Appendix A: Local Water Management Plan





CITY OF LINO LAKES

2040 COMP PLAN

Local Water Management Plan

November 2018

Prepared For
City of Lino Lakes
600 Town Center Parkway
Lino Lakes, Minnesota 55014

WSB

WSB Project No. 02988-500

Contents

Local Water Management Plan 4
EXECUTIVE SUMMARY 4
Local Water Management Plan Purpose 4
Local Water Management Responsibilities and Related Agreements 4
Background 4
Summary of Implementation Section 5
1. INTRODUCTION 6
1.1 Purpose 6
1.2 Local Water Management Responsibilities and Related Agreements 7
1.3 Amendments to the Local Water Management Plan 7
1.4 Roles and Responsibilities 7
2. PHYSICAL ENVIRONMENT AND RESOURCE ASSESSMENT 9
2.1 Climate and Precipitation 9
2.2 Topography, Soils and Geology 10
2.3 Resource Management Units 14
2.4 Surface Water Resources 15
2.5 Stormwater Management System 26
2.6 Water Quality Data and Impairments 26
2.7 Groundwater Resources 30
2.8 Existing Conditions 34
2.9 Fish and Wildlife Habitat 40
2.10 Regulated Pollutant Sources 41
2.11 Proposed Conditions 43
3. ASSESSMENT OF WATER RESOURCE-RELATED PROBLEMS AND ISSUES 46
3.1 Issues 46
3.2 Goals and Policies 48
4. GOALS AND ACCOMPLISHMENTS 52
5. LOCAL IMPLEMENTATION PROGRAM 53
5.1 Implementation Activities 53
5.2 Implementation Costs 55

6. FINANCIAL CONSIDERATIONS 56
7. REFERENCES 57

List of Appendices

Appendix A – MS4 SWPPP Application for Reauthorization

Appendix B - City-wide and RMU-specific water resources issues

Appendix C – Shoreland Management Overlay District

Appendix D - Proposed city-wide and RMU-specific actions

List of Tables

Table 2-1. 1981-2010 Climatic Data for Lino Lakes, MN

Table 2-2. NOAA Atlas 14 Design Storm Events

Table 2-3. Amelia Lake Summary

Table 2-4. Bald Eagle Lake Summary

Table 2-5. Baldwin Lake Summary

Table 2-6. Cedar Lake Summary

Table 2-7. Centerville Lake Summary

Table 2-8. George Watch Lake Summary

Table 2-9. Marshan Lake Summary

Table 2-10. Otter Lake Summary

Table 2-11. Peltier Lake Summary

Table 2-12. Reshanau Lake Summary

Table 2-13. Rice Lake Summary

Table 2-14. Rondeau Lake Summary

Table 2-15. Sherman Lake Summary

Table 2-16. Wards Lake Summary

Table 2-17. Wilkinson Lake Summary

Table 2-18. 2018 Impaired Waters

Table 2-19. Benchmark Intercommunity Flow Rates

Table 2-20. Lino Lakes Public Supply Wells

Table 2-21. Summary of Flooding Concerns by Resource Management Unit

Table 2-22. Documented Rare Species in Lino Lakes

Table 5-23. City-Wide Implementation Plan

Table 5-24. Stormwater Management Implementation Plan

List of Figures

Figure 1-1 Location Map

Figure 2-1 Hydrologic Soil Group

Figure 2-2 Surficial Geology

Figure 2-3 Bedrock Geology

Figure 2-4 Resource Management Units (RMUs)

Figure 2-5 Surface Water Resources

Figure 2-6 High Priority Wetlands

Figure 2-7 Existing Storm Sewer System

Figure 2-8 Impaired Waters

Figure 2-9 Groundwater Resources

Figure 2-10 Surface Water and Groundwater Interaction

Figure 2-11 Existing Land Use

Figure 2-12 Minnesota Land Cover Classification System

Figure 2-13 Shoreland Management

Figure 2-14 Floodplain Districts

Figure 2-15 Potential Environmental Hazards

Figure 2-16 Full Build Out Land Use

Figure 2-17 2040 Land Use

Local Water Management Plan

EXECUTIVE SUMMARY

Local Water Management Plan Purpose

The City of Lino Lakes' Local Water Management Plan (LWMP) is a local management plan that meets the requirements of Minnesota Statutes 103B.235, Minnesota Rules 8410, the Rice Creek Watershed District Watershed Management Plan (dated January 2010, as amended November 9, 2016), and the Vadnais Lake Area Water Management Organization Watershed Management Plan (dated October 26, 2016). Minnesota Statute 103B.201 states that the purposes of the water management programs are to:

- Protect, preserve, and use natural surface and groundwater storage and retention systems;
- Minimize public capital expenditures needed to correct flooding and water quality problems;
- Identify and plan for means to effectively protect and improve surface and groundwater quality;
- Establish more uniform local policies and official controls for surface and groundwater management;
- Prevent erosion of soil into surface water systems;
- Promote groundwater recharge;
- Protect and enhance fish and wildlife habitat and water recreational facilities; and
- Secure the other benefits associated with the proper management of surface and groundwater.

The Lino Lakes' Local Water Management Plan addresses these purposes. The LWMP was adopted by City Council in 2018 and is incorporated as Chapter 7 and Appendix A of the 2040 Comprehensive Plan.

Local Water Management Responsibilities and Related Agreements

The City of Lino Lakes has not entered into any water management related agreements with its neighboring cities, Anoka County, Rice Creek Watershed District (RCWD), or the State of Minnesota other than on a project-specific agreement for BMPs constructed to meet water quality requirements. The City of Lino Lakes has a Joint Powers Agreement with the Vadnais Lake Area Water Management Organization (VLAWMO), in which the City is designated as a signer and member of VLAWMO. The City of Lino Lakes is responsible for construction, maintenance, and operation of the City's stormwater management system.

Background

The City of Lino Lakes (population 20,216) is located in Anoka County in the seven county Twin Cities metropolitan area, approximately 20 miles north of downtown Saint Paul. The City covers approximately 33 square miles. Lino Lakes is nestled between the cities of Blaine and Circle Pines to the west, Columbus to the north, Hugo to the east, and Shoreview and North Oaks to the south. The city of Centerville is located near the center of Lino Lakes.

Lino Lakes is within two watershed agencies: RCWD and VLAWMO. RCWD is a watershed district and has the authority to regulate development impacts on water resources; VLAWMO is not a permitting agency, but does provide guidance on the implementation of best management practices within its jurisdiction. This plan addresses the rules and regulations put forth by the RCWD and VLAWMO.

Surface water in Lino Lakes general drains to the Rice Creek Chain of Lakes which includes Baldwin Lake, Rice Lake, Reshanau Lake, Marshan Lake, George Watch Lake, Centerville Lake, Peltier Lake, and Rondeau Lake as well as Rice Creek, Hardwood Creek (Judicial Ditch 2), and Clearwater Creek (Judicial Ditch 3).

A large portion of the city remains undeveloped. Although the community has been identified as Suburban Leading Edge, it still retains its rural and agricultural roots. Section 2.6 of the 2040 Comprehensive Plan discusses land use in Lino Lakes.

Summary of Implementation Section

The need to address water quality within the city is partially illustrated in the map showing the various impaired lakes (**Figure 2-8**) which has regulatory implications that are still being developed, the City's stormwater infrastructure (**Figure 2-7**), the underlying soils and geology (**Figures 2-2** and **2-3**), the groundwater resources (**Figure 2-9**) and the existing floodplain (**Figure 2-14**). The following is a generalized list of the key implementation strategies, policies, and/or actions proposed in this LWMP to address the City of Lino Lakes' water resources issues:

- Implement the Resource Management Plan through development of Subwatershed Management Plans for each resource management unit (RMU). These plans will establish:
  - A clear vision of the multi-functional Greenway System for City staff and developers that will be used as a tool early in the land development process.
  - Create a wetland bank to provide replacement opportunities for development or roadway projects.
  - Work with RCWD on the ditch abandonment process for public drain tile systems and explore partial abandonment for surface ditch systems, in cases where the public drainage system requires redesign to implement the multi-functional Greenway System.
  - Implement water quality improvements via the Subwatershed Plans for each RMU specific to the waterbodies of the area and upcoming regulations (ex., impairments, TMDLs).

- Implement the design guidelines of Northeast Lino Lakes Comprehensive Stormwater Management Plan (CSMP) with future development in the Peltier Lake and Clearwater Creek subwatersheds

- Continue to manage the City's wetlands and natural resources by:
  - Implementing City-wide Natural Resource Revolving Fund Plan, in cooperation with RCWD and VLAWMO
  - Continuing to participate in pre-permit application meetings with the RCWD and US Army Corps of Engineers to support the collaborative permitting process implemented through RCWD Rule and the Corps' Programmatic General Permit that implements the Special Area Management Plan.
  - Continuing to manage and protect the heron rookery, tamarack swamps, and other important plant and animal communities.

- Review existing City policies, regulations, ordinances and plans including:
  - Continue to implement and enforce the City's Stormwater Pollution Protection Program (SWPPP) as part of the NPDES Municipal Separate Storm Sewer System (MS4) permit.
  - Implement the Wellhead Protection Plan to protect the groundwater source from contamination.
  - Continue to implement the City's Water Conservation Management Plan
  - Evaluate the need to modify existing ordinances to ensure implementation of all components of the multi-functional Greenway System
  - Revise maximum allowable impervious surface requirements for low and medium-density residential districts

- Establish and adopt Better Site Design (BSD) standards for new and re-development that:
  - Provide guidance for staff, City Boards, and City Council
  - Protect high priority wetlands, their biological condition, and their function as high quality habitat;
  - Enhance groundwater hydrology and protect groundwater-dependent natural resources;
  - Provide natural flood reduction;
  - Integrate water quality improvement components in the landscape; and
  - Implement the Resource Management System Plan.

- Evaluate revisions to Road Design Standards including:
  - Reducing minimum pavement widths;
  - Ribbon curbs and curb cuts with roadside swales, infiltration, and biofiltration; and
  - Use of pervious pavements.

- Review existing watershed models and work with the RCWD and VLAWMO to address flow constraints in the system.

- Continue public outreach, education and dissemination of information, including:
  - Work with private landowners to retrofit/implement the multi-functional Greenway System, for those parcels that are not part of a Master Plan or are already developed.
  - Partner with RCWD, VLAWMO, and Minnesota Department of Natural Resources (MnDNR) to establish program to educate residents on the means to identify and eradicate invasive species.
  - Participate with other public agencies and organizations on education and outreach efforts.
  - Develop, distribute, and present public with information regarding the importance of shoreland buffers.

- Evaluate financing options to implement activities and policies in LWMP, such as:
  - Pursue funding through federal and state grant opportunities
  - Pursue grants through RCWD Grant Programs to assist in the funding of projects that will reduce the impact of existing development on local water resources.
  - Pursue funding support from VLAWMO for projects in the Amelia Lake and Wilkinson Lake watersheds.
  - Review and evaluate funding sources for surface water management including ad valorem taxes, development charges, grants and user fees.
  - Update and continue to implement Trunk Surface Water Management Fee System.

1. INTRODUCTION

The City of Lino Lakes (population 20,216) is located in Anoka County in the seven county Twin Cities metropolitan area, approximately 20 miles north of downtown Saint Paul (**Figure 1-1**). The City covers approximately 33 square miles. Lino Lakes is nestled between the cities of Blaine and Circle Pines to the west, Columbus to the north, Hugo to the east, and Shoreview and North Oaks to the south. The City of Centerville is located near the center of Lino Lakes.

Lino Lakes is within two watershed agencies: Rice Creek Watershed District (RCWD) and Vadnais Lake Area Water Management Organization (VLAWMO). RCWD is a watershed district and has the authority to regulate development impacts on water resources; VLAWMO is not a permitting agency, but does provide guidance on the implementation of best management practices within its jurisdiction. This plan addresses the rules and regulations put forth by the RCWD and VLAWMO.

Surface water in Lino Lakes general drains to the Rice Creek Chain of Lakes which includes Baldwin Lake, Rice Lake, Reshanau Lake, Marshan Lake, George Watch Lake, Centerville Lake, Peltier Lake, and Rondeau Lake as well as Rice Creek, Hardwood Creek (Judicial Ditch 2), and Clearwater Creek (Judicial Ditch 3).

This Local Water Management Plan (LWMP) builds off three previous plans, completed in 1994, 2005, and 2015.

1.1 Purpose

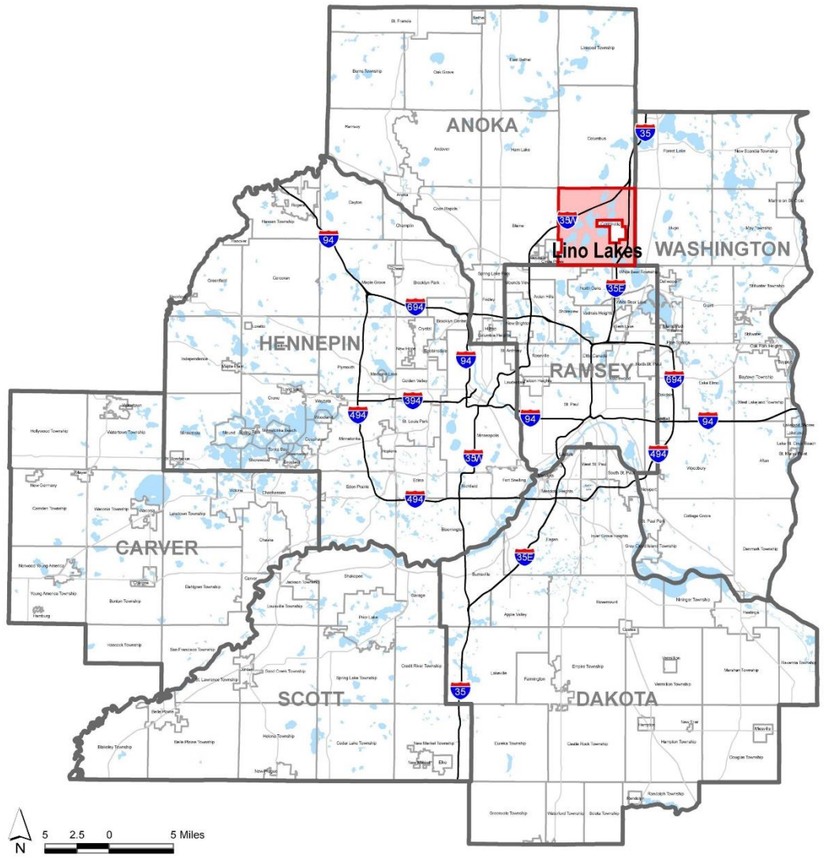
The City of Lino Lake's Local Water Management Plan (LWMP, the Plan) is a local management plan that meets the requirements of Minnesota Statutes 103B.235, Minnesota Rules 8410, the RCWD Watershed Management Plan (adopted January 4, 2010 and amended November 9, 2016), and the VLAWMO 2017-2026 Comprehensive Water Plan (adopted October 26, 2016).

Minnesota Statute 103B.201 states that the purposes of the local water management programs are to:

- Protect, preserve, and use natural surface and groundwater storage and retention systems;
- Minimize public capital expenditures needed to correct flooding and water quality problems;
- Identify and plan for means to effectively protect and improve surface and groundwater quality;
- Establish more uniform local policies and official controls for surface and groundwater management;
- Prevent erosion of soil into surface water systems;
- Promote groundwater recharge;
- Protect and enhance fish and wildlife habitat and water recreational facilities; and
- Secure the other benefits associated with the proper management of surface and groundwater.

The Lino Lakes Local Water Management Plan addresses these purposes.

Figure 1-1. Location Map



1.2 Local Water Management Responsibilities and Related Agreements

The City of Lino Lakes has not entered into any water resource management related agreements with its neighboring cities, Anoka County, RCWD, or the State of Minnesota. The City of Lino Lakes has a Joint Powers Agreement with VLAWMO, in which the City is designated as a signer and member of VLAWMO. The City of Lino Lakes is responsible for construction, maintenance, and other projects in or along the City's stormwater management system that are not considered part of a county or watershed district's public drainage system.

1.3 Amendments to the Local Water Management Plan

The City may need to revise this Plan prior to the next update for it to remain a useful long-term planning tool. Plan amendments will be needed if significant changes are required involving goals, policies, administrative procedures, funding or the capital improvement program, or if problems arise that are not addressed in the Plan. This Plan will remain in full effect through 2028 unless an updated plan is approved prior to that date.

Technical information (i.e., from City-led studies and monitoring and new data from City partners) will require frequent updating. The City intends to post this updated information on the City website. Technical information that results in new action items will be incorporated into City operations through implementation of the City's programs, projects, and watershed management strategies as appropriate. Generally, these technical updates and studies are considered part of the normal City operations consistent with the intent of this Plan and will not trigger a Plan amendment. However, when the new technical information or study findings result in a significant policy change, or the watershed district intends to initiate a program or construct a capital improvement not sufficiently identified in the Plan, a plan amendment will be required.

All major amendments to the Plan that deviate from the existing Plan scope and direction will be submitted to RCWD and VLAWMO for review and approval. The review process is 60 days unless the City agrees to an extension of the review period. The Plan amendment will be submitted to the Metropolitan Council for a 45-day review to be incorporated into the review of the RCWD and VLAWMO.

1.4 Roles and Responsibilities

Federal

Coordination with federal agencies on water issues for the City of Lino Lakes often is with the US Army Corps of Engineers (USACE), and sometimes also with the US Environmental Protection Agency (EPA), the Federal Emergency Management Agency (FEMA), the United States Geological Survey (USGS), the United States Department of Agriculture (USDA), the U.S. Fish and Wildlife Service (USFWS), and the National Oceanic and Atmospheric Administration (NOAA).

The USACE regulate activities in navigable waters and wetlands. Therefore, coordination is required for activities that have the potential to affect wetland and lake systems in the City of Lino Lakes. The USACE issues permits under Section 404 of the Clean Water Act and allow for approval of permitting and replacement plans that meet the requirements of Section 404 on a regional basis. Lino Lakes has submitted a Special Area Management Plan (SAMP) with the USACE. The SAMP is implemented through a Programmatic General Permit (PGP) that includes special wetland regulatory conditions for the City of Lino Lakes. In summary, the PGP provides mitigation flexibility for impacts that are consistent with the SAMP.

The EPA has delegated many of its responsibilities within Minnesota to the Minnesota Pollution Control Agency (MPCA) including the administration and enforcement of National Pollutant Discharge and Elimination (NPDES) permits and the Total Maximum Daily Load (TMDL) program.

FEMA's mission is to support communities and first responders to prepare for, protect against, respond to, recover from and mitigate all hazards. Most often in Lino Lakes, this translates to implementation of the National Flood Insurance Program (NFIP). The MnDNR has assumed responsibility for most of the floodplain management roles through adopting state-wide higher standards and works directly with the City of Lino Lakes to update flood insurance rate maps and floodplain ordinances.

The USGS collects data on stream flow, groundwater levels, and other information which is useful to the City in evaluating its resources. The USDA oversees the National Resource Conservation Service (NRCS) and the Farm Service Agency who provide technical services, conservation programs and funding to agricultural producers. In addition, the soils and technical data collected by the NRCS used by the City. The USFWS works to conserve and improve fish and wildlife and their habitat. NOAA, among other activities, collects weather and climate data used by the City for design and informational purposes.

State

On a state level, regulatory coordination related to water and natural resources includes addressing impaired waters, managing storm sewer systems and construction sites, managing shorelines, and a number of other areas. Agencies the City may coordinate with include the MPCA, MnDNR, Minnesota Department of Transportation (MnDOT), and Minnesota Department of Health (MDH).

The MPCA oversees the programs addressing municipal separate storm sewer systems (MS4s), construction site stormwater, industrial stormwater, impaired lakes and streams, feedlots, soil and groundwater contamination, and wastewater treatment. A number of these programs affect the City of Lino Lakes. The two main areas requiring coordination are the MS4 program and addressing impaired waters. The City's stormwater system is designated as an MS4 by the MPCA. The City's SWPPP was developed to address the requirements for MS4s. A permit re-issuance was approved in May 2013 and went into effect August 1, 2013.

A number of TMDLs are in process and others have been completed to address impaired waters in Lino Lakes. These studies establish daily load limits for certain compounds that were found to contribute to the impairment. The City of Lino Lakes will likely have a wasteload allocation in the future that establishes the maximum allowed discharge of the regulated pollutant for each TMDL. The City of Lino Lakes will document information on a routine basis regarding new projects and programs that lead to load reductions needed to meet a TMDL.

The MnDNR leads programs that regulate shoreline and floodplain development, groundwater use, and conducts various efforts to support water-based recreation and quality fisheries. The City has a shoreline and floodplain ordinance that is in compliance with the MnDNR's standards.

MnDOT manages the state's transportation system including a number of highways in the City of Lino Lakes. Coordination with MnDOT is needed when an activity may impact a state highway or its right-of-way.

The MDH works to address a number of health issues, but the primary area of coordination for the City is with the protection of drinking water resources including wellhead protection and drinking water treatment.

Regional

Regulatory coordination on a regional level involves coordination with the Metropolitan Council and with watershed management organizations, particularly RCWD and VLAWMO. The City addresses the water-related concerns of the Metropolitan Council primarily through the City's Comprehensive Plan and this Plan. The Comprehensive Plan frames how the City will address issues such as housing and transportation along with water concerns noted by the Metropolitan Council.

RCWD implements and enforces a set of rules related to stormwater and natural resource management. In addition, the RCWD is the Wetland Conservation Act (WCA) Local Government Unit (LGU) for a number of jurisdictions including Lino Lakes. The City works with the RCWD to protect and manage the wetland and water resources of the City. VLAWMO also works to protect and improve water resources. VLAWMO is also the WCA LGU for a number of jurisdictions including those portions of Lino Lakes within their jurisdictional boundary.

City Administration of Surface Water Management Plan

The implementation of this Plan will be coordinated by staff with input from the Environmental Board. The staff will coordinate within the various departments as needed to ensure implementation of this plan over the next ten years. After this Plan is approved by the watershed organizations, the City of Lino Lakes will adopt and implement the Plan within 120 days and will update and approve its ordinances and official controls to be consistent with this Plan within 180 days.

2. PHYSICAL ENVIRONMENT AND RESOURCE ASSESSMENT

2.1 Climate and Precipitation

The climate within the Minneapolis-St. Paul Metropolitan area is described as a humid continental climate with moderate precipitation, wide daily temperature variations, warm humid summers, and cold winters. The total average annual precipitation in this area from 1981 to 2010 (the most recent year the data was available) is approximately 30.81 inches, of which approximately 40% occurs in the months of June, July and August (MnDNR 2017). The annual snowfall is about 37.3 inches (MRCC 2017) and is roughly equivalent to 2.9 inches of water. Additional climatological information for the area may be obtained from the Minnesota State Climatology Office.

Table 2-1. 1981-2010 Climatic Data for Lino Lakes, MN

1981-2010 Monthly Normal Precipitation - Lino Lakes, MN												
Annual	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
30.81	0.86	0.76	1.74	2.68	3.57	4.32	4.02	4	3.33	2.69	1.7	1.14
1891-2017 Monthly Precipitation – Lino Lakes, MN												
Annual	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
28.96	0.83	0.83	1.53	2.36	3.63	4.45	3.71	3.70	3.16	2.31	1.48	0.99
1972-2014 Monthly Pan Evaporation – University of Minnesota, St. Paul												
Annual	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
36.83	-	-	-	1.85	6.72	7.50	8.06	6.67	4.75	1.26	-	-
1981-2010 Monthly Normal Snowfall - Vadnais Lake NCDC Station												
Annual	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
37.9	9.5	5.7	7.6	0.9	0	0	0	0	0	0.3	5.4	8.5
1981-2010 Monthly Normal Temperature – Vadnais Lake NCDC Station												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Max	25.8	31	42.8	58.4	71	80	84.6	82	72.9	59.3	42.3	28.7
Min	7.1	11.6	23.7	37.6	50	59.4	64.1	61.8	52.8	40.8	27	12.8
Mean	16.5	21.3	33.3	48	60.5	69.7	74.4	71.9	62.9	50.1	34.7	20.7

Precipitation is often defined in terms of recurrence intervals, or the probability of a certain rainfall occurring during a given year. For example, a rainfall event of 6.13 inches has a 2% probability of occurring in any given year, which is also expressed as once in every 50 years, the 9.81 rainfall event has a probability of 0.2% and is expressed as once every 500 years. The following table presents the probability of typical design rainfall events within the City of Lino Lakes, including the 100-year 10-day snowmelt event.

Table 2-2. NOAA Atlas 14 Design Storm Events (Sanja et al 2013).

Recurrence Interval [years]	**1**	**2**	**5**	**10**	**25**	**50**	**100**	**100**	**200**	**500**	**1,000**
Probability	100%	50%	20%	10%	4%	2%	1%	1%	0.5%	0.2%	0.1%
Duration	24-hour	24-hour	24-hour	24-hour	24-hour	24-hour	24-hour	10-day	24-hour	24-hour	24-hour
Rainfall Amount [in]	2.43	2.80	3.50	4.17	5.22	6.13	7.12	9.86	8.22	9.81	11.10

2.2 Topography, Soils and Geology

Topography

The topography of Lino Lakes is generally rolling, with the highest ground in the southeast corner of the city and the lowest around Baldwin Lake. The majority of Lino Lakes is dominated by the Rice Creek Chain of Lakes, interspersed with lakes, wetlands, streams, and various judicial and county ditches.

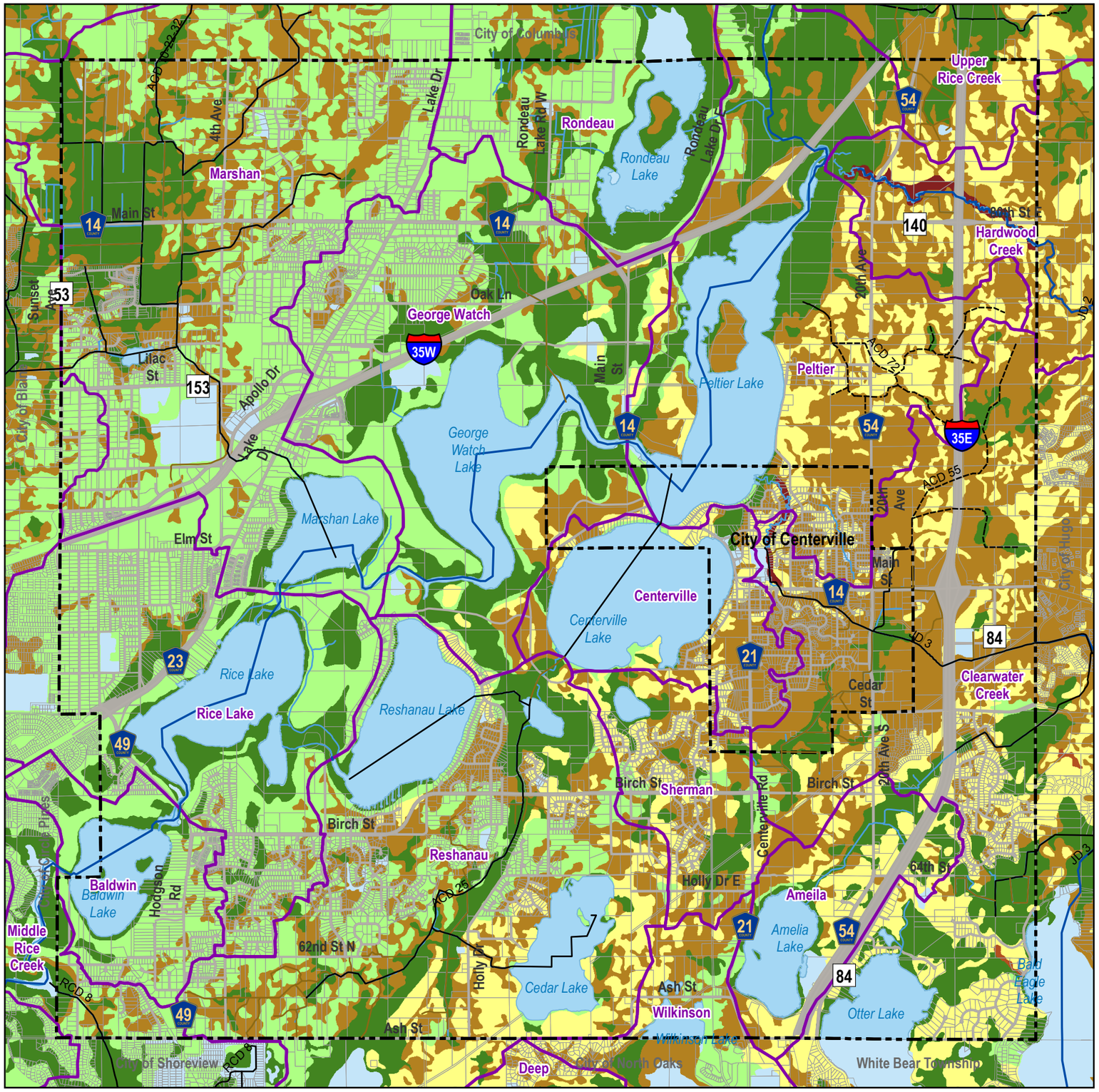
Soils

Soils in Lino Lakes consist of Zimmerman fine sands, Rifle muck, and Isanti soil complexes (Soil Survey Staff 2017). In the northwest, the soils are predominately well-draining, on top of the Anoka Sand Plan, while on the southeast, the soils are poorly draining and result in a higher runoff potential compared to the northwest. The hydrologic soils group, a measure of the infiltration and runoff potential of the surface soils, is provided in **Figure 2-1**.

Geology

The surficial geology of eastern Lino Lakes is primarily glacial ice deposits of loamy tills with peat and muck around the Chain of Lakes and in isolated pockets (**Figure 2-2**). The loamy till is from the New Ulm formation and is chiefly loam texture with unsorted sediment. Peat and muck was deposited in the quaternary era and is composed of partially decomposed organic matter deposited in marshes. Peat and muck also includes fine grained organic matter laid down in ponded water and marl (Setterholm 2013). The western area of Lino Lakes is primarily lake deposits from the Late Wisconsin Pleistocene (Meyer 1993).

Bedrock geology consists of sandstones (**Figure 2-3**). St. Peter Sandstone and the Prairie du Chien Group from the Ordovician and Lower Ordovician periods comprise the southeast corner of Lino Lakes. The northwest corner is made up of the Jordan Sandstone, the Tunnel City Group, and St. Lawrence Formation. Buried stream channels that are incised into several rock formations are a primary influence on the distribution of bedrock geologic units, including under the Rice Creek Chain of Lakes (Berg, 2016).



CITY OF LINO LAKES 2040 COMP PLAN

Figure 2-1
Hydrologic Soil Group

Legend

Hydrologic Soil Group

- A
- A/D
- B
- B/D
- C
- C/D
- D

- Public Ditch
- Tile, Public Ditch
- Private Ditch
- DNR Public Watercourse
- Resource Management Units
- Open Water
- Right-of-Way
- Municipal Boundary
- Parcels
- Streams

3,500 1,750 0 3,500 Feet

N

Date: 1/22/2018

CITY OF LINO LAKES 2040 COMP PLAN

Figure 2-2
Surficial Geology

Legend

Quaternary Units

- Alluvium (Qa)
- Lake Sand (Ql)
- Lake Silt and Clay (Qll)
- Peat and Muck (Qp)
- Marl (Qm)
- Eolian Sand (Qe)
- Sand Facies (Qbs)
- Silt and Clay (Qbc)
- Sand over gray loamy to sandytill (Qbt)
- Loamy Till (Qnt)
- Sandy Till (Qna)
- Mixed Till (Qnd)
- Ice-contact Deposit(Qci)

- Public Ditch
- Tile, Public Ditch
- Private Ditch
- DNR Public Watercourse
- Resource Management Units
- Open Water
- Right-of-Way
- Municipal Boundary
- Parcels
- Streams

3,500 1,750 0 3,500 Feet

N

Date: 1/22/2018

CITY OF LINO LAKES 2040 COMP PLAN

Figure 2-3
Bedrock Geology

Legend

PALEOZOIC ROCKS

- Platteville Limestone, Up. Ord.
- St. Peter Sandstone, Mid. to Up. Ord.
- Prairie du Chien group, Lower Ord.
- Jordan Sandstone, Up. Camb.
- St. Lawrence Formation, Up. Camb.
- Tunnel City group,Up. Camb.
- Wonewoc Sandstone, Up. Camb.
- Eau Claire Formation, Mid. to Up. Camb.
- Mt. Simon Sandstone, Mid. Camb.

- Depth to Bedrock Contour Lines (ft.)
- Public Ditch
- Tile, Public Ditch
- Private Ditch
- DNR Public Watercourse
- Resource Management Units
- Open Water
- Right-of-Way
- Municipal Boundary
- Parcels
- Streams

3,500 1,750 0 3,500 Feet

N

Date: 1/22/2018

2.3 Resource Management Units

The 2008 Lino Lakes Resource Management Plan identifies fifteen Resource Management Units (RMUs) within the City (**Figure 2-4**). RMUs are subwatershed based drainage areas that break the City of Lino Lakes into distinct hydrologic units. The purpose is to provide drainage-area specific management recommendations that address the unique conditions of each subwatershed area. When developing the RMUs, a full analysis was completed using existing and future land use conditions to gain a full understanding of the resources and the stressors that cause impairments within each RMU. Each RMU has its own stressors based on the existing and future land use conditions. For example, for some RMUs stormwater volume is a stressor, and for others it is excess nutrients.

RMUs are used in the development of goals and policies for the city's surface water resources in **Sections 3** and **4** and existing inventories for each RMU are provided in **Appendix B**. The intent of implementing RMU specific goals, policies, and implementation recommendations is to achieve the aquatic resource management goals of the 2008 Lino Lakes Resource Management Plan and achieve a watershed-based approach to flood control and protecting high quality wetlands.

In **Section 5**, the RMU classification is used within the stormwater management implementation plan (**Table 5-24)** to demonstrate funding prioritization for RMUs. Additionally, the development of Subwatershed Management Plans for RMUs is listed in **Table 5-23** as an action item for the top priority RMUs over the next ten years. RMU priority for subwatershed plan development is intended to occur in the following order:

1. Clearwater Creek RMU
2. Marshan RMU
3. Reshanau RMU
4. Wilkinson RMU
5. Amelia RMU
6. Hardwood Creek RMU
7. Rice Lake RMU

If the need arises and resources allow, subwatershed plans for the remaining RMUs will be developed. The RMU specific subwatershed plans will expand on the Resource Management Plan identified stressors, and will develop specific projects and actions to manage impairments and existing and future land use using a watershed-based planning approach.

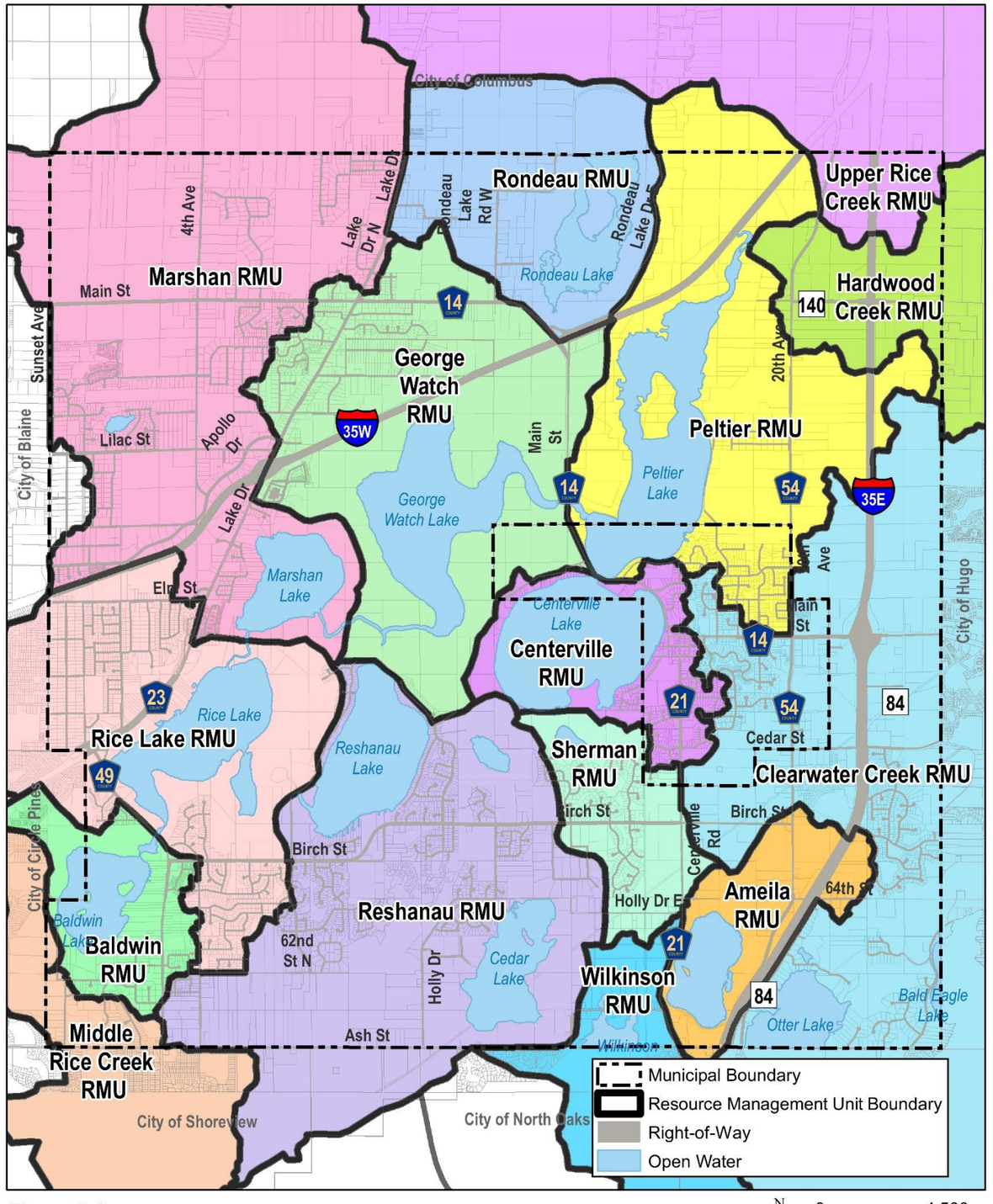


Figure 2-4
Resource Management Units

2.4 Surface Water Resources

Lakes, wetlands, and judicial and county ditches dominate the landscape of the City of Lino Lakes. Open water makes up 14% of the City's land, prominently represented by the Chain of Lakes. The surface water resources are shown in **Figure 2-5**. These natural features play an extensive role in the way the community has developed and will develop in the future. Two watershed districts cover the City of Lino Lakes: Rice Creek Watershed District, which covers most of Lino Lakes, and Vadnais Lake Area Watershed Management Organization in the southeast corner.

Public Waters

The City contains all or part of fifteen lakes. Of the City's lakes, nine of them (Baldwin, Centerville, George Watch, Marshan, Peltier, Reshanau, Rice, Sherman, and Ward) are located within or abutting the Chain of Lakes Regional Park. The City's lakes generally fall into three shoreland management categories: Natural Environment, Recreational, and General Development. The Natural Environment lakes are primarily located in the Chain of Lakes area and include Peltier, George Watch, Marshan, Rice, Ward, Sherman, Cedar, Amelia, Rondeau, and Wilkinson. Most of the lakes in the Chain of Lakes are shallow lakes with maximum depths of 20 feet or less. Recreational lakes include Otter, Centerville, Reshanau, and Baldwin. Bald Eagle Lake is a General Development Lake. They are used for a variety of aquatic recreational uses such as swimming, boating, fishing, and water skiing. Centerville, Bald Eagle, Peltier, and Reshanau Lakes are considered game fishing lakes. The details of each lake are presented in **Section 2.4** and **Appendix B**.

Creeks

The City's river and stream resources are characterized by three major stream systems: Rice Creek and two of its tributaries, Hardwood Creek and Clearwater Creek. A network of ditches and storm sewer drain to these streams; the ditch and storm sewer system is discussed in **Section 2.6**. Rice Creek, Hardwood Creek, and Clearwater Creek join at Peltier Lake with a combined drainage area of 70 square miles (44,800 acres). Hardwood Creek, with a total drainage area of 28 square miles, originates in Washington County's Rice Lake at a normal lake elevation of 920 feet and flows to Peltier Lake at an approximate elevation of 884 feet. Clearwater Creek originates in Bald Eagle Lake, which has a normal elevation of about 911 feet. From there, it proceeds to Centerville Lake and then to Peltier Lake.

Two creek reaches are listed in the 2014 Minnesota Pollution Control Agency 303(d) list of impaired waters. The reach of Clearwater Creek between Bald Eagle Lake and Peltier Lake was listed in 2002 for fish bioassessments, and in 2006 for aquatic macroinvertebrate assessments. The reach of Hardwood Creek between Highway 61 and Peltier Lake was listed in 2002 for fish bioassessments. Based on a TMDL started in 2003, this listing was updated as a dissolved oxygen stressor on aquatic life in 2004.

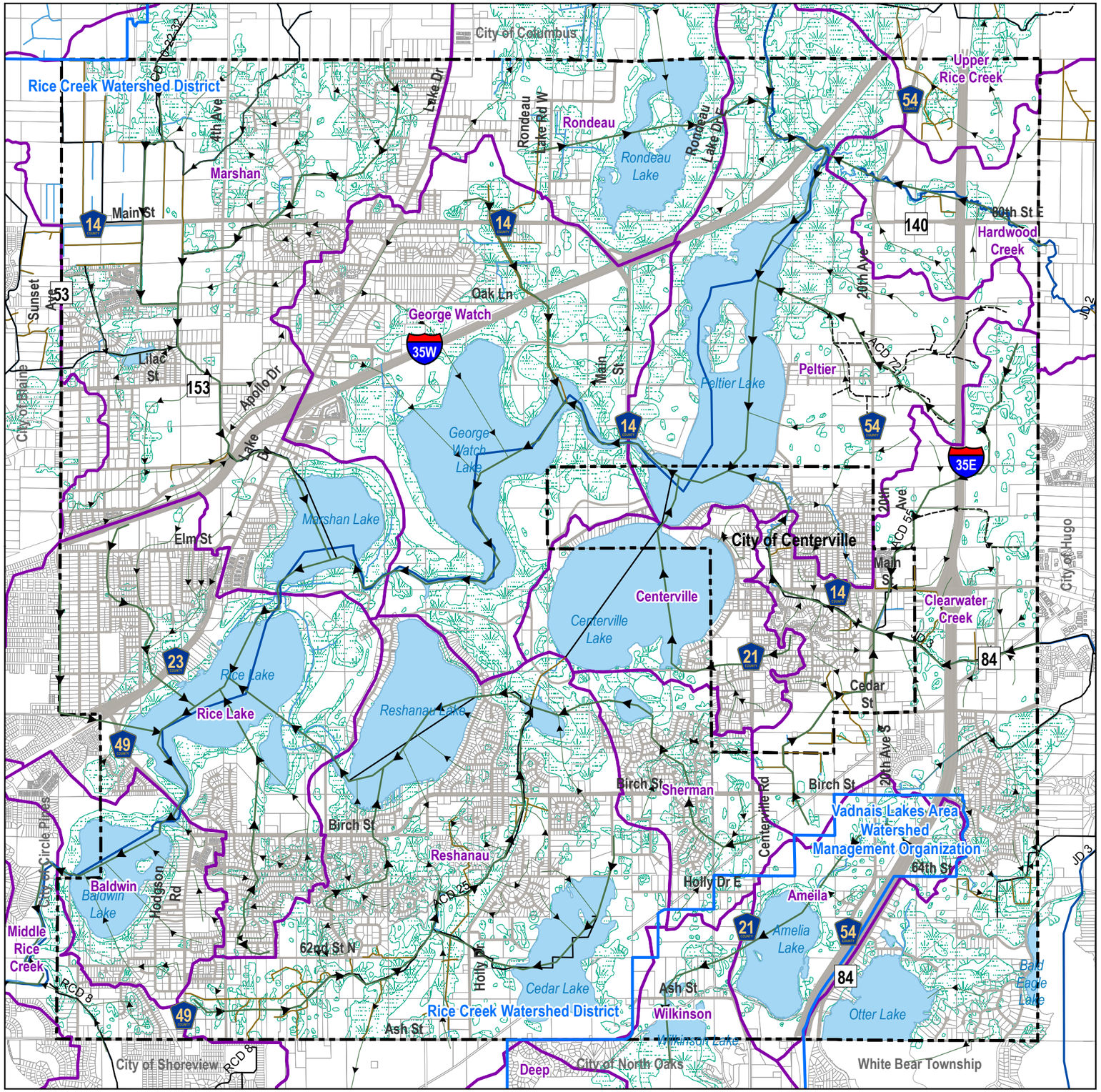
Wetlands

Wetland inventories have been completed by the USFWS as published on the National Wetland Inventory Maps and by the MnDNR, as published in their Protected Waters Inventory. These wetland inventories will be utilized to assist in determining if a wetland is present on a given parcel of property within Lino Lakes.

A number of comprehensive wetland studies have been conducted to guide the management of wetlands and their benefits within Lino Lakes. The three key studies are the Lino Lakes Resource Management Plan (RMP 2008), the draft Lino Lakes SAMP (SAMP 2010), and the Anoka/Washington Judicial Ditch 4 Resource Management Plan. These three studies provide the foundation for the management of wetlands, surface water, floodplains, and greenway resources within the City of Lino Lakes and establish RMUs and standards to support the wetland resources of the City under future development in a manner that integrates with floodplain management, stormwater management, and greenway management.

CITY OF LINO LAKES
2040 COMP PLAN

Figure 2-5
Surface Water



Legend

- Major Drainage Routes
- Minor Drainage Routes
- Public Ditch
- Tile, Public Ditch
- Private Ditch
- DNR Public Watercourse
- Resource Management Units
- National Wetlands Inventory
- Open Water
- Right-of-Way
- Municipal Boundary
- Watershed District Boundary
- Parcels
- Streams

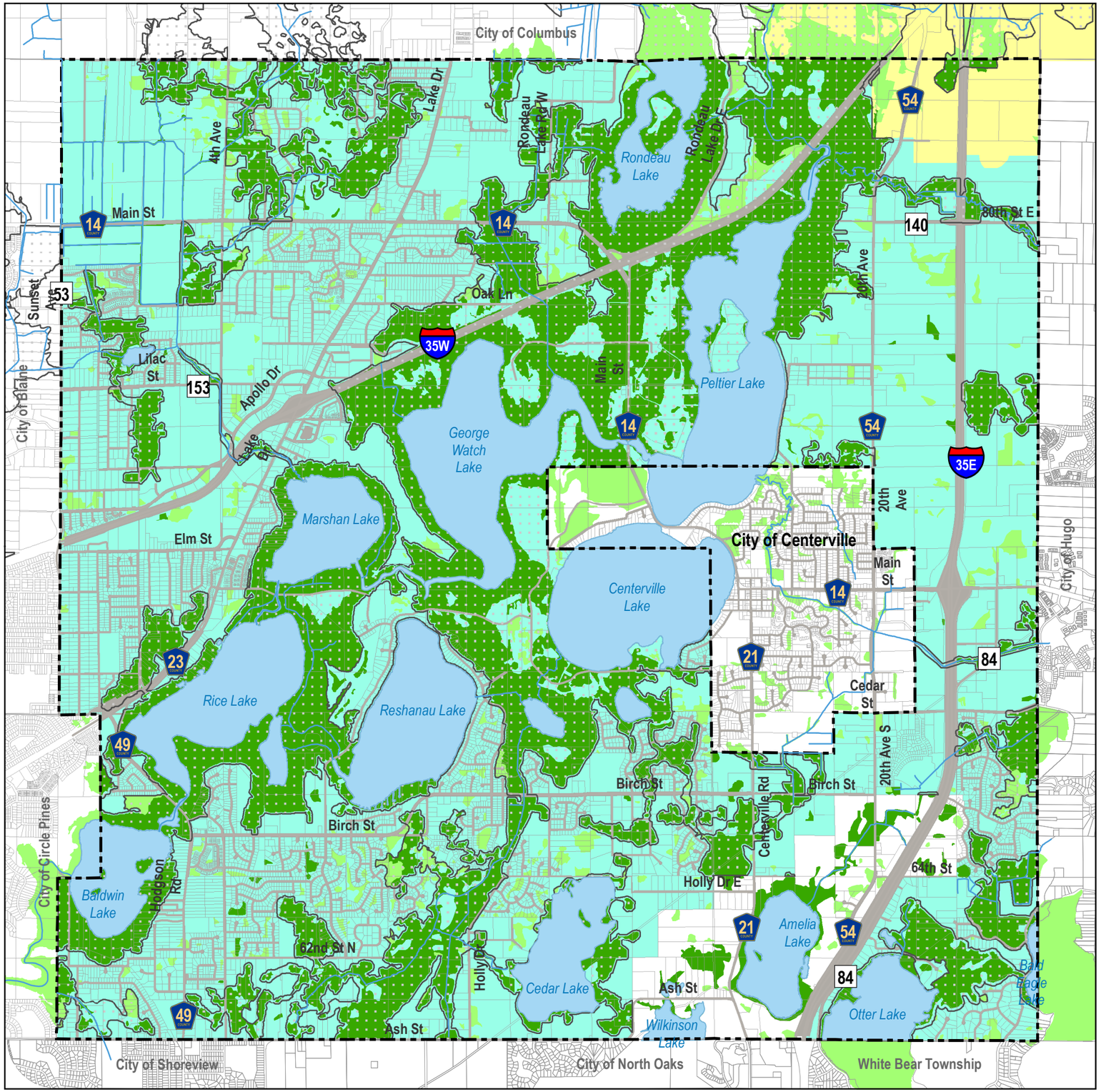
3,500 1,750 0 3,500 Feet

N

Date: 10/9/2018

CITY OF LINO LAKES 2040 COMP PLAN

Figure 2-6
High Priority Wetlands



Legend

- Wetland Management Corridor
- High Priority Wetlands
- Wetlands
- Open Water
- Right-of-Way
- Municipal Boundary
- Parcels
- Streams
- Anoka/Washington Judicial Ditch 4 RMP
- Lino Lakes RMP

3,500 1,750 0 3,500 Feet

N

Date: 11/21/2018

Amelia Lake

Amelia Lake is located within the boundaries of the VLWMO and outflows to the south. Amelia Lake has a surface area of 195 acres and a maximum depth of 4 feet.

Table 2-3. Amelia Lake Summary

DNR ID[1]	02001400
Watershed District[3]	Vadnais Lake WMO
Watershed Area[3]	754 ac
Surface Area[3]	195 ac
Category[4]	Shallow Lake
Maximum Depth[3]	4 ft
Uses:[4]	2B, 3C
Aquatic Recreation[4]	X
Water Access[1]	
Aquatic Life[4]	X
Fish Stocking[1]	
Aquatic Consumption Advisory[1]	
Drinking Water Supply[4]	
Industrial Supply[4]	X
Agriculture Irrigation[4]	X
Lifestock and Wildlife[4]	X
Aesthetic Enjoyment[4]	X
Ordinary High Water Level[1]	908.26
Lowest Recorded[1]	900.98
Highest Known[1]	911.9
RCWD Regulatory Floodplain[2]	-
FEMA Base Flood Elevation[5]	910.2
Impaired Water	No
Impairment	-
Approved TMDL	-

Lake Summary Sources:
[1] Minnesota Dept. of Natural Resources Lake Finder
[2] Rice Creek Watershed District
[3] Vadnais Lakes Area Watershed Management Organization
[4] Minnesota Pollution Control Agency
[5] FEMA Anoka County Flood Insurance Study, 2015

Bald Eagle Lake

Bald Eagle Lake has a surface area of 1,071 acres, a watershed area of 10,835 acres, and a maximum depth of 36 feet. Only a small portion of Bald Eagle Lake is located within the City of Lino Lakes municipal boundary. Bald Eagle Lake is a deep lake and is managed to support aquatic life and recreational uses such as boating and swimming. Bald Eagle Lake was listed as impaired for nutrient/eutrophication biological indicators in 2002.

Table 2-4. Bald Eagle Lake Summary

DNR ID[1]	62000200
Watershed District[2]	Rice Creek WD
Watershed Area[2]	10,835 acres
Surface Area[1]	1,071 acres
Category[4]	Lake
Maximum Depth[1]	36 ft
Uses:[4]	1C, 2Bd, 3C
Aquatic Recreation[4]	X
Water Access[1]	X
Aquatic Life[4]	X
Fish Stocking[1]	X [Walleye]
Aquatic Consumption Advisory[1]	X [Mercury]
Drinking Water Supply[4]	X [reserve]
Industrial Supply[4]	X
Agriculture Irrigation[4]	X
Lifestock and Wildlife[4]	X
Aesthetic Enjoyment[4]	X
Ordinary High Water Level[1]	911.18
Lowest Recorded[1]	906.2
Highest Known[1]	912.89
RCWD Regulatory Floodplain[2]	912.5
FEMA Base Flood Elevation[5]	912.5
Impaired Water	Y - 1998
Impairment	Nutrient/Eutrophication Biological Indicators Mercury in fish tissue
Approved TMDL	Y - 2008

Lake Summary Sources:
[1] Minnesota Dept. of Natural Resources Lake Finder
[2] Rice Creek Watershed District
[3] Vadnais Lakes Area Watershed Management Organization
[4] Minnesota Pollution Control Agency
[5] FEMA Anoka County Flood Insurance Study, 2015

Baldwin Lake

Baldwin Lake has a surface area of 220 acres, a watershed area of 612 acres, and a maximum depth of 4.5 feet. Baldwin Lake is a shallow lake and is managed to support aquatic life and enhance passive recreational uses. It was listed as impaired for nutrient/eutrophication biological indicators in 2010.

Table 2-5. Baldwin Lake Summary

DNR ID[1]	02001300
Watershed District[2]	Rice Creek WD
Watershed Area[2]	612 acres
Surface Area[1]	220 acres
Category[4]	Shallow Lake
Maximum Depth[1]	4.5 ft
Uses:[4]	2B, 3C
Aquatic Recreation[4]	X
Water Access[1]	
Aquatic Life[4]	X
Fish Stocking[1]	
Aquatic Consumption Advisory[1]	
Drinking Water Supply[4]	
Industrial Supply[4]	X
Agriculture Irrigation[4]	X
Lifestock and Wildlife[4]	X
Aesthetic Enjoyment[4]	X
Ordinary High Water Level[1]	883.25
Lowest Recorded[1]	877.73
Highest Known[1]	885.2
RCWD Regulatory Floodplain[2]	887
FEMA Base Flood Elevation[5]	887
Impaired Water	Y - 2010
Impairment	Nutrient/Eutrophication Biological Indicators
Approved TMDL	Y - 2013

Lake Summary Sources:
[1] Minnesota Dept. of Natural Resources Lake Finder
[2] Rice Creek Watershed District
[3] Vadnais Lakes Area Watershed Management Organization
[4] Minnesota Pollution Control Agency
[5] FEMA Anoka County Flood Insurance Study, 2015

Cedar Lake

Cedar Lake is a small lake located east of Reshanau Lake. Lake surface area, watershed area, and maximum depth are unknown. It is not listed as an impaired water body.

Table 2-6. Cedar Lake Summary

DNR ID[1]	02001200
Watershed District[2]	Rice Creek WD
Watershed Area[2]	662 acres
Surface Area[1]	208 acres
Category[4]	-
Maximum Depth[1]	-
Uses:[4]	2B, 3C
Aquatic Recreation[4]	X
Water Access[1]	
Aquatic Life[4]	X
Fish Stocking[1]	
Aquatic Consumption Advisory[1]	
Drinking Water Supply[4]	
Industrial Supply[4]	X
Agriculture Irrigation[4]	X
Lifestock and Wildlife[4]	X
Aesthetic Enjoyment[4]	X
Ordinary High Water Level[1]	893.06
Lowest Recorded[1]	892.87
Highest Known[1]	892.87
RCWD Regulatory Floodplain[2]	894.4
FEMA Base Flood Elevation[5]	-
Impaired Water	No
Impairment	-
Approved TMDL	-

Lake Summary Sources:
[1] Minnesota Dept. of Natural Resources Lake Finder
[2] Rice Creek Watershed District
[3] Vadnais Lakes Area Watershed Management Organization
[4] Minnesota Pollution Control Agency
[5] FEMA Anoka County Flood Insurance Study, 2015

Centerville Lake

Centerville Lake has a surface area of 495 acres, a watershed area of 424 acres, and a maximum depth of 19 feet. It is a deep lake and is managed to support aquatic life and recreational uses such as boating and swimming. Centerville Lake was listed as impaired for nutrient/eutrophication biological indicators in 2002.

