the contributing watershed.

Temporary pervious sediment traps could consist of a construction of bales of hay, per plan requirements. Such structures would serve as temporary sediment control features during the construction stage of development. Development of housing and other structures shall be restricted from the area on either side of the waterway required to convey a one hundred (100) year storm.

Permanent impervious sediment control structures consist of sediment basins (debris basins, desilting basins, or silt traps) and shall be utilized to remove sediment from runoff prior to its disposal in any permanent body of water or stream.

Standards

1. Public ditches shall be inspected using the criteria in the District's Comprehensive Management Plan.
2. Prior to realignment or repair, alternative measures to conserve, allocate and use the water should be considered (versus removing it from the area and watershed.)
3. The need for repair of the ditch shall be determined.

A permit application for construction, improvement or repair of a public or private drainage system in the District must:

1. Identify all public drainage ditches on the site, including ditch number and year of establishment;
2. Identify the acres of agricultural land directly affected by the ditch.
3. Identify the trend in land use for the affected drainage area.

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4. Determine the drainage needs and flooding characteristics for land upstream and downstream.
5. Determine the primary role of the ditch in providing for agricultural drainage and/or stormwater conveyance.
6. Provide the approved/as-built elevations and grades of the public ditch through the subject property.
7. Demonstrate that such proposed activity will not adversely impact down stream water quality or quantity.
8. Provide stable channel and outfall.
9. Comply with all federal, state and District wetland protection rules and regulations.
10. Demonstrate concurrence with regional pond or subdivision drainage plans approved by the District, if applicable.

11. If a drainage system is proposed to outlet a landlocked basin, provide sufficient dead storage volume to retain back-to-back 100-year, twenty-four- hour rainfalls and runoff.

Bridge and Culvert Crossings. Crossings must:

1. Provide equivalent hydraulic capacity as existing condition.
2. Retain existing navigational capacity.
3. Not adversely affect water quality.
4. Represent the minimal impact solution to a specific need with respect to all other alternatives.
5. Be constructed to allow for future erosion, scour and sedimentation considerations.

Exhibits

The applicant must submit with its permit application the following.

For construction, improvement or repair of a public or private drainage system:

1. Map showing section of the ditch to be maintained.
2. Depth, in feet, proposed to be dredged.
3. Plan for placement of dredge material
4. Plan for final vegetative cover of dredge. Evidence that the affected property owners have been contacted and will allow access for maintenance purposes.

For construction or installation of crossings:

1. Construction details showing:
 - (1) Existing and proposed flow line (invert) elevations.
 - (2) End details with flared end sections, wingwalls and/or riprap (energy dissipators).
 - (3) Size and description of structure.

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- (4) Emergency overflow elevation and route.
2. Construction schedule.
3. Narrative describing construction methods.
4. An erosion control plan that complies with these rules.
5. Computations of watershed area, peak flow rates and elevations, and discussion of potential effects on water levels above and below the project area.

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9.2 FLOODPLAIN

Policy

It is the policy of the District to

1. To secure safety from floods.
2. To prevent loss of life, property damage, and the losses and risks associated with flood conditions.
3. To preserve the location, character, and extent of natural drainage courses.
4. To preserve the natural integrity of drainage patterns
5. To provide a storm and surface water system capable of handling a 100 year storm.

Scope and Applicability

This policy, regulation and standards apply to:

1. The channel and channel bed and the lands and waters adjoining a wetland, lake or water course that has been, or hereafter may be covered by the 100 year flood.
2. All lands transitional between upland and lowland that are inundated or saturated by surface water or groundwater during the 100 year flood.

Regulation

No person shall alter or fill below the 100-year critical flood elevation of any waters, wetlands, and ditch or conveyance system within the Watershed, without first obtaining a permit from the District.

Proposed projects that affect the conveyance capacity of channels or crossings shall document that equivalent hydraulic capacity is provided. When hydraulic equivalents are not desired or feasible for the proposed project, the District will review hydraulic information prepared by the sponsor which details easement acquisition or permission for increased flood levels (upstream or downstream of the project) emergency overflow elevations, and assessment of the adequacy of the outlet as generally described in M.S. 103E

Standards

1. The existence of floodplain on the property must be determined.
2. Proposed floodplain impacts must be identified and quantified
 - a. Such encroachment cannot lie within the floodway and can not result in a violation of State or District floodplain, shoreland or wetland policies.
 - b. Construction or development subject to flood damage will have a minimum floor elevation of at least 1 foot above the 100-year flood profile.
 - c. Any structures, facilities, or embankments within the floodplain shall be capable of passing the 100-year flood

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without increasing the elevation of the 100-year flood profile or creating excessive velocities as determined by the District.

3. The floodplain storage volume after encroachment is equal to or greater than the floodplain storage volume prior to encroachment within the relevant reach (Compensatory storage must be provided).

Exhibits

The applicant must submit with its permit application the following:

1. Site plan showing boundary lines, delineation and existing elevation contours of the work area, ordinary high water level, and 100-year critical flood elevation. All elevations shall be referenced to NAVD (1988 datum)
2. Grading plan showing any proposed elevation changes
3. Preliminary plat of any proposed subdivision
4. Determination by a registered professional engineer of the 100-year critical flood elevation before and after the proposed activity.
5. Computation of the change in flood storage capacity as a result of the proposed alteration or fill
6. Erosion and sediment control plan which complies with these Rules
7. Soil boring logs and report if available

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9.3 GROUNDWATER

Policy

It is the policy of the District to

1. To implement the purpose and intent of the water quality provisions of the District's Comprehensive Management Plan as they may relate to ground water.
2. To maintain the present and natural rate of recharge to the surficial aquifer, and when possible, enhance the rate of recharge.
3. To ensure a dependable water supply and ensure the integrity of natural drainage patterns.
4. To protect fresh water supplies from the dangers of drought, overdraft, pollution, or mismanagement.
5. To define the roles and responsibilities of governmental units in implementing land use controls for the protection of groundwater quality
6. To prevent property damage, and the losses and risks associated with flood conditions that may arise from high water tables.

Scope and Applicability

This policy, regulation and standards apply to:

1. All wetlands
2. All high water table outwash and organic soils
3. All high infiltration soils
4. All appropriation of groundwater

Regulation

A person must submit a permit application and obtain a permit from the District for appropriation or disposal of groundwater.

The withdrawal of ground and surface water and the location of the place of discharge thereof shall conform to the standards of the Minnesota Pollution Control Agency and the Department of Natural Resources

Consider alternative measures to conserve, allocate and use ground water, versus removing the water from the area and watershed.

Demonstrate that at a minimum, recharge from the one inch storm from impervious surfaces will be infiltrated.

Infiltration shall not be allowed within a one year travel zone of a public well as determined by the municipal well-head protection plan

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Standards

An applicant must demonstrate compliance with the following standards:

1. The quality of water infiltrated to the water table or surficial aquifer shall remain unchanged or improved by the land disturbance activity.
2. Low floors must be at least 2 feet above high water table elevation or mottled soils, whichever is higher, unless the applicant can show that the potential for property damage, and the losses and risks associated with high water table conditions are nonexistent or acceptably remote or as required by local ordinance
3. Ground water may not be discharged in a manner that causes erosion or flooding of the site or receiving channels or a wetland.
4. Water pumped from a project site shall be treated by temporary sedimentation basins, grit chambers, sand filters or other appropriate controls designed and used to remove particles of 100 microns or greater for the highest pumping rate.
5. The withdrawal from the Surficial Aquifer and the location of the place of discharge thereof shall conform to the standards of the Minnesota Pollution Control Agency and the Department of Natural Resources.

Exhibits

The applicant must submit with its permit application the following:

1. A grading plan showing final grades and low floor elevation of any structures proposed for the site
2. The infiltration rates and the dewatering site and place of discharge
3. The location, rate, and place of discharge
4. A geotechnical report that addresses the availability and depth to ground water and soil mottling.

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9.4 SOILS AND EROSION CONTROL

Policy

It is the policy of the District to:

1. To reduce the siltation into, and the pollution of water bodies and streams.
2. To guide, regulate and control the design, construction, use and maintenance of development to promote water quality and prevent pollution.
3. To control and minimize pollution caused by erosion and sedimentation.
4. To reduce siltation to, and the pollution of, water bodies and streams.

Scope and Applicability

This policy, regulation and standards apply to:

1. Land disturbing activities on lands within the Coon Creek Watershed District of 1 acre or more of cumulative disturbance.
2. Land disturbing activities within 100 feet of 3rd, 4th or 5th order streams, lakes, or type 3, 4, 5 wetlands
3. Land disturbing activities within 50 feet of 1st and 2nd order streams, or type 1, 2, 6 or 7 wetlands
4. Those land disturbing activities involving excavation or filling or a combination of excavation and filling of dirt, sand or other excavation or fill material including the laying, repairing, replacing or enlarging of an underground pipe or facility where it crosses a public ditch or waters of the state.

Regulation

A person must submit a permit application and obtain a permit from the District incorporating an erosion control plan before commencing an activity described in the scope and applicability section above.

Sediment Control of Waterways

1. To prevent sedimentation of waterways, pervious and impervious sediment traps and other sediment, control structures shall be incorporated throughout the contributing watershed.
2. Temporary pervious sediment traps could consist of a construction of bales of hay, per plan requirements. Such structures would serve as temporary sediment control features during the construction stage of development. Development of housing and other structures shall be restricted from the area on either side of the waterway required to convey a one hundred (100) year storm.

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3. Permanent impervious sediment control structures consist of sediment basins (debris basins, desilting basins, or silt traps) and shall be utilized to remove sediment from runoff prior to its disposal in any permanent body of water or stream.

Soils Information: If a stormwater management control measure depends on the hydrologic properties of soils (e.g., infiltration basins), then a soils report shall be submitted. The soils report shall be based on on-site boring logs or soil pit profiles. The number and location of required soil borings or soil pits shall be determined based on what is needed to determine the suitability and distribution of soil types present at the location of the control measure.

Exceptions

The following land-disturbing activities are excepted from the above requirements:

1. Any emergency activity that is immediately necessary for the protection of life, property, or natural resources
2. Existing nursery or agricultural operations conducted as a permitted main or accessory use.

Standards

An applicant for an erosion and sediment control permit must demonstrate compliance with the following standards:

1. The Soils affected by the proposal must be identified
2. Soils with a soil-erodibility factor of 0.15 or greater need special attention through the use of best management practices
3. Disturbed areas must be stabilized with vegetation within 14 days.
4. Adjacent properties must be protected from sediment deposition.
5. Sedimentation, skimming, and nutrient removal are to be provided to the maximum extent practical for stormwater runoff prior to discharge to waters of the District. It is understood that there are occasions when it may be necessary to use a portion of a protected basin to serve as a sediment trap and to provide skimming facilities.
6. Plans and specifications must conform to the provisions of all pertinent Minnesota Pollution Control Agency Manuals
7. All erosion and sediment controls proposed for compliance must be in place before any land-disturbing activity begins.
8. Any area of land from which the natural vegetative cover has been either partially or wholly cleared or removed by development activities shall be revegetated within 14 days from the substantial completion of such clearing and

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construction. The following criteria shall apply to revegetation efforts:

- a) Reseeding must be done with an annual or perennial cover crop accompanied by placement of straw mulch or its equivalent of sufficient coverage to control erosion until such time as the cover crop is established over ninety percent (90%) of the seeded area.
- b) Replanting with native woody and herbaceous vegetation must be accompanied by placement of straw mulch or its equivalent of sufficient coverage to control erosion until the plantings are established and are capable of controlling erosion.
- c) Any area of revegetation must exhibit survival of a minimum of seventy-five percent (75%) of the cover crop throughout the year immediately following revegetation. Revegetation must be repeated in successive years until the minimum seventy-five percent (75%) survival for one (1) year is achieved.

Exhibits

The applicant must submit with its permit application the following:

1. A natural resource map identifying soils, forest cover, and resources protected under other provisions of this rule, city rule or state statute
2. A sequence or construction of the development site, including; clearing and grubbing, rough grading, construction of utilities, infrastructure, and buildings; and final grading and landscaping. Sequencing shall identify the expected date on which clearing will begin and the duration of exposure of cleared areas, areas of clearing, installation of temporary erosion and sediment control measures, and establishment of permanent vegetation.
3. All erosion and sediment control measures necessary to meet the objectives of this local regulation throughout all phases of construction and after completion of development of the site. Depending upon the complexity of the project, the drafting and implementation of intermediate plans may be required at the close of each season.
4. Seeding mixtures and rates, types of sod, method of seed bed preparation, expected seeding dates, type and rate of fertilizer application, and kind and quantity of mulching for both temporary and permanent vegetative control measures
5. Provisions for maintenance of control facilities, including easements and estimates of the cost of maintenance.

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6. Explanation of how the site will be stabilized after construction, but who will be responsible for the maintenance of vegetation at the site and what practices will be employed to ensure that adequate vegetative cover is preserved.

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9.5 STORMWATER

Policy

It is the policy of the District to

1. To promote, preserve and enhance the water and related land resources of the Coon Creek Watershed.
2. To implement the nondegradation requirements of the NPDES program using 1988 as the baseline year and load allocation reductions or management practices noted in a District adopted Total Maximum Daily Loads (TMDLs) implementation plan
3. To protect water and related land resources of the Coon Creek Watershed from the adverse effects resulting from poor or incompatible land use activities.
4. To implement applicable TMDLs
5. To encourage compatibility between land use activities upstream and down stream and natural resource capacity.
6. To regulate land-disturbing activities affecting the course, current or cross section of ditches and water courses.
7. Regulate improvements by riparian property owners of the bed, banks, and shores of lakes, streams, and wetlands for preservation and beneficial use.

Scope and Applicability

This policy, regulation and standards apply to:

1. Land disturbing activities of 1 acre or greater of cumulative impact
2. Work adjacent to lakes or wetlands,
3. Activities upstream from land that is dependent upon removal of water from the soil profile for their continued use (Drainage Sensitive Land Uses)

Regulation

A person must submit a permit application and obtain a permit from the District incorporating a stormwater plan before commencing an activity described in the scope and applicability section above.

Unless determined by the District to be exempt or granted a waiver, the following shall be addressed for stormwater management at all sites:

1. All site designs shall establish stormwater management practices to control the peak flow rates of stormwater discharge associated with the 1, 10, 25, and 100 year design storms and reduce the generation of stormwater.
2. All stormwater management practices will be designed so that the specific storm frequency storage volumes (e.g. recharge, water quality, channel protection, 10 year and 100 year) as identified in the current Minnesota Pollution Control Agency

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Stormwater Design Manual are met, unless the District grants the applicant a waiver or the applicant is exempt from such requirements.

3. Stormwater volume management practices shall be the equivalent of infiltrating the first inch of precipitation
4. These practices should seek to utilize pervious areas for stormwater treatment and to infiltrate stormwater runoff from driveways, sidewalks, rooftops, parking lots and landscaped areas to the maximum extent practical to provide treatment for both water quantity and quality.
5. In addition, if regulatory, hydrologic, topographic or landscape conditions (e.g. drainage sensitive uses, TMDL or nondegradation requirements) warrant greater control than that provided by the minimum control requirements, the District reserves the right to impose additional requirements deemed necessary to control the volume, timing and rate of runoff.
6. Applicants shall consult the Minnesota Pollution Control Agency Stormwater Design Manual for guidance on the factors that determine site design feasibility when selecting a stormwater management practice. Stormwater management practices for a site shall be chosen based on the physical conditions of the site. Among the factors that should be considered:
 - Topography
 - Maximum Drainage Area
 - Depth to Water Table
 - Soils
 - Slopes
 - Terrain
 - Head
 - Location in relation to environmentally sensitive features or urban areas.

Standards

1. Stormwater leaving the site must be routed to a public drainage system
2. Drainage sensitive uses downstream from the proposed site must be accounted for and their ability to discharge in a timely manner must be assured.
3. Stormwater plans must ensure that discharge rates from the proposal are controlled such that within Drainage-Sensitive Uses Areas the post-development 100-year peak flow rate shall not exceed predevelopment 25-year peak flow rate (by subwatershed)

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4. In Non-Drainage Sensitive Uses Areas the post-development 100-year peak flow rate shall not exceed predevelopment 100-year peak flow rate (by subwatershed)
5. The proposal must infiltrate the first one inch of precipitation

Exhibits

The applicant must submit with its permit application the following:

1. Topographic Base Map: A 1" = 200' topographic base map of the site which extends a minimum of 50 feet beyond the limits of the proposed development and indicates existing surface water drainage including streams, ponds, culverts, ditches, and wetlands; current land use including all existing structures; locations of utilities, roads, and easements; and significant natural and manmade features not otherwise shown.
2. Calculations: Hydrologic and hydraulic design calculations for the pre-development and post-development conditions for the design storms specified in this rule. Such calculations shall include
 - a. Description of the design storm frequency, intensity and duration,
 - b. Time of concentration,
 - c. Soil Curve Numbers or runoff coefficients,
 - d. Peak runoff rates and total runoff volumes for each watershed area,
 - e. Infiltration rates determined by site flooding or double ring infiltrometer, where applicable,
 - f. Culvert capacities,
 - g. Flow velocities,
 - h. Data on the increase in rate and volume of runoff for the design storms referenced in the Stormwater Design Manual,
 - i. Documentation of sources for all computation methods and field test results.
3. Soils Information: If a stormwater management control measure depends on the hydrologic properties of soils (e.g., infiltration basins), then a soils report shall be submitted. The soils report shall be based on on-site boring logs or soil pit profiles. The number and location of required soil borings or soil pits shall be determined based on what is needed to determine the suitability and distribution of soil types present at the location of the control measure.
4. Maintenance Plan: The design and planning of all stormwater management facilities shall include detailed maintenance and repair plan as described in section 13 of these rules.

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5. Landscaping plan: The applicant must present a detailed plan for management of vegetation at the site after construction is finished as described in section 13.2 of these rules
6. Maintenance Easements: The applicant must ensure access to all stormwater treatment practices at the site for the purpose of inspection and repair by securing all the maintenance easements needed on a permanent basis. These easements will be recorded with the plan and will remain in effect even with transfer of title to the property.
7. Erosion and Sediment Control Plans for Construction of Stormwater Management Measures: The applicant must prepare an erosion and sediment control plan for all construction activities related to implementing any on-site stormwater management practices.

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9.6 WATER QUALITY

Policy

It is the policy of the District to

1. To control and minimize pollution caused by erosion and sedimentation.
2. To reduce siltation to, and the pollution of water bodies and streams.
3. To preserve and improve the quality of the lakes and wetlands within the watershed
4. Improve the quality of the surface and subsurface discharges to the lakes and wetlands within the watershed by limiting nutrients and other contaminants
5. To pursue non-degradation of the waters of the District

Scope and Applicability

This policy, regulation and standards apply to:

1. Land disturbing activities of 1 acre or more of cumulative disturbance. Projects containing greater than or equal to 1 acre of impervious surface shall contain storm-water detention, erosion and sediment control and pollution prevention BMPs.
2. Work adjacent to or discharging into wetlands, lakes or water courses

Regulation

A person must submit a permit application and obtain a permit from the District incorporating a stormwater plan before commencing an activity described in the scope and applicability section above.

Unless determined by the District to be exempt or granted a waiver, the following shall be addressed for water quality management at all sites:

All discharges into wetlands and waterbodies must be pretreated by an appropriate best management practice.

Waterbody	Hydrology	BMP
1 st 2 nd order stream		Sedimentation basin or equivalent designed for 0.5 inch
Type 1,2 6,7 wetland	Temporarily flooded Saturated Seasonally flooded or saturated	
3 rd , 4 th 5 th order stream		NURP/Walker/Wet Pond or equivalent sized for 2.5 inch rainfall
Type 3,4,5 wetland or Lake	Permanently flooded Artificially flooded	

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The proposal shall not cause extreme fluctuations of water levels or temperature changes in wetlands or streams.

The proposal shall not detrimentally affect the existing water quality of the receiving water.

All stormwater management practices shall be designed to convey stormwater to allow for the maximum removal of pollutants and reduction of flow velocities. These shall include, but not be limited to:

- a. Maximizing of flowpaths, where appropriate, from inflow points to outflow points
- b. Protection of inlet and outfall structures
- c. Elimination of erosive flow velocities
- d. Providing of underdrain systems, where applicable

For new development, structural stormwater treatment practices shall be designed to remove **80%** of the average annual post development total suspended solids (TSS) unless otherwise specified by a TMDL or nondegradation requirement.

All stormwater treatment practices shall have an acceptable form of water quality pretreatment, in accordance with the pretreatment requirements found in the current stormwater design manual.

All stormwater runoff generated from new development shall not discharge untreated stormwater directly into jurisdictional wetlands or local water bodies without adequate treatment. Where such discharges are proposed, the impact proposed on wetland function shall be assessed using a method acceptable to the District. In no case shall the impact on wetland function or value be allowed to degrade the current function as identified in the District's Comprehensive Water Management Plan.

Stormwater discharges to critical areas with sensitive resources or where a TMDL is in place may be subject to additional performance standards, or may need to utilize or restrict certain stormwater management practices.

Stormwater discharges from land uses or activities with higher potential pollutant loadings, may require the use of specific structural STPs and pollution prevention practices.

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Standards

It is presumed that a Stormwater Treatment Practices (STP) complies with this performance standard if it is:

1. Sized to capture the prescribed water quality volume
2. Designed in accordance with specific design standards outline in an approved stormwater design manual
3. Constructed properly
4. Maintained properly

Exhibits

The applicant must submit with its permit application the exhibits for 9.5 Stormwater

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9.7 WETLANDS

Policy

It is the policy of the District to

1. To provide for the protection, preservation, proper maintenance and use of wetlands.
2. To minimize the disturbance to wetlands and to prevent damage from excessive sedimentation, eutrophication or pollution.
3. To protect and enhance the ecological function of wetlands and the benefits and values they provide to society

Scope and Applicability

This policy, regulation and standards apply to:

All lands transitional between upland and lowland that is inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support a prevalence of vegetation typically adapted for life in saturated soil conditions, commonly known as hydrophytic vegetation

Regulation

Any person proposing to impact wetland by draining, filling, or excavating must submit a permit application and obtain a permit from the District.

Stormwater drainage may be discharged to wetlands provided appropriate pretreatment of said discharge accomplished. Diversion of stormwater to wetlands shall be considered for existing or planned surface drainage provided such diversion is in compliance with state law and all necessary easements have been obtained. Wetlands used for stormwater shall provide for natural or artificial water level control.

Standards

The Minnesota Wetland Conservation Act (WCA), as amended, and its implementing rules contained in Minnesota Rules chapter 8420, as amended, are incorporated as part of this rule and govern all draining, filling and excavating in wetlands.

Any person proposing to impact a wetland in the District is subject to and must establish compliance with the Wetland Conservation Act, as amended, standards and criteria, including but not limited to sequencing and replacement.

Within area(s) delineated as wetland, the applicant and property owner shall not:

1. Fill or place materials, substances or other objects, nor erect or construct any type of structure, temporary or

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- permanent, except as specified in the Wetland Conservation Act..
2. Drain or cause to be drained through ditching pumping or alteration of the wetlands water source or actions which adversely change the wetlands hydroperiod such that the wetland can become nonwetland, except as specified in the Wetland Conservation Act..
 3. Excavate or dig except as specified in the Wetland Conservation Act..
 4. Clear vegetation, pond water or alter the landscape position in a manner that results in adverse environmental impact

Discharges into wetlands should not cause extreme fluctuations of water levels. Discharges that exceed the standards below shall be considered and regulated as adverse impact

Wetland Type	-Sedge Meadows -Type 8 -Seasonally Flooded Basins	Scrub-Shrub Wet-Meadows Type 4 &5	-Floodplain forests Type 4 &5	Cultivated hydric soil Sand/gravel pit
Standard				
Storm Bounce	Existing	Existing + 0.5 ft	Existing + 1 ft	No limit
Discharge Rate	Existing	Existing	Existing or less	Existing or less
Inundation on 1-2yr event	Existing	Existing + 1 day	Existing + 2 days	Existing + 7 days
Inundation for 10 yr event	Existing	Existing + 7 days	Existing + 14 days	Existing + 21 days
Run out control	No change	No change	0'-1 ft above RO	0-4 ft above RO

RO= Run Out

Exhibits

The applicant must submit with its permit application the following:

1. A site plan showing property lines and delineation of lands in which the applicant has an ownership or legal interest; existing and proposed elevation contours, including existing runout elevation and flow capacity of the wetland outlet; and area of the wetland proposed to be filled, drained, or excavated

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2. A complete delineation of all existing wetland(s), including data sheets with complete and detailed information on field indicators (soils, vegetation and hydrology) and summary report. Wetland delineations must be performed during the normal growing season for this part of Minnesota. Wetland boundaries must be staked in the field and easily identifiable.
3. The total wetland acres, wetland types and number of jurisdictional wetland basins on the property
4. Identification of existing and proposed watershed for each wetland basin and the depth and duration for all proposed stormwater discharges.
5. The size and nature of proposed impact to each wetlands and the reason the impact is unavoidable shall be identified
6. The wetland dependence of each proposed impact of the project shall be determined.
7. The nature and scope of the appropriate Wetland Conservation Act exemption shall be noted if applicable.
8. Alternatives to avoid and minimize each proposed impact.

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9.8 WILDLIFE

Policy

It is the policy of the District to

1. To prevent loss of wildlife and vegetation and the habitats on which they depend.
2. To protect, preserve and manage unique resource areas and unique and/or endangered species of plants and animals that populate these areas from adverse impacts associated with land use change.

Scope and Applicability

This policy, regulation and standards apply to:

1. Endangered species,
2. Threatened species
3. Special concern species, elements or communities

Regulation

No person shall impact an endangered species, threatened species, special concern species or elements, or communities, without first obtaining a permit from the District.

Standards

Applicant must:

1. Establish the presence of endangered, threatened or special concern species or communities on-site and the source of that information.
2. Assess the potential effect on wildlife and vegetation and the habitats on which they depend.
3. The District may require applicant to provide a habitat management plan when the District determines applicant cannot avoid direct or indirect impacts on the habitat in question.

Assessment of significant adverse impacts should be based on the following factors:

1. The amount of vegetation/habitat removal and/or alteration within the development site
2. The amount of habitat of similar type and quality within the development site that remains contiguous
3. The existing and proposed amount of lot coverage
4. The existence of contiguous habitat of similar type and quality on adjoining land
5. Mitigation efforts that directly address the negative effects of the proposed land use on wildlife habitat.

Appendix C

City of Blaine Joint Powers Agreement

JOINT POWERS AGREEMENT
FOR THE PROVISION OF SANITARY SEWER
AND STORM WATER DRAINAGE BETWEEN
THE CITY OF SPRING LAKE PARK AND THE
CITY OF BLAINE

This agreement made and entered into this 29th day of August, 1988, by and between the City of Spring Lake Park, a municipal corporation and political subdivision of the State of Minnesota, hereinafter referred to as "Spring Lake Park," and the City of Blaine, a municipal corporation and political subdivision of the State of Minnesota, hereinafter referred to as "Blaine."