Table 2-7. Centerville Lake Summary

DNR ID[1]	02000600
Watershed District[2]	Rice Creek WD
Watershed Area[2]	866 acres
Surface Area[1]	424 acres
Category[4]	Lake
Maximum Depth[1]	19 ft
Uses:[4]	1C, 2Bd, 3C
Aquatic Recreation[4]	X
Water Access[1]	X
Aquatic Life[4]	X
Fish Stocking[1]	X [Walleye]
Aquatic Consumption Advisory[1]	X [Mercury]
Drinking Water Supply[4]	X [reserve]
Industrial Supply[4]	X
Agriculture Irrigation[4]	X
Lifestock and Wildlife[4]	X
Aesthetic Enjoyment[4]	X
Ordinary High Water Level[1]	885.15
Lowest Recorded[1]	883.27
Highest Known[1]	886.5
RCWD Regulatory Floodplain[2]	887.9
FEMA Base Flood Elevation[5]	887.9
Impaired Water	Y - 2002
Impairment	Nutrient/Eutrophication Biological Indicators
Approved TMDL	Y - 2013

Lake Summary Sources:
[1] Minnesota Dept. of Natural Resources Lake Finder
[2] Rice Creek Watershed District
[3] Vadnais Lakes Area Watershed Management Organization
[4] Minnesota Pollution Control Agency
[5] FEMA Anoka County Flood Insurance Study, 2015

George Watch Lake

George Watch Lake has a surface area of 979 acres, a watershed area of 2,824 acres, and a maximum depth of 5 feet. It is a shallow lake and is managed to support aquatic life and enhance passive recreational uses. George Watch Lake was listed as impaired for nutrient/eutrophication biological indicators in 2002.

Table 2-8. George Watch Lake Summary

DNR ID[1]	02000500
Watershed District[2]	Rice Creek WD
Watershed Area[2]	2,824 acres
Surface Area[1]	979 acres
Category[4]	Shallow Lake
Maximum Depth[1]	5 ft
Uses:[4]	2B, 3C
Aquatic Recreation[4]	X
Water Access[1]	
Aquatic Life[4]	X
Fish Stocking[1]	
Aquatic Consumption Advisory[1]	
Drinking Water Supply[4]	
Industrial Supply[4]	X
Agriculture Irrigation[4]	X
Lifestock and Wildlife[4]	X
Aesthetic Enjoyment[4]	X
Ordinary High Water Level[1]	-
Lowest Recorded[1]	-
Highest Known[1]	-
RCWD Regulatory Floodplain[2]	887.0
FEMA Base Flood Elevation[5]	Zone A
Impaired Water	Y - 2002
Impairment	Nutrient/Eutrophication Biological Indicators
Approved TMDL	Y – 2013

Lake Summary Sources:
[1] Minnesota Dept. of Natural Resources Lake Finder
[2] Rice Creek Watershed District
[3] Vadnais Lakes Area Watershed Management Organization
[4] Minnesota Pollution Control Agency
[5] FEMA Anoka County Flood Insurance Study, 2015

Marshan Lake

Marshan Lake has a surface area of 299 acres and a maximum depth of 3.5 feet. It is a shallow lake and is managed to support aquatic life and enhance passive recreational uses. Marshan Lake was listed as impaired for nutrient/eutrophication biological indicators in 2002.

Table 2-9. Marshan Lake Summary

DNR ID[1]	02000700
Watershed District[2]	Rice Creek WD
Watershed Area[2]	4,956 acres
Surface Area[1]	299 acres
Category[4]	Shallow Lake
Maximum Depth[1]	3.5 ft
Uses:[4]	2B, 3C
Aquatic Recreation[4]	X
Water Access[1]	
Aquatic Life[4]	X
Fish Stocking[1]	
Aquatic Consumption Advisory[1]	
Drinking Water Supply[4]	
Industrial Supply[4]	X
Agriculture Irrigation[4]	X
Lifestock and Wildlife[4]	X
Aesthetic Enjoyment[4]	X
Ordinary High Water Level[1]	883.45
Lowest Recorded[1]	878.68
Highest Known[1]	882.56
RCWD Regulatory Floodplain[2]	887
FEMA Base Flood Elevation[5]	887
Impaired Water	Y - 2002
Impairment	Nutrient/Eutrophication Biological Indicators
Approved TMDL	Y - 2013

Lake Summary Sources:
[1] Minnesota Dept. of Natural Resources Lake Finder
[2] Rice Creek Watershed District
[3] Vadnais Lakes Area Watershed Management Organization
[4] Minnesota Pollution Control Agency
[5] FEMA Anoka County Flood Insurance Study, 2015

Otter Lake

Otter Lake has a surface area of 229 acres, a watershed area of 1,512 acres, and a maximum depth of 21 feet. It is a deep lake and is managed to support aquatic life and recreational uses such as boating and swimming. Otter Lake is not listed as an impaired water body

Table 2-10. Otter Lake Summary

DNR ID[1]	02000300
Watershed District[2]	Rice Creek WD
Watershed Area[2]	1,512 acres
Surface Area[1]	229 acres
Category[4]	Lake
Maximum Depth[1]	21 ft
Uses:[4]	1C, 2Bd, 3C
Aquatic Recreation[4]	X
Water Access[1]	X
Aquatic Life[4]	X
Fish Stocking[1]	
Aquatic Consumption Advisory[1]	X
Drinking Water Supply[4]	X [reserve]
Industrial Supply[4]	X
Agriculture Irrigation[4]	X
Lifestock and Wildlife[4]	X
Aesthetic Enjoyment[4]	X
Ordinary High Water Level[1]	911.7
Lowest Recorded[1]	906.2
Highest Known[1]	912.92
RCWD Regulatory Floodplain[2]	912.7
FEMA Base Flood Elevation[5]	912.7
Impaired Water	Y - 2010
Impairment	Mercury in fish tissue
Approved TMDL	Y - 2008

Lake Summary Sources:
[1] Minnesota Dept. of Natural Resources Lake Finder
[2] Rice Creek Watershed District
[3] Vadnais Lakes Area Watershed Management Organization
[4] Minnesota Pollution Control Agency
[5] FEMA Anoka County Flood Insurance Study, 2015

Peltier Lake

Peltier Lake has a surface area of 552 acres, a watershed area of 33,595 acres, and a maximum depth of 16 feet. It is classified as a deep lake and is managed to support aquatic life and enhance passive recreational uses. Peltier Lake was listed as impaired for nutrient/eutrophication biological indicators in 2002.

Table 2-11. Peltier Lake Summary

DNR ID[1]	02000400
Watershed District[2]	Rice Creek WD
Watershed Area[2]	33,595 acres
Surface Area[1]	552 acres
Category[4]	Lake
Maximum Depth[1]	16 ft
Uses:[4]	2B, 3C
Aquatic Recreation[4]	X
Water Access[1]	X
Aquatic Life[4]	X
Fish Stocking[1]	X [walleye]
Aquatic Consumption Advisory[1]	X
Drinking Water Supply[4]	
Industrial Supply[4]	X
Agriculture Irrigation[4]	X
Lifestock and Wildlife[4]	X
Aesthetic Enjoyment[4]	X
Ordinary High Water Level[1]	884.85
Lowest Recorded[1]	876.98
Highest Known[1]	886.63
RCWD Regulatory Floodplain[2]	887.7
FEMA Base Flood Elevation[5]	887.7
Impaired Water	Y - 1998 Y - 2002
Impairment	Mercury in fish tissue Nutrient/Eutrophication Biological Indicators
Approved TMDL	Y - 2008 Y - 2013

Lake Summary Sources:
[1] Minnesota Dept. of Natural Resources Lake Finder
[2] Rice Creek Watershed District
[3] Vadnais Lakes Area Watershed Management Organization
[4] Minnesota Pollution Control Agency
[5] FEMA Anoka County Flood Insurance Study, 2015

Reshanau Lake

Reshanau Lake has a surface area of 375 acres, a watershed area of 913 acres, and a maximum depth of 10 feet. It is a shallow lake and is managed to support aquatic life and enhance passive recreational uses. Reshanau Lake was listed as impaired for nutrient/eutrophication biological indicators in 2006.

Table 2-12. Reshanau Lake Summary

DNR ID[1]	02000900
Watershed District[2]	Rice Creek WD
Watershed Area[2]	913 acres
Surface Area[1]	375 acres
Category[4]	Shallow Lake
Maximum Depth[1]	10 ft
Uses:[4]	2B, 3C
Aquatic Recreation[4]	X
Water Access[1]	X
Aquatic Life[4]	X
Fish Stocking[1]	
Aquatic Consumption Advisory[1]	
Drinking Water Supply[4]	
Industrial Supply[4]	X
Agriculture Irrigation[4]	X
Lifestock and Wildlife[4]	X
Aesthetic Enjoyment[4]	X
Ordinary High Water Level[1]	883.65
Lowest Recorded[1]	879.36
Highest Known[1]	885.5
RCWD Regulatory Floodplain[2]	887
FEMA Base Flood Elevation[5]	887
Impaired Water	Y - 2006
Impairment	Nutrient/Eutrophication Biological Indicators
Approved TMDL	Y - 2013

Lake Summary Sources:
[1] Minnesota Dept. of Natural Resources Lake Finder
[2] Rice Creek Watershed District
[3] Vadnais Lakes Area Watershed Management Organization
[4] Minnesota Pollution Control Agency
[5] FEMA Anoka County Flood Insurance Study, 2015

Rice Lake

Rice Lake has a surface area of 560 acres, a watershed area of 2,229 acres, and a maximum depth of 4.75 feet. It is a shallow lake and is managed to support aquatic life and enhance passive recreational uses. Rice Lake was listed as impaired for nutrient/eutrophication biological indicators in 2010.

Table 2-13. Rice Lake Summary

DNR ID[1]	02000800
Watershed District[2]	Rice Creek WD
Watershed Area[2]	2,229 acres
Surface Area[1]	560 acres
Category[4]	Shallow Lake
Maximum Depth[1]	4.75 ft
Uses:[4]	2B, 3C
Aquatic Recreation[4]	X
Water Access[1]	X
Aquatic Life[4]	X
Fish Stocking[1]	
Aquatic Consumption Advisory[1]	
Drinking Water Supply[4]	
Industrial Supply[4]	X
Agriculture Irrigation[4]	X
Lifestock and Wildlife[4]	X
Aesthetic Enjoyment[4]	X
Ordinary High Water Level[1]	883.25
Lowest Recorded[1]	878.35
Highest Known[1]	885.2
RCWD Regulatory Floodplain[2]	887
FEMA Base Flood Elevation[5]	887
Impaired Water	Y - 2010
Impairment	Nutrient/Eutrophication Biological Indicators
Approved TMDL	Y - 2013

Lake Summary Sources:
[1] Minnesota Dept. of Natural Resources Lake Finder
[2] Rice Creek Watershed District
[3] Vadnais Lakes Area Watershed Management Organization
[4] Minnesota Pollution Control Agency
[5] FEMA Anoka County Flood Insurance Study, 2015

Rondeau Lake

Rondeau Lake has a surface area of 546 acres, a watershed area of 1,533 acres, and a maximum depth of 12 feet. It is classified as a shallow lake and is managed to support aquatic life and enhance passive recreational uses. Rondeau Lake is not listed as an impaired water body.

Table 2-14. Rondeau Lake Summary

DNR ID[1]	02001500
Watershed District[2]	Rice Creek WD
Watershed Area[2]	1,533 acres
Surface Area[1]	546 acres
Category[4]	Shallow Lake
Maximum Depth[1]	12 ft
Uses:[4]	2B, 3C
Aquatic Recreation[4]	X
Water Access[1]	
Aquatic Life[4]	X
Fish Stocking[1]	
Aquatic Consumption Advisory[1]	
Drinking Water Supply[4]	
Industrial Supply[4]	X
Agriculture Irrigation[4]	X
Lifestock and Wildlife[4]	X
Aesthetic Enjoyment[4]	X
Ordinary High Water Level[1]	-
Lowest Recorded[1]	884.63
Highest Known[1]	887.35
RCWD Regulatory Floodplain[2]	887.6
FEMA Base Flood Elevation[5]	887.6
Impaired Water	No
Impairment	-
Approved TMDL	-

Lake Summary Sources:
[1] Minnesota Dept. of Natural Resources Lake Finder
[2] Rice Creek Watershed District
[3] Vadnais Lakes Area Watershed Management Organization
[4] Minnesota Pollution Control Agency
[5] FEMA Anoka County Flood Insurance Study, 2015

Sherman Lake

Sherman Lake has a surface area of 44 acres, a watershed area of 680 acres. Maximum depth is unknown, however Sherman Lake is a known shallow lake. It is not listed as an impaired water body.

Table 2-15. Sherman Lake Summary

DNR ID[1]	02001100
Watershed District[2]	Rice Creek WD
Watershed Area[2]	680 acres
Surface Area[1]	44 acres
Category[4]	Shallow Lake
Maximum Depth[1]	-
Uses:[4]	2B, 3C
Aquatic Recreation[4]	X
Water Access[1]	
Aquatic Life[4]	X
Fish Stocking[1]	
Aquatic Consumption Advisory[1]	
Drinking Water Supply[4]	
Industrial Supply[4]	X
Agriculture Irrigation[4]	X
Lifestock and Wildlife[4]	X
Aesthetic Enjoyment[4]	X
Ordinary High Water Level[1]	-
Lowest Recorded[1]	-
Highest Known[1]	-
RCWD Regulatory Floodplain[2]	886.9
FEMA Base Flood Elevation[5]	Zone A
Impaired Water	No
Impairment	-
Approved TMDL	-

Lake Summary Sources:
[1] Minnesota Dept. of Natural Resources Lake Finder
[2] Rice Creek Watershed District
[3] Vadnais Lakes Area Watershed Management Organization
[4] Minnesota Pollution Control Agency
[5] FEMA Anoka County Flood Insurance Study, 2015

Wards Lake

Wards Lake has a surface area of 163 acres and a watershed area of 1,663 acres. Maximum depth is unknown, however Wards Lake is a known shallow lake. It is not listed as an impaired water body.

Table 2-16. Wards Lake Summary

DNR ID[1]	02001000
Watershed District[2]	Rice Creek WD
Watershed Area[2]	1,663 acres
Surface Area[1]	163 acres
Category[4]	Shallow Lake
Maximum Depth[1]	-
Uses:[4]	2B, 3C
Aquatic Recreation[4]	X
Water Access[1]	
Aquatic Life[4]	X
Fish Stocking[1]	
Aquatic Consumption Advisory[1]	
Drinking Water Supply[4]	
Industrial Supply[4]	X
Agriculture Irrigation[4]	X
Lifestock and Wildlife[4]	X
Aesthetic Enjoyment[4]	X
Ordinary High Water Level[1]	883.86
Lowest Recorded[1]	881.14
Highest Known[1]	885.3
RCWD Regulatory Floodplain[2]	886.9
FEMA Base Flood Elevation[5]	Zone A
Impaired Water	No
Impairment	-
Approved TMDL	-

Lake Summary Sources:
[1] Minnesota Dept. of Natural Resources Lake Finder
[2] Rice Creek Watershed District
[3] Vadnais Lakes Area Watershed Management Organization
[4] Minnesota Pollution Control Agency
[5] FEMA Anoka County Flood Insurance Study, 2015

Wilkinson Lake

Wilkinson Lakes is a 94 acre water body with a maximum depth of 4.5 foot. The lake is located at the south end of the City and was listed as impaired for nutrient/eutrophication biological indicators in 2010. At its ordinary high water level, it extends into the City of Lino Lakes.

Table 2-17. Wilkinson Lake Summary

DNR ID[1]	62004300
Watershed District[3]	Vadnais Lake WMO
Watershed Area[3]	1,108 acres
Surface Area[3]	94 acres
Category[4]	Shallow Lake
Maximum Depth[3]	4.5 ft
Uses:[4]	1C, 2Bd, 3C
Aquatic Recreation[4]	X
Water Access[1]	
Aquatic Life[4]	X
Fish Stocking[1]	
Aquatic Consumption Advisory[1]	
Drinking Water Supply[4]	X
Industrial Supply[4]	X
Agriculture Irrigation[4]	X
Lifestock and Wildlife[4]	X
Aesthetic Enjoyment[4]	X
Ordinary High Water Level[1]	895.36
Lowest Recorded[1]	893.53
Highest Known[1]	893.53
RCWD Regulatory Floodplain[2]	-
FEMA Base Flood Elevation[5]	-
Impaired Water	Y - 2010
Impairment	Nutrient/Eutrophication Biological Indicators
Approved TMDL	Y - 2013

Lake Summary Sources:
[1] Minnesota Dept. of Natural Resources Lake Finder
[2] Rice Creek Watershed District
[3] Vadnais Lakes Area Watershed Management Organization
[4] Minnesota Pollution Control Agency
[5] FEMA Anoka County Flood Insurance Study, 2015

Clearwater Creek

Only a small portion of the Clearwater Creek watershed is located in Lino Lakes. Its beneficial uses include supporting the propagation and maintenance of a healthy indigenous fish communities, associated aquatic life, and their habitats. Clearwater Creek is also suitable for non-motorized boating and other forms of aquatic recreation. Clearwater Creek was listed as an impaired water body in 2006 for low levels of dissolved oxygen affecting aquatic life.

Hardwood Creek

Only a small portion of the Hardwood Creek watershed is located in Lino Lakes. Its beneficial uses include supporting the propagation and maintenance of a healthy fish communities, associated aquatic life, and their habitats. Hardwood Creek is also suitable for non-motorized boating and other forms of aquatic recreation. Hardwood Creek is listed as an impaired waterbody for low levels of dissolved oxygen and fishes bioassessment and has an approved TMDL.

Rice Creek

Only a small portion of Rice Creek (Upper Rice Creek) is located in Lino Lakes. Its beneficial uses include drinking water supply, supporting the propagation and maintenance of a healthy indigenous fish communities, associated aquatic life, and their habitats. Rice Creek is also suitable for boating and other forms of aquatic recreation. Middle and Lower Rice Creek are both on the impaired waters list. Middle Rice Creek is impaired for fish bioassessments (2004) and macroinvertebrate bioassessments (2006). There is no approved TMDL for Middle Rice Creek. Lower Rice Creek is impaired for fish bioassessments (2014), macroinvertebrate bioassessments (2014), and *E. Coli* (2014). Lower Rice Creek is included in approved TMDL for *E.coli* (Upper Mississippi River Bacteria TMDL, 2014), in which the City is a regulated entity.

2.5 Stormwater Management System

Hydrologic boundaries do not stop at the municipal borders and orderly coordination between related municipalities is addressed in the Lino Lakes Resource Management Plan (RMP). Hydrologic boundary based, RMUs identified in the RMP are the basis for neighbor community coordination of shared water resources. The modeling encompasses true watershed catchments even where the boundaries are outside the municipal boundaries. The RCWD District-Wide Regional Model covers small portions of land area within North Oaks, Hugo, and Blaine, as well as all of Centerville. RCWD has similar, larger, boundaries and modeling called Resources of Concern (ROC) that are delineated based on lakes, while the City of Lino Lakes' RMUs are subsets within the RCWD ROCs.

Public Ditch System

The State of Minnesota has established a set of rules (Minn. Statute 103E) to provide an opportunity for individual landowners to obtain drainage and to minimize the effects to downstream landowners. There are a number of County Ditches (Nos. 8, 10, 22, 25, 32, 47, and 55) and two Judicial Ditches (Nos. 2 and 3) that run through the city. The majority of the drainage system was constructed during the late 1800s and early 1900s. Over the decades, much of the system was minimally maintained by different ditch authorities. Today, many ditches function as straightened creeks within a partially or marginally drained wetland slough or riparian corridor. The major public ditch systems in Lino Lakes are:

- Anoka County Ditch (ACD) 10-22-32
- ACD 25
- ACD 47 (abandoned)
- ACD 55
- ACD 72
- Judicial Ditch (JD) 2 (Hardwood Creek)
- JD 3 (Clearwater Creek)

In Lino Lakes, Anoka and Ramsey Counties have delegated the jurisdiction over all public ditches to the RCWD, who has the authority for managing the drainage systems, including improvements and repairs. Thus, the RCWD is the ditch authority for the purposes of implementing Minnesota Statute §103E (Drainage Law). There are a number of private ditches within the city that are not managed under Minn. Statute 103E, instead are managed individually by private landowners.

Municipal Storm Sewer and Stormwater Treatment Features

The City's storm sewer network and catalogued best management practices (BMPs) treatment devices and structures, as available in GIS, are shown in **Figure 2-7**. The City is also actively updating their infrastructure database and will be adding information, such as BMP normal water levels (NWL) and high water levels (HWL) in the future, but was not comprehensively available at this time. The RCWD also has hydrologic and hydraulic information available for the system and should be contacted if that information is needed. The numbering system and level of resolution of the RCWD data and modeling was not consistent with City information, so the RCWD information should be obtained directly from the RCWD.

2.6 Water Quality Data and Impairments

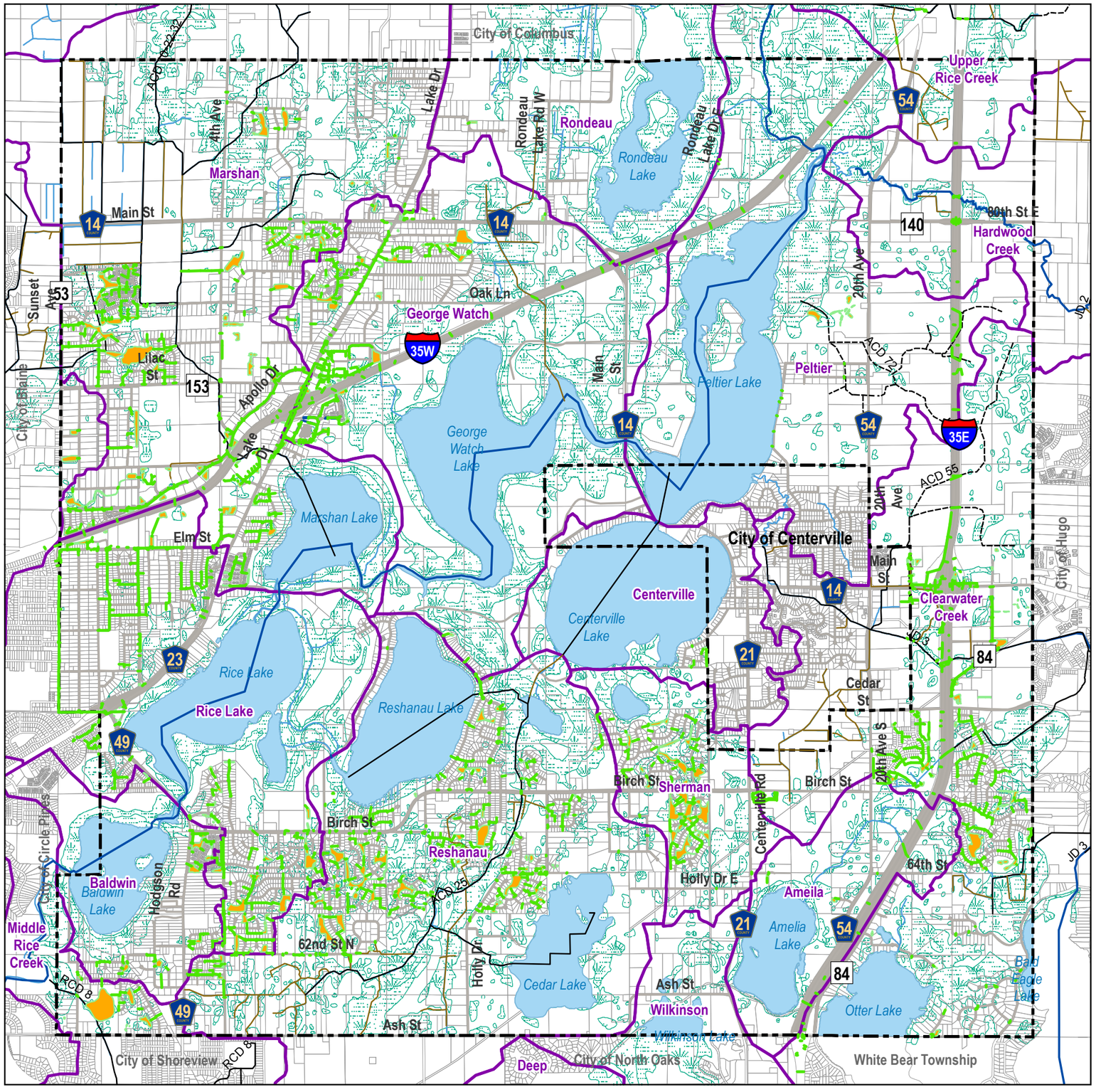
Water quality data for the city has been obtained from the MPCA Environmental Data Access site. This database is utilized by the participating agencies to compile water quality testing data and is almost entirely used for the storage of water quality parameters. Many waterbodies in Lino Lakes are currently identified on the state List of Impaired Waters (**Figure 2-8**), also 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 particular pollutant or stressor. If monitoring and assessment indicate that a waterbody is impaired by one or more pollutants, it is placed on this list. For each water body on the list, the MPCA is required to conduct a study to determine the allowable Total Maximum Daily Load. Impaired waters in Lino Lakes are summarized in **Table 2-18.**

Table 2-18. 2018 Impaired Waters

Impaired Water	Affected Use	Pollutant	Year Added	TMDL Status
Hardwood Creek (07010206-596) Hwy 61 to Peltier Lake	Aquatic Life	Dissolved Oxygen, Fishes Bioassessment	2004, 2002	Hardwood Creek Impaired Biota (Fish) and Dissolved Oxygen TMDL, 2009
Clearwater Creek (07010206-519) Bald Eagle Lake to Peltier Lake	Aquatic Life	Aquatic Macroinvertebrate Bioassessment, Fishes Bioassessment	2006, 2002	Not Complete
Rice Creek (07010206-584) Long Lake to Locke Lake	Aquatic Life, Aquatic Recreation	Aquatic Macroinvertebrate Bioassessment, Fishes Bioassessment, E. Coli	2006, 2014, 2014	Upper Mississippi River Bacteria TMDL Study and Protection Plan, 2014
Rice Creek (07010206-583) Unnamed Lake (02-0041-000) to Long Lake	Aquatic Life	Aquatic Macroinvertebrate Bioassessment, Fishes Bioassessment	2006, 2014	Not Complete
Baldwin Lake (02-0013-00)	Aquatic Recreation	Nutrients	2010	Lino Lakes Chain of Lakes Nutrient TMDL, 2012
Bald Eagle Lake (62-0002-00)	Aquatic Consumption, Aquatic Recreation	Mercury in fish tissue, Nutrients	1998, 2002	Bald Eagle Lake Nutrient TMDL, 2012
Centerville Lake (02-0006-00)	Aquatic Recreation	Nutrients	2002	Peltier Lake and Centerville Lake TMDL, 2016
George Watch Lake (02-0005-00)	Aquatic Recreation	Nutrients	2002	Lino Lakes Chain of Lakes Nutrient TMDL, 2012
Golden Lake (02-0045-00)	Aquatic Consumption, Aquatic Recreation	Mercury in fish tissue, Nutrients	2010, 2002	Golden Lake TMDL, 2009
Marshan Lake (02-0007-00)	Aquatic Recreation	Nutrients	2002	Lino Lakes Chain of Lakes Nutrient TMDL, 2012
Peltier Lake (02-0004-00)	Aquatic Consumption, Aquatic Recreation	Mercury in fish tissue, Nutrients	2008, 2002	Peltier Lake and Centerville Lake TMDL, 2016
Reshanau Lake (02-0009-00)	Aquatic Recreation	Nutrients	2006	Lino Lakes Chain of Lakes Nutrient TMDL, 2012
Rice Lake (02-0008-00)	Aquatic Recreation	Nutrients	2010	Lino Lakes Chain of Lakes Nutrient TMDL, 2012
Wilkinson Lake (62-0043-00)	Aquatic Recreation	Nutrients	2010	Vadnais Lake Area WMO Total Maximum Daily Load and Protection Study, 2014

CITY OF LINO LAKES
2040 COMP PLAN

Figure 2-7
Existing Storm Sewer System



Legend

- Storm Sewer
- Public Ditch
- Tile, Public Ditch
- Private Ditch
- DNR Public Watercourse
- Stormwater BMPs
- Resource Management Units
- National Wetlands Inventory
- Open Water
- Right-of-Way
- Municipal Boundary
- Parcels
- Streams

3,500 1,750 0 3,500 Feet

N

Date: 6/28/2018

CITY OF LINO LAKES
2040 COMP PLAN

Figure 2-8
Impaired Waters

Legend

- Public Ditch
- Tile, Public Ditch
- Private Ditch
- DNR Public Watercourse
- Impaired Streams
- Impaired Lakes
- Resource Management Units
- National Wetlands Inventory
- Open Water
- Right-of-Way
- Municipal Boundary
- Parcels
- Streams

3,500 1,750 0 3,500 Feet

N

Date: 1/22/2018

Intercommunity Flows

The City of Lino Lakes is surrounded by several neighboring communities and receives watershed runoff from Blaine, Centerville, Columbus, Hugo, Shoreview, and White Bear Township. RCWD has completed watershed-wide hydrologic and hydraulic models that includes the City of Lino Lakes as part of their District-wide Modeling Program. These models include SWMM models for public drainage systems into Rice Creek, direct drainage into Rice Creek, water quality models, Future Conditions Modeling, and a HEC-RAS model of Rice Creek. RCWD has estimated the flows to its jurisdictional reaches and, as such, downstream communities like Lino Lakes are required to include their allocated flows in their future planning studies to limit adverse impacts to their downstream neighbors of Centerville, Hugo and Circle Pines. The City is pursuing an alternate outlet for build-out conditions using RCWD's Comprehensive Stormwater Management Plan (CSMP) provisions under RCWD Rule C.5(f). Existing intercommunity flows and modeled peak flow rates as provided by RCWD district wide modeling are shown below (**Table 2-19**). The City intends to either maintain or reduce intercommunity flow rates relative to the established benchmarks through its goals and policies as well as deference to RCWD rules. The City incorporates by reference the RCWD hydraulic and hydrologic model and Watershed Management Plan for stormwater runoff volumes and rates for the City's subwatersheds. The City will regularly coordinate with the RCWD to data-share any updated component of the models, and will continue working with RCWD on future management of model input data to ensure Lino Lakes and RCWD have consistent information for future projects.

Table 2-19. Benchmark Intercommunity Flow Rates

Receiving City	Watercourse	Peak Flows [cfs]			
		2-Year 24-Hour Rainfall	10-Year 24-Hour Rainfall	100-Year 24-Hour Rainfall	100-Year 10-Day Snowmelt
Centerville	JD 3 Main Trunk	157	291	544	388
Circle Pines	RCD 8 Main Trunk	9	21	39	36
Circle Pines	Rice Creek	119	292	698	1214
Hugo	JD 3 Branch 4	34	67	163	64
Hugo	JD 3 Branch 1	15	17	53	8
Centerville	ACD 55 Main Trunk	7	15	108	31

2.7 Groundwater Resources

Various agencies are responsible for groundwater management and protection. The MnDNR regulates groundwater usage rate and volume as part of its charge to conserve and use the waters of the State. The MDH is the official state agency responsible for addressing all environmental health matters, including groundwater protection, the well abandonment program, and regulation of the installation of new wells. The MPCA administers and enforces laws relating to the pollution of groundwater. The Minnesota Geological Survey provides a complete account of the state's groundwater resources. The RCWD serves in an advisory and educational role in cooperating and assisting the DNR, MDH, and the MPCA in their groundwater protection efforts. The City promotes infiltration and groundwater recharge, but follows guidance from the Minnesota Stormwater Manual and RCWD for limiting infiltration in potential stormwater hotspots and Drinking Water Supply Management Areas (DWSMA).

The City is located over the Prairie du Chien-Jordan and the Mt. Simon-Hinckley aquifers, as well as glacial sand and gravel. Groundwater is at or near the surface in most of Lino Lakes (**Figure 2-9**). Groundwater flow generally follows the surface topography and flows towards the Rice Creek Chain of Lakes (Berg 2016) and ultimately towards the Mississippi River (Palen 1993).

Groundwater has been known to seep out of natural artesian wells in the Chain of Lakes, especially near the capped St. Paul Water Authority wells in Centerville Lake. The Metropolitan Council has reviewed the surface water and groundwater interactions for Lino Lakes (**Figure 2-10**), which supports these observations and documents the aquifer recharge areas within Lino Lakes.

Groundwater studies which include the City of Lino Lakes were completed, or were in the process of being completed during the time this plan was written. Those studies include the following:

- Lino Lakes Wellhead Protection Plan
- North & East Metro Groundwater Management Area Plan
- Anoka County Geologic Atlas, Part B
- Anoka Sand Plain Regional Hydrogeologic Assessment
- Minnesota DNR Draft Groundwater Management Plan

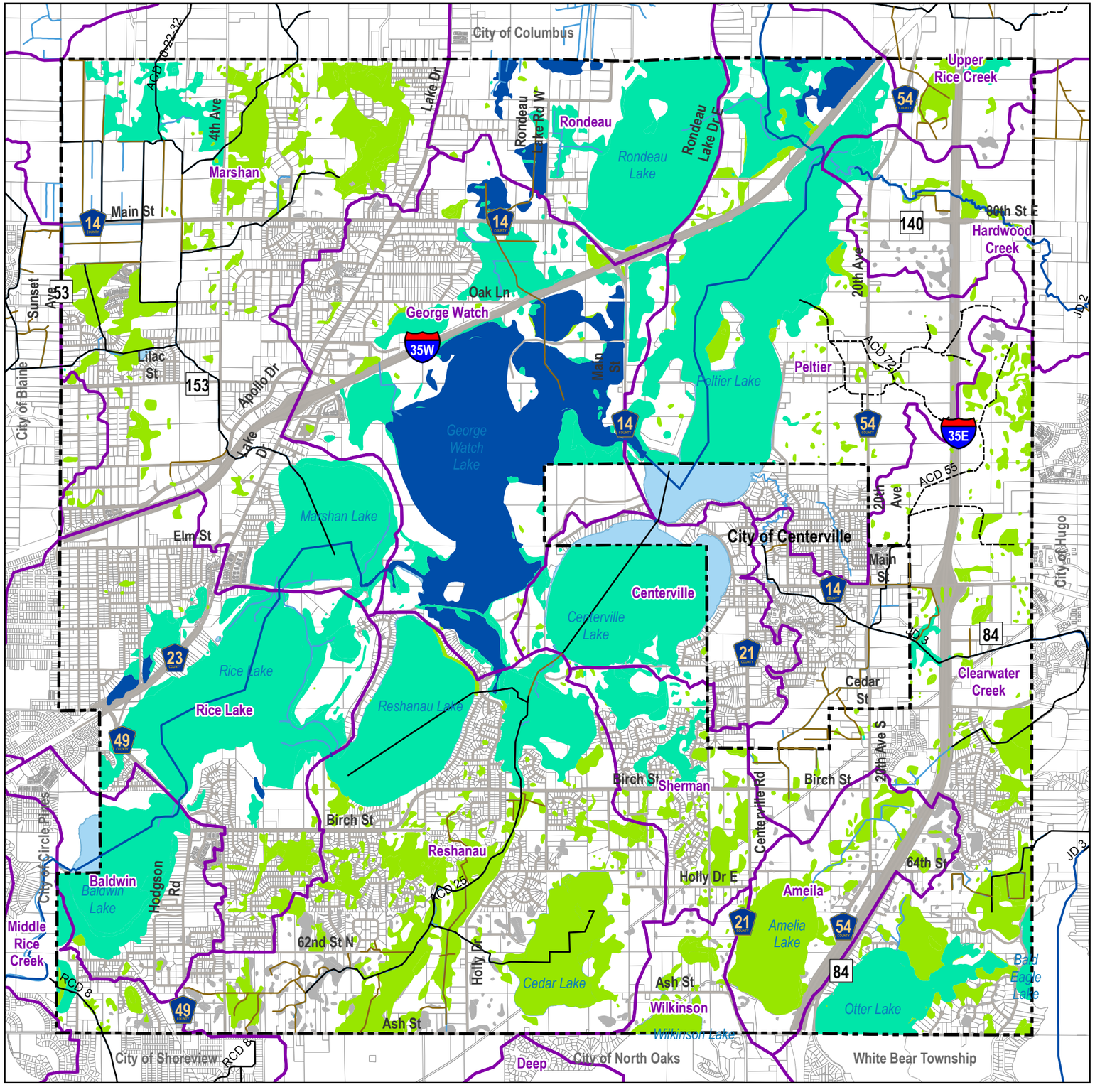
The City of Lino Lakes currently operates six active water supply wells, which draw from groundwater from the Prairie du Chien and Jordan aquifers. The total annual volume appropriated to the City's water supply system by the DNR is 900 million gallons. Locations of the wells are identified in **Figure 2-9**, all six wells are located in a highly sensitive aquifer area, and the vulnerability of the City's wells and groundwater source varies. Areas closer to Wells No. 1, 3, 4, and 5 contain a lack of low permeability material above the Prairie du Chien and Jordan buried sand, while areas closer to Well No. 2 are considered less vulnerable due to the low permeability of the surficial soils. There

are 750 private, non-municipal wells, averaging 103 feet in depth, within the City's DWSMA, which are a source of concern for potential contamination. Unmaintained, damaged, poorly constructed, or unused/abandoned wells could provide a direct route for contaminants to enter the aquifers utilized by the City of Lino Lakes as the principal drinking water supply.

Table 2-20. Lino Lakes Public Water Supply Wells

Local Well Name	Unique Number	Aquifer	Well Depth [ft]	Date Constructed	Authorized Pumping Rate [gpm]
Well No. 1	240171	Prairie du Chien - Jordan	306	1971	900
Well No. 2	110471	Jordan	258	1986	850
Well No. 3	559379	Prairie du Chien - Jordan	283	1995	1,100
Well No. 4	554207	Prairie du Chien - Jordan	338	1995	675
Well No. 5	722629	Prairie du Chien - Jordan	273	2005	1,100
Well No. 6	767887	Prairie du Chien - Jordan	295	2016	1,200

There are ten other active water appropriations permitted by the DNR within the City of Lino Lakes. The St. Paul Water Utility maintains a surface water appropriation from the Chain of Lakes for 8,000 million gallons annually. Other active water appropriations include crop irrigation, sod farms, athletic fields, nursery, and institutional uses of groundwater and surface water.



CITY OF LINO LAKES 2040 COMP PLAN

Figure 2-10 Surface Water Groundwater Interaction

Legend

Surface Water Type

- Disconnected from the regional groundwater system
- Recharges aquifers
- Receives and discharges groundwater
- Supported by upwelling groundwater
- Public Ditch
- Tile, Public Ditch
- Private Ditch
- DNR Public Watercourse
- Resource Management Units
- Open Water
- Right-of-Way
- Municipal Boundary
- Parcels
- Streams

3,500 1,750 0 3,500 Feet

N

Date: 1/22/2018

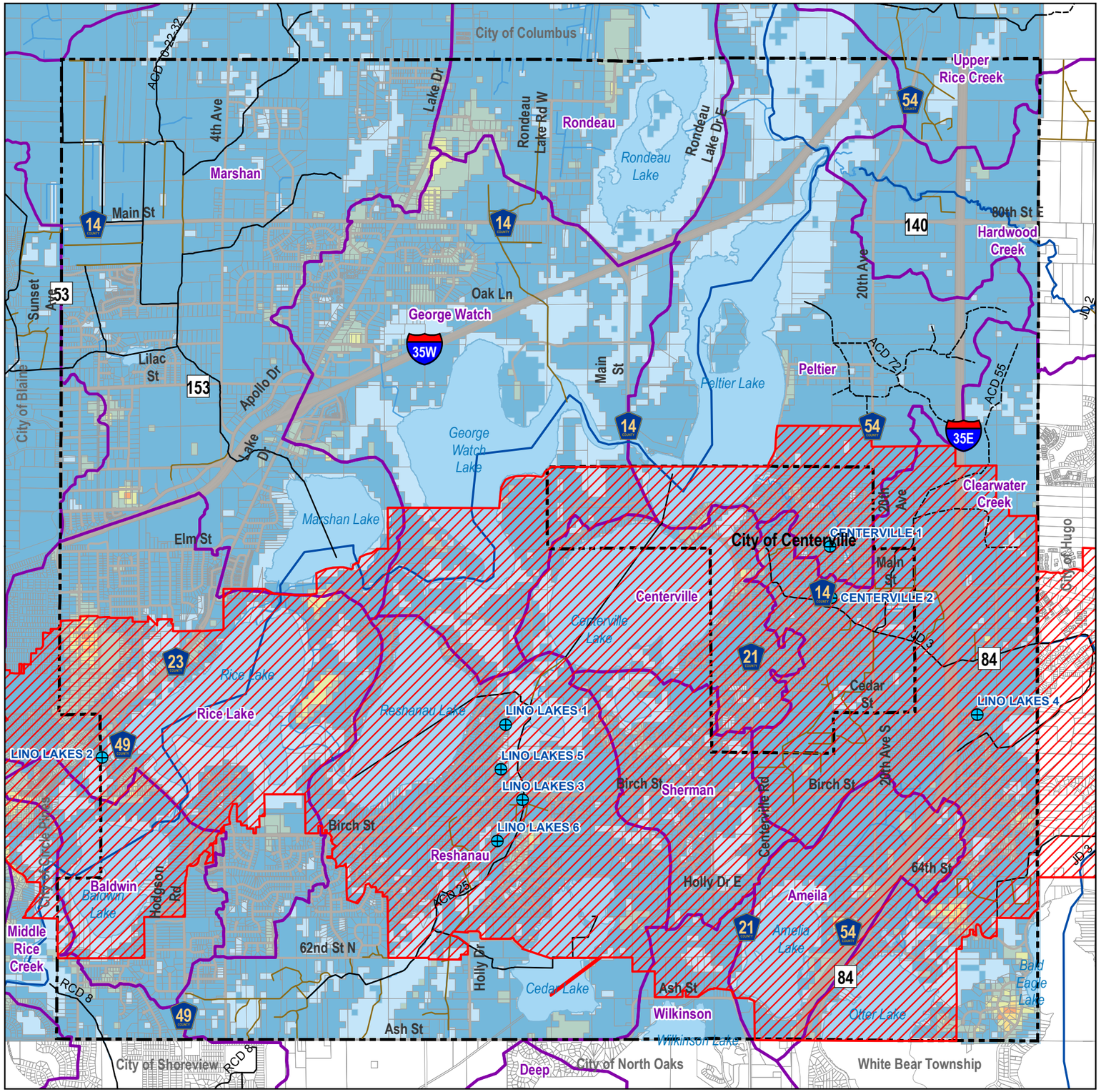




Figure 2-9
Groundwater Resources

Legend

- Municipal Wells
- Drinking Water Supply Management Area

Modeled Depth to Water Table (ft)

- 0 to 10
- >10 to 20
- >20 to 30
- >30 to 40
- >40

- Public Ditch
- Tile, Public Ditch
- Private Ditch
- DNR Public Watercourse
- Resource Management Units
- Open Water
- Right-of-Way
- Municipal Boundary
- Parcels
- Streams

3,500 1,750 0 3,500 Feet

N

Date: 6/28/2018

2.8 Existing Conditions

Land Uses and Utilities

Most of the land in Lino Lakes is classified as rural residential (24.9%), agricultural (23.3%), or single family residential (13.5%) and shown on the existing land use map (**Figure 2-11**). The land uses are defined below:

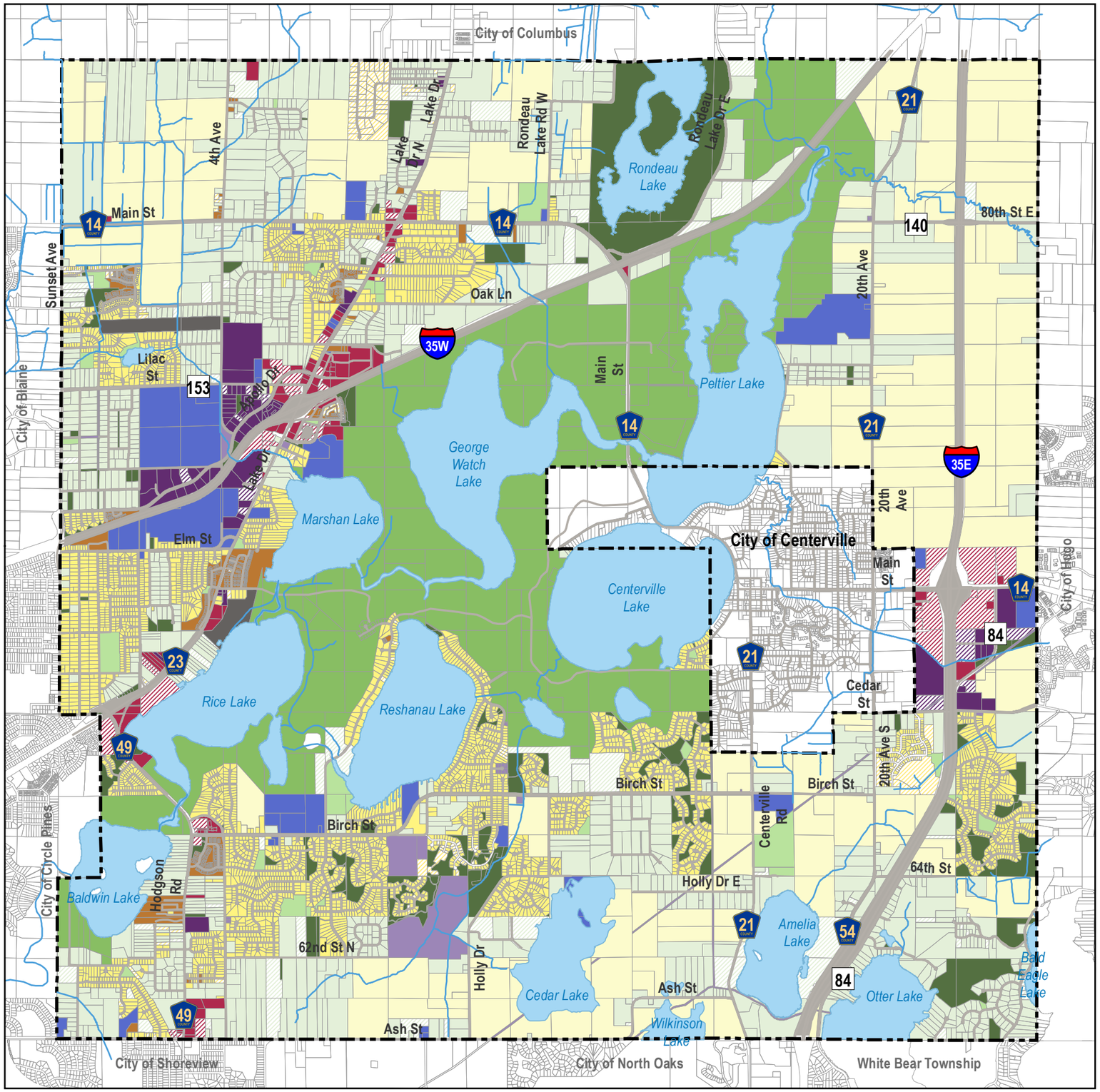
- Private Airfield: Aviation related uses
- Parks and Open Space: Passive or active recreational areas and facilities as well as lands under public control that area designated as permanently undeveloped for the purpose or resource management or protection
- Commercial: Retail, office, and service uses
- Industrial: Manufacturing, processing, warehousing, and research and development uses
- Mixed Use: Mix of residential, retail, and office uses either within one building, structure or development. Residential development may include higher density housing options.
- Low Density Residential: Residential development at 1.6 to 3.9 dwelling units per acre
- Medium Density Residential: Residential development at 4.0 to 5.9 dwelling units per acre
- High Density Residential: Residential development at 6.0 to 10.0 dwelling units per acre
- Permanent Rural: Areas that are not intended to receive sewer service due to topography and soil issues. Development limited to residential single family at low densities or agriculture related uses
- Civic and Institutional: Public buildings or facilities, private, or public utilities and infrastructure, public and private schools, and cemeteries

A more detailed definition of land uses within the City of Lino Lakes is available in Chapter 3 – Land Use of the Lino Lakes 2040 Comprehensive Plan. The City of Lino Lakes has also been categorized according to the Minnesota Land Cover Classification System (MLCCS). MLCCS categorizes areas based on land cover rather than land use to inform land use planners on open space planning and comprehensive planning. **Figure 2-12** shows a map of the City's classified MLCCS areas.

Public utility services within the City of Lino Lakes include city sewer and water. The Metropolitan Urban Service Area (MUSA) is the area in which public utilities are available, agreed upon with the Metropolitan Council and the City of Lino Lakes (**Figure 2-11**).

CITY OF LINO LAKES
2040 COMP PLAN

Figure 2-11
2017 Existing Land Use



Legend

- Agricultural
- Rural Residential
- Single-Family Residential
- Multi-Family Residential
- Commercial
- Industrial
- Utility
- County Park and Recreation
- City Park and Recreation
- Open Space and Conservation
- Public/Semi-Public
- Private Airfield
- Vacant-Commercial
- Vacant-Industrial
- Vacant-Residential
- Vacant-Rural Residential
- Open Water
- Right-of-Way
- Parcels
- Streams

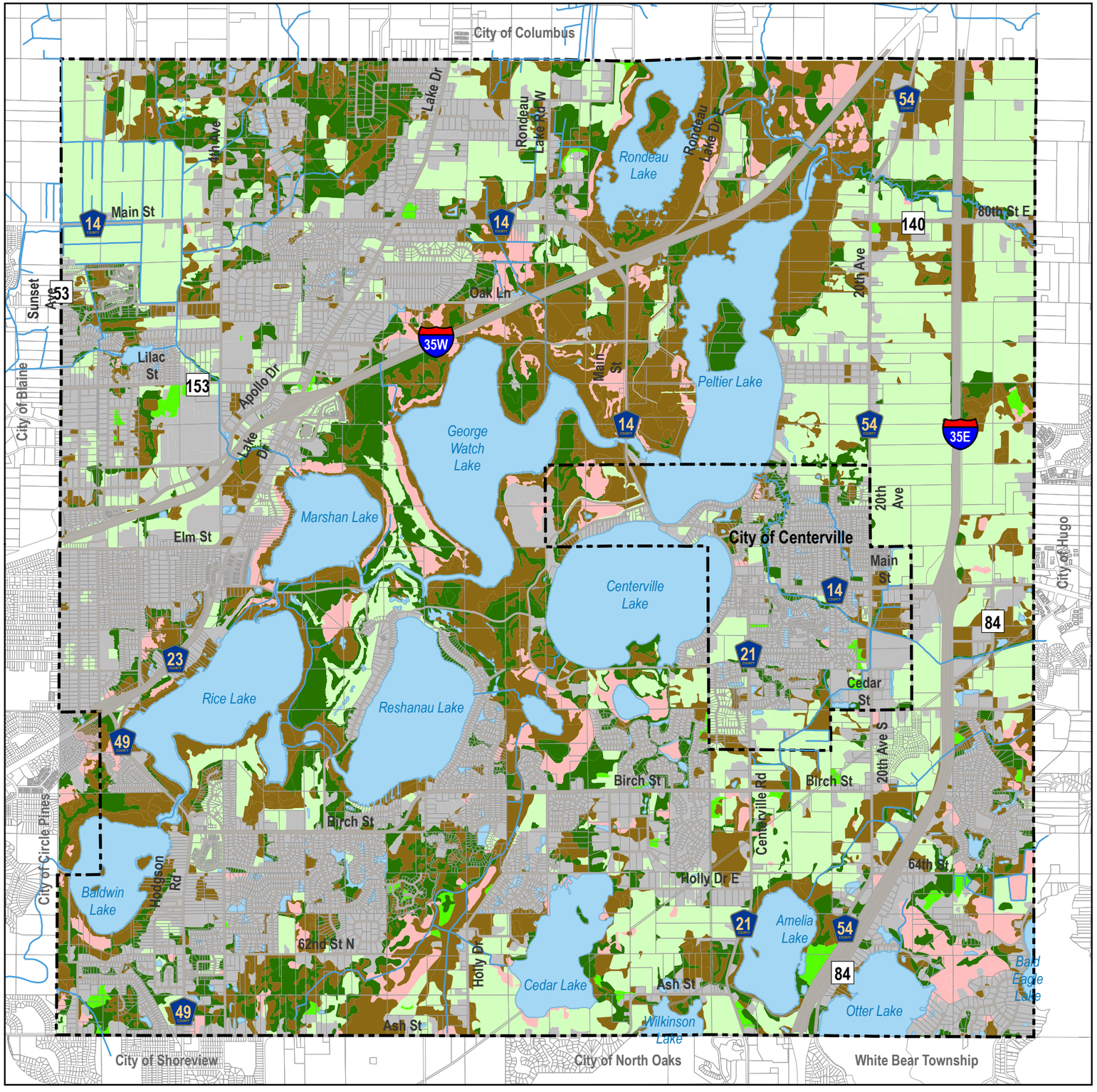
3,500 1,750 0 3,500 Feet

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Date: 12/12/2017
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CITY OF LINO LAKES 2040 COMP PLAN

Figure 2-12
Minnesota Land Cover Classification System (MLCCS)



Legend

- Artificial Surfaces and Associated Areas
- Planted or Cultivated Vegetation
- Forests
- Woodland
- Shrubland
- Herbaceous
- Open Water
- Right-of-Way
- Municipal Boundary
- Parcels
- Streams

3,500 1,750 0 3,500 Feet

N

Date: 1/22/2018

Shoreland

The City of Lino Lakes had adopted a Shoreland Management Overlay District, a copy of which is located in **Appendix C**. This ordinance requires setbacks from Shoreland areas and limits the type of development, amount of impervious area, and use of the City's Shoreland areas (**Figure 2-13**).

Floodplain

The City of Lino Lakes is the administrator of the National Flood Insurance Program (NFIP) for the community and has adopted a Floodplain Overlay District in the floodplain management ordinance in accordance with the requirements of the NFIP. This ordinance generally regulates developments, land uses and alterations within each of the floodway, flood fringe, and general floodplain districts shown on **Figure 2-14** to minimize potential losses due to periodic flooding in these areas.

The City's Resource Management Plan and I-35E Alternative Urban Areawide Review, as well as the RCWD, identify specific areas of flooding concern under a full buildout scenario, summarized in **Table 2-21** below.

Table 2-21. Summary of Flooding Concerns by Resource Management Unit

RMU	Conveyance Type	Receiving Waters	Receiving Waters Flooding Concern	Existing Flooding Concerns	Partially Drained Wetlands	Future Flooding Concerns	Pollutant Loading Concerns
Upper Rice Creek	None	n/a	n/a	No	Yes	Yes	Yes
Hardwood Creek	Natural Channel	Peltier Lake	Yes	No	No	Yes	Yes
Clearwater Creek	Ditch and pipe	Clearwater Creek/Peltier Lake	Yes	Yes	Yes – Ditch 55 and Abandoned Ditch 47	Yes	Yes
Rondeau	None or private ditch	n/a	n/a	No	No	No	Yes
Peltier	Pipe and pond; ditch and pipe; private ditch	Peltier wetlands	Yes	Yes	Yes - Ditch 72	Yes	No
Centerville	Pipe and pond	Centerville wetlands and lake	Yes	Yes - minor	No	No	No
George Watch	Pipe and pond; private ditch	George Watch groundwater-supported wetlands and lake	Yes	No	No	No	Yes
Marshan	Ditch and pipe	Marshan wetlands and lake	Yes	Yes	Yes – Ditch 10-22-32	Yes	Yes
Reshanau	Pipe and pond, ditch	Reshanau wetlands or lake	Yes	Yes - minor	No	No	Yes
Rice	Pipe	Groundwater-supported wetlands and Rice wetlands and lake	No	No	No	No	Yes
Baldwin	Pipe	Baldwin wetlands	Yes	No	No	No	No
Sherman	Pipe	Sherman Lake and high priority wetlands	Yes	n/a	No	No	No
Amelia	Pipe	Amelia Lake and high priority wetlands	No	Yes	No	No	No
Wilkinson	None	n/a	n/a	n/a	No	No	No
Middle Rice Creek	Pipe	High priority wetlands	Yes	n/a	No	No	Yes

CITY OF LINO LAKES
2040 COMP PLAN

Figure 2-14
Floodplain Districts

Legend

- General Floodplain (Zone A)
- Flood Fringe (Zone AE)
- Floodway (Zone AE)
- 500-year Floodplain (Zone X)
- Public Ditch
- Tile, Public Ditch
- Private Ditch
- DNR Public Watercourse
- Resource Management Units
- Open Water
- Right-of-Way
- Municipal Boundary
- Parcels
- Streams

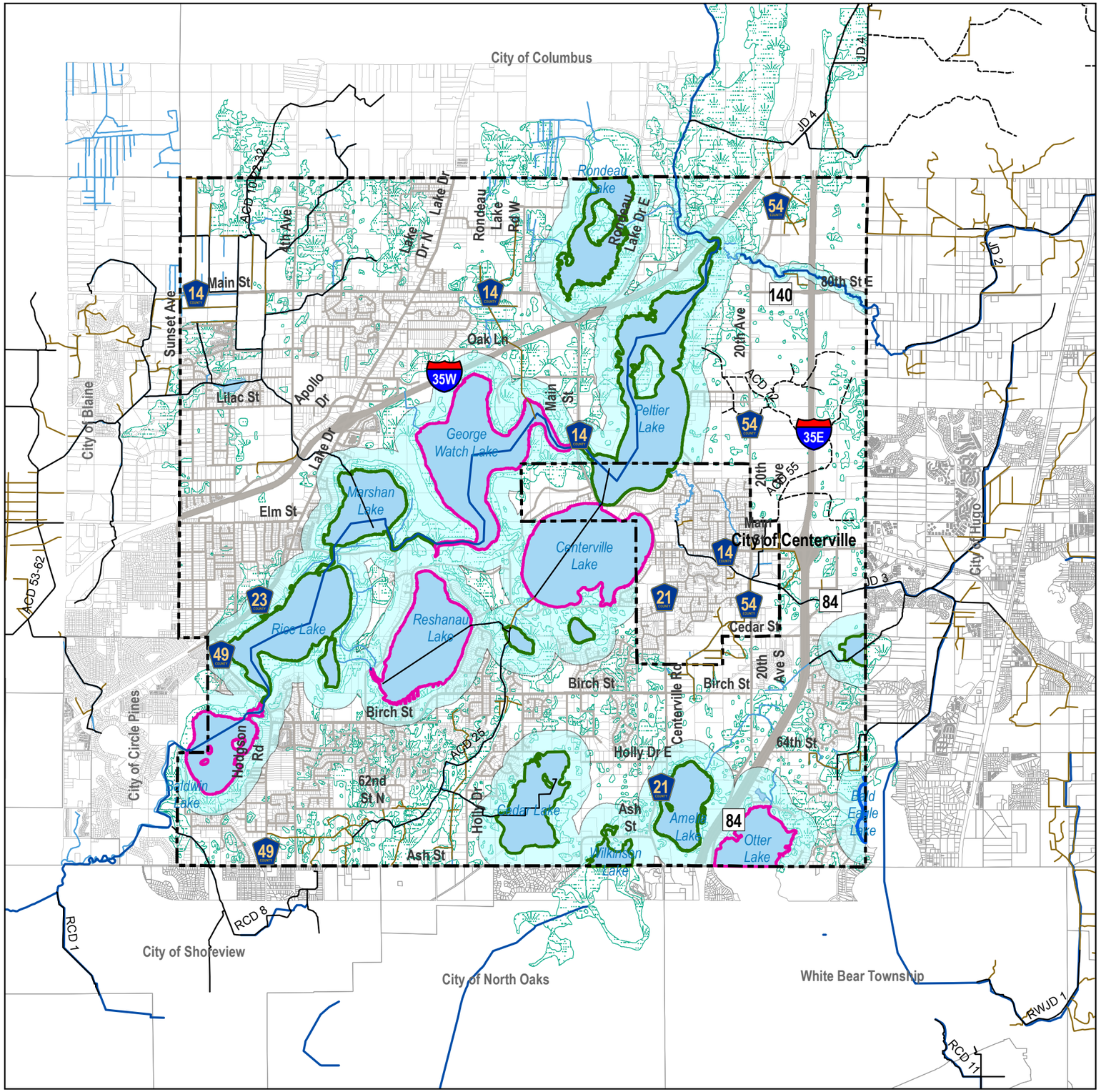
3,500 1,750 0 3,500 Feet

N

Date: 1/22/2018

CITY OF LINO LAKES
2040 COMP PLAN

Figure 2-13
Shoreland Management



Legend

- Public Ditch
- Tile, Public Ditch
- Private Ditch
- DNR Public Watercourse
- National Wetlands Inventory
- Open Water
- Right-of-Way
- Municipal Boundary
- Parcels
- Streams
- Shoreland Management Area

Shoreland Classification

- General Development
- Natural Development
- Recreational Development

3,500 1,750 0 3,500 Feet

N

Date: 7/11/2018

2.9 Fish and Wildlife Habitat

The 2008 Resource Management Plan established RCWD's Wetland Management Corridor (WMC), which is the basis of the City's Greenway System. Lino Lakes continues to evaluate and update the resources that go into this plan and continues to implement this plan through development reviews. In cooperation with the RCWD, the WMC is updated regularly to incorporate changes resulting from development and land acquisition. Chapter 10 of the Lino Lakes 2040 Comprehensive Plan outlines the current data used to identify the Greenway System.

The area's mix of plant community types provides diverse habitat for amphibians, reptiles, and mammals as well as numerous species of birds found in multiple habitat niches. The most recent known bird surveys conducted in the mid-1970s for Lino Lakes and Anoka County documented well over 200 species occurring in the immediate vicinity. The shoreline and shallows north of the island serve as a spawning area for Northern pike and walleye, and as a resting area for terns, black crown night herons, and other waterfowl. The north arm of the lake is one of the few remaining places in the metro area with healthy native vegetation, including water willow, which is considered a species of special concern.

Rare and Endangered Species

The City has a notable number of rare biological resources, see **Table 2-22**. As the RMP was developed, these rare features and habitats that support rare species were prioritized for protection and incorporation into the Wetland Preservation Corridor. These important natural resource areas were carried forward into the 2040 Comprehensive Plan and identified as part of the multi-functional Greenway System. In general, the rare plant species are found along the upland- wetland transitional zones. Extensive botanical survey work has occurred within the City to document locations of these rare plant species. The City has also invested resources in identifying and protecting Blanding's turtle habitat. The critical habitat areas were identified and incorporated into the Wetland Preservation Corridor and Greenway System.

Table 2-22. Documented Rare and Endangered Species in Lino Lakes

Common Name	Scientific Name	Status
Autumn Fimbry	*Fimbristylis autumnalis*	Special Concern
Bald Eagle	*Haliaeetus leucocephalus*	Watchlist
Bell's Vireo	*Vireo bellii*	Special Concern
Black Huckleberry	*Gaylussacia baccata*	Threatened
Blanding's Turtle	*Emydoida blandingii*	Threatened
Clinton's Bulrush	*Trichophorum clintonii*	Threatened
Cross-leaved Milkwort	*Polygala cruciata*	Endangered
Forster's Tern	*Sterna forsteri*	Special Concern
Lance-leaf Violet	*Viola lanceolata var. lanceolata*	Threatened
Least Moonwort	*Botrychium simplex*	Special Concern
Sandhill Crane	*Grus canadensis*	Watchlist
Snailseed Pondweed	*Potamogeton bicupulatus*	Endangered
St. Lawrence Grapefern	*Botrychium rugulosum*	Special Concern
Toothcup	*Rotala ramosior*	Threatened
Trumpeter Swan	*Cygnus buccinator*	Special Concern
Tubercled Rein Orchid	*Platanthera flava var. herbiola*	Threatened
Twisted Yellow-eyed Grass	*Xyris torta*	Endangered
Upland Sandpiper	*Bartramia longicauda*	Watchlist
Water-willow	*Decodon verticillatus var. laevigatus*	Special Concern

2.10 Regulated Pollutant Sources

Point Sources

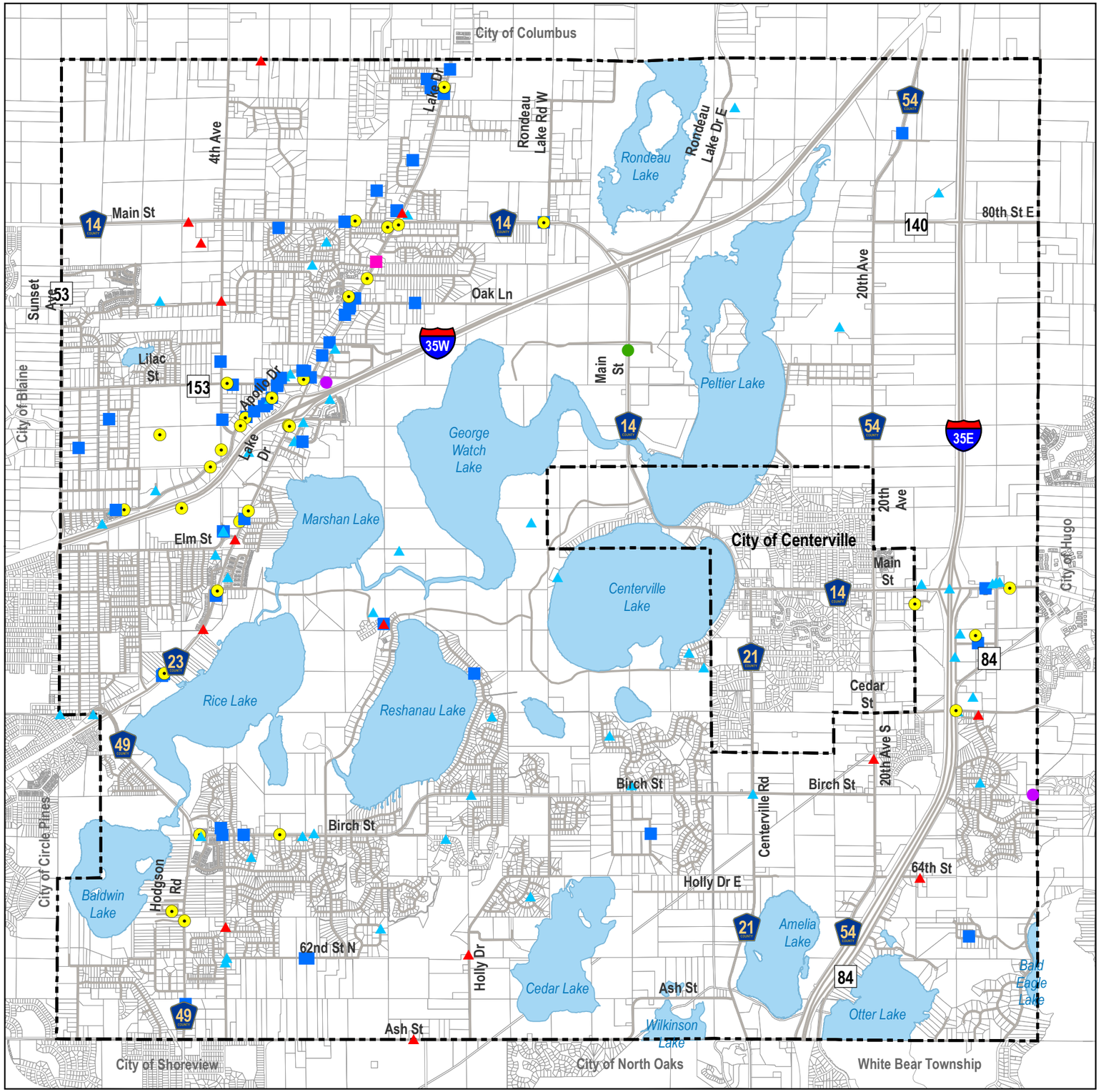
The MPCA is charged with regulating businesses that have applied for and received different types of environmental permits and registrations from the MPCA. The MPCA has also been tracking potentially contaminated sites since the early 1980s when major federal and state cleanup programs were created. **Figure 2-15** depicts the locations of properties that have active environmental permits or have a record related to a potential environmental hazard. Additional information of specific sites can be found through the "What's in My Neighborhood" feature on the MPCA website. Potential environmental hazards vary from properties where a spill or problem has already been cleaned up, to those currently being investigated or cleaned up. In addition, some sites depicted in **Figure 2-15** have no record of known spills or problems; but rather mark locations where hazardous materials or wastes are used or generated. The most common types of sites in Lino Lakes are small to minimal quantity hazardous waste generators, multiple activity sites, and tank sites. The following descriptions are intended to elucidate sites illustrated in **Figure 2-15** and provide the description given by the MPCA for each site type listed in the figure's legend. The total number of each sites is given in the brackets below.

- **Unpermitted Dump Site [2]:** Unpermitted dump sites are landfills that never held a valid permit from the MPCA. Generally, these dumps existed prior to the permitting program established with the creation of the MPCA in 1967. These dumps are not restricted to any type of waste but were often old farm or municipal disposal sites that accepted household waste. State assessment staff have investigated many of these dump sites.
- **Voluntary Investigation & Cleanup Site [2]:** The Voluntary Investigation and Cleanup (VIC) Program is a non-petroleum brownfield program. The VIC program provides technical assistance to buyers, sellers, developers, or local governments seeking to voluntarily investigate or clean up contaminated land. Properties often enter the VIC program in preparation for sale, financing, or redevelopment. Voluntary parties that complete investigation and/or cleanup activities under MPCA oversight can receive liability assurances that protect them from future Superfund liability. In some cases, the MPCA may use institutional controls as part of the overall site remedy and notify interested parties of any property use conditions or restrictions.
- **Landfill, Permitted by Rule [1]:** A landfill that is permitted by rule is not required to obtain an individual solid waste permit if it meets certain eligibility criteria. However, it must comply with waste management rules and regulations. Landfills may be permitted by rule if they have a small capacity and/or operate for a short period of time. Some yard waste composting facilities, recycling facilities, and energy recovery facilities are also permitted by rule.
- **Leak Site [3]:** Leak sites are locations where a release of petroleum products has occurred from a tank system. Leak sites can occur from aboveground or underground tank systems as well as from spills at tank facilities. A leak can result from an accident or from activities that occur over a long time. The MPCA's Petroleum Remediation Program staff investigates potential leaks and work to minimize or clean up contamination at those sites.
- **Tank Site [14]:** A tank site is a place with an underground or aboveground storage tank of a certain size on the premises. One tank site may have multiple tanks, and these tanks may contain food products, petroleum products, or other substances. Tank sites include gas stations, bus companies, and trucking companies as well as factories that process sugar beets, ethanol, pulp and paper, or chemicals. The MPCA requires monitoring and maintenance at these sites, which helps to ensure that tanks do not cause environmental contamination.
- **Industrial Stormwater Permit [2]:** Stormwater may come into contact with harmful pollutants, including toxic metals, oil, grease, de- icing salts, and other chemicals at industrial sites such as factories, salvage yards, and airports. Industrial stormwater permits are designed to limit the amount of these contaminants that reaches surface water and groundwater by requiring good practices for storing and handling materials. Facilities with these permits must prepare a Stormwater Pollution Prevention Plan, detailing the practices they will use to limit stormwater pollution.
- **Hazardous Waste, Small to Minimal Quantity Generator [62]:** A small to minimal quantity generator is a facility that generates less than 1,000 kilograms (kg) (2,200 pounds) of hazardous waste or 1 kg (2.2 pounds) of acutely hazardous waste per calendar month. These facilities have less stringent rules than large quantity generators. This group includes Small Quantity Generators (SQGs), which produce 100 – 1,000 kg of hazardous waste per month; Very Small Quantity Generators (VSQGs), which produce less than 100 kg of hazardous waste per month; and Conditionally Exempt Generators, which produce less than 100 kg or 10 gallons of hazardous waste per year. Like large quantity generators, SQGs and VSQGs must have current hazardous waste licenses.
- **Multiple Activities [31]:** Multiple Activity sites are locations where there are multiple MPCA activities occurring. These sites vary from facilities with a wastewater permit and an air quality permit to cleanup sites with more than one permit.

Nonpoint Sources

Nonpoint source pollution is caused by rainfall or snowmelt moving over and through the ground. Runoff picks up and carries away natural and human-made pollutants, finally depositing them into lakes, rivers, wetlands, and groundwater. Because of the nutrient (phosphorus) impairments of the Chain of Lakes, phosphorus is the most important nonpoint source pollutant in Lino Lakes. The current total phosphorus budgets for the Chain of Lakes are identified in the 2013 Lino Lakes Chain of Lakes Nutrient TMDL.

Chloride pollution is an emerging contaminant of concern in much of the metro area. Snowmelt and spring runoff pick up road salts used for deicing purposes and deposits them into stormwater ponds, wetlands, lakes, and groundwater. Other sources include residential water softeners and municipal waste water treatment plant effluents. Once salts enter surface or groundwater, there are no existing methods available to remove it and at high concentrations it can be harmful to plants and wildlife as well as foul drinking water supply sources.



CITY OF LINO LAKES 2040 COMP PLAN

Figure 2-15
Potential Environmental Hazards

Legend

MPCA Environmental Sites

- Air
- Investigation and Cleanup
- Water
- Hazardous Waste
- Solid Waste
- Tanks and Leaks
- Multiple Activities

- Open Water
- Municipal Boundary
- Parcels

3,500 1,750 0 3,500 Feet

N

Date: 6/28/2018

2.11 Proposed Conditions

Lino Lakes is forecasted to add 3,300 households between 2020 and 2040. As part of the metropolitan region, the city is required to accommodate a portion of the region's forecasted growth. As Lino Lakes grows, it is anticipated that development patterns will change in many areas of the city.

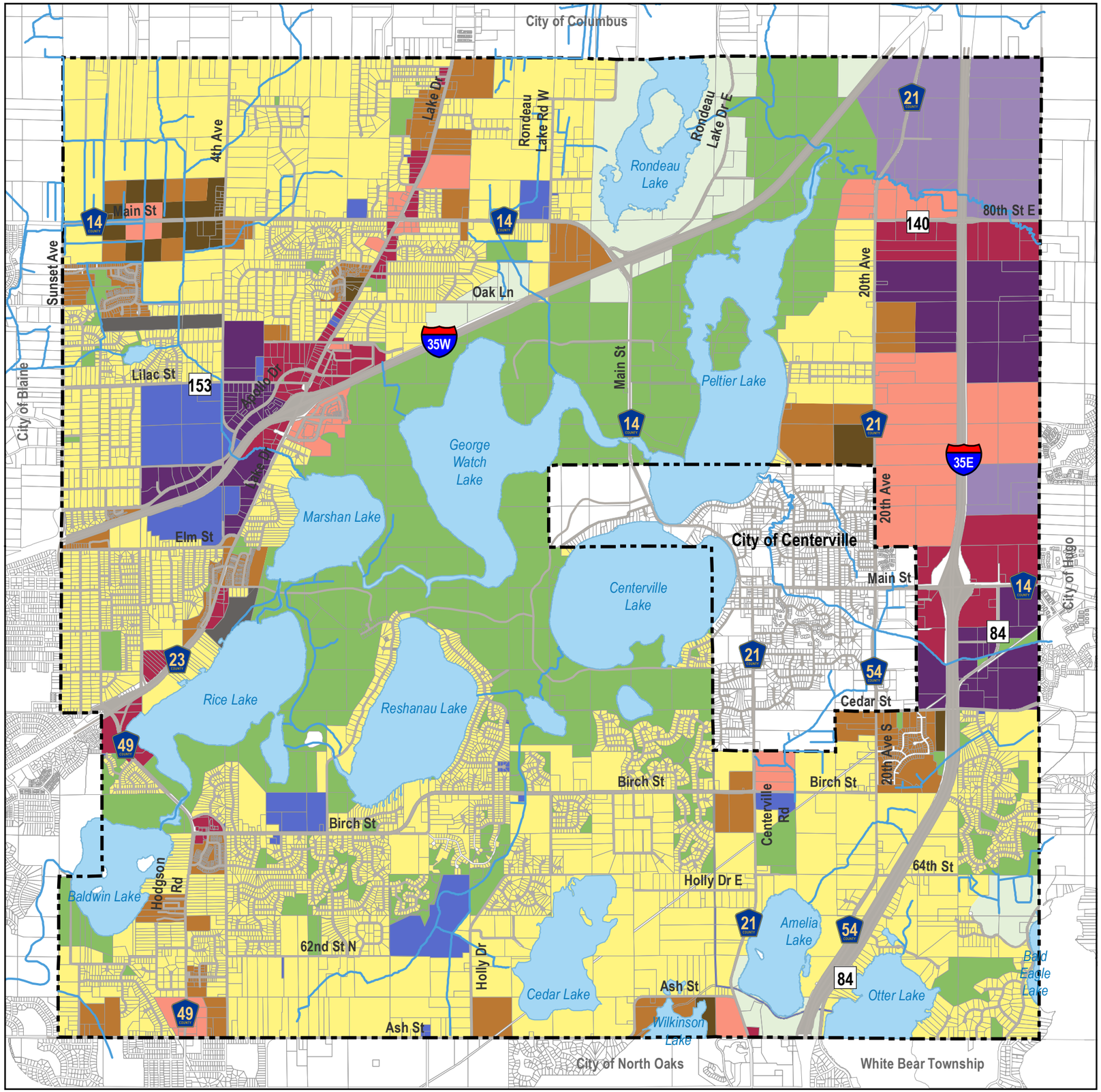
In Chapter 2 of the Lino Lakes 2040 Comprehensive Plan, a key component of developing the future land use plan was analysis of a wide variety of natural resource information. This included the location of high priority wetlands and other natural resource areas, drainage patterns, and soil suitability information, to identify environmentally sensitive areas and areas most suitable for development. This natural resource information was used to guide decisions regarding future land uses and intensities in Lino Lakes. Based on the development suitability information, a full build-out future land use plan was developed (**Figure 2-16**). The Metropolitan Council requires that communities plan for growth up to 2040 in their current comprehensive plans. Areas that will not be developed until after 2040 are designated on the 2040 future land use map as Urban Reserve. Although the 2040 Future Land Use Plan (**Figure 2-17**) will serve as the City's official Future Land Use Plan to regulate future development, the full build-out plan is also provided for reference to guide future land use decisions regarding 2040 Urban Reserve areas.

The City's goals and strategies relating to natural resources were also considered throughout the development of the plan. Providing for higher density uses on some sites with scenic natural amenities such as wetland areas or along the shores of Peltier Lake also promotes accessibility to key community features and natural amenities for residents of higher density housing, which is another community goal. Identifying higher density options in these areas also addresses the community's goal and related strategies to sustain Lino Lakes' natural resources by promoting more flexible development in these areas. Accommodating higher density in these areas provides for more site plan flexibility, as development can be concentrated on areas of the site more suitable for development while environmental features are preserved as open space.

As Lino Lakes develops, protection of its valuable natural resources will continue to play an important role in guiding growth and shaping future development. Growth and economic development objectives should be balanced with managing natural resource systems. Natural resource protection strategies are also an essential component of a growth management plan to ensure that the community's resources are preserved. The City has several tools to protect natural areas while also managing future growth. These tools are further outlined in Chapter 2 of the Lino Lakes 2040 Comprehensive Plan and additional information on future land uses is available in Chapter 3 of the City of Lino Lakes 2040 Comprehensive Plan.

CITY OF LINO LAKES 2040 COMP PLAN

Figure 2-16
Full Build Out Land Use



Legend

- Permanent Rural
- Low Density Residential
- Medium Density Residential
- High Density Residential
- Mixed Use
- Commercial
- Business Campus
- Industrial
- Civic and Institutional
- Parks and Open Space
- Private Airfield
- Open Water
- Right-of-Way
- Municipal Boundary
- Parcels
- Streams

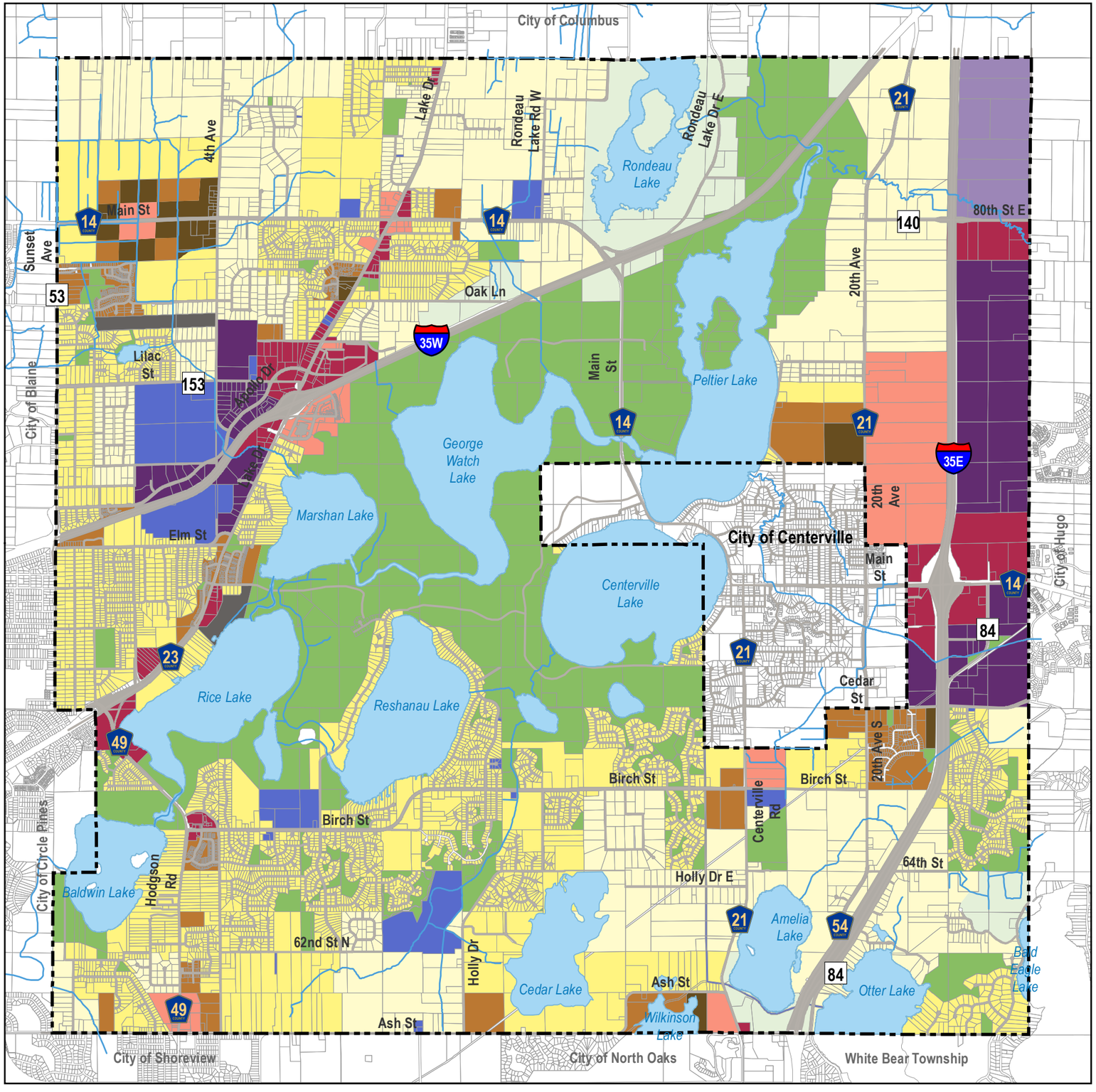
3,500 1,750 0 3,500 Feet

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for review only

Date: 3/8/2018

CITY OF LINO LAKES 2040 COMP PLAN

Figure 2-17
2040 Future Land Use



Legend

- Permanent Rural
- Urban Reserve
- Low Density Residential
- Medium Density Residential
- High Density Residential
- Mixed Use
- Commercial
- Business Campus
- Industrial
- Civic and Institutional
- Parks and Open Space
- Private Airfield
- Open Water
- Right-of-Way
- Municipal Boundary
- Parcels
- Streams

3,500 1,750 0 3,500 Feet

N

Date: 12/12/2017
DRAFT

3. ASSESSMENT OF WATER RESOURCE-RELATED PROBLEMS AND ISSUES

Issues, goals, and policies were developed for this Plan through a process of compiling issues and goals identified in plans and studies previously completed by the City and other local agencies. Primary sources of information were the previous Surface Water Management Plan, the City's Comprehensive Plan, Resource Management Plans, and Watershed Management Plans of the RCWD and VLAWMO. The compiled goals and policies were refined by city staff and consultants for review by the City of Lino Lakes Environmental Board (whose purpose is to advise the city council in the use and management of its natural resources). The primary issues facing the City of Lino Lakes are:

1. Challenges in meeting stormwater volume reduction goals due to poor soils in the south and east regions of the City
2. Flood control issues in the Chain of Lakes
3. Antiquated public ditch systems without capacity for future development and stormwater runoff

3.1 Issues

A detailed list of the City-wide and RMU-specific water resources issues facing the City of Lino Lakes is provided in **Appendix B** and summarized below.

Water Rate and Quantity Issues

Within the City of Lino Lakes, streams, lakes, and wetlands have been subjected to increased surface water runoff rates and volumes. Increased discharge rates and volumes have caused serious down-cutting and stream bank erosion in some areas. Increased runoff rates and volumes also contribute to flooding concerns and water quality concerns.

These issues are likely to intensify in the future. The Metropolitan Council prepared and adopted a regional growth strategy that anticipates further urbanization of the City. In addition, transportation improvements in or near the City will facilitate and precipitate urbanization. The City of Lino Lakes is planning for development of 1,400 acres east of Peltier Lake, north of Main Street. Furthermore, the City of Hugo is planning for development of a 215-acre area; both areas are currently being drained by Anoka County Ditch 55 (ACD 55). Currently, precipitation events larger than 0.25-inch results in surface water ponding and surface water runoff within the ACD 55 drainage area (Houston Engineering 2013b). Without an alternative outlet or increased capacity, the development may be limited within the ACD 55 drainage area. This may exacerbate current flooding up stream in the ACD 55 system since ACD 55 restricts downstream flows and can only accommodate a small amount of flow. Sediment loads, and with it, pollutants and contaminants would also increase. Flow from the 215-acre area within the City of Hugo may be up to 62 cubic feet per second (cfs) during the 100-year 24-hour storm. Additionally, 54 cfs will be generated from the 534-acre area within Lino Lakes that is currently served by ACD 55. The ACD 55 infrastructure currently reaches capacity at 1-2 cfs. As a result, the City of Lino Lakes is pursuing a new conveyance system and outlet structure to Peltier Lake from the 1,400-acre development area, using the RCWD Comprehensive Stormwater Management Plan (CSMP) provisions. The CSMP was approved by the RCWD Board on June 27, 2018. Any development within the CSMP area will require RCWD review for compliance with the CSMP.

Water Quality Issues

Current data indicate that water bodies located within the City have water quality issues. Several City lakes, such as Bald Eagle, Peltier, George Watch, Marshan, Centerville, Reshanau, Baldwin and Rice are included in the MPCA's impaired waters list. In addition, both Clearwater and Hardwood Creeks are also included on the 303(d) TMDL list due to biotic impairments. A TMDL was recently completed for the Upper Mississippi River to address the water quality standard for *E. coli*. Additionally, the City drains to Golden Lake, which has an approved TMDL for nutrients.

Runoff carrying nutrient-rich sediment, road salts, and hydrocarbon-based contaminants is detrimental to the water quality of the City's lakes, streams, rivers, and wetlands. Current water quality conditions present a potential stress to the diversity and population of fish and aquatic invertebrates and impact human uses of the resources. Improvement of these waters will require a watershed-wide solution because in many cases much of the drainage area originates upstream of the City. Additionally, it has been found that internal loading sources of phosphorus derived from the lake bed sediments in Peltier Lake are affecting the water quality of downstream water bodies.

Wetland Management Issues

Benefits attributed to wetlands include floodwater storage and retention, nutrient assimilation, sediment entrapment, ground water recharge, low flow augmentation, shoreland anchoring and erosion control, aesthetics, recreation, and education. Accordingly, the loss of high priority wetland acres, function and value (**Figure 2-6**) will have a direct negative effect on the City and its water resources.

Floodplain Management Issues

Given the physical characteristics, high water table, and number of water bodies and flood prone areas, floodplain management is an important consideration to minimize future flooding events. In addition, a number of areas of current flooding concern have been identified by the City Public Works Department and RCWD. Future flooding could also be a concern if development is not conducted in a manner that reduces runoff rates and volumes and if changes in rainfall and snowmelt patterns overwhelm existing infrastructure.

Public Ditch System Issues

Several of the major drainageways in the City are public ditch systems managed by the RCWD. Some of the public drainage systems are located within completely urbanized areas, have been totally or partially replaced by storm sewer pipe, and no longer serve agricultural land or provide agricultural benefits. These systems function as the outlet for storm water runoff. Other public drainage systems are comprised nearly entirely of undeveloped/agricultural areas that are primarily forecasted for urban development. Public ditch systems need to be managed to provide the drainage services suited to the land contributing to the system.

Groundwater Management Issues

The City of Lino Lakes relies solely on groundwater as its water supply source. The Prairie du Chien- Jordan aquifer serves as the City's municipal water source. In addition, there are numerous private wells throughout the City. There is a growing concern that water supplies may be depleting, and as additional municipal wells are added in the region, this may affect private residential wells, which are often shallower. Depleting groundwater will affect not only public and private drinking water supplies, but also resources that may depend on groundwater, such as wetlands, lakes and streams. The MnDNR established the Northeast Metro Groundwater Management District in 2012 to regionally manage the area's aquifers.

Natural Resources Issues

Lino Lakes is rich in unique and rare natural resources. These resources are most often hydrologically dependent on natural water systems. Reduced quality and variances of water levels stemming from land use changes may have critical impacts to the sustainability of these resources. Preserving and enhancing quality natural resources within the City can have a positive effect on surface and ground water. Extensive development or misuse of the natural areas within the City can have deleterious effects on water resources.

Erosion and Sediment Control Issues

Erosion prevention and sediment control is an important aspect in the effort to improve water quality and protect and improve water and natural resources. Erosion is caused by runoff over disturbed soils such as on a construction site or along streambanks. This erosion can result in the transport of sediment into water and natural resources. Sediment deposits and sediment transport can decrease water quality and increase maintenance efforts.

Regulations, Permitting and Reporting Issues

The City is regulated under a number of local, state, and/or federal programs that require the implementation of ordinances, permitting, and/or reporting. In addition, the City implements ordinances and permitting to attain the goals outlined in this Plan.

Monitoring, Maintenance and Inspection Issues

To protect its capital investments and provide an effective water management system, the City of Lino Lakes needs to conduct monitoring, maintenance, and inspection of City infrastructure in a timely and cost-effective manner. Infrastructure needs to be monitored and maintained regularly to prevent unnecessary reconstruction projects. This can only be accomplished if an effective inspection and regular maintenance program is in place. A monitoring program verifies the effectiveness of the stormwater infrastructure.

Public Participation, Information and Education Issues

City residents, businesses, and property owners need to have a clear understanding of basic stormwater management, water quality, and natural resource protection concepts, policies, and regulations to support and implement stormwater management and natural resource protection efforts.

Financing Issues

The City needs to ensure that funding is available to implement the policies and actions identified in this plan and to respond to future needs of development, operation and maintenance, and repairs. To attain the goals identified in this plan, the City will need to provide funding and staffing resources adequate to address the goals of the plan. Current funding includes trunk stormwater improvement fees and the general fund; however, other funding options may need to be considered.

3.2 Goals and Policies

Water Rate and Quantity Goals & Policies

Goal 1	**Use the natural characteristics of the City's watersheds in combination with development standards and projects, to reduce present and future runoff rates and volumes (see also Natural Resources and Wetlands goals and policies).**
Policy 1A	Continue to enforce standards for storm water runoff quantity from new and re- developments consistent with RCWD, VLAWMO and NPDES Phase II requirements.
Policy 1B	Implement volume control practices to address areas of identified rate and volume concern.
Policy 1C	Support implementation of RCWD comprehensive stormwater management plans as an alternative means of meeting water quality treatment standards.
Policy 1D	Recognize the potential uncertainty associated with managing water resources and understand the implications of emerging issues including climate change and use Adaptive Management when appropriate.
Policy 1E	Promote "Better Site Design" development techniques in developing and redeveloping areas to minimize runoff volumes.
Policy 1F	Promote the use of regional Best Management Practices where appropriate to reduce the rate and volume of runoff.
Policy 1G	Encourage groundwater recharge, when and where appropriate

Water Quality Goals & Policies

Goal 2.1	**Protect and improve water quality and the scenic and ecologic values of City lakes, wetlands and other aquatic assets (see also Natural Resources and Wetlands goals and policies).**
Policy 2.1A	Develop specific management plans for each Resource Management Unit
Policy 2.1B	Preserve and improve the recreational resources associated with water by improving water quality.
Policy 2.1C	Continue to enforce City water standards for storm water runoff quality from new and re-developments
Policy 2.1D	Incorporate TMDL limits, when determined, into the City's Surface Water Management requirements to reduce degradation and improve the quality of the City's and region's lakes, waterways and other aquatic resources.
Policy 2.1E	Manage city-owned facilities subject to Municipal Separate Storm Sewer System (MS4) program requirements consistent with permit conditions.
Policy 2.1F	Continue to enforce a program to detect and eliminate illicit discharges in accordance with the City's MS4 requirements.
Policy 2.1G	Manage septic systems in conformance with state standards to protect the quality of water and natural resources.
Policy 2.1H	Educate residents on the importance of cleaning up after their pets to reduce pollutants entering the stormwater system.
Goal 2.2	**Initiate and continue collaborations to address, restore, and preserve the water quality of the region's lakes, wetlands and other aquatic assets.**
Policy 2.2A	Work with and partner with the RCWD, VLAWMO, and adjacent local governments to protect high quality resources.
Policy 2.2B	Collaborate with adjacent jurisdictions and agencies to meet TMDL goals and remove impaired water bodies from the impaired waters list. See Table 5-24 for projects and practices that address TMDL goals.
Policy 2.2C	Facilitate data sharing among public entities that have jurisdiction or facilities within the City.
Policy 2.2D	Initiate Salt Application Reduction Program
Policy 2.2E	Continue to educate residents on the importance of cleaning up after their pets to reduce pollutants entering the stormwater system to address the Upper Mississippi River TMDL.

Wetland Management Goals & Policies

Goal 3	**Maintain and enhance, where possible, the functions and services of existing wetlands and associated habitats with the City.**
Policy 3A	Continue to support the administration of the Wetland Conservation Act requirements within the City by the RCWD and VLAWMO.
Policy 3B	Avoid impacts to upland natural communities that are critical to wetland wildlife habitat function and incorporate these into the wetland preservation corridors/buffer zones.
Policy 3C	Integrate parcel- or project-based wetland replacement with watershed-based restoration and enhancement locations
Policy 3D	Manage wetland resources using the flexibility afforded by state and federal rules, through the implementation of the Resource Management Plan and Special Area Management Plan.
Policy 3E	Consider providing incentives to private landowners to avoid wetland impact, minimize wetland impact, and restore wetlands.
Policy 3F	Require wetland functional assessments, based on accepted methodology, on new development projects to ensure wetland function and services are preserved to the extent possible.
Policy 3G	Consider creation of wetland banks to provide local replacement options

Floodplain Management Goals & Policies

Goal 4.1	**Provide adequate storage and conveyance of runoff to protect the public safety and minimize property damage.**
Policy 4.1A	Preserve and manage the storage associated with the 100-year floodplain along and within water-bodies to minimize the frequency and severity of flooding caused by high water.
Policy 4.1B	Use the natural characteristics of the City's watersheds (e.g., pond, swales, wetlands) in combination with development standards and projects, to reduce present and future flood damage and enhance the quality of surface and ground water.
Policy 4.1C	Require that adequate drainage facilities and easements are provided with land development activities.
Policy 4.1D	Continue to enforce floodplain regulations to ensure that new structures are adequately elevated above identified flood elevations.
Policy 4.1E	Update the Floodplain Overlay Ordinance as required by FEMA and the MnDNR, or as needed, to ensure adequate protection for structures and eligibility for flood insurance programs.
Policy 4.1F	Support efforts to restore and reestablish floodplain basins to improve their natural function.
Policy 4.1G	Consider joining FEMA's Community Rating System to provide residents with a discount on flood insurance policies
Policy 4.1H	Review approximate floodplain boundaries and consider establishing a base flood elevation

Public Ditch System Goals & Policies

Goal 5.1	**Ensure the management and operation of drainage systems and use of waterways in a manner which recognizes the origin of the system (e.g., constructed vs. natural), the interconnectedness of resources, and present and future conveyance needs, while considering legally established rights.**
Policy 5.1A	Work with the RCWD to facilitate effective management of the public ditch system, as needed, to support the recognized functions of these systems.
Policy 5.1B	Work with the RCWD to address the system capacity limitations of ACD 55 and ACD 72 and ACD 10-22-32

Groundwater Management Goals & Policies

Goal 6.1	**Incorporate ground water considerations into the decision-making process through recognizing the interconnectedness of surface water and groundwater supply and groundwater-dependent natural resources.**
Policy 6.1A	Preserve ground water recharge areas in cooperation with Anoka County.
Policy 6.1B	Promote infiltration of stormwater to result in groundwater recharge where it is feasible and does not pose a threat to groundwater quality.
Policy 6.1C	Continue to implement the City's Wellhead Protection Plan.
Policy 6.1D	Participate in the Anoka County Wellhead Protection Group in implementing joint projects that benefit the City of Lino Lakes.
Policy 6.1E	Continue to initiate water conservation programs through promoting water reuse and reducing water consumption

Natural Resources Goals & Policies

Goal 7.1	**Identify, protect and preserve the desirable natural areas and ecological and aquatic resources of the community.**
Policy 7.1A	Pursue a well-defined natural resource restoration and management plan consistent with the RCWD/Lino Lakes Resource Management Plan (RMP).
Policy 7.1B	Maintain the partnership of Lino Lakes and RCWD and other groups such as Anoka County to maintain, restore, and manage the aquatic, aquatic dependent (such as the Blue Heron Rookery on Peltier Lake) and upland areas of the City.
Policy 7.1C	Require natural space buffers, where appropriate, around wetlands to preserve their function and value.
Policy 7.1D	Apply the Resource Management Unit recommendations from the RMP to meet RMP goals for aquatic resource protection and management.
Goal 7.2	**Ensure that well-planned, quality residential, commercial, industrial and institutional development accommodates the City's projected growth needs and occurs in a manner that also conserves and enhances the City's natural resources and amenities.**
Policy 7.2A	Encourage developers, where appropriate, to use Open Space Design/Conservation Development Model to implement the Resource Management System Plan.
Policy 7.2B	Continue to use the Alternative Urban Areawide Review (AUAR) process to assess the impact of development on the City's natural resources and infrastructure.
Goal 7.3	**Capitalize on opportunities to enhance water quality, reduce runoff volume and flood damage, and enhance ecological resources by using open space and greenways.**
Policy 7.3A	Encourage the use of open space in the design of City projects when multiple benefits are realized.
Policy 7.3B	Collaborate with others responsible for managing open space to enhance their ongoing recreational programs, when these programs are related to the water and resource management effort and are consistent with the City's open space priorities.
Policy 7.3C	Seek opportunities to enhance habitat function and integrity, to benefit water resources and eco-systems.

Erosion and Sediment Control Goals & Policies

Goal 8.1	**Prevent erosion and minimize the conveyance of sediment into surface water systems through enforcement of the City's Storm Water Pollution Prevention Plan (SWPPP).**
Policy 8.1A	Enforcement of City's SWPPP: ▪ Require erosion control plans for all land disturbance activities in accordance with the City's stormwater management ordinance. ▪ Continue to enforce the Illicit Discharge and Detection Elimination Ordinance ▪ Coordinate construction site inspections and enforcement with watershed management organization inspection staff ▪ Implement and perform good housekeeping measures to minimize sediment entering the drainage system

Regulations, Permitting and Reporting Goals & Policies

Goal 9.1	**Address regulatory requirements of local, state and federal programs through updated ordinances, permitting, and ongoing reporting.**
Policy 9.1A	Evaluate City's existing ordinances and programs to facilitate implementation of the Resource Management System Plan.
Policy 9.1B	Coordinate with the RCWD, USACE, and VLAWMO to manage local wetland resources.
Policy 9.1C	Work with the RCWD to implement the Resource Management Plan.
Policy 9.1D	Implement programs, implement structural solutions, and complete reporting as needed to meet MPCA's requirements for MS4s.
Policy 9.1E	Support the implementation of the SAMP by the USACE.

Monitoring, Maintenance and Inspection Goals & Policies

Goal 10.1	**Maintain the function and effectiveness of stormwater management structures through inspection, monitoring and maintenance.**
Policy 10.1A	Implement the City's plan for the regular inspection and maintenance of public water resource infrastructure consistent with the requirements of the NPDES MS4 permit.
Policy 10.1B	Require Operation and Maintenance agreements for the inspection and maintenance of privately constructed water resource infrastructure.
Policy 10.1C	Implement and refine a training program to prevent or reduce pollutant runoff resulting from City operations.
Policy 10.1D	Prepare an annual report in accordance with the NPDES MS4 permit and share results with the public, City Council, and Boards.
Policy 10.1E	Conduct monitoring to evaluate the effectiveness of the City's stormwater management actions on the quality of water resources.

Public Participation, Information and Education Goals & Policies

Goal 11.1	**Inform and educate the public concerning urban stormwater management and the problems pollutants cause if allowed to enter our water resources.**
Policy 11.1A	Identify and alert residents of potential ecological challenges and threats.
Policy 11.1B	Plan and initiate cooperative educational efforts with the state and other local government entities for resident education.
Goal 11.2	**Offer programs, educational opportunities, and information that facilitate an understanding of water resource issues in the City of Lino lakes.**
Policy 11.2A	Actively develop and implement a community education program relating to preserving and improving water quality consistent with the City's MS4 permit requirements and/or coordinate with regional education efforts.
Policy 11.2B	Provide infrastructure management information for City-owned facilities to educate the public about how water resources are managed, the programs and policies and projects of the City, and to encourage public involvement
Policy 11.2C	Utilize and engage citizens to promote sustainable stewardship of lakes.
Policy 11.2D	Continue to support and participate in the RCWD's Stream Health Evaluation Program (SHEP)

Financing Goals & Policies

Goal 12.1	**Ensure that the costs of the surface water system are equitably distributed and sufficiently funded to cover the liabilities.**
Policy 12.1A	Update and apply area-based charges so that the surface water related costs of development can be fairly borne by development.
Policy 12.1B	Consider funding options that will equitably distribute the costs of managing and implementing the City's surface water management plan, such as a stormwater utility or district- based fees.
Goal 12.2	**Leverage partnerships to cost-effectively manage the City's surface water and natural resource systems and attain the goals of this plan.**
Policy 12.2A	Pursue grants, donations, and in-kind contributions to help fund stormwater projects.
Policy 12.2B	The City will coordinate local stormwater management issues with the member watersheds and neighboring cities in order to leverage the watershed's work and thus reducing City expenditures.

4. GOALS AND ACCOMPLISHMENTS

Since the last Local Water Management Plan revision, the City has taken great steps to make headway on meeting their goals. The following is a summary of the progress being made so far:

- Establishment of the Wollen Park Wetland Bank
- Development of TMDLs for the Lino Lakes Chain of Lakes and the Upper Mississippi River
- Development of the Northeast Lino Lakes Comprehensive Stormwater Management Plan
- Updates and revisions to the City's Stormwater, Erosion Control and Floodplain Ordinances
- Compliance with the City's MS4 permit program and required annual updates
- Application for numerous grants to help fund water resources projects within the City
- Adopted Greenway System Plan
- Updated ordinances to include Better Site Design practices

5. LOCAL IMPLEMENTATION PROGRAM

5.1 Implementation Activities

The implementation activities identified in this section of the Plan were taken from previously conducted planning and/or resource management documents or they are new activities developed as part of the planning process.

The goals and policies listed in **Section 3** represent the ideal list of implementation activities with full funding, which is currently beyond the City's resources. As a means of prioritizing and aligning the efforts with a more attainable funding level, or until additional funding becomes available, the activities identified in **Table 5-23** represent a synthesized and focused list of actions for city implementation. **Appendix D** provides a list of the proposed city-wide and RMU-specific actions in the plan that are a basis of the implementation cost table shown in **Table 5-23**. Implementation activities are categorized as follows:

- City Wide Actions – Includes implementation activities that apply on a broader scale, such as annual maintenance and MS4 compliance
- RMU Specific Actions – Includes implementation activities that have been identified for the three highest priority RMUs: Reshanau, Marshan, and Clearwater Creek
- Miscellaneous RMU Actions – Includes implementation activities that have been identified for the remaining RMUs

Table 5-23. City-Wide Implementation Plan

Action No.	Actions identified by Issue Category	Additional Issue(s) Addressed	Goals Addressed	Policies Addressed
	WATER RATE & QUANTITY			
1	Establish and adopt Better Site Design (BSD) standards for new development, and provide guidance for staff, City Boards, and City Council, including: • Encourage use of stormwater treatment trains; • Protect high priority wetlands, their biological condition, and their function as high quality habitat; • Enhance groundwater hydrology and protect groundwater-dependent natural resources; • Provide natural flood reduction; • Integrate water quality improvement components in the landscape; and • Revise maximum allowable impervious surface requirements for low- and medium-density residential districts. • Incorporate surface water reuse options into new developments and public facilities.	Water Quantity	3.1.1	3.1.1E
		Water Quality	3.2.1	3.2.1A 3.2.1C
		Natural Resources Wetland Management	3.7.2 3.7.4 3.3.1	3.7.2B 3.7.4A 3.3.1C
		Floodplain Management	3.4.1	3.4.1B
	WATER QUALITY			
2	Implement water quality improvements via the Subwatershed Plans for each RMU specific to the waterbodies of the area and upcoming regulations (ex. TMDLs).	Regulations	3.2.1	3.2.1B 3.2.1D
	Initiate Salt Application Reduction Program	Permitting and Reporting	2.2.	2.2.D
	WETLAND MANAGEMENT			
3	Implement Wetland Banking Program	NA	3.3.1	3.3.1A
4	Conduct annual meeting with the RCWD to review wetland mitigation permits to ensure wetland functions are being preserved.	NA	3.3.1	3.3.1E
5	Coordinate with MnDOT and County transportation officials on projects that propose to disturb wetlands within their right-of-way by holding annual meeting to discuss future road plans and wetland mitigation banking.	NA	3.3.1	3.3.1A
6	Work with RCWD and VLAWMO to establish watershed-based approaches to maintaining or restoring wetland functions.	NA	3.3.1	3.3.1D
	FLOODPLAIN MANAGEMENT			
7	Review existing watershed models and work with the RCWD and VLAWMO to address flow constraints in the system.	NA	3.4.1	3.4.1D
	PUBLIC DITCH SYSTEM			

Action No.	Actions identified by Issue Category	Additional Issue(s) Addressed	Goals Addressed	Policies Addressed
8	Work with the RCWD on the ditch abandonment process for public subsurface (drain tile) systems and explore partial abandonment for surface (ditch) systems, in cases where the public drainage system requires redesign to implement the multi-functional Greenway System. Before the City pursues full or partial abandonment of any public drainage system, they will engage with RCWD early in the process.	NA	3.5.1	3.5.1A
9	Support RCWD's implementation of ditch activities and Resource Management Plans by providing input where it impacts the city's drainage system and development plans by encouraging: • Integrating management of ditch systems and adjacent wetland and upland systems; • Maintaining ditch systems being used for agricultural benefit; • Using branch maintenance in rural areas, retrofits in urbanizing areas and master planned communities with greenways and open space to reduce downstream flooding and retain and reuse water in the local catchments; • Minimizing future ditch maintenance costs by developing a self-sustaining design; • Work with private landowners to retrofit/implement multi-functional Greenway System, for those parcels that are not part of a Master Plan or are already developed.	NA	3.5.1	3.5.1A
	GROUNDWATER MANAGEMENT			
10	Implement the wellhead protection plan to protect the groundwater source from contamination.	NA	3.6.1	3.6.1C
11	Continue to implement the City's Water Conservation Management Plan	NA	3.6.1	3.6.1A
	NATURAL RESOURCES			
12	Partner with RCWD, VLAWMO, and MnDNR to establish program to educate residents on the means to identify and eradicate invasive species.	NA	3.7.1	3.7.1A
13	Continue to manage and protect heron rookery and other important plant and animal communities.	NA	3.7.1	3.7.1B
14	Develop, distribute, and present public with information regarding the importance of shoreland buffers.	NA	3.7.3	3.7.3C
	REGULATIONS, PERMITTING AND REPORTING			
15	Implement Northeast Lino Lakes Comprehensive Stormwater Management Plan.	Water Rate & Quantity	3.1.1	3.1.1A
16	Implement Greenway System Plan through development of subwatershed management plans. The Plan will establish a clear vision of the multi-functional Greenway System for City Staff and developers and will be used as a tool early in the land development process.	Water Rate & Quantity	3.1.1	3.1.1A
17	Complete subwatershed management plans in order of priority: 1. Peltier RMU 2. Clearwater Creek RMU 3. Marshan RMU 4. Reshanau RMU Develop subwatershed management plans for the remaining RMUs in the following order: 1. Wilkinson RMU 2. Amelia RMU 3. Hardwood Creek RMU 4. Rice Lake RMU If need arises and resources allow, develop subwatershed plans for the following RMUs: ▪ Rondeau RMU ▪ Upper Rice Creek RMU ▪ Centerville RMU ▪ Sherman RMU ▪ Baldwin RMU ▪ Middle Rice Creek RMU	Water Quality	3.2.1	3.2.1D
		Wetland Management	3.3.1	3.3.1D
		Floodplain Management	3.4.1	3.4.1B
		Natural Resources	3.7.1	3.7.1A
		Regulations, Permitting & Reporting	3.9.1	3.9.1A
18	Evaluate the need to modify existing ordinances to ensure implementation of all components of the multi-functional Greenway System	Water Rate & Quantity	3.1.1	3.1.1A
			3.9.2	3.9.2A

Action No.	Actions identified by Issue Category	Additional Issue(s) Addressed	Goals Addressed	Policies Addressed
19	Incorporate neighborhood stormwater planning and education into street reconstruction program.	Water Rate & Quantity	3.1.1	3.1.1E
20	Evaluate Revisions to Road Design Standards including: • Reducing minimum pavement widths • Ribbon curbs and curb cuts with roadside swales, infiltration, and biofiltration • Use of pervious pavements	Water Rate & Quantity	3.9.2 3.1.1	3.9.2A 3.1.1.A
21	Continue to implement the RMP: • Create a wetland bank to provide replacement opportunities for development or roadway projects.	Water Rate & Quantity Wetland Management	3.9.2 3.1.1 3.3.1	3.9.2C 3.1.1C 3.3.1C 3.3.1D 3.3.1E
22	Continue to participate in pre-permit application meetings with the RCWD and USACE that support the collaborative permitting process implemented through RCWD Rule and the USACE's Programmatic General Permit that implements the Special Area Management Plan.	Water Quality	3.9.2 3.2.2	3.9.2B 3.2.2C
	MONITORING, MAINTENANCE AND INSPECTION			
23	Work with RCWD and VLAWMO to develop a long-term monitoring program to accompany RMP implementation and to evaluate quantitatively the strategy's long-term environmental and cost benefits.	NA	3.10.1	3.10.1E
	PUBLIC PARTICIPATION, INFORMATION & EDUCATION			
24	Participate with other public agencies and organizations on education and outreach efforts.	NA	3.11	3.11.1A 3.11.1B 3.11.1C 3.11.2B 3.11.2C 3.11.2D
	FINANCING			
25	Pursue grants through the RCWD Grant Programs to assist in the funding of projects that will reduce the impact of existing development on local water resources.	NA	3.12.2	3.12.2A
26	Pursue funding support from VLAWMO for projects in the Amelia Lake and Wilkinson Lake subwatersheds.	NA	3.12.1	3.12.2B
27	Review and evaluate funding sources for surface water management including ad valorem taxes, development charges, grants, and user fees.	NA	3.12.1	3.12.1A 3.12.1B
28	Update and continue to implement Trunk Surface Water Management Fee System.	NA	3.12.1	3.12.2A
29	Pursue funding through Federal and State grant opportunities	NA	3.12.2	3.12.2A

5.2 Implementation Costs

The City will use funds generated from its General Fund and Surface Water Management Charge as the primary funding mechanisms for its implementation program including maintenance, repairs, capital projects, and studies. Additionally, for applicable projects, the City will apply for grant funding through state, federal and watershed opportunities as they become available. Priority actions in the RMU-specific implementation plan as defined in **Appendix D** are listed in **Table 5-24**. The total estimated cost to implement this plan, including City-wide and all RMU Subwatershed Areas, is $5,597,000 over 10 years. These costs vary based on the year. It should be noted, that some of the costs should be recovered through surface water management impact fees collected in conjunction with development.