WITNESSETH:

WHEREAS, Spring Lake Park does presently provide sanitary sewer and storm water drainage for a portion of Blaine described as Poplar Homes and Lot 13, Auditor's Subdivision Number 19, and;

WHEREAS, said area is presently being redeveloped, and;

WHEREAS, the parties to this Agreement jointly desire to continue said provision of services.

NOW, THEREFORE, IT IS MUTUALLY STIPULATED AND AGREED:

1. Spring Lake Park agrees to continue to provide sanitary sewer and storm water drainage to said site by the existing infrastructure under the existing terms and conditions.
2. Blaine agrees that all costs incurred in reconstructing connections to existing infrastructure shall be borne by Blaine, and the site of construction shall be restored to no less than original condition.
3. Blaine shall provide Spring Lake Park with notice and plans relating to said reconstruction regarding existing infrastructure.
4. Blaine agrees that the volume of existing storm water drainage to Spring Lake Park will not be increased as a result of said Redevelopment of the site.

5. Blaine agrees that it shall require any driveway along the eastern boundary of the proposed senior housing site to approximately align with the existing centerline of Monroe Street.

IN WITNESS WHEREOF, the parties of this Agreement have hereunto set their hands on the dates written below:

CITY OF SPRING LAKE PARK

By:

Don Masterson, Mayor

Dated: August 29, 1988

By:

Donald B. Busch, Clerk/Treas.

CITY OF BLAINE

By:

Elwyn Tinklenberg, Mayor

Dated: September 1, 1988

By:

Donald G. Poss, City Manager

Dated: September 1, 1988

Appendix D
City of Spring Lake Park Stormwater
Pollution Prevention Program
(SWPPP)



Minnesota Pollution Control Agency

520 Lafayette Road North
St. Paul, MN 55155-4194

MS4 SWPPP Application for Reauthorization

for the NPDES/SDS General Small Municipal Separate Storm Sewer System (MS4) Permit MNR040000 reissued with an effective date of August 1, 2013 Stormwater Pollution Prevention Program (SWPPP) Document

Doc Type: Permit Application

Instructions: This application is for authorization to discharge stormwater associated with Municipal Separate Storm Sewer Systems (MS4s) under the National Pollutant Discharge Elimination System/State Disposal System (NPDES/SDS) Permit Program. **No fee** is required with the submittal of this application. Please refer to "Example" for detailed instructions found on the Minnesota Pollution Control Agency (MPCA) MS4 website at <http://www.pca.state.mn.us/ms4>.

Submittal: This MS4 SWPPP Application for Reauthorization form must be submitted electronically via e-mail to the MPCA at ms4permitprogram.pca@state.mn.us from the person that is duly authorized to certify this form. All questions with an asterisk (*) are required fields. All applications will be returned if required fields are not completed.

Questions: Contact Claudia Hochstein at 651-757-2881 or claudia.hochstein@state.mn.us, Dan Miller at 651-757-2246 or daniel.miller@state.mn.us, or call toll-free at 800-657-3864.

General Contact Information (*Required fields)

MS4 Owner (with ownership or operational responsibility, or control of the MS4)

*MS4 permittee name: City of Spring Lake Park *County: Anoka/Ramsey
(city, county, municipality, government agency or other entity)
*Mailing address: 1301 81st Avenue NE
*City: Spring Lake Park *State: MN *Zip code: 55432
*Phone (including area code): 763-784-6491 *E-mail: info@slpmn.org

MS4 General contact (with Stormwater Pollution Prevention Program [SWPPP] implementation responsibility)

*Last name: Buchholtz *First name: Daniel
(department head, MS4 coordinator, consultant, etc.)
*Title: City Administrator
*Mailing address: 1301 81st Avenue NE
*City: Spring Lake Park *State: MN *Zip code: 55432
*Phone (including area code): 763-784-6491 *E-mail: dbuchholtz@slpmn.org

Preparer information (complete if SWPPP application is prepared by a party other than MS4 General contact)

Last name: Schleeter First name: Brad
(department head, MS4 coordinator, consultant, etc.)
Title: Project Manager
Mailing address: 2335 W Highway 36
City: St. Paul State: MN Zip code: 55113
Phone (including area code): 651-604-4801 E-mail: brad.schleeter@stantec.com

Verification

- I seek to continue discharging stormwater associated with a small MS4 after the effective date of this Permit, and shall submit this MS4 SWPPP Application for Reauthorization form, in accordance with the schedule in Appendix A, Table 1, with the SWPPP document completed in accordance with the Permit (Part II.D.). Yes
- I have read and understand the NPDES/SDS MS4 General Permit and certify that we intend to comply with all requirements of the Permit. Yes

Certification (All fields are required)

- Yes - I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted.

I certify that based on my inquiry of the person, or persons, who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete.

I am aware that there are significant penalties for submitting false information, including the possibility of civil and criminal penalties.

This certification is required by Minn. Stat. §§ 7001.0070 and 7001.0540. The authorized person with overall, MS4 legal responsibility must certify the application (principal executive officer or a ranking elected official).

By typing my name in the following box, I certify the above statements to be true and correct, to the best of my knowledge, and that this information can be used for the purpose of processing my application.

Name: Daniel Buchholtz
(This document has been electronically signed)

Title: City Administrator, Clerk-Treasurer Date (mm/dd/yyyy): 12/30/13

Mailing address: 1301 81st Avenue NE

City: Spring Lake Park State: MN Zip code: 55432

Phone (including area code): 763-784-6491 E-mail: dbuchholtz@slpmn.org

Note: The application will not be processed without certification.

Stormwater Pollution Prevention Program Document

I. Partnerships: (Part II.D.1)

- A. List the **regulated small MS4(s)** with which you have established a partnership in order to satisfy one or more requirements of this Permit. Indicate which Minimum Control Measure (MCM) requirements or other program components that each partnership helps to accomplish (List all that apply). Check the box below if you currently have no established partnerships with other regulated MS4s. If you have more than five partnerships, hit the tab key after the last line to generate a new row.

No partnerships with regulated small MS4s

Name and description of partnership	MCM/Other permit requirements involved
Rice Creek Watershed District The District provides us with various stormwater related articles that are included in our newsletters and handouts/brochures City coordinates plan review activities with the District	MCM 1, MCM 5
Coon Creek Watershed District The District provides us with various stormwater related articles that are included in our newsletters and handouts/brochures City coordinates plan review activities with the District	MCM 1, MCM 5
Coordinate spill response capabilities with the Cities of Blaine and Mounds View, through the Spring Lake Park/Blaine/Mounds View Fire Department.	MCM 3

- B. If you have additional information that you would like to communicate about your partnerships with other regulated small MS4(s), provide it in the space below, or include an attachment to the SWPPP Document, with the following file naming convention: *MS4NameHere_Partnerships*.

II. Description of Regulatory Mechanisms: (Part II.D.2)

Illicit discharges

- A. Do you have a regulatory mechanism(s) that effectively prohibits non-stormwater discharges into your small MS4, except those non-stormwater discharges authorized under the Permit (Part III.D.3.b.)? Yes No

1. If **yes**:

- a. Check which *type* of regulatory mechanism(s) your organization has (check all that apply):

- Ordinance Contract language
 Policy/Standards Permits
 Rules
 Other, explain: _____

- b. Provide either a direct link to the mechanism selected above or attach it as an electronic document to this form; or if your regulatory mechanism is either an Ordinance or a Rule, you may provide a citation:

Citation:

Storm Water Illicit Discharge and Illicit Connection Ordinance (Section 52)

Direct link:

Check here if attaching an electronic copy of your regulatory mechanism, with the following file naming convention: *MS4NameHere_IDDEreg.*

2. If **no**:

Describe the tasks and corresponding schedules that will be taken to assure that, within 12 months of the date permit coverage is extended, this permit requirement is met:

We have a strong Storm Water Illicit Discharge and Illicit Connection ordinance (Chapter 52 in City Code) that meets the majority of what the MPCA considers an effective regulatory mechanism for illicit discharges. A copy of this ordinance is attached for reference. We will revise this ordinance to address the following MS4 permit requirements:

- *Clearly prohibit non-stormwater discharges to your MS4 or watercourses*
- *Clearly define non-stormwater*

We will complete these ordinance updates within 12 months of the date permit coverage is extended.

Construction site stormwater runoff control

A. Do you have a regulatory mechanism(s) that establishes requirements for erosion and sediment controls and waste controls? Yes No

1. If **yes**:

a. Check which *type* of regulatory mechanism(s) your organization has (check all that apply):

- Ordinance Contract language
- Policy/Standards Permits
- Rules
- Other, explain: _____

b. Provide either a direct link to the mechanism selected above or attach it as an electronic document to this form; or if your regulatory mechanism is either an Ordinance or a Rule, you may provide a citation:

Citation:

- *Construction Site Runoff Control Ordinance (Section 150.200)*
- *Local Surface Water Management Plan Section 7.2.5*

Direct link:

Check here if attaching an electronic copy of your regulatory mechanism, with the following file naming convention: *MS4NameHere_CSWreg.*

B. Is your regulatory mechanism at least as stringent as the MPCA general permit to Discharge Stormwater Associated with Construction Activity (as of the effective date of the MS4 Permit)? Yes No

If you answered **yes** to the above question, proceed to C.

If you answered **no** to either of the above permit requirements listed in A. or B., describe the tasks and corresponding schedules that will be taken to assure that, within 12 months of the date permit coverage is extended, these permit requirements are met:

B: We will update our Construction Site Runoff Control Ordinance and other construction site stormwater runoff control regulatory mechanisms to be at least as stringent as the MPCA Construction Stormwater (CSW) permit. We will use the Construction Site Stormwater Runoff Control guidance documents provided by the MPCA to review the City's existing regulatory mechanisms to identify any deficiencies with the CSW Permit. We will complete this review and subsequent updates to our regulatory mechanisms within 12 months of the date permit coverage is extended.

C. Answer **yes** or **no** to indicate whether your regulatory mechanism(s) requires owners and operators of construction activity to develop site plans that incorporate the following erosion and sediment controls and waste controls as described in the Permit (Part III.D.4.a.(1)-(8)), and as listed below:

- 1. Best Management Practices (BMPs) to minimize erosion. Yes No
- 2. BMPs to minimize the discharge of sediment and other pollutants. Yes No
- 3. BMPs for dewatering activities. Yes No
- 4. Site inspections and records of rainfall events Yes No
- 5. BMP maintenance Yes No
- 6. Management of solid and hazardous wastes on each project site. Yes No
- 7. Final stabilization upon the completion of construction activity, including the use of perennial Yes No

vegetative cover on all exposed soils or other equivalent means.

8. Criteria for the use of temporary sediment basins. Yes No

If you answered **no** to any of the above permit requirements, describe the tasks and corresponding schedules that will be taken to assure that, within 12 months of the date permit coverage is extended, these permit requirements are met:

C.7 - we will revise the ordinance section on final stabilization to specifically mention the use of perennial vegetative cover on all exposed soils and complete this action within 12 months of the date permit coverage is extended.

Post-construction stormwater management

- A. Do you have a regulatory mechanism(s) to address post-construction stormwater management activities?
 Yes No

1. If **yes**:

- a. Check which *type* of regulatory mechanism(s) your organization has (check all that apply):

- Ordinance Contract language
 Policy/Standards Permits
 Rules
 Other, explain: _____

- b. Provide either a direct link to the mechanism selected above or attach it as an electronic document to this form; or if your regulatory mechanism is either an Ordinance or a Rule, you may provide a citation:

Citation:

- *Site Plan Review Ordinance (Section 156.115)*

- *Local Surface Water Management Plan Section 7.2.1 to 7.2.4*

Direct link:

- Check here if attaching an electronic copy of your regulatory mechanism, with the following file naming convention: *MS4NameHere_PostCSWreg*.

- B. Answer **yes** or **no** below to indicate whether you have a regulatory mechanism(s) in place that meets the following requirements as described in the Permit (Part III.D.5.a.):

1. **Site plan review:** Requirements that owners and/or operators of construction activity submit site plans with post-construction stormwater management BMPs to the permittee for review and approval, prior to start of construction activity. Yes No
2. **Conditions for post construction stormwater management:** Requires the use of any combination of BMPs, with highest preference given to Green Infrastructure techniques and practices (e.g., infiltration, evapotranspiration, reuse/harvesting, conservation design, urban forestry, green roofs, etc.), necessary to meet the following conditions on the site of a construction activity to the Maximum Extent Practicable (MEP):
- a. For new development projects – no net increase from pre-project conditions (on an annual average basis) of: Yes No
- 1) Stormwater discharge volume, unless precluded by the stormwater management limitations in the Permit (Part III.D.5.a(3)(a)).
- 2) Stormwater discharges of Total Suspended Solids (TSS).
- 3) Stormwater discharges of Total Phosphorus (TP).
- b. For redevelopment projects – a net reduction from pre-project conditions (on an annual average basis) of: Yes No
- 1) Stormwater discharge volume, unless precluded by the stormwater management limitations in the Permit (Part III.D.5.a(3)(a)).
- 2) Stormwater discharges of TSS.
- 3) Stormwater discharges of TP.
3. **Stormwater management limitations and exceptions:**
- a. Limitations
- 1) Prohibit the use of infiltration techniques to achieve the conditions for post-construction stormwater management in the Permit (Part III.D.5.a(2)) when the infiltration structural stormwater BMP will receive discharges from, or be constructed in areas: Yes No
- a) Where industrial facilities are not authorized to infiltrate industrial stormwater under an NPDES/SDS Industrial Stormwater Permit issued by the MPCA.
- b) Where vehicle fueling and maintenance occur.

- c) With less than three (3) feet of separation distance from the bottom of the infiltration system to the elevation of the seasonally saturated soils or the top of bedrock.
- d) Where high levels of contaminants in soil or groundwater will be mobilized by the infiltrating stormwater.
- 2) Restrict the use of infiltration techniques to achieve the conditions for post-construction stormwater management in the Permit (Part III.D.5.a(2)), without higher engineering review, sufficient to provide a functioning treatment system and prevent adverse impacts to groundwater, when the infiltration device will be constructed in areas: Yes No
- a) With predominately Hydrologic Soil Group D (clay) soils.
- b) Within 1,000 feet up-gradient, or 100 feet down-gradient of active karst features.
- c) Within a Drinking Water Supply Management Area (DWSMA) as defined in Minn. R. 4720.5100, subp. 13.
- d) Where soil infiltration rates are more than 8.3 inches per hour.
- 3) For linear projects where the lack of right-of-way precludes the installation of volume control practices that meet the conditions for post-construction stormwater management in the Permit (Part III.D.5.a(2)), the permittee's regulatory mechanism(s) may allow exceptions as described in the Permit (Part III.D.5.a(3)(b)). The permittee's regulatory mechanism(s) shall ensure that a reasonable attempt be made to obtain right-of-way during the project planning process. Yes No
4. **Mitigation provisions:** The permittee's regulatory mechanism(s) shall ensure that any stormwater discharges of TSS and/or TP not addressed on the site of the original construction activity are addressed through mitigation and, at a minimum, shall ensure the following requirements are met:
- a. Mitigation project areas are selected in the following order of preference: Yes No
- 1) Locations that yield benefits to the same receiving water that receives runoff from the original construction activity.
- 2) Locations within the same Minnesota Department of Natural Resource (DNR) catchment area as the original construction activity.
- 3) Locations in the next adjacent DNR catchment area up-stream
- 4) Locations anywhere within the permittee's jurisdiction.
- b. Mitigation projects must involve the creation of new structural stormwater BMPs or the retrofit of existing structural stormwater BMPs, or the use of a properly designed regional structural stormwater BMP. Yes No
- c. Routine maintenance of structural stormwater BMPs already required by this permit cannot be used to meet mitigation requirements of this part. Yes No
- d. Mitigation projects shall be completed within 24 months after the start of the original construction activity. Yes No
- e. The permittee shall determine, and document, who will be responsible for long-term maintenance on all mitigation projects of this part. Yes No
- f. If the permittee receives payment from the owner and/or operator of a construction activity for mitigation purposes in lieu of the owner or operator of that construction activity meeting the conditions for post-construction stormwater management in Part III.D.5.a(2), the permittee shall apply any such payment received to a public stormwater project, and all projects must be in compliance with Part III.D.5.a(4)(a)-(e). Yes No
5. **Long-term maintenance of structural stormwater BMPs:** The permittee's regulatory mechanism(s) shall provide for the establishment of legal mechanisms between the permittee and owners or operators responsible for the long-term maintenance of structural stormwater BMPs not owned or operated by the permittee, that have been implemented to meet the conditions for post-construction stormwater management in the Permit (Part III.D.5.a(2)). This only includes structural stormwater BMPs constructed after the effective date of this permit and that are directly connected to the permittee's MS4, and that are in the permittee's jurisdiction. The legal mechanism shall include provisions that, at a minimum:
- a. Allow the permittee to conduct inspections of structural stormwater BMPs not owned or operated by the permittee, perform necessary maintenance, and assess costs for those structural stormwater BMPs when the permittee determines that the owner and/or operator of that structural stormwater BMP has not conducted maintenance. Yes No
- b. Include conditions that are designed to preserve the permittee's right to ensure maintenance responsibility, for structural stormwater BMPs not owned or operated by the permittee, when those responsibilities are legally transferred to another party. Yes No
- c. Include conditions that are designed to protect/preserve structural stormwater BMPs and site features that are implemented to comply with the Permit (Part III.D.5.a(2)). If site Yes No

configurations or structural stormwater BMPs change, causing decreased structural stormwater BMP effectiveness, new or improved structural stormwater BMPs must be implemented to ensure the conditions for post-construction stormwater management in the Permit (Part III.D.5.a(2)) continue to be met.

If you answered **no** to any of the above permit requirements, describe the tasks and corresponding schedules that will be taken to assure that, within twelve (12) months of the date permit coverage is extended, these permit requirements are met:

B.2 - B.5: We will update our Code of Ordinances to adopt by reference our currently adopted Local Surface Water Management Plan (LSWMP) that will be updated to specifically address B.2 - B.5. This will create a direct tie from our Code of Ordinances to the regulatory mechanisms (City policies and standards found in the LSWMP) that address the post-construction stormwater management requirements in B.2 to B.5.

B.1: We will update our Code of Ordinances to require that owners and/or operators of construction activity submit site plans with post-construction stormwater management BMPs (meeting City stormwater standards) to the City for review and approval prior to the start of construction activity.

B.2.a-b: While our LSWMP identifies general goals to reduce runoff volume and TP and TSS loading, the LSWMP sections will be updated to specifically reference the requirements of B.2.a, and B.2.b.

B.3.a.(1)-(2): our LSWMP references some limitations and exceptions for infiltration, however, this section will be updated to include the entire list of prohibitions and restrictions in B.3.a.(1)-(2).

B.3.a.(3): We will update our LSWMP to include a requirement that specifically addresses the linear project requirements in B.3.a.(3).

B.4.a-f: We will update our LSWMP to include a requirement that specifically addresses offsite stormwater mitigation that meets the requirements in B.4.

B.5.a-c: We will update our LSWMP to include a requirement that specifically addresses long-term maintenance of structural stormwater BMPs not owned or operated by the City that meets the requirements in B.5.

All of the actions identified above will be completed within 12 months of the date permit coverage is extended.

III. Enforcement Response Procedures (ERPs): (Part II.D.3)

A. Do you have existing ERPs that satisfy the requirements of the Permit (Part III.B.)?

Yes No

1. If **yes**, attach them to this form as an electronic document, with the following file naming convention: *MS4NameHere_ERPs*.

2. If **no**, describe the tasks and corresponding schedules that will be taken to assure that, with twelve (12) months of the date permit coverage is extended, these permit requirements are met:

We will amend our Storm Water Illicit Discharge and Illicit Connection Ordinance and our Construction Site Runoff Control Ordinance to include all of the ERP documentation requirements in Part III.B.2 of the MS4 Permit. This action could include an adoption by reference in the ordinances to a separate ERP document.

We will include a requirement in our SWMP that identifies ERPs for Post-Construction Stormwater Management, including the documentation requirements as identified in Part III.B.2 of the MS4 Permit.

All of the actions identified above will be completed within 12 months of the date permit coverage is extended.

B. Describe your ERPs:

Sections 52.12, 52.13, and 52.99 in our Storm Water Illicit Discharge and Illicit Connection Ordinance describe ERPs, as follows:

- *Suspension of Storm Sewer System Access*
- *Suspension due to illicit discharges in emergency situations*
- *Suspension due to the detection of illicit discharge*
- *Enforcement*
- *Notice of violation*
- *Abatement of a violation*
- *Bill for abatement and/or restoration*
- *Penalty*

Sections 150.210 and 150.999 in our Construction Site Runoff Control Ordinance describe ERPs, as follows:

- *Enforcement Procedures*
- *Right of entry*
- *Notification by city of failure of the stormwater pollution prevention plan*

- Failure to conduct corrective work
- Action against the financial security
- Emergency action
- Penalty

IV. Storm Sewer System Map and Inventory: (Part II.D.4.)

A. Describe how you manage your storm sewer system map and inventory:

We periodically review and update our Surface Water System Map found in our Local Surface Water Management Plan. We have pond inventory information available in GIS, but need to compile this information to meet the inventory requirements.

B. Answer **yes** or **no** to indicate whether your storm sewer system map addresses the following requirements from the Permit (Part III.C.1.a-d), as listed below:

1. The permittee's entire small MS4 as a goal, but at a minimum, all pipes 12 inches or greater in diameter, including stormwater flow direction in those pipes. Yes No
2. Outfalls, including a unique identification (ID) number assigned by the permittee, and an associated geographic coordinate. Yes No
3. Structural stormwater BMPs that are part of the permittee's small MS4. Yes No
4. All receiving waters. Yes No

If you answered **no** to any of the above permit requirements, describe the tasks and corresponding schedules that will be taken to assure that, within 12 months of the date permit coverage is extended, these permit requirements are met:

We will add unique ID numbers on our Surface Water System Map to all waters receiving flow from our MS4. This task will be completed within 12 months of the date permit coverage is extended.

C. Answer **yes** or **no** to indicate whether you have completed the requirements of 2009 Minnesota Session Law, Ch. 172. Sec. 28: with the following inventories, according to the specifications of the Permit (Part III.C.2.a.-b.), including:

1. All ponds within the permittee's jurisdiction that are constructed and operated for purposes of water quality treatment, stormwater detention, and flood control, and that are used for the collection of stormwater via constructed conveyances. Yes No
2. All wetlands and lakes, within the permittee's jurisdiction, that collect stormwater via constructed conveyances. Yes No

D. Answer **yes** or **no** to indicate whether you have completed the following information for each feature inventoried.

1. A unique identification (ID) number assigned by the permittee. Yes No
2. A geographic coordinate. Yes No
3. Type of feature (e.g., pond, wetland, or lake). This may be determined by using best professional judgment. Yes No

If you have answered **yes** to all above requirements, and you have already submitted the Pond Inventory Form to the MPCA, then you do not need to resubmit the inventory form below.

If you answered **no** to any of the above permit requirements, describe the tasks and corresponding schedules that will be taken to assure that, within 12 months of the date permit coverage is extended, these permit requirements are met:

Sections C and D: we will update our Surface Water System Map and GIS inventory information to include the pond inventory documentation requirements required in the MS4 Permit. This task will be completed within 12 months of the date permit coverage is extended.

E. Answer **yes** or **no** to indicate if you are attaching your pond, wetland and lake inventory to the MPCA on the form provided on the MPCA website at: <http://www.pca.state.mn.us/ms4>, according to the specifications of Permit (Part III.C.2.b.(1)-(3)). Attach with the following file naming convention: *MS4NameHere_inventory*. Yes No

If you answered **no**, the inventory form must be submitted to the MPCA MS4 Permit Program within 12 months of the date permit coverage is extended.

V. Minimum Control Measures (MCMs) (Part II.D.5)

A. MCM1: Public education and outreach

1. The Permit requires that, within 12 months of the date permit coverage is extended, existing permittees revise their education and outreach program that focuses on illicit discharge recognition and reporting, as well as other specifically selected stormwater-related issue(s) of high priority to the permittee during this permit term. Describe your **current** educational program, including **any high-priority topics included**:

Our public education and outreach program includes stormwater related articles in our City newsletter, stormwater related brochures available at City Hall, cable access programming of stormwater related material, pet waste signage in City parks, and a 30-day public notice for our annual MS4 public meeting.

2. List the categories of BMPs that address your public education and outreach program, including the distribution of educational materials and a program implementation plan. Use the first table for categories of BMPs that you have established and the second table for categories of BMPs that you plan to implement over the course of the permit term.

Include the measurable goals with appropriate timeframes that each BMP category will be implemented and completed. In addition, provide interim milestones and the frequency of action in which the permittee will implement and/or maintain the BMPs. Refer to the U.S. Environmental Protection Agency's (EPA) *Measurable Goals Guidance for Phase II Small MS4s* (<http://www.epa.gov/npdes/pubs/measurablegoals.pdf>).

If you have more than five categories, hit the tab key after the last line to generate a new row.

Established BMP categories	Measurable goals and timeframes
Stormwater related articles	Include at least 1 stormwater related article in each edition of our newsletter.
Stormwater related brochures	Make at least 3 stormwater related brochures available at City Hall continuously. These brochures may periodically be mailed to residents in a utility billing.
30-day public notice for annual stormwater meeting	Publicly notice the annual stormwater meeting at least 30 days prior to the meeting in the local newspaper and posted at City Hall.
Local access cable	Air at least 1 stormwater related segment on our local access cable channel annually.
Pet waste signage	Maintain the existing pet waste signage in 6 city parks continuously.
BMP categories to be implemented	Measurable goals and timeframes
Create a City stormwater webpage	Create a page on our website dedicated to stormwater related information, updates, links, and references. The webpage will include illicit discharge recognition and reporting information for users, as well as our stormwater hotline and other contact information for reporting illicit discharges. This work will be completed within 12 months of the date permit coverage is extended.
Program evaluation	At least twice during the permit term, we will evaluate our public education and outreach program to determine if the current program efforts address the most pressing stormwater related issues in Spring Lake Park.

3. Provide the name or the position title of the individual(s) who is responsible for implementing and/or coordinating this MCM:

Public Works Director

B. MCM2: Public participation and involvement

1. The Permit (Part III.D.2.a.) requires that, within 12 months of the date permit coverage is extended, existing permittees shall revise their current program, as necessary, and continue to implement a public participation/involvement program to solicit public input on the SWPPP. Describe your current program:

Our public participation and involvement program includes our annual MS4 stormwater public meeting, an annual Spring and Fall clean-up days, our Adopt-A-Rain Garden Program for residents who committed to maintaining a rain garden, and our stormwater hotline for residents to register complaints, report stormwater related violations, or provide input on our stormwater program.