Most of the City-wide costs are related to maintenance of the existing system and satisfying the programmatic requirements of the City's NPDES permit. Phase 1, 2, and 3 of the Northeast Lino Lakes Comprehensive Stormwater Plan make up a majority of the infrastructure costs in relation to the high priority Peltier RMU. It is further assumed that once the more detailed RMU Subwatershed Plans are completed, more of the infrastructure costs will be defined so it can be included in developer fees for each area.

TABLE 5-24

STORMWATER MANAGEMENT IMPLEMENTATION PLAN

No.	Project Description	Issue Category	MS4 Permit Requirement	Annual Requirement	Projects, Programs, & Studies	RCWD Involvement[3]	Resource Management Unit	10 Year Cost Estimate[1]	Funding Sources	Proposed Cost By Year[1,2] 2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	Comments
1	MS4 Program Management to Meeting NPDES Requirements - Continue with the review and implementation of the updated SWPPP that was developed in 2013. Utilize the existing recordkeeping mechanisms to maintain organized and easy to access records of SWPPP activities to comply with permit requirements, aide in annual reporting writing, and assist with possible future MPCA audits. Program management & review includes, but not limited to: • Tasks for staff members to complete as part of the program implementation. • Documentation requirements needed quarterly to ensure ongoing permit compliance and aide annual reporting to the Minnesota Pollution Control Agency (MPCA). • Any updates from the MPCA and Rice Creek Watershed District that may offer benefits or impacts to the City's MS4 Permit activities.	All	✓	✓	✓		All	$30,000	General Fund	$5,000	$2,500	$2,500	$2,500	$2,500	$5,000	$2,500	$2,500	$2,500	$2,500	Policy 1A
2	Inspect MS4 Outfalls and Ponds - Continue to annually inspect all MS4 outfalls and inspect all City-owned constructed stormwater ponds ensuring 100% of the assets are visualling inspected once within the 5-year MS4 permit cycle. Utilize recordkeeping & documentation practices established within the City's MS4 SWPPP Program.	Water Quantity, Water Quality	✓	✓			All	$40,000	General Fund	$4,000	$4,000	$4,000	$4,000	$4,000	$4,000	$4,000	$4,000	$4,000	$4,000	Policy 1A
3	Structural Stormwater BMP Inspections - Continue to inspect 100% of all structural stormwater BMPs each year of the MS4 permit cycle. Utilize recordkeeping & documentation practices established within the City's MS4 SWPPP Program.	Water Quantity, Water Quality	✓	✓			All	$25,000	General Fund	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	$2,500	Policy 1A
4	Pond Surveys - The City will annually complete pond surveys to schedule and prioritize the necessary maintenance projects. This effort will be assisted by the SWAMP Application.	Water Quantity, Water Quality	✓				All	$100,000	General Fund	$10,000	$10,000	$10,000	$10,000	$10,000	$10,000	$10,000	$10,000	$10,000	$10,000	Policy 1A, 2.1B, 2.1E.
5	Annual Pond and Storm System Cleanout - The City will perform yearly cleanout of ponds and structural stormwater BMPs identified for maintenance with the SWAMP program and MS4 inspections.	Water Quantity, Water Quality	✓		✓		All	$1,250,000	General Fund	$125,000	$125,000	$125,000	$125,000	$125,000	$125,000	$125,000	$125,000	$125,000	$125,000	Policy 1A, 2.1B, 2.1E.
6	Street Sweeping - The City will continue to conduct street sweeping operations of all public streets twice annually (record the sweeping route, volume of material removed, and date per occurrence). Review and revise (as needed) street sweeping operations (including schedule, equipment, and disposal), stormwater quality priority areas, and routes annually through the end of the MS4 permit cycle.	Water Quality	✓	✓			All	$450,000	General Fund	$45,000	$45,000	$45,000	$45,000	$45,000	$45,000	$45,000	$45,000	$45,000	$45,000	Policy 2.1E, Golden Lake TMDL, Bald Eagle Lake TMDL, Lino Lakes Chain of Lakes Nutrients TMDL

No.	Project Description	Issue Category	MS4 Permit Requirement	Annual Requirement	Projects, Programs, & Studies	RCWD Involvement[3]	Resource Management Unit	10 Year Cost Estimate[1]	Funding Sources	Proposed Cost By Year[1,2]										Comments
										2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	
7	Stockpiles, Storage and Material Handling Area Inspections - Conduct quarterly inspections of stockpiles, and storage and material handling areas as inventoried in the City SWPPP Program (Part III.D.6.a), to determine maintenance needs and proper function of BMPs. Ensure the inspections and resulting maintenance items utilize the recordkeeping & documentations format developed within the SWPPP Program. Update the City's Facility Inventory as needed when additional locations gain the potential to contribute to stormwater pollution.	Water Quality	✓	✓			All	$10,000	General Fund	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000	Policy 2.1E
8	Salt Application Reduction Program - The Public Works Department has reduced overall salt application and will implement prewetting of salt application to specific roadways when 2" or less snow fall is anticipated. City Staff will calibrate ice and snow control applicators at the beginning of the winter season to reduce the amount of chemicals ordered and applied. The City will implement this program throughout the MS4 permit cycle.	Water Quality	✓	✓			All	$5,000	General Fund	$500	$500	$500	$500	$500	$500	$500	$500	$500	$500	Policy 2.1E
9	Employee Training - Host a 2-hour training session for field staff, which will include information on illicit discharge detection and elimination, construction site best management practices, best turf practices, smart salting, and stormwater BMP maintenance. In addition, provide materials from the training for make-up sessions or seasonal employees commensurate with the requirements of the MS4 Permit.	All	✓	✓			All	$20,000	General Fund	$2,000	$2,000	$2,000	$2,000	$2,000	$2,000	$2,000	$2,000	$2,000	$2,000	Policy 2.1C
10	Stormwater Asset Management Program (SWAMP) - Program to track TSS and TP treatment effectiveness in stormwater BMPs, store inspection results, prioritize maintenance activities, and document test results and cleanout.	Water Quality, Water Quantity	✓	✓			All	$47,000	General Fund, Surface Water Management Charge	$20,000	$3,000	$3,000	$3,000	$3,000	$3,000	$3,000	$3,000	$3,000	$3,000	Policy 1A, 2.1B, 2.1E.
11	Water quality monitoring at Lamotte neighborhood biofiltration basin BMP	Water Quality			✓		Centerville	$45,000	General Fund		$5,000	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000	Policy 2.1E, Peltier Lake and Centerville Lake TMDL
12	Irrigation Control and Retrofits: Install updated irrigation controls for City Parks and green spaces that utilize smart controllers and improve water conservation.	All			✓	✓	All	$50,000	General Fund		$10,000	$10,000	$10,000	$10,000	$10,000					Policy 1E, Golden Lake TMDL, Bald Eagle Lake TMDL, Lino Lakes Chain Lakes of Nutrients TMDL
13	Natural Buffers: The City will collaborate with RCWD to install natural buffers or other applicable BMP near waterbodies to limit E. coli discharge	Water Quality				✓	All	$6,000	General Fund, Grants		$2,000			$2,000			$2,000			Upper Mississippi River TMDL
14	Establish and adopt Better Site Design (BSD) Document: to be used for new development, and to provide guidance for staff, City Boards, and City Council	All			✓		All	$15,000	General Fund		$10,000					$5,000				Policy 1E

No.	Project Description	Issue Category	MS4 Permit Requirement	Annual Requirement	Projects, Programs, & Studies	RCWD Involvement[3]	Resource Management Unit	10 Year Cost Estimate[1]	Funding Sources	Proposed Cost By Year[1,2]										Comments
										2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	
15	Northeast Lino Lakes Comprehensive Stormwater Management Plan Phase 1: Replace existing culvert outlet at Peltier Lake Drive, construct outlet channel from Peltier Lake Drive to 20th Avenue, and construct outlet control structures with gates within proposed development to minimize risk of adversely impacting flood levels on Peltier Lake. Implement public greenway corridor with additional water quality features along the outlet channel including: iron enhanced filtration, biofiltration, and wetland habitat.	Water Quantity			✓	✓	Peltier	$2,750,000	General Fund, Surface Water Management Charge, Grants		$2,750,000										Northeast Lino Lakes Comprehensive Stormwater Management Plan Phase I
16	Northeast Lino Lakes Comprehensive Stormwater Management Plan Phase 2: Install culvert crossing under I-35E	Water Quantity			✓	✓	Peltier	$750,000	General Fund, Surface Water Management Charge, Grants				$750,000							Northeast Lino Lakes Comprehensive Stormwater Management Plan Phase II
17	Northeast Lino Lakes Comprehensive Stormwater Management Plan Phase 3:Otter Lake Road Storm Sewer Extension	Water Quantity			✓	✓	Peltier	$650,000	General Fund, Surface Water Management Charge, Grants						$650,000					Northeast Lino Lakes Comprehensive Stormwater Management Plan Phase III
18	Complete Subwatershed Management Plan for Clearwater Creek RMU	All			✓	✓	Clearwater Creek	$50,000	General Fund, Surface Water Management Charge, Grants			$50,000								Policy 2.1A
19	Restore drained wetlands along abandoned ditch 47: provide wetland mitigation credit for use in a bank and to establish a greenway corridor valuable for open space, water quality, and flood control.	Water Quality, Wetland Management			✓	✓	Clearwater Creek	$150,000	General Fund, Grants							$150,000				Policy 3C
20	Complete Subwatershed Management Plan for Marshan RMU	All			✓	✓	Marshan	$50,000	General Fund, Surface Water Management Charge				$50,000							Policy 2.1A
21	Feasibility Study for flood reduction on ACD 10-22-32	Floodplain Management, Water Quality			✓	✓	Marshan	$80,000	General Fund, Grants					$80,000						Policy 4.1F, Lino Lakes Chain of Lakes Nutrient TMDL, Appendix D Issue M-1
22	Implement flood reduction efforts determined in ACD 10-22-32 flood reduction feasibility study	Floodplain Management, Water Quality			✓	✓	Marshan	$150,000	General Fund, Grants						$150,000					Policy 4.1F, Lino Lakes Chain of Lakes Nutrient TMDL, Appendix D Issue M-1
23	Feasibility Study for volume reduction in key watersheds: including MAR-0059, MAR-108, MAR-110	Floodplain Management, Water Quality			✓	✓	Marshan	$30,000	General Fund, Grants							$30,000				Policy 4.1F, Lino Lakes Chain of Lakes Nutrient TMDL
24	Complete Subwatershed Management Plan for Reshanau RMU	All			✓	✓	Reshanau	$50,000	General Fund, Surface Water Management Charge					$50,000						Policy 2.1A
25	ACD 25 Wetland Restoration: Work with RCWD to develop a restoration plan for partially drained wetlands of the ACD 25 system to attain wetland restoration credit	Water Quality, Wetland Management			✓	✓	Reshanau	$265,000	General Fund, Grants						$265,000					Policy 3C, Lino Lakes Chain of Lakes Nutrient TMDL, Appendix D Issue RE-4
26	Develop Wards Lake and Cedar Lake Management Plan - to include outlet control structure (currently controlled by ditched outlets) and vegetation management	Water Quantity, Water Quality			✓	✓	Reshanau	$80,000	General Fund, Grants							$80,000				Policy 1A, 2.1B, Lino Lakes Chain of Lakes Nutrient TMDL, Appendix D Issue CD-1 and WA-1,
27	Fish Barrier: Work with RCWD to install a fish barrier at the inlet to Reshanau Lake to help prevent rough fish such as carp and bullhead from entering Reshanau Lake	Water Quantity, Water Quality			✓	✓	Reshanau	$30,000	General Fund, Grants								$30,000			Policy 1A, 2.1B, Lino Lakes Chain of Lakes Nutrient TMDL

No.	Project Description	Issue Category	MS4 Permit Requirement	Annual Requirement	Projects, Programs, & Studies	RCWD Involvement[3]	Resource Management Unit	10 Year Cost Estimate[1]	Funding Sources	Proposed Cost By Year[1,2] 2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	Comments
28	Complete Subwatershed Management Plan for Wilkinson RMU	All			✓		Wilkinson	$50,000	General Fund, Surface Water Management Charge						$50,000					Policy 2.1A, VLAWMO TMDL and Protection Study
29	Complete Subwatershed Management Plan for Amelia RMU	All			✓		Amelia Lake	$50,000	General Fund, Surface Water Management Charge							$50,000				Policy 2.1A
30	Restore Wetland on private ditch entering Amelia Lake: Restore wetland on private ditch that enters the lake on the north side in catchments AME-004 and AME-005	Water Quality, Wetland Management			✓		Amelia Lake	$100,000	General Fund, Grants								$100,000			Policy 2.1B, Policy 3C, Appendix D Issue A-3
31	Complete Subwatershed Management Plan for Hardwood Creek RMU	All			✓	✓	Hardwood Creek	$50,000	General Fund, Surface Water Management Charge								$50,000			Policy 2.1A, Hardwood Creek Impaired Biota (Fish) and Dissolved Oxygen TMDL
32	Feasibiliy Study on capacity of existing culvert crossings within Hardwood Creek RMU future conditions	Water Quantity			✓		Hardwood Creek	$20,000	General Fund, Grants									$20,000		Policy 1A, Appendix D Issue HW-1
33	Complete Subwatershed Management Plan for Rice Lake RMU	All			✓	✓	Rice	$50,000	General Fund, Surface Water Management Charge									$50,000		Policy 2.1A
34	Develop Source Control Plan: in conjunction with new development areas north of CSAH 14, to prevent loading to wetlands along with source control retrofits in areas draining to groundwater wetlands.	Water Quality			✓	✓	George Watch	$35,000	General Fund, Grants										$35,000	Policy 2.1B, Lino Lakes Chain of Lakes NutrientTMDL
	TOTAL							$5,603,000		$210,000	$2,970,000	$258,000	$1,008,000	$340,000	$1,323,000	$513,000	$380,000	$268,000	$233,000	

[1] Cost estimates are preliminary and subject to review and revision as engineer's reports are completed and more information becomes available. Table reflects 2018 costs and does not account for inflation. Costs generally include labor, equipment, materials, and all other costs necessary to complete each activity. For City completed activities, staff time is included in the cost. Some of the costs outlined above may be included in other operational costs budgeted by the City.

[2] 10 Year cost projections are based upon 2 MS4 Permit Cycles with year 1 program updates occurring again in 2018/2019

[3] RCWD Involvement may include coordination, collaboration, or approval

6. FINANCIAL CONSIDERATIONS

Plan implementation tasks are presented in two ways. First are city-wide costs for stormwater related activities that are not specific to a certain subwatershed. Those costs are further divided into the twelve Issue Categories identified during the planning process and reflected in the City's Local Water Management Plan. For cost estimating, the 12 categories are listed separately, but in the implementation of those activities from a practical stand point, there will be some activities that can be coordinated to facilitate ease of implementation. There has been an effort to not duplicate or create redundant funding in these costs estimates, so some efficiency of implementation is included in the costs.

Secondly, implementation costs are also provided based on the subwatershed. The City contains 15 subwatersheds of various sizes and complexity and therefore the needs of each will be unique. The management at the subwatershed level is to reinforce the City's Comprehensive Plan approach of developing Resource Management Unit level planning and management at that subwatershed scale. The top three priority subwatersheds have the costs provided with more detail due to their higher likelihood of experiencing growth and development. All the subwatershed/RMUs will require a more detailed RMU Plan be developed for them to better detail the trunk infrastructure costs needed. Those RMU Plan costs are included in the **Table 5-24** for approximately half of the RMUs based on the expected need for the plans and local issues arising (development, TMDLs, etc.).

Many of the items fall under past activities that have been typically included in the City's budget for stormwater infrastructure. The City currently has a Surface Water Management Charge that is updated annually based on the Engineering News Record (ENR) Index for new development to cover the cost of administration, planning, and trunk/regional infrastructure. It is recommended that this fee, updated with the new cost information, be used to fund the Subwatershed/RMU Plans. The costs identified in the RMU studies would then be used to update the fee schedule in future years. With each RMU identified individually, the City will have the opportunity to decide if they would like the fee schedules different for the various RMUs or combined for a city-wide average.

The remainder of the stormwater funding comes from the general fund of the City which also covers some of the stormwater planning and implementation needs. While this is common practice in many communities such as Lino Lakes, the more the specialized, user-fee type funds can be used, typically the more stable and adequate the funding is. Other sources of funding and revenue are also worth considering. The creation of a wetland bank as shown in the implementation plan, with time can be self-funded since there is a need for wetland bank credits. Grant opportunities at the state and local (e.g., watershed) level can and should be leveraged to relieve local funding pressures and in some cases, accelerate implementation.

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Appendix A – MS4 SWPPP Application for Reauthorization

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 Lino Lakes *County: Anoka
(city, county, municipality, government agency or other entity)

*Mailing address: 600 Town Center Parkway

*City: Lino Lakes *State: MN *Zip code: 55014

*Phone (including area code): 651-982-2400 *E-mail: tim.payne@ci.lino-lakes.mn.us

MS4 General contact (with Stormwater Pollution Prevention Program [SWPPP] implementation responsibility)

*Last name: Payne *First name: Tim
(department head, MS4 coordinator, consultant, etc.)

*Title: Streets / Stormwater Supervisor

*Mailing address: 600 Town Center Parkway

*City: Lino Lakes *State: MN *Zip code: 55014

*Phone (including area code): 651-982-2455 *E-mail: tim.payne@ci.lino-lakes.mn.us

Preparer information (complete if SWPPP application is prepared by a party other than MS4 General contact)

Last name: Peters First name: Jeff
(department head, MS4 coordinator, consultant, etc.)

Title: WSB & Associates

Mailing address: 701 Xenia Ave South Suite 300

City: Minneapolis State: MN Zip code: 55416

Phone (including area code): (763) 287-7150 E-mail: jpeters@wsbeng.com

Verification

1. 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
2. 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: Michael Grochala
(This document has been electronically signed)

Title: Community Development Director Date (mm/dd/yyyy): 12/30/13

Mailing address: 600 Town Center Parkway

City: Lino Lakes State: MN Zip code: 55014

Phone (including area code): 651-982-2427 E-mail: michael.grochala@ci.lino-lakes.mn.us

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

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.*

The city regularly partners with Rice Creek Watershed district on educational events and projects with they are mutually beneficial to both organizations. Rice Creek Watershed District also performs plan reviews for projects that require their permits.

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:

   City Code: Chapter 405: Regulation of Discharges into the storm sewer system.

   Direct link:

   http://www.amlegal.com/nxt/gateway.dll/Minnesota/linolakes_mn/400waterandsewer/

   chapter405regulationofdischargesintothes?f=templates$fn=default.htm$3.0$vid=amlegal

   :linolakes_mn$anc=JD_Chapter405

   ☐ 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:

   City of Lino Lakes will review its current ordinace to insure that it is meeting the requirements of the MS4 permit

within 12 months of permit coverage being granted.

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:

   City Code: Chapter 1011: Stormwater and erosion and sediment control

   Direct link:

   http://www.amlegal.com/nxt/gateway.dll/Minnesota/linolakes_mn/1000landusage/chapter1011

   stormwateranderosionandsedime?f=templates$fn=default.htm$3.0$vid=amlegal:linolakes_mn$anc=JD_Chapter1011

   ☐ 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:

The City's construction site stormwater runoff control requlatory mechnaism will be review and updated to be at least as strigent as the MPCA CSW permit. This effort will completed 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 vegetative cover on all exposed soils or other equivalent means.	☒ Yes ☐ No
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.3. - City will evaluate all mechanisms to enforce dewatering activities and update as necessary within 12 months of reissuance of permit coverage.

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: Developers Agreements

   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:

   City Code: 1000: Land Usage, Chapter 1011: Stormwater and erosion and sediment control, Section 1101.09 Stormwater management requirements.

   Direct link:

   http://www.amlegal.com/nxt/gateway.dll/Minnesota/linolakes_mn/1000landusage/chapter1011stormwateranderosion

   andsedime?f=templates$fn=default.htm$3.0$vid=amlegal:linolakes_mn$anc=JD_1011.09

   ☐ 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 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. ☒ 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 twelve (12) months of the date permit coverage is extended, these permit requirements are met:

B.2.a, B.2.b. Amend current post-construction stormwater ordinance and City Design Standards, which includes goals for reducing post-development TSS and TP loading on an annual basis, to include volume-control and be more consistent with permit language for new and redevelopment sites. The City Engineer will draft these amendments they will be placed on the City Council's meeting agenda for approval within 12 months following the date permit coverage is extended.

B.3.a.1: The City will amend the ordinance and City Design Standards or agreement language, to include prohibiting the use of infiltration techniques for post-construction stormwater management as described in the Permit (PartIII.D.5.a(3)(a).1). The ordinance will be amended on the same schedule as the items in B.2.a and B.2.b.

B.3.a.2: The City will amend the ordinance and City Design Standards to include restricting the use of infiltration techniques for post-construction stormwater management as described in the Permit (PartIII.D.5.a(3)(a).2). This will occur on the same schedule as the items above.

B.3.a.3: The City will amend the ordinance and City Design Standards to include the exceptions for linear projects as described in the Permit (PartIII.D.5.a(3)(b)). This will occur on the same schedule as the items above.

B.4.a.: The City will amend the ordinance and City Design Standards to include order of preference for selecting mitigation project areas as described in the Permit (PartIII.D.5.a(4)(a)). This will occur on the same schedule as the items above.

B.4.b.: The City will amend the ordinance and City Design Standards to include requirements for the creation of mitigation projects as described in the Permit (PartIII.D.5.a(4)(b)). This will occur on the same schedule as the items above.

B.4.c.: The City will amend the ordinance and City Design Standards to include the restriction from using routine maintenance of structural BMPs to meet the requirements for mitigation projects as described in the Permit (PartIII.D.5.a(4)(c)). This will occur on the same schedule as the items above.

B.4.d.: The City will amend the ordinance and City Design Standards to include the requirement to complete mitigation projects within 24 months after the start of the original construction activity as described in the Permit (PartIII.D.5.a(4)(d)). This will occur on the same schedule as the items above.

B.4.f.: The City will amend the ordinance and City Design Standards to mandate that money received from an owner/operator of construction activity, in lieu of meeting the conditions for post-construction stormwater management, shall be used for a public stormwater project as described in the Permit (PartIII.D.5.a(4)(f)). This will occur on the same schedule as the items above.

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:

B. Describe your ERPs:

http://www.amlegal.com/nxt/gateway.dll/Minnesota/linolakes_mn/1000landusage/chapter1011stormwaterand

erosionandsedime?f=templates$fn=default.htm$3.0$vid=amlegal:linolakes_mn$anc=JD_1011.13

The City Code includes the following enforcement mechanisms:

- Notice of Violation

- Permit suspension

- Construction stop order

- Permit Revocation

- Remedial Corrective Action

- Action Against Financial Security

- Misdemeanor Violation

- Cumulative Enforcement

IV. Storm Sewer System Map and Inventory: (Part II.D.4.)

A. Describe how you manage your storm sewer system map and inventory:

New developments are required to provide electronic as-built data in accordance with the GIS Information Requirements located in the City Design Standard. The City GIS specialist updates and maintains all of the City's GIS Information.

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:

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:

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**:

   The City is comprised of a mix of commercial business districts, new development and established residential developments. Therefore the educational focus rotates through residential issues, construction activities, and illicit discharges around commercial business districts. Newsletter distributed to residents includes stormwater section discussing proper practices for activities such as fall yard practices and winter deicing.

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
Education Activity Implementation Plan	*Complete outline of education activity implementation program and implementation schedule for the upcoming permit cycle.*
Meeting with Building Contractors, Developers, and Excavators	*Hold meetings as needed to inform these professionals of stormwater related issues as appropriate.*
Meetings with Educational Professionals	*Work with Rice Creek Watershed District, and Environmental Commission Group to make effective use of stormwater education programs as appropriate.*
City Staff Meetings	*Provide a presentation at City Department meetings to generate Staff awareness of SWPPP regulations and to develop projects with appropriate BMPs applied.*
Newsletter	*Published stormwater pollution prevention related article in the Annual Newsletter to spread awareness of stormwater related issues.*

BMP categories to be implemented	Measurable goals and timeframes
Citizen Survey	*Send out a written survey in a random sample of mailings. They survey will gauge each selected household's practices related to the topic that will be featured in the following fall's brochure. This will help the City understand what topics are important to the City. Implementation to be within the next 5 year permit cycle.*
Presentations to City Council	*Report on yearly NPDES regulations and activities in Annual Report, urban storm water impacts to water bodies, current SWPPP status during an annual presentation each year of permit cycle. Additionally provide a specific review of SWPPP when considering zoning request.*

3. Provide the name or the position title of the individual(s) who is responsible for implementing and/or coordinating this MCM:

   Community Development Director / Environmental Coordinator

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:

   An opportunity to hear comments on the SWPPP is provided each year during an annual meeting.

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
Follow applicable public notice requirement	*Provide public notice of meeting to provide input on the SWPPP in accordance with City public hearing notification requirements.*
Annual Meeting	*Hold annual public meeting combined with City Council Meeting or other public participation/involvement event to solicit public input on the SWPPP*

BMP categories to be implemented	Measurable goals and timeframes

Community Reporting Options and Documentation Procedures	*IT department will provide a link on City webpage to report Illicit Discharges. This will allow the city to document number of reports received from City Webpage and responses to citizen reports of illicit discharges. During the next 5 year permit cycle.*

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:

   B.3. The City will develop written procedures for receiving, documenting and storing citizen input as described in the permit (Part III.C.2.b). Procedures will be in place within 12 months following 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:

   Community Development Director / Environmental Coordinator / Streets Supervisor / City Engineer

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:

   The City has an ordinance that prohibits illicit discharges and connections. City Staff and public works employees are trained to look for any signs of an illicit discharge while on the job. City ordinance describes actions the City can take after an illicit discharge has been identified.

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.e., The City will incorporate procedures into the IDDE program for a timely response to known, suspected, and reported illicit discharges as described in the permit (Part III.D.3.g). Procedures will be in place within 12 months following 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
Storm Sewer System Mapping	*The City GIS storm sewer system map is updated as needed to reflect changes made to system features such as ponds, streams, lakes, wetlands, structural pollution control device, pipes, and outfalls. The existing City GIS Map will be updated as required by Part III.C.1 within 12 months following the date permit coverage is extended.*
Illicit Discharge Detection and Elimination (IDDE) and Enforcement Ordinance	*The City developed an ordinance to prohibit non-stormwater discharge into the stormwater system. The City will review the ordinance yearly to ensure that it continues to meet the needs of the City and legal requirements.*
Illicit Discharge Detection and Elimination (IDDE) Program	*Program to detect and eliminate illegal and/or improper connections to storm sewer drainage system and receiving waters by maintaining a list of existing illicit connection test performed to date within the City.* *Maintain a list of illicit connections test performed to date within the City. Identify and prioritize future illicit connection assessment sites, and conduct field testing of existing storm sewer system lines* *After detection of illicit discharge the City will utilize proper enforcement procedures and enforce the provisions of the City ordinance pertaining to illegal discharges.*
Public & Employee IDDE Information Program	*Conduct educational seminar and distribute of educational material annually to educate the Public and City Employees about the hazards associated with illicit discharges.*
Identification of Non Stormwater Discharges & Flows	*City employees are trained how to identify illicit discharges and what corrective measures should be taken for those discharges identified as being significant contributors of pollutants.*

BMP categories to be implemented	Measurable goals and timeframes
IDDE Program Updates	*Update written procedures for illicit discharge inspections, investigations, and response actions. Develop a process to document information as described in the Permit (Part III.3.h) within 12 months following the date permit coverage is extended.*
Illicit Discharge Inspections	*Annually inspect locations identified as high-priority outfalls and around high-risk establishments (fast food restaurants, dumpster, car washes, mechanics, and oil changes.)*
Illicit Discharge Investigation	*As needed televise a section of our sewer system, collect grab samples or perform other effective testing procedures to find illicit connection in the system.*

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:

   C.4., The City will develop written procedures for receiving, documenting and storing citizen input as descriped in the permit (Part III.D.3.h). Procedueres will be in place within 12 months following 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:

   Community Development Director / Environmental Coordinator

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:

   The City requires review of construction site erosion and sediment control (ESC) plans before projects begin, and work with contractors to ensure appropriate and correct use of erosion and sediment control BMPs on sites.

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 ☒ Yes ☐ No

construction activity?

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.c., The City will develop written procedures for receipt and consideration of reports of noncompliance or other stormwater related information on construction activity submitted by the public as described in the Permit (Part III.D.4.c). Procedures will be in place within 12 months following the date permit coverage is extended.

D.2.d., City will develop written procedures for conducting site ESC inspections as described in the Permit (Part III.D.4.d). Procedures will be in place within 12 months following the date permit coverage is extended.

D.2.g., City will develop written procedures for retaining documents of site ESC inspections as described in the Permit (Part III.D.4.d). Procedures will be in place within 12 months following 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**
Construction Site Stormwater Runoff Ordinance	*Currently being updated and Modified.*
Construction Site Plan Review	*City Engineering Staff utilizes MPCA the construction and sediment control checklist from Appendix D of the Current SWPPP for review of NPDES Erosion Control Permits submitted to the department for review.*
Erosion Protection Maintenance Memo to Builders	*An erosion control handout, which explains how to properly install a silt fence and other erosion control BMPs is given to the application when a building permit is picked up.*

BMP categories to be implemented	**Measurable goals and timeframes**
Permit Update	*Update the City Grading, Building, and ROW permits and Construction Site Stormwater Runoff ordinance to meet the new permit requirements within 12 months following the date permit coverage is extended*
Prioritize Inspections	*Ensure at least 10% of inspections conducted annually are performed at deemed high priority inspection sites (e.g., near sensitive receiving waters, projects larger than 5 acres)*
Permit Application System	*Develop written procedures to track and archive all plan review and inspection documents within 12 months following 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:

   Community Development Director / Environmental Coordinator

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:

   The City has a post-construction sotrmwater management ordinace to require the utilization of BMPs for stormwater runoff from new and redevelopment projects, as well as to ensure the maintenance and operation of the stormwater BMPs.

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., The City will develop written procedures for documention of post-construciton stomwater management as described in the Permit (Part III.D.5.c.). Procedures will be in place within 12 months following the date permit coverage is extended.

4. 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
Site Plan Review Program	*Rice Creek Watershed District provides engineering staff for review and approval of development proposals that meet Commission requirements. The developers plan must be approved by the WMO and a permit obtained by the City prior to construction. As part of the City permit process, the City ensures that storm water discharges will not adversely affect endangered species, threatened species, historic places, and archeological sites. Staff will continue to work with the Watershed Organizations and their requirements for development proposals throughout the permit cycle.*
Encourage the use of structural and non-structural BMPs during review of new and redevelopment projects	*Implement Stormwater retention/detention ponds as a BMP in areas where it is appropriate* *Developers are encouraged to use infiltration techniques when possible. City and Watershed rules require infiltration for specified events.* *Possible implantation of sand and organic filters into plan review process. This BMP will be review throughout the permit cycle.*

Stabilization Seeding	*The City requires all exposed ground areas to be landscaped with grass, shrubs, trees, or other living ornamental landscape materials. When observed, the City documents violations of seeding provisions and records types of enforcement actions taken.*
Outlet Structure Stabilization	*The City requires outlet structure stabilization within the standard specification for construction including but not limited to tie-rods, stabilization seeding, and class IV-V riprap. The City will continue to include this BMP during construction and document the number of structures stabilized.*
Land Development Ordinance	*Completed ordinance including illicit discharges, erosion and sediment control at construction sites, and post construction runoff from new development and redevelopment*

BMP categories to be implemented	**Measurable goals and timeframes**
Update ordinance to meet new permit requirements	*Complete Ordinance updates including illicit discharges, erosion and sediment control at construction sites, and post construction runoff from new development and redevelopment Within 12 months of extension of permit coverage.*
Develop Written Procedures for Site Plan Review	*Develop site plan review procedures that must be completed prior to the start of construction activity within 12 months of extension of permit coverage.*
Document Pertinent Project Information	*Maintain all related documents pertaining to each new or redevelopment project in more user-friendly filing system for better records management. Implement within 12 months.*

5. Provide the name or the position title of the individual(s) who is responsible for implementing and/or coordinating this MCM:

   Street Supervisor / City Engineer

F. MCM 6: Pollution prevention/good housekeeping for municipal operations

1. 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:

   The City currently inspects its structural pollution control devices on an annual basis and inspects all of its outfalls, sediment basins and ponds every 5 years. The City inspects stockpiles, storage and material handling areas at the maintenance yard for potential discharges and maintenance of BMPs. The City is evaluating the use of road salt for winter road maintenance activities to reduce chlorides entering our water resources. The City sweeps streets a minimum of twice per year. Maintenance staff is trained annually on various topics related to pollution prevention during maintenance activities.

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:

   Facilities inventory will be completed within 12 months of permit coverage being 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**
Park and Open Space Training Program	*Training focused on fertilizer application, pesticide/herbicide application, and mowing discharge.*

Fleet and Building Maintenance Training Program	*Training focused on automotive maintenance program (automotive inspections and washing), spill cleanup training, hazardous materials training, building leak prevention and inspection training. Annual Training.*
Stormwater Systems Maintenance Training Program	*Training focused on parking lot and street cleaning, storm drain systems cleaning, road salt materials management, annual training*
Parking Lots & Street Cleaning	*Train employees and document number of times each street is swept annual. Goal is 2 times per year.*
Storm Drain Cleaning System	*Document Number of Sumps cleaned per year. Goal is 100% of the City sumps per year.*
Road Salt Materials Management Program	*Document amount of salt applied each year and train employees in road salt management and application rates annually.*
Storm Sewer Inspection Program	*Conduct one inspection of all City-owned ponds and outfalls prior to expiration date of this permit* *Annual inspection of 100% of structural pollution control devices*
Evaluate Inspection Frequency	*Evaluate inspection records and determine if inspection frequency needs to increase or decrease.*

BMP categories to be implemented	**Measurable goals and timeframes**
Structural Stormwater BMP Maintenance Program	*Based on storm sewer inspection findings determine if repair, replacement, or maintenance measures are necessary to ensure structures proper function and treatment effectiveness. Document annually number or structures repaired or scheduled for maintenance.*
Spill Prevention & Control Plans for Municipal Facilities	*Ensure that plans describing spill prevention and control procedures are consistent among all departments. Conduct annual spill prevention and response training sessions to all municipal employees. Distribute education materials to each municipal facility by the end of year 2.*
Maintenance Yard Inspections	*Once monthly and after < 1"rain events, perform maintenance yard inspections utilizing a checklist for the inspection. Develop checklist format that allows staff to compare results to previous inspections*
Facility Inventory	*Update facilities inventory to include potential pollutants as each site. Create a map of all identified facilities.*
Pond Assessment Procedures & Schedule	*In year 1, develop procedures for determining TSS and TP treatment effectiveness of city owned ponds use for treatment of stormwater. Implement schedule in year 2-5*

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 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.)? ☐ Yes ☒ No

7. Do you have inspection procedures that meet the requirements of the Permit (Part III.D.6.e.(1)- ☐ Yes ☒ No

(3)) for structural stormwater BMPs, ponds and outfalls, and stockpile, storage and material handling areas?

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:

F.5.c. As part of the regulatory mechanism updates for (II.B.3.a.1) the City will provide a BMP to protect drinking water sources that the MS4 discharges may affect as described in the Permit (Part III.D.6.c). The amended ordinance will be placed on the City Council's meeting agenda for approval within 12 months following the date permit coverage is extended.

F.6. The City will develop a procedure for assessing ponds to determine TSS and TP effectiveness as described in the Permit (Part III.D.6.d) This study will develop procedures for determining TSS and TP treatment effectiveness of city-owned ponds used for treatment of stormwater. A schedule will be implemented in years 2 thru 5.

F.7., The City will develop written procedures for inspection of structural stormwater BMPs, ponds and outfalls, and stockpile, storage and material handling areas as described in the Permit (Part III.D.6.f.). Procedures will be in place within 12 months following the date permit coverage is extended.

F.8., The City will develop and implement a stormwater management training program commensurate with each employees job duties as described in the Permit (Part III.D.6.g.). Procedures will be in place within 12 months following the date permit coverage is extended.

F.9., The City will developwitten procedures to document inspections, mainenance, and training as described in the Permit (Part III.D.6.h.). Procedures will be in place within 12 months following 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 Services Director / Street Supervisor / City Engineer

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

TMDL Wasteload Allocation Excel Spreadsheet PART II.D.6.a.-e.

Copy and paste from the Master List MS4 TMDL Spreadsheet for your MS4 to the space below.

Attach this completed form with your SWPPP Document at the time of submittal. At a ***minimum,*** *provide all of the information "*" items (TMDL Project Name, Type of WLA, Numeric WLA, Unit, Flow Condition, and Pollutant of Concern).*

Permittee name	Preferred ID	TMDL project name*	Waterbody ID	Type of WLA*	Numeric WLA*	Unit*	Percent reduction	Flow condition*	Waterbody name	Pollutant of concern*	Date approved
Lino Lakes City	MS400100	Bald Eagle Lake: Excess Nutrients TMDL	62-0002	Categorical	719	lbs/year	38%	N/A	Bald Eagle Lake	Phosphorus	6/11/2012
Lino Lakes City	MS400100	Golden Lake TMDL	02-0045	Categorical	0.38	lbs/day		N/A	Golden Lake	Phosphorus	9/30/2009
Lino Lakes City	MS400100	Hardwood Creek Impaired Biota and Dissolved Oxygen TMDL	07010206-596	Categorical	413	lbs/day		High	Hardwood Creek, Hwy 61	TSS	6/18/2009
Lino Lakes City	MS400100	Hardwood Creek Impaired Biota and Dissolved Oxygen TMDL	07010206-596	Categorical	100	lbs/day		Moist	Hardwood Creek, Hwy 61	TSS	6/18/2009
Lino Lakes City	MS400100	Hardwood Creek Impaired Biota and Dissolved Oxygen TMDL	07010206-596	Categorical	38	lbs/day		Mid-Range	Hardwood Creek, Hwy 61	TSS	6/18/2009
Lino Lakes City	MS400100	Hardwood Creek Impaired Biota and Dissolved Oxygen TMDL	07010206-596	Categorical	17	lbs/day		Dry	Hardwood Creek, Hwy 61	TSS	6/18/2009
Lino Lakes City	MS400100	Hardwood Creek Impaired Biota and Dissolved Oxygen TMDL	07010206-596	Categorical	6	lbs/day		Low	Hardwood Creek, Hwy 61	TSS	6/18/2009
Lino Lakes City	MS400100	Hardwood Creek Impaired Biota and Dissolved Oxygen TMDL	07010206-595	Categorical	104	lbs/day		High	Hardwood Creek, Headwa	Biochemical Oxygen De	6/18/2009
Lino Lakes City	MS400100	Hardwood Creek Impaired Biota and Dissolved Oxygen TMDL	07010206-595	Categorical	25	lbs/day		Moist	Hardwood Creek, Headwa	Biochemical Oxygen De	6/18/2009
Lino Lakes City	MS400100	Hardwood Creek Impaired Biota and Dissolved Oxygen TMDL	07010206-595	Categorical	10	lbs/day		Mid-Range	Hardwood Creek, Headwa	Biochemical Oxygen De	6/18/2009
Lino Lakes City	MS400100	Hardwood Creek Impaired Biota and Dissolved Oxygen TMDL	07010206-595	Categorical	5	lbs/day		Dry	Hardwood Creek, Headwa	Biochemical Oxygen De	6/18/2009
Lino Lakes City	MS400100	Hardwood Creek Impaired Biota and Dissolved Oxygen TMDL	07010206-595	Categorical	2	lbs/day		Low	Hardwood Creek, Headwa	Biochemical Oxygen De	6/18/2009
Lino Lakes City	MS400100	Hardwood Creek Impaired Biota and Dissolved Oxygen TMDL	07010206-596	Categorical	104	lbs/day		High	Hardwood Creek, Hwy 61	Biochemical Oxygen De	6/18/2009
Lino Lakes City	MS400100	Hardwood Creek Impaired Biota and Dissolved Oxygen TMDL	07010206-596	Categorical	25	lbs/day		Moist	Hardwood Creek, Hwy 61	Biochemical Oxygen De	6/18/2009
Lino Lakes City	MS400100	Hardwood Creek Impaired Biota and Dissolved Oxygen TMDL	07010206-596	Categorical	10	lbs/day		Mid-Range	Hardwood Creek, Hwy 61	Biochemical Oxygen De	6/18/2009
Lino Lakes City	MS400100	Hardwood Creek Impaired Biota and Dissolved Oxygen TMDL	07010206-596	Categorical	5	lbs/day		Dry	Hardwood Creek, Hwy 61	Biochemical Oxygen De	6/18/2009
Lino Lakes City	MS400100	Hardwood Creek Impaired Biota and Dissolved Oxygen TMDL	07010206-596	Categorical	2	lbs/day		Low	Hardwood Creek, Hwy 61	Biochemical Oxygen De	6/18/2009

Compliance Schedule PART II.D.6.f.-g.

Is your MS4 currently meeting its WLA for any approved TMDLs? **Go to:** **Go to:** **Go to:**

☐ **NO** (Complete Table 1, Strategies for continued BMP implementation beyond the term of this permit, and Table 2 below) Table 1 Strategies… Table 2

☑ **YES** (Provide the following information below)

If YES, indicate the WLAs (may be grouped by TMDL Project) you believe are reasonably being met. For each WLA, list the implemented BMPs and provide a narrative strategy for the long-term continuation of meeting each WLA. PART II.D.6.g.(1)-(2)

Bald Eagle Lake: Excess Nutrients TMDL - Categorical TMDL The city is currently:

1. The city provides stormwater education to employees and the public.
2. The city provides water resource education materials to contractors, builders, developers, and the general public.
3. The city performs inspections for the cities illicit discharge detection and ellmination program.
4. The city references and makes permitees comply with watershed requirements for post -construction BMP performance.
5. The city continues to monitor and maintain the existing stormwater ponds and other BMPs to sustain removal effectiveness.
6. The city has established maintenance agreements with private owners of permanent BMPs.
7. The city has an established street sweeping program. It sweeps streets at a minimum of two times per year.
8. The city annually inspects and cleans all structural pollution control devices.

Golden Lake TMDL - Categorical TMDL The city is currently:

1. The city provides stormwater education to employees and the public.
2. The city provides water resource education materials to contractors, builders, developers, and the general public.
3. The city performs inspections for the cities illicit discharge detection and ellmination program.
4. The city references and makes permitees comply with watershed requirements for post -construction BMP performance.
5. The city continues to monitor and maintain the existing stormwater ponds and other BMPs to sustain removal effectiveness.
6. The city has established maintenance agreements with private owners of permanent BMPs.
7. The city has an established street sweeping program. It sweeps streets at a minimum of two times per year.
8. The city annually inspects and cleans all structural pollution control devices.

Hardwood Creek Impaired Biota and Dissolved Oxygen TMDL -

1. The city provides stormwater education to employees and the public.
2. The city provides water resource education materials to contractors, builders, developers, and the general public.
3. The city performs inspections for the cities illicit discharge detection and ellmination program.
4. The city references and makes permitees comply with watershed requirements for post -construction BMP performance.
5. The city continues to monitor and maintain the existing stormwater ponds and other BMPs to sustain removal effectiveness.
6. The city has established maintenance agreements with private owners of permanent BMPs.
7. The city has an established street sweeping program. It sweeps streets at a minimum of two times per year.
8. The city annually inspects and cleans all structural pollution control devices.

Table 1

Fill in the following table with your Interim Milestones, BMP IDs, and Implementation Dates. Replace "TMDL Project Name & Pollutant" Columns with each TMDL Project Name and the

NOTE:

It is recommended to assign each Interim Milestone (BMP) a BMP ID. You will be required to report on the status of each Interim Milestone and include a BMP ID for all structural BMPs as part of the MS4 Annual Report (see Part III.E.), so including those ID numbers at the time of application may be useful in tracking implementation efforts. If a pond that will be included in the pond inventory (Part III.C.2.) is to be applied toward a WLA, use the same ID for both the pond inventory and TMDL tracking. Non-structural BMPs are not required to have an ID, but it may be useful to assign it an ID for internal MS4 recordkeeping.

MPCA recommends the Implementation Dates align with the submittal of MS4 Annual Reports. Dates selected may not reflect the actual date a BMP is implemented, but shall indicate a BMP will be implemented on that date or before for that reporting year.

Interim Milestone (Best Management Practice)	BMP ID	Implementation Date	TMDL Project Name & Pollutant1

Strategies for continued BMP implementation beyond the term of this permit. PART II.D.6.f.(3)

The City intends to explore opportunities to retrofit existing BMPs in the watersheds of each TMDL to maximize their pollutant removal capacity. All city construction projects will consider Green Infrastructure practices when feasible. Upon reevaluation of the TMDL waters on a ten-year monitoring cycle conducted by the state, the City will consider any necessary modifications to this approach.

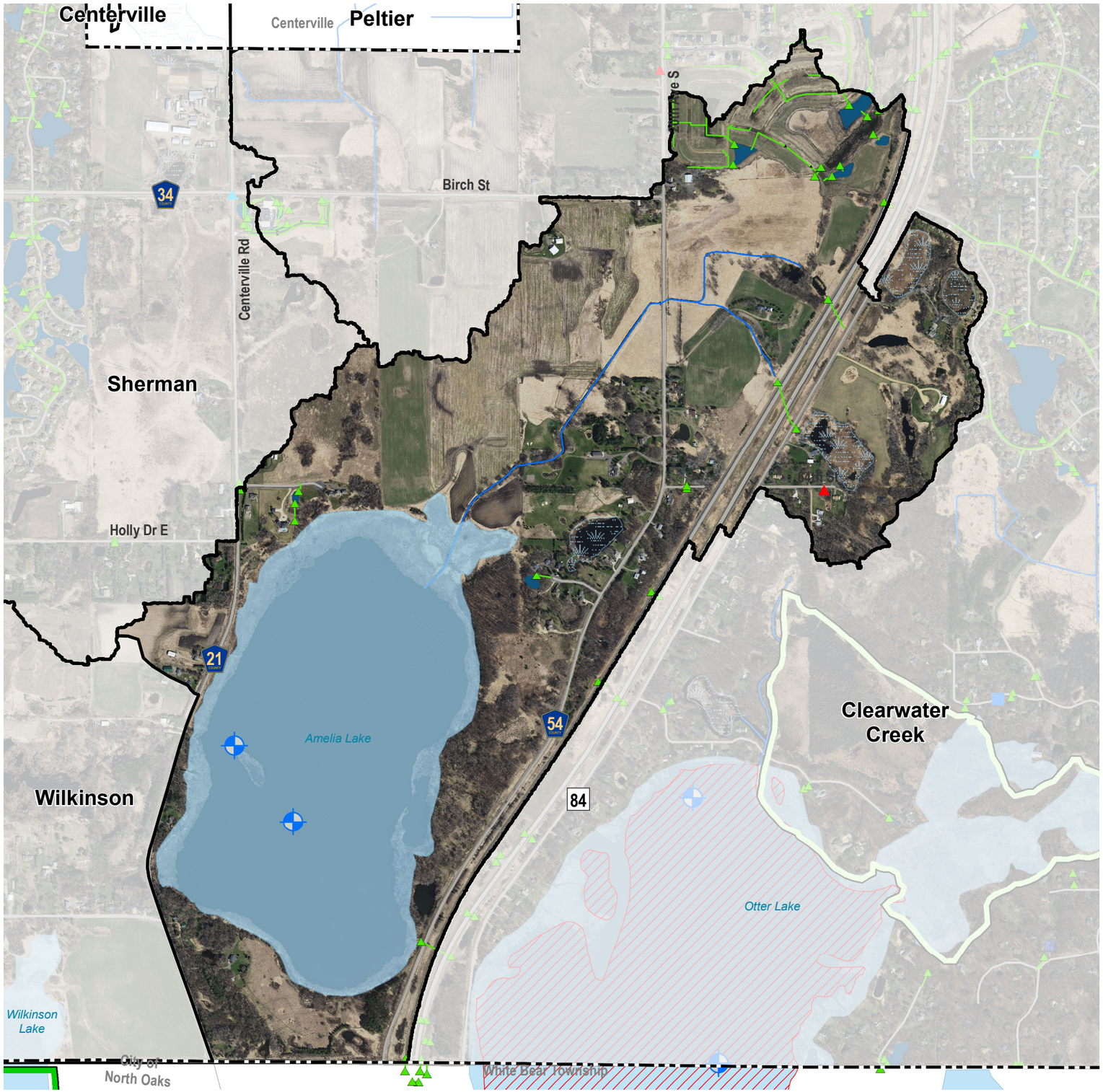
Table 2

Target dates the applicable WLA(s) will be achieved. PART II.D.6.f.(4)

TMDL Project	Target Date to Achieve WLA

Appendix B – RMU Issues and Strategies

RMU: Amelia



- Storm Sewer
- Underground Storage Chambers
- Pervious Pavers
- Stormwater Detention Ponds

MPCA Environmental Sites

- Air
- Investigation and Cleanup
- Water
- Hazardous Waste
- Solid Waste
- Tanks and Leaks
- Multiple Activities

MBS Sites of Biodiversity Significance

- Outstanding
- High
- Moderate
- Below
- RCWD Watercourses
- Anoka County or Private Ditches
- Boat Launches
- MPCA Surface Water Monitoring Locations
- Impaired Lakes
- Impaired Streams
- DNR Public Waters
- DNR Public Wetlands
- Municipal Boundary
- Road Centerline

ISSUES:
-Riparian animal movement restricted
-Potential for excess nitrogen from agriculture activities in watershed
-Stormwater sensitive wetlands at risk

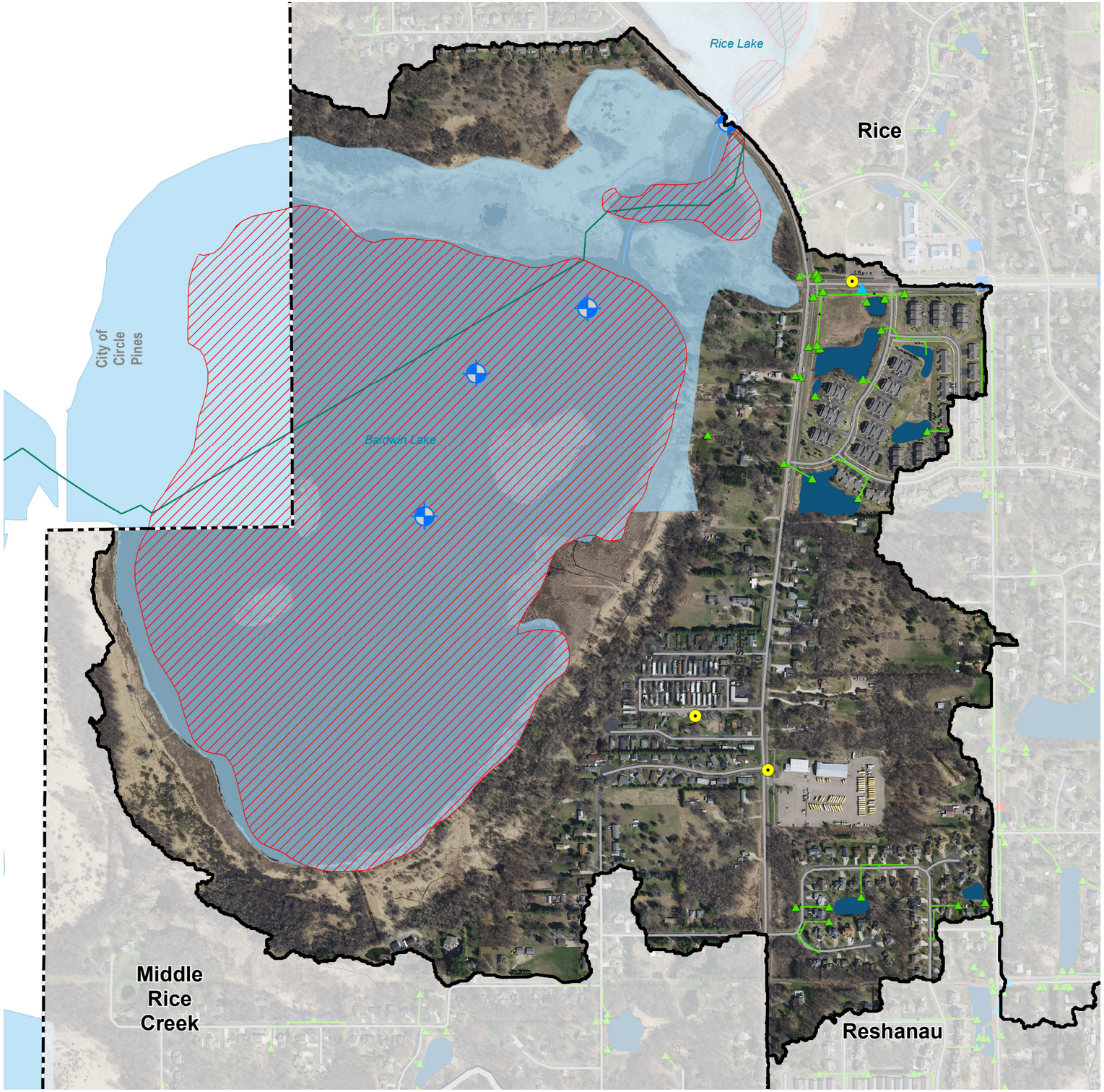
STRATEGIES:
-Collaborate with VLAWMO on future Sustainable Lake Management Plan
-Volume reduction retrofits
-Restore wetland on private ditch entering Amelia Lake

0 310 620 1,240 1,860 2,480
Feet

N

Sources: City of Lino Lakes, Rice Creek Watershed District, Vadnais Lakes Area Watershed Management Organization, Minnesota Pollution Control Agency, Minnesota Dept. of Natural Resources, Minnesota Biological Survey

RMU: Baldwin



- Storm Sewer
- Underground Storage Chambers
- Pervious Pavers
- Stormwater Detention Ponds

MPCA Environmental Sites

- Air
- Investigation and Cleanup
- Water
- Hazardous Waste
- Solid Waste
- Tanks and Leaks
- Multiple Activities