2. List the categories of BMPs that address your public participation/involvement program, including solicitation and documentation of public input on the SWPPP. Use the first table for categories of BMPs that you have established and the second table for categories of BMPs that you plan to implement over the course of the permit term.

Include the measurable goals with appropriate timeframes that each BMP category will be implemented and completed. In addition, provide interim milestones and the frequency of action in which the permittee will implement and/or maintain the BMPs.

Refer to the EPA's *Measurable Goals Guidance for Phase II Small MS4s* (<http://www.epa.gov/npdes/pubs/measurablegoals.pdf>).
If you have more than five categories, hit the tab key after the last line to generate a new row.

Established BMP categories	Measurable goals and timeframes
Annual MS4 stormwater public meeting	Hold an annual meeting for the length of the permit cycle to present our stormwater program and take written or oral comments on this program.
Stormwater hotline	Continue to monitor our hotline for citizens to register complaints regarding erosion and sediment control violations, report illicit discharges or illicit connections, or provide input on our stormwater program. Comments are regularly logged and distributed to the appropriate staff members.
Spring and Fall recycling drop off day	We conduct a recycling drop off day annually in the spring and fall to allow the public to dispose of tires, furniture, scrap metal, wood, appliances, electronics, and other non-hazardous waste material.
BMP categories to be implemented	Measurable goals and timeframes
Watershed District coordination meeting	At least once during the permit term, we will invite staff from both the Rice Creek Watershed District and Coon Creek Watershed District to a public meeting to inform staff, city officials, and the public about news, updates, and programs being offered by the District.
Storm structure stenciling	The City will continue to re-stencil all City catch basins within the permit term.
SWPPP document availability	Post the City's MS4 Permit Application and SWPPP Document on the City's stormwater webpage.

3. Do you have a process for receiving and documenting citizen input? Yes No

If you answered **no** to the above permit requirement, describe the tasks and corresponding schedules that will be taken to assure that, within 12 months of the date permit coverage is extended, this permit requirement is met:

4. Provide the name or the position title of the individual(s) who is responsible for implementing and/or coordinating this MCM:

Public Works Director

C. MCM 3: Illicit discharge detection and elimination

1. The Permit (Part III.D.3.) requires that, within 12 months of the date permit coverage is extended, existing permittees revise their current program as necessary, and continue to implement and enforce a program to detect and eliminate illicit discharges into the small MS4. Describe your current program:

We have a Storm Water Illicit Discharge and Illicit Connection ordinance that regulates illicit discharge and connections to our MS4. This ordinance identifies the proper procedure once an illicit discharge or connection is identified, including violations, enforcement, and penalties for non-compliance. We have a Surface Water System Map that identifies the City's MS4 system. Staff in our public works department are trained in proper procedures for inspecting and identifying illicit discharges and connections during dry-weather inspections.

2. Does your Illicit Discharge Detection and Elimination Program meet the following requirements, as found in the Permit (Part III.D.3.c.-g.)?

- a. Incorporation of illicit discharge detection into all inspection and maintenance activities conducted under the Permit (Part III.D.6.e.-f.) Where feasible, illicit discharge inspections shall be conducted during dry-weather conditions (e.g., periods of 72 or more hours of no precipitation). Yes No
- b. Detecting and tracking the source of illicit discharges using visual inspections. The permittee may also include use of mobile cameras, collecting and analyzing water samples, and/or other detailed procedures that may be effective investigative tools. Yes No
- c. Training of all field staff, in accordance with the requirements of the Permit (Part III.D.6.g.(2)), in illicit discharge recognition (including conditions which could cause illicit discharges), and reporting illicit discharges for further investigation. Yes No
- d. Identification of priority areas likely to have illicit discharges, including at a minimum, evaluating land use associated with business/industrial activities, areas where illicit discharges have been identified in the past, and areas with storage of large quantities of significant materials that could result in an illicit discharge. Yes No

- e. Procedures for the timely response to known, suspected, and reported illicit discharges. Yes No
- f. Procedures for investigating, locating, and eliminating the source of illicit discharges. Yes No
- g. Procedures for responding to spills, including emergency response procedures to prevent spills from entering the small MS4. The procedures shall also include the immediate notification of the Minnesota Department of Public Safety Duty Officer, if the source of the illicit discharge is a spill or leak as defined in Minn. Stat. § 115.061. Yes No
- h. When the source of the illicit discharge is found, the permittee shall use the ERPs required by the Permit (Part III.B.) to eliminate the illicit discharge and require any needed corrective action(s). Yes No

If you answered **no** to any of the above permit requirements, describe the tasks and corresponding schedules that will be taken to assure that, within 12 months of the date permit coverage is extended, these permit requirements are met:

C.2.d: we will update our illicit discharge and inspection program to identify priority areas likely to have illicit discharges. This identification process will evaluate land use associated with business/industrial activities, areas where illicit discharges have been identified in the past, and areas with storage of large quantities of significant materials that could result in an illicit discharge.

C.2.e: we will update our illicit discharge and inspection program to identify a formal procedure for responding to known, suspected, and reported illicit discharges.

C.2.f: we will update our illicit discharge and inspection program to identify a formal procedure for investigating, locating, and eliminating the source of illicit discharges.

C.2.g: we will update our illicit discharge and inspection program to identify procedures for responding to spills, including emergency response procedures to prevent spills from entering our MS4. This procedure will include the immediate notification of the Minnesota Department of Public Safety Duty Officer, if the source of the illicit discharge is a spill or leak as defined in Minn. Stat. 115.061.

All of these actions will be completed within 12 months of the date permit coverage is extended.

3. List the categories of BMPs that address your illicit discharge, detection and elimination program. Use the first table for categories of BMPs that you have established and the second table for categories of BMPs that you plan to implement over the course of the permit term.

Include the measurable goals with appropriate timeframes that each BMP category will be implemented and completed. In addition, provide interim milestones and the frequency of action in which the permittee will implement and/or maintain the BMPs. Refer to the EPA's *Measurable Goals Guidance for Phase II Small MS4s* (<http://www.epa.gov/npdes/pubs/measurablegoals.pdf>).

If you have more than five categories, hit the tab key after the last line to generate a new row.

Established BMP categories	Measurable goals and timeframes
Stormwater system map	Regularly update our existing Surface Water System Map to include recently constructed infrastructure.
Storm Water Illicit Discharge and Illicit Connection ordinance	Continue to enforce our existing Storm Water Illicit Discharge and Illicit Connection ordinance
Inspections	Continue to inspect and document illicit discharge and connection inspections during dry-weather conditions. We will continue to document all inspections, results, and actions necessary to eliminate the illicit discharge or connection.
Training	Continue our ongoing City staff training on the types of potentially illicit discharges, connections, and common illegal dumping within the City and how to identify them.
BMP categories to be implemented	Measurable goals and timeframes
Illicit discharge information and reporting	Include illicit discharge information on our stormwater webpage, including the stormwater hotline number for reporting illicit discharges or connections. This work will be completed within 12 months of the date permit coverage is extended.
Potential illicit discharge prioritization map	Create a map identifying priority areas and outfalls in these areas that should be inspected more frequently. This work will be completed within 12 months of the date permit coverage is extended.
Inspections	High priority areas and high priority outfalls will be inspected annually.
Documentation	Within 12 months of the date permit coverage is extended, review our current illicit discharge documentation form to verify that it meets the documentation requirements in the MS4

4. Do you have procedures for record-keeping within your Illicit Discharge Detection and Elimination (IDDE) program as specified within the Permit (Part III.D.3.h.)? Yes No

If you answered **no**, indicate how you will develop procedures for record-keeping of your Illicit Discharge, Detection and Elimination Program, within 12 months of the date permit coverage is extended:

We will update our illicit discharge and connection program to include the documentation requirements identified in the MS4 permit Part III.D.3.h. within 12 months of the date permit coverage is extended.

5. Provide the name or the position title of the individual(s) who is responsible for implementing and/or coordinating this MCM:

Public Works Director

D. MCM 4: Construction site stormwater runoff control

1. The Permit (Part III.D.4) requires that, within 12 months of the date permit coverage is extended, existing permittees shall revise their current program, as necessary, and continue to implement and enforce a construction site stormwater runoff control program. Describe your current program:

We have a Construction Site Runoff Control ordinance that regulates land disturbing activity. The ordinance describes the City SWPPP submittal procedures, the City review process, minimum construction site BMPs, and enforcement procedures. City staff or a designated agent will continue to perform construction site ESC inspections for land disturbing activity in the City. We have a site plan review procedure in place to determine if an application meets City requirements. Prior to land disturbing activities, we hold a preconstruction meeting to discuss stormwater runoff, ESC BMPs, construction staging, and other issues associated with grading activities.

2. Does your program address the following BMPs for construction stormwater erosion and sediment control as required in the Permit (Part III.D.4.b.):
- a. Have you established written procedures for site plan reviews that you conduct prior to the start of construction activity? Yes No
 - b. Does the site plan review procedure include notification to owners and operators proposing construction activity that they need to apply for and obtain coverage under the MPCA's general permit to *Discharge Stormwater Associated with Construction Activity No. MN R100001*? Yes No
 - c. Does your program include written procedures for receipt and consideration of reports of noncompliance or other stormwater related information on construction activity submitted by the public to the permittee? Yes No
 - d. Have you included written procedures for the following aspects of site inspections to determine compliance with your regulatory mechanism(s):
 - 1) Does your program include procedures for identifying priority sites for inspection? Yes No
 - 2) Does your program identify a frequency at which you will conduct construction site inspections? Yes No
 - 3) Does your program identify the names of individual(s) or position titles of those responsible for conducting construction site inspections? Yes No
 - 4) Does your program include a checklist or other written means to document construction site inspections when determining compliance? Yes No
 - e. Does your program document and retain construction project name, location, total acreage to be disturbed, and owner/operator information? Yes No
 - f. Does your program document stormwater-related comments and/or supporting information used to determine project approval or denial? Yes No
 - g. Does your program retain construction site inspection checklists or other written materials used to document site inspections? Yes No

If you answered **no** to any of the above permit requirements, describe the tasks and corresponding schedules that will be taken to assure that, within 12 months of the date permit coverage is extended, these permit requirements are met.

D.2.d.1): we will update our construction site stormwater runoff control program to include a procedure to identify priority sites for inspection.

D.2.d.2): we will update our construction site stormwater runoff control program to identify construction site inspection frequencies.

D.2.d.3): we will update our construction site stormwater runoff control program to identify position titles of those responsible for conducting construction site inspections.

All of these actions will be completed within 12 months of the date permit coverage is extended.

3. List the categories of BMPs that address your construction site stormwater runoff control program. Use the first table for categories of BMPs that you have established and the second table for categories of BMPs that you plan to implement over the course of the permit term.

Include the measurable goals with appropriate timeframes that each BMP category will be implemented and completed. In addition, provide interim milestones and the frequency of action in which the permittee will implement and/or maintain the BMPs. Refer to the EPA's *Measurable Goals Guidance for Phase II Small MS4s* (<http://www.epa.gov/npdes/pubs/measurablegoals.pdf>). **If you have more than five categories**, hit the tab key after the last line to generate a new row.

Established BMP categories	Measurable goals and timeframes
Ordinance	Continue to enforce existing Construction Site Runoff Control ordinance.
Plan review process	Continue to implement our plan review procedures.
Inspections	Continue weekly inspections (or following a 0.5-inch rainfall event) for all active construction projects during the growing season.
Preconstruction meeting	Prior to land disturbing activity, we will continue to hold a pre-construction meeting.
BMP categories to be implemented	Measurable goals and timeframes
Plan review checklist	Create a plan review checklist construction site stormwater runoff control requirements that clearly states submittal requirements. This checklist will be developed within 12 months of the date permit coverage is extended.
Program updates	Make the necessary updates to our construction stormwater program as indicated above within 12 months of the date permit coverage is extended.
Ordinance updates	Revise our Construction Site Runoff Control ordinance as necessary to meet MS4 permit requirements within 12 months of the date permit coverage is extended.

4. Provide the name or the position title of the individual(s) who is responsible for implementing and/or coordinating this MCM:

Public Works Director

E. MCM 5: Post-construction stormwater management

1. The Permit (Part III.D.5.) requires that, within 12 months of the date permit coverage is extended, existing permittees shall revise their current program, as necessary, and continue to implement and enforce a post-construction stormwater management program. Describe your current program:

We have a Site Plan Review ordinance that outlines basin submittal requirements and a submittal review process. Our adopted Local Surface Water Management Plan identifies our current post-construction stormwater management requirements. We coordinate our plan review activities with either the Rice Creek Watershed District or Coon Creek Watershed District, which both have grading or land disturbance permits.

2. Have you established written procedures for site plan reviews that you will conduct prior to the start of construction activity? Yes No
3. Answer **yes** or **no** to indicate whether you have the following listed procedures for documentation of post-construction stormwater management according to the specifications of Permit (Part III.D.5.c.):
- a. Any supporting documentation that you use to determine compliance with the Permit (Part III.D.5.a), including the project name, location, owner and operator of the construction activity, any checklists used for conducting site plan reviews, and any calculations used to determine compliance? Yes No
- b. All supporting documentation associated with mitigation projects that you authorize? Yes No
- c. Payments received and used in accordance with Permit (Part III.D.5.a.(4)(f))? Yes No
- d. All legal mechanisms drafted in accordance with the Permit (Part III.D.5.a.(5)), including date(s) of the agreement(s) and names of all responsible parties involved? Yes No

If you answered **no** to any of the above permit requirements, describe the steps that will be taken to assure that, within 12 months of the date permit coverage is extended, these permit requirements are met.

E.3.a: we will update our post construction stormwater management program to include a list of documentation requirements that meets MS4 permit requirements.

E.3.b: we will update our post construction stormwater management program to include the documentation requirements for any stormwater mitigation projects deemed acceptable by the City.

E.3.c: we will update our post construction stormwater management program to include a procedure for how funds are collected and spent from a pay-in-lieu of constructing stormwater BMPs.

E.3.d: we will update our post construction stormwater management program to identify long term maintenance requirements for BMPs not owned or operated by the City. The Rice Creek Watershed District and Coon Creek Watershed District both require that a long term maintenance agreement be completed for any new BMP constructed in the City, so we will develop a procedure to file and track these agreements.

All of these activities will be completed within 12 months of the date permit coverage is extended.

- List the categories of BMPs that address your post-construction stormwater management program. Use the first table for categories of BMPs that you have established and the second table for categories of BMPs that you plan to implement over the course of the permit term.

Include the measurable goals with appropriate timeframes that each BMP category will be implemented and completed. In addition, provide interim milestones and the frequency of action in which the permittee will implement and/or maintain the BMPs. Refer to the EPA's *Measurable Goals Guidance for Phase II Small MS4s* (<http://www.epa.gov/npdes/pubs/measurablegoals.pdf>). **If you have more than five categories**, hit the tab key after the last line to generate a new row.

Established BMP categories	Measurable goals and timeframes
Ordinance	Continue to enforce existing Site Plan Review ordinance.
Stormwater design standards	Our Local Surface Water Management Plan includes stormwater design requirements and references to Rice Creek Watershed District and Coon Creek Watershed District standards to guide the installation of stormwater BMPs aimed at reducing pollutant loads from new, redevelopment, and linear projects.
Plan review process	Continue to implement our plan review procedures

BMP categories to be implemented	Measurable goals and timeframes
Ordinance updates	Revise City Code as necessary to meet MS4 permit post-construction stormwater requirements within 12 months of the date permit coverage is extended. This will include an updated reference to the design standards in the City's Local Surface Water Management Plan.
Plan review checklist	Create a plan review checklist for post-construction requirements that clearly states submittal requirements. This checklist will be developed within 12 months of the date permit coverage is extended.
Project information documentation	Within 12 months of the date permit coverage is extended, we will develop a project information document, likely in conjunction with the plan review checklist, that meets the MS4 Permit requirements.

- Provide the name or the position title of the individual(s) who is responsible for implementing and/or coordinating this MCM:

Public Works Director

F. MCM 6: Pollution prevention/good housekeeping for municipal operations

- The Permit (Part III.D.6.) requires that, within 12 months of the date permit coverage is extended, existing permittees shall revise their current program, as necessary, and continue to implement an operations and maintenance program that prevents or reduces the discharge of pollutants from the permittee owned/operated facilities and operations to the small MS4. Describe your current program:

We inspect all city owned and maintained structural pollution control devices annually and city owned and maintained ponds and outfalls at a minimum 20% per year. We inspect stockpiles, storage and handling areas regularly and sweep City streets at least bi-annually. Maintenance staff are trained annually on the following practices:

- *Proper handling, storage, and application procedures for municipal lawn care products*
- *Proper handling, storage, and application procedures for street de-icing products and awareness of possible new products.*
- *Fleet and bulding operation and maintenance*

- Hazardous material storage and recycling program
- Stormsewer maintenance
- Erosion and sediment control BMP maintenance

2. Do you have a facilities inventory as outlined in the Permit (Part III.D.6.a.)? Yes No
3. If you answered **no** to the above permit requirement in question 2, describe the tasks and corresponding schedules that will be taken to assure that, within 12 months of the date permit coverage is extended, this permit requirement is met:
- We will prepare a facilities inventory as outlines in the MS4 permit Part III.D.6.a. and complete this inventory within 2 months of the date permit coverage is extended.*
4. List the categories of BMPs that address your pollution prevention/good housekeeping for municipal operations program. Use the first table for categories of BMPs that you have established and the second table for categories of BMPs that you plan to implement over the course of the permit term.

Include the measurable goals with appropriate timeframes that each BMP category will be implemented and completed. In addition, provide interim milestones and the frequency of action in which the permittee will implement and/or maintain the BMPs. For an explanation of measurable goals, refer to the EPA's *Measurable Goals Guidance for Phase II Small MS4s* (<http://www.epa.gov/npdes/pubs/measurablegoals.pdf>).

If you have more than five categories, hit the tab key after the last line to generate a new row.

Established BMP categories	Measurable goals and timeframes
Structural stormwater BMPs, pond, and outfall inspections	Continue to inspect Structural stormwater BMPs annually, and ponds and outfalls at least once within the permit term. We use an inspection form that meets the documentation requirements in the MS4 permit.
Street sweeping	Continue sweeping City streets at least twice annually.
Staff training	Continue ongoing training of staff covering a variety of stormwater related topics as identified above.
Stormsewer and sanitary sewer maintenance program	Continue current stormsewer and sanitary sewer inspection and maintenance programs.
BMP categories to be implemented	Measurable goals and timeframes
Stockpile, and storage and handling area inspections	Increase current inspection frequency to quarterly inspections of City owned and operated stockpiles, and storage and material handling areas.
Facilities inventory	Complete a facilities inventory of City owned and operated facilities within 12 months of the date permit coverage is extended.
Pond assessment	Relying on the guidance provided by the MPCA, we will develop a procedure for determining the TP and TSS treatment effectiveness of City owned ponds within the length of permit term.

5. Does discharge from your MS4 affect a Source Water Protection Area (Permit Part III.D.6.c.)? Yes No
- a. If **no**, continue to 6.
- b. If **yes**, the Minnesota Department of Health (MDH) is in the process of mapping the following items. Maps are available at <http://www.health.state.mn.us/divs/eh/water/swp/maps/index.htm>. Is a map including the following items available for your MS4:
- 1) Wells and source waters for drinking water supply management areas identified as vulnerable under Minn. R. 4720.5205, 4720.5210, and 4720.5330? Yes No
- 2) Source water protection areas for surface intakes identified in the source water assessments conducted by or for the Minnesota Department of Health under the federal Safe Drinking Water Act, U.S.C. §§ 300j – 13? Yes No
- c. Have you developed and implemented BMPs to protect any of the above drinking water sources? Yes No
6. Have you developed procedures and a schedule for the purpose of determining the TSS and Yes No

TP treatment effectiveness of all permittee owned/operated ponds constructed and used for the collection and treatment of stormwater, according to the Permit (Part III.D.6.d.)?

7. Do you have inspection procedures that meet the requirements of the Permit (Part III.D.6.e.(1)-(3)) for structural stormwater BMPs, ponds and outfalls, and stockpile, storage and material handling areas? Yes No
8. Have you developed and implemented a stormwater management training program commensurate with each employee's job duties that:
- a. Addresses the importance of protecting water quality? Yes No
 - b. Covers the requirements of the permit relevant to the duties of the employee? Yes No
 - c. Includes a schedule that establishes initial training for new and/or seasonal employees and recurring training intervals for existing employees to address changes in procedures, practices, techniques, or requirements? Yes No
9. Do you keep documentation of inspections, maintenance, and training as required by the Permit (Part III.D.6.h.(1)-(5))? Yes No

If you answered **no** to any of the above permit requirements listed in **Questions 5 – 9**, then describe the tasks and corresponding schedules that will be taken to assure that, within 12 months of the date permit coverage is extended, these permit requirements are met:

6. *We will develop procedures for determining the TP and TSS treatment effectiveness of City owned ponds.*

7. *We inspect structural stormwater BMPs annually, and ponds and outfalls once within the permit cycle. However, we are currently only inspecting stockpile, storage and material handling areas annually. This will be changed to quarterly to meet the MS4 Permit requirements.*

8. *We have an employee stormwater training program, however, we will improve our training program to meet the requirements of the MS4 Permit, specifically items 8a, 8b, and 8c identified above.*

We will complete these tasks within 12 months of the date permit coverage is extended.

10. Provide the name or the position title of the individual(s) who is responsible for implementing and/or coordinating this MCM:

Public Works Director

VI. Compliance Schedule for an Approved Total Maximum Daily Load (TMDL) with an Applicable Waste Load Allocation (WLA) (Part II.D.6.)

- A. Do you have an approved TMDL with a Waste Load Allocation (WLA) prior to the effective date of the Permit? Yes No
- 1. If **no**, continue to section VII.
 - 2. If **yes**, fill out and attach the MS4 Permit TMDL Attachment Spreadsheet with the following naming convention: *MS4NameHere_TMDL*.

This form is found on the MPCA MS4 website: <http://www.pca.state.mn.us/ms4>.

VII. Alum or Ferric Chloride Phosphorus Treatment Systems (Part II.D.7.)

- A. Do you own and/or operate any Alum or Ferric Chloride Phosphorus Treatment Systems which are regulated by this Permit (Part III.F.)? Yes No
- 1. If **no**, this section requires no further information.
 - 2. If **yes**, you own and/or operate an Alum or Ferric Chloride Phosphorus Treatment System within your small MS4, then you must submit the Alum or Ferric Chloride Phosphorus Treatment Systems Form supplement to this document, with the following naming convention: *MS4NameHere_TreatmentSystem*.
- This form is found on the MPCA MS4 website: <http://www.pca.state.mn.us/ms4>.

VIII. Add any Additional Comments to Describe Your Program

Appendix E
City of Spring Lake Park Ordinances
Construction Site Runoff Ordinance
Floodplain Management District Ordinance

CONSTRUCTION SITE RUNOFF CONTROL

§ 150.200 INTENT.

To promote the health, safety and general welfare of the citizens of Spring Lake Park, Minnesota by requiring proper storm water management practices for construction activity.

(Ord. 365, passed 2-16-2010)

§ 150.201 STATUTORY AUTHORITY.

These regulations are adopted pursuant to M.S. § 462.351.

(Ord. 365, passed 2-16-2010)

§ 150.202 FINDINGS.

The City of Spring Lake Park hereby finds that uncontrolled land disturbing activity at construction sites are subject to soil erosion and other pollutants which enter into receiving water bodies adversely affecting the public health, safety and general welfare by impacting water quality, creating nuisances and impairing other beneficial uses of environmental resources.

(Ord. 365, passed 2-16-2010)

§ 150.203 PURPOSE.

The purpose of this subchapter is to promote, preserve and enhance the natural resources within the City of Spring Lake Park and protect them from adverse effects occasioned by poorly sited development or incompatible activities by regulating land disturbing activities that would have an adverse and potentially irreversible impact on water quality; by minimizing conflicts and encouraging proper installation and maintenance of Best Management Practices (BMPs) for land disturbing activities, and by requiring detailed review standards and procedures for land disturbing activities proposed for such areas, thereby achieving a balance between development, redevelopment and protection of water quality.

(Ord. 365, passed 2-16-2010; Am. Ord. 401, passed 10-20-2014)

§ 150.204 DEFINITIONS.

For the purpose of this subchapter, the following definitions shall apply unless the context clearly indicates or requires a different meaning. When inconsistent with the context, words used in the present tense include future tense, words in the plural number include the singular number and words in the singular number include the plural number. The word “shall” is always mandatory and not merely directive.

APPLICANT. Any person who wishes to obtain a building permit, zoning or subdivision approval.

BEST MANAGEMENT PRACTICE (BMP). Erosion and sediment control and water quality management practices that are the most effective and practicable means of controlling, preventing and minimizing the degradation of surface water, including construction-phasing, minimizing the length of time soil areas are exposed, prohibitions and other management practices published by state or designated area-wide planning agencies.

DETENTION FACILITY. A permanent natural or man-made structure, including wetlands, for the temporary storage of runoff which contains a permanent pool of water.

DISCHARGE. The release, conveyance, channeling, runoff or drainage of storm water including snowmelt from a construction site.

EXPOSED SOIL AREAS. All areas of a construction site where the vegetation (trees, shrubs, brush, grasses, and the like) or impervious surface has been removed, thus rendering the soil more prone to erosion. This includes topsoil stockpile areas, borrow areas and disposal areas within the construction site. It does not include stockpiles or surcharge areas of gravel, concrete or bituminous. Once soil is exposed it is considered “exposed soil,” until it meets the definition of **FINAL STABILIZATION**.

FINAL STABILIZATION. Means that all soil-disturbing activities at the site have been completed and that a uniform perennial vegetative cover with a density of 70% of the cover for unpaved areas and areas not covered by permanent structures has been established, or equivalent permanent stabilization measures have been employed. Simply sowing grass is not considered **FINAL STABILIZATION**.

LAND DISTURBING OR DEVELOPMENT ACTIVITIES. Any change of the land surface including removing vegetative cover, excavating, filling, grading and the construction of any structure.

PERSON. Any individual, firm, corporation partnership, franchise, association or governmental entity.

PUBLIC WATERS. Waters of the state as defined in M.S. § 103G.005, Subd. 15.

RETENTION FACILITY. A permanent natural or man-made structure that provides for the storage of storm water runoff by means of a permanent pool of water.

SEDIMENT. Solid matter carried by water, sewage, or other liquids.

STORM WATER POLLUTION PREVENTION PLAN (SWPPP). A joint storm water and erosion and sediment control plan containing the requirements of this subchapter, that when implemented will decrease soil erosion on a parcel of land and off-site nonpoint pollution due to sedimentation.

STRUCTURE. Anything manufactured, constructed or erected which is normally attached to or positioned on land, including portable structures earthen structures, roads, parking lots, paved storage areas, fences and retaining walls.

WATERS OF THE STATE. As defined in M.S. § 115.01, Subd. 22 the term **WATERS OF THE STATE** means all streams, lakes, ponds, marshes, watercourses, waterways, wells, springs, reservoirs, aquifers, irrigation systems, drainage systems and all other bodies of accumulations of water, surface or underground natural or artificial, public or private, which are contained within, flow through, or border upon the state or any portion thereof.

WETLANDS. Lands transitional between terrestrial and aquatic systems where the water table is usually at or near the surface or the land is covered by shallow water. For purposes of this definition, **WETLANDS** must have the following three attributes:

- (1) Have a predominance of hydric soils;
- (2) Are inundated or saturated by surface or ground water at a frequency and duration sufficient to support a prevalence of hydrophytic vegetation typically adapted for life in saturated soil conditions; and
- (3) Under normal circumstances support a prevalence of such vegetation.

(Ord. 365, passed 2-16-2010)

§ 150.205 SCOPE AND EFFECT.

(A) *Applicability.* Every applicant for a building permit, subdivision approval, or a permit to allow land disturbing activities greater than or equal to one acre or part of a larger common plan or development greater or equal to one acre, must submit a Storm Water Pollution Prevention Plan (SWPPP) to the Zoning Administrator. No building permit, subdivision approval, or permit to allow land disturbing activities shall be issued until approval of the SWPPP or a waiver of the approval requirement has been obtained in strict conformance with the provisions of this subchapter. The provisions of division (B) of this section apply to all land, public or private.

(B) *Exemptions.* The provisions of this subchapter do not apply to:

- (1) Any part of a subdivision if a plat for the subdivision has been approved by the City Council on or before the effective date of this subchapter;
- (2) A lot for which a building permit has been approved on or before the effective date of this subchapter;
- (3) Installation of fences, signs, telephone and electric poles and other kinds of posts or poles;
- (4) Emergency work to protect life, limb or property; or
- (5) Tilling, planting or harvesting of agricultural, horticultural or forestry crops.

(Ord. 365, passed 2-16-2010; Am. Ord. 401, passed 10-20-2014)

§ 150.206 [RESERVED.]

§ 150.207 [RESERVED.]

§ 150.208 MINIMUM CONSTRUCTION SITE BEST MANAGEMENT PRACTICES.

(A) No SWPPP which fails to meet the standards contained in this section, or as described in the NPDES Construction General Permit, shall be approved by the City Council or designated representative.

(B) *Site dewatering.* Water pumped from the site shall be treated by temporary sedimentation basins, grit chambers, sand filters, upflow chambers, hydrocyclones, swirl concentrators or other appropriate BMPs for dewatering activities described in the NPDES Construction General Permit, Part IV, D. Water may not be discharged in a manner that causes nuisance conditions, erosion, scour, or flooding of the site or receiving channels or a wetland. All discharge points must be adequately protected from erosion and scour. The discharge must be dispersed over

natural rock riprap, sand bags, plastic sheeting or other accepted energy dissipation measures. Adequate sedimentation control measures are required for discharge water that contains suspended solids.

(C) *Construction site waste.* Management of solid and hazardous wastes on site shall meet the requirements of the NPDES Construction General Permit, Part IV, F.

(1) *Solid waste and material disposal.* All waste, unused building material (including garbage debris, cleaning wastes, wastewater, toxic materials or hazardous materials), collected sediment, asphalt and concrete millings, floating debris, paper, plastic, fabric, construction and demolition debris and other wastes must be disposed of properly and must comply with MPCA disposal requirements.

(2) *Hazardous materials.* Oil, gasoline, paint and any hazardous substances must be properly stored, including secondary containment, to prevent spill leaks or other discharge. Restricted access to storage areas must be provided to prevent vandalism. Storage and disposal of hazardous waste must be in compliance with MPCA regulations.

(3) *Liquid Waste.* All other non-storm water discharges (concrete truck washout, vehicle washing, maintenance spills, and the like) conducted during the construction activity shall not be discharged to the municipal storm sewer, wetlands, natural drainageways or waters of the state.

(4) *Sanitary facilities.* Adequate on-site sanitary facilities shall be provided in convenient location(s) for all persons who work on the site.

(D) *Tracking.* Vehicle tracking of sediment onto paved surfaces must be removed by street sweeping as needed to prevent discharge of sediment-laden water from entering the city storm sewer system.

(E) *Drain inlet protection.* All storm drain inlets shall be protected during construction with control measures approved by the City Engineer until final establishment has been accomplished or until approval from the city.

(F) *Site runoff control.* Channelized runoff from adjacent areas passing through the site shall be diverted around disturbed areas, if practical. Diverted runoff shall be conveyed in a manner that will not erode the conveyance at receiving channels. All temporary or permanent drainage channels must be stabilized within 24 hours of being connected to a water of the state. Sediment control is required along channel edges to reduce sediment reaching the channel. This site shall include, as applicable, BMPs to minimize erosion described in the NPDES Construction Permit, Part IV, B.

(G) *Site phasing.* All activities on the site shall be conducted in a logical sequence to minimize the area of base soil exposed at any one time.

(H) *Soil stabilization.* All exposed soil left inactive for 14 or more days must have temporary or permanent stabilization year round.

(I) *Temporary sediment basins.* For sites with more than ten acres disturbed at one time, or if a channel originates in the disturbed area one or more temporary or permanent sedimentation basins shall be constructed. Each sedimentation basin shall have a surface area of at least 1% of the area draining to the basin and at least three feet of depth and constructed in accordance with

accepted design specifications. Sediment shall be removed to maintain a depth of three feet. The basin discharge rate shall also be sufficiently low as to not cause erosion, scour, or flooding along the discharge channel or the receiving water. The use and management of site temporary sediment basins shall meet the requirements of the NPDES Construction General Permit, Part III, C.

(J) *Sediment control.* Silt fence or equivalent sediment control measures shall be placed along all side slopes and down slope sides of the site. If a channel or area of concentrated runoff passes through the site, silt fence shall be placed along the channel edges to reduce sediment reaching the channel. The use of silt fence or equivalent sediment control BMPs, as applicable, shall be used to minimize the discharge of sediment and other pollutants, as described in NPDES Construction General Permit, Part IV, C, and must include a maintenance and inspection schedule.

(K) *Stockpile protection.* Any soil or dirt storage piles containing more than ten cubic yards of material should not be located with a downslide drainage length of less than 25 feet from the toe of the pile to a roadway or drainage channel. If remaining for more than seven days, they shall be temporarily stabilized by mulch, vegetation, tarps, or other means and enclosed by a silt fence or equivalent sediment control measures. Stockpiles which will be in existence for less than seven days shall be enclosed by silt fence or equivalent sediment control measure around the pile. In-street utility repair or construction soil or dirt storage piles located closer than 25 of a roadway or drainage channel must be covered with tarps or suitable alternative control, if exposed for more than seven days.

(L) *Inspection and maintenance.* All stormwater management BMPs shall be inspected weekly or after every 1/2-inch rain event by the applicant. If sediment has reached 1/3 the capacity of the sediment control practice, appropriate maintenance or replacement of the BMP must be completed to ensure maximum effectiveness. All site inspections, records of rainfall events and BMP maintenance shall comply with the requirements of the NPDES Construction General Permit, Part IV, E.

(Ord. 365, passed 2-16-2010; Am. Ord. 401, passed 10-20-2014)

§ 150.209 COMPLETION OF WORK.

Work will be considered complete when all exposed soil areas have undergone final stabilization, as defined in § 150.204; is constructed to finish grade, is in conformance with all permit conditions, including the NPDES Construction General Permit, Part IV, G, and is to the satisfaction of the city. The applicant or representative shall notify the city when the land disturbing operations are ready for final inspection. Final approval shall not be given until all work, including installation of all drainage facilities and their protective devices, and all erosion control measures, have been completed and final stabilization has occurred in accordance with this subchapter

(Ord. 365, passed 2-16-2010; Am. Ord. 401, passed 10-20-2014)

§ 150.210 ENFORCEMENT PROCEDURES.

(A) *Right of entry.* The applicant shall promptly allow the city and its authorized representatives, upon presentation of identification, to:

(1) Enter upon the permitted site for the purpose of obtaining information, examination of records, conducting investigations, inspections or surveys;

(2) Bring such equipment upon the permitted site as is necessary to conduct such surveys and investigations;

(3) Examine and copy any books, papers, records, or memoranda pertaining to activities or records required to be kept under the terms and conditions of this permitted site;

(4) Inspect the stormwater pollution control measures; and

(5) Sample and monitor any items or activities pertaining to stormwater pollution control measures.

(B) *Notification by city of failure of the SWPPP.* If upon inspection by the city or designated representative, the applicant fails to implement the erosion and sediment control practices outlined in the approved SWPPP or minimum BMP standards outlined in § [150.208](#), the city will notify the applicant with a letter of failure which outlines the issues of noncompliance and a timeline for completion of any work to bring the site into compliance.

(C) *Failure to conduct corrective work.* When an applicant fails to conform to any provision of this policy within the time stipulated, the city may take the following actions:

(1) Issue a stop work order, withhold the scheduling of inspections, and/or the issuance of a certificate of occupancy;

(2) Revoke any permit issued by the city to the applicant for the site in question or any other of the applicant's sites within the city's jurisdiction;

(3) Direct the correction of the deficiency by city forces or by a separate contract. The issuance of a permit constitutes a right-of-entry for the city or its contractor to enter upon the construction site for the purpose of correcting deficiencies in erosion or sediment control; and

(4) All costs incurred by the city in correcting storm water pollution control deficiencies must be reimbursed by the applicant. If payment is not made within 30 days after costs are incurred by the city, the city may assess the remaining amount against the property. As a condition of the permit, the owner shall waive notice of any assessment hearing to be conducted by the city, concur that the benefit to the property exceeds the amount of the proposed assessment and waive all rights by virtue of M.S. § 429.081 to challenge the amount or validity of assessment.

(D) *Action against the financial security.* If appropriate actions by the applicant have not been completed within seven days after notification by the city, the city may act against the financial security if any of the conditions listed below exist. The city shall use funds from this security to finance any corrective or remedial work undertaken by the city or a contractor under contract to the city and to reimburse the city for all direct costs incurred in the process of remedial work including, but not limited to, staff time and attorney's fees.

(1) The applicant ceases land disturbing activities and/or filling and abandons the work site prior to completion of the city-approved grading plan.

(2) The applicant fails to conform to any city approved grading plan and/or the SWPPP as approved by the city, or related supplementary instructions.

(3) The techniques utilized under the SWPPP fail within one year of installation.

(4) The applicant fails to reimburse the city for corrective action taken.

(E) *Emergency action.* If circumstances exist such that noncompliance with this subchapter poses an immediate danger to the public health, safety and welfare, as determined by the City Administrator, the city may take emergency preventative action. The city shall also take every reasonable action possible to contact and direct the applicant to take any necessary action. Any cost to the city may be recovered from the applicant's financial security.

(Ord. 365, passed 2-16-2010; Am. Ord. 401, passed 10-20-2014)

 **§ 150.999 PENALTY.**

(A) Any person violating any provision of this chapter for which no specific penalty is prescribed shall be subject to § [10.99](#).

(B) Any person, firm or corporation failing to comply with or violating any of the provisions of §§ [150.200](#) through [150.210](#) shall be deemed guilty of a misdemeanor and subject to a fine or imprisonment or both. All land use and building permits must be suspended until the applicant has corrected the violation. Each day that a separate violation exists constitutes a separate offense.

(Ord. 365, passed 2-16-2010)

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📖 CHAPTER 156: FLOODPLAIN MANAGEMENT DISTRICT

Section

- [156.001](#) Statutory authorization and purpose
- [156.002](#) General provisions
- [156.003](#) Definitions
- [156.004](#) Establishment of Floodplain District
- [156.005](#) Permitted uses and standards in the Floodplain District Administration
- [156.007](#) Nonconformities
- [156.008](#) Amendments

- [156.999](#) Penalties and enforcement

📖 § 156.001 STATUTORY AUTHORIZATION AND PURPOSE.

(A) *Statutory authorization.* The Legislature of the State of Minnesota, has, in M.S. Chapter 103F and Chapter 462, delegated the responsibility to local government units to adopt regulations designed to minimize flood losses.

(B) *Purpose.*

(1) This chapter regulates development in the flood hazard areas of Spring Lake Park, Minnesota. These flood hazard areas are subject to periodic inundation, which may result in loss of life and property, health and safety hazards, disruption of commerce and governmental services, extraordinary public expenditures for flood protection and relief, and impairment of the tax base. It is the purpose of this chapter to promote the public health, safety, and general welfare by minimizing these losses and disruptions.

(2) *National Flood Insurance Program compliance.* This chapter is adopted to comply with the rules and regulations of the National Flood Insurance Program codified as 44 Code of Federal Regulations Parts 59 -78, as amended, so as to maintain the community's eligibility in the National Flood Insurance Program.

(3) This chapter is also intended to preserve the natural characteristics and functions of watercourses and floodplains in order to moderate flood and stormwater impacts, improve water quality, reduce soil erosion, protect aquatic and riparian habitat, provide recreational opportunities, provide aesthetic benefits and enhance community and economic development.

(Ord. 420, passed 12-7-2015)

📖 § 156.002 GENERAL PROVISIONS.

(A) *Lands to which chapter applies.* This chapter applies to all lands within the jurisdiction of the city shown on the Flood Insurance Rate Maps adopted in § [156.002](#)(B) as being located within the boundaries of the Floodplain District. The Floodplain District is an overlay district

that is superimposed on all existing zoning districts. The standards imposed in the overlay districts are in addition to any other requirements in this chapter. In case of a conflict, the more restrictive standards will apply.

(B) *Adoption of flood insurance study and maps.* The following maps together with all attached material are hereby adopted by reference and declared to be a part of the Official Zoning Map and this chapter. The attached material includes the Flood Insurance Study for Anoka County, Minnesota, and Incorporated Areas and the Flood Insurance Rate Map enumerated below, all dated December 16, 2015 and all prepared by the Federal Emergency Management Agency. These materials are on file in the Office of the Administrator, Clerk/Treasurer.

- (1) 27003C0338E;
- (2) 27003C0382E; and
- (3) 27003C0401E.

(C) *Interpretation.* The boundaries of the Floodplain District are determined by scaling distances on the Flood Insurance Rate Map.

(1) Where a conflict exists between the floodplain limits illustrated on the Official Zoning Map and actual field conditions, the flood elevations must be the governing factor. The Zoning Administrator must interpret the boundary location based on the ground elevations that existed on the site on the date of the first National Flood Insurance Program map showing the area within the regulatory floodplain, and other available technical data.

(2) Persons contesting the location of the district boundaries will be given a reasonable opportunity to present their case to the Planning Commission and to submit technical evidence.

(D) *Abrogation and greater restrictions.* It is not intended by this chapter to repeal, abrogate, or impair any existing easements, covenants, or deed restrictions. However, where this chapter imposes greater restrictions, the provisions of this chapter prevail. All other chapter inconsistent with this chapter are hereby repealed to the extent of the inconsistency only.

(E) *Warning and disclaimer of liability.* This chapter does not imply that areas outside the Floodplain Districts or land uses permitted within such districts will be free from flooding or flood damages. This chapter does not create liability on the part of the city or any officer or employee thereof for any flood damages that result from reliance on this chapter or any administrative decision lawfully made hereunder.

(F) *Severability.* If any section, clause, provision, or portion of this chapter is adjudged unconstitutional or invalid by a court of law, the remainder of this chapter shall not be affected and shall remain in full force.

(G) *Annexations.* The Flood Insurance Rate Map panels adopted by reference into division (B) above may include floodplain areas that lie outside of the corporate boundaries of the city at the time of adoption of this chapter. If any of these floodplain areas are annexed into the city after the date of adoption of this chapter, the newly annexed floodplain lands will be subject to the provisions of this chapter immediately upon the date of annexation.

(Ord. 420, passed 12-7-2015)

§ 156.003 DEFINITIONS.

Unless specifically defined below, words or phrases used in this chapter must be interpreted so as to give them the same meaning as they have in common usage and so as to give this chapter its most reasonable application.

BASE FLOOD ELEVATION. The elevation of the **REGIONAL FLOOD**, as defined. The term **BASE FLOOD ELEVATION** is used in the flood insurance survey.

DEVELOPMENT. Any man-made change to improved or unimproved real estate including, but not limited to, buildings, manufactured homes, and other structures, recreational vehicles, mining, dredging, filling, grading, paving, excavation, drilling operations, or storage of materials or equipment.

FARM FENCE. A fence as defined by M.S. § 344.02 Subd. 1(a) - (d). An open type fence of posts and wire is not considered to be a structure under this chapter. Fences that have the potential to obstruct flood flows, such as chain link fences and rigid walls, are not permitted in the Floodplain District.

FLOOD FRINGE. The portion of the floodplain located outside of the floodway. Flood fringe is synonymous with the term "floodway fringe" used in the Flood Insurance Study, Anoka County, Minnesota and Incorporated Areas.

FLOODPLAIN. The areas adjoining a watercourse which have been or hereafter may be covered by the regional flood.

FLOODWAY. The bed of a wetland or lake and the channel of a watercourse and those portions of the adjoining floodplain which are reasonably required to carry or store the regional flood discharge.

HISTORIC STRUCTURE. Defined in 44 Code of Federal Regulations, Part 59.1, as may be amended from time to time.

MANUFACTURED HOME. A structure, transportable in one or more sections, which is built on a permanent chassis and is designed for use with or without a permanent foundation when attached to the required utilities. The term **MANUFACTURED HOME** does not include the term **RECREATIONAL VEHICLE**.

OBSTRUCTION. Any dam, wall, wharf, embankment, levee, dike, pile, abutment, projection, excavation, channel modification, culvert, building, wire, fence (with the exception of farm fences), stockpile, refuse, fill, structure, or matter in, along, across, or projecting into any channel, watercourse, or regulatory floodplain which may impede, retard, or change the direction of the flow of water, either in itself or by catching or collecting debris carried by such water.

RECREATIONAL VEHICLE. A vehicle that is built on a single chassis, is 400 square feet or less when measured at the largest horizontal projection, is designed to be self-propelled or permanently towable by a light duty truck, and is designed primarily not for use as a permanent dwelling but as temporary living quarters for recreational, camping, travel, or seasonal use. For the purposes of this chapter, the term **RECREATIONAL VEHICLE** is synonymous with the term "travel trailer/travel vehicle."

REGIONAL FLOOD. A flood which is representative of large floods known to have occurred generally in Minnesota and reasonably characteristic of what can be expected to occur on an average frequency in the magnitude of the 1% chance/100-year recurrence interval. **REGIONAL FLOOD** is synonymous with the term **BASE FLOOD** used in the Flood Insurance Study.

REGULATORY FLOOD PROTECTION ELEVATION. An elevation no lower than one foot above the elevation of the regional flood plus any increases in flood elevation caused by encroachments on the floodplain that result from designation of a floodway.

STRUCTURE. Anything constructed or erected on the ground or attached to the ground, including, but not limited to, buildings, factories, sheds, detached garages, cabins, manufactured homes, and other similar items.

SUBSTANTIAL DAMAGE. Damage of any origin sustained by a structure where the cost of restoring the structure to its before damaged condition would equal or exceed 50% of the market value of the structure before the damage occurred.

SUBSTANTIAL IMPROVEMENT. Within any consecutive 365-day period, any reconstruction, rehabilitation (including normal maintenance and repair), repair after damage, addition, or other improvement of a structure, the cost of which equals or exceeds 50% of the market value of the structure before the "start of construction" of the improvement. This term includes structures that have incurred "substantial damage," regardless of the actual repair work performed. The term does not, however, include either: (1) any project for improvement of a structure to correct existing violations of state or local health, sanitary, or safety code specifications which have been identified by the local code enforcement official and which are the minimum necessary to assure safe living conditions; or (2) any alteration of a **HISTORIC STRUCTURE** provided that the alteration will not preclude the structure's continued designation as a **HISTORIC STRUCTURE**.

ZONING ADMINISTRATOR. The appointed Administrator, Clerk/Treasurer of the city or his/her designee.

(Ord. 420, passed 12-7-2015)

§ 156.004 ESTABLISHMENT OF FLOODPLAIN DISTRICT.

(A) *Areas included.* The Floodplain District for the city includes those areas designated as AE Zones on the Flood Insurance Rate Maps adopted in § [156.002](#)(B). The Floodplain District is an overlay district to all existing land use districts. The requirements of this chapter apply in addition to other legally established regulations of the community. Where this chapter imposes greater restrictions, the provisions of this chapter apply.

(B) *Compliance.* No new structure or land shall hereafter be used and no structure shall be constructed, located, extended, converted, or structurally altered without full compliance with the terms of this chapter and other applicable regulations. Within the Floodplain District, all uses not listed as permitted uses in § [156.005](#) are prohibited.

(Ord. 420, passed 12-7-2015)

§ 156.005 PERMITTED USES AND STANDARDS IN THE FLOODPLAIN DISTRICT.

(A) *Permitted uses.* The following uses are permitted within the Floodplain District without a permit provided that they are allowed in any underlying zoning district and not prohibited by any other ordinance; and provided that they do not require structures, fill, obstructions, excavations, drilling operations, storage of materials or equipment or any other form of development as defined in this chapter. If the use does require fill, obstruction, excavation, storage of materials or any other form of development as defined in this chapter, a permit and compliance with division (B) of this section is required. The permit requirement may be waived if there is an application for a public waters work permit from the Department of Natural Resources.

(1) Agricultural uses such as general farming, pasture, grazing, forestry, sod farming, and wild crop harvesting. Farm fences that do not obstruct flood flows are permitted.

(2) Outdoor plan nurseries and horticulture.

(3) Private and public recreational uses such as golf courses, tennis courts, driving ranges, archery ranges, picnic grounds, boat launching ramps, swimming areas, parks, wildlife and nature preserves, game farms, shooting preserves, target ranges, hunting and fishing areas, and single or multiple purpose recreational trails.

(4) Lawns, gardens, parking areas and play areas.

(5) Railroads, roads, bridges, utility transmission lines, pipelines and other public utilities, provided that the Department of Natural Resources is notified at least ten days prior to issuance of any permit.

(B) *Standards for permitted uses.*

(1) The use must have low flood damage potential.

(2) The use must not cause any increase in the stage of the 1% chance or regional flood or cause an increase in flood damages in the reach or reaches affected. This provision applies to structures (temporary or permanent), fill (including fill for roads and levees), deposits, obstructions, storage of materials or equipment, and all other uses.

(3) Floodplain developments must not adversely affect the hydraulic capacity of the channel and adjoining floodplain of any tributary watercourse or drainage system.

(4) Public utilities, roads, railroad tracks and bridges to be located within the floodplain must be designed in accordance with divisions (B)(2) and (B)(3) above, or must obtain a Conditional Letter of Map Revision meeting the requirements of 44 CFR 603(d).

(a) When failure or interruption of these public facilities would result in danger to the public health or safety or where such facilities are essential to the orderly functioning of the area, such facilities must be elevated to the regulatory flood protection elevation.

(b) Where failure or interruption of service would not endanger public health or safety, minor or auxiliary roads, railroads or utilities may be constructed at a lower elevation.

(5) New or replacement water supply systems and sanitary sewage systems must be designed to minimize or eliminate infiltration of flood waters into the systems and discharges from the systems into flood waters.

(Ord. 420, passed 12-7-2015)

 **§ 156.006 ADMINISTRATION.**

(A) *Zoning Administrator.* A Zoning Administrator, or other official designated by the City Council, must administer and enforce this chapter.

(B) *Development approvals.* Any construction, enlargement, alteration, repair, improvement, moving or demolition of any building or structure must comply with the requirements of this chapter. No mining, dredging, filling, grading, paving, excavation, obstruction, drilling operation or other form of development as defined in § [156.003](#) are allowed, other than the uses permitted in division (A) of § [156.005](#) and the activities allowed under § [156.007](#).

(C) *Permit required.* A permit must be obtained from the Zoning Administrator prior to conducting the following activities:

(1) Expansion, change, enlargement, or alteration of a nonconforming use as specified in § [156.007](#). Normal maintenance and repair also requires a permit if such work, separately or in conjunction with other planned work, constitutes a substantial improvement as defined in § [156.003](#).

(2) Any use that requires fill, obstruction, excavation, storage of materials, or any other form of development as defined in § [156.003](#).

(a) Permit applications must be submitted to the Zoning Administrator on forms provided for that purpose and shall include the following where applicable: plans drawn to scale, showing the nature, location, dimensions, and elevations of the lot; existing or proposed structures, fill, or storage of materials; and the location of the foregoing in relation to the stream channel.

(b) Prior to granting a permit, the Zoning Administrator must verify that the applicant has obtained all necessary state and federal permits.

(D) *Variances.*

(1) An application for a variance to the provisions of this chapter will be processed and reviewed in accordance with applicable state statutes and § [152.095](#).

(2) A variance must not allow a use that is not allowed in that district, permit a lower degree of flood protection than the regulatory flood protection elevation for the particular area, or permit standards lower than those required by state law.

(3) The following additional variance criteria of the Federal Emergency Management Agency must be met:

(a) Variances must not be issued by a community within any designated regulatory floodway if any increase in flood levels during the base flood discharge would result.

(b) Variances may only be issued by a community upon: (1) a showing of good and sufficient cause; (2) a determination that failure to grant the variance would result in exceptional hardship to the applicant; and (3) a determination that the granting of a variance will not result in increased flood heights, additional threats to public safety, extraordinary public expense, create

nuisances, cause fraud on or victimization of the public, or conflict with existing local laws or ordinances.

(c) Variances may only be issued upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief.

(4) The Zoning Administrator must submit hearing notices for proposed variances to the Department of Natural Resources sufficiently in advance to provide at least ten days' notice of the hearing. The notice may be sent by electronic mail or U.S. Mail to the respective DNR area hydrologist.

(5) A copy of all decisions granting variances must be forwarded to the Commissioner of the Department of Natural Resources within ten days of such action. The notice may be sent by electronic mail or U.S. Mail to the respective DNR area hydrologist.

(6) The Zoning Administrator must notify the applicant for a variance that: (1) the issuance of a variance to construct a structure below the base flood level will result in increased premium rates for flood insurance up to amounts as high as \$25 for \$100 of insurance coverage; and (2) such construction below the base or regional flood level increases risks to life and property;

(7) The Zoning Administrator must maintain a record of all variance actions, including justification for their issuance, and must report such variances in an annual or biennial report to the Administrator of the National Flood Insurance Program, when requested by the Federal Emergency Management Agency.

(E) *Notifications for watercourse alterations.* Before authorizing any alteration or relocation of a river or stream, the Zoning Administrator must notify adjacent communities. If the applicant has applied for a permit to work in public waters pursuant to M.S. § 103G.245, this will suffice as adequate notice. A copy of the notification must also be submitted to the Chicago Regional Office of the Federal Emergency Management Agency (FEMA).