MBS Sites of Biodiversity Significance

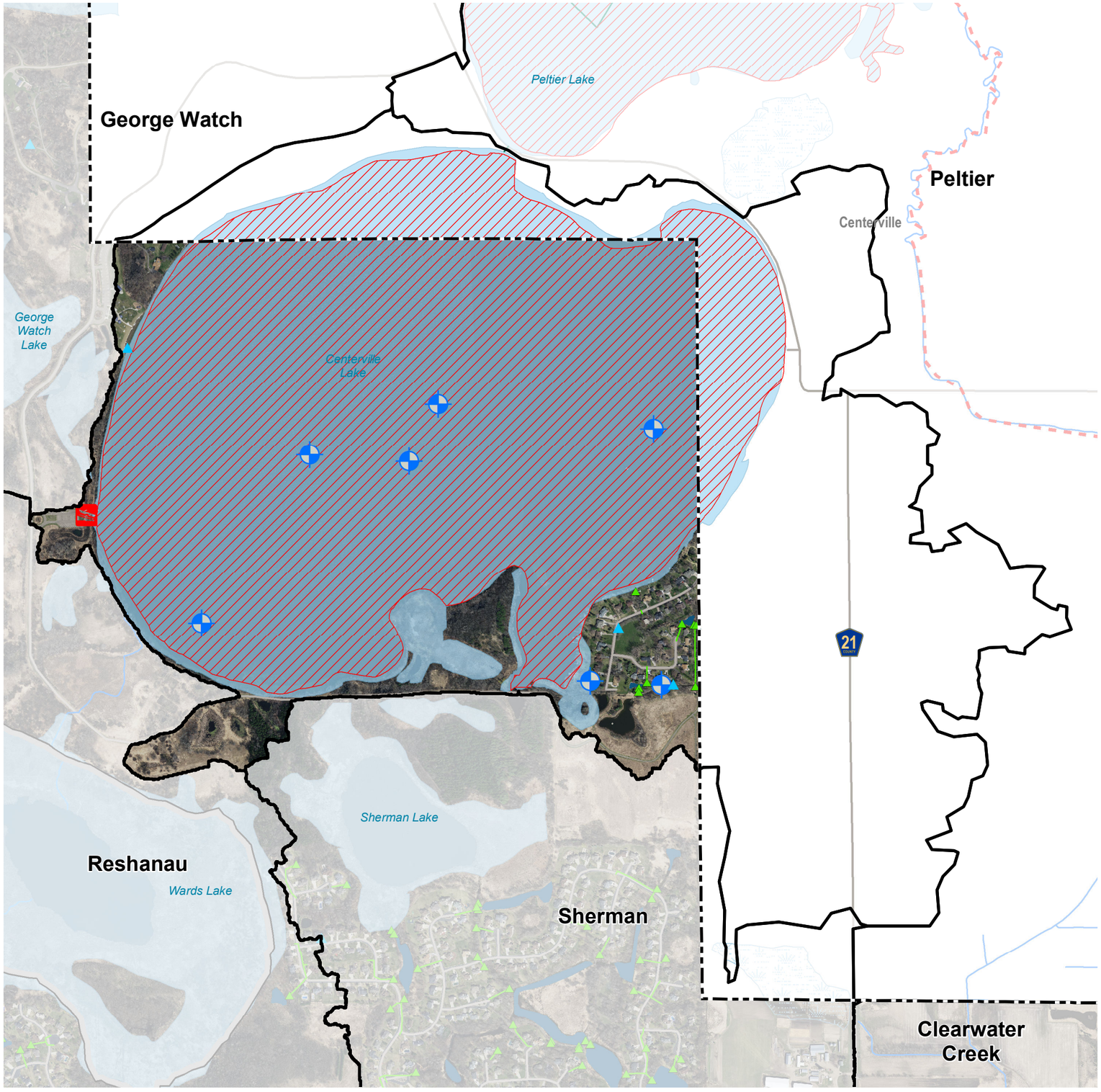
- Outstanding
- High
- Moderate
- Below
- RCWD Watercourses
- Anoka County or Private Ditches
- Boat Launches
- MPCA Surface Water Monitoring Locations
- Impaired Lakes
- Impaired Streams
- DNR Public Waters
- DNR Public Wetlands
- Municipal Boundary
- Road Centerline

0 195 390 780 1,170 1,560 Feet

N

Sources: City of Lino Lakes, Rice Creek Watershed District, Vadnais Lakes Area Watershed Management Organization, Minnesota Pollution Control Agency, Minnesota Dept. of Natural Resources, Minnesota Biological Survey

RMU: Centerville



- Storm Sewer
- Underground Storage Chambers
- Pervious Pavers
- Stormwater Detention Ponds

MPCA Environmental Sites

- Air
- Investigation and Cleanup
- Water
- Hazardous Waste
- Solid Waste
- Tanks and Leaks
- Multiple Activities

MBS Sites of Biodiversity Significance

- Outstanding
- High
- Moderate
- Below
- RCWD Watercourses
- Anoka County or Private Ditches
- Boat Launches
- MPCA Surface Water Monitoring Locations
- Impaired Lakes
- Impaired Streams
- DNR Public Waters
- DNR Public Wetlands
- Municipal Boundary
- Road Centerline

ISSUES:
-Total phosphorus levels exceed state standards

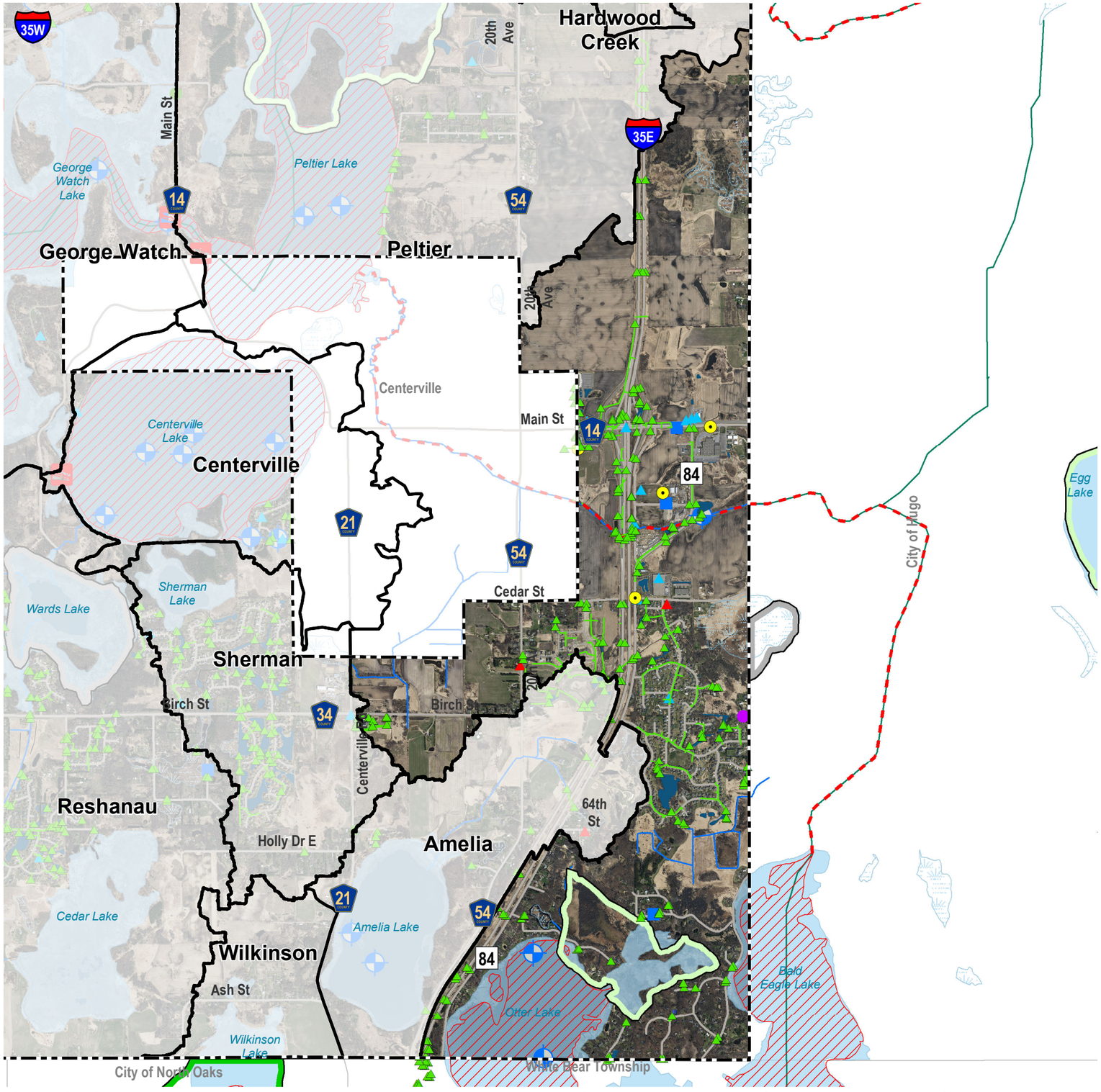
STRATEGIES:
-Collaborate with Centerville to reduce watershed TP loading entering Centerville
-Investigate load reduction retrofits in existing developed areas
-Evaluate effectiveness of LaMotte pond treatment

0 295 590 1,180 1,770 2,360 Feet

N

Sources: City of Lino Lakes, Rice Creek Watershed District, Vadnais Lakes Area Watershed Management Organization, Minnesota Pollution Control Agency, Minnesota Dept. of Natural Resources, Minnesota Biological Survey

RMU: Clearwater Creek



- Storm Sewer
- Underground Storage Chambers
- Pervious Pavers
- Stormwater Detention Ponds

MPCA Environmental Sites

- Air
- Investigation and Cleanup
- Water
- Hazardous Waste
- Solid Waste
- Tanks and Leaks
- Multiple Activities

MBS Sites of Biodiversity Significance

- Outstanding
- High
- Moderate
- Below
- RCWD Watercourses
- Anoka County or Private Ditches
- Boat Launches
- MPCA Surface Water Monitoring Locations
- Impaired Lakes
- Impaired Streams
- DNR Public Waters
- DNR Public Wetlands
- Municipal Boundary
- Road Centerline

ISSUES:
-Impaired waterbody
-Incised channel and failing streambanks
-Volume Constraints in ACD Tile Lines

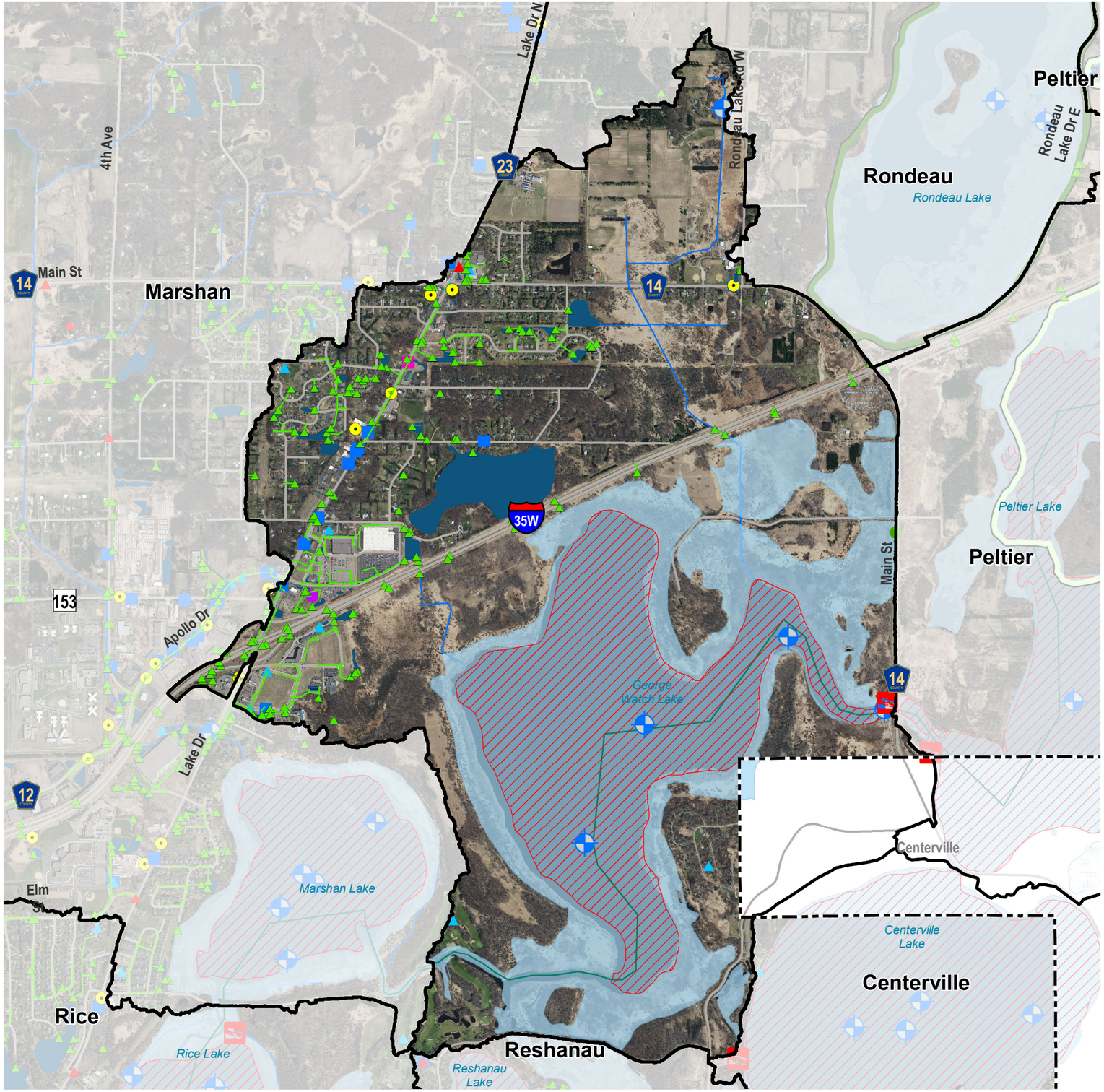
STRATEGIES:
-Implement CSMP for Area North of Main Street
-Restore wetlands along ACD 47 where feasible

0 750 1,500 3,000 4,500 6,000
Feet

N

Sources: City of Lino Lakes, Rice Creek Watershed District, Vadnais Lakes Area Watershed Management Organization, Minnesota Pollution Control Agency, Minnesota Dept. of Natural Resources, Minnesota Biological Survey

RMU: George Watch



- Storm Sewer
- Underground Storage Chambers
- Pervious Pavers
- Stormwater Detention Ponds

MPCA Environmental Sites

- Air
- Investigation and Cleanup
- Water
- Hazardous Waste
- Solid Waste
- Tanks and Leaks
- Multiple Activities

MBS Sites of Biodiversity Significance

- Outstanding
- High
- Moderate
- Below
- RCWD Watercourses
- Anoka County or Private Ditches
- Boat Launches
- MPCA Surface Water Monitoring Locations
- Impaired Lakes
- Impaired Streams
- DNR Public Waters
- DNR Public Wetlands
- Municipal Boundary
- Road Centerline

ISSUES:
-Threat to tamarack plant community from existing stormwater runoff
-High phosphorus loads from Peltier Lake affect George Watch
-Altered hydrology

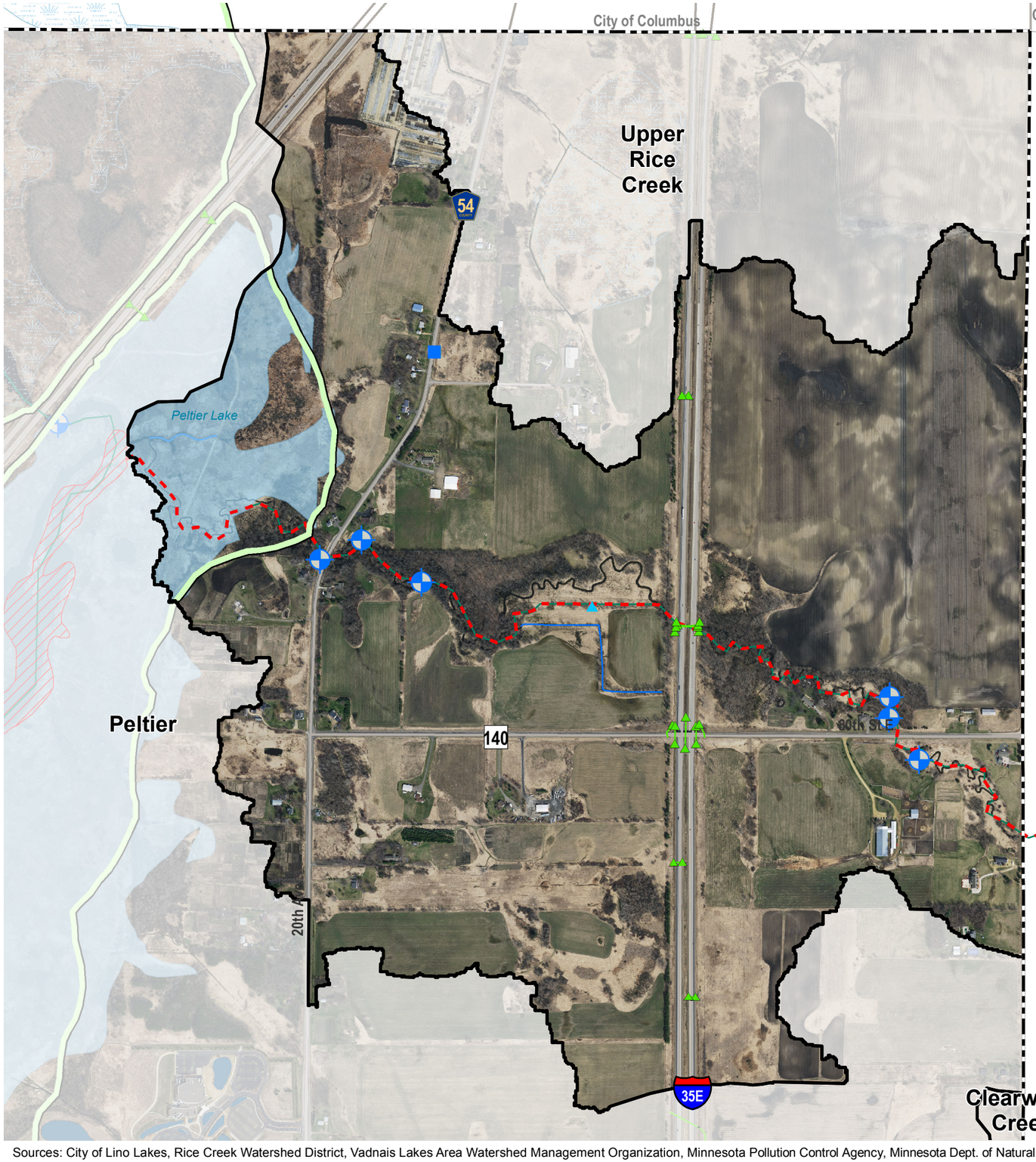
STRATEGIES:
-Eliminate surface water discharges to wetlands
-Investigate volume reduction retrofits in existing developed areas
-Detailed evaluation of infiltration feasibility
-Source control plan for areas north of CSAH 14 to prevent loading to wetlands
-Wetland restoration

0 550 1,100 2,200 3,300 4,400 Feet

N

Sources: City of Lino Lakes, Rice Creek Watershed District, Vadnais Lakes Area Watershed Management Organization, Minnesota Pollution Control Agency, Minnesota Dept. of Natural Resources, Minnesota Biological Survey

RMU: Hardwood Creek



- Storm Sewer
- Underground Storage Chambers
- Pervious Pavers
- Stormwater Detention Ponds

MPCA Environmental Sites

- Air
- Investigation and Cleanup
- Water
- Hazardous Waste
- Solid Waste
- Tanks and Leaks
- Multiple Activities

MBS Sites of Biodiversity Significance

- Outstanding
- High
- Moderate
- Below

- RCWD Watercourses
- Anoka County or Private Ditches
- Boat Launches
- MPCA Surface Water Monitoring Locations
- Impaired Lakes
- Impaired Streams
- DNR Public Waters
- DNR Public Wetlands
- Municipal Boundary
- Road Centerline

ISSUES:
-Impaired water
-Culvert crossings prevent aquatic species free passage

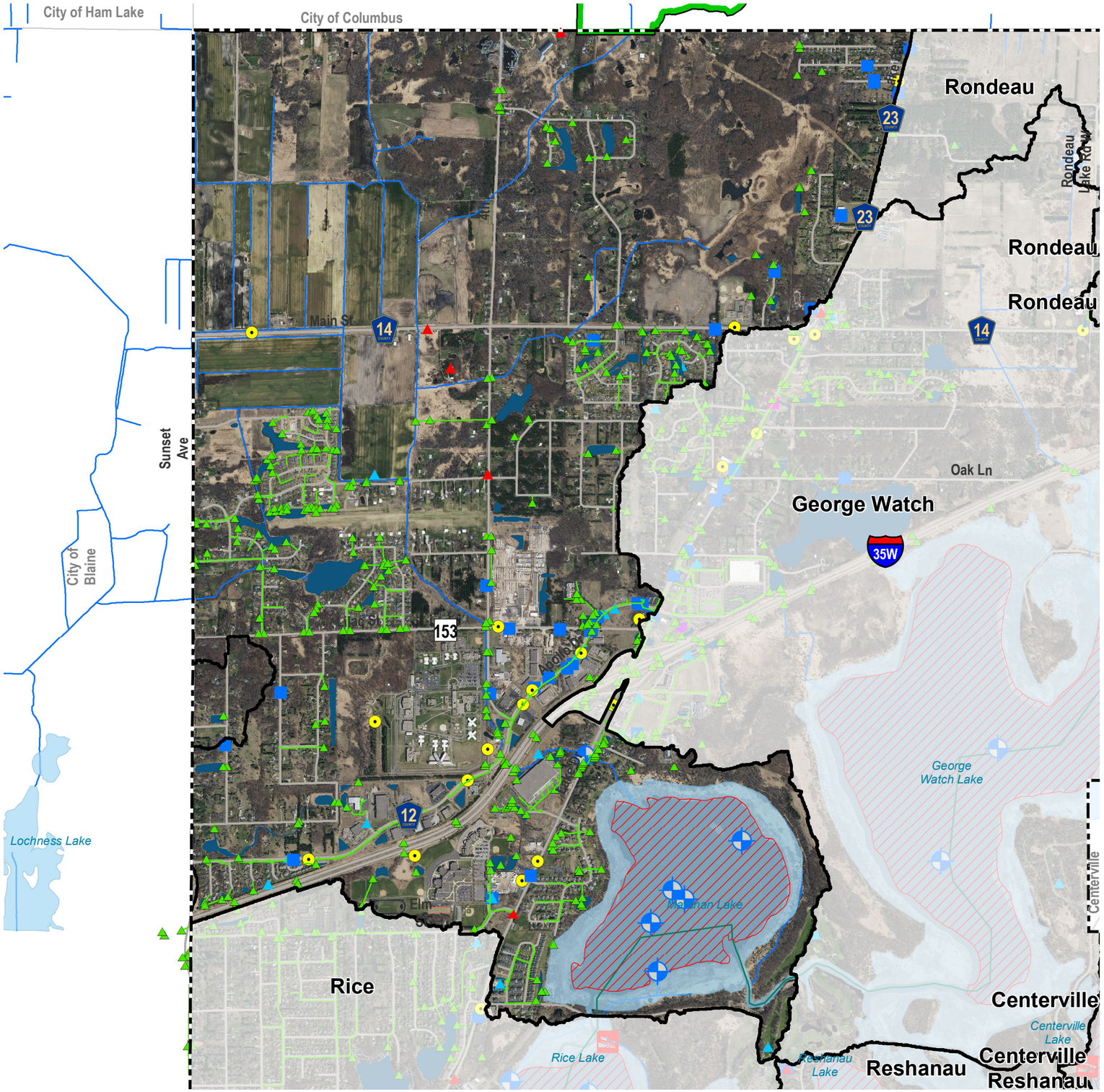
STRATEGIES:
-Complete Subwatershed Management Plan for Hardwood Creek

0 265 530 1,060 1,590 2,120
Feet

N

Sources: City of Lino Lakes, Rice Creek Watershed District, Vadnais Lakes Area Watershed Management Organization, Minnesota Pollution Control Agency, Minnesota Dept. of Natural Resources, Minnesota Biological Survey

RMU: Marshan



Storm Sewer
Underground Storage Chambers
Pervious Pavers
Stormwater Detention Ponds

MPCA Environmental Sites
- Air
- Investigation and Cleanup
- Water
- Hazardous Waste
- Solid Waste
- Tanks and Leaks
- Multiple Activities

MBS Sites of Biodiversity Significance
- Outstanding
- High
- Moderate
- Below

RCWD Watercourses
Anoka County or Private Ditches
Boat Launches
MPCA Surface Water Monitoring Locations
Impaired Lakes
Impaired Streams
DNR Public Waters
DNR Public Wetlands
Municipal Boundary
Road Centerline

ISSUES:
-ACD 10-22-32 ineffective for future urban runoff volumes
-Fragmented habitat
-High phosphorus loads from Peltier Lake affect Marshan
-Unregulated stormwater volumes

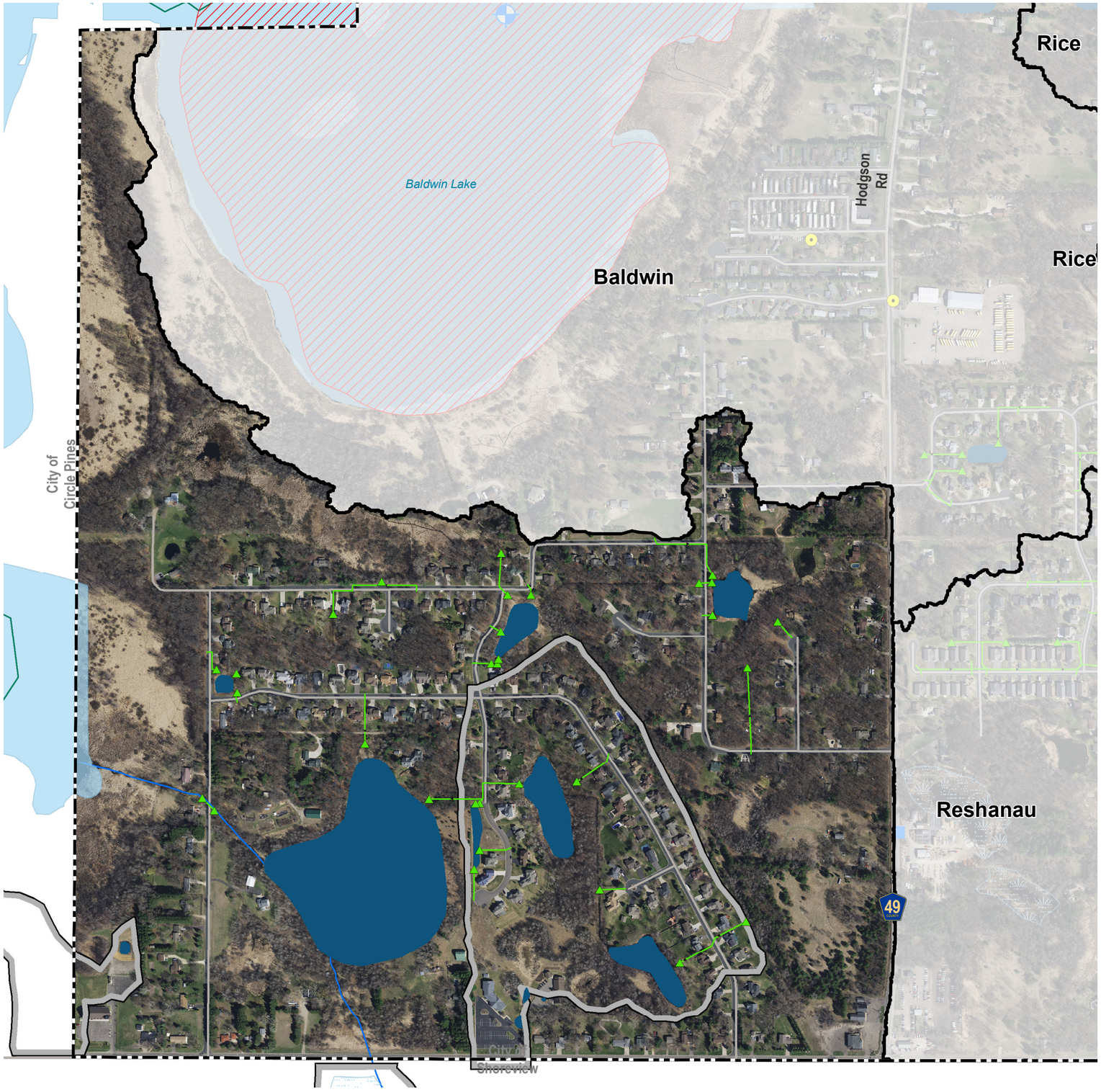
STRATEGIES:
-Proposed master community plan for sod fields
-Evaluate restoration potential for system-wide nutrient load reduction to Marshan
-Investigate volume reduction retrofits in existing developed areas
-Wetland mitigation banking
-Connect fragmented habitats as part of Greenway System Plan
-Volume reduction retrofits

0 600 1,200 2,400 3,600 4,800 Feet

N

Sources: City of Lino Lakes, Rice Creek Watershed District, Vadnais Lakes Area Watershed Management Organization, Minnesota Pollution Control Agency, Minnesota Dept. of Natural Resources, Minnesota Biological Survey

RMU: Middle Rice Creek



- Storm Sewer
- Underground Storage Chambers
- Pervious Pavers
- Stormwater Detention Ponds

MPCA Environmental Sites

- Air
- Investigation and Cleanup
- Water
- Hazardous Waste
- Solid Waste
- Tanks and Leaks
- Multiple Activities

MBS Sites of Biodiversity Significance

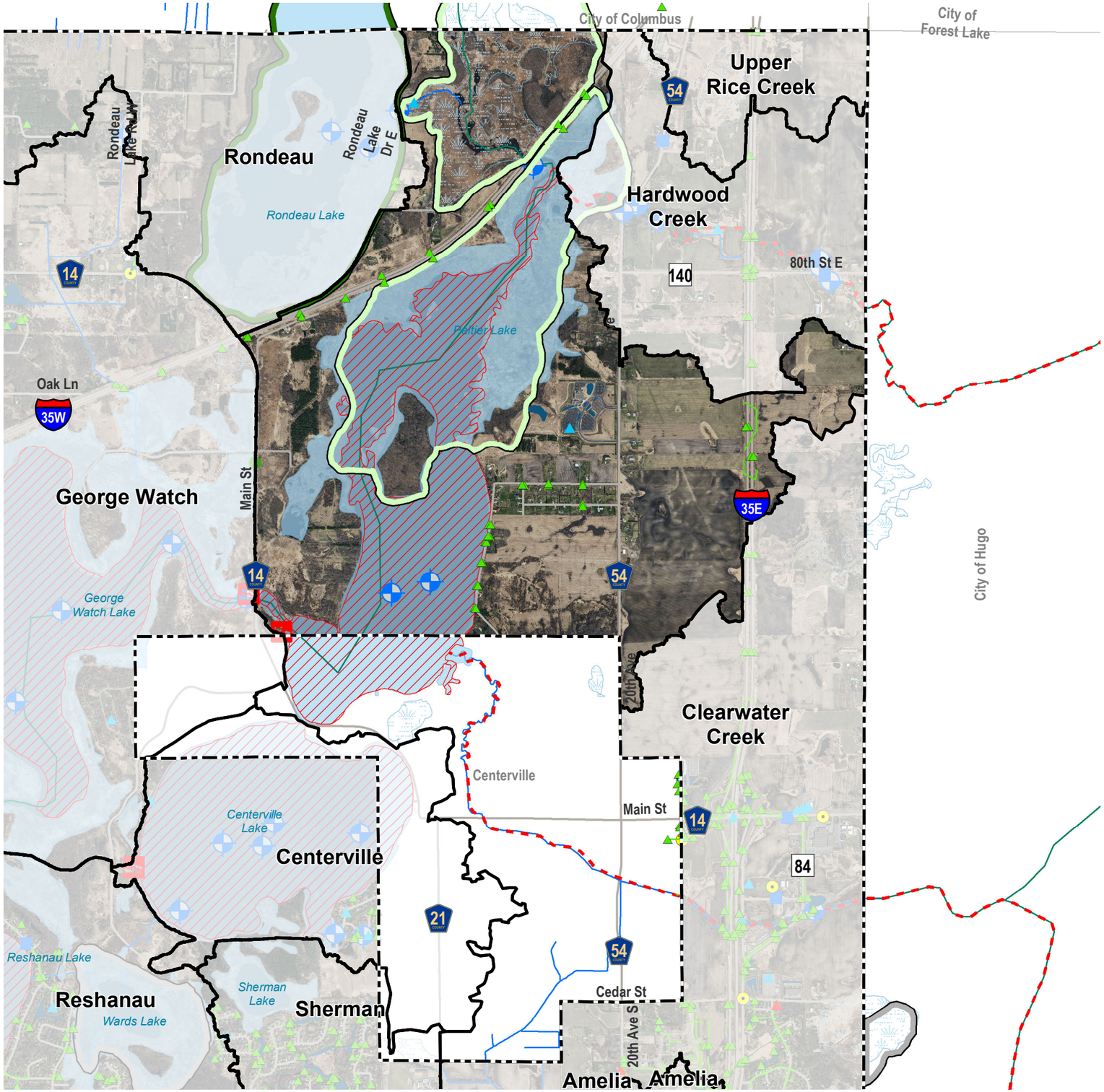
- Outstanding
- High
- Moderate
- Below
- RCWD Watercourses
- Anoka County or Private Ditches
- Boat Launches
- MPCA Surface Water Monitoring Locations
- Impaired Lakes
- Impaired Streams
- DNR Public Waters
- DNR Public Wetlands
- Municipal Boundary
- Road Centerline

0 170 340 680 1,020 1,360 Feet

N

Sources: City of Lino Lakes, Rice Creek Watershed District, Vadnais Lakes Area Watershed Management Organization, Minnesota Pollution Control Agency, Minnesota Dept. of Natural Resources, Minnesota Biological Survey

RMU: Peltier



- Storm Sewer
- Underground Storage Chambers
- Pervious Pavers
- Stormwater Detention Ponds

MPCA Environmental Sites

- Air
- Investigation and Cleanup
- Water
- Hazardous Waste
- Solid Waste
- Tanks and Leaks
- Multiple Activities

MBS Sites of Biodiversity Significance

- Outstanding
- High
- Moderate
- Below
- RCWD Watercourses
- Anoka County or Private Ditches
- Boat Launches
- MPCA Surface Water Monitoring Locations
- Impaired Lakes
- Impaired Streams
- DNR Public Waters
- DNR Public Wetlands
- Municipal Boundary
- Road Centerline

ISSUES:
-Impaired water for excess nutrients and mercury in fish tissue
-Unregulated volume
-ACD 55 and ACD 72 tile system ineffective for traditional urban runoff volumes
-Internal phosphorus loading in lake
-Blue Heron rookery
-Incised channel on Clearwater Creek
-Highly sensitive wetlands
-Existing floodprone areas associated with ACD 55 and 72, and Clearwater Creek

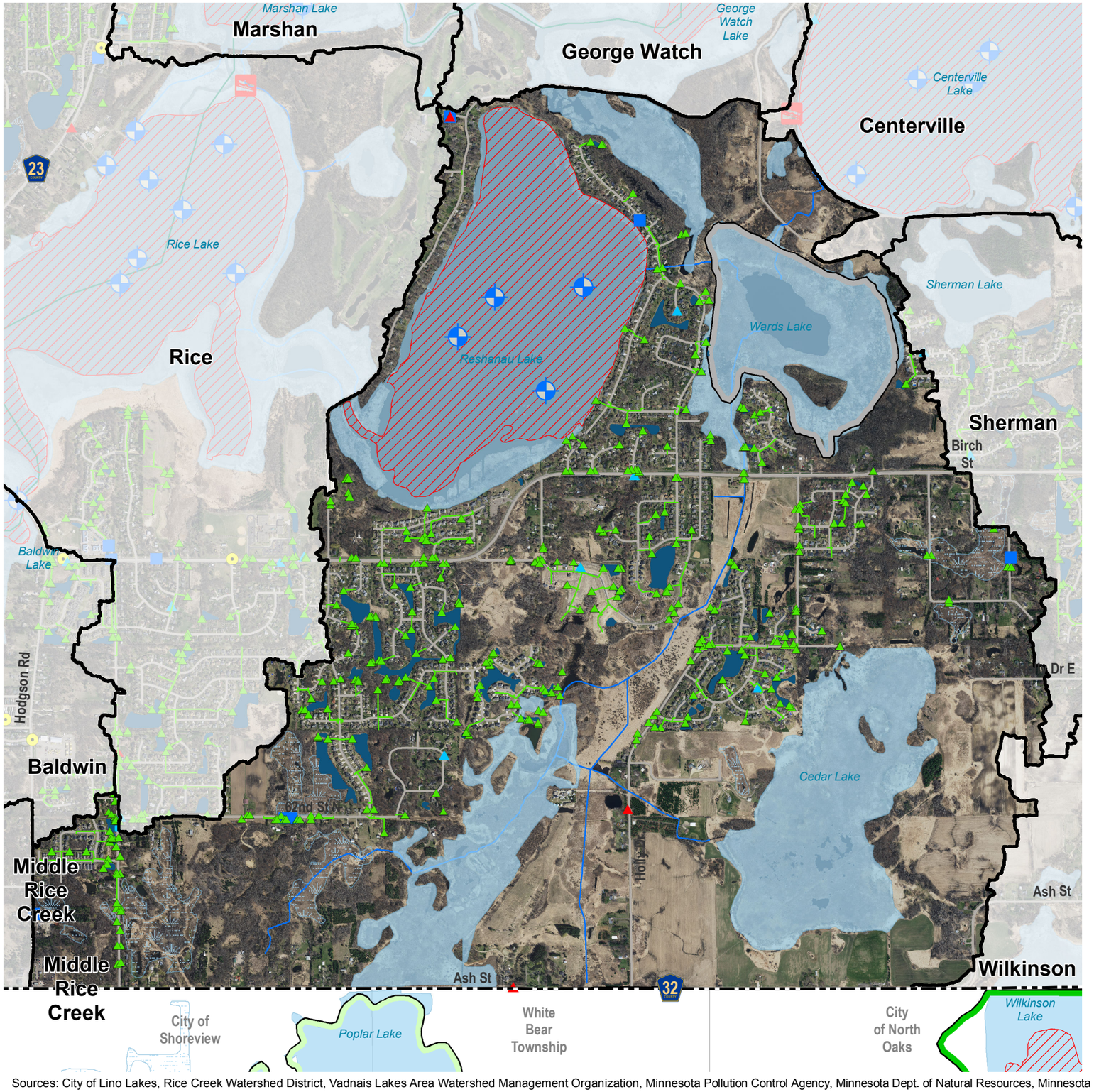
STRATEGIES:
-Investigate load reduction retrofits in existing developed areas
-Wetland restoration and volume credits for future development
-Northeast Lino Lakes Comprehensive Stormwater Mangement Plan and Greenway

0 700 1,400 2,800 4,200 5,600
Feet

N

Sources: City of Lino Lakes, Rice Creek Watershed District, Vadnais Lakes Area Watershed Management Organization, Minnesota Pollution Control Agency, Minnesota Dept. of Natural Resources, Minnesota Biological Survey

RMU: Reshanau



- Storm Sewer
- Underground Storage Chambers
- Pervious Pavers
- Stormwater Detention Ponds

MPCA Environmental Sites

- Air
- Investigation and Cleanup
- Water
- Hazardous Waste
- Solid Waste
- Tanks and Leaks
- Multiple Activities

MBS Sites of Biodiversity Significance

- Outstanding
- High
- Moderate
- Below
- RCWD Watercourses
- Anoka County or Private Ditches
- Boat Launches
- MPCA Surface Water Monitoring Locations
- Impaired Lakes
- Impaired Streams
- DNR Public Waters
- DNR Public Wetlands
- Municipal Boundary
- Road Centerline

ISSUES:
-Impaired water for excess nutrients
-High quality forest in WMC
-Unregulated volume
-ACD 25 has altered wetland hydrology
-Partially drained wetlands
-Stormwater sensitive wetlands at risk from stormwater runoff from existing conditions

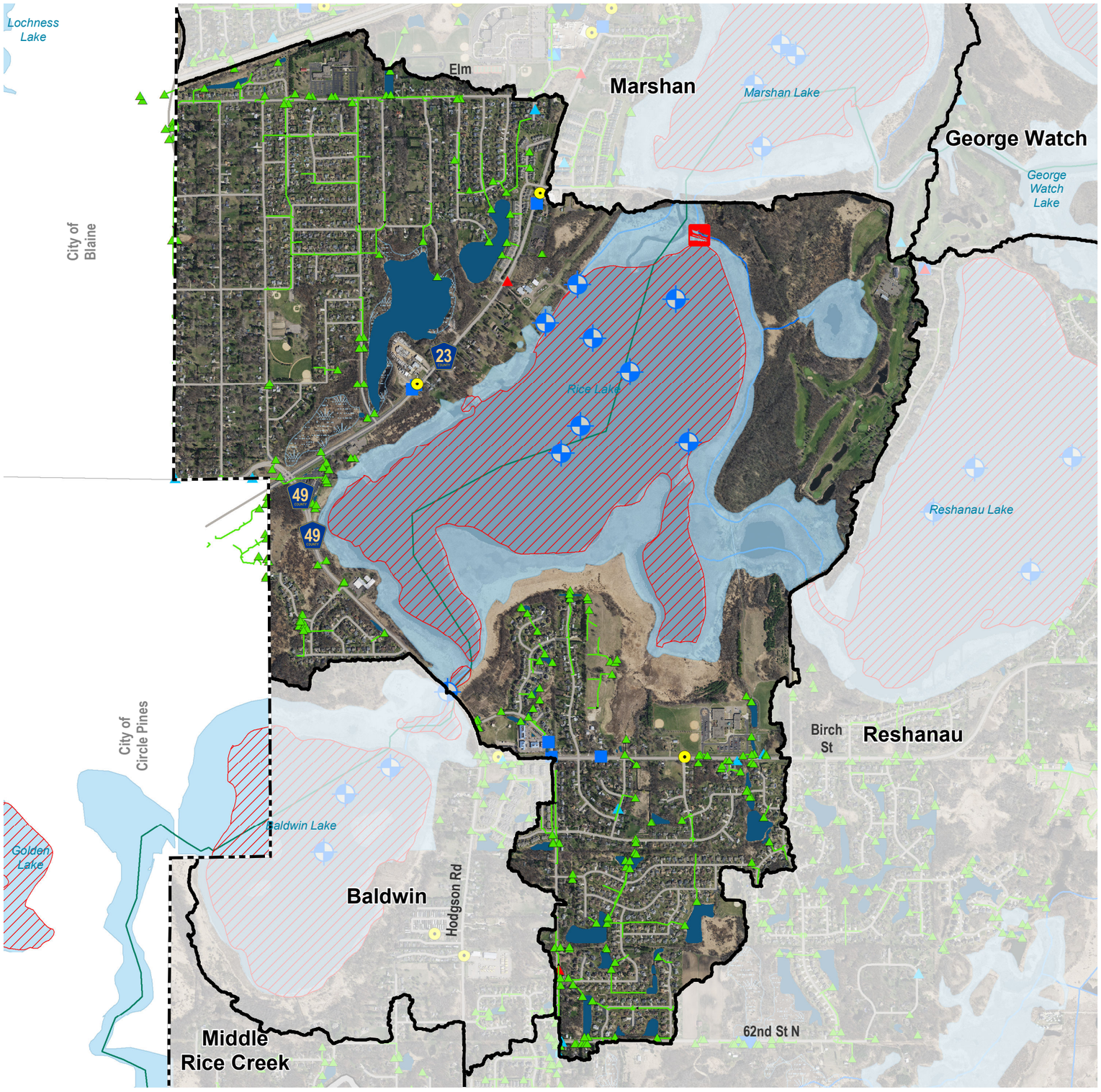
STRATEGIES:
-ACD 25 corridor is largely continuous has provides excellent opportunities for a greenway corridor
-Cedar Lake hydrologic and vegetative restoration
-ACD 25 wetland restoration
-Protect upland habitat area set asides
-Volume reduction retrofits
-Investigate load reduction retrofits in existing developed areas

0 500 1,000 2,000 3,000 4,000 Feet

N

Sources: City of Lino Lakes, Rice Creek Watershed District, Vadnais Lakes Area Watershed Management Organization, Minnesota Pollution Control Agency, Minnesota Dept. of Natural Resources, Minnesota Biological Survey

RMU: Rice



- Storm Sewer
- Underground Storage Chambers
- Pervious Pavers
- Stormwater Detention Ponds

MPCA Environmental Sites

- Air
- Investigation and Cleanup
- Water
- Hazardous Waste
- Solid Waste
- Tanks and Leaks
- Multiple Activities

MBS Sites of Biodiversity Significance

- Outstanding
- High
- Moderate
- Below
- RCWD Watercourses
- Anoka County or Private Ditches
- Boat Launches
- MPCA Surface Water Monitoring Locations
- Impaired Lakes
- Impaired Streams
- DNR Public Waters
- DNR Public Wetlands
- Municipal Boundary
- Road Centerline

ISSUES:
-Watershed is nearly fully developed urban land use
-Intercommunity flows from municipal storm sewer mains
-Stormwater ponds may be subject to flooding under future conditions
-Stormwater sensitive wetlands at risk from stormwater runoff from existing conditions
-Impaired water for excess nutrients
-Unregulated volume

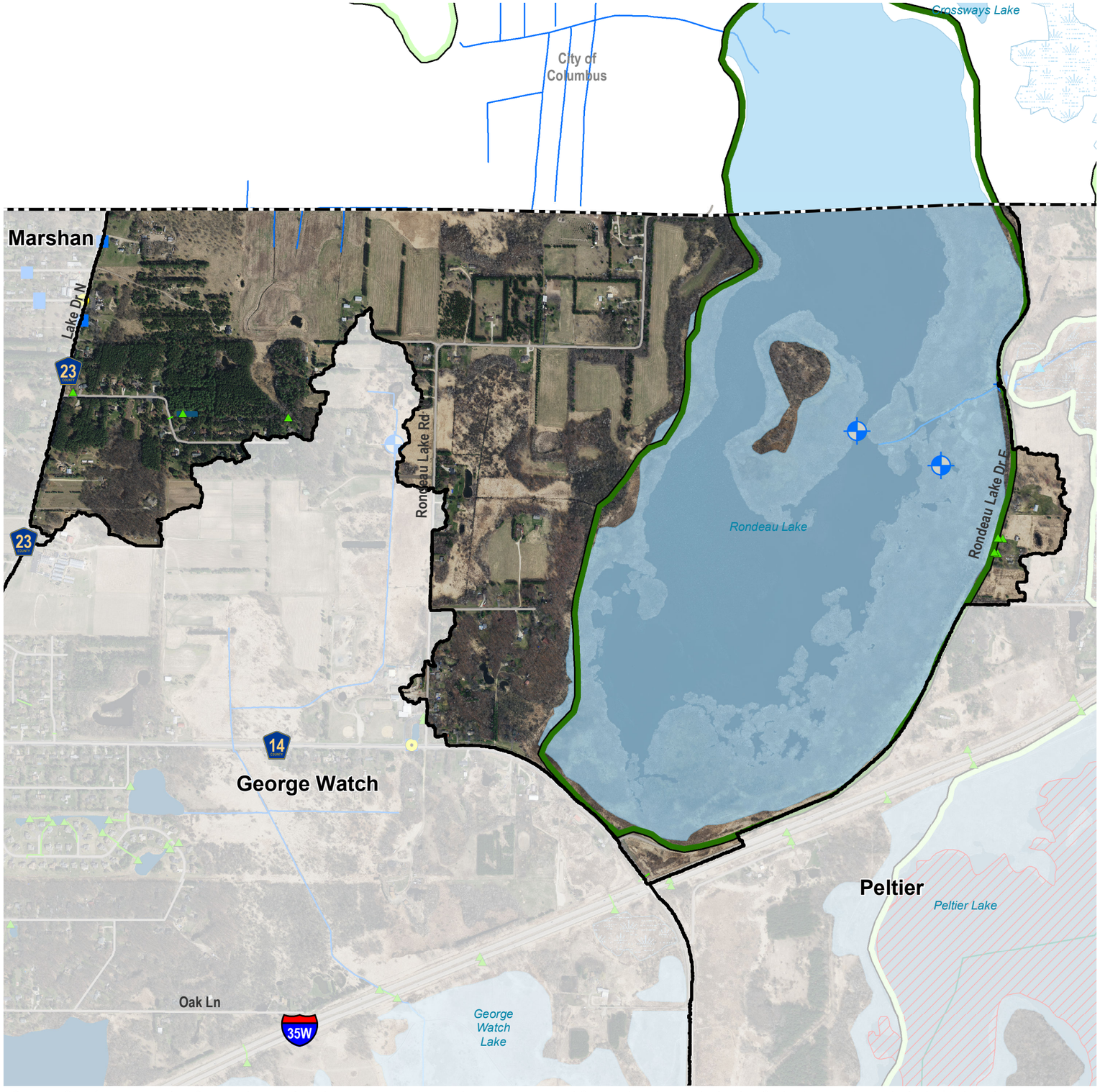
STRATEGIES:
-Implement green infrastructure urban retrofits
-Investigate stormwater volume reduction retrofits in existing developed areas
-Wetland restoration
-Detailed evaluation of infiltration feasibility
-Investigate load reduction retrofits in existing developed areas

0 475 950 1,900 2,850 3,800
Feet

N

Sources: City of Lino Lakes, Rice Creek Watershed District, Vadnais Lakes Area Watershed Management Organization, Minnesota Pollution Control Agency, Minnesota Dept. of Natural Resources, Minnesota Biological Survey

RMU: Rondeau



- Storm Sewer
- Underground Storage Chambers
- Pervious Pavers
- Stormwater Detention Ponds

MPCA Environmental Sites

- Air
- Investigation and Cleanup
- Water
- Hazardous Waste
- Solid Waste
- Tanks and Leaks
- Multiple Activities

MBS Sites of Biodiversity Significance

- Outstanding
- High
- Moderate
- Below
- RCWD Watercourses
- Anoka County or Private Ditches
- Boat Launches
- MPCA Surface Water Monitoring Locations
- Impaired Lakes
- Impaired Streams
- DNR Public Waters
- DNR Public Wetlands
- Municipal Boundary
- Road Centerline

ISSUES:
-Plant communities highly susceptible to urban stormwater
-Unregulated volume
-High quality wetlands at risk from stormwater runoff and future land development

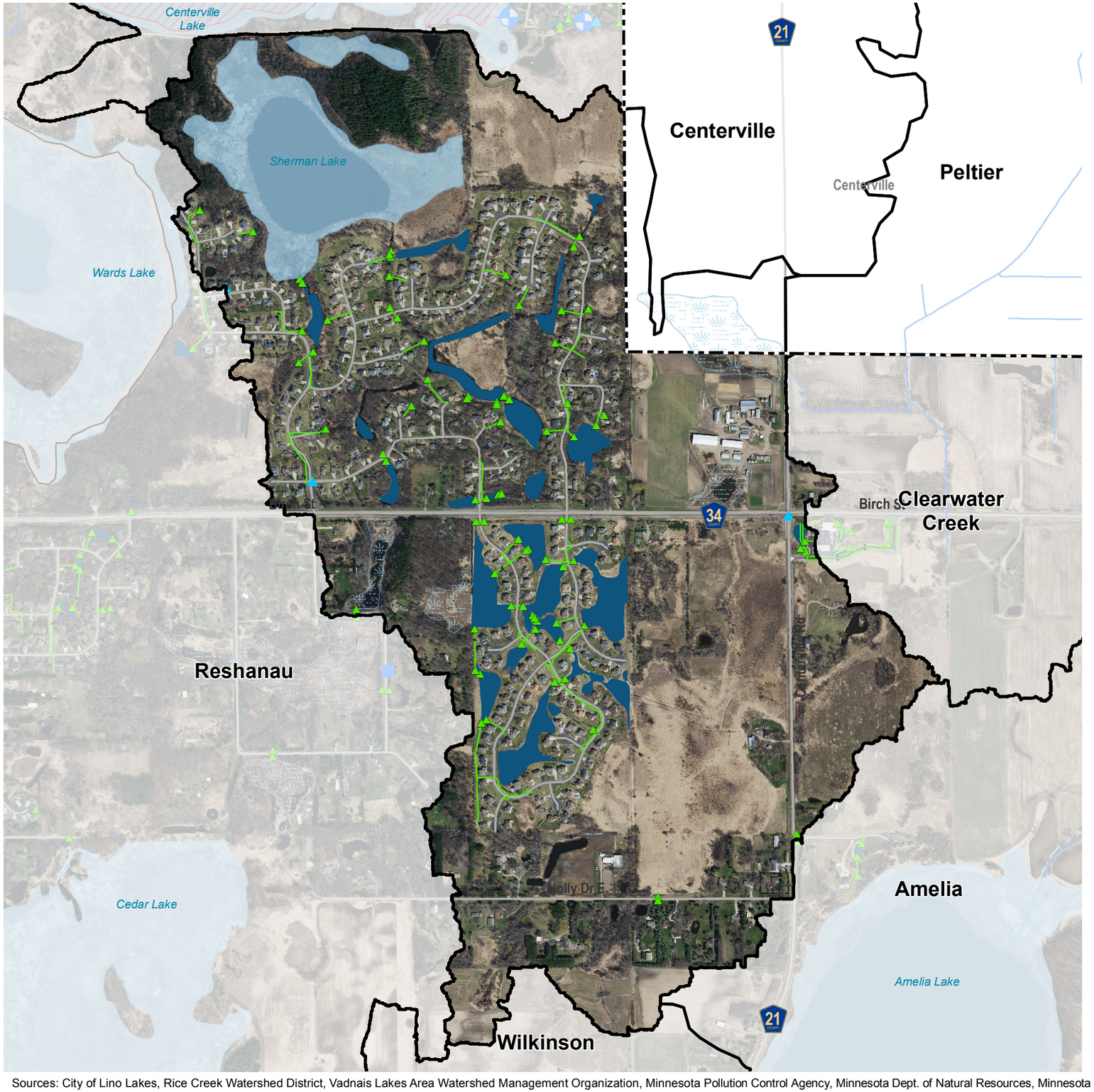
STRATEGIES:
-Assess potential for volume reduction retrofits in existing developed areas
-Develop long-term plan with the private duck club
-Watershed analysis of volume reduction BMP feasibility
-Avoid stormwater discharges to Rondeau from future land development
-Wetland protection and restoration

0 335 670 1,340 2,010 2,680
Feet

N

Sources: City of Lino Lakes, Rice Creek Watershed District, Vadnais Lakes Area Watershed Management Organization, Minnesota Pollution Control Agency, Minnesota Dept. of Natural Resources, Minnesota Biological Survey

RMU: Sherman



- Storm Sewer
- Underground Storage Chambers
- Pervious Pavers
- Stormwater Detention Ponds

MPCA Environmental Sites

- Air
- Investigation and Cleanup
- Water
- Hazardous Waste
- Solid Waste
- Tanks and Leaks
- Multiple Activities

MBS Sites of Biodiversity Significance

- Outstanding
- High
- Moderate
- Below
- RCWD Watercourses
- Anoka County or Private Ditches
- Boat Launches
- MPCA Surface Water Monitoring Locations
- Impaired Lakes
- Impaired Streams
- DNR Public Waters
- DNR Public Wetlands
- Municipal Boundary
- Road Centerline

ISSUES:
-Unregulated volume
-Stormwater sensitive wetlands at risk

STRATEGIES:
-Assess potential for volume reduction retrofits in existing developed areas

0 275 550 1,100 1,650 2,200
Feet

N

Sources: City of Lino Lakes, Rice Creek Watershed District, Vadnais Lakes Area Watershed Management Organization, Minnesota Pollution Control Agency, Minnesota Dept. of Natural Resources, Minnesota Biological Survey

RMU: Upper Rice Creek



- Storm Sewer
- Underground Storage Chambers
- Pervious Pavers
- Stormwater Detention Ponds

MPCA Environmental Sites

- Air
- Investigation and Cleanup
- Water
- Hazardous Waste
- Solid Waste
- Tanks and Leaks
- Multiple Activities

MBS Sites of Biodiversity Significance

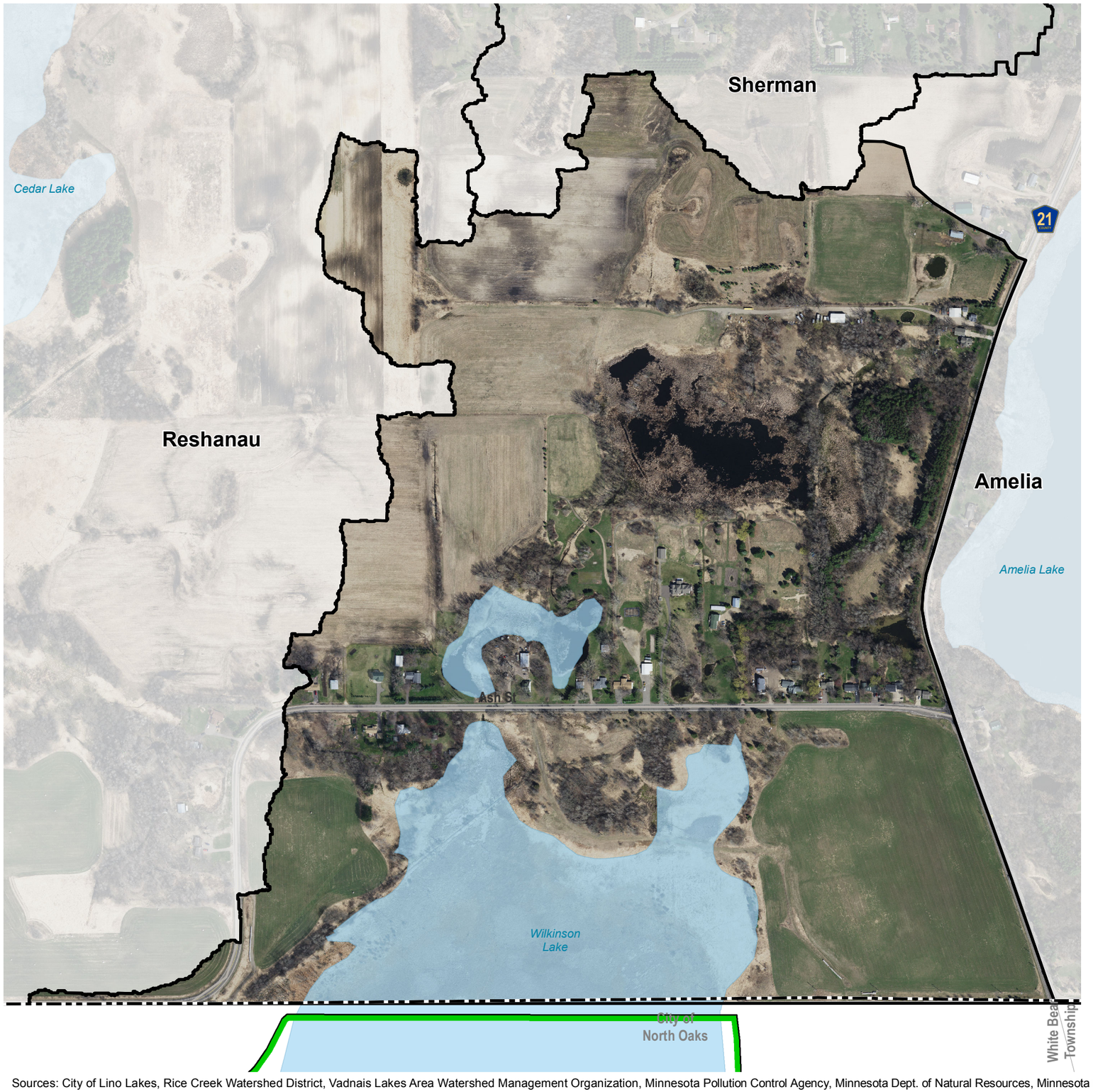
- Outstanding
- High
- Moderate
- Below
- RCWD Watercourses
- Anoka County or Private Ditches
- Boat Launches
- MPCA Surface Water Monitoring Locations
- Impaired Lakes
- Impaired Streams
- DNR Public Waters
- DNR Public Wetlands
- Municipal Boundary
- Road Centerline

0 160 320 640 960 1,280 Feet

N

Sources: City of Lino Lakes, Rice Creek Watershed District, Vadnais Lakes Area Watershed Management Organization, Minnesota Pollution Control Agency, Minnesota Dept. of Natural Resources, Minnesota Biological Survey

RMU: Wilkinson



- Storm Sewer
- Underground Storage Chambers
- Pervious Pavers
- Stormwater Detention Ponds

MPCA Environmental Sites

- Air
- Investigation and Cleanup
- Water
- Hazardous Waste
- Solid Waste
- Tanks and Leaks
- Multiple Activities

MBS Sites of Biodiversity Significance

- Outstanding
- High
- Moderate
- Below
- RCWD Watercourses
- Anoka County or Private Ditches
- Boat Launches
- MPCA Surface Water Monitoring Locations
- Impaired Lakes
- Impaired Streams
- DNR Public Waters
- DNR Public Wetlands
- Municipal Boundary
- Road Centerline

ISSUES:
-Total phosphorus levels exceed state standards
-Unregulated volumes
-Stormwater sensitive wetlands at risk
-Protect wildlife habitat and migratory refuge

STRATEGIES:
-Collaborate with VLAWMO to meet City reduction in TP per VLAWMO TMDL
-Require Better Site Design for new and redevelopment projects
-Assess potential for volume reduction retrofits in existing developed areas
-Incorporate habitat areas in Greenway System Plan

0 150 300 600 900 1,200 Feet

N

Sources: City of Lino Lakes, Rice Creek Watershed District, Vadnais Lakes Area Watershed Management Organization, Minnesota Pollution Control Agency, Minnesota Dept. of Natural Resources, Minnesota Biological Survey

Appendix C – City of Lino Lakes Ordinances

Chapter 1011: Stormwater, Erosion and Sediment Control

Chapter 1102: Shoreland Management Overlay

Chapter 1103: Floodplain Management

Print

CHAPTER 1011: STORMWATER, EROSION AND SEDIMENT CONTROL

Section

1011.001 Title
1011.002 Purpose
1011.003 Jurisdiction
1011.004 Statutory authority
1011.005 Findings
1011.006 Definitions
1011.007 Applicability
1011.008 Exemptions
1011.009 Technical reference
1011.010 Grading, erosion and sediment control requirements
1011.011 Stormwater management requirements
1011.012 Inspections and maintenance
1011.013 Plan review procedure
1011.014 Financial securities
1011.015 Enforcement
1011.016 Abrogation and greater restrictions

§ 1011.001 TITLE.