(F) Notification to FEMA When Physical Changes Increase or Decrease Base Flood Elevations. As soon as is practicable, but not later than six months after the date such supporting information becomes available, the Zoning Administrator must notify the Chicago Regional Office of FEMA of the changes by submitting a copy of the relevant technical or scientific data.

(Ord. 420, passed 12-7-2015)

§ 156.007 NONCONFORMITIES.

(A) *Continuance of non-conformities.* A use, structure, or occupancy of land which was lawful before the passage or amendment of this chapter but which is not in conformity with the provisions of this chapter may be continued subject to the following conditions. Historic structures, as defined in § [156.003](#), are subject to the provisions of divisions (A)(1) - (4) of this section.

(1) A nonconforming use, structure, or occupancy must not be expanded, changed, enlarged, or altered in a way that increases its nonconformity. There shall be no expansion to the outside dimensions of any portion of a nonconforming structure located within the Floodplain District.

(2) The cost of all structural alterations or additions to any nonconforming structure over the life of the structure may not exceed 50% of the market value of the structure unless the conditions of this section are satisfied. The cost of all structural alterations and additions must include all costs such as construction materials and a reasonable cost placed on all manpower or labor. If the cost of all previous and proposed alterations and additions exceeds 50% of the market value of the structure, then the structure must meet the standards of division (B) of this section.

(3) If any nonconforming use, or any use of a nonconforming structure, is discontinued for more than one year, any future use of the premises must conform to this chapter. The assessor must notify the Zoning Administrator in writing of instances of nonconformities that have been discontinued for a period of more than one year.

(4) If any nonconformity is substantially damaged, as defined in § [156.003](#), it may not be reconstructed unless it is located in the flood fringe portion of the floodplain and it is reconstructed in accordance with the standards of division (B) of this section.

(5) Any substantial improvement, as defined in § [156.003](#), to a nonconforming structure, then the existing nonconforming structure must be located in the flood fringe portion of the floodplain and meet the requirements of division (B) of this section.

(B) *Standards for reconstruction of nonconforming structures.* The following standards and procedures apply to nonconforming structures in the flood fringe portion of the floodplain, as allowed under division (A) of this section.

(1) All structures, including manufactured homes, must be elevated on fill so that the lowest floor including basement floor is at or above the regulatory flood protection elevation. The finished fill elevation for structures shall be no lower than one foot below the regulatory flood protection elevation and the fill shall extend at such elevation at least 15 feet beyond the outside limits of the structure.

(2) Fill must be properly compacted and the slopes must be properly protected by the use of riprap, vegetative cover or other acceptable method.

(3) Floodplain developments must not adversely affect the hydraulic capacity of the channel and adjoining floodplain of any tributary watercourse or drainage system.

(4) All manufactured homes must be securely anchored to an adequately anchored foundation system that resists flotation, collapse and lateral movement. Methods of anchoring may include, but are not limited to, use of over-the-top or frame ties to ground anchors. This requirement is in addition to applicable state or local anchoring requirements for resisting wind forces.

(5) *On-site sewage treatment and water supply systems.* Where public utilities are not provided: (1) on-site water supply systems must be designed to minimize or eliminate infiltration of flood waters into the systems; and (2) new or replacement on-site sewage treatment systems must be designed to minimize or eliminate infiltration of flood waters into the systems and discharges from the systems into flood waters and they shall not be subject to impairment or contamination during times of flooding. Any sewage treatment system designed in accordance

with the state's current statewide standards for on-site sewage treatment systems shall be determined to be in compliance with this section.

(6) *Certification.* The applicant is required to submit certification by a registered professional engineer, registered architect, or registered land surveyor that the finished fill and building elevations were accomplished in compliance with the provisions of this chapter. Floodproofing measures must be certified by a registered professional engineer or registered architect.

(7) *Record of first floor elevation.* The Zoning Administrator must maintain a record of the elevation of the lowest floor (including basement) of all new structures and alterations to existing structures in the floodplain. The Zoning Administrator must also maintain a record of the elevation to which structures and alterations or additions to structures are floodproofed.

(Ord. 420, passed 12-7-2015)

§ 156.008 AMENDMENTS.

(A) *Floodplain designation: restrictions on removal.* The floodplain designation on the Official Zoning Map shall not be removed from floodplain areas unless it can be shown that the designation is in error or that the area has been filled to or above the elevation of the regulatory flood protection elevation and is contiguous to lands outside the floodplain. Special exceptions to this rule may be permitted by the Commissioner of the Department of Natural Resources if the Commissioner determines that, through other measures, lands are adequately protected for the intended use.

(B) *Amendments require DNR and FEMA approval.* All amendments to this chapter must be submitted to and approved by the Commissioner of the Department of Natural Resources (DNR) prior to adoption. The Commissioner of the DNR must approve the amendment prior to community approval.

(C) *Map amendments require ordinance amendments.* The Floodplain District regulations must be amended to incorporate any revisions by the Federal Emergency Management Agency to the floodplain maps adopted in § [156.002\(B\)](#).

(Ord. 420, passed 12-7-2015)

§ 156.999 PENALTIES AND ENFORCEMENT.

(A) *Violation constitutes a misdemeanor.* Violation of the provisions of this chapter or failure to comply with any of its requirements (including violations of conditions and safeguards established in connection with grants of variances) constitutes a misdemeanor and is punishable as defined by law.

(B) *Other lawful action.* Nothing in this chapter restricts the city from taking such other lawful action as is necessary to prevent or remedy any violation. If the responsible party does not appropriately respond to the Zoning Administrator within the specified period of time, each additional day that lapses will constitute an additional violation of this chapter and will be prosecuted accordingly.

(C) *Enforcement.* In responding to a suspected ordinance violation, the Zoning Administrator and City Council may utilize the full array of enforcement actions available to it including but not limited to prosecution and fines, injunctions, after-the-fact permits, orders for corrective measures or a request to the National Flood Insurance Program for denial of flood insurance availability to the guilty party. The city must act in good faith to enforce these official controls and to correct ordinance violations to the extent possible so as not to jeopardize its eligibility in the National Flood Insurance Program.

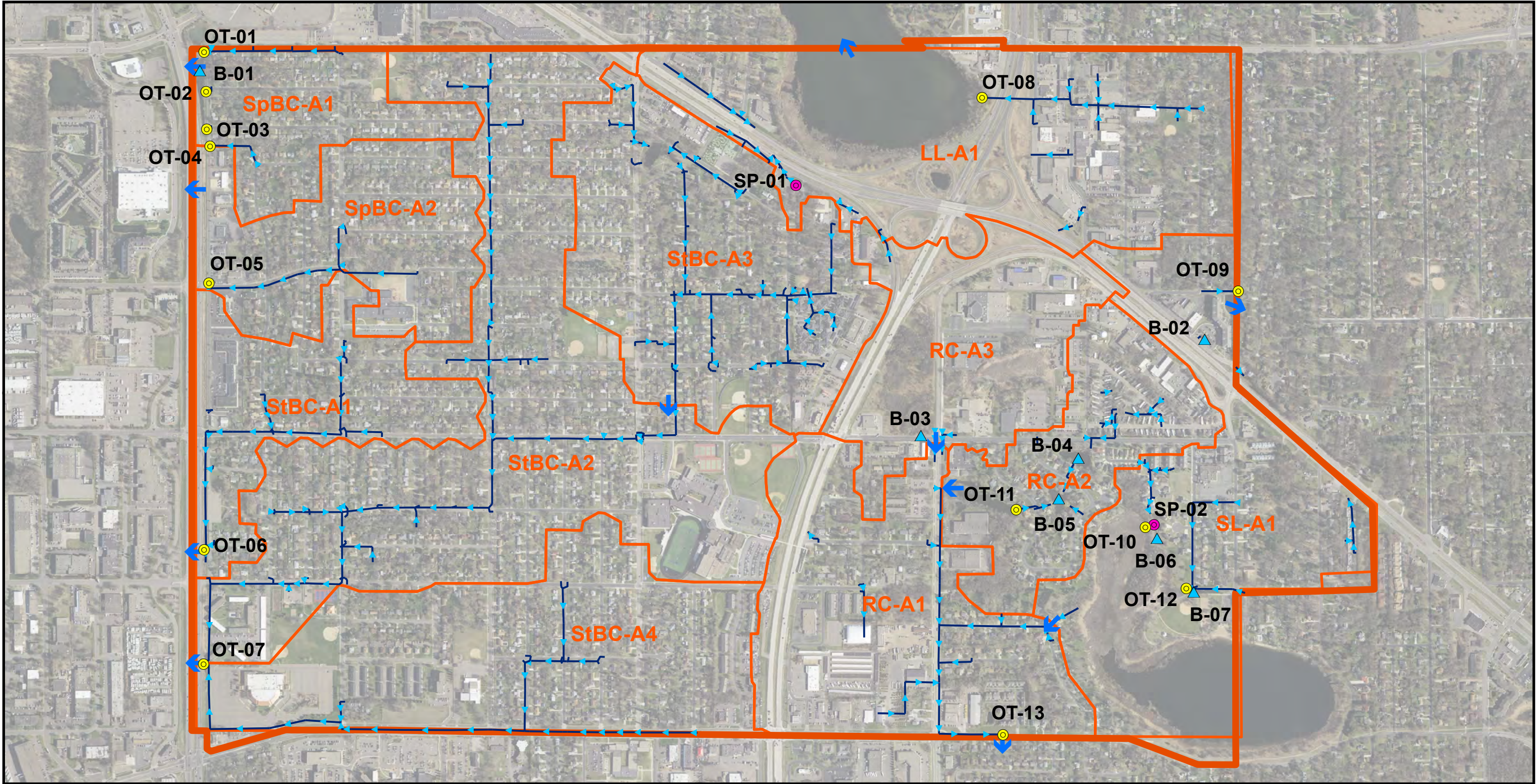
(Ord. 420, passed 12-7-2015)

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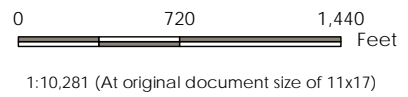
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- | | | | | |
|--|------------------------|--|---------------|-----------------------|
| | General Flow Direction | | City Boundary | MS4 Structures |
| | Existing Stormsewer | | Drainage Area | |
| | | | | Basin |
| | | | | |
| | | | | Outfall |
| | | | | |
| | | | | SPCD |



Client/Project
 City of Spring Lake Park
 Local Surface Water Management Plan
 July 2018

Title
 Local Surface Water Management Plan
 Surface Water System Map

Notes
 1. Coordinate System: NAD 1983 HARN Adj MN Anoka Feet
 2. Base features: Anoka and Ramsey Counties, Spring Lake Park, Stantec
 3. Orthoregistry: MnGeo

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Appendix F: Local Water Supply Plan



City of Spring Lake Park Local Water Supply Plan

Formerly called Water Emergency & Water Conservation Plan



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- APPENDIX 10: ADOPTED OR PROPOSED REGULATIONS TO REDUCE DEMAND OR IMPROVE WATER EFFICIENCY
- APPENDIX 11: IMPLEMENTATION CHECKLIST

Local Water Supply Plan – Spring Lake Park

Complete Table 1 with information about the public water supply system covered by this WSP.

Table 1. General information regarding this WSP

Requested Information	Description
DNR Water Appropriation Permit Number(s)	720123
Ownership	<input checked="" type="checkbox"/> Public or <input type="checkbox"/> Private
Metropolitan Council Area	<input checked="" type="checkbox"/> Yes or <input type="checkbox"/> No (Anoka And Ramsey Counties)
Street Address	1301 NE 81 st Avenue
City, State, Zip	Spring Lake Park, MN 55432
Contact Person Name	Terry Randall
Title	Public Works Director
Phone Number	763-784-6491
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.

- A. Some of this information may be in your Wellhead Protection Plan.
- B. 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:

<p>No category changes. Water Supplier Services estimated based on annual fall hydrant flushing, sewer jetting, and winter ice rink creation and maintenance.</p>

Local Water Supply Plan – Spring Lake Park

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	Wholesale Deliveries (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)
2005	6,835	2,182	166	103	2	-	271	284	2.0	3.9%	0.78	2.28	7/13/2005	66.5	113.8
2006	6,835	2,192	162	102	8	-	272	309	2.0	11.3%	0.85	2.81	7/13/2006	64.9	123.9
2007	6,623	2,195	174	115	16	-	305	307	2.0	0.0%	0.84	2.20	6/26/2007	72.0	127.0
2008	6,690	2,187	166	106	9	-	281	294	2.0	3.7%	0.81	1.91	7/7/2008	68.0	120.4
2009	6,768	2,188	165	100	6	-	271	299	3.35	8.2%	0.82	1.87	6/3/2009	66.8	121.0
2010	6,668	2,190	187	62	4	-	253	285	3.35	10.1%	0.78	1.65	5/30/2010	76.8	117.1
2011	6,412	2,188	168	59	4	-	231	268	3.35	12.6%	0.73	1.69	9/20/2011	71.8	114.5
2012	6,432	2,188	208	42	8	-	258	275	3.35	5.0%	0.75	1.73	9/4/2012	88.6	117.1
2013	6,427	2,193	182	47	10	-	239	259	3.35	6.4%	0.71	1.70	9/8/2013	77.6	110.4
2014	6,439	2,193	162	55	7	-	224	242	3.35	6.1%	0.66	1.49	8/8/2014	68.9	103.0
2015	6,464	2,190	157	44	5	-	206	236	3.35	11.3%	0.65	1.22	6/27/2015	66.5	100.0
Avg. 2010-2015	6,474	2,190	177	51.5	6	NA	235.2	260.8	NA	8.6%	0.71	1.58	-	75.0	110.4

MG – Million Gallons **MGD** – Million Gallons per Day **GPCD** – Gallons per Capita per Day

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)	Amount Used (Gallons per Year)	Percent of Total Annual Water Delivered	Implementing Water Conservation Measures?
1. SPRING LK TERR.	RESIDENTIAL	9,583,000	4.7%	Unknown
2. SCHL DIST. #16	INSTITUTIONAL	9,541,000	4.7%	Yes
3. NORTH TOWN APT.	RESIDENTIAL	6,879,000	3.4%	Yes
4. FIRESIDE APTS	RESIDENTIAL	3,026,000	1.5%	Yes
5. GATOR UNIV.	COMMERCIAL	2,437,000	1.2%	Yes
6. OAKCREST	RESIDENTIAL	2,060,000	1.0%	Unknown
7. HOLIDAY	COMMERCIAL	1,750,000	0.9%	Unknown
8. BIFFS	COMMERCIAL	1,594,000	0.8%	Unknown
9. MONTES	COMMERCIAL	1,508,000	0.7%	Unknown
10. EMMANUEL CHRISTIAN	INSTITUTIONAL	1,366,000	0.7%	Yes

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)	Year Constructed	Treatment Capacity (GPD)	Treatment Method	Treatment Type	Annual Amount of Residuals	Disposal Process for Residuals	Reclaim Filter Backwash Water?
7820 Terrace	2003	2.5 MGD	Pressure sand filtration.	Chlorination, Fluoridation, Potassium Permanganate, Manganese Sulfate	165,000 gallons	Residuals of iron are disposed in the sanitary sewer	Yes
8249-51 Arthur	2003	2.0 MGD			116,000 gallons		Yes
Total	NA	4.5 MGD	NA	NA		NA	NA

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)
1. 8200 Able	Elevated storage	1962	Steel	250,000
2. 8251 Arthur	Elevated storage	1998	Steel	500,000
Total	NA	NA	NA	750,000

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 existing firm well capacity of 4.2 MGD exceeds the projected 2025 maximum day of 1.8 MGD and the 2040 demand of 2.0 MGD. The firm well capacity is calculated with one well out of service. The capacity of the two water treatment plants also exceeds the maximum day demand even with one filter cell or one station out of service. Therefore, no additional water supply or water treatment is required.

The existing storage volume of 0.75 MG exceeds the projected 2025 average day demand of 0.72 MGD and is near the 2040 average day demand of 0.80 MGD. The water supply and treatment capacity in excess of projected maximum day demands can be used to offset the slight difference in storage volumes. No additional water storage is required.

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	Franconia-Mt. Simon	Well #1 206638	1961	900	741'	Active	Yes
Groundwater	Franconia-Mt. Simon	Well #2 223294	1965	1000	690'	Active	Yes
Groundwater	Mt. Simon-Hinckley	Well #4 180920	1982	1000	726'	Active	No
Groundwater	Mt. Simon-Hinckley	Well #5 563006	1998	1500	783'	Active	No
Interconnection	City of Blaine	-	-	1.0 MGD	-	Emergency	-
Interconnection	City of Mounds View	-	-	1.0 MGD	-	Emergency	-

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.

Both utilities are required to open a closed valve to allow for emergency interconnection.

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 population in Spring Lake Park has actually decreased over 5% between 2005 – 2015 (6,835 to 6,464). Total per capita water demand is also decreasing; from over 120 gpcd in 2005 – 2009 to 102 gpcd in 2014 – 2015. The total per capita water demand average was approximately 110 gpcd between 2010 and 2015. Average day water demand has decreased slightly over the last 10 years as per capita water usage and population have decreased. The maximum day water demands have decreased from a high of 2.8 MGD in 2006 to an average of 1.5 MGD in 2012 - 2015.

Per capita water demands and maximum day demands have decreased. The key factor for this trend is the City’s conservation rates. Newer water saving products on the market when homeowners are replacing outdated appliances, bathroom toilets, and fixtures has also decreased water usage.

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)
2016	6,433	6,433	110	0.71	1.77
2017	6,440	6,440	110	0.71	1.77
2018	6,500	6,500	110	0.72	1.79
2019	6,600	6,600	110	0.73	1.82
2020	6,700	6,700	110	0.74	1.84
2021	6,730	6,730	110	0.74	1.85
2022	6,760	6,760	110	0.74	1.86
2023	6,790	6,790	110	0.75	1.87
2024	6,820	6,820	110	0.75	1.88
2025	6,850	6,850	110	0.75	1.88
2030	7,000	7,000	110	0.77	1.93
2040	7,400	7,400	110	0.81	2.04

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 total per capita water demand average was approximately 110 gpcd between 2010 and 2015. This per capita demand is projected forward through 2040 using population projections from Met. Council.

The projected maximum day demand was calculated based on a maximum to average day demand ratio of 2.5. The last several years the maximum day demand ratio has been lower (the average factor was 2.2 from 2010 to 2015.), but for planning purposes a conservative approach is preferred. A maximum day demand factor of 2.5 has not been exceeded since 2007.

E. Resource Sustainability

Monitoring – Key DNR Benchmark

Complete Table 8 by inserting information about source water quality and quantity monitoring efforts. List should include all production wells, observation wells, and source water intakes or reservoirs. Add rows to the table as needed. Find information on groundwater level monitoring program at:

http://www.dnr.state.mn.us/waters/groundwater_section/obwell/index.html

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
Well #1 206638	<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 checked="" type="checkbox"/> routine water utility sampling <input type="checkbox"/> other	<input checked="" type="checkbox"/> continuous <input type="checkbox"/> hourly <input type="checkbox"/> daily <input checked="" 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
Well #2 223294	<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 checked="" type="checkbox"/> routine water utility sampling <input type="checkbox"/> other	<input checked="" type="checkbox"/> continuous <input type="checkbox"/> hourly <input type="checkbox"/> daily <input checked="" 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
Well #4 180290	<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 checked="" type="checkbox"/> routine water utility sampling <input type="checkbox"/> other	<input checked="" type="checkbox"/> continuous <input type="checkbox"/> hourly <input type="checkbox"/> daily <input checked="" 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
Well #5 563006	<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 checked="" type="checkbox"/> routine water utility sampling <input type="checkbox"/> other	<input checked="" type="checkbox"/> continuous <input type="checkbox"/> hourly <input type="checkbox"/> daily <input checked="" 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.

Provide water level data graphs for each well in **Appendix 3** for the life of the well, or for as many years as water levels have been measured. See DNR website for Date Time Water Level http://www.dnr.state.mn.us/waters/groundwater_section/obwell/waterleveldata.html

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
Well #1 206638	Franconia- Mt. Simon	Remains stable	<input type="checkbox"/> Falling <input checked="" type="checkbox"/> Stable <input type="checkbox"/> Rising	03/25/16: 375 ft
Well #2 223294	Franconia-Mt. Simon	Remains stable	<input type="checkbox"/> Falling <input checked="" type="checkbox"/> Stable <input type="checkbox"/> Rising	03/25/16: 387 ft 07/25/16: 386 ft 11/25/16: 387 ft
Well #4 180290	Mt. Simon-Hinckley	~20 ft	<input type="checkbox"/> Falling <input checked="" type="checkbox"/> Stable <input type="checkbox"/> Rising	03/25/16: 219 ft 07/25/16: 246 ft 11/25/16: 233 ft
Well #5 563006	Mt. Simon-Hinckley	~30 ft	<input type="checkbox"/> Falling <input checked="" type="checkbox"/> Stable <input type="checkbox"/> Rising	03/25/16: 238 ft 07/25/16: 259 ft 11/25/16: 229 ft

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 be impacted by permitted water withdrawals. If known, 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 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.

Table 10. Natural resource impacts

Resource Type	Resource Name	Risk	Risk Assessed Through	Describe Resource Protection Threshold*	Mitigation Measure or Management Plan	Describe How Changes to Thresholds are Monitored
<input type="checkbox"/> River or stream		<input type="checkbox"/> Flow/water level decline <input type="checkbox"/> Degrading water quality trends and/or MCLs exceeded <input type="checkbox"/> Impacts on endangered, threatened, or special concern species habitat or other natural resource impacts <input type="checkbox"/> Other: _____	<input type="checkbox"/> GIS analysis <input type="checkbox"/> Modeling <input type="checkbox"/> Mapping <input type="checkbox"/> Monitoring <input type="checkbox"/> Aquifer testing <input type="checkbox"/> Other: ____		<input type="checkbox"/> Revise permit <input type="checkbox"/> Change groundwater pumping <input type="checkbox"/> Increase conservation <input type="checkbox"/> Other	
<input type="checkbox"/> Calcareous fen		<input type="checkbox"/> Flow/water level decline <input type="checkbox"/> Degrading water quality trends and/or MCLs exceeded <input type="checkbox"/> Impacts on endangered, threatened, or special concern species habitat or other natural resource impacts <input type="checkbox"/> Other: _____	<input type="checkbox"/> GIS analysis <input type="checkbox"/> Modeling <input type="checkbox"/> Mapping <input type="checkbox"/> Monitoring <input type="checkbox"/> Aquifer testing <input type="checkbox"/> Other: ____		<input type="checkbox"/> Revise permit <input type="checkbox"/> Change groundwater pumping <input type="checkbox"/> Increase conservation <input type="checkbox"/> Other	
<input type="checkbox"/> Lake		<input type="checkbox"/> Flow/water level decline <input type="checkbox"/> Degrading water quality trends and/or MCLs exceeded <input type="checkbox"/> Impacts on endangered, threatened, or special concern species habitat or other natural resource impacts <input type="checkbox"/> Other: _____	<input type="checkbox"/> GIS analysis <input type="checkbox"/> Modeling <input type="checkbox"/> Mapping <input type="checkbox"/> Monitoring <input type="checkbox"/> Aquifer testing <input type="checkbox"/> Other: ____		<input type="checkbox"/> Revise permit <input type="checkbox"/> Change groundwater pumping <input type="checkbox"/> Increase conservation <input type="checkbox"/> Other	
<input type="checkbox"/> Wetland		<input type="checkbox"/> Flow/water level decline <input type="checkbox"/> Degrading water quality trends and/or MCLs exceeded <input type="checkbox"/> Impacts on endangered, threatened, or special concern species habitat or other natural resource impacts <input type="checkbox"/> Other: _____	<input type="checkbox"/> GIS analysis <input type="checkbox"/> Modeling <input type="checkbox"/> Mapping <input type="checkbox"/> Monitoring <input type="checkbox"/> Aquifer testing <input type="checkbox"/> Other: ____		<input type="checkbox"/> Revise permit <input type="checkbox"/> Change groundwater pumping <input type="checkbox"/> Increase conservation <input type="checkbox"/> Other	

Local Water Supply Plan – Spring Lake Park

Resource Type	Resource Name	Risk	Risk Assessed Through	Describe Resource Protection Threshold*	Mitigation Measure or Management Plan	Describe How Changes to Thresholds are Monitored
		or other natural resource impacts <input type="checkbox"/> Other: _____				
<input type="checkbox"/> Trout stream		<input type="checkbox"/> Flow/water level decline <input type="checkbox"/> Degrading water quality trends and/or MCLs exceeded <input type="checkbox"/> Impacts on endangered, threatened, or special concern species habitat or other natural resource impacts <input type="checkbox"/> Other: _____	<input type="checkbox"/> GIS analysis <input type="checkbox"/> Modeling <input type="checkbox"/> Mapping <input type="checkbox"/> Monitoring <input type="checkbox"/> Aquifer testing <input type="checkbox"/> Other: _____		<input type="checkbox"/> Revise permit <input type="checkbox"/> Change groundwater pumping <input type="checkbox"/> Increase conservation <input type="checkbox"/> Other	
<input checked="" type="checkbox"/> Aquifer	Mt. Simon Aquifer	<input checked="" type="checkbox"/> Flow/water level decline <input checked="" type="checkbox"/> Degrading water quality trends and/or MCLs exceeded <input type="checkbox"/> Impacts on endangered, threatened, or special concern species habitat or other natural resource impacts <input type="checkbox"/> Other: _____	<input type="checkbox"/> GIS analysis <input type="checkbox"/> Modeling <input type="checkbox"/> Mapping <input checked="" type="checkbox"/> Monitoring <input checked="" type="checkbox"/> Aquifer testing <input type="checkbox"/> Other: _____	Established threshold guideline is water level drop no more than half of the available head. Law does not allow aquifer to be pumped so that a confined aquifer becomes unconfined.	<input type="checkbox"/> Revise permit <input checked="" type="checkbox"/> Change groundwater pumping <input checked="" type="checkbox"/> Increase conservation <input type="checkbox"/> Other	DNR has oversight on thresholds (and permitting) for pumping from regional bedrock aquifers.
<input type="checkbox"/> Endangered, threatened, or special concern species habitat, other natural resource impacts		<input type="checkbox"/> Flow/water level decline <input type="checkbox"/> Degrading water quality trends and/or MCLs exceeded <input type="checkbox"/> Impacts on endangered, threatened, or special concern species habitat or other natural resource impacts <input type="checkbox"/> Other: _____	<input type="checkbox"/> GIS analysis <input type="checkbox"/> Modeling <input type="checkbox"/> Mapping <input type="checkbox"/> Monitoring <input type="checkbox"/> Aquifer testing <input type="checkbox"/> Other: _____		<input type="checkbox"/> Revise permit <input type="checkbox"/> Change groundwater pumping <input type="checkbox"/> Increase conservation <input type="checkbox"/> Other	

* Examples of thresholds: 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.

Wellhead Protection (WHP) and Surface 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 Surface Water Protection Plans

Plan Type	Status	Date Adopted	Date for Update
WHP	<input type="checkbox"/> In Process <input checked="" type="checkbox"/> Completed <input type="checkbox"/> Not Applicable	February 2001	Per MDH, due to low vulnerability risk and no major local changes, current plan is still active.
SWP	<input type="checkbox"/> In Process <input type="checkbox"/> Completed <input checked="" type="checkbox"/> Not Applicable	NA	NA

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 checked="" type="checkbox"/> Repair/replacement <input type="checkbox"/> Expansion/addition	2017-2018	Rehab Wells 4 & 5
Water Storage Facilities	<input checked="" type="checkbox"/> No action planned - adequate <input type="checkbox"/> Repair/replacement <input type="checkbox"/> Expansion/addition		
Water Treatment Facilities	<input checked="" type="checkbox"/> No action planned - adequate <input type="checkbox"/> Repair/replacement <input type="checkbox"/> Expansion/addition		
Distribution Systems (pipes, valves, etc.)	<input type="checkbox"/> No action planned - adequate <input checked="" type="checkbox"/> Repair/replacement <input type="checkbox"/> Expansion/addition	Ongoing	Routine repair and preventative maintenance.

System Component	Planned action	Anticipated Construction Year	Notes
Other:	<input type="checkbox"/> No action planned - adequate <input type="checkbox"/> Repair/replacement <input type="checkbox"/> Expansion/addition		

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	N/A				
Surface Water	N/A				
Interconnection to another supplier	N/A				

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 N/A

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. Federal 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.

Do you have a federal emergency response plan? Yes No

If yes, what was the date it was certified? July 2004

Complete Table 15 by inserting the noted information regarding your completed Federal Emergency Response Plan.

Table 15. Emergency Preparedness Plan contact information

Emergency Response Plan Role	Contact Person	Contact Number	Phone	Contact Email
Emergency Response Lead	TERRY RANDALL	763-360-4973		TRANDALL@SLPMN.ORG
Alternate Emergency Response Lead	KEN PROKOTT	763-360-4974		KPROKOTT@SLPMN.ORG

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

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**. A template is available at www.mndnr.gov/watersupplyplans

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 BLAINE	1 MGD	NO LIMITATIONS	VALVE WRENCH, TRUCK, LABOR
CITY OF MOUNDS VIEW	1 MGD	NO LIMITATIONS	VALVE WRENCH, TRUCK, LABOR

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
N/A				

If not covered above, describe additional emergency measures for providing water (obtaining bottled water, or steps to obtain National Guard services, etc.)

Utilize the emergency response groups such as the Salvation Army and MN Dept. of Health.

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	500,000	150,000
Commercial/Institutional/Industrial	2	140,000	35,000
Non-Essential	6	20,000	15,000
TOTAL	NA	660,000	200,000

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)

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 checked="" type="checkbox"/> Executive order by Governor <input type="checkbox"/> Other: _____	<input checked="" type="checkbox"/> Supply augmentation through emergency interconnections. <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 type="checkbox"/> Meet with large water users to discuss their contingency plan.	<input checked="" type="checkbox"/> Supply augmentation through emergency interconnections. <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.

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 declared (< 1 year)	<input checked="" type="checkbox"/> Website <input checked="" type="checkbox"/> Email list serve <input checked="" type="checkbox"/> Social media (e.g. Twitter, Facebook) <input type="checkbox"/> Direct customer mailing, <input type="checkbox"/> Press release (TV, radio, newspaper), <input type="checkbox"/> Meeting with large water users (> 10% of total city use) <input type="checkbox"/> Other: _____	<input type="checkbox"/> Daily <input checked="" type="checkbox"/> Weekly <input checked="" type="checkbox"/> Monthly <input checked="" type="checkbox"/> Annually	
<input checked="" type="checkbox"/> Long-term Ongoing demand reduction declared	<input checked="" type="checkbox"/> Website <input checked="" type="checkbox"/> Email list serve <input checked="" type="checkbox"/> Social media (e.g. Twitter, Facebook) <input 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 type="checkbox"/> Other: _____	<input checked="" type="checkbox"/> Daily <input checked="" type="checkbox"/> Weekly <input checked="" type="checkbox"/> Monthly <input checked="" type="checkbox"/> Annually	Local Media
<input checked="" type="checkbox"/> Governor’s critical water deficiency declared	<input checked="" type="checkbox"/> Website <input checked="" type="checkbox"/> Email list serve <input checked="" type="checkbox"/> Social media (e.g. Twitter, Facebook) <input type="checkbox"/> Direct customer mailing, <input type="checkbox"/> Press release (TV, radio, newspaper), <input checked="" type="checkbox"/> Meeting with large water users (> 10% of total city use) <input type="checkbox"/> Other: _____	<input checked="" type="checkbox"/> Daily <input checked="" type="checkbox"/> Weekly <input checked="" type="checkbox"/> Monthly <input checked="" type="checkbox"/> Annually	Anoka and Ramsey Counties Local Media

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.

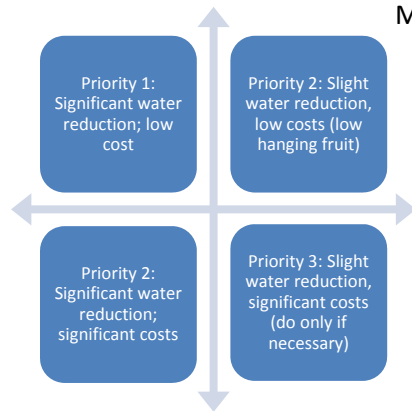
Irrespective of whether a critical water deficiency control is in place, does the public water supply utility, city manager, mayor, or emergency manager have standing authority to implement water restrictions? Yes No

If yes, cite the regulatory authority reference:

If no, who has authority to implement water use restrictions in an emergency?

Ordinance 50.04 states that City Council may impose emergency conservation regulations. Spring Lake Park has drafted a new critical water deficiency ordinance which would extend power to implement water restrictions to City staff (draft ordinance included in Appendix 7).

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 use 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.

Spring Lake Park implemented a conservation water rate structure in 2012, we restrict lawn watering to odd/even days, we monitor water use on a regular basis to detect possible leaks and provide educational materials to the public through hand-outs, newsletters and the website.

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

2006 Plan Commitments	Action Taken?
Change water rates structure to provide conservation pricing – Tiered conservation rates first established in 2012.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Water supply system improvements (e.g. leak repairs, valve replacements, etc.)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Educational efforts	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
New water conservation ordinances – Even/Odd sprinkling ordinance in place	<input checked="" type="checkbox"/> Yes <input 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 checked="" type="checkbox"/> No
Enforcement – Citations may be issued for violators.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Describe other – All commercial/industrial properties are required to have rain sensors on their irrigation systems.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

What are the results you have seen from the actions in Table 21 and how were results measured?

Significant reduction in yearly water usage/sales evident by the yearly pumpage reports and sales.

Total per capita water demand is also decreasing; from over 120 gpcd in 2005 – 2009 to 102 gpcd in 2014 – 2015. The total per capita water demand average was approximately 110 gpcd between 2010 and 2015.

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 checked="" type="checkbox"/> Low stream flow conditions <input checked="" type="checkbox"/> Reports of declining wetland and lake levels	<input checked="" type="checkbox"/> Increase promotion of conservation measures <input type="checkbox"/> Other: _____
Short-term demand reduction (less than 1 year)	<input checked="" 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"/> 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 emergency interconnections. <input type="checkbox"/> Water allocation through _____ <input 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 type="checkbox"/> Total demand increase (higher population or more industry) <input type="checkbox"/> Water level in well(s) below elevation of _____ <input type="checkbox"/> Other: _____	<input checked="" 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"/> 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"/> Determined by State	<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.

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 Waters 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)

Overall water use is reviewed on a quarterly basis and unusual high use or a significant spike in use is investigated. The City averages only 4 leaks per year and discovered leaks are fixed immediately.

Water Audits - are intended to identify, quantify, and verify water and revenue losses. The volume of unaccounted-for water should be evaluated each billing cycle. The American Water Works Association (AWWA) recommends that ten percent or less of pumped water is unaccounted-for water. Water audit procedures are available from the AWWA and MN Rural Water Association www.mrwa.com . Drinking Water Revolving Loan Funds are available for purchase of new meters when new plants are built.

What is the date of your most recent water audit? October 2016

Frequency of water audits: yearly Quarterly

Leak detection and survey: every year every other year periodic as needed

Year last leak detection survey completed: _____

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 average unaccounted for water between 2005 and 2015 was approximately 7 percent. The City will conduct regular water audits to compare water pumpage and water sales.

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. AWWA also recommends that water suppliers conduct regular water audits to ensure accountability. 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	2,024	2,024	2,024	10 years	10/20
Irrigation meters	57	57	57	10 years	10/20
Institutional	13	13	13	10 years	10/20
Commercial	145	145	145	10 years	10/20
Industrial	5	5	5	10 years	10/20
Public facilities	2	2	2	10 years	10/20
TOTALS	2,246	2,246	2,246	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.

The City does not have any unmetered systems. All water meters are equipped with radio receivers and the City actively replaces radios on a regular basis, periodically updating water meters as well. The City plans to replace non-residential water user meters in the future.

Table 24. Water source meters

	Number of Water Meters	Meter testing schedule (years)	Number of Automated Meter Readers	Average age/meter replacement schedule (years)
City Wells	4	15	4	12/20
Treatment plant	3	15	3	12/20

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 2010-2015 residential per capita water demand in Table 2 more than 75? Yes No

What was your 2010 – 2015 five-year average residential per capita water demand? 75 gal/person/day

Describe the water use trend over that timeframe:

Residential per capita water use has trended down since 2010 and only significantly exceeded 75 gpcd in 2012. Per capita demand was as high as 76 gpcd in 2010, but is now approximately 68 gpcd in 2014-2015.

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 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	
<input type="checkbox"/> Revise ordinances to limit irrigation. Describe the restricted irrigation plan:	
<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 checked="" type="checkbox"/> Make water system infrastructure improvements: Continue preventative maintenance to replace aging infrastructure.	Ongoing
<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. Utilize billboard, social media, & quarterly mailings.	2017

Strategy to reduce residential per capita demand	Timeframe for completing work
<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 type="checkbox"/> Conduct audience-appropriate water conservation education and outreach.	
<input checked="" type="checkbox"/> Describe other plans Heighten community awareness with conservation tips and ideas in our bi-annual newsletters, eNews, website, handouts and or flyers with water bill mailing.	Ongoing; expand in 2017

Objective 3: Achieve at least a 1.5% per year water reduction for Institutional, Industrial, Commercial, and Agricultural GPCD over the next 10 years or a 15% reduction in ten years.

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: Citywide radio readings are reviewed on a quarterly basis to alert the City of any unusual use or a spike in use and to follow-up accordingly.	Ongoing
<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 checked="" type="checkbox"/> Install water conservation fixtures and appliances or change processes to conserve water: The 1992 Federal Energy Policy Act established manufacturing standards for water efficient plumbing fixtures, including toilets, urinals, faucets, and aerators. All new fixtures and appliances must be in compliance with current building codes.	Ongoing
<input checked="" type="checkbox"/> Repair leaking system components: Continue preventative maintenance and proactively replace aging infrastructure.	Ongoing
<input type="checkbox"/> Investigate the reuse of reclaimed water (e.g., stormwater, wastewater effluent, process wastewater, etc.)	

Strategy to reduce total business, industry, agricultural demand	Timeframe for completing work
<input type="checkbox"/> Reduce outdoor water use (e.g., turf replacement/reduction, rain gardens, rain barrels, smart irrigation, outdoor water use meters, etc.)	
<input checked="" type="checkbox"/> Train employees how to conserve water during preventative maintenance and water system repairs on the job and water saving tips for at home.	2017
<input checked="" type="checkbox"/> Implement a notification system to inform non-residential customers when water availability conditions change. City will provide notification when water availability conditions change with our website, electronic billboard, & with respect to our small community, door to door notification or tags.	2017
<input type="checkbox"/> 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. Proposed plumbing code 4714.1702.1	
<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.

Per capita water use is declining after a significant change in commercial/industrial water sales in 2010. Total per capita water demand is trending downward; from over 120 gpcd in 2005 – 2009 to 102 gpcd in 2014 – 2015.

Residential per capita water use has trended down since 2010 with a spike in per capita usage in the summer of 2012. Per capita demand was as high as 76 gpcd in 2010, but is now approximately 68 gpcd in 2014 – 2015.

Per capita commercial, industrial, and Institutional water use is approximately 20 gpcd with a slight downward trend since 2010.

Objective 5: Reduce Peak Day Demand so that the Ratio of Average Maximum day to the Average Day is less than 2.6

Is the ratio of average 2005-2015 maximum day demand to average 2005-2015 average day demand reported in Table 2 more than 2.6? Yes No

Calculate a ten year average (2005 – 2015) of the ratio of maximum day demand to average day demand: 2.4

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 a Conservation Water Rate Structure and/or a Uniform Rate Structure with a Water Conservation Program

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: None

Frequency of billing: Monthly Bimonthly Quarterly Other: _____

Water Rate Evaluation Frequency: every year every 2 years no schedule

Date of last rate change: January 2016. A workshop is planned to review the rates and implement an increase in 2017.

Table 27. Rate structures for each customer category (Select all that apply and add additional rows as needed)

Customer Category	Conservation Billing Strategies in Use *	Conservation Neutral Billing Strategies in Use **	Non-Conserving Billing Strategies in Use ***
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"/> Use water bill to provide comparisons <input checked="" type="checkbox"/> Service charge not based on water volume	<input type="checkbox"/> Uniform <input checked="" 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"/> Use water bill to provide comparisons <input checked="" type="checkbox"/> Service charge not based on water volume	<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)

*** 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:

While conservation neutral, Odd/Even day watering reduces peak water usage, reducing infrastructure needs required to meet peak demands.

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 type="checkbox"/>	Prepare a master plan for smart growth (compact urban growth that avoids sprawl)
<input 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 type="checkbox"/>	Adopt an outdoor lawn irrigation ordinance
<input checked="" type="checkbox"/>	Adopt a private well ordinance (private wells in a city must comply with water restrictions). City will review a private well ordinance in 2017.
<input checked="" type="checkbox"/>	Stormwater management program is ongoing.
<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?

Spring Lake Park will continue to review water use for all users on a quarterly basis, change radio receivers as needed, and replace older meters as they deteriorate with age resulting in inaccurate readings. The City will monitor per capita water usage to monitor water usage changes.

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 checked="" type="checkbox"/> Rainfall sensors required on landscape irrigation systems: MN Statues 103G.298 requires “All automatically operated landscape irrigation systems shall have furnished and installed technology that inhibits or interrupts operation of the landscape irrigation system during periods of sufficient moisture. The technology must be adjustable either by the end user or a professional practitioner of landscape irrigation services.”	<input checked="" type="checkbox"/> Ongoing <input type="checkbox"/> Seasonal <input type="checkbox"/> Only during declared Emergencies
<input checked="" type="checkbox"/> Water efficient plumbing fixtures required. The 1992 Federal Energy Policy Act established standards for water efficient plumbing fixtures, including toilets, urinals, faucets and aerators, and fixtures must meet current building code requirements.	<input checked="" type="checkbox"/> New development <input checked="" 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 checked="" type="checkbox"/> Watering restriction requirements (time of day, allowable days, etc.): Add additional enforcement of watering restrictions	<input checked="" 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 type="checkbox"/> Limitations on turf areas (requiring lots to have 10% - 25% of the space in natural areas)	<input 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 type="checkbox"/> Tree ratios (requiring a certain number of trees per square foot of lawn)	<input 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"/> 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 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 checked="" type="checkbox"/> Low flush toilets, <input type="checkbox"/> Toilet leak tablets, <input checked="" type="checkbox"/> Low flow showerheads, <input checked="" type="checkbox"/> Faucet aerators;	<input checked="" type="checkbox"/> Education about <input type="checkbox"/> Free distribution of <input type="checkbox"/> Rebate for <input type="checkbox"/> Other	<input checked="" 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 checked="" type="checkbox"/> Water softeners;	<input checked="" type="checkbox"/> Education about <input type="checkbox"/> Free distribution of <input type="checkbox"/> Rebate for <input checked="" type="checkbox"/> Other	<input type="checkbox"/> Gas company <input type="checkbox"/> Electric company <input type="checkbox"/> Watershed organization
<input checked="" type="checkbox"/> Rain gardens, <input type="checkbox"/> Rain barrels, <input type="checkbox"/> Native/drought tolerant landscaping, etc.	<input checked="" 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.):

Aerators and low-flow showerheads have been available to residents through CenterPoint Energy and the City has made this information available in a flyer to residents. We’ve also educated residents on the regular maintenance of water softeners as they can malfunction and waste a high volume of water and provided hand-outs how to check for toilet leaks.

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	Conservation tips for both indoor and outdoor water usage. Information on detecting leaks.	4	<input checked="" type="checkbox"/> Ongoing <input type="checkbox"/> Seasonal <input type="checkbox"/> Only during emergencies
Consumer Confidence Reports	MDH Drinking Water Report is published each year. Add conservation information in future.	1	<input checked="" type="checkbox"/> Ongoing <input type="checkbox"/> Seasonal <input type="checkbox"/> Only during emergencies
Press releases to traditional local news outlets (e.g., newspapers, radio and TV)	Press releases prepared during emergencies only at this time.	-	<input type="checkbox"/> Ongoing <input type="checkbox"/> Seasonal <input checked="" type="checkbox"/> Only during emergencies
Social media distribution (e.g., emails, Facebook, Twitter)	Spring Lake Park is on Facebook and Twitter.	24/7	<input checked="" type="checkbox"/> Ongoing <input type="checkbox"/> Seasonal <input type="checkbox"/> Only during 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 emergencies
Presentations to community groups	Will conduct educational presentations during water restrictions.		<input type="checkbox"/> Ongoing <input type="checkbox"/> Seasonal <input checked="" type="checkbox"/> Only during emergencies
Staff training			<input type="checkbox"/> Ongoing <input type="checkbox"/> Seasonal <input type="checkbox"/> Only during emergencies
Facility tours			<input type="checkbox"/> Ongoing <input type="checkbox"/> Seasonal <input type="checkbox"/> Only during emergencies
Displays and exhibits			<input type="checkbox"/> Ongoing <input type="checkbox"/> Seasonal <input type="checkbox"/> Only during 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 emergencies
Community news letters	Water conservation tips and the City's sprinkling even/odd ban are published in the newsletter.	4	<input checked="" type="checkbox"/> Ongoing <input type="checkbox"/> Seasonal <input type="checkbox"/> Only during emergencies
Direct mailings (water audit/retrofit kits, showerheads, brochures)			<input type="checkbox"/> Ongoing <input type="checkbox"/> Seasonal <input type="checkbox"/> Only during emergencies
Information kiosk at utility and public buildings	Conservation tips for both indoor and outdoor water usage. Information on detecting leaks.	24/7	<input checked="" type="checkbox"/> Ongoing <input type="checkbox"/> Seasonal <input type="checkbox"/> Only during emergencies
Public service announcements			<input type="checkbox"/> Ongoing <input type="checkbox"/> Seasonal <input type="checkbox"/> Only during emergencies

Local Water Supply Plan – Spring Lake Park

Education Methods	General summary of topics	#/Year	Frequency
Cable TV Programs			<input type="checkbox"/> Ongoing <input type="checkbox"/> Seasonal <input type="checkbox"/> Only during emergencies
Demonstration projects (landscaping or plumbing)			<input type="checkbox"/> Ongoing <input type="checkbox"/> Seasonal <input type="checkbox"/> Only during emergencies
K-12 education programs (Project Wet, Drinking Water Institute, presentations)			<input type="checkbox"/> Ongoing <input type="checkbox"/> Seasonal <input type="checkbox"/> Only during emergencies
Community events (children’s water festivals, environmental fairs)			<input type="checkbox"/> Ongoing <input type="checkbox"/> Seasonal <input type="checkbox"/> Only during emergencies
Community education classes			<input type="checkbox"/> Ongoing <input type="checkbox"/> Seasonal <input type="checkbox"/> Only during emergencies
Water week promotions			<input type="checkbox"/> Ongoing <input type="checkbox"/> Seasonal <input type="checkbox"/> Only during emergencies
Website: http://www.slpmn.org/	Conservation tips for both indoor and outdoor water usage. Information on detecting leaks.	24/7	<input checked="" type="checkbox"/> Ongoing <input type="checkbox"/> Seasonal <input type="checkbox"/> Only during emergencies
Targeted efforts (large volume users, users with large increases)			<input type="checkbox"/> Ongoing <input type="checkbox"/> Seasonal <input type="checkbox"/> Only during emergencies
Notices of ordinances			<input type="checkbox"/> Ongoing <input type="checkbox"/> Seasonal <input type="checkbox"/> Only during emergencies
Emergency conservation notices			<input type="checkbox"/> Ongoing <input type="checkbox"/> Seasonal <input type="checkbox"/> Only during emergencies
Other:			<input type="checkbox"/> Ongoing <input type="checkbox"/> Seasonal <input type="checkbox"/> Only during emergencies

Briefly discuss what future education and information activities your community is considering in the future:

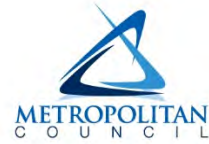
Expand current efforts to heighten community awareness with conservation tips and ideas in our newsletters, eNews, website, handouts and or flyers with water bill mailing.

Add water conservation information to the annual Consumer Confidence Report.

Train Utility staff to conserve water during preventative maintenance and water system repairs on the job and water saving tips for at home.

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

Local Control	Schedule to Implement	Potential Partners
<input type="checkbox"/> None at this time		
<input checked="" type="checkbox"/> Comprehensive planning that guides development in vulnerable drinking water supply management areas	2018, with City comprehensive planning	City of Fridley
<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: Eliminate unfunded new initiatives

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 – see Part 1C

Appendix 2: Water level monitoring plan – see Part 1E

Appendix 3: Water level graphs for each water supply well – see Part 1E

Appendix 4: Capital Improvement Plan – see Part 1E

Appendix 5: Emergency Telephone List – see Part 2C

Appendix 6: Cooperative Agreements for Emergency Services – see Part 2C

Appendix 7: Municipal Critical Water Deficiency Ordinance – see Part 2C

Appendix 8: Graph showing annual per capita water demand for each customer category during the last ten-years – see Part 3 Objective 4

Appendix 9: Water Rate Structure – see Part 3 Objective 6

Appendix 10: Adopted or proposed regulations to reduce demand or improve water efficiency – see Part 3 Objective 7

Appendix 11: Implementation Checklist – summary of all the actions that a community is doing, or proposes to do, including estimated implementation dates

Unique No. 00206638	MINNESOTA DEPARTMENT OF HEALTH WELL AND BORING RECORD <i>Minnesota Statutes Chapter 1031</i>	Update Date 2014/08/18																																																																																																																																																																																				
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REMARKS, ELEVATION, SOURCE OF DATA, etc.

M.G.S. NO.204. OLD PA NO. 61-0150.

USGS Quad Minneapolis North Elevation 885
Aquifer: CTCM Alt Id: 72-0123

Report Copy

Drop Pipe Length ft. Capacity E+03 g.p.m

Type T

Any not in use and not sealed well(s) on property? Yes No

Was a variance granted from the MDH for this Well? Yes No

Well CONTRACTOR CERTIFICATION Lic. Or Reg. No. 27058

License Business Name

Name of Driller

HE-01205-06 (Rev. 9/96)

Unique No. 00223294	MINNESOTA DEPARTMENT OF HEALTH WELL AND BORING RECORD <i>Minnesota Statutes Chapter 1031</i>	Update Date 2014/08/18																																																																																																									
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	Casing Diameter Weight(lbs/ft) 30 in. t 157 ft 24 in. t 206 ft 16 in. t 329 ft																																																																																																										
	Screen N Open Hole From 329 ft. to 694 ft. Make _____ Type _____																																																																																																										
	Static Water Level 128 ft. from Land surface Date 1965/09/22																																																																																																										
	PUMPING LEVEL (below land surface) 238 ft. after hrs. pumping 1200 g.p.m.																																																																																																										
	Well Head Completion Pitless adapter mfr _____ Model _____ Casing Protection <input checked="" type="checkbox"/> 12 in. above grade <input type="checkbox"/> At-grade(Environmental Wells and Borings ONLY)																																																																																																										
	Grouting Information Well grouted? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Material From To (ft.) Amount(yds/bags) G _____																																																																																																										
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	Pump <input type="checkbox"/> Not Installed Date Installed Y Mfr nam LAYNE Model _____ HP 0 Volts Drop Pipe Length ft. Capacity g.p.m Type S																																																																																																										
	Any not in use and not sealed well(s) on property? <input type="checkbox"/> Yes <input type="checkbox"/> No																																																																																																										
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	Well CONTRACTOR CERTIFICATION Lic. Or Reg. No. 27118 License Business Name _____ Name of Driller BENEKE, R.																																																																																																										
REMARKS, ELEVATION, SOURCE OF DATA, etc. OLD PA NO. 65-0185. GAMMA LOGGED 12-9-1998. USGS Quad Minneapolis North Elevation 877 Aquifer: CTCM Alt Id: 72-0123																																																																																																											

Report Copy

E. H. Renner & Sons

INVOICE

INCORPORATED

WELL DRILLING FOR FIVE GENERATIONS

15683 JARVIS STREET N.W. • ELK RIVER, MN 55330

PHONE: (763) 427-6100 • FAX: (763) 427-0533

www.ehrenner.com

INVOICE NO.: 000129770000

CUSTOMER NO.: 02221

DATE: 04/11/13

SOLD TO:

CITY OF SPRING LAKE PARK
 Attn: Terry Randall
 1301 81st Avenue NE
 Spring Lake PK, MN 55422-2188

SHIP TO:

ATTN: Terry Randall
 Well No 02

SHIP DATE	SHIPPED VIA	F.O.B.	TERMS	SALES- PERSON	ORDER DATE	P.O. NUMBER
02/27/13	12R	Site	NET 30	02	10/17/12	Verbal TR

QUANTITY	DESCRIPTION	UNIT PRICE	AMOUNT
1	Final Pay Request		
1	Set Bowl Bearings	1,100.00	1,100.00
1	Motor Repairs	10,958.00	10,958.00
2	Pitless O-Rings	81.00	162.00
2	Flomatic Check 8"	1,208.00	2,416.00
13	8" x 21' Drop Pipe Sch 40 T&C	726.00	9,438.00
288	Submersible Cable 250MCM	32.00	9,216.00
274	Pipe 3/4" Sch 80	1.50	411.00
1	Press Transducer .39 OD 283' Cable	1,860.00	1,860.00
1	Misc	140.00	140.00
10	Shop To Repair	70.00	700.00
1	Labor to Install	2,400.00	2,400.00

* T H A N K Y O U *

SUB-TOTAL	38,801.00	SHIPPING CHARGES	0.00
SALES TAX	0.00	TOTAL	38,801.00

Unique No. 00180920	MINNESOTA DEPARTMENT OF HEALTH WELL AND BORING RECORD <i>Minnesota Statutes Chapter 1031</i>	Update Date 2015/03/13	
County Name Anoka		Entry Date 1994/04/04	
Township Name Township 30 Range 24 Dir W Section 2 Subsection CABCCD	Well Depth 726 ft.	Depth Completed 726 ft. Date Well Completed 1982/05/28	
Well Name SPRING LAKE PARK 4	Drilling Method Cable Tool		
Well Owner's Name SPRING LAKE PARK 4 WYLDWOOD LA SPRING LAKE PARK MN 55432	Drilling Fluid	Well Hydrofractured? <input type="checkbox"/> Yes <input type="checkbox"/> No From ft. to ft.	
Contact's Name CITY OF SPRING LAKE PARK 1301 81ST NE AV SPRING LAKE PARK MN 55432	Use Community Supply		
GEOLOGICAL MATERIAL COLOR HARDNESS FROM TO FILL BLUE 0 6 SANDY SOIL-WET TAN 6 10 FINE SANDY MUSH GRAY 10 35 CLAY GRAY SOFT 35 60 STONES, SAND, BINDER DARK SOFT 60 80 NO RECORD RED HARD 80 85 CLAY GRAY 85 105 CLAY & STONE DARK 105 140 CLAY & ROCK TAN 140 145 SHALE YELLO 145 175 SHAKOPEE ROTTEN BROW 175 190 JORDAN BROW 190 200 JORDAN SOFT BROW 200 230 JORDAN CHUNKY WHT/B 230 240 JORDAN COARSE BROW 240 278 ST. LAWRENCE YELLO 278 290 ST. LAWRENCE TAN 290 305 SHALE BLU/G 305 325 SHALE BLU/G 325 350 SHALE STICKY 350 370 SHALE GREE 370 400 SHALE GREE 400 455 SHALE LT. BL 455 462 SANDSTONE WHITE 462 482 SANDSTONE & SHALE RED 482 509 SANDSTONE & SHALE RED 509 545 SHALE BLUE 545 547 SHALE RED 547 550 SHALE VARIE 550 560 SHALE GREE 560 570 SHALE BLU/G 570 585 FINE SANDSTONE BLUE 585 675	Casing Drive Shoe? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> N	Hole Diameter	
	Casing Diameter Weight(lbs/ft)		
	30 in. t 153 ft 118.6		
	24 in. t 285 ft 94.6		
16 in. t 533 ft 62.6			
Screen N	Open Hole From 533 ft. to 726 ft.		
Make	Type		
Static Water Level 162 ft. from Land surface Date 1982/05/00			
PUMPING LEVEL (below land surface) 130 ft. after 60 hrs. pumping 1000 g.p.m.			
Well Head Completion Pitless adapter mfr Model Casing Protection <input checked="" type="checkbox"/> 12 in. above grade <input type="checkbox"/> At-grade(Environmental Wells and Borings ONLY)			
Grouting Information Well grouted? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Material	From	To (ft.) Amount(yds/bags)	
G	0	285 0	
G	0	533 0	
Nearest Known Source of Contamination ft. direction type Well disinfected upon completion? <input type="checkbox"/> Yes <input type="checkbox"/> No			
Pump <input type="checkbox"/> Not Installed Date Installed Y			
Mfr nam			
Model	HP	0 Volts	

SANDSTONE	WHITE	675	720
SANDSTONE	PINK	720	725
CLASTICS	RED	725	726

REMARKS, ELEVATION, SOURCE OF DATA, etc.