This chapter shall be known as the Lino Lakes Stormwater, Erosion and Sediment Control Chapter and will be referred to herein as this chapter.

(Ord. 09-15, passed 10-26-2015)

§ 1011.002 PURPOSE.

The general purpose of this chapter is to set forth regulatory requirements for land development and land disturbing activities aimed at minimizing threats to public health, safety, public and private property, and natural resources within the city from construction site erosion and post-construction stormwater runoff. Specific purposes are to establish performance standards that will:

(1) Protect life and property from dangers associated with flooding;

(2) Protect public and private property and the natural resources from damage resulting from runoff and construction site erosion;

(3) Ensure land development that minimizes the generation of stormwater runoff volumes and peak rates and maximizes pervious areas for stormwater treatment;

(4) Promote regional stormwater management by subwatershed;

(5) Provide a single, consistent set of performance standards that apply to all developments;

(6) Protect water quality from nutrients, heavy metals, bacteria, pathogens, debris, thermal stress, and other urban pollutants;

(7) Promote infiltration and groundwater recharge;

(8) Protect functional values of all types of natural water bodies (e.g., rivers, streams, wetlands, lakes, seasonal ponds); and

(9) Sustain or enhance biodiversity (native plant and animal habitat) and support riparian ecosystems.

(Ord. 09-15, passed 10-26-2015)

§ 1011.003 JURISDICTION.

The provisions of this chapter shall apply to all lands within the incorporated boundaries of Lino Lakes.

(Ord. 09-15, passed 10-26-2015)

§ 1011.004 STATUTORY AUTHORITY.

This chapter is adopted pursuant to the authorization and policies contained in M.S. Chs. 103B, 103F, and 462 and Minn. Rules Chs. 7050, 7090, and 8410. This chapter is intended to meet the current construction site erosion and sediment control and post-construction stormwater management regulatory requirements for construction activity and small construction activity as defined in the standards of the NPDES construction general permit, as amended.

(Ord. 09-15, passed 10-26-2015)

§ 1011.005 FINDINGS.

The city finds that uncontrolled stormwater runoff and construction site erosion from land development and land disturbing activity can have significant adverse impacts upon local and regional water resources diminishing the quality of public health, safety, public and private property, and natural resources of the city. Specifically, uncontrolled construction site erosion and stormwater runoff can:

(1) Threaten public health, safety, property, and general welfare by increasing runoff volumes, peak flood flows, and overburdening storm sewers, drainage ways, and other storm drainage systems;

(2) Diminish the capacity of lakes and streams to support fish, aquatic life, recreational and water supply uses by increasing pollutant loadings of total sediment, suspended solids, nutrients, heavy metals, bacteria, pathogens, and other urban pollutants;

(3) Degrade physical stream habitat by increasing stream bank erosion, increasing stream bed scour, diminishing groundwater recharge, diminishing stream base flows, and increasing stream temperatures;

(4) Undermine floodplain management efforts by increasing the incidence and levels of flooding;

(5) Alter wetland communities by changing wetland hydrology and increasing pollutant loading; and

(6) Generate airborne particulate concentrations that are health threatening or may cause other damage to property or the environment.

(Ord. 09-15, passed 10-26-2015)

§ 1011.006 DEFINITIONS.

Unless specifically defined below, words or phrases used in this chapter shall be interpreted so as to give them the same meaning as they have in common usage and to give this chapter its most reasonable application. For the purpose of this chapter, the words ***MUST*** and ***SHALL*** are mandatory and not permissive. All distances, unless otherwise specified, shall be measured horizontally. As used in this chapter, the following words and terms shall have the meanings ascribed to them in this section.

100-YEAR FLOOD ELEVATION. The elevation of water resulting from the Critical Duration Flood Event.

BEST MANAGEMENT PRACTICES (BMP's). Measures taken to minimize negative effects on water resources and systems as documented in the *Minnesota Construction Site Erosion and Sediment Control Planning Handbook* (MBWSR, 1988), *Protecting Water Quality in Urban Areas* (MPCA, 2000) and the *Minnesota Stormwater Manual* (MPCA, 2014) as amended.

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.

BIOFILTRATION. A stormwater quality and quantity BMP that utilizes vegetation and soil to filter and absorb pollutants including nutrients, hydrocarbons and metals and remove water volume through evapotranspiration.

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 confine and conduct water flowing either continuously or periodically.

CONSTRUCTION ACTIVITY. Includes construction activity as defined in 40 C.F.R. pt. 122.26(b)(14)(x) and small construction activity as defined in 40 C.F.R. pt. 122.26(b)(15). This includes a disturbance to the land that results in a change in the topography, existing soil cover (both vegetative and non-vegetative), or the existing soil topography that may result in accelerated stormwater runoff, leading to soil erosion and movement of sediment into surface waters or drainage systems. Examples of ***CONSTRUCTION ACTIVITY*** may include clearing, grading, filling, and excavating. ***CONSTRUCTION ACTIVITY*** includes the disturbance of less than one acre of total land area that is a part of a larger common plan of development or sale if the larger common plan will ultimately disturb one acre or more.

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.

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 a ***DEVELOPMENT***.

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 a watershed district under M.S. Chs. 103B, 103D, or 103E.

EMERGENCY OVERFLOW (EOF). A primary overflow to pass flows above the design capacity around the principal outlet safely downstream without causing flooding.

EROSION AND SEDIMENT CONTROL PLAN. A plan of BMPs or equivalent measures designed to control runoff and erosion and to retain or control sediment on land during the period of land disturbance in accordance with the standards set forth in this chapter.

EROSION PREVENTION. Measures employed to prevent erosion including, but not limited to, soil stabilization practices, limited grading, mulch, temporary or permanent cover, and construction phasing.

EXCAVATION. The displacement or removal of soil, sediment or other material.

FILTRATION. A stormwater quality BMP that uses either natural media such as soil or vegetation or manufactured media to trap pollutants such as nutrients and particles in surface water.

FINAL STABILIZATION. All soil disturbing activities at the site have been completed and all soils have to be stabilized by a uniform perennial vegetative cover with a density of 70% over the entire pervious surface area, or other equivalent means necessary to prevent soil failure under erosive conditions.

FLOODPLAIN. The areas adjoining a waterbody that are inundated during the 100-year flood.

FLOODWAY. The channel of a watercourse, the bed of water basins 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.

FREEBOARD. Vertical distance between the 100-year flood elevation or emergency overflow elevation of a water basin or watercourse and the elevation of the regulatory elevation of a structure.

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 water basin lacking an outlet at an elevation at or below the water level produced by the critical duration flood event, generally the ten-day snowmelt event.

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.

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.

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) STORMWATER DISCHARGE PERMIT. A permit issued by the Minnesota Pollution Control Agency that authorizes the discharge of pollutants to the waters of the state.

NATIONWIDE URBAN RUNOFF PROGRAM (NURP). Urban Runoff Program developed by the Environmental Protection Agency to study stormwater runoff from urban development.

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.

OWNER. The person or party possessing the title of the land on which the construction activities will occur; or if the construction activity is for a lease, easement, or mineral rights license holder, the party or individual identified as the lease, easement, or mineral rights license holder; or the contracting government agency responsible for the construction activity.

PUBLIC LINEAR PROJECT. A project involving a roadway, sidewalk, trail or utility not part of an industrial, commercial, institutional or residential development.

RECONSTRUCTION. Removal of an impervious surface such that the underlying structural aggregate base is effectively removed and the underlying native soil exposed.

SEASONAL HIGH WATER TABLE. The highest known seasonal elevation of groundwater as indicated by redoximorphic features such as mottling within the soil.

SATURATED SOIL. The highest seasonal elevation in the soil that is in a reduced chemical state because of soil voids being filled with water. Saturated soil is evidenced by the presence of mottled features or other information.

SEDIMENT CONTROL. Methods employed to prevent sediment from leaving the site. ***SEDIMENT CONTROL*** practices include silt fences, sediment traps, earth dikes, drainage swales, check dams, subsurface drains, pipe slope drains, storm drain inlet protection, and temporary or permanent sedimentation basins.

SHORELAND. Land located within the following distances from the ordinary high water elevation of public waters:

(a) Land within 1,000 feet from the normal high watermark of a lake, pond or flowage; and

(b) Land within 300 feet of a river or stream or the landward size of a floodplain delineated by ordinance on the river or stream, whichever is greater.

STABILIZED. The exposed ground surface has been covered by appropriate materials such as mulch, staked sod, riprap, erosion control blanket, mats or other material that prevents erosion from occurring. Applying mulch, hydromulch, tackifier, polyacrylamide, or similar erosion prevention practices is not

acceptable stabilization in temporary or permanent drainage ditches or areas where concentrated overland flow occurs. Grass seeding is not stabilization.

STANDARD PLATES. General drawings having or showing similar characteristics or qualities that are representative of a construction activity or practice.

STORMWATER. Defined under Minn. Rules 7077.0105, Subd. 41(b), meaning precipitation runoff, stormwater runoff, snowmelt runoff, and any other surface runoff and drainage.

STORMWATER FACILITY, PRIVATE. Any BMP that is maintained by a private property owner, or other private entity and not maintained by a public agency.

STORMWATER MANAGEMENT PLAN. A plan for the permanent management and control of runoff prepared and implemented in accordance with the standards set forth in this chapter.

STORMWATER POLLUTION PREVENTION PLAN. A document which describes the best management practices and activities to be implemented by a person or business to identify sources of pollution or contamination at a site and the actions to eliminate or reduce pollutant discharges to stormwater, stormwater conveyance systems, and/or waterbodies to the maximum extent practicable.

STORMWATER POND. Constructed basins placed in the landscape to capture stormwater runoff.

SURFACE WATERS. All streams, lakes, ponds, marshes, wetlands, reservoirs, springs, rivers, drainage systems, waterways, watercourses, and irrigation systems whether natural or artificial, public or private.

UNDERGROUND WATERS. Water contained below the surface of the earth in the saturated zone including, without limitation, all waters whether under confined, unconfined, or perched conditions, in near surface unconsolidated sediment or regolith, or in rock formations deeper underground. The term ***GROUND WATER*** shall be synonymous with underground water.

WATER QUANTITY BEST MANAGEMENT PRACTICE. The use of on-site runoff management practices such as biofiltration, infiltration, buffers/conservation areas, impervious disconnection, and greenway connections to satisfy stormwater management requirements.

WATERS OF THE STATE. As defined in M.S. § 115.01, Subd. 22, means all streams, lakes, ponds, marshes, watercourses, waterways, wells, springs, reservoirs, aquifers, irrigation systems, drainage systems, and all other bodies or 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.

WETLAND. Land transitional between terrestrial and aquatic systems, as defined in M.S. § 103G.005, Subd. 19.

(Ord. 09-15, passed 10-26-2015)

§ 1011.007 APPLICABILITY.

All land disturbing activity may be subject to standard erosion and sediment control BMPs. A grading, erosion and sediment control permit and/or a stormwater management permit shall be required for projects that meet or exceed the thresholds established in §§ 1011.009 and 1011.010.

(Ord. 09-15, passed 10-26-2015)

§ 1011.008 EXEMPTIONS.

The following land disturbing activities will be exempt from the grading, erosion and sediment control and stormwater management permit requirements of this chapter:

(1) Cemetery graves;

(2) Routine agricultural activity such as tilling, planting, or harvesting of agricultural, horticultural, or silvicultural (forestry) crops; and

(3) Emergency work necessary to protect life, limb, or property.

(Ord. 09-15, passed 10-26-2015)

§ 1011.009 TECHNICAL REFERENCES.

The following documents shall be used for technical reference:

(1) *The Lino Lakes Surface Water Management Plan.*

(2) *The Lino Lakes Engineering Design Details.*

(3) *The Lino Lakes Standard City Specifications.*

(4) *The Rice Creek Watershed District (RCWD) Rules.*

(5) *The Vadnais Lakes Area Watershed Management Organization (VLAWMO) Rules.*

(Ord. 09-15, passed 10-26-2015)

§ 1011.010 GRADING, EROSION AND SEDIMENT CONTROL REQUIREMENTS.

(1) *Grading, erosion and sediment control (ESC).* A grading, erosion and sediment control (ESC) permit including a grading, erosion and sediment control plan shall be required for all proposed land disturbing activity unless otherwise exempted in this chapter that meets any or all of the following:

(a) Includes excavation, filing, or stockpiling of erodible material in excess of 50 cubic yards per acre;

(b) Involves the laying, repairing, replacing, or enlarging of an underground utility, pipe or other facility, or the disturbance of road ditch, grass swale, or other open channel for a distance of 500 feet or more;

(c) Disturbs more than one acre of land or 10,000 square feet if within 300 feet of a lake, stream or wetland and drains towards it; and/or

(d) A land disturbing activity, regardless of size, that the city determines is likely to cause an adverse impact to an environmentally sensitive area or other property.

(2) *Grading, erosion and sediment control plan design standards.* Grading, erosion and sediment control plans must comply with the following criteria:

(a) All plans shall be consistent with national pollutant discharge elimination permit (NPDES) requirements, the city engineering design standards, the Lino Lakes stormwater detail plates, and the filing or approval requirements of Rice Creek Watershed District, Vadnais Lakes Watershed Management Organization, Anoka County, Minnesota Department of Natural Resources, Minnesota Department of Transportation, Minnesota Pollution Control Agency, U.S. Army Corps of Engineers, State of Minnesota Stormwater Manual or other regulatory agencies;

(b) Natural site topography and soil conditions must be specifically addressed to reduce erosion and sedimentation during construction and after project completion;

(c) Site erosion and sediment control practices must be consistent with the Minnesota Pollution Control Agency document *Protecting Water Quality in Urban Areas* (2000), as amended, city-specific written design guidance, and be sufficient to retain sediment on-site;

(d) The project must be phased as best possible to minimize disturbed areas and removal of existing vegetation until necessary for project progress;

(e) The city may require additional erosion and sediment control measures on areas with a continuous slope leading to a sensitive, impaired or special water body, stream, ditch or wetland to assure retention of sediment on site;

(f) When site restrictions do not allow for a temporary sediment basin or less than the required acreage is being developed, temporary sediment basins, where appropriate, are encouraged. They are not required in areas with steep slopes, highly erodible soils, or to take equivalent measures such as smaller basins, check dams, and vegetated buffer strips;

(g) The plan must include conditions adequate to protect facilities to be used for post-construction stormwater infiltration;

(h) The plan must include conditions to minimize off-site sediment transport on trucks and equipment, such as rock entrances;

(i) The plan must minimize work in and adjacent to water bodies and wetlands;

(j) Stable slopes shall be maintained throughout the construction process.

(k) Steep slopes and the need for high cuts and fills shall be avoided (no slopes greater than 3(h): 1(v), except as approved by the City Engineer).

(l) Protection shall be provided to minimize disturbance to surrounding soils, root systems and trunks of trees adjacent to site activity that are intended to be left standing.

(m) Compaction of site soils shall be minimized.

(n) All imported materials shall be approved by the City Engineer prior to placement on the site.

(o) Appropriate on-site containment must be provided for all trash, solid waste, construction debris, floating debris, and hazardous materials. Disposal of collected sediment shall be deposited only in approved locations.

(3) *Grading, erosion and sediment control (ESC) required exhibits.* The plan shall be prepared and signed by a duly licensed professional engineer in the State of Minnesota. The following exhibits must accompany the permit application: two plan sets, full size (22 inches by 34 inches); one plan set, reduced to maximum size of 11 inches by 17 inches. Additional copies may be required in accordance with applicable zoning and subdivision provisions of city code. All plan sets shall also be submitted electronically in a .dwg format or as otherwise determined by the City Engineer. The minimum requirements of the grading, erosion, and sediment control plan shall be consistent with the most recent version of the NPDES permit requirements and include the following information:

(a) Project name and type (residential, commercial, industrial, road construction, or other);

(b) Project location;

(c) County parcel identification number (legal description);

(d) Names and addresses of the record owner, developer, land surveyor, engineer, designer of the plat, and any agents, contractors, and subcontractors who will be responsible for project implementation, including the name, address and phone number of the party responsible for maintenance of all erosion and sediment control measures;

(e) Tabulation of construction implementation schedule, including: estimated start date, time frames, and schedules for each construction phase, and completion date;

(f) Copies of permits or permit applications required by any other government entity or agencies including mitigation measures required as a result of any review for the project (e.g., wetland mitigation, EAW, EIS, archaeology survey);

(g) *Existing conditions map.* An existing topographic site map, drawn to a legible scale and clearly labeled with a north arrow and date of preparation. The plan, based on a certificate of survey, shall include the following information:

1. Property lines and lot dimensions;

2. Existing zoning classifications for land within and abutting the development, including shoreland, floodway, floodway fringe, or general floodplain, and other natural resource overlay districts;

3. All buildings and outdoor uses including all dimensions and setbacks;

4. All public and private roads, interior roads, driveways and parking lots;

5. Show ordinary high water marks of all navigable waters, 100-year critical flood duration event elevations, and delineated wetland boundaries, if any. If not available, appropriate flood zone determination or wetland delineation, or both, may be required at the applicant's expense;

6. Identify all special waters and impaired waters, as identified in the most recent listing by the MPCA, within one mile of the project that receive runoff from the project;

7. Location of drainage areas, existing storm sewer facilities, including pipes, manholes, catch basins, ponds, swales and drainage channels within 100 feet of the subject property. Existing pipe sizes, grades, rim and invert elevations, and normal and high water elevations must be included;

8. Existing contours at one foot intervals, shown as dashed lines for the subject property and extending 100 feet beyond the outside boundary of the proposed plat;

9. Steep slopes where areas with an average slope of more than 12% over a distance of at least 50 feet, or bluff areas as defined in the shoreland ordinance, whichever is applicable; and

10. Wooded areas, high quality native plant communities, or other officially designated natural resource areas.

(h) *Proposed conditions map.*

1. Maps identifying areas discussed in (3)(g)1. through (g)10. of this section.

2. Location, size, and approximate grade of proposed public sewer and water mains.

3. Elevations, sections, profiles, and details as needed to describe all natural and artificial features of the project.

4. Proposed grade contours at one-foot intervals shown as solid lines.

5. An estimate of the total volume (cubic yards) of materials proposed to be imported to or exported from the site.

6. Provisions for groundwater management (dewatering), including subsurface drains, disposals, ponding and flood controls.

7. Spot elevations at drainage break points and directional arrows indicating site swale and lot drainage.

8. Proposed lot lines, lot and block numbers, building style, building pad location and elevations at the lowest floor and garage slab, if applicable, for each lot.

9. Locations, sizes, grades, rim and invert elevations of all proposed stormwater facilities, including ponds, proposed to serve the subject property.

10. The location of all oversize, non-typical easements including conservation easements, if applicable.

11. Show the boundary of the 100-year flood elevations of all waterbodies.

12. Locations of all stormwater management practices, infiltration areas, and areas not to be disturbed during construction.

13. Normal water level, high water level, and emergency overflow elevations for the site and all associated ponding systems.

14. Location of areas where construction will be phased to minimize duration of exposed soil areas. Include map and calculations as necessary of areas of grubbing, clearing, tree removal, grading, excavation, fill, and other disturbance; areas of soil or earth material storage; quantities of soil or earth material to be removed, placed, stored, or otherwise moved on site, and delineated limits of disturbance.

15. Location and type of all temporary and permanent erosion prevention, sediment control, stormwater runoff, and soil stabilization BMPs, along with procedures to be used to establish additional temporary BMPs as necessary for the site conditions during construction. Standard plates and/or specifications for the BMP's used on the project must be included in the final plans and specifications for the project. Location and design of temporary sediment basins where ten acres or more (five acres or more for special or impaired waters) are disturbed and drained to a single point. When site restrictions do not allow for a temporary sediment basin or less than the required acreage is being developed, temporary sediment basins where appropriate are encouraged, but not required in areas with steep slopes or highly erodible soils or to take equivalent measures such as smaller basins, check dams, and vegetated buffer strips.

16. Methods to be used for final stabilization of all exposed soil areas.

17. Documentation that the project applicant has applied for the NPDES permit from the Minnesota Pollution Control Agency (MPCA), when applicable.

18. A stormwater pollution prevention plan for projects that require an NPDES permit.

(4) *Construction activity requirements.* Any activity subject to a permit under this chapter must conform to the standards of the NPDES general permit regarding construction-site erosion and sediment control.

(5) *Inspections.* (See also § 1101.011.)

(a) The applicant shall be responsible for inspection, maintenance and effectiveness of all erosion and sediment control measures until final soil stabilization is achieved.

(b) The city may inspect the project site and require the applicant to provide additional erosion control measures as it determined conditions warrant.

(6) *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) All temporary erosion and sediment control BMPs will be removed after all disturbed areas have been permanently stabilized.

(Ord. 09-15, passed 10-26-2015)

§ 1011.011 STORMWATER MANAGEMENT REQUIREMENTS.

(1) *Stormwater management.* A permit incorporating an approved stormwater management plan shall be required for all proposed land development activity including public linear projects, unless otherwise exempted in this chapter, which meets any or all of the following:

(a) A development, redevelopment or reconstruction, except public linear projects, that creates or reconstructs 10,000 square feet or more of impervious surface, including smaller individual sites that are part of a common plan of development that may be constructed at different times.

(b) A subdivision of an area exceeding one acre. This includes subdivision for single-family residential, multi-unit residential, commercial, industrial, or institutional development.

(c) For public linear projects, a permit is required to create or reconstruct 10,000 square feet or more of impervious surface through multiple phases or connected actions of a single project, as defined by the city.

(d) The site is within the 100-year floodplain; within 1,000 feet of a public water or protected wetland; impacts a wetland; and/or within 300 feet of Rice Creek, Clearwater Creek, Hardwood Creek, or a public ditch.

(e) Any land disturbing activity, regardless of size, that the city determines would otherwise cause an adverse impact to an environmentally sensitive area or other property.

(f) Stormwater management requirements do not apply to development of an individual lot within a residential subdivision if it conforms to an approved development plan.

(g) Stormwater management requirements do not apply to sidewalks and trails ten feet wide or less that are bordered down-gradient by vegetated open space or vegetated filter strip with a minimum width of five feet, however the grading, erosion and sediment control requirements are still effective.

(h) Stormwater management requirements do not apply to mill, reclamation and overlay projects that do not expose underlying soils.

(i) Stormwater Management Requirements do not apply to bridge span projects, however

grading, erosion and sediment control requirements are still effective.

(2) *Stormwater management performance standards.* Site plans for new development of any kind will be assessed for stormwater quantity control and stormwater quality management. The general policy on stormwater runoff rates is to reduce the impacts of development by maintaining predevelopment hydrological conditions in the following ways:

(a) *Use of natural topography.* The applicant shall incorporate the use of natural topography and land cover such as natural swales and depressions as they exist before development to the degree that they can accommodate the additional flow of water without compromising the integrity or quality of the receiving waterbody.

(b) *Minimize impact to natural features.* The development shall minimize impact to significant natural features. Applicant shall review the site for natural features protected under city, state or Federal requirements, including steep slopes, wetlands, wooded areas, endangered or threatened species, or species of concern habitat, areas designated by the county biological survey, greenways, parks and open space, groundwater recharge areas, wellhead or surface water protection areas or regional stormwater pond locations.

(c) *Conveyance system.* Wherever possible untreated and treated stormwater runoff shall be conveyed in facilities open to the atmosphere (e.g. swales, vegetated buffer strips, energy-dissipating structures, and the like) rather than through enclosed pipes, so as to decrease runoff velocity, allow for natural infiltration, allow suspended sediment particles to settle, and to remove pollutants.

(d) *Proposed development design shall:*

1. Maintain or decrease runoff volume;

2. Decrease erosion and sedimentation;

3. Maintain or decrease flow frequency, duration, and peak runoff rates;

4. Increase infiltration (groundwater recharge) or filtration;

5. Maintain existing flow patterns;

6. Reduce time to peak flows by increasing the time of concentration to and through storm sewers;

7. Provide storage of stormwater runoff on site;

8. Avoid channel erosion;

9. The proposed project must not adversely affect water level off the site during or after construction; and

10. The proposed activity may not reduce hydraulic efficiency of the drainage ways at any point up-gradient of the applicant's parcel boundary.

(e) *Landlocked basins.* A landlocked basin may be provided an outlet only if it:

1. Retains a hydrologic regime that complies with the requirements of the local governmental unit (LGU) responsible for administration of the Wetland Conservation Act (WCA);

2. Provides sufficient dead storage volume to retain back to back 100-year, 24-hour rainfalls and runoff; and

3. Does not create adverse downstream flooding or water quality conditions as a result of increased discharge rate or volume, or other factors.

(f) All plans shall be consistent with National Pollutant Discharge Elimination permit (NPDES) requirements, the Lino Lakes engineering design standards, the Lino Lakes stormwater design standards, and the filing or approval requirements of Rice Creek Watershed District, Vadnais Lakes Watershed Management Organization, Anoka County, Minnesota Department of Natural Resources, Minnesota Department of Transportation, Minnesota Pollution Control Agency, U.S. Army Corps of Engineers, State of Minnesota Stormwater Manual or other regulatory agencies.

(g) The City of Lino Lakes may develop a comprehensive stormwater management plan (CSMP) as an alternative way to meet the stormwater requirements of the local watershed agencies for development within a defined area and a common resource of concern (ROC). The CSMP will be submitted to the applicable watershed district for review and must comply with the requirements of the watershed district.

(3) *Stormwater management plan modeling requirements.*

(a) A hydrograph method or computer program based on Natural Resources Conservation Service Technical Release #20 (TR-20) and subsequent guidance must be used to analyze stormwater runoff for the design or analysis of flows and water levels within and off the project site. Composite curve numbers shall not include directly connected impervious surfaces.

(b) In determining curve numbers to model runoff in the post-development condition, the hydrologic soil group (HSG) of areas within construction limits is to be shifted down one classification (or one-half classification for HSG A) to account for the impacts of grading on soil structure unless the project specifications incorporate soil amendments in accordance with Rice Creek Watershed District Soil Amendment guidelines.

(c) The following curve numbers (Table 1) shall be utilized for modeling of those site areas not covered by impervious surface:

Table 1. Curve numbers for use with pervious areas			
Hydrologic Soil Group	***Existing Runoff Curve Number ****	***Post-Construction Runoff Curve Number*****	
		Undisturbed Land	***Disturbed Land***
A	39	39	49
B	61	61	74
C	74	74	80
D	80	80	80
* Curve numbers from USDA-NRCS, Technical Release 55 ** Rice Creek Watershed District 2013 Rules			

(d) 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 two-year, ten-year and 100-year return period, 24-hour rainfall events and the ten-day snowmelt event, in order to identify the critical duration flood event. The ten-day snowmelt event is simulated by a 7.2 inch, ten-day spring runoff event during which it is assumed the ground is frozen solid and no infiltration occurs (CN set to 100 for all areas). The City Engineer may require analysis of additional precipitation durations to determine the critical duration flood event. Analysis of the ten-day snowmelt event is not required for stormwater management detention basins with a defined outlet elevation at or below the 100-year, 24-hour event elevation.

(4) *Water quality treatment.*

(a) Land development activities creating impervious surface shall address the use of better site design (BSD) techniques as outlined in the better site design and low impact development sections of the *Minnesota Stormwater Manual* (MPCA, 2014 and subsequent revisions).

(b) The water quality treatment volume standard for all projects, except public linear projects, is determined as follows (Table 2):

Table 2. Required quality volume calculations for new or reconstructed developments		
BMP	***BMP Design Variation***	***Water Quality Treatment Volume Calculation [ft^3]***
Infiltration	Infiltration Feature	Impervious surface [ft2] * 1.1 [in] /12 [in/ft]
Water Reuse	Irrigation	Impervious surface [ft2] * 1.1 [in] / 12 [in/ft]
Biofiltration	Underdrain	Impervious surface [ft2] * 1.1 [in] / (0.65 * 12 [in/ft])
Filtration	Sand or Rock Filter	Impervious surface [ft2] * 1.1 [in] / (0.50 * 12 [in/ft])
Stormwater Wetlands	Shallow Wetland	Impervious surface [ft2] * 1.1 [in] / (0.40 * 12 [in/ft])

	Pond/Wetland	Impervious surface [ft2] * 1.1 [in] / (0.55 * 12 [in/ft])
Stormwater Ponds	Wet Pond	Impervious surface [ft2] * 1.1 [in] / (0.50 * 12 [in/ft])
	Multiple Pond	Impervious surface [ft2] * 1.1 [in] / (0.60 * 12 [in/ft])

(c) The required water quality treatment volume standard for public linear projects is determined as follows:

$$\text{Required Water Quality Treatment Volume [ft}^3\text{]} = \text{Area of New or Reconstructed Impervious Surface [ft2]} \times 0.75 \text{ [in]} \div 12 \text{ [in/ft]}$$

(d) Public linear projects shall meet the requirements of the Rice Creek Watershed District (RCWD) or Vadnais Lakes Area Water Management Organization (VLAWMO) as applicable.

(e) Infiltration BMPs (see city BMP standard plates and design criteria) are to be incorporated in areas with A and B hydrologic soil groups. Stormwater from impervious surfaces other than rooftops must be pretreated before discharge to infiltration BMPs, to remove sediment and floatables, or other materials that would restrict the BMP's capacity or contaminate ground water.

(f) If the project meets any of the following conditions listed in Table 3, infiltration is prohibited and the water quality volume requirements shall be provided the remaining options in Table 2:

Table 3. Specific conditions that may restrict inflitration.

Type	***Specific Site Conditions***
Potential Contamination	Potential stormwater hotspots [PSH]
	Contaminated soils
	Vehicle fueling and maintenance areas
Physical Limitations	Low permeability soils [HSG C and D]
	Bedrock within three vertical feet of bottom of infiltration area
	Seasonal high water table within three vertical feet of bottom of infiltration area
	Where soil infiltration tests are more than 8.3 inches per hour
Land Use Limitations	Utility locations
	Adjacent wells

(g) BMPs must provide infiltration where feasible. If the city concurs that the infiltration BMPs are not feasible or directs that infiltration not be used, then any BMP may be chosen. If infiltration is feasible on-site, then a regionally-sited BMP must provide equivalent runoff volume reduction.

(5) *Peak stormwater runoff control.*

(a) Stormwater runoff rates for the proposed project at the site boundary, in aggregate, must not exceed existing runoff rates for the critical two-, ten-, and 100-year frequency events.

(b) Any increase in a critical event rate at a specific point of discharge from the site must be limited and cause no adverse down gradient impact. The project must meet the hydroperiod standards found in Table 4 with respect to all down-gradient wetlands.

Table 4. 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 + 0.5 ft	Existing + 1 day	Existing + 7 days
Slightly Susceptible	Existing + 1.0 ft	Existing + 2 days	Existing +14 days
Least Susceptible	No Limit	Existing + 7 days	Existing + 21 days

* Duration of 24-hours for the return periods utilizing NOAA Atlas 14 precipitation data. Source: Adapted from Rice Creek Watershed District 2013 Rules.

(c) 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 water basins.

2. Moderately susceptible wetland types include: shrub-carrs, alder thickets, fresh (wet) meadows, and shallow and 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.

(d) *Exceptions.* Rate control criteria of division (5) may be waived if the site discharges directly to a water body with large storage capacity (such as a public water) that has a time-to-peak elevation greater than that for an on-site pond and the volume discharged from the on-site pond is negligible, relative to the volume of runoff entering the water body.

(6) *Design criteria.*

(a) *Infiltration BMPs.* 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 (Table 5). Infiltration area will be limited to the horizontal areas subject to prolonged wetting;

Table 5. Soil Infiltration Rates.

HSG	***Soil Texture****	***Corresponding Unified Soil Classification****		***Infiltration Rate [in/hr]***
A	Gravel Sandy Gravel Silty Gravel	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 sandy gravels	
		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).

* U.S. Department of Agriculture, Natural Resources Conservation Service, 2005. National Soil Survey Handbook, title 430-VI. (Online) Available: http://soils.usda.gov/technical/handbook/.
** ASTM standard D2487-00

3. A minimum of three feet of separation from the seasonal high water table.

4. Design and placement in accordance with the 2007 Minnesota Department of Health guidance *Evaluating Proposed Stormwater Infiltration Projects in Vulnerable Wellhead Protection Areas*.

(b) *Water reuse.* Water reuse BMPs must be designed to provide:

1. A maximum irrigation rate of one-inch per week over the irrigated lawn/turf grass area(s);

2. No greater than a 26 week (April 15 to October 15) growing season; and

3. No increase in stormwater runoff from the irrigated area or project site.

4. The amount of water quality treatment volume credit given will be based upon the three year average of the volume irrigated, determined by the average of three years of monitoring records.

(c) *Biofiltration and filtration BMPs.* Biofiltration and 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 the 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 drain tile system; and

4. Drain tile system must be designed above the seasonal high water table.

(d) *Stormwater ponds.* Stormwater ponds must be designed to provide:

1. Water quality features consistent with NURP criteria and city standard plate;

2. Permanent wet pool with dead storage at least equal to the runoff from a two and one half 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 outlet structure to control the two-year, ten-year and 100-year frequency events to existing peak runoff sites; and

5. An identified overflow spill way sufficiently stabilized to convey flows greater than the 100-year critical storm event.

(e) *Outfalls.* An outfall structure discharging 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.

(f) *Freeboard requirements.* All new residential, commercial, industrial and other habitable or non-habitable structures, and all stormwater basins, must be constructed so that the lowest floor and lowest entry elevations of structures comply with the following:

Table 6. Low floor and low entry freeboard requirements

	Regional Elevations	***Local Detention Basins & Wetlands***			***Infiltration Basins***			***Rain Gardens***	***Groundwater***
Elevation	100 year	EOF	100 year	EOF	Bottom	100 year	EOF	EOF	Seasonal High Level
Low Floor Freeboard	2-ft	1-ft	0-ft	N/A	0-ft	N/A	N/A	N/A	4-ft
Low Entry Freeboard	N/A	N/A	2-ft	1-ft	N/A	2-ft	1-ft	0.5-ft	N/A

(g) Within a landlocked basin, lowest floor elevations must be at least one foot above the surveyed basin overflow elevation. Where a structure is proposed below the runoff elevation of a land-locked basin, the low-floor elevation will be a minimum of two feet above the high water level as determined from an estimate of high water levels determined from the highest of either the 100-year, ten-day runoff event or back-to-back 100-year, 24-hour rainfalls. Aerial photos, vegetation, soils, and topography will be used to derive a "normal" water elevation for the basin for the purpose of computing the 100-year elevation.

(7) *Drainage and utility easements.*

(a) If a stormwater management plan involves direction of some or all runoff off of the site, it shall be the responsibility of the applicant to obtain from adjacent property owners any necessary easements or other property interests concerning flowage of water.

(b) Easements are required for all stormwater management facilities, stormwater conveyances and on-site floodplain and shall extend a minimum of ten feet beyond the basin's 100-year storm high water level elevation.

(c) Easements are required for all outlet swales and ditches, and for overland overflow routes located downstream of basins located on site.

(d) If the storm sewer is to be installed less than ten feet deep within private property, the easement shall be a minimum of 20 feet wide. If the storm sewer is ten feet or greater, the easement shall be twice as wide as the depth.

(e) Easements necessary for maintenance vehicle access are required for all of the above where not directly available on a public road.

(8) *Stormwater management plan required exhibits.* The stormwater management plan shall be prepared and signed by a duly licensed engineer in the State of Minnesota. The following exhibits must accompany the permit application: two plan sets, full size (22 inches by 34 inches); one plan set, reduced to maximum size of 11 inches by 17 inches. Additional copies may be required in accordance with applicable zoning and subdivision provisions of city code. All plan sets shall also be submitted electronically in a .dwg format or as otherwise determined by the City Engineer. The minimum information requirements of the stormwater management plan shall be consistent with the most recent version of the NPDES permit requirements and include the following information:

(a) A grading, erosion and sediment control plan and, for projects that require a NPDES permit, a stormwater pollution prevention plan (SWPPP) is required;

(b) Stormwater management plan including existing and proposed hydrologic calculations for total runoff volume and peak discharge rates as described in this chapter, including:

1. A narrative including a project description, discussion of BMP selection, incorporation of infiltration BMPs, and revegetation plan for the project site;

2. Delineation of all drainage areas, including contributing runoff from off-site areas, proposed and existing subwatersheds on-site, emergency overflows, and drainage ways;

3. Existing, proposed, and total amount of impervious surfaces created by the project;

4. Existing and proposed runoff curve numbers;

5. Time of concentration used in calculations; and

6. Existing and proposed total runoff volume and peak discharge rates for the two-, ten-, and 100-year critical events utilizing NOAA Atlas 14.

(c) Property of lines and delineation of lands under ownership of the applicant.

(d) Locations of all stormwater management practices, infiltration areas, and areas not to be disturbed during construction.

(e) Location of all drain tiles on the project site shall be identified.

(f) Location and engineered designs for structural stormwater management practices including stormwater treatment devices that remove oil and floatable material (e.g., basin outlets with submerged inlets).

(g) Normal water level, high water level, and emergency overflow elevations for the site and all ponding systems related to NAVD88.

(h) Identification of existing and proposed one-foot contour elevations within the project site related to NAVD88.

(i) Geotechnical analysis including soil borings at all proposed stormwater management facility locations.

(j) Provisions for groundwater management (dewatering), including subsurface drains, disposals, ponding and flood controls.

(k) Completed city worksheet explaining better site design techniques that were evaluated during project design, the results of the evaluation of each and for any techniques deemed infeasible.

(l) A long-term maintenance plan and schedule for all permanent stormwater practices, along with the identity of the party responsible for the maintenance of the project. The maintenance responsibility must be memorialized in a document executed by the property owner in a form acceptable to the city and filed for record on the deed.

(m) Before work is deemed complete, as-built plans must be submitted demonstrating that at the time of final stabilization, stormwater facilities conform to design specifications.

(n) Other project site-specific submittal requirements as may be required by the city.

(Ord. 09-15, passed 10-26-2015)

§ 1011.012 INSPECTIONS AND MAINTENANCE.

(1) *Inspections.* The applicant is responsible for inspections and record keeping in accordance with the NPDES permit requirements. The city shall conduct inspections on a regular basis to ensure that both stormwater and erosion and sediment control measures are properly installed and maintained prior to construction, during construction, and at the completion of the project. In all cases the inspectors will attempt to work with the applicant or developer to maintain proper stormwater management. Mandatory inspections, conducted by the city, are required as follows:

(a) Before any land disturbing activity begins;

(b) Five working days after footing inspections;

(c) At the completion of the project; and

(d) Prior to the release of financial securities.

(2) *Post-construction inspection and maintenance of stormwater facilities.*

(a) *Private stormwater facilities.* No private stormwater facility may be approved unless a maintenance agreement is provided that defines who will conduct maintenance, the type of maintenance, and the maintenance intervals. All private stormwater facilities shall be inspected by the owner and

maintained in proper condition consistent with the performance standards for which they were originally designed.

1. *Facility access.* Access to all stormwater facilities must be inspected annually and maintained as necessary. It shall be the responsibility of the applicant to obtain any necessary easements or other property interests to allow access to the facilities for inspection or maintenance for both the responsible party and the city.

2. *Maintenance.* All settled materials from ponds, sumps, grit chambers, and other devices, including settled solids, shall be removed and properly disposed of once capacity is reduced by 30%.

3. *Inspection.* All private stormwater facilities must submit an as-built record plan of the facility and must provide documentation to the city of an inspection during construction, during the first year of operation, and at least once every five years thereafter. Private facilities are subject to city inspection at any time to ensure compliance.

(b) *Public stormwater facilities.*

1. *Acceptance of publicly owned facilities.* Before work under the permit is deemed complete, as-builts and certification must be submitted demonstrating at the time of final stabilization that the stormwater facilities conform to design specifications. A final inspection shall be required before the city accepts ownership of the stormwater facilities.

2. *Inventory of stormwater facilities.* The city shall inventory and maintain a database for all public stormwater facilities within the city requiring maintenance to ensure compliance with this chapter.

(3) *Maintenance.* The city shall perform maintenance of publicly owned stormwater facilities within the city as provided for in the local surface water management plan.

(Ord. 09-15, passed 10-26-2015)

§ 1011.013 PLAN REVIEW PROCEDURE.

Plan review. The applicant shall not commence any construction activity subject to this chapter until the stormwater management plan and/or the grading, erosion and sediment control plan have been approved by the city. The submittal shall be processed in accordance with § 2 of the Zoning Ordinance or Ch. 1011 of city code as applicable. City approval is contingent on issuance of all other permits required by the city or other agencies having jurisdiction on the project. The following standards shall apply to all developments within the city:

(1) *Plan approval.* If the city determines that the stormwater management plan and/or the grading, erosion and sediment control plan meets the requirements of this chapter, the city shall issue a plan approval valid for a specified period of time that authorizes the land disturbance activity contingent on the implementation and completion of this plan.

(2) *Plan denial.* If the city determines that the plan does not meet the requirements of this chapter, the city shall not issue plan approval for the land disturbance activity. This plan must be resubmitted for approval before the land disturbance activity begins. All land use and building permits shall be suspended until the developer has an approved ESC or stormwater management permit.

(3) *Modification of plan.* The applicant must amend the plan as necessary to include additional requirements such as additional or modified BMPs designed to correct problems identified or address situations whenever:

(a) A change in design, construction, operation, maintenance, weather, or seasonal conditions that has a significant effect on the discharge or pollutants to surface waters or underground waters;

(b) Inspections or investigations indicate the plans are not effective in eliminating or significantly minimizing the discharge or pollutants to surface waters or underground waters or that the discharges are causing water quality degradation;

(c) The plan is not achieving the general objectives of minimizing pollutants in stormwater discharges associated with construction activity; or

(d) The plan is not consistent with the terms and conditions of this chapter.

(Ord. 09-15, passed 10-26-2015)

§ 1011.014 FINANCIAL SECURITIES.

The applicant shall be subject to the financial security provisions of the city development agreement, site improvement performance agreement and/or the city public improvement financing policy, as applicable.

(Ord. 09-15, passed 10-26-2015)

§ 1011.015 ENFORCEMENT.

(1) *Notification of failure of the permit.* The city shall notify the permit holder of the failure of the permit's measures.

(a) *Initial contact.* The initial contact will be to the party or parties listed on the application and/or the SWPPP as contacts. Except during an emergency action, 48 hours after notification by the city or 72 hours after the failure of erosion and sediment control measures, whichever is less, the city at its discretion may begin corrective work. Such notification should be in writing, but if it is verbal, a written notification should follow as quickly as practical. If after making a good faith effort to notify the responsible party or parties, the city has been unable to establish contact, the city may proceed with corrective work. There are conditions when time is of the essence in controlling erosion. During such a condition, the city may take immediate action and then notify the applicant as soon as possible.

(b) *Emergency action.* If circumstances exist such that non-compliance with this chapter poses an immediate danger to the public health, safety and welfare, as determined by the city, 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.

(c) *Erosion off site.* If erosion breaches the perimeter of the site, the applicant shall clean up and repair or supplement with functional BMPs within 24 hours of discovery or immediately as conditions allow. If, in the discretion of the city, the permit holder does not repair the damage caused by the erosion, the city may do the remedial work required and charge the cost to the applicant. When restoration to wetlands and other resources are required, the applicant shall be required to work with the appropriate agency to ensure that the work is done properly.

(d) *Erosion into streets, wetlands, or water bodies.* If eroded soils (including tracked soils from construction activities) enter or appear likely to enter streets, wetlands, or other water bodies, cleanup and repair shall be immediate. The applicant shall provide all traffic control and flagging required to protect the traveling public during the cleanup operations.

(e) *Failure to do 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. Correct the deficiency or hire a contractor to correct the deficiency.

4. Require reimbursement to the city for all costs incurred in correcting stormwater pollution control deficiencies. If payment is not made within 30 days after costs are incurred by the city, payment will be made from the applicant's financial securities as described above.

5. If there is an insufficient financial amount in the applicant's financial securities as described above, then 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.

(2) *Enforcement.* The city shall be responsible for enforcing this chapter.

(a) *Penalties.* Any person, firm, or corporation failing to comply with or violating any of these regulations shall be deemed guilty of a misdemeanor and be subject to a fine or imprisonment or both. All land use and building permits shall be suspended until the applicant has corrected the violation. Each day that a separate violation exists shall constitute a separate offense.

(b) *Right-of-entry and inspection; powers.* The issuance of a permit constitutes a right-of-entry for the city or its contractor to enter upon the construction site. The applicant shall allow the city and their authorized representatives, upon presentation of credentials, to:

1. Enter upon the permitted site for the purpose of obtaining information, examination of records, conducting investigations 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 the permitted site;

4. Inspect the stormwater pollution control measures; and

5. Sample and monitor any items or activities pertaining to stormwater pollution control measures;

6. Correcting deficiencies in stormwater and erosion and sediment control measures.

(Ord. 09-15, passed 10-26-2015)

§ 1011.016 ABROGATION AND GREATER RESTRICTIONS.

In the event of any conflict between the provisions of this chapter and the provisions of any other city ordinance adopted by the City Council, the more restrictive standard prevails.

(Ord. 09-15, passed 10-26-2015)

CHAPTER 1102: SHORELAND MANAGEMENT OVERLAY

Section

1102.01 Statutory authorization and policy

1102.02 General provisions

1102.03 Definitions

1102.04 Administration

1102.05 Shoreland Overlay District

1102.06 Shoreland Overlay District uses

1102.07 Zoning and water supply/sanitary provisions

1102.08 Nonconformities

1102.09 Shoreland alterations

1102.10 Special provisions for commercial, industrial, public/semipublic, agricultural, forestry and extractive uses and mining of metallic minerals and peat

1102.11 Water supply and sewage treatment

1102.12 Subdivision/platting provisions

1102.13 Shoreland Planned Unit Development (PUD)

§ 1102.01 STATUTORY AUTHORIZATION AND POLICY.

(1) *Statutory authorization*. Local government units are required to adopt shoreland management ordinances in M.S. §§ 103F.201 to 103F.221, as it may be amended from time to time. This Shoreland Overlay District chapter is adopted pursuant to these authorizations and policies and the planning and zoning enabling legislation in M.S. Ch. 462, as it may be amended from time to time.

(2) *Policies*. The uncontrolled use of shorelands of the city affects the public health, safety and general welfare not only by contributing to pollution of public waters, but also by impairing the local tax base. Therefore, it is in the best interests of the public health, safety and welfare to provide for the wise subdivision, use and development of shorelands of public waters. The Legislature of Minnesota has delegated responsibility to local governments of the state to regulate the subdivision, use and development of shorelands of public waters and thus preserve and enhance the quality of surface waters, conserve the economic and natural environmental values of shorelands, and provide for the wise use of waters and related land resources. The responsibility for the management of shoreland areas is hereby recognized by the city.

(Ord. 04-95, passed 4-10-1995)

§ 1102.02 GENERAL PROVISIONS.

(1) *Jurisdiction*. The provisions of this chapter shall apply to the shorelands of the public water bodies as classified in § 1102.05 and as shown on the official zoning map of the city as being located within the Shoreland Overlay District. A body of water created by a private user where there was no previous shoreland may, at the discretion of the city, be exempt from this chapter.

(2) *Compliance*. The use of any shoreland of public waters; the size and shape of lots; the use, size, type and locations of structures on lots; the installation and maintenance of water supply and waste treatment systems; the grading and filling of any shoreland area; the cutting of shoreland vegetation; and the subdivision of land shall be in full compliance with the terms of this chapter and other applicable regulations.

(3) *Enforcement*. The Zoning Administrator is responsible for the administration and enforcement of this chapter. Any 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 or conditional uses) shall constitute a misdemeanor and shall be punishable as defined by law. Violations of this chapter can occur regardless of whether or not a permit is required for a regulated activity pursuant to § 1102.04(1).

(4) *Interpretation*. In their interpretation and application, the provisions of this chapter shall be held to be minimum requirements and shall be liberally construed in favor of the governing body and shall not be deemed a limitation or repeal of any other powers granted by state statutes. The approximate boundaries of the Shoreland Overlay District are indicated on the official zoning map of the city and attachments thereto. Exact determination of the boundaries will be made by the Minnesota Department of Natural Resources, Division of Waters.

(5) *Severability*. If any section, clause, provision or portion of this chapter is adjudged unconstitutional or invalid by a court of competent jurisdiction, the remainder of this chapter shall not be affected thereby.

(6) *Abrogation and greater restrictions*. It is not intended by this chapter to repeal, abrogate or impair any existing easements, covenants or deed restrictions. Where the conditions imposed by any provision of this chapter are either more restrictive or less restrictive than comparable conditions imposed by any other law, ordinance, statute, resolution or regulation of any kind, the regulations which are more restrictive or which impose higher standards or requirements shall prevail. All other ordinances inconsistent with this chapter are hereby repealed to the extent of the inconsistency only.

(Ord. 04-95, passed 4-10-1995)

§ 1102.03 DEFINITIONS.

Unless specifically defined below, words or phrases used in this chapter shall 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. For the purpose of this chapter, the words ***MUST*** and ***SHALL*** are mandatory and not permissive. All distances, unless otherwise specified, shall be measured horizontally.

ACCESSORY STRUCTURE OR FACILITY. Any building or improvement subordinate to a principal use which, because of the nature of its use, can reasonable be located at or greater than normal structure setbacks.

BLUFF. A topographic feature such as a hill, cliff or embankment having the following characteristics (an area with an average slope of less than 18% over a distance for 50 feet or more shall not be considered part of the bluff):

(a) Part of all of the feature is located in a shoreland area;

(b) The slope rises at least 25 feet above the ordinary high water level of the waterbody;

(c) The grade of the slope from the toe of the bluff to a point 25 feet or more above the ordinary high water level averages 30% or greater; and

(d) The slope must drain toward the waterbody.