GAMMA LOGGED 3-1-1982. M.G.S. NO.1889.

TOTAL OF 30 YDS. OF GROUT USED.

USGS Quad Minneapolis North Elevation 880
 Aquifer: CMTS Alt Id: 72-0123

Report Copy

Drop Pipe Length ft. Capacity g.p.m
 Type T

Any not in use and not sealed well(s) on property? Yes No

Was a variance granted from the MDH for this Well? Yes No

Well CONTRACTOR CERTIFICATION Lic. Or Reg. No. 02015

License Business Name

Name of Driller SIGAFOOS, G.

HE-01205-06 (Rev. 9/96)

Unique No. 00563006	MINNESOTA DEPARTMENT OF HEALTH WELL AND BORING RECORD <i>Minnesota Statutes Chapter 1031</i>	Update Date 2015/03/13																																																																																										
County Name Anoka		Entry Date 1999/04/20																																																																																										
Township Name Township Range Dir Section Subsection 30 24 W 1 ADCBCB	Well Depth 783 ft.	Depth Completed 783 ft.																																																																																										
		Date Well Completed 1998/12/01																																																																																										
Well Name SPRING LAKE PARK 5	Drilling Method Cable Tool																																																																																											
Well Owner's Name SPRING LAKE PARK 5 8250 ARTHUR ST SPRING LAKE PARK MN 55432	Drilling Fluid Bentonite	Well Hydrofractured? <input type="checkbox"/> Yes <input type="checkbox"/> No From ft. to ft.																																																																																										
Contact's Name SPRING LAKE PARK 1301 81ST NE AV SPRING LAKE PARK MN 55432	Use Community Supply																																																																																											
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	GEOLOGICAL MATERIAL	COLOR	HARDNESS	FROM	TO																																																																																							
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	Casing Diameter 36 in. t 88 ft Weight(lbs/ft) 142.68 30 in. t 320 ft 118.55 24 in. t 486 ft 94.62 18 in. t 650 ft 70.59																																																																																											
	Screen N	Open Hole From 650 ft. to 783 ft.																																																																																										
	Make	Type																																																																																										
	Static Water Level 240 ft. from Top of breather pipe abo Date 1998/11/09																																																																																											
	PUMPING LEVEL (below land surface) 312 ft. after 24 hrs. pumping 1400 g.p.m.																																																																																											
	Well Head Completion Pitless adapter mfr Model Casing Protection <input checked="" type="checkbox"/> 12 in. above grade <input type="checkbox"/> At-grade(Environmental Wells and Borings ONLY)																																																																																											
	Grouting Information Well grouted? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Material From To (ft.) Amount(yds/bags) G 0 320 7 Y G 0 486 26.7 Y G 0 650 33 Y																																																																																											
	Nearest Known Source of Contamination ft. direction type Well disinfected upon completion? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No																																																																																											
	Pump <input type="checkbox"/> Not Installed Date Installed Mfr nam FAIRBANKS-MORSE Model 12M7000-6 HP 200 Volts 480 Drop Pipe Length 400 ft. Capacity E+03 g.p.m Type T																																																																																											
REMARKS, ELEVATION, SOURCE OF DATA, etc. GAMMA LOGGED 11-24-1997. M.G.S. NO. 3836. REMOVED 2000 YARDS OF SANDSTONE FROM WELL. USGS Quad New Brighton Elevation 908 Aquifer: CMSH Alt Id: 72-0123																																																																																												
Report Copy																																																																																												
	Well CONTRACTOR CERTIFICATION Lic. Or Reg. No. 71015 License Business Name Name of Driller COLBURN, S.																																																																																											
	Any not in use and not sealed well(s) on property? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Was a variance granted from the MDH for this Well? <input type="checkbox"/> Yes <input type="checkbox"/> No																																																																																											

SPRING LAKE PARK WATER LEVEL MONITORING PLAN

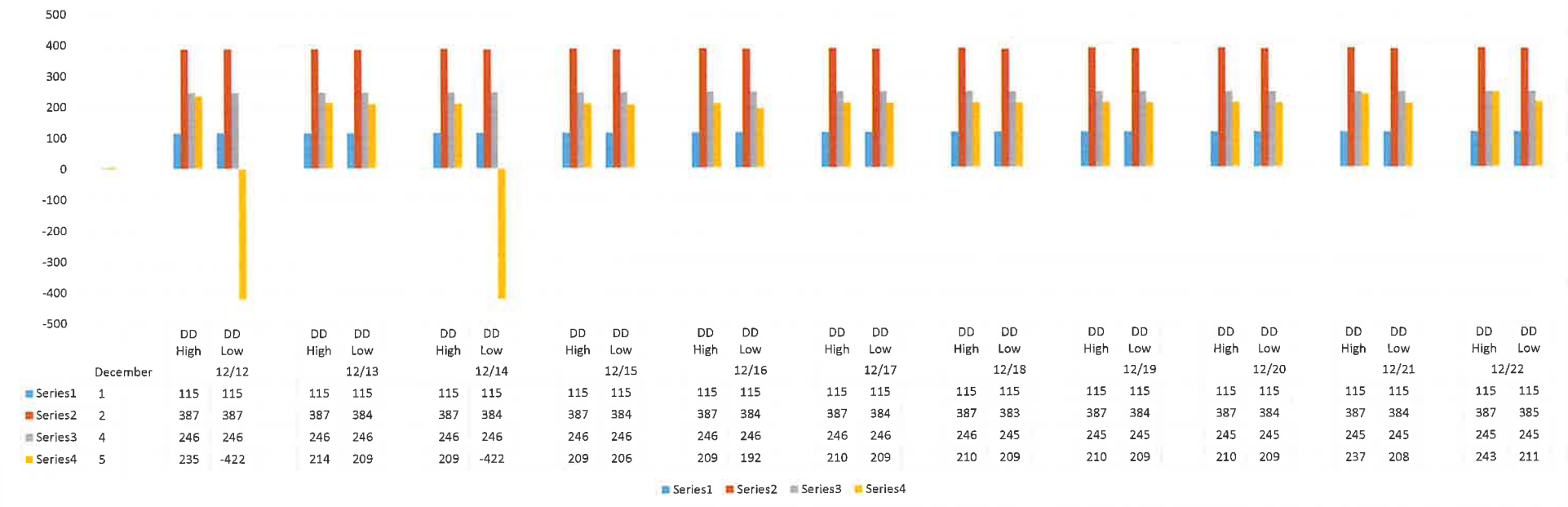
The City of Spring Lake Park has automatic water level monitoring at all four groundwater wells. The City can review drawdown levels for the four wells through the SCADA system as needed. Daily report summaries are printed daily in the Public Works Department and stored as a hard copy. The daily report summary records the well pump run time, total volume pumped, and high and low drawdown levels. An example daily report is shown below.

Daily Report March 25, 2016

Site	RunTime Hours	Total Flow (GLSX1000)	DD High Ft	DD Low Ft
Terrace Wellhouse, Pump 1	0.0	0.0	375	373
Terrace Wellhouse, Pump 2	0.0	0.0	387	387
Wellhouse 4	0.0	0.0	220	219
Wellhouse 5	9.5	494.0	266	238
Total	9.5	494.0		

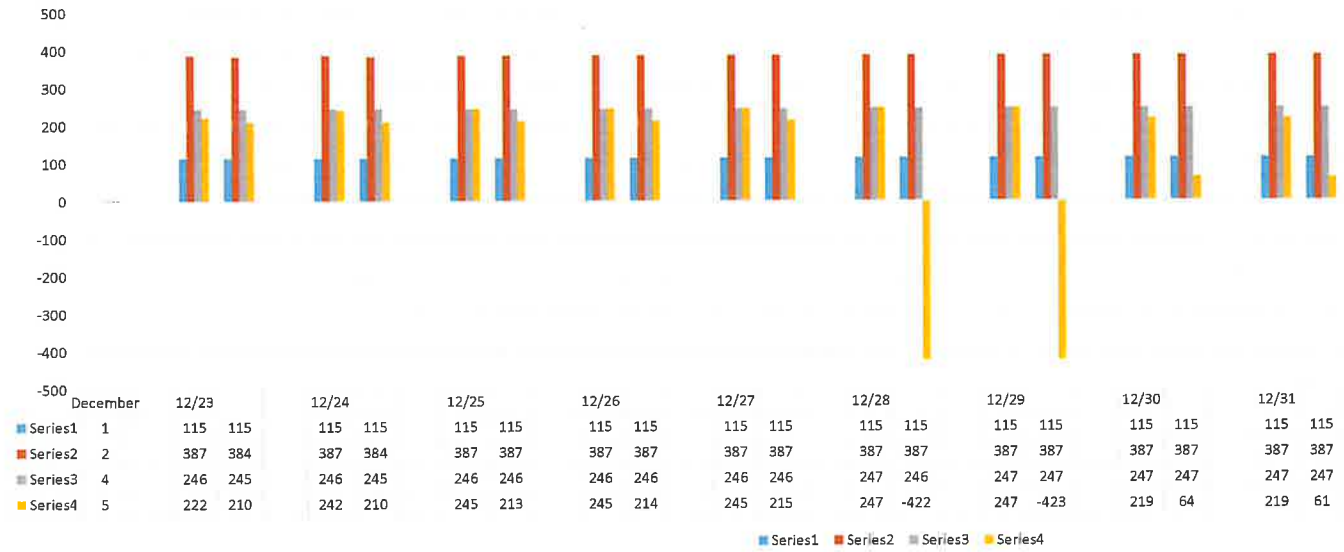
December		1	2	4	5
12/12	DD High	115	387	246	235
	DD Low	115	387	246	-422
12/13	DD High	115	387	246	214
	DD Low	115	384	246	209
12/14	DD High	115	387	246	209
	DD Low	115	384	246	-422
12/15	DD High	115	387	246	209
	DD Low	115	384	246	206
12/16	DD High	115	387	246	209
	DD Low	115	384	246	192
12/17	DD High	115	387	246	210
	DD Low	115	384	246	209
12/18	DD High	115	387	246	210
	DD Low	115	383	245	209
12/19	DD High	115	387	245	210
	DD Low	115	384	245	209
12/20	DD High	115	387	245	210
	DD Low	115	384	245	209
12/21	DD High	115	387	245	237
	DD Low	115	384	245	208
12/22	DD High	115	387	245	243
	DD Low	115	385	245	211

Pumpage Report - December 2017



Puimpage Report - December 2017

December		1	2	4	5
12/23	DD High	115	387	246	222
	DD Low	115	384	245	210
12/24	DD High	115	387	246	242
	DD Low	115	384	245	210
12/25	DD High	115	387	246	245
	DD Low	115	387	246	213
12/26	DD High	115	387	246	245
	DD Low	115	387	246	214
12/27	DD High	115	387	246	245
	DD Low	115	387	246	215
12/28	DD High	115	387	247	247
	DD Low	115	387	246	-422
12/29	DD High	115	387	247	247
	DD Low	115	387	247	-423
12/30	DD High	115	387	247	219
	DD Low	115	387	247	64
12/31	DD High	115	387	247	219
	DD Low	115	387	247	61



Fund/Dept	Project	2016	2017	2018	2019	2020	Total
403 - Capital Replacement							
Park & Rec	Able Park Light Fixture Replacement		\$25,000				\$25,000
Park & Rec	Terrace Park Ball Field Lighting		\$25,000				\$25,000
Park & Rec	Terrace Park Hockey Light Fixture Replacement					\$25,000	\$25,000
Police Department	Defibrillator/AED Replacement		\$22,000				\$22,000
	Capital Replacement Total	\$0	\$72,000	\$0	\$0	\$25,000	\$97,000
407 - Sealcoating							
Public Works	Sealcoating	\$85,000	\$85,000	\$85,000	\$85,000	\$85,000	\$425,000
	Revolving Construction Fund Total	\$85,000	\$85,000	\$85,000	\$85,000	\$85,000	\$425,000
410 - Lakeside/Lions Park Improvement							
Park & Rec	Lakeside Lions Park Irrigation		\$5,000				\$5,000
Park & Rec	Lakeside Lions Park Ball Field Lighting					\$30,000	\$30,000
	Lakeside/Lions Park Improvement Total	\$0	\$5,000	\$0	\$0	\$30,000	\$35,000
425 - Storm Sewer Rehab							
Storm Water	Pond Dredging	\$50,000		\$50,000		\$50,000	\$150,000
	Storm Sewer Rehab Total	\$50,000	\$0	\$50,000	\$0	\$50,000	\$150,000
600 - Public Utility Renewal and Replacement							
Public Utilities	Lift Station 2	\$900,000					\$900,000
Public Utilities	Well #4 Rehab	\$35,000					\$35,000
Public Utilities	Well #5 Rehab		\$35,000				\$35,000
Public Utilities	Well #1 Rehab		\$35,000				\$35,000
Public Utilities	Water Plant Filter Media Replacement					\$50,000	\$50,000
Public Utilities	Pickup Replacement			\$45,000			\$45,000
Public Utilities	Sewer Lining	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000	\$750,000
	Public Utility Renewal/Replacement Total	\$1,085,000	\$220,000	\$195,000	\$150,000	\$200,000	\$1,850,000

Appendix 5

Emergency Telephone List

Emergency Response Team	Name	Work Telephone	Alternate Telephone
Emergency Response Lead	Terry Randall	763-360-4973	763-784-6491
Alternate Emergency Response Lead	Ken Prokott	763-360-4974	763-784-6491
Water Operator	Terry Randall	763-360-4973	763-784-6491
Alternate Water Operator	Ken Prokott	763-360-4974	763-784-6491
Public Communications	Daniel Buchholtz	763-792-7211	763-807-8859

State and Local Emergency Response Contacts	Name	Work Telephone	Alternate Telephone
State Incident Duty Officer	Minnesota Duty Officer	800/422-0798 Out State	651-649-5451 Metro
County Emergency Director	Anoka Co. Terry Stoltzman	763-421-4760	911
National Guard	Minnesota Duty Officer	800/422-0798 Out State	651-649-5451 Metro
Mayor/Board Chair	Daniel Buchholtz	763-784-6491	763-792-7211
Fire Chief	Charlie Smith	763-786-4436	
Sheriff	James Stuart	763-323-5000	
Police Chief	Doug Ebeltoft	763-792-7200	763-792-7221
Ambulance	Allina	911	
Hospital	Unity Hospital	763-236-5000	911
Doctor or Medical Facility	Mercy Hospital	763-236-6000	911

State and Local Agencies	Name	Work Telephone	Alternate Telephone
MDH District Engineer			
MDH	Drinking Water Protection	651-201-4700	
State Testing Laboratory	Minnesota Duty Officer	800/422-0798 Out State	651-649-5451 Metro
MPCA			
DNR Area Hydrologist	Kate Drewry	651-259-5753	
MNDNR Water Conservation Consultant	Carmelita Nelson	651-259-5034	

Utilities	Name	Work Telephone	Alternate Telephone
Electric Company	Xcel	1-800-895-4999	1-800-895-2999
Gas Company	CenterPoint	612-372-4727	1-800-245-2377
Telephone Company	Comcast	1-800-934-6489	
Gopher State One Call	Utility Locations	800-252-1166	651-454-0002
Highway Department	MN DOT	651-234-7500	

Mutual Aid Agreements	Name	Work Telephone	Alternate Telephone
Neighboring Water System	City of Blaine, or Mounds View	763-784-6700, 763-717-4000	
Emergency Water Connection	City of Blaine, or Mounds View	763-784-6700, 763-717-4000	
Materials			

Technical/Contracted Services/Supplies	Name	Work Telephone	Alternate Telephone
MRWA Technical Services	MN Rural Water Association	800-367-6792	
Well Driller/Repair	EH Renner	763-427-6100	
Pump Repair	EH Renner	763-427-6100	
Electrician	Aid Electric	763-571-7267	

Plumber			
Backhoe	Valley Rich	612-839-8502	
Chemical Feed	Hawkins Chemical	612-331-9100	612-617-8678
Meter Repair	City of Spring Lake Park	763-784-6491	763-360-7974
Generator	City of Spring Lake Park	763-784-6491	763-360-7974
Valves	HD Supply	952-937-9666	612-202-7786
Pipe & Fittings	HD Supply	952-937-9666	612-202-7786
Water Storage	N/A		
Laboratory	Instrumental Research	763-571-3698	
Engineering firm	Stantec Consulting	651-604-4885	

Communications	Name	Work Telephone	Alternate Telephone
News Paper	Anoka County Union Herald	763-421-4444	
Radio Station			
School Superintendent	Jeff Ronneberg	763-600-5021	763-600-5000
Property & Casualty Insurance	League of Minnesota Cities	651-281-1200	

Critical Water Users	Name	Work Telephone	Alternate Telephone
Hospital Critical Use:	N/A		
Nursing Home Critical Use:	N/A		
Public Shelter Critical Use:	N/A		

No written cooperative agreements exist for potential emergency water services.

CHAPTER 50: WATER AND SEWER

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- 50.40 Water meter regulations
- 50.41 Meter readings
- 50.42 Meter testing

Rates and Charges

- 50.55 Billing regulations; Council authority
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- 50.59 Water rates; homestead exemption
- 50.60 Sewer rates; definition
- 50.61 Sewer rates set by resolution
- 50.62 Sewer service availability and connection charges
- 50.63 Industrial user sewer strength charge
- 50.64 Strength charge formula

GENERAL PROVISIONS

§ 50.01 DEPARTMENT ESTABLISHED.

There is hereby established a Public Works Department for the city. The water and sewer systems as they are now constituted or shall hereafter be enlarged or extended shall be operated and maintained under the provisions of this chapter subject to the authority of the City Council at any time to amend, alter, change, or repeal the same.

(1976 Code, § 62.01)

§ 50.02 COUNCIL AUTHORITY OVER SYSTEMS.

The City Council shall have charge and management of the water and sewer systems subject to such delegation of the authority to other employees as the Council shall provide.

(1976 Code, § 62.02)

§ 50.03 DISCLAIMER.

The city shall not be held liable at any time for any deficiency or failure in the supply of water to the customer whether the same be occasioned by shutting off the water for repairs or connections or for any cause whatever.

(1976 Code, § 62.12)

§ 50.04 EMERGENCY CONSERVATION REGULATIONS.

The City Council may impose emergency regulations pertaining to the conservation of water by resolution of the City Council and by giving notice by publication or by posting in the city office and at public places as the Council may direct.

(1976 Code, § 62.15)

CONSTRUCTION AND CONNECTIONS

§ 50.15 CONNECTION; APPLICATION, PERMITS, AND FEES.

(A) No person, firm, or corporation shall make any type of connection to the water system, sanitary sewer system, or storm sewer system except upon making application therefor on a form provided by the city and receiving a permit issued by the city for those purposes. The application shall include the legal description of the property to be served, the uses for which the connection is requested, and the size of the service line to be used.

(B) At the time of taking the application, there shall be paid to the City Administrator, Clerk/Treasurer the following fees for the following purpose:

(1) No connection shall be made with respect to any sanitary sewer, water system, or storm sewer system serving property of any person or occupants of the land, parcel, or premises affected that have not paid or provided for the payment of the full and proportionate share of these utilities, which share shall be payable as follows:

(a) For service to property to which service lines have not been previously run from the street laterals to the property lines, the owner, occupant, or user shall pay into the city treasury an amount not less than the cost of making the necessary connections, taps, and installation of pipe and appurtenances to provide service to the property and the necessary street repairs.

(b) For service to property to which service lines have been run to the property lines but which have not been paid for, the owner, occupant, or user shall pay in cash or agree to pay charges in the form of special assessments to be levied against the property to be spread over a number of years coincident with the maturity requirements of any special improvement bonds sold for the purpose of financing the construction of the

MEMORANDUM

TO: MAYOR HANSEN AND MEMBERS OF THE CITY COUNCIL
FROM: DANIEL R. BUCHHOLTZ, CITY ADMINISTRATOR
SUBJECT: CRITICAL WATER DEFICIENCY ORDINANCE
DATE: DECEMBER 14, 2016

The City is in the process of completing its decennial update of its Water Supply Plan for submittal to the Minnesota Department of Natural Resources. As part of that plan, the City must address projected demands, adequacy of the water supply system and planned improvements, existing and future water sources, natural resource impacts or limitations, emergency preparedness, water conservation, supply and demand reduction measures and allocation priorities. The plan will be submitted to the City Council for approval after DNR review.

As part of the preparation of the Water Supply Plan, the City learned of an amendment to Minn. Stat. 103G.291. This amendment, adopted in 2015, requires a “public water authority” to adopt and enforce water conservation restrictions within their jurisdiction consistent with rules adopted by the DNR commissioner if the governor determines and declares by executive order that a critical water deficiency exists. The DNR has informed the City that an ordinance must be prepared by the City to comply with this amendment and that these restrictions must be documented in the City’s Water Supply Plan.

The proposed ordinance was drafted by the League of Minnesota Cities in consultation with the Minnesota Rural Water Association. The Ordinance outlines the emergency water conservation measures that the City would enforce if the Governor was to declare that a critical water deficiency exists. These measures include:

- Prohibiting outdoor irrigation with the exception of those areas irrigated with reclaimed water.
- Prohibiting the washing or spraying sidewalks, driveways, parking areas and other impervious surfaces except to alleviate an immediate health or safety hazard.
- Prohibiting the use of a water-based play apparatus connected to a hose or pressurized source.
- Prohibiting restaurants from serving water to customers unless specifically requested by the customer.
- Prohibiting the outdoor operation of a misting system
- Prohibiting the filling of swimming pools, fountains, spas or other outdoor water features
- Prohibiting the washing of cars, trucks, trailers or other mobile property unless the facility is equipped with a wash water recirculation system or the vehicle requires frequent washing to protect public health, safety and welfare.

The Ordinance allows for the Administrator, Clerk/Treasurer to grant variances in instances of hardship. The Ordinance also sets forth penalties for noncompliance with the Ordinance.

If you have any questions, please don’t hesitate to contact me at 763-784-6491.

ORDINANCE NO. 432

AN ORDINANCE REGULATING NONESSENTIAL WATER USAGE UPON CRITICAL WATER DEFICIENCY AS AUTHORIZED BY MINN. STAT. § 103G.291, SUBD. 1 AND 2 AND REPEALING SECTION 50.59 OF THE CITY CODE

The City Council of the City of Spring Lake Park, Minnesota, ordains as follows:

Sec. 1-1. Purpose.

This ordinance establishes water conservation restrictions; and the plan will be in effect at any time the governor declares by executive order a critical water deficiency, pursuant to Minnesota Statutes section 103G.291.

Sec. 1-2. Definitions.

Administrator, Clerk/Treasurer means the person assigned duties pursuant to Minn. Stat. § 412.151.

Department means the city water department.

Emergency means the declaration of a critical water deficiency by the governor.

Irrigation means the watering of shrubs, trees, sod, seeded areas, gardens, lawns, or any other outdoor vegetation, except outdoor vegetation utilized for agricultural purposes.

Notification to public means notification through local media, including interviews and issuance of news releases.

Public water supplier means the city or other entity that owns, manages, or operates a public water supply, as defined in Minn. Stat. § 144.382, subdivision 4.

Reclaimed water means water collected from rooftops, paved surfaces, or other collection devices and all water utilized more than once before re-entering the natural water cycle.