BLUFF IMPACT ZONE. A bluff and land located within 20 feet from the top of a bluff.

BOATHOUSE. An accessory structure designed and used solely for the storage of boats and boating equipment.

BUILDING LINE. A line parallel to a lot line or the ordinary high water level at the required setback beyond which a structure may not extend.

CLEAR CUTTING. The removal of an entire stand of trees.

COMMERCIAL USE. The principal use of land or buildings for the sale, lease, rental or trade of products, goods and services.

COMMISSIONER. The Commissioner of the Department of Natural Resources.

CONDITIONAL USE. A land use or development as defined by ordinance that would not be appropriate generally but may be allowed with appropriate restrictions as provided by official controls upon a finding that certain conditions as detailed in the official Zoning Chapter exist, the use or development conforms to the comprehensive land use plan of the community and the use is compatible with the existing neighborhood.

DECK. A horizontal, unenclosed platform with or without attached railings, seats, trellises or other features, attached or functionally related to a principal use or site and at any point extending more than three feet above the ground.

DWELLING SITE. A designated location for residential use by one or more persons using temporary or movable shelter, including camping and recreational vehicle sites.

DWELLING UNIT. Any structure or portion of a structure or other shelter designed as short- or long-term living quarters for one or more persons, including rental or timeshare accommodations such as motel, hotel, and resort rooms and cabins.

EXTRACTIVE USE. The use of land for surface or subsurface removal of sand, gravel, rock, industrial minerals, other nonmetallic minerals and peat not regulated under M.S. §§ 9.44 to 9.51, as it may be amended from time to time.

FOREST LAND CONVERSION. The clear cutting of forested land to prepare for a new land use other than reestablishment of a subsequent forest stand.

HARDSHIP. The property in question cannot be put to a reasonable use if used under conditions allowed by the official controls; the plight of the landowner is due to circumstances unique to the property, not created by the landowner; and the variance, if granted, will not alter the essential character of the locality. Economic considerations alone shall not constitute a ***HARDSHIP*** if a reasonable use for the property exists under terms of the official controls.

HEIGHT OF BUILDING. The vertical distance between the highest adjoining ground level at the building or ten feet above the lowest ground level, whichever is lower, and the highest point of a flat roof or average height of the highest gable of a pitch or hipped roof.

INDUSTRIAL USE. The use of land or buildings for the production, manufacture, warehousing, storage or transfer of goods, products, commodities or other wholesale items.

INTENSIVE VEGETATION CLEARING. The complete removal of trees or shrubs in a contiguous patch, strip, row or block.

LOT. A designated parcel, tract or area of land established by plat, subdivision, or as otherwise permitted by law, to be used developed or built upon as a unit.

LOT WIDTH. The shortest distance between lot lines measured at the midpoint of the building line.

NONCONFORMING USE. Any legal use, structure or parcel of land already in existence, recorded or authorized before the adoption of official controls or amendments thereto that would not have been permitted to become established under the terms of the official controls as now written, if the official controls had been in effect prior to the date it was established, recorded or authorized.

OPEN SPACE. Undeveloped land of the subdivided property providing visual expanses and recreational areas clear of obstructions other than natural vegetation, or structures directly related to the use and

enjoyment of these spaces. ***OPEN SPACES*** may include natural habitats, places for neighborhood recreation and pedestrian corridors.

ORDINARY HIGH WATER LEVEL. The boundary of public waters and wetlands and shall be an elevation delineating the highest water level which has been maintained for a sufficient period of time to leave evidence upon the landscape, commonly that point where the natural vegetation changes from predominantly aquatic to predominantly terrestrial.

PLANNED UNIT DEVELOPMENT. A type of development characterized by a unified site design for a number of dwelling units or dwelling sites on a parcel, whether for sale, rent or lease, and also usually involving clustering of these units or sites to provide areas of common open space, density increase, and a mix of structure types and land uses. These developments may be organized and operated as condominiums, time-share condominiums, cooperatives, full fee ownership, commercial enterprises, or any combination of these, or cluster subdivisions of dwelling units, residential condominiums, townhouses, apartment buildings, campgrounds, recreational vehicle parks, resorts, hotels, motels and conversions of structures and land uses to these uses.

PUBLIC WATERS. Any waters as defined in M.S. § 103G.005, Subd. 15, as it may be amended from time to time.

RESIDENTIAL PLANNED UNIT DEVELOPMENT. A use where the nature of residency is nontransient and the major or primary focus of the development is not service-oriented. For example, residential apartments, manufactured home parks, time-share condominiums, townhouses, cooperatives and full fee ownership residences would be considered as ***RESIDENTIAL PLANNED UNIT DEVELOPMENT***. To qualify as a residential ***PLANNED UNIT DEVELOPMENT***, a development must contain at least five dwelling units or sites.

RESORT PLANNED UNIT DEVELOPMENT. Typically uses that provide transient, short-term lodging spaces, rooms or parcels and their operations are essentially service-oriented. For example, hotel/motel accommodations, resorts, recreational vehicle and camping parks, and other primarily service-oriented activities are resort planned unit developments.

SEMIPUBLIC USE. The use of land by a private, nonprofit organization to provide a public service that is ordinarily open to some persons outside the regular constituency of the organization.

SENSITIVE RESOURCE MANAGEMENT. The preservation and management of areas unsuitable for development in their natural state due to constraints such as shallow soils over groundwater or bedrock, highly erosive or expansive soils, steep slopes, susceptibility to flooding or occurrence of flora or fauna in need of special protection.

SETBACK. The minimum horizontal distance between a structure, sewage treatment system or other facility and an ordinary high water level, sewage treatment system, road, highway, property line or other facility.

SEWER SYSTEM. Pipelines or conduits, pumping stations, and force main and all other construction, devices, appliances or appurtenances used for conducting sewage or industrial waste or other wastes to a point of ultimate disposal.

SEWAGE TREATMENT SYSTEM. A septic tank and soil absorption system or other individual or cluster type sewage treatment system as described and regulated in § 1102.11 of this chapter.

SHORE IMPACT ZONE. Land located between the ordinary high water level of a public water and a line parallel to it at a setback of 50% of the structure setback.

SHORELAND. Land located within 1,000 feet from the ordinary high water level of the lakes and land located within 300 feet from the streams classified in § 1102.05 or the landward extent of a flood plain designated by ordinance on a river or stream, whichever is greater. The limits of shorelands may be reduced

whenever the waters involved are bounded by topographic divides which extend landward from the waters for lesser distances and when approved by the Commissioner.

SIGNIFICANT HISTORIC SITE. Any archaeological site, standing structure or other property that meets the criteria for eligibility to the National Register of Historic Places or is listed in the State Register of Historic Sites, or is determined to be an unplatted cemetery that falls under the provisions of M.S. § 307.08, as it may be amended from time to time. An historic site meets these criteria if it is presently listed on either register or if it is determined to meet the qualifications for listing after review by the Minnesota state archaeologist or the director of the Minnesota Historical Society. All unplatted cemeteries are automatically considered to be ***SIGNIFICANT HISTORIC SITES.***

STEEP SLOPE. Land where development is either not recommended or described as poorly suited due to slope steepness and the site's soil characteristics as mapped and described in available county. Soil surveys or other reports, unless appropriate design and construction techniques and farming practices are used in accordance with the provisions of this chapter. Where specific information is not available, ***STEEP SLOPES*** are lands having average slopes over 12%, as measured over horizontal distances of 50 feet or more that are not bluffs.

STRUCTURE. Any building or appurtenance, including decks, mobile homes, docks and boat launches, except aerial or underground utility lines, such as sewer, electric, telephone, telegraph, gas lines, towers, poles and other supporting facilities.

SUBDIVISION. Land that is divided for the purpose of sale, rent or lease, including planned unit developments.

SURFACE WATER-ORIENTED COMMERCIAL USE. The use of land for commercial purposes, where access to and use of a surface water feature is an integral part of the normal conductance of business. Marinas, resorts and restaurants with transient docking facilities are examples of that use.

WATER-ORIENTED ACCESSORY, STRUCTURE OR FACILITY. A small, above ground building or other improvement, except stairways, fences, docks and retaining walls, which, because of the relationship of its use to a surface water feature, reasonable needs to be located closer to public waters than the normal structure setback. Examples of those structures and facilities include boathouses, gazebos, screen houses, fish houses, pump houses and detached decks.

(Ord. 04-95, passed 4-10-1995)

§ 1102.04 ADMINISTRATION.

(1) *Permits required*.

(a) *Permit required*. A building permit is required for the construction of buildings or building additions (including related activities such as construction of decks and signs), the installation and/or alteration of sewage treatment systems, and a grading permit for those grading and filling activities not exempted by § 1102.09 of this chapter. Application for a permit shall be made to the Zoning Administrator on forms provided. The application shall include the necessary information so that the Zoning Administrator can determine the site's suitability for the intended use and that a compliant sewage treatment system will be provided.

(b) *Permit stipulation.* A building permit authorizing an addition to an existing structure shall stipulate that an identified nonconforming sewage treatment system, as defined in § 1102.11 shall be reconstructed or replaced in accordance with the provisions of this chapter.

(2) *Certificate of zoning compliance*. The Zoning Administrator shall issue a certificate of zoning compliance for each activity requiring a permit as specified in division (1) above of this section. This certificate will specify that the use of land conforms to the requirements of this chapter. Any use,

arrangement or construction at variance with that authorized by permit shall be deemed a violation of this chapter and shall be punishable as provided in § 1102.02(3) of this chapter.

(3) *Variances*.

(a) Variances may only be granted in accordance with M.S. Ch. 462, as it may be amended from time to time, as applicable. A variance may not circumvent the general purposes and intent of this chapter. No variance may be granted that would allow any use that is prohibited in the zoning district in which the subject property is located. Conditions may be imposed in the granting of a variance to ensure compliance and to protect adjacent properties and the public interest. In considering a variance request, the Zoning Administrator must also consider whether the property owner has reasonable use of the land without the variance, whether the property is used seasonally or year-round, whether the variance is being requested solely on the basis of economic considerations, and the characteristics of development on adjacent properties.

(b) The City Council shall hear and decide requests for variances in accordance with the rules that it has adopted for the conduct of business of the City Zoning Chapter. When a variance is approved after the Department of Natural Resources has formally recommended denial in the hearing record, the notification of the approved variance required in division (4)(b) shall also include the City Council's summary of the public record/testimony and the findings of facts and conclusions which supported the issuance of the variance.

(c) For existing developments, the applications for variance must clearly demonstrate whether a conforming sewage treatment system is present for the intended use of the property. The variance, if issued, must require reconstruction of a nonconforming sewage treatment system.

(4) *Notification to the Department of Natural Resources*.

(a) Copies of all notices of any public hearings to consider variances, zoning amendments or conditional uses in the Shoreland Overlay District must be sent to the Commissioner of the Department of Natural Resources or the Commissioner's designated representative and postmarked at least ten days before the hearings. Notices of hearing to consider proposed subdivision/plats must include copies of the subdivision/plat.

(b) A copy of approved amendments and subdivisions/plats and final decisions granting variances or conditional uses in the Flood Plain or Shoreland Management Districts must be sent to the Commissioner or the Commissioner's designated representative and postmarked within ten days of final action.

(Ord. 04-95, passed 4-10-1995)

§ 1102.05 SHORELAND OVERLAY DISTRICT.

(1) *Establishment of Shoreland Overlay District*. The public waters of the city have been classified consistent with the criteria found in Minnesota Regulations, Part 6120.3300. The Shoreland Overlay District for the waterbodies listed below is that land within 1,000 feet of the ordinary high water level of the lakes and 300 feet from a river or stream as shown on the official zoning map.

(a) *Natural environment lakes*.

Natural Environment Lakes	***Protected Water Inventory I.D. #***	***Ordinary High Water Level (OHWL)***
Unnamed	2-1	
Peltier Lake	2-4	884.7

George Watch Lake	2-5	
Marshan Lake	2-7	883.3
Rice Lake	2-8	883.1
Wards Lake	2-10	883.7
Sherman Lake	2-11	
Cedar Lake	2-12	892.9
Amelia Lake	2-14	908.1
Rondeau Lake	2-15	
Wilkinson Lake	62-43	895.2

(b) *Recreational development lakes*.

Recreational Development Lakes	***Protected Water Inventory I.D. #***	***Ordinary High Water Level (OHWL)***
Otter Lake	2-3	911.5
Centerville Lake	2-6	885.0
Reshanau Lake	2-9	883.5
Baldwin Lake	2-13	883.1

(c) *General development lake*.

General Development Lake	***Protected Water Inventory I.D. #***	***Ordinary High Water Level (OHWL)***
Bald Eagle Lake	62-2	911.0

(d) *Tributary rivers and streams*.

Tributary Rivers and Streams	***Protected Watercourse Legal Description***
Rice Creek	From Basin 740 to Basin 13
Hardwood Creek	From T31N, R22W, Sect. 12 to Basin 4

(2) *Establishment of official zoning map*. The official zoning map, together with all materials attached thereto is hereby adopted by reference and declared to be a part of this chapter. The attached material shall include the protected waters inventory map for Anoka County. The official zoning map shall be on file in the office of the Zoning Administrator.

(3) *Land use district descriptions*.

(a) *Criteria for designation*. The land use districts in division (3)(b) below and the delineation of a land use district's boundaries on the official zoning map must be consistent with the goals, policies and objectives of the comprehensive land use plan.

(b) *Land use district descriptions*. The land use districts and the allowable land uses therein for the given classifications of waterbodies shall be properly delineated on the official zoning map for the shorelands of the city. The designated land use districts shall be in conformance with the criteria specified in Minnesota Regulations, Part 6120.3200, Subp. 3.

(Ord. 04-95, passed 4-10-1995)

§ 1102.06 SHORELAND OVERLAY DISTRICT USES.

(1) *Permitted uses*. The permitted uses in the Shoreland Overlay District are those uses allowed and regulated by the applicable underlying zoning district as indicated on the official zoning map of the city.

(2) *Conditional uses*.

(a) The conditional uses in the Shoreland Overlay District are those uses allowed and regulated on a conditional basis by the applicable underlying zoning district as indicated on the official zoning map of the city.

(b) *Evaluation criteria.* A thorough evaluation of the waterbody and the topographic, vegetation and soils conditions on the site must be made to ensure:

1. The prevention of soil erosion or other possible pollution of public waters, both during and after construction in accordance with Chapter 1001 and 1005 and the Zoning Chapter 1007 of the city code;

2. The visibility of structures and other facilities as viewed from public waters is limited;

3. The site is adequate for water supply and on-site sewage treatment; and

4. The types, uses and numbers of watercraft that the project will generate are compatible in relation to the suitability of public waters to safely accommodate these watercraft.

(c) *Conditions attached to conditional use permits.* The city, upon consideration of the criteria listed above and the purposes of this chapter, shall attach the conditions to the issuance of the conditional use permits as it deems necessary to fulfill the purposes of this chapter and the City Zoning Chapter. These conditions may include, but are not limited to, the following:

1. Increased setbacks from the ordinary high water level;

2. Limitations on the natural vegetation to be removed or the requirement that additional vegetation be planted; and

3. Special provisions for the location, design and use of structures, watercraft launching and docking areas and vehicle parking areas.

(d) *City Council.* The City Council shall hear and decide applications for conditional uses permissible under this chapter in accordance with conditional use permit approval process of the city code.

(3) *Permitted accessory uses*.

(a) The permitted accessory uses in the Shoreland Overlay District are those uses allowed and regulated as accessory uses by the applicable underlying zoning district as indicated on the official zoning map of the city.

(b) Water-oriented accessory structures are permitted when constructed in accordance with the design criteria of § 1102.07(2)(b).

(c) Dock and boat launches are permitted provided they are constructed on the same lot as the principal structure.

(4) *Prohibited uses*. Any uses which are not permitted or conditional uses as regulated by the applicable underlying zoning district as indicated on the official zoning map are not permitted.

(Ord. 04-95, passed 4-10-1995)

§ 1102.07 ZONING AND WATER SUPPLY/SANITARY PROVISIONS.

(1) *Lot area and width standards*. The following standards shall apply to all lots within the Shoreland Overlay District, provided that the resulting total development density in the shoreland area does not exceed the total city-wide shoreland density allowed based on state shoreland standards. The city, in its evaluation of any development, shall evaluate the proposed development in light of the development capacity of the city-wide Shoreland Overlay District. Where the requirements of the underlying zoning district are more or less restrictive than those set forth herein, the more restrictive standards shall apply.

(a) *Residential (R-1, R-1A, R-2, R-3, R-4) Zoning Districts*.

	NE	***RD***	***GD***	***T***
Lot Area per Unit:				
Unsewered* no unsewered in R-2, R-3, R-4 zones	10 acres	10 acres	10 acres	10 acres
Sewered abutting				**
Single-family	20,000	20,000	20,000	
Two-family/duplex	8,775	8.775	8,775	
Triplex/quad/townhome	6,000	6,000	6,000	
Sewer non-abutting				**
Single-family	10,800	10,800	10,800	
Two-family/duplex	8,775	8,775	8,775	
Triplex/quad/townhome	5,000	5,000	5,000	
Lot Width/Base Lot***				
Unsewered*	330	330	330	330
Sewered abutting				
Single-family	80	80	80	80
Two-family/duplex	130	130	130	130
Triplex/quad/townhome	130	130	130	130
Sewered non-abutting				
Single-family	80	80	80	130
Two-family/duplex	130	130	130	130
Triplex/quad/townhome	130	130	130	130
* Lot size requirement in unsewered area are delineated by the standards of the base zoning districts.				
** Lot area and width requirements along rivers in sewered areas and commercial zoning districts in sewered areas will be delineated by the standards of the base zoning districts.				
*** Lot widths shall be measured at both the front building setback line and at the setback from the ordinary high water level.				

(b) *Commercial and Industrial (NB, LB, GB, CB, SC, LI, GI) Zoning Districts*.

	NE	***RD***	***GD***	***T***
Lot area				
No unsewered commercial or industrial				
Sewered abutting				
Commercial	1 acre	1 acre	1 acre	**
Industrial	1 acre	1 acre	1 acre	
Sewered non-abutting				
Commercial	**	**	**	**
Industrial	1 acre	1 acre	1 acre	1 acre
Lot widths***				
Sewered abutting				
Commercial	100	100	100	100
Industrial	150	150	150	150
Sewered non-abutting				
Commercial	**	**	**	**
Industrial	150	150	150	150
* Lot size requirement in unsewered area are delineated by the standards of the base zoning districts.				
** Lot area and width requirements along rivers in sewered areas and commercial zoning districts in sewered areas will be delineated by the standards of the base zoning districts.				
*** Lot widths shall be measured at both the front building setback line and at the setback from the ordinary high water level.				

(c) *Additional special provisions*.

1. Only land above the ordinary high water level of public waters and outside existing watercourses can be used to meet the lot area standards.

2. The shoreland lot width standards must be met at both the ordinary high water level and the building setback line.

3. All single-family, two-family, triplex, quadraminium, townhouse, commercial and industrial subdivisions must provide a grading and drainage plan for review and approval of the city engineer and Rice Creek Watershed District. The grading and drainage plan shall include:

a. Compliance for the impervious surface standards of the respective zoning district;

b. The subdivision or lot development shall provide for the collection and treatment of storm water in compliance with the Lino Lakes local storm water management plan if determined that the site improvements will result in increased runoff directly entering a public water. All grading and drainage plans shall require review and approval by the city engineer and the Rice Creek Watershed District;

c. Measures to be taken for the treatment of storm water runoff and/or prevention of storm water from directly entering a public water. The measures may include, but not be limited to the following:

i. Appurtenances as sedimentation basins, debris basins, desalting basins or silt traps;

ii. Installation of debris guards and microsilt basins on storm sewer inlets;

iii. Use where necessary, oil skimming devices or sump catch basins;

iv. Direct drainage away from the lake and into pervious, grassed yards through site grading, use of gutters and downspouts;

v. Construct sidewalks and driveways of partially pervious raised materials such as decking which has natural earth or other previous material beneath or between the planking;

vi. Use grading and construction techniques which encourage rapid-infiltration; for example, sand and gravel under impervious materials with adjacent infiltration swales graded to lead into them; and/or

vii. Install berms, water bars or terraces which temporarily detain water before dispersing it into pervious area.

4. Impervious surface coverage of lots must not exceed the following percentages of lot area:

	NE	***RD***	***GD***	***R***
Single-family	30%	30%	30%	30%
Two-family/duplex	30%	30%	30%	30%
Triplex/quad/townhomes	35%	35%	35%	35%
Commercial/industrial	60%	60%	60%	60%

5. Medium density residential, commercial and industrial structures, parking areas and other facilities shall be treated to reduce visibility as viewed from public waters and adjacent shorelands by vegetation, topography, increased setbacks or color, assuming summer, leaf-on conditions. Vegetative and topographic screening shall be preserved, if existing, or may be required to be provided.

6. Accessory structures and facilities shall meet the required principal structure setback and shall be centralized.

7. Multiple-family developments shall contain open space meeting the following criteria:

a. At least 35% of the total development area shall be preserved as open space;

b. Dwelling units or sites, land covered by road surfaces, parking areas or structures are developed areas and shall not be included in the computation of minimum open space;

c. Open space shall include areas with physical characteristics unsuitable for development in their natural state and areas containing significant historic sites or unplatted cemeteries; and

d. The shore impact zone, based on normal structure setbacks, shall be included as open space. At least 50% of the shore impact zone area of existing developments or at least 70% of the shore impact zone area of new developments shall be preserved in its natural or existing state.

8. Residential subdivisions exceeding those permitted by the lot area standards of this section can only be allowed if designed and approved as a residential planned unit development under § 1102.13 of this chapter.

(2) *Placement, design and height of structures*.

(a) *Placement of structures on lots*. When more than one setback applies to a site, structures and facilities must be located to meet all setbacks. Where structures exist on the adjoining lots on both sides of

a proposed building site, structure setbacks may be altered without a variance to conform to the adjoining setbacks from the ordinary high water level, provided the proposed building site is not located in a shore impact zone. Structures shall be located as follows.

1. Structure and on-site sewage system setbacks (in feet) from ordinary high water level.

Classes of Public Waters	***Structures***		***Sewage Treatment System***
	Unsewered	***Sewered***	
Lakes			
Natural environment	150	150	150
Recreational development	100	75	75
General development	75	50	50
Rivers and streams	100	50	75

* One water-oriented accessory structure exclusive of one dock and lake access individual lot, designed in accordance with division (2)(b) below of this chapter may be set back a minimum distance of ten feet from the ordinary high water level.

2. *Additional structure setbacks*. The following additional structure setbacks apply, regardless of the classification of the water body:

Setback From:	***Setback (in feet)***
Top of bluff	30
Unplatted cemetery	50
Right-of-way line of federal, state or county highway	40
Right-of-way line of a town road, public street or other roads or streets not classified	30

3. *Uses without water-oriented needs*. Uses without water-oriented needs must be substantially screened from view from the water by vegetation or topography, assuming summer, leaf-on conditions.

4. *Exceptions to structure setback requirements*. Accessory structures may be located in the front yard of lakeshore properties upon approval of a riparian lot variance.

(b) *Design criteria for structures*.

1. *High water elevations*.

a. Structures must be placed with the lowest floor three feet above the (OHW) ordinary high water level in accordance with the local water management plan for the City of Lino Lakes.

b. Water-oriented structures may have the lowest floor placed lower than the elevation determined in the local water management plan if the structure is constructed of flood-resistant materials to the elevation, electrical and mechanical equipment is placed above the elevation and, if long duration flooding is anticipated, the structure is built to withstand ice action and wind-driven waves and debris.

2. *Water-oriented accessory structures*. Each lot may have one water-oriented accessory structure not meeting the normal structure setback in division (2)(a) above of this chapter if this water-oriented structure

complies with the following provisions:

a. The structure or facility must not exceed ten feet in height, exclusive of safety rails and cannot occupy an area greater than 250 square feet. Detached decks must not exceed eight feet above grade at any point;

b. The setback of the structure or facility from the ordinary high water level must be at least ten feet;

c. The structure or facility must be treated to reduce visibility as viewed from public waters and adjacent shorelands by vegetation, topography, increased setbacks or color, assuming summer, leaf-on conditions;

d. The roof may be used as a deck with safety rails, but must not be enclosed or used as a storage area;

e. The structure or facility must not be designed or used for human habitation and must not contain water supply or sewage treatment facilities; and

f. Within the shoreland areas of general development and recreational development waterbodies, water-oriented accessory structures used solely for watercraft storage, and including storage or related boating and water-oriented sporting equipment, may occupy an area up to 400 square feet provided the maximum width of the structure is 20 feet as measured parallel to the configuration of the shoreline.

3. *Stairways, lifts and landings*. Stairways and lifts are the preferred alternative to major topographic alterations for achieving access up and down steep slopes to shore areas. Stairways and lifts must meet the following design requirements:

a. Stairways and lifts must not exceed four feet in width on residential lots. Wider stairways may be used for commercial properties, public open-space recreational properties and planned unit developments;

b. Landings for stairways and lifts on residential lots must not exceed 32 square feet in area. Landings larger than 32 square feet may be used for commercial properties, public open-space recreational properties and planned unit developments;

c. Canopies or roofs are not allowed on stairways, lifts or landings;

d. Stairways, lifts and landings may be either constructed above the ground on posts or pilings, or placed into the ground, provided they are designed and built in a manner that ensures control of soil erosion;

e. Stairways, lifts and landings must be located in the most visually inconspicuous portions of lots, as viewed from the surface of the public water assuming summer, leaf-on conditions, whenever practical; and

f. Facilities such as ramps, lifts, mobility paths for, physically handicapped persons are also allowed for achieving access to shore areas, provided that the dimensional and performance standards of division (2)(b)1. to (2)(b)5. or complied with in addition to the requirements of Minnesota Regulations, Chapter 1340.

4. *Significant historic sites*. No structure may be placed on a significant historic site in a manner that affects the values of the site unless adequate information about the site has been removed and documented in a public repository.

5. *Steep slopes*. The Zoning Administrator must evaluate possible soil erosion impacts and development visibility from public waters before issuing a permit for construction of sewage treatment systems, roads, driveways, structures or other improvements on steep slopes. When determined necessary, conditions must be attached to issued permits to prevent erosion and to preserve existing vegetation

screening of structures, vehicles and other facilities as viewed from the surface of public waters, assuming summer, leaf-on vegetation.

(c) *Height of structures*. All structures shall not exceed 36 feet in height, except churches and nonresidential agricultural structures.

(Ord. 04-95, passed 4-10-1995)

§ 1102.08 NONCONFORMITIES.

All legally established nonconformities as of the date of this chapter may continue, but they will be managed according to applicable state statutes and other regulations of the city for the subjects of alterations and additions, repair after damage, discontinuance of use and intensification of use; except that the following standards will also apply in the Shoreland Overlay District.

(1) *Construction on nonconforming lots of record*.

(a) Lots of record in the office of the county recorder prior to the date of enactment of this chapter which do not meet the requirements of § 1102.07(1) may be allowed as building sites without variances from lot size requirements, provided:

1. This use is permitted in the underlying zoning district;

2. The lot is and has been in separate ownership from abutting lands at all times since it became substandard;

3. The lot was created compliant with official controls in effect at the time;

4. All other dimensional requirements are complied with insofar as practical; and

5. Sewage treatment and setback requirements of this chapter are met.

(b) A variance from setback requirements must be obtained before any use or building permit is issued for a lot. In evaluating the variance, the City Council shall consider sewage treatment and water supply capabilities or constraints of the lot and shall deny the variance if adequate facilities cannot be provided.

(c) If, in a group of two or more contiguous lots under the same ownership, any individual lot does not meet the requirements of § 1102.07(1), the lot must not be considered as a separate parcel of land for the purposes of sale or development. The lot must be combined with the one or more contiguous lots so they equal one or more parcels of land, each meeting the requirements of § 1102.07 of this chapter as much as possible.

(2) *Additions/expansions to nonconforming structures*.

(a) All additions or expansions to the outside dimensions of an existing nonconforming structure must meet the setback, height and other requirements of this chapter. Any deviation from these requirements must be authorized by a variance pursuant to § 1102.04(3).

(b) Deck additions may be allowed without a variance to a structure not meeting the required setback from the ordinary high water level if all of the following criteria and standards are met:

1. The structure existed on the date the structure setbacks were established;

2. A thorough evaluation of the property and structure reveals no reasonable location for a deck meeting or exceeding the existing ordinary high water level setback of the structure;

3. The deck encroachment toward the ordinary high water level does not exceed 15% of the existing setback of the structure from the ordinary high water level or does not encroach closer than 30 feet,

whichever is more restrictive; and

4. The deck is constructed primarily of wood and is not roofed or screened.

(3) *Nonconforming sewage treatment systems*.

(a) A sewage treatment system not meeting the requirements of § 1102.11 of this chapter must be upgraded, at a minimum, at any time a permit or variance of any type is required for any improvement on, or use of, the property. For the purposes of this provision, a sewage treatment system shall not be considered nonconforming if the only deficiency is the sewage treatment system's improper setback from the ordinary high water level.

(b) The governing body of the city has by formal resolution notified the commissioner of its program to identify nonconforming sewage treatment systems. The city will require upgrading or replacement of any nonconforming system identified by this program within a reasonable period of time which will not exceed two years. Sewage systems installed according to all applicable local shoreland management standards adopted under M.S. § 103F.211, as it may be amended from time to time, in effect at the time of installation may be considered as conforming unless they are determined to be failing, except that systems using cesspools, leaching pits, seepage pits or other deep disposal, method or systems with less soils treatment area separation above groundwater than required by the Minnesota Pollution Control Agency's Chapter 7080 for design of on-site sewage treatment systems shall be considered nonconforming.

(Ord. 04-95, passed 4-10-1995)

§ 1102.09 SHORELAND ALTERATIONS.

Alterations of vegetation and topography in the Shoreland Overlay District will be regulated to prevent erosion into public waters, fix nutrients, preserve shoreland aesthetics, preserve historic values, prevent bank slumping, and protect fish and wildlife habitat.

(1) *Vegetation alterations*.

(a) Vegetation alteration necessary for the construction of structures, sewage treatment systems, uses permitted in the underlying zoning district and the construction of roads and parking areas regulated by division (3) below of this chapter are exempt from the vegetation alteration standards that follow.

(b) Removal or alteration of natural vegetation, except for agricultural and forest management uses as regulated in § 1102.10, shall be restricted to prevent erosion into protected waters, to consume nutrients in the soil and to preserve shoreland aesthetic. Removal of natural vegetation in the Shoreland Overlay District is allowed subject to the following standards.

1. Clear cutting of natural vegetation is prohibited.

2. Limited clearing of trees and shrubs and cutting, pruning and trimming of trees is allowed to provide a view to the water from the principal dwelling site and to accommodate the placement of stairways and landings, picnic areas, access paths, beach and watercraft access areas and permitted water-oriented accessory structures or facilities, provided that:

a. The screening of structures, vehicles or other facilities as viewed from the water, assuming summer, leaf-on conditions, is not substantially reduced;

b. Along rivers, existing shading of water surfaces is preserved; and

c. The above provision is not applicable to the removal of trees, limbs or branches that are dead, diseased or pose safety hazards.

3. Natural vegetation shall be restored insofar as feasible after any construction project is completed to retard surface runoff and soil erosion.

4. The provisions of this section shall not apply to permitted uses which normally require the removal of natural vegetation.

(2) *Topographic alterations/grading and filling*.

(a) Grading, filling and excavations necessary for the construction of structures, sewage treatment systems, driveways and other uses permitted in the underlying zoning district under validly issued construction permits for these facilities do not require the issuance of a separate grading and filling permit. However, the grading and filling standards in this section must be incorporated into the issuance of permits for construction of structures, sewage treatment systems and driveways.

(b) Public roads and parking areas are regulated by division (3) of this chapter.

(c) Notwithstanding divisions (2)(a) and (2)(b) above, a grading and-filling permit, in accordance with the City Zoning Chapter, will be required for:

1. The movement of more than ten cubic yards of material on steep slopes or within the shore impact zone; or

2. The movement of more than 50 cubic yards of material per acre.

(d) The following considerations and conditions must be adhered to during the issuance of construction permits, grading and filling permits, conditional use permits, variances and subdivision approvals:

1. Grading or filling in any wetland must be evaluated to determine the extent of impact to the functions and values of the wetland area in accordance with the city code. This evaluation must also include a determination of whether the wetland alteration being proposed requires permits, reviews or approvals by other local, state or federal agencies such as a watershed district, a local governmental unit, the Minnesota Department of Natural Resources or the United States Army Corps of Engineers. The applicant will be so advised.

2. Alterations must be designed and conducted in a manner that ensures only the smallest amount of bare ground is exposed for the shortest time possible. Mulches or similar materials must be used, where necessary, for temporary bare soil coverage and a permanent vegetation cover must be established as soon as possible;

3. Methods to minimize soil erosion and to trap sediments before they reach any surface water feature must be used. Altered areas must be stabilized to acceptable erosion control standards consistent with the field office technical guides of the Anoka County Soil and Water Conservation District and the United States Soil Conservation Service;

4. Fill or excavated material must not be placed in a manner that creates an unstable slope. Plans to place fill or excavated material on steep slopes must be reviewed by qualified professionals for continued slope stability and must not create finished sloped of 30% or greater;

5. Any alterations below the ordinary high water level of the waterbodies described in § 1002.05(1) must first be authorized by the Commissioner under M.S. § 103G.245, as it may be amended from time to time;

6. Alterations of topography must only be allowed if they are necessary to allow a defined permitted accessory or conditional use within the underlying zoning district and do not adversely affect adjacent or nearby properties; and

7. Placement of natural rock riprap, including associated grading of the shoreline and placement of a filter blanket, is permitted if the finished slope does not exceed three feet horizontal to one foot vertical, the

landward extent of the riprap is within ten feet of the ordinary high water level and the height of the riprap above the ordinary high water level does not exceed three feet.

(e) *Connections to public waters*. Excavations where the intended purpose is connection to a public water, such as boat slips, canals, lagoons and harbors, must be controlled by local shoreland controls. Permission for excavations may be given only after the Commissioner has approved the proposed connection to public waters.

(3) *Placement and design of roads, driveways and parking areas*.

(a) Public and private roads and parking areas must be designed to take advantage of natural vegetation and topography to achieve maximum screening from view from public waters. Documentation must be provided by a qualified individual that all roads and parking areas are designed and constructed to minimize and control erosion to public waters consistent with the Lino Lakes local water management plan.

(b) Roads, driveways and parking areas must meet structure setbacks and must not be placed within shore impact zones when other reasonable and feasible placement alternatives exist. If no alternatives exist, they may be placed within these areas and must be designed to minimize adverse impacts.

(c) Public and private watercraft access ramps, approach roads and access-related parking areas may be placed within shore impact zones provided the vegetative screening and erosion control conditions of this division are met. For private facilities, the grading and filling provisions of division (2) of this chapter must be met.

(4) *Stormwater management*.

(a) Impervious surface coverage of lots must not exceed the impervious surface percentage of lot area outlined in § 1102.07 of this chapter.

(b) When possible, existing natural drainageways, wetlands and vegetated soil surfaces must be used to convey, store, filter and retain stormwater runoff before discharge to public waters.

(c) Development must be planned and conducted in a manner that will minimize the extent of disturbed areas, runoff velocities, erosion potential and reduce and delay runoff volumes. Disturbed areas must be stabilized and protected as soon as possible and facilities or methods used to retain sediment on the site.

(d) When development density, topographic features and soil and vegetation conditions are not sufficient to adequately handle stormwater runoff using natural features and vegetation, various types of constructed facilities such as diversions, settling basins, skimming devices, dikes, waterways and ponds may be used. Preference must be given to designs using surface drainage, vegetation and infiltration rather than buried pipes and man-made materials and facilities. Residential, commercial and industrial subdivisions and site plans shall provide for the collection and treatment of storm water in compliance with the city storm water management plan if determined that the site improvements will result in increased runoff directly entering a public water. All grading and drainage plans shall require review and approval by the city engineer and the Rice Creek Watershed District.

(e) When constructed facilities are used for stormwater management, documentation must be provided by a qualified individual that they are designed and installed consistent with the Lino Lakes local water management plan.

(f) Newly constructed stormwater outfalls to public waters must provide for filtering or settling of suspended solids and skimming of surface debris before discharge.

(Ord. 04-95, passed 4-10-1995)

§ 1102.10 SPECIAL PROVISIONS FOR COMMERCIAL, INDUSTRIAL, PUBLIC/SEMIPUBLIC, AGRICULTURAL, FORESTRY AND EXTRACTIVE USES AND MINING OF METALLIC MINERALS AND PEAT.

(1) *Standards for commercial, industrial, public and semipublic uses*. Surface water-oriented commercial uses and industrial, public or semipublic uses with similar needs to have access to and use of public waters may be located on parcels or lots with frontage on public waters. Those uses with water-oriented needs must meet the following standards:

(a) In addition to meeting impervious coverage limits, setbacks and other zoning standards in this chapter, the uses must be designed to incorporate topographic and vegetative screening of parking areas and structures;

(b) Uses that require short-term watercraft mooring for patrons must centralize these facilities and design them to avoid obstructions of navigation and to be the minimum size necessary to meet the need; and

(c) Uses that depend on patrons arriving by watercraft may use signs and lighting to convey needed information to the public, subject to the following standards:

1. No advertising signs or supporting facilities for signs may be placed in or upon public waters. Signs conveying information or safety messages may be placed in or on public waters by a public authority or under a permit issued by the Anoka County Sheriff;

2. Signs may be placed, when necessary, within the shore impact zone if they are designed and sized to be the minimum necessary to convey needed information. They must only convey the location and name of the establishment and the general types of goods or services available. The signs must not contain other detailed information such as product brands and prices, must not be located higher than ten feet above the ground and must not exceed 32 square feet in size. If illuminated by artificial lights, the lights must be shielded or directed to prevent illumination out across public waters; and

3. Other outside lighting may be located within the shore impact zone or over public waters if it is used primarily to illuminate potential safety hazards and is shielded or otherwise directed to prevent illumination out across public waters. This does not preclude use of navigational lights.

(2) *Agriculture use standards*.

(a) General cultivation farming, grazing, nurseries, horticulture, truck farming, sod farming and wild crop harvesting are permitted uses if steep slopes and shore impact zones are maintained in permanent vegetation or operated under an approved conservation plan consistent with the Lino Lakes local water management plan, as provided by a qualified individual or agency. The shore impact zone for parcels with permitted agricultural land uses is equal to a line parallel to and 50 feet from the ordinary high water level.

(b) Animal feedlots must meet the following standards:

1. New feedlots must not be located in the shoreland of watercourses and must meet a minimum setback of 300 feet from the ordinary high water level of all public waters basins; and

2. Modifications or expansions to existing feedlots that are located within 300 feet of the ordinary high water level are allowed if they do not further encroach into the existing ordinary high water level setback.

(3) *Forest management standards*. The harvesting of timber and associated reforestation must be conducted consistent with the provisions of the Minnesota Nonpoint Source Pollution Assessment-Forestry and the provisions of Water Quality in Forest Management "Best Management Practices in Minnesota."

(4) *Extractive use standards*.

(a) *Site development and restoration plan*. An extractive use site development and restoration plan must be developed, approved and followed over the course of operation of the site. The plan must address dust, noise, possible pollutant discharges, hours and duration of operation and anticipated vegetation and topographic alterations. It must also identify actions to be taken during operation to mitigate adverse environmental impacts, particularly erosion and must clearly explain how the site will be rehabilitated after extractive activities end.

(b) *Setbacks for processing machinery*. Processing machinery must be located consistent with setback standards for structures from ordinary high water levels of public waters.

(5) *Mining of metallic minerals and peat*. Mining of metallic minerals and peat, as defined in M.S. §§ 93.44 to 93.51, as they may be amended from time to time, shall be a permitted use provided the provisions of M.S. §§ 93.44 to 93.51, as they may be amended from time to time, are satisfied.

(Ord. 04-95, passed 4-10-1995)

§ 1102.11 WATER SUPPLY AND SEWAGE TREATMENT.

(1) *Water supply*. Any public or private supply of water for domestic purposes must meet or exceed standards for water quality of the Minnesota Department of Health and the Minnesota Pollution Control Agency.

(2) *Sewage treatment*. Any premises used for human occupancy must be provided with an adequate method of sewage treatment as follows.

(a) Publicly-owned sewer systems must be used in accordance with Chapter 402 of the city code. Any new buildings used for human habitation or human occupancy, including businesses, located on property adjacent to a sewer main or in a block through which the system extends, shall be connected to the municipal sanitary sewer system.

(b) All private sewage treatment systems must meet or exceed the Minnesota Pollution Control Agency's standards for individual sewage treatment systems contained in the document titled, "Individual Sewage Treatment Systems Standards, Chapter 7080," as may be amended, a copy of which is hereby adopted by reference and declared to be a part of this chapter.

(c) On-site sewage treatment systems must be set back from the ordinary high water level in accordance with the setbacks contained in § 1102.07 of this chapter.

(d) All proposed sites for individual sewage treatment systems shall be evaluated in accordance with the criteria in divisions (2)(d)1. through (2)(d)4. below. If the determination of a site's suitability cannot be made with publicly available, existing information, it shall then be the responsibility of the applicant to provide sufficient soil borings and percolation tests from on-site field investigations. Evaluation criteria:

1. Depth to the highest known on calculated ground water table or bedrock;
2. Soil conditions, properties and permeability;
3. Slope; and
4. The existence of lowlands, local surface depressions and rock outcrops.

(e) Nonconforming sewage treatment systems shall be regulated and upgraded in accordance with § 1102.08(3) of this chapter.

(Ord. 04-95, passed 4-10-1995)

§ 1102.12 SUBDIVISION/PLATTING PROVISIONS.

(1) *Land suitability*. Each lot created through subdivision, including planned unit developments authorized under § 1102.13 of this chapter, must be suitable in its natural state for the proposed use with minimal alteration. Suitability analysis by the City Council shall consider susceptibility to flooding, existence of wetlands, soil and rock formations with severe limitations for development, severe erosion potential, steep topography, inadequate water supply or sewage treatment capabilities, near-shore aquatic conditions unsuitable for water-based recreation, important fish and wildlife habitat, presence of significant historic sites or any other feature of the natural land likely to be harmful to the health, safety or welfare of future residents of the proposed subdivision or of the community.

(2) *Consistency with other controls*. Subdivisions must conform to all official controls of this community. A subdivision will not be approved where a later variance from one or more standards in official controls would be needed to use the lots for their intended purpose. In areas not served by publicly owned sewer and water systems, a subdivision will not be approved unless domestic water supply is available and a sewage treatment system consistent with §§ 1102.08(3) and 1102.11 can be provided for every lot. Each lot shall meet the minimum lot size and dimensional requirements of § 1102.07(1) including at least a minimum contiguous lawn area, that is free of limiting factors sufficient for the construction of two standard soil treatment systems. Lots that would require use of holding tanks shall not be approved.

(Ord. 04-95, passed 4-10-1995)

§ 1102.13 SHORELAND PLANNED UNIT DEVELOPMENT (PUD).

(1) *Types of PUDs permissible*. Shoreland planned unit developments, as defined in § 1102.03, are allowed for new projects on undeveloped land, redevelopment of previously built sites or conversions of existing buildings and land.

(2) *Processing of shoreland PUDs*. Planned unit developments shall be processed as a conditional use permit or a rezoning to PUD in accordance with the City Zoning Code as well as the performance standards outlined herein.

(3) *Application for a PUDs*. The application for a PUD/CUP must submit the following documents in addition to documents required by Chapter 1001 of the city code and the City Zoning Code, Chapter 1007, prior to final action being taken on the application request:

(a) A site plan and/or plat for the project showing locations of property boundaries, surface water features, existing and proposed structures and other facilities, land alterations, sewage treatment and water supply systems where public systems will not be provided and topographic contours at ten-foot intervals or less. When a PUD is a combined commercial and residential development, the site plan and/or plat must indicate and distinguish which buildings and portions of the project are residential, commercial or a combination of the two.

(b) A property owners association agreement (for residential PUDs) with mandatory membership and all in accordance with the requirements of division (4)(c)3.

(c) Deed restrictions, covenants, permanent easements or other instruments that:

1. Properly address future vegetative and topographic alterations, construction of additional buildings, beaching of watercraft and construction of commercial buildings in residential PUDs; and

2. Ensure the long-term preservation and maintenance of open space in accordance with the criteria and analysis specified in division (4)(d).

(d) When necessary, a master plan/drawing describing the project and the floor plan for all commercial structures to be occupied.

(e) Those additional documents as requested by the city that are necessary to explain how the PUD will be designed and will function.

(4) *Site "suitable area" evaluation*. Suitable area for development within a shoreland planned unit developments (PUDs) shall exclude all wetland, watercourses, land below the ordinary high water level of public waters, public street rights-of-way and public parks. This suitable area and the proposed project are subject to PUD performance standards governing density and design.

(a) All PUDs must have access to public sanitary sewer and water.

(b) Lot area and width standards. The following lot are per unit standards shall apply to all PUDs within the Shoreland Overlay District provided that the resulting total development density in the shoreland area does not exceed the total city-wide shoreland density allowed based on State of Minnesota shoreland standards. The city, in its evaluation of any PUD, shall evaluate the proposed PUD density in light of the development capacity of the city-wide Shoreland Overlay District. Where the requirements of the underlying zoning district are more or less restrictive than those set forth herein, the more restrictive standards shall apply.

Residential (R-3, R-4 Zoning Districts)				
	NE	***RD***	***GD***	***T***
Lot area:				
Townhomes	5,000	5,000	5,000	5,000
Apartments/condominiums	2,900	2,900	2,900	2,900
Lot width:				
Townhomes	150	130	130	130
Apartments/condominiums	150	130	130	130
Setbacks:				
1. OHWL			200 feet	
2. Setback from streets:				
a. Right-of-way line of federal, state or county highway			40 feet	
b. Local street			30 feet	
3. Side yard setback			20 feet	
4. Setback between buildings on multiple building site			35 feet	
5. Bluff setback			50 feet	

(c) *Maintenance and administration requirements*.

1. *Provisions for preservation and maintenance.* Before final approval of a planned unit development, adequate provisions must be developed for preservation sand maintenance in perpetuity of open spaces and for the continued existence and functioning of the development.

2. *Open space preservation*. Deed restrictions, covenants, permanent easements, public dedication and acceptance or other equally effective and permanent means must be provided to ensure long-term preservation and maintenance of open space. The instruments must include all of the following protections:

a. Commercial uses prohibited (for residential PUDs);

b. Vegetation and topographic alterations other than routine maintenance prohibited;

c. Construction of additional buildings or storage of vehicles and other materials prohibited; and

d. Uncontrolled beaching of watercraft prohibited.

3. *Development organization and functioning*. Unless an equally effective alternative community framework is established, when applicable, all residential planned unit developments must use an owners association with the following features:

a. Membership must be mandatory for each dwelling unit or site purchaser and any successive purchasers;

b. Each member must pay a pro rata share of the association's expenses and unpaid assessments can become liens on units or sites;

c. Assessments must be adjustable to: accommodate changing conditions; and

d. The association must be responsible for insurance, taxes and maintenance of all commonly owned property and facilities.

(d) *Open space requirements*. Planned unit developments must contain open space meeting of the following criteria:

1. At least 50% of the total project area must be preserved as open space;

2. Dwelling units or sites, road rights-of-way or land covered by road surfaces, parking areas or, structures, except water-oriented accessory structures or facilities are developed areas and shall not be included in the computation of minimum open space;

3. Open space must include areas with physical characteristics unsuitable for development in their natural state and areas containing significant historic sites or unplatted cemeteries;

4. Open space may include outdoor recreational facilities for use by owners of dwelling units or sites, by guests staying in commercial dwelling units or site and by the general public;

5. Open space must not include commercial facilities or uses, but may contain water-oriented accessory structures or facilities;

6. The appearance of open space areas, including topography, vegetation and allowable uses, must be preserved by use of restrictive deed covenants, permanent easements, public dedication and acceptance or other equally effective and permanent means; and

7. The shore impact zone, based on normal structure setbacks, must be included as open space. For residential PUDs, at least 50% of the shore impact zone area of existing developments or at least 70% of the shore impacts zone area of new developments must be preserved in its natural or existing state. For commercial PUDs, at least 50% of the shore impact zone must be preserved in its natural state.

(e) *Erosion control and stormwater management*. Erosion control and stormwater management plans must be developed and the PUD must:

1. Be designed, and the construction managed, to minimize the likelihood of serious erosion occurring either during or after construction. This must be accomplished by limiting the amount and length of time or bare ground exposure. Temporary ground covers, sediment entrapment facilities, vegetated buffer strips or other appropriate techniques must be used to minimize erosion impacts on surface water features. Erosion control plans must be in accordance with the Lino Lakes local water management plan and approved by the City Council; and

2. Be designed and constructed to effectively manage reasonably expected quantities and qualities of stormwater runoff. Impervious surface coverage must not exceed 35% with an approved stormwater

management plan and consistency with § 1102.09.

(f) *Centralization and design of facilities*. Centralization and design of facilities and structures must be done according to the following standards.

1. Planned unit developments must be connected to publicly owned water supply and sewer systems.

2. Dwelling units or sites must be clustered into one or more groups and located on suitable areas of the development. They must be designed and located to meet or exceed the following dimensional standards for the relevant shoreland classification, setback from the ordinary high water level, elevation above the surface water features and maximum height.

3. Shore recreation facilities, including but not limited to swimming areas, docks and watercraft mooring areas and launching ramps, must be centralized and located in areas suitable for them. The shared lake access must be approved by the City Council. Evaluation of suitability must include consideration of land slope, water depth, vegetation, soils, depth to groundwater and bedrock or other relevant factors. The number of spaces provided for continuous beaching, mooring or docking of watercraft must not exceed one for each allowable dwelling unit or site in the first tier (notwithstanding existing mooring sites in an existing commercially used harbor). Launching ramp facilities including a small dock for loading and unloading equipment, may be provided for use by occupants of dwelling units or sites located in other tiers.

4. Structures, parking areas and other facilities must be treated to reduce visibility as viewed form public waters and adjacent shorelands by vegetation, topography, increased setbacks, color or other means acceptable to the City Council, assuming summer, leaf-on conditions. Vegetative and topographic screening must be preserved, if existing, or may be required to be provided.

5. Accessory structures and facilities, except water-oriented accessory structures, must meet the required principal structural setbacks and must be centralized.

6. Water-oriented accessory structures and facilities may be allowed if they meet or exceed design standards contained in § 1102.07(2) of this chapter and are centralized.

(5) *Conversions*. The city may allow existing resorts or other land uses and facilities to be converted to residential planned unit developments if all of the following standards are met.

(a) Proposed conversions must be initially evaluated using the same procedures for residential planned unit developments involving all new construction. Inconsistencies between existing features of the development and these standards must be identified.

(b) Deficiencies involving water supply and sewage treatment, structure color, impervious coverage, open space and shore recreation facilities must be corrected as part of the conversion or as specified in the conditional use permit.

(c) Shore impact zone deficiencies must be evaluated and reasonable improvements made as part of the conversion. These improvements must include, where applicable, the following:

1. Removal of extraneous buildings, docks or other facilities that no longer need to be located in shore impact zones;

2. Remedial measures to correct erosion sites and improve vegetative cover and screening of buildings and other facilities as viewed from the water; and

3. If existing dwelling units are located in shore impacts zones, conditions shall be attached to approvals of conversions that preclude exterior expansions in any dimension or substantial alterations. The conditions must also provide for future relocation of dwelling units, where feasible, to other locations, meeting all setback and elevation requirements when they are rebuilt or replaced.

(d) 1. Existing dwelling unit or dwelling site densities that exceed standards in division (4) may be allowed to continue but must not be allowed to be increased, either at the time of conversion or in the

future.

2. Efforts must be made during the conversion to limit impacts of high densities by requiring seasonal use, improving vegetative screening, centralizing shore recreation facilities, installing new sewage treatment systems or other means.

(Ord. 04-95, passed 4-10-1995)

CHAPTER 1103: FLOOD PLAIN MANAGEMENT

Section

1103.01 Statutory authorization, findings of fact and purpose

1103.02 General provisions

1103.03 Definitions

1103.04 Establishment of zoning districts

1103.05 Floodway District (FW)

1103.06 Flood Fringe District (FF)

1103.07 General Floodplain District (GF)

1103.08 Land development standards

1103.09 Public utilities, railroads, roads, and bridges

1103.10 Manufactured homes, manufactured home parks, recreational vehicle parks and recreational vehicles

1103.11 Administration

1103.12 Nonconformities

1103.13 Amendments

1103.99 Penalties and enforcement

§ 1103.01 STATUTORY AUTHORIZATION, FINDINGS OF FACT AND PURPOSE.

(1) *Statutory authorization.* The legislature of the State of Minnesota has, in M.S. Chs. 103F and 462, delegated the responsibility to local government units to adopt regulations designed to minimize flood losses.

(2) *Purpose.*

(a) This chapter regulates development in the flood hazard areas of the city. These flood hazard areas are subject to the 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.

(b) *National Flood Insurance Compliance.* This chapter is adopted to comply with the rules and regulations of the National Flood Insurance Program codified as 44 C.F.R. pt. 59 - 78, as amended, so as to maintain the community's eligibility in the National Flood Insurance Program.

(c) 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. 10-15, passed 11-23-2015)

§ 1103.02 GENERAL PROVISIONS.

(1) *Uses.* This chapter adopts the floodplain maps applicable to the city and includes three floodplain districts: floodway, flood fringe, and general floodplain.

(a) Where floodway and flood fringe districts are delineated on the floodplain maps, the standards of § 1103.05 or § 1103.06 will apply, depending on the location of a property.

(b) Locations where floodway and flood fringe districts are not delineated on the floodplain maps are considered to fall within the General Floodplain District. Within the General Floodplain District, the floodway district standards in § 1103.05 apply unless the floodway boundary is determined, according to the process outlined in § 1103.07. Once the floodway boundary is determined, the flood fringe district standards in § 1103.06 may apply outside the floodway.

(2) *Applicability.*

(a) This chapter applies to all lands within the jurisdiction of the city shown on the official zoning map and/or the attachments to the map as being located within the boundaries of the Floodway, Flood Fringe, or General Floodplain Districts.

(b) The Floodway, Flood Fringe and General Floodplain Districts are overlay districts that are superimposed on all existing zoning districts. The standards imposed in the overlay districts are in addition to any other requirements in the zoning ordinance. In case of a conflict, the more restrictive standards will apply.

(3) *Incorporation of maps by reference.* The following maps together with all materials are hereby adopted by reference and declared to be a part of the official zoning map and this chapter. The referenced material includes the Flood Insurance Study for Anoka County, Minnesota, and Incorporated Areas and the Flood Insurance Rate Map panels 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 City Clerk and the Zoning Administrator.

(4) *Regulatory flood protection elevation.* The regulatory flood protection elevation (RFPE) is 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 flood plain that result from designation of a floodway.

(5) *Interpretation.* The boundaries of the zoning districts are determined by scaling distances on the flood insurance rate map.

(a) Where a conflict exists between the floodplain limits illustrated on the official zoning map and actual field conditions, the flood elevations shall 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.

(b) Persons contesting the location of the district boundaries will be given a reasonable opportunity to present their case to the Board of Adjustment and to submit their own technical evidence.

(6) *Abrogation and greater restrictions.* It is not intended by this chapter to repeal, abrogate or impair any existing easements, covenants, deed restrictions, or other private agreements. However, where this chapter imposes greater restrictions, the provisions of this chapter shall prevail. All other ordinances inconsistent with this chapter are hereby repealed to the extent of the inconsistency only.

(7) *Warning and disclaimer of liability.* This chapter does not imply that areas outside of the floodplain districts or land uses permitted within such districts will be free from flooding or flood damages. The chapter does not create liability on the part of the city or its officers or employees for any flood damage that may result from reliance on this chapter or any administrative decision lawfully made under it.