Water recirculation system means any system which enables a user to reuse water at least once prior to returning the water to the natural water cycle.

Sec. 1-3. Application.

(a) This ordinance applies to all customers of public water suppliers who own or control water use on any premises.

(b) No person shall make, cause, use, or permit the use of water received from a public water supply for residential, commercial, industrial, governmental, or any other purpose in any manner contrary to any provision in this ordinance.

(c) Mandatory emergency conservation measures shall be implemented based upon the declaration of a critical water emergency by the governor.

Sec. 1-4. Declaration of critical water deficiency.

Upon the declaration of a critical water deficiency by the governor, the public water supplier shall immediately post notice of the emergency declaration at the usual meeting place of the city council, or the official city bulletin board. The city shall provide notification to the public as quickly as possible or through established water supply plans emergency response plans or procedures.

Sec. 1-5. Mandatory emergency water conservation measures.

Upon declaration of a water emergency and notification to the public, the following mandatory restrictions upon nonessential water use shall be enforced:

- (1) Outdoor irrigation of yards, gardens, golf courses, parklands, and other non-agricultural land, except for those areas irrigated with reclaimed water, is prohibited.
- (2) Washing or spraying of sidewalks, driveways, parking areas, tennis courts, patios, or other paved areas with water from any pressurized source, including garden hoses, except to alleviate immediate health or safety hazards, is prohibited.
- (3) The outdoor use of any water-based play apparatus connected to a pressurized source is prohibited.
- (4) Restaurants and other food service establishments are prohibited from serving water to their customers, unless water is specifically requested by the customer.
- (5) Operation of outdoor misting systems used to cool public areas is prohibited.
- (6) The filling of swimming pools, fountains, spas, or other exterior water features is prohibited.
- (7) The washing of automobiles, trucks, trailers, and other types of mobile equipment is prohibited, except at facilities equipped with wash water recirculation systems, and for vehicles requiring frequent washing to protect public health, safety, and welfare.

Sec. 1-6. Variances.

The Administrator, Clerk/Treasurer or their designee, is authorized to grant variances to this ordinance where strict application of its provisions would result in serious hardship to a customer. A variance may be granted only for reasons involving health or safety. An applicant may appeal the denial of a variance within five (5) days of the decision by submitting a written appeal to the City Clerk. The City Council shall hear the appeal at the next City Council meeting. The decision of the City Council is final.

Sec. 1-7. Violation.

(a) Violations shall be determined and cited by the Administrator, Clerk/Treasurer or his/her designee. A violator may appeal the citation within five (5) days of its issuance by submitting a written appeal to the City. The City Council shall hear the appeal at the next City Council meeting. The decision of the City Council is final. Violators may be granted an administrative waiver if evidence is provided that equipment failure was the cause of the violation. A letter from a qualified vendor or equipment invoice will be required to show proof of equipment failure.

(b) Upon discovery of a first violation, the violator shall be issued, either personally or by mail, a warning letter that sets forth the violation and which shall describe the remedy and fines for future violations.

(c) Upon subsequent violations at the same location, the violator shall be issued, either personally or by mail, a citation that sets forth the violation and shall describe the remedy. Fines shall be added to the monthly water bill of the owner or current occupant of the premises where the violation occurred. The imposition of the fine shall in no way limit the right of the City to pursue other legal remedies.

Sec. 1-8. Enforcement.

The Administrator, Clerk/Treasurer or his/her designee is authorized to designate city employees or law enforcement personnel to enforce the provisions of this ordinance.

Sec. 1-9. Repeal Homestead Exemption

Section 50.59 of the City Code is hereby repealed.

Sec. 1-10 Severability.

If any provision of this ordinance or the application of any provision to a particular situation is held to be invalid by a court of competent jurisdiction, the remaining portions of the ordinance and the application of the ordinance to any other situation shall not be invalidated.

Sec. 1-11 Effective date.

This ordinance becomes effective from and after its passage and publication.

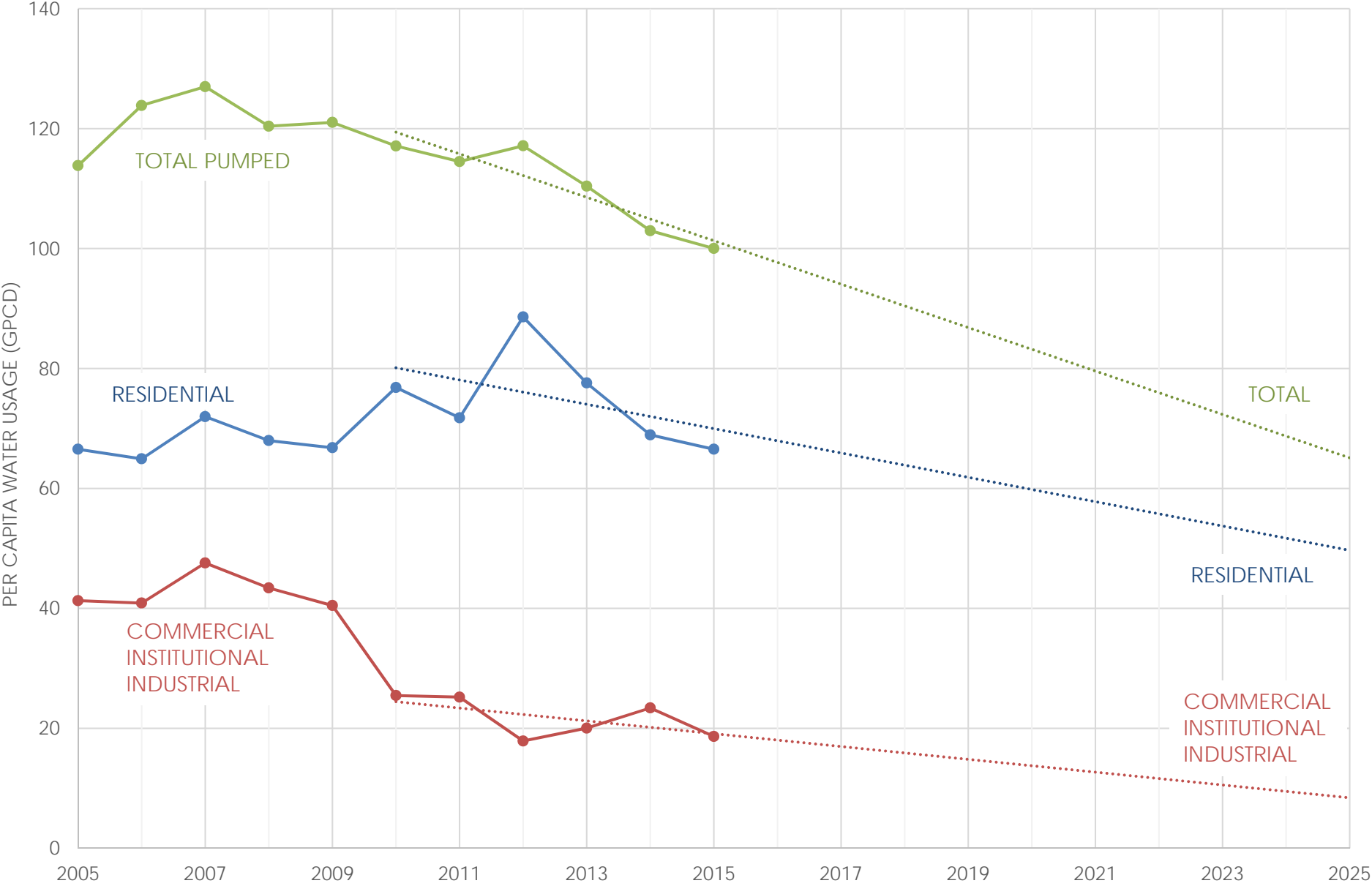
Passed by the City Council of the City of Spring Lake Park, Minnesota, this ____ day of December, 2016.

Cindy Hansen, Mayor

ATTEST:

Daniel R. Buchholtz, Administrator, Clerk/Treasurer

CITY OF SPRING LAKE PARK PER CAPITA WATER USAGE



UTILITY RATES FOR THE CITY OF SPRING LAKE PARK

WATER CONSERVATION RATES – ALL PROPERTIES

All User Classification (per unit):

Administrative Base Rate: \$7.87/quarter

Tier 1: \$1.74/1,000 gallons for 0–9,000/gallons/quarter

Tier 2: \$1.96/1,000 gallons for 9,001-18,000/gallons/quarter

Tier 3: \$2.22/1,000 gallons for 18,001-27,000/gallons/quarter

Tier 4: \$2.60/1,000 gallons for 27,001-36,000/gallons/quarter

Tier 5: \$2.88/1,000 gallons for 36,001-45,000/gallons/quarter

Tier 6: \$3.20/1,000 gallons for 45,001 and over/gallons/quarter

Multiple units (per meter): Total water use in a multiple-family dwelling, with only one meter servicing the entire dwelling, may exceed that of a single-family dwelling. The quarterly water bill will take into consideration the total number of units. Example: A four-plex uses a total of 20,000 gallons per quarter or approximately 5,000 gallons per residential unit. Water use for each residential unit would fall within the first tier, so a rate of \$1.74 would apply for the total 20,000 gallons. Rates increase according to the rate tiers listed above, always considering each residential unit as an individual user.

SEWER RATES – All Properties:

Metropolitan Environmental Services, a division of the Metropolitan Council, owns and operate the facilities that process the wastewater for the metropolitan area and then charges a fee to each city. Sewer rates reflect this fee and in addition, the City charges a small amount for repair and maintenance and renewal and replacement of its sewer system.

Single Family, Duplex, Townhouse & Similar Residential \$62.28/unit/quarter

Apartment, Mobile Home, Institutional, Commercial & Industrial Min. \$62.28/quarter for 18,000 gallons & \$3.40/1,000 gallons for all usage over 18,000 gallons

TREATMENT PLANT DEBT SERVICE:

All User Classifications Min. \$14.77/quarter for 18,000 gallons & \$.82/1,000 gallons for all usage over 18,000 gallons

In addition quarterly water utility charges include a recycling fee of \$10.21/per residential unit, a street light charge of \$4.30 for the maintenance of community street lights, and a MN water test fee of \$1.59.

The City of Spring Lake Park's office are located at 1301 NE 81st Avenue. Office hours are 8:00 A.M. to 4:30 P.M. Visit our website at slpmn.org for additional information regarding our online utility billing option.

The City Council adopted these new water and sanitary sewer rates January 1, 2016, per Resolution 15-30.



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(1976 Code, § 62.01)

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Spring Lake Park Watering Regulations

The following lawn sprinkling regulations are in effect for the spring and summer of each year as part of an ongoing water conservation policy.

Sprinkling is allowed on an ODD/EVEN basis. Properties with addresses that end in an odd number may sprinkle on an odd numbered day. Properties that end in an even number may sprinkle on an even numbered day.

New sod and seed are exempted for a period of two weeks after installation. People having private wells for sprinkling are encouraged to follow this schedule. Uniform compliance throughout the City is less confusing to the public and Code Enforcement Officials. We also encourage you to water your lawn and gardens in the early morning when it does the most good. Of course, placing your sprinklers where they will water your lawn and not driveways, sidewalks and streets will reduce waste.

In addition, check your outside faucets and sprinklers for leaks. It is also a good idea to monitor your summer water usage by reading your water meter on a regular basis. Please keep in mind that meters read in 1,000 gallons. That way if it is a drier summer, you may decide to scale back on your watering to reduce the potential of a big bill in October. The October bill will reflect water usage from June through September.

Appendix 11. Implementation Checklist

Water Supply Plan Section	Page	Water Supply Plan Action	Implementation Status/Date
Part 1E Appendix 2	10	Well Level Monitoring Plan records daily high and low level at each well.	Ongoing
Part 2	21	Present new City ordinance to City Council to extend the power to implement water restriction to City Staff.	2017
Part 3B, Obj. 1	25	Conduct regular water audits to monitor water pumpage and sales to identify potential water loss. Identify and repair leaks immediately.	Ongoing
Part 3B, Obj. 1	26	The City actively replaces radios on a regular basis, periodically updating water meters as well.	Ongoing
Part 3B, Obj. 2	26	Infrastructure improvements to prevent water loss through preventative maintenance and proactive replacement of water system infrastructure.	Ongoing
Part 3B, Obj. 2	26	Implement a notification system to inform customers when water availability conditions change.	2017
Part 3B, Obj. 2 Part 3E	27 35	Heighten community awareness with conservation tips and ideas in our newsletters, eNews, website, handouts and or flyers with water bill mailing.	Ongoing; expand in 2017
Part 3B, Obj. 3	27	Repair leaking system components: Continue preventative maintenance and proactively replace aging infrastructure.	Ongoing
Part 3B, Obj. 3	28	Train employees how to conserve water during preventative maintenance and water system repairs on the job and water saving tips for at home.	2017
Part 3B, Obj. 3	28	Implement a notification system to inform non-residential customers when water availability conditions change.	2017
Part 3B, Obj. 4	28	Existing per capita water demand trends are trending downward. Continue to monitor per capita demand.	Ongoing
Part 3B, Obj. 5	28	Monitor and maintain the maximum day demand to average day demand ratio below the DNR target of 2.6.	Ongoing
Part 3B, Obj. 6	29	City of Spring Lake Park water rate structure promotes conservation.	Ongoing
Part 3B, Obj. 7	31	Consider adopting a private well ordinance to enforce City water restrictions to all residents whether using municipal water or private well.	2017
Part 3B, Obj. 7	31	Stormwater Management Program to protect wellhead protection area.	Ongoing
Part 3C	32	Water efficient plumbing fixtures and irrigation rainfall sensors required by existing Federal Law and State Statue, respectively.	Ongoing
Part 3C	32	Critical/Emergency Water Deficiency ordinance in place (Ordinance 50.04).	Ongoing
Part 3C	32	Consider additional enforcement of City water restrictions.	2017
Part 3D	33	Continue to support CenterPoint Energy retrofit program and educating customers on water softener maintenance to prevent failure.	Ongoing
Part 3E	34	Continue to include conservation tips and home leak detection information in utility billing inserts.	Ongoing
Part 3E	34	Consumer confidence report to include water quality and future water conservation topics for customer education.	Ongoing
Part 3E	34	Water conservation education and water restriction information distributed through social media.	Ongoing
Part 3E	34	Water conservation tips and the City's sprinkling even/odd ban are published in the City's quarterly newsletter.	Ongoing
Part 3E	35	Conservation tips for both indoor and outdoor water usage and information on detecting leaks on City website (www.slpmn.org).	Ongoing
Part 3E	35	Add water conservation information to the annual Consumer Confidence Report.	2017
Part 4D	37	Comprehensive planning with neighboring communities to protect the overlapping, vulnerable drinking water supply management areas.	2018+

Minnesota Department of Natural Resources
Ecological and Water Resources
1200 Warner Road
St. Paul, MN 55106

May 18, 2018

Terry Randall, Public Works Supervisor
City of Spring Lake Park
1301 81st Avenue Northeast
Spring Lake Park, MN 55432

RE: City of Spring Lake Park Water Supply Plan

Dear Mr. Randall:

The Department of Natural Resources (DNR) and the Metropolitan Council have received the updated City of Spring Lake Park Water Supply Plan for the public water supply system that is authorized under DNR Water Appropriation Permit No. 1972-0123. I am pleased to advise you that in accordance with Minnesota Statutes, Section 103G.291, Subdivision 3, and on behalf of the Commissioner of the DNR, I hereby **approve your Water Supply Plan**. We encourage cities to complete the attached "Certification of Adoption" form. Please upload the form to the MPARS-Water Supply Plan tab as soon as the city officially adopts the Plan.

The DNR, Minnesota Rural Water Association, and the Metropolitan Council encourage the city to educate its customers on how they can reduce household water use. As mentioned at the Water Supply Planning Workshops, the DNR will be contacting you in approximately five years about progress the city has made on their water conservation goals that are listed in the Water Supply Plan and Master Water Supply Plan. The DNR is particularly interested in the implementation of the actions that the City of Spring Lake Park listed in Appendix 11 of the approved City of Spring Lake Park Water Supply Plan. We encourage you to keep records of your success. Metropolitan Council staff are available to support your on-going efforts.

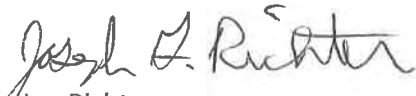
We appreciate your submission of daily water level data for the City's production wells. It is our understanding that the City's SCADA system provides printout summaries of water level data, but does not provide water level data in an electronic spreadsheet format. We recommend that the City modify its SCADA system to provide storage of water level data in spreadsheet format. Although not required by the City's permit, we encourage you to regularly submit water level data to the DNR's groundwater level data coordinator at gwlevelcoor.dnr@state.mn.us to assist in monitoring of aquifer levels.

Within 30 days following the adoption of the City of Spring Lake Park Water Comprehensive Plan, of which the Water Supply Plan is a part, please adopt and submit copies of the local controls indentified in the Water Supply Plan to the Metropolitan Council, as required by Minnesota Statutes 473.865. If changes are made to the Water

Supply Plan during the full comprehensive plan update, Spring Lake Park will need to submit the updated information to the DNR and Metropolitan Council.

Thank you for your efforts in planning for the future of the City of Spring Lake Park water supply and for conserving the water resources of the State of Minnesota. If you have any questions or need additional assistance with the city's water appropriation permit, please contact me at (651) 259 – 5877.

Sincerely,



Joe Richter

District Appropriations Hydrologist
Minnesota Department of Natural Resources

cc: Raya Esmaeili, Metropolitan Council Reviews Coordinator
David Brown, Metropolitan Council
Bart Biernat, Anoka County
Chris Lord, Anoka County SWCD
Carmelita Nelson, DNR Water Supply Plan Coordinator
Jeanne Daniels, EWR Region 3 South District Manager
Jason Spiegel, EWR Area Hydrologist
Minnesota Permitting and Reporting System (MPARS)

Local Water Supply Plan Approval Checklist 2016-2018

Formerly called Water Emergency & Water Conservation Plan

All sections of the plan must be completed in order for the plan to be approved.

Name of Water Supplier: **Spring Lake Park, Permit #1972-0123**

Date Plan Received by DNR 05/16/2018

Date of Review 05/16/2018

Name of Reviewer Daniel Scollan

Plan Due Date 10/15/2016

Date of Met Council Review 5/03/2018

Name of Met Council Reviewer David Brown

Is this plan approved? Yes

No

Purple = Met Council Comments

Green = MN DNR Comments

Part 1. Water Supply System Description and Evaluation

Prelim. ✓ list	Compliant/ Acceptable	Changes Needed	Met Council Concern	Section	Description	Comments/Changes Needed in Bold
<i>Analysis of Water Demand</i>						
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		Intro	Table 1 General Information	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		1.A.	Table 2 Historic Water Demand	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		1.A.	Table 3 Large Volume Users	
<i>Treatment and Storage Capacity</i>						
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		1.B.	Table 4 Water Treatment Capacity & Process	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		1.B.	Table 5. Storage capacity	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		1.B.	Discuss current capacity vs. project 10 yr. demand	
<i>Water Sources</i>						
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		1.C.	Table 6. Water sources and status	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		1.C.	Discuss limitation on emergency water source	

Prelim. ✓ list	Compliant/ Acceptable	Changes Needed	Met Council Concern	Section	Description	Comments/Changes Needed in Bold
<i>Future Demand Projections</i>						
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1.D.	Discuss Water Use trends	No comment. The discussion of water use trends provides information about the important controls on water use in the community. You may wish to explain why the commercial water use has declined so much.
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1.D.	Table 7. Projected annual water demand	No comment. The projections are consistent with the system statement population projections.
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1.D.	Describe method to project water demand	No comment. Enough detail was provided to recreate the calculation, or a report with the information was referenced.
<i>Resource Sustainability</i>						
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		1.E.	Table 8. Information about source water quality monitoring	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		1.E.	Table 9. Water level data	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1.E.	Table 10. Natural resource impacts	It is great to see that you are taking steps to monitor and protect the Mt. Simon Aquifer. In the Spring Lake Park 2009 water supply plan, it was recommended that you record the water levels on a least a monthly basis in the city production wells. Although this is not required by permit please send this data, preferably in spreadsheet format, to Tim Quan the groundwater level data coordinator at gwlevelcoor.dnr@state.mn.us or tim.quan@state.mn.us . No comment. Issues identified in the Master Water Supply Plan were acknowledged.

Prelim. ✓ list	Compliant/ Acceptable	Changes Needed	Met Council Concern	Section	Description	Comments/Changes Needed in Bold
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		1.E.	Table 11. Status of Wellhead Protection and Source Water Protection Plans	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1.F.	Table 12. Adequacy of Water Supply System	No comment. The difference between the community's 2040 projected demand and the capacity of the current system suggests that the water supply system is likely adequate in the future.
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1.F.	Table 13. Proposed future installations/sources	No comment, based on the information provided in Section 1.F., Table 12.
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1.F.	Anticipated need for alternative water source Y/N	No comment. Based on your assessment about the adequacy of the water supply system, no information is needed here.
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1.F.	If yes above, complete Table 14. Alternative Water Sources	No comment, based on the information provided in the row above.

Part 2. Emergency Planning & Response Procedures

<i>Emergency Response Plan</i>						
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		2.A.	Federal Emergency Plan Y/N	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		2.A.	Table 15. Emergency Preparedness Plan contact information	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		2.B.	Operational Contingency Plan Y/N	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		2.C.	Do emergency records & maps exist & staff knowledge Y/N	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		2.C.	Table 16. Interconnections with other water supply	

Prelim. ✓ list	Compliant/ Acceptable	Changes Needed	Met Council Concern	Section	Description	Comments/Changes Needed in Bold
					systems in an emergency	
☒	☒	☐		2.C.	Table 17. Utilizing surface water as an alternative source	
☒	☒	☐		2.C.	Describe additional emergency measures	
<i>Allocation & Demand Reduction Procedures</i>						
☒	☒	☐		2.C.	Table 18. Water use priorities	
☒	☒	☐		2.C.	Table 19. Emergency demand reduction conditions, triggers and actions	
☒	☒	☐		2.C.	Table 20. Plan to inform customers regarding conservation requests & water use restrictions	For short-term demand reductions, consider daily notifications and the use of press releases (TV, radio, newspaper). Road signs may also be useful.
<i>Enforcement</i>						
☒	☒	☐		2.C.	Critical water deficiency restriction/official control in place Y/N	
☒	☒	☐		2.C.	Does the public water supply utility, city manager, mayor, or emergency manager have standing authority to implement water restrictions Y/N	

Prelim. ✓ list	Compliant/ Acceptable	Changes Needed	Met Council Concern	Section	Description	Comments/Changes Needed in Bold
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Part 3. Water Conservation Plan

<i>Progress since 2006</i>						
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		3.A.	First WSP Y/N	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		3.A.	If yes, describe conservation practices that you are already implementing OR If no, complete Table 21 on Implementation	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		3.A.	What are the results from the actions in Table 21-how were results measured?	
<i>Triggers for Allocation and Demand Reduction Actions</i>						
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		3.A.	Table 22. Short and long-term demand reduction conditions, triggers and actions	You may want to consider using the water levels in your Mount Simon wells as a trigger for long-term demand reduction actions.
<i>Conservation Objectives and Strategies</i>						
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		3.B.	Is your ten-year average (2005-2014) unaccounted Water Use in Table 2 higher than 10% Y/N	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		3.B.	Leak detection monitoring schedule	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		3.B.	Date of most recent water audit & frequency	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		3.B.	If Table 2 shows annual water losses over 10% or an increasing trend over time, describe what actions	

Prelim. ✓ list	Compliant/ Acceptable	Changes Needed	Met Council Concern	Section	Description	Comments/Changes Needed in Bold
					will be taken to reach the <10% loss objective and within what timeframe	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		3.B.	Table 23. Information about customer meters	
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		3.B.	Table 24. Water source meters	The AWWA recommends water meters larger than 5 inches in diameter be tested on an annual basis. You should consider testing your water source meters on a more frequent basis.
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		3.B.	Is your average 2010-2015 residential per capita water demand in Table 2 more than 75 GPD Y/N	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		3.B.	Ave. residential per capita demand data	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>			Describe the water use trend	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		3.B.	Table 25. Strategies & timeframe to reduce residential per capita demand	
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		3.B.	Table 26. Strategies & timeframe to reduce institutional, commercial industrial, & agricultural & non-revenue use demand	We recommend conducting facility water audits.
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		3.B.	Describe the trend for each customer	

Prelim. ✓ list	Compliant/ Acceptable	Changes Needed	Met Council Concern	Section	Description	Comments/Changes Needed in Bold
					category; explain the reason(s) for the trends, and where trends are increasing.	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		3.B.	Peak Day Demand Ratio & Calculate a ten year average (2005 – 2014) of the ratio of maximum day demand to average day demand	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		3.B.	Current water rate data	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		3.B.	Table 27. Rate structures for each customer category	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		3.B.	Justification for neutral or non- conserving rates	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		3.B.	Table 28. Additional strategies to Reduce Water Use & Support Wellhead Protection	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		3.B.	Measures of success	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		3.B.	Table 29. Regulations for short-term reductions in demand and long-term improvements in water efficiencies	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		3.B.	Table 30. Retrofitting programs	

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<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		3.B.	Conservation Program success	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		3.C.	Table 31. Current and Proposed Education Programs	We recommend involvement in K-12 education programs to teach water conservation.
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		3.C.	Future education and information activities	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4.D. Metro Only	Table 32. Local controls and schedule to protect Drinking Water Supply Management Areas	Within 30 days following the adoption of your community's local comprehensive plan, of which this local water supply plan is a part, adopt and submit copies of the local controls identified here to the Metropolitan Council, as required by Minnesota Statutes 473.865.
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		Appendix 1	Well records and maintenance summaries	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		Appendix 2	Water level monitoring plan	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		Appendix 3	Water level graphs for each water supply well	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		Appendix 4	Capital Improvement Plan	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		Appendix 5	Emergency Telephone List	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Appendix 6	Cooperative Agreements for Emergency Services	No comment. No written cooperative agreements exist for potential emergency water services.
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Appendix 7	Municipal Critical Water Deficiency Ordinance	No comment. Ordinance provided.
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		Appendix 8	Graph showing annual per capita water	

Prelim. ✓ list	Compliant/ Acceptable	Changes Needed	Met Council Concern	Section	Description	Comments/Changes Needed in Bold
					demand for each customer category during the last ten-years	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		Appendix 9	Water Rate Structure	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Appendix 10	Adopted or proposed regulations to reduce demand or improve water efficiency	Within 30 days following the adoption of your community's local comprehensive plan, of which this local water supply plan is a part, adopt and submit copies of the local controls identified here to the Metropolitan Council, as required by Minnesota Statutes 473.865.
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		Appendix 11	Implementation Checklist	We are pleased with your implementation checklist.

Plan Approved

Plan NOT Approved

Date: 05/16/2018