(8) *Annexations.* The flood insurance rate map panels adopted by reference into § 1103.02(3) 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 land 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. 10-15, passed 11-23-2015)

§ 1103.03 DEFINITIONS.

Unless specifically defined below, words or phrases used in this chapter must be interpreted according to common usage and so as to give this chapter its most reasonable application.

ACCESSORY USE OR STRUCTURE. A use or structure on the same lot with, and of a nature customarily incidental and subordinate to, the principal use or structure.

BASE FLOOD ELEVATION. The elevation of the regional flood. The term ***BASE FLOOD ELEVATION*** is used in the flood insurance study.

BASEMENT. Any area of a structure, including crawl spaces, having its floor or base subgrade (below ground level) on all four sides, regardless of the depth of excavation below ground level.

CONDITIONAL USE. A specific type of structure or land use listed in the official control that may be allowed but only after an in-depth review procedure and with appropriate conditions or restrictions as provided in the official zoning controls or building codes and upon finding that:

(a) Certain conditions as detailed in the zoning ordinance exist; and

(b) The structure and/or land use conform to the comprehensive land use plan, if one exists, and are compatible with the existing neighborhood.

CRITICAL FACILITIES. Facilities necessary to a community's public health and safety, those that store or produce highly volatile, toxic or water-reactive materials, and those that house occupants that may be insufficiently mobile to avoid loss of life or injury. Examples of critical facilities include hospitals, correctional facilities, schools, daycare facilities, nursing homes, fire and police stations, wastewater treatment facilities, public electric utilities, water plants, fuel storage facilities, and waste handling and storage facilities.

DEVELOPMENT. Any manmade change to improved or unimproved real estate, including buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations, or storage of equipment or materials.

EQUAL DEGREE OF ENCROACHMENT. A method of determining the location of floodway boundaries so that floodplain lands on both sides of a stream are capable of conveying a proportionate share

of flood flows.

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 regulated as structures under this chapter.

FLOOD. A temporary increase in the flow or stage of a stream or in the stage of a wetland or lake that results in the inundation of normally dry areas.

FLOOD FREQUENCY. The frequency for which it is expected that a specific flood stage or discharge may be equaled or exceeded.

FLOOD FRINGE. That portion of the floodplain outside of the floodway. Flood fringe is synonymous with the term ***FLOODWAY FRINGE*** used in the Flood Insurance Study for Anoka County, Minnesota.

FLOODPLAIN. The beds proper and areas adjoining a wetland, lake or watercourse which have been or hereafter may be covered by the regional flood.

FLOODPROOFING. A combination of structural provisions, changes or adjustments to properties and structures subject to flooding, primarily for the reduction or elimination of flood damages.

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.

LOWEST FLOOR. The lowest floor of the lowest enclosed area (including basement). An unfinished or flood resistant enclosure, used solely for parking of vehicles, building access, or storage in an area other than a basement area, is not considered a building's lowest floor.

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, 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 the water.

ONE HUNDRED YEAR FLOODPLAIN. Lands inundated by the ***REGIONAL FLOOD***. (See definition.)

PRINCIPAL USE OR STRUCTURE. All uses or structures that are not accessory uses or structures.

REACH. A hydraulic engineering term to describe a longitudinal segment of a stream or river influenced by a natural or man-made obstruction. In an urban area, the segment of a stream or river between two consecutive bridge crossings would most typically constitute a reach.

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 or 100-year recurrence interval. ***REGIONAL FLOOD*** is synonymous with the term ***BASE FLOOD*** used in the Flood Insurance Study.

REGULATORY FLOOD PROTECTION ELEVATION (RFPE). An elevation not less than one foot above the elevation of the regional flood plus any increases in flood elevation caused by encroachments on the flood plain that result from designation of a floodway.

REPETITIVE LOSS. Flood related damages sustained by a structure on two separate occasions during a ten year period for which the cost of repairs at the time of each such flood event on the average equals or exceeds 25% of the market value of the structure before the damage occurred.

SPECIAL FLOOD HAZARD AREA. A term used for flood insurance purposes synonymous with ***ONE HUNDRED YEAR FLOODPLAIN***.

STRUCTURE. Anything constructed or erected on the ground or attached to the ground or on-site utilities, including, but not limited to, buildings, factories, sheds, detached garages, cabins, manufactured homes, recreational vehicles not meeting the exemption criteria specified in § 1103.10(2)(b) of this chapter and other similar items.

SUBSTANTIAL DAMAGE. Means 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:

(a) 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.

(b) Any alteration of a historic structure, provided that the alteration will not preclude the structure's continued designation as a historic structure. For the purpose of this chapter, ***HISTORIC STRUCTURE*** is as defined in 44 C.F.R. pt. 59.1.

VARIANCE. A modification of the strict provisions of this chapter as applied to a specific piece of property in order to provide relief for a property owner because of exceptional hardship imposed upon the property by this chapter. A ***VARIANCE*** shall normally be limited to height, density and yard requirements. A modification in the allowable uses within a district shall not be considered a ***VARIANCE***.

ZONING ADMINISTRATOR. The Community Development Director, or assigns, who is charged with the administration and enforcement of this chapter.

(Ord. 10-15, passed 11-23-2015)

§ 1103.04 ESTABLISHMENT OF ZONING DISTRICTS.

(1) *Districts.*

(a) *Floodway District.* The Floodway District includes those areas designated as floodway on the Flood Insurance Rate Map adopted in § 1103.02(3). For lakes, wetlands and other basins, the Floodway District includes those areas designated as Zone A or AE on the Flood Insurance Rate Map that are at or below the ordinary high water level as defined in M.S. § 103G.005, Subd. 14.

(b) *Flood Fringe District.* The Flood Fringe District includes those areas designated as flood fringe on the Flood Insurance Rate Map adopted in § 1103.02(3), as being within Zone AE but being located outside of the floodway. For lakes, wetlands and other basins (that do not have a floodway designated), the Flood

Fringe District includes those areas designated as Zone A or AE on the Flood Insurance Rate Map panels adopted in § 1103.02(3) that are below the 1% annual chance (100-year) flood elevation but above the ordinary high water level as defined in M.S. § 103G.005, Subd. 14.

(c) *General Floodplain District.* The General Floodplain District includes those areas designated as Zone A or Zone AE without a floodway on the Flood Insurance Rate Map adopted in § 1103.02(3), but not subject to the criteria in divisions (1)(a) and (b) above.

(2) *Compliance.* Within the floodplain districts established in this chapter, the use of any land, the use, size, type and location of structures on lots, the installation and maintenance of transportation, utility, water supply and waste treatment facilities, and the subdivision of land must comply with the terms of this chapter and other applicable regulations. All uses not listed as permitted uses or conditional uses in § 1103.05, 1103.06, and 1103.07, respectively, shall be prohibited. In addition, a caution is provided here that:

(a) New and replacement manufactured homes and certain recreational vehicles are subject to the general provisions of this chapter and specifically § 1103.10 and Ch. 1007: Zoning Code.

(b) Modifications, additions, structural alterations, normal maintenance and repair, or repair after damage to existing nonconforming structures and nonconforming uses of structures or land are regulated by the general provisions of this chapter and specifically § 1103.12 and Ch. 1007: Zoning Code.

(c) As-built elevations for elevated or flood-proofed structures must be certified by ground surveys and flood-proofing techniques must be designed and certified by a registered professional engineer or architect as specified in the general provision of this chapter and specifically as stated in § 1103.11.

(d) Critical facilities, as defined in § 1103.03, are prohibited in all floodplain districts.

(Ord. 10-15, passed 11-23-2015)

§ 1103.05 FLOODWAY DISTRICT (FW).

(1) *Permitted uses.* The following uses, subject to the standards set forth in § 1103.05(2), are permitted uses if otherwise allowed in the underlying base zoning district or any applicable overlay district:

(a) General farming, pasture, grazing, outdoor plant nurseries, horticulture, truck farming, forestry, sod farming and wild crop harvesting.

(b) Industrial-commercial loading areas, parking areas and airport landing strips.

(c) Open space uses, including but not limited to private and public golf courses, tennis courts, driving ranges, archery ranges, picnic grounds, boat launching ramps, seasonal docks, swimming areas, parks, wildlife and nature preserves, game farms, fish hatcheries, shooting preserves, hunting and fishing areas, and single- or multiple-purpose recreational trails.

(d) Residential lawns, gardens, parking areas and play areas as long as no permanent structures are constructed.

(e) Railroads, streets, bridges, utility transmission lines and pipelines, provided that the Department of Natural Resources' Area Hydrologist is notified at least ten days prior to issuance of any permit, and that the standards in divisions (4)(a), (4)(c)1., and (4)(f) of this section are met.

(2) *Standards for floodway permitted uses.*

(a) The use must have a low flood damage potential.

(b) With the exception of the uses listed in division (1)(e), the use must not obstruct flood flows or increase flood elevations and must not involve structures, fill, obstructions, excavations or storage of

materials or equipment.

(c) Any facility that will be used by employees or the general public must be designed with a flood warning system that provides adequate time for evacuation if the area is inundated to a depth and velocity such that the depth (in feet) multiplied by the velocity (in feet per second) would exceed a product of four upon occurrence of the regional (1% chance) flood.

(3) *Conditional uses.* The following uses may be allowed as conditional uses following the standards and procedures set forth in § 1103.11(4) of this chapter and further subject to the standards set forth in division (4), if otherwise allowed in the underlying zoning district or any applicable overlay district.

(a) Structures accessory to the uses listed in division (1) and the uses listed below.

(b) Extraction and storage of sand, gravel and other materials.

(c) Marinas, boat rentals, permaent docks, piers, wharves and water control structures,

(d) Storage yards for equipment, machinery or materials.

(e) Placement of fill or construction of fences that obstruct flood flows. Farm fences, as defined in § 1103.03, are permitted uses.

(f) Travel-ready recreational vehicles meeting the exemption standards in § 1103.10(3).

(g) Levees or dikes intended to protect agricultural crops for a frequency flood event equal to or less than the 10-year frequency flood event.

(4) *Standards for floodway conditional uses.*

(a) *All uses.* A conditional 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.

(b) *Fill; storage of materials and equipment.*

1. The storage or processing of materials that are, in time of flooding, flammable, explosive or potentially injurious to human, animal or plant life is prohibited.

2. Fill, dredge spoil, and other similar materials deposited or stored in the floodplain must be protected from erosion by vegetative cover, mulching, riprap or other acceptable method. Permanent sand and gravel operations and similar uses must be covered by a long-term site development plan.

3. Temporary placement of fill, other materials, or equipment which would cause an increase to the stage of the 1% percent chance or regional flood may only be allowed if the City Council has approved a plan that assures removal of the materials from the floodway based upon the flood warning time available.

(c) *Accessory structures.*

1. Accessory structures must not be designed for human habitation.

2. Accessory structures, if permitted, must be constructed and placed on the building site so as to offer the minimum obstruction to the flow of flood waters:

a. Whenever possible, structures must be constructed with the longitudinal axis parallel to the direction of flood flow; and

b. So far as practicable, structures must be placed approximately on the same flood flow lines as those of adjoining structures.

3. Accessory structures shall be elevated on fill or structurally dry floodproofed in accordance with the FP-1 or FP-2 flood-proofing classifications in the State Building Code. All floodproofed accessory structures must meet the following additional standards:

a. The structure must be adequately anchored to prevent flotation, collapse or lateral movement and designed to equalize hydrostatic flood forces on exterior walls; and

b. Any mechanical and utility equipment in the structure must be elevated to or above the regulatory flood protection elevation or properly floodproofed.

4. As an alternative, an accessory structure may be internally/wet floodproofed to the FP-3 or FP-4 flood-proofing classification in the State Building Code, provided the accessory structure constitutes a minimal investment, does not exceed 576 square feet in the size. A detached garage may only be used for parking of vehicles and limited storage. All flood-proofed accessory structures must meet the following standards:

a. To allow for the equalization of hydrostatic pressure, there must be a minimum of two automatic openings in the outside walls of the structure, with a total net area of not less than one square inch for every square foot of enclosed area subject to flooding; and

b. There must be openings on at least two sides of the structure and the bottom of all openings must be no higher than one foot above the lowest adjacent grade to the structure. Using human intervention to open a garage door prior to flooding will not satisfy this requirement for automatic openings.

(d) Structural works for flood control that will change the course, current or cross section of protected wetlands or public waters are subject to the provisions of M.S. § 103G.245.

(e) A levee, dike or floodwall constructed in the floodway must not cause an increase to the 1% chance or regional flood. The technical analysis must assume equal conveyance or storage loss on both sides of a stream.

(f) Floodway developments must not adversely affect the hydraulic capacity of the channel and adjoining floodplain of any tributary watercourse or drainage system.

(Ord. 10-15, passed 11-23-2015)

§ 1103.06 FLOOD FRINGE DISTRICT (FF).

(1) *Permitted uses.* Permitted uses are those uses of land or structures allowed in the underlying zoning district(s) that comply with the standards in division (2).

(2) *Standards for flood fringe permitted uses.*

(a) All structures, including accessory structures, must be elevated on fill so that the lowest floor, as defined, is at or above the regulatory flood protection elevation. The finished fill elevation for structures must be no lower than one foot below the regulatory flood protection elevation and the fill must extend at the same elevation at least 15 feet beyond the outside limits of the structure.

1. All service utilities, including ductwork, must be elevated or water-tight to prevent infiltration of floodwaters.

2. As an alternative to elevation on fill, an accessory structure that constitutes a minimal investment and that does not exceed 576 square feet in size may be internally floodproofed in accordance with § 1103.05(4)(c).

(b) The cumulative placement of fill or similar material on a parcel must not exceed 1,000 cubic yards, unless the fill is specifically intended to elevate a structure in accordance with division (2) of this section, or if allowed as a conditional use under division (3)(c) below.

(c) The storage of any materials or equipment must be elevated on fill to the regulatory flood protection elevation.

(d) The storage or processing of materials that are, in time of flooding, flammable, explosive, or potentially injurious to human, animal, or plant life is prohibited.

(e) Fill must be properly compacted and the slopes must be properly protected by the use of riprap, vegetative cover or other acceptable method.

(f) All new principal structures must have vehicular access at or above an elevation not more than two feet below the regulatory flood protection elevation, or must have a flood warning /emergency evacuation plan acceptable to the City Council.

(g) Accessory uses such as yards, railroad tracks, and parking lots may be at an elevation lower than the regulatory flood protection elevation. However, any facilities used by employees or the general public must be designed with a flood warning system that provides adequate time for evacuation if the area is inundated to a depth and velocity such that the depth (in feet) multiplied by the velocity (in feet per second) would exceed a product of four upon occurrence of the regional (1% chance) flood.

(h) Interference with normal manufacturing/industrial plant operations must be minimized, especially along streams having protracted flood durations. In considering permit applications, due consideration must be given to the needs of industries with operations that require a floodplain location.

(i) Flood fringe developments must not adversely affect the hydraulic capacity of the channel and adjoining floodplain of any tributary watercourse or drainage system.

(j) Manufactured homes and recreational vehicles must meet the standards of § 1103.10 of this chapter.

(3) *Conditional uses.* The following uses and activities may be allowed as conditional uses, if allowed in the underlying zoning district(s) or any applicable overlay district, following the procedures in § 1103.11(4) of this chapter.

(a) Any structure that is not elevated on fill or floodproofed in accordance with division (2)(a) of this section.

(b) Storage of any material or equipment below the regulatory flood protection elevation.

(c) The cumulative placement of more than 1,000 cubic yards of fill when the fill is not being used to elevate a structure in accordance with division (2)(a) of this chapter.

(4) *Standards for flood fringe conditional uses.*

(a) The standards listed in divisions (2)(d) through (j) apply to all conditional uses.

(b) Basements, as defined by § 1103.03 of this chapter, are subject to the following:

1. Residential basement construction is not allowed below the regulatory flood protection elevation.

2. Non-residential basements may be allowed below the regulatory flood protection elevation provided the basement is structurally dry floodproofed in accordance with division (4)(c) of this section.

(c) All areas of nonresidential structures, including basements, to be placed below the regulatory flood protection elevation must be floodproofed in accordance with the structurally dry floodproofing classifications in the State Building Code. Structurally dry floodprooflng must meet the FP-1 or FP-2 floodproofing classification in the State Building Code, which requires making the structure watertight with the walls substantially impermeable to the passage of water and with structural components capable of resisting hydrostatic and hydrodynamic loads and the effects of buoyancy. Structures wet floodproofed to the FP-3 or FP-4 classification are not permitted.

(d) The placement of more than 1,000 cubic yards of fill or other similar material on a parcel (other than for the purpose of elevating a structure to the regulatory flood protection elevation) must comply with an approved erosion/sedimentation control plan.

1. The plan must clearly specify methods to be used to stabilize the fill on site for a flood event at a minimum of the regional (1% chance) flood event.

2. The plan must be prepared and certified by a registered professional engineer or other qualified individual acceptable to the City Council.

3. The plan may incorporate alternative procedures for removal of the material from the floodplain if adequate flood warning time exists.

(e) Storage of materials and equipment below the regulatory flood protection elevation must comply with an approved emergency plan providing for removal of such materials within the time available after a flood warning.

(f) Alternative elevation methods other than the use of fill may be utilized to elevate a structure's lowest floor above the regulatory flood protection elevation. These alternative methods may include the use of stilts, pilings, parallel walls, etc., or above-grade, enclosed areas such as crawl spaces or tuck under garages. The base or floor of an enclosed area shall be considered above-grade and not a structure's basement or lowest floor if:

1. The enclosed area is above-grade on at least one side of the structure;

2. It is designed to internally flood and is constructed with flood resistant materials; and

3. It is used solely for parking of vehicles, building access or storage. The above-noted alternative elevation methods are subject to the following additional standards:

a. *Design and certification.* The structure's design and as-built condition must be certified by a registered professional engineer or architect as being in compliance with the general design standards of the State Building Code and, specifically, that all electrical, heating, ventilation, plumbing and air conditioning equipment and other service facilities must be at or above the regulatory flood protection elevation or be designed to prevent flood water from entering or accumulating within these components during times of flooding.

b. *Specific standards for above-grade, enclosed areas.* Above-grade, fully enclosed areas such as crawl spaces or tuck under garages must be designed to internally flood and the design plans must stipulate:

i. The minimum area of openings in the walls where internal flooding is to be used as a floodproofing technique. There shall be a minimum of two openings on at least two sides of the structure and the bottom of all openings shall be no higher than one foot above grade. The automatic openings shall have a minimum net area of not less than one square inch for every square foot of enclosed area subject to flooding unless a registered professional engineer or architect certifies that a smaller net area would suffice. The automatic openings may be equipped with screens, louvers, valves, or other coverings or devices provided that they permit the automatic entry and exit of flood waters without any form of human intervention; and

ii. That the enclosed area will be designed of flood resistant materials in accordance with the FP-3 or FP-4 classifications in the State Building Code and shall be used solely for building access, parking of vehicles or storage.

(Ord. 10-15, passed 11-23-2015)

§ 1103.07 GENERAL FLOODPLAIN DISTRICT (GF).

(1) *Permitted uses.*

(a) The uses listed in § 1103.05(1) of this chapter.

(b) All other uses are subject to the floodway/flood fringe evaluation criteria specified in division (2) below. Section 1103.05 applies if the proposed use is determined to be in the Floodway District. Section 1103.06 applies if the proposed use is determined to be in the Flood Fringe District.

(2) *Procedures for floodway and flood fringe determinations.*

(a) Upon receipt of an application for a permit or other approval within the General Floodplain District, the Zoning Administrator must obtain, review and reasonably utilize any regional flood elevation and floodway data available from a federal, state, or other source.

(b) If regional flood elevation and floodway data are not readily available, the applicant must furnish additional information, as needed, to determine the regulatory flood protection elevation and whether the proposed use would fall within the Floodway or Flood Fringe District. Information must be consistent with accepted hydrological and hydraulic engineering standards and the standards in division (c)3. below.

(c) The determination of floodway and flood fringe must include the following components, as applicable:

1. Estimate the peak discharge of the regional (1% chance) flood.

2. Calculate the water surface profile of the regional flood based upon a hydraulic analysis of the stream channel and overbank areas.

3. Compute the floodway necessary to convey or store the regional flood without increasing flood stages more than one-half foot. A lesser stage increase than one-half foot is required if, as a result of the stage increase, increased flood damages would result. An equal degree of encroachment on both sides of the stream within the reach must be assumed in computing floodway boundaries.

(d) The Zoning Administrator will review the submitted information and assess the technical evaluation and the recommended Floodway and/or Flood Fringe District Boundary. The assessment must include the cumulative effects of previous floodway encroachments. The Zoning Administrator may seek technical assistance from a designated engineer or other expert person or agency, including the Department of Natural Resources. Based on this assessment, the Zoning Administrator may approve or deny the application.

(e) Once the Floodway and Flood Fringe District boundaries have been determined, the Zoning Administrator must process the permit application consistent with the applicable provisions of §§ 1103.05 and 1103.06 of this chapter.

(Ord. 10-15, passed 11-23-2015)

§ 1103.08 LAND DEVELOPMENT STANDARDS.

(1) *In general.* Recognizing that flood prone areas may exist outside of the designated floodplain districts, the requirements of this section apply to all land within the city.

(2) *Subdivisions.* No land may be subdivided which is unsuitable for reasons of flooding or inadequate drainage, water supply or sewage treatment facilities. Manufactured home parks and recreational vehicle parks or campgrounds are considered subdivisions under this chapter.

(a) All lots within the floodplain districts must be able to contain a building site outside of the Floodway District at or above the regulatory flood protection elevation.

(b) All subdivisions must have road access both to the subdivision and to the individual building sites no lower than two feet below the regulatory flood protection elevation, unless a flood warning emergency plan for the safe evacuation of all vehicles and people during the regional (1% chance) flood has been

approved by the City Council. The plan must be prepared by a registered engineer or other qualified individual, and must demonstrate that adequate time and personnel exist to carry out the evacuation.

(c) For all subdivisions in the floodplain, the floodway and flood fringe district boundaries, the regulatory flood protection elevation and the required elevation of all access roads must be clearly labeled on all required subdivision drawings and platting documents.

(d) In the General Floodplain District, applicants must provide the information required in § 1103.07(2) of this chapter to determine the regional flood elevation, the floodway and flood fringe district boundaries and the regulatory flood protection elevation for the subdivision site.

(e) If a subdivision proposal or other proposed new development is in a flood prone area, any such proposal must be reviewed to assure that:

1. All such proposals are consistent with the need to minimize flood damage within the flood prone area;

2. All public utilities and facilities, such as sewer, gas, electrical, and water systems are located and constructed to minimize or eliminate flood damage; and

3. Adequate drainage is provided to reduce exposure of flood hazard.

(3) *Building sites.* If a proposed building site is in a flood prone area, all new construction and substantial improvements (including the placement of manufactured homes) must be:

(a) Designed (or modified) and adequately anchored to prevent floatation, collapse, or lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy;

(b) Constructed with materials and utility equipment resistant to flood damage;

(c) Constructed by methods and practices that minimize flood damage; and

(d) Constructed with electrical, heating, ventilation, plumbing, and air conditioning equipment and other service facilities that are designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding.

(Ord. 10-15, passed 11-23-2015)

§ 1103.09 PUBLIC UTILITIES, RAILROADS, ROADS, AND BRIDGES.

(1) *Building site.* All public utilities and facilities such as gas, electrical, sewer, and water supply systems to be located in the floodplain must be floodproofed in accordance with the State Building Code or elevated to the regulatory flood protection elevation.

(2) *Public transportation facilities.* Railroad tracks, roads, and bridges to be located within the floodplain must comply with §§ 1103.05 and 1103.06 of this chapter. These transportation facilities must be elevated to the regulatory flood protection elevation where failure or interruption of these facilities would result in danger to the public health or safety or where such facilities are essential to the orderly functioning of the area. Minor or auxiliary roads or railroads may be constructed at a lower elevation where failure or interruption of transportation services would not endanger the public health or safety.

(3) *On-site water supply and sewage treatment systems.* Where public utilities are not provided:

(a) On-site water supply systems must be designed to minimize or eliminate infiltration of flood waters into the systems;

(b) 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 must not be subject to impairment or contamination during times of flooding; and

(c) Any sewage treatment system designed in accordance with the state's current statewide standards for on-site sewage treatment systems is considered to be in compliance with this section.

(Ord. 10-15, passed 11-23-2015)

§ 1103.10 MANUFACTURED HOMES, MANUFACTURED HOME PARKS, RECREATIONAL VEHICLE PARKS, AND RECREATIONAL VEHICLES.

(1) *Manufactured home parks.* New manufactured home parks and expansions to existing manufactured home parks are prohibited in any floodplain district.

(2) *Manufactured homes.*

(a) The placement or replacement of manufactured home units are prohibited in the Floodway District.

(b) The placement or replacement of manufactured home units in the Flood Fringe District is subject to the requirements of § 1103.06 of this chapter and the following standards:

1. New and replacement manufactured homes must be elevated in compliance with § 1103.06 of this chapter and 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.

2. New or replacement manufactured homes in existing manufactured home parks must meet the vehicular access requirements for subdivisions in § 1103.08(2)(b).

(3) *Recreational vehicle parks.* New recreational vehicle parks or campgrounds and expansions to existing recreational vehicle parks or campgrounds are prohibited in any floodplain district. Placement of recreational vehicles in existing recreational vehicle parks or campgrounds in the floodplain must meet the exemption criteria below or be treated as new structures meeting the requirements of § 1103.10(4)(b) in this section.

(4) *Recreational vehicles.*

(a) Recreational vehicles are exempt from the provisions of this chapter if they are placed in any of the following areas and meet the criteria listed in division (4)(b):

1. Individual lots or parcels of record;

2. Existing commercial recreational vehicle parks or campgrounds; and

3. Existing condominium-type associations.

(b) *Criteria for exempt recreational vehicles.*

1. The vehicle must have a current license required for highway use;

2. The vehicle must be highway ready, meaning on wheels or the internal jacking system, attached to the site only by quick disconnect type utilities commonly used in campgrounds and recreational vehicle parks;

3. No permanent structural type additions may be attached to the vehicle;

4. The vehicle and associated use must be permissible in any pre-existing, underlying zoning district;

5. Accessory structures are not permitted within the Floodway District. Any accessory structure in the Flood Fringe District must be constructed of flood-resistant materials and be securely anchored, meeting the requirements applicable to manufactured homes in division (4)(b); and

6. An accessory structure must constitute a minimal investment.

(c) Recreational vehicles that are exempt in division (4)(b) lose this exemption when development occurs on the site that exceeds a minimal investment for an accessory structure such as a garage or storage building. The recreational vehicle and all accessory structures will then be treated as new structures subject to the elevation and floodproofing requirements of § 1103.06 of this chapter. No development or improvement on the parcel or attachment to the recreational vehicle is allowed that would hinder the removal of the vehicle should flooding occur.

(Ord. 10-15, passed 11-23-2015)

§ 1103.11 ADMINISTRATION.

(1) *Zoning Administrator.* The Zoning Administrator shall administer this chapter.

(2) *Permit requirements.*

(a) *Permit required.* A permit must be obtained from the Zoning Administrator prior to conducting the following activities, in the floodplain:

1. The erection, addition, modification, rehabilitation, or alteration of any building, structure or portion thereof. 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 this chapter;

2. The use or change of use of a building, structure or land;

3. The construction of a dam, fence, or on-site septic system, although a permit is not required for a farm fence as defined by this chapter;

4. The change or extension of a nonconforming use;

5. The repair of a structure that has been damaged by flood, fire, tornado, or any other source;

6. The placement of fill, excavation of materials or the storage of materials or equipment within the floodplain;

7. Relocation or alteration of a watercourse, including new or replacement culverts and bridges, unless a public waters work permit has been applied for; and/or

8. Any other type of development as defined in this chapter.

(b) *Application for permit.* Permit applications must be submitted to the Zoning Administrator on forms provided by the Zoning Administrator. The permit application must include the following as applicable:

1. A site plan showing all pertinent dimensions, elevations, existing or proposed buildings, structures, and significant natural features having an influence on the permit.

2. Location of fill or storage of materials in relation to the stream channel.

3. Copies of any required municipal, county, state or federal permits or approvals.

4. Other relevant information requested by the Zoning Administrator as necessary to properly evaluate the permit application.

(c) *Certificate of zoning compliance for new, altered, or nonconforming use.* No building, land or structure may be occupied or used in any manner until a certificate of zoning compliance has been issued by the Zoning Administrator stating that the use of the building or land conforms to the requirements of this chapter.

(d) *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.

(e) *Record of first floor elevation.* The Zoning Administrator shall maintain a record of the elevation of the lowest floor (including basement) of all new structures and alterations or additions to existing structures in the floodplain. The Zoning Administrator must also maintain a record of the elevations to which structures and alterations or additions to structures are floodproofed.

(f) *Notification 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 the 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).

(g) *Notification to FEMA when physical changes increase or decrease base flood elevations.* As soon as 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.

(3) *Variances.* An application for a variance to the provisions of this chapter will be processed in accordance with Ch. 1007: Zoning Code and reviewed in accordance with the following:

(a) *Adherence to state floodplain management standards.* 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.

(b) *Additional variance criteria.* The following additional variance criteria of the Federal Emergency Management Agency must be satisfied:

1. 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.

2. Variances may only be issued by a community upon:

a. Showing of good and sufficient cause;

b. Determination that failure to grant the variance would result in exceptional hardship to the applicant; and

c. 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.

3. Variances may only be issued upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief.

(c) *Flood insurance notice.* 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. Such notification must be maintained with a record of all variance actions.

(d) *Factors used in decision making.* In passing variance applications, the City Council must consider all relevant factors specified in other sections of this chapter and those factors identified in division (5) of this section.

(e) *Submittal of hearing notices to the Department of Natural Resources (DNR).* The Zoning Administrator must submit hearing notices for proposed variances to the DNR 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.

(f) *Submittal of final decisions to the DNR.* A copy of all decisions granting variances must be forwarded to the DNR within ten days of such action. The notice may be sent by electronic mail or U.S. Mail to the respective DNR area hydrologist.

(g) *Record-keeping.* 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.

(4) *Conditional uses.*

(a) *Application.* An application for a conditional use permit under the provisions of this chapter will be processed and reviewed in accordance with Chapter 1007: Zoning Code, in addition to the following supplemental information:

1. *Determination of flood hazards.* Upon receipt of an application for a conditional use permit for a use within the Flood Plain Overlay District where the regulatory flood protection elevation is unknown, the applicant shall be required to furnish the following information as is deemed necessary by the Zoning Administrator for the determination of the regulatory flood protection elevation:

a. A typical cross section showing the channel of the stream, elevation of land areas adjoining each side of the channel, cross-sectional areas to be occupied by the proposed development and high water information;

b. Plan (surface view) showing elevations or contours of the ground; pertinent structures, fill or storage elevations; size, location and spatial arrangement of all proposed and existing structures on the site; location and elevation of streets; photographs showing existing land uses and vegetation upstream and downstream; and soil type; and

c. Profile showing the slope of the bottom of the channel or flow line of the stream for at least 500 feet in either direction from the proposed development.

2. One copy of the above information shall be transmitted to a designated engineer or other expert person or agency for technical assistance in determining whether the proposed use adversely affects the capacity of the flood plain and to determine the regulatory flood protection elevation. Procedures consistent with Minnesota Regulations NR 86-87 shall be followed in this expert evaluation. The designated engineer or expert shall:

a. Estimate the peak discharge of the regional flood;

b. Calculate the water surface profile of the regional flood based upon a hydraulic analysis of the stream channel and overbank areas; and

c. Compute the area necessary to convey the regional flood without increasing flood stages more than one-half foot. An equal degree of encroachment on both sides of the stream within the reach shall be assumed in computing the area of the regional flood.

3. Based upon the technical evaluation of the designated engineer or expert, the City Council shall determine whether the proposed use adversely affects the capacity of the flood plain or the regional flood protection elevation at the site.

(b) *Factors used in decision making.* In passing upon conditional use applications, the City Council must consider all relevant factors specified in other sections of this chapter and those factors identified in division (5) of this section.

(c) *Conditions attached to conditional use permits.* The City Council may attach such conditions to the granting of the conditional use permits as it deems necessary to fulfill the purpose of this chapter. These conditions may include, but are not limited to, the following:

1. Modification of waste treatment and water supply facilities;

2. Limitations on period of use, occupancy and operation;

3. Imposition of operations, controls, sureties and deed restrictions;

4. Requirements of construction of channel modifications, compensatory storage, dikes, levees and other protective measures; and

5. Flood-proofing measures, in accordance with the State Building Code and this chapter. The applicant must submit a plan or document certified by a registered professional engineer or architect that the flood-proofing measures are consistent with the regulatory flood protection elevation, the local water management plan and associated flood factors for the particular area.

(d) *Submittal of hearing notices to the Department of Natural Resources (DNR).* The Zoning Administrator must submit hearing notices for proposed conditional uses to the DNR 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.

(e) *Submittal of final decisions to the DNR.* A copy of all decisions granting conditional uses must be forwarded to the DNR within ten days of such action. The notice may be sent by electronic mail or U.S. Mail to the respective DNR area hydrologist.

(5) *General considerations.* The community shall consider the following factors in granting variances and imposing conditions on variances and conditional uses in floodplains:

(a) The potential danger to life and property due to increased flood heights or velocities caused by encroachments;

(b) The danger that materials may be swept onto other lands or downstream to the injury of others;

(c) The proposed water supply and sanitation systems, if any, and the ability of these systems to minimize the potential for disease, contamination and unsanitary conditions;

(d) The susceptibility of any proposed use and its contents to flood damage and the effect of such damage on the individual owner;

(e) The importance of the services to be provided by the proposed use to the community;

(f) The requirements of the facility for a waterfront location;

(g) The availability of viable alternative locations for the proposed use that are not subject to flooding;

(h) The compatibility of the proposed use with existing development and development anticipated in the foreseeable future;

(i) The relationship of the proposed use to the comprehensive land use plan and flood plain management program for the area;

(j) The safety of access to the property in times of flood for ordinary and emergency vehicles;

(k) The expected heights, velocity, duration, rate of rise and sediment transport of the flood waters expected at the site.

(Ord. 10-15, passed 11-23-2015)

§ 1103.12 NONCONFORMITIES.

Continuance of nonconformities. 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 section may be continued subject to the following conditions. Historic structures, as identified in § 1103.03 of this chapter, are subject to the provisions of division (1) through (7) below.

(1) A nonconforming use, structure, or occupancy must not be expanded, changed, enlarged or altered in a way that increases its flood damage potential or degree of obstruction to flood flows except as provided in division (2) below. Expansion or enlargement of uses, structures or occupancies within the Floodway District is prohibited.

(2) Any addition or structural alteration to a nonconforming structure or nonconforming use that would result in increasing its flood damage potential must be protected to the regulatory flood protection elevation in accordance with any of the elevation on fill or floodproofing techniques (i.e., FP-1 through FP-4 floodproofing classifications) allowable in the State Building Code, except as further restricted in (3) and (7) below.

(3) If the cost of all previous and proposed alterations and additions exceeds 50% of the market value of the nonconforming structure, then the entire structure must meet the standards of § 1103.05 or § 1103.06 of this chapter for new structures depending upon whether the structure is in the Floodway or Flood Fringe District, respectively. 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.

(4) 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.

(5) If any nonconformity is substantially damaged, as defined in § 1103.03 of this chapter, it may not be reconstructed except in conformity with the provisions of this chapter. The applicable provisions for establishing new uses or new structures in § 1103.05 or § 1103.06 will apply depending upon whether the use or structure is in the Floodway or Flood Fringe, respectively.

(6) If any nonconforming use or structure experiences a repetitive loss, as defined in § 1103.03 of this chapter, it must not be reconstructed except in conformity with the provisions of this chapter.

(7) Any substantial improvement, as defined in § 1103.03 of this chapter, to a nonconforming structure requires that the existing structure and any additions must meet the requirements of § 1103.05 or § 1103.06 of this chapter for new structures, depending upon whether the structure is in the Floodway or Flood Fringe District.

(Ord. 10-15, passed 11-23-2015)

§ 1103.13 AMENDMENTS.

(1) *Floodplain designation; restrictions on removal.* The floodplain designation on the official floodplain map must 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 (DNR) if the Commissioner determines that, through other measures, lands are adequately protected for the intended use.

(2) *Amendments require DNR approval.* All amendments to this chapter must be submitted to and approved by the Commissioner of the Department of Natural Resources prior to adoption. The Commissioner must approve the amendment prior to community approval.

(3) *Map revisions 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 § 1103.02(3) of this chapter.

(Ord. 10-15, passed 11-23-2015)

§ 1103.99 PENALTIES AND ENFORCEMENT.

(1) *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 or conditional uses) constitute a misdemeanor and will be punishable as defined by law.

(2) Nothing in this chapter restricts the city from such taking 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 shall constitute an additional violation of this chapter and shall be prosecuted accordingly.

(3) *Enforcement.* In responding to a suspected ordinance violation, the Zoning Administrator and city 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.

(a) When a violation is either discovered by or brought to the attention of the Zoning Administrator, the Zoning Administrator shall immediately investigate the situation and document the nature and extent of the violation of the official control. As soon as is reasonably possible, this information will be submitted to the appropriate State Department of Natural Resources and Federal Emergency Management Agency regional office along with the city's plan of action to correct the violation to the degree possible.

(b) The Zoning Administrator shall notify the suspected party of the requirements of this chapter and all other official controls and the nature and extent of the suspected violation of these controls. If the structure and/or use is under construction or development, the Zoning Administrator may order the construction or development immediately halted until a proper permit or approval is granted by the community. If the construction or development is already completed, then the Zoning Administrator may either:

1. Issue an order identifying the corrective actions that must be made within a specified time period to bring the use or structure into compliance with the official controls; or

2. Notify the responsible party to apply for and after-the-fact permit/development approval within a specified period of time not to exceed 30 days.

(Ord. 10-15, passed 11-23-2015)

Appendix D – Issues, Goals, Policies and Implementation

City-Wide Issues, Goals, and Policies

RMU-Specific Issues, Goals and Policies

ISSUE CATEGORY	ISSUE NO.	ISSUE	GOAL NO.	GOAL	POLICY NO.	POLICIES	Water Rate and Quantity	Water Quality	Wetland Management	Floodpain Management	Public Ditch System	Groundwater Management	Natural Resources	Erosion and Sediment Control	Regulations, Permitting and Reporting	Monitoring, Maintenance, and Inspection	Public Outreach and Education	Financing
Water Rate & Quantity	1	Increased surface water runoff rates and volumes	1	Reduce present and future runoff rates and volumes	1	Continue to enforce standards for stormwater runoff quantity from new and redevelopment projects consistent with RCWD, VLAWMO, and NPDES requirements.	**X**		x	x			x	x	x	x		
					2	Implement volume control practices to address areas of identified rate and volume concern	**X**			x								
					3	Support implementation of RCWD Comprehensive Stormwater Management Plans to provide an alternative means of meeting RCWD water quantity and rate rules.	**X**	x	x	x	x		x		x			
					4	Recognize the potential uncertainty associated with managing water resources and understand the implications of emerging issues, such as climate change, and use Adaptive Management when appro	**X**	x								x		
					5	Promote Better Site Design development techniques in developing and redeveloping areas to minimize runoff volumes and maintain water quality	**X**	x		x				x	x			
					6	Promote the use of regional BMPs where appropriate to reduce the rate and volume of runoff	**X**								x			
Water Quality	2	Stormwater runoff carrying sediment, nutrients, road salts, and hydrocarbons	1	Protect and improve water quality of City lakes, welands, creeks and other aquatic assets	1	Develop specific management plans for each Resource Management Unit	x	**X**	x	x			x	x				
					2	Preserve and improve the recreational resources associated with water by improving water quality		**X**					x					
					3	Continue to enforce standards for stormwater runoff quality from new and redevelopment projects consistent with RCWD, VLAWMO, and NPDES requirements.	x	**X**	x	x			x	x	x	x		
					4	Incorporate TMDL limits, when determined, into the City's Local Water Management Plan to reduce degradation and improve the quality of the City's water resources		**X**					x		x	x		
					5	Manage City-owned facilities subject to MS4 program requirements, consistent with permit conditions		**X**					x		x	x		
					6	Implement and enforce a program to detect and eliminate illicit discharges in accordance with the City's MS4 requirements		**X**					x		x	x		
					7	Manage septic systems in conformance with state standards to protect the quality of water and natural resources		**X**					x		x	x	x	
					8	Educate residents on the importance of cleaning up after pets to reduce pollutants entering the stormwater system.		**X**					x		x		x	
			2	Initiate and continue collaborations to address, restore, and preserve the water quality of the City's lakes, wetlands, creeks, and other aquatic assets	1	Partner and work with RCWD, VLAWMO, Anoka County Soil and Water Conservation District, and adjacent local governments to protect high quality resources		**X**	x				x		x	x	x	
					2	Collaborate with adjacent jurisdictions and agencies to meet TMDL goals and remove impaired water bodies from the impaired waters list		**X**					x		x	x	x	
					3	Facilitate data sharing among public entities that have jurisdiction or facilities within the City		**X**							x	x	x	
Wetland Management	3	Loss of wetland acres, function and value	1	Maintain and enhance, where possible, the functions and services of existing wetlands and associated habitats within the City	1	Continue to support the administration of the WCA requirements within the City by the RCWD and VLAWMO			**X**				x		x	x		
					2	Avoid impacts to upland natural communities that are critical to wetland wildlife habitat function and incorporate these into the City's Greenway System Plan			**X**				x		x			
					3	Integrate parcel- or project-based wetland replacement with watershed-based restoration and enhancement locations			**X**				x		x			
					4	Manage wetland resources using the flexibility afforded by the state and federal rules, through the implemenation of RMU Plans and the Special Area Management Plan			**X**				x		x	x		
					5	Continue to enforce standards for wetland management for new and redevelopment projects consistent with RCWD, VLAWMO, and NPDES requirements.			**X**				x		x	x		
					6	Promote Better Site Design development techniques in developing and redeveloping areas to avoid or minimize wetland impacts	x	x	**X**	x			x	x	x			
					7	Consider providing incentives to private landowners who avoid or minimize wetland impacts or restore wetlands.			**X**				x				x	x
					8	Require wetland functional assessments, based on accepted methodology, on new development projects to ensure wetland function and services are preserved to the extent possible.			**X**				x		x	x		
					9	Consider creation of wetland banks to provide local replacement options.			**X**				x		x	x		
Floodplain Management	4	Existing flooding and floodprone areas	1	Provide adequate storage and conveyance of runoff to protect the public safety and minimize property damage	1	Preserve and manage the 100-year floodplain storage along and within waterbodies to minimize the frequency and severity of flooding caused by high water	x			**X**		x			x			
					2	Promote Better Site Design development techniques in developing and redeveloping areas to reduce existing and future flood damage				**X**					x			
					3	Require that adequate drainage facilities and easements are provided with land development activities	x			**X**					x			
					4	Continue to enforce the City's floodplain regulations to ensure that new structures are adequate elevated above identified flood elevations				**X**					x	x		
					5	Update the City floodplain ordinance, as required by FEMA and the MnDNR, to ensure adequate protection for structures and eligibility for flood insurance programs				**X**					x		x	
					6	Support efforts to restore and re-establish floodplain basins to improve their natural function	x		x	**X**			x					
					7	Consider joining the Community Rating System as a way to improve floodplain management and reduce resident's flood insurance premiums within the City				**X**					x	x	x	x
					8	Address capacity limitations of ACD 55 to alleviate existing floodprone areas	x		x	**X**								
					9	Address capacity limitations of ACD 72 to alleviate existing floodprone areas	x		x	**X**								
Public Ditch System	5	Agricultural drainage systems not capable of handling urban stormwater runoff	1	Ensure the management and operation of the drainage systems, considering present and future conveyance needs, and legally-established rights	1	Work with RCWD to facilitate effective management of the public ditch system, as needed, to support the recognized functions of these systems					**X**				x			
					2	Address capacity limitations of ACD 55 to meet current, and future, land use stormwater runoff	x	x	x	x	**X**							
					3	Address capacity limitations of ACD 72 to meet current, and future, land use stormwater runoff	x	x	x	x	**X**							
Groundwater Management	6	Prairie du Chien-Jordan aquifer supply declining	1	Incorporate groundwater considerations into the decision making process	1	Preserve groundwater recharge areas in cooperation with Anoka County	x					**X**	x					
					2	Promote infiltration of stormwater to recharge groundwater, where feasible and does not pose a threat to groundwater quality	x	x				**X**			x			
					3	Continue to implement City's Wellhead Protection Plan						**X**			x	x		
					4	Participate in the Anoka County Wellhead Protection Group by implementing joint projects that benefit the City						**X**			x	x		
Natural Resources	7	Land use changes and misuse of the natural areas may have deleterious effects on the City's unique and rare natural resources	1	Identify, protect and preserve the desirable natural areas and ecological and aquatic resources of the City	1	Pursue a well-defined natural resource restoration and management plan, consistent with the RCWD and Lino Lakes Resource Management Plan (RMP)							**X**		x	x		
					2	Maintain the partnership with RCWD, VLAWMO, Anoka County and others, to maintain, restore, and manage the aquatic, aquatic-dependent, and upland areas of the City			x				**X**		x			
					3	Require natural space buffers, where appropriate, around wetlands to preserve their function and value.			x				**X**		x			
					4	Apply the Resource Management Unit Plan recommendations to meet goals for aquatic resource protection and management							**X**		x			
					5	Protect the existing Blue Heron rookery on Peltier Lake							**X**					
			2	Ensure new and redevelopment projects accommodate the City's projected growth needs and occurs in a manner that also conserves and enhances the City's natural resources and amenities	1	Encourage developers to use Open Space Design/Conservation Development Model to implement the Resource Management System Plan							**X**					
					2	Define incentives to achieve Better Site Design to the extent feasible on all development							**X**		x			
					3	Continue to use the Alternative Urban Areawide Review (AUAR) process to assess the impact of development on the City's natural resources and infrastructure	x	x	x	x			**X**					
			3	Capitalize on opportunities to enhance water quality, reduce runoff volume and flood damage, and enhance ecological resources by using open space and greenways	1	Encourage the use of open space in the design of City projects when multiple benefits are realized							**X**		x			
					2	Capitalize on the efforts of other responsible for managing open space to enhance their ongoing recreational programs			x				**X**		x			
					3	Seek opportunities to enhance habitat function and integrity, to benefit water resources and ecosystems	x	x	x				**X**					
Erosion and Sediment Control	8	Construction site runoff over disturbed soils and streambank erosion due to altered hydrology	1	Prevent erosion and minimize the conveyance of sediment into surface water systems through the enforcement of the City's Stormwater Pollution Prevention Plan (SWPPP)	1	Require erosion control plans for all land-distrubing activities in accordance with the City's stormwater management ordinance		x						**X**	x	x		
					2	Continue to enforce the Illicit Discharge and Detection Elimination (IDDE) ordinance		x						**X**	x	x		
					3	Use best management practices (BMPs) at all construction sites per the MPCA General Construction Permit and Minnesota Stormwater Manual, as amended		x						**X**	x	x		
					4	Coordinate construction site inspections and enforcement with watershed inspection staff. Enforcement actions will be taken where warranted to support the protection of water resources.		x						**X**	x	x		
					5	Implement and perform good housekeeping measures to minimize sediment entering the drainage system.		x						**X**	x	x	x	

ISSUE CATEGORY	ISSUE NO.	ISSUE	GOAL NO.	GOAL	POLICY NO.	POLICIES	Water Rate and Quantity	Water Quality	Wetland Management	Floodplain Management	Public Ditch System	Groundwater Management	Natural Resources	Erosion and Sediment Control	Regulations, Permitting and Reporting	Monitoring, Maintenance, and Inspection	Public Outreach and Education	Financing
Regulations, Permitting, and Reporting	9	Multiple regulatory agencies and requirements in City	1	Implement the Resource Management System Plan through Resource Management Unit Plans	1	Develop and implement RMU plans for each RMP	x	x	x	x	x	x	x		X			
					2	Cooperate, collaborate, and partner with other entities, such as RCWD, VLAWMO, and other regulating agencies, to implement this plan.									X		x	
			2	Address regulatory requirements of local, state, and federal programs through updated ordinances, permitting, and ongoing reporting	1	Evaluate City's existing ordinances and programs to facilitate implementation of the Resource Management System Plan	x	x	x	x	x	x	x		X			
					2	Coordinate with RCWD and the U.S. Army Corps of Engineers to manage local wetland resources			x				x		X			
					3	Work with RCWD to implement the recommendations of the 2008 Lino Lakes Resource Management Plan	x	x	x	x	x	x	x		X			
					4	Implement programs, structural solutions, and complete reporting as needed to meet MPCA's MS4 requirements		x							X		x	
					5	Support the implementation of the SAMP by the U.S. Army Corps of Engineers			x				x		X			
Monitoring, Maintenance, and Inspection	10	Existing infrastructure needs regular monitoring and maintenance to remain effective	1	Maintain the function and effectiveness of stormwater management structures through inspection, monitoring and maintenance	1	Implement the City's plan for regular inspection and maintenance of public water resource infrastructure, consistent with the requirements of the NDPES MS4 permit		x					x	x	x	X		
					2	Require operations and maintenance agreements for the inspection and maintenance of privately-constructed water resource infrastructure		x					x	x	x	X		
					3	Implement and refine a training program to prevent or reduce pollutant runoff resulting from City operations		x					x	x	x	X	x	
					4	Prepare an annual report in accordance with the NPDES MS4 permit and share results with the public, City Council and Boards		x					x	x	x	X	x	
					5	Conduct monitoring to evaluate the effectiveness of the City's stormwater management actions on the quality of water resources.		x					x	x	x	X		
Public Participation, Information, and Education	11	City residents, businesses, and property owners need a clear understanding of basic stormwater management, water quality and natural resource protection concepts, policies and regulations	1	Inform and educate the public concerning urban stormwater management and the problems pollutants cause if allowed to enter the City's water resoruces	1	Identify and alert residents of potential ecological challenges and threat that can affect the City residents, businesses, and properties.			x				x	x			X	
					2	Plan and initiate cooperative efforts with the state and local government entities in programs that provide information to the public on how to effectively address and manage ecological and water quality thre		x	x				x	x			X	
					3	Proactively educate the community and its residents of all ages about the specific actions they can or may be asked to take in addressing ecological and water quality threats.		x	x				x	x			X	
			2	Offer programs, educational opportunities and information that facilitate an understanding of water resource issues in the City	1	Continue to encourage and support programs that measure the effectiveness of Best Management Practices		x					x	x			X	
					2	Actively develop and implement a community education program relating to preserving and improving water quality consistent with the City's MS4 permit requirements		x					x	x	x		X	
					3	Coordinate with regional educational efforts to educate the community residents consisten with the City's MS4 permit requirements		x					x	x	x		X	
					4	Share infrastructure information developed through the MS4 program for City-owned facilities to educate the public about water resources management; the City's programs, policies, and projects; and to enc		x					x	x	x	x	X	
					5	Utilize and engage citizens to promote sustainable stewardship of lakes							x				X	
					6	Continue to support and participate in the RCWD Stream Health Evaluation Program (SHEP)		x	x	x	x		x	x	x	x	X	
Financing	12	Adequate funding and staffing resources	1	Ensure that the costs of the surface water system are equitably distributed and sufficiently funded to cover the liabilities	1	Update and apply area-based charges so that the surface water-related costs of development can be fairly borne by development												X
					2	Consider funding options that will equitably distribute the costs of managing and implementing the City's Local Water Management Plan, such as stormwater utility- or district-based fees	x											X
			2	Leverage partnerships to cost-effectively manage the City's surface water and natural resource systems to attain the goals of this plan	1	Pursue grants, donations, and in-kind contributions to help fund stormwater projects	x	x	x	x		x	x					X
					2	Coordinate local stormwater management issues with the member watersheds, county, and neighboring communities in order to leverage the watershed's work and reduce City expenditures	x	x	x	x		x	x					X

ISSUE NO.	RMU ISSUE	RMU	Water Rate and Quantity	Water Quality	Wetland Management	Floodpain Management	Public Ditch System	Groundwater Management	Natural Resources	Erosion and Sediment Control	Regulations, Permitting and Reporting	Monitoring, Maintenance, and Inspection	Public Outreach and Education	Financing
A-1	Riparian animal movement restricted	Amelia							X					
A-2	Potential for excess nitrogen from agriculture activities in watershed	Amelia		X	X				X				X	
A-3	Stormwater sensitive wetlands at risk	Amelia	X	X	X	X			X	X	X			
BE-1	Total phosphorus levels exceed state standards	Bald Eagle		X	X				X		X	X	X	
BE-2	Impaired water for mercury in fish tissue	Bald Eagle		X					X		X	X	X	
B-1	Impaired water for excess nutrients	Baldwin		X					X		X	X	X	
B-2	Stormwater sensitive wetlands at risk from stormwater runoff and future land development	Baldwin	X	X	X	X			X	X	X			
B-3	Fully developed urban drainage area limits opportunities for stormwater management	Baldwin	X	X		X								
B-4	Unregulated stormwater volume	Baldwin	X			X					X			
CD-1	Water levels controlled by ditched outlets	Cedar	X		X	X	X				X		X	
CD-2	Stormwater sensitive wetlands at risk	Cedar	X	X	X	X			X	X	X			
CD-3	Excess total phosphorus	Cedar		X					X		X	X	X	
CE-1	Total phosphorus levels exceed state standards	Centerville		X					X		X	X	X	
CL-1	Impaired water	Clearwater Creek		X					X		X	X	X	
CL-2	ACD 55 tile system ineffective for traditional urban runoff volumes	Clearwater Creek	X			X	X				X			
CL-3	Existing floodprone areas	Clearwater Creek	X			X	X				X			
CL-4	Floodplain missing and unmitigate volume	Clearwater Creek	X			X	X		X	X	X			
CL-5	City of Hugo stormwater runoff	Clearwater Creek	X								X			
GW-1	Threat to tamarack plant community from existing stormwater runoff	George Watch	X		X				X	X		X		
GW-2	High phosphorus loads from Peltier Lake affect George Watch	George Watch		X					X		X	X	X	
GW-3	Altered hydrology	George Watch	X		X				X					
HW-1	Existing floodprone areas	Hardwood Creek	X		X	X	X		X		X			
HW-2	ACD 72 capacity limitations	Hardwood Creek	X			X	X				X			
HW-3	Downstream confined tile requires strict adherence to volume control in future development	Hardwood Creek	X				X				X			
HW-4	Riparian animal movement restricted	Hardwood Creek							X					
HW-5	Impaired water	Hardwood Creek		X					X		X	X	X	
M-1	ACD 10-22-32 ineffective for future urban runoff volumes	Marshan	X			X	X				X			
M-2	Fragmented habitat	Marshan			X				X			X		
M-3	High phosphorus loads from Peltier Lake affect Marshan	Marshan		X					X		X	X		
M-4	Unregulated stormwater volumes	Marshan	X		X	X				X	X			

ISSUE NO.	RMU ISSUE	RMU	Water Rate and Quantity	Water Quality	Wetland Management	Floodpain Management	Public Ditch System	Groundwater Management	Natural Resources	Erosion and Sediment Control	Regulations, Permitting and Reporting	Monitoring, Maintenance, and Inspection	Public Outreach and Education	Financing
O-1	Rare and high qualilty vegetation, including cranberry bog, sensitive to changes in water chemistry	Otter		X					X			X		
O-2	Impaired water	Otter		X					X		X	X	X	
P-1	Impaired water for excess nutrients	Peltier		X					X		X	X	X	
P-2	Impaired water for mercury in fish tissue	Peltier		X					X		X	X	X	
P-3	Unregulated volume	Peltier	X		X	X				X	X			
P-4	ACD 55 tile system ineffective for traditional urban runoff volumes	Peltier	X			X	X				X			
P-5	ACD 72 tile system ineffective for traditional urban runoff volumes	Peltier	X			X	X				X			
P-6	Internal phosphorus loading in lake	Peltier		X					X		X	X	X	
P-7	Blue Heron rookery	Peltier			X				X			X	X	
P-8	Riparian animal movement restricted	Peltier							X					
P-9	Incised channel on Clearwater Creek	Peltier	X			X				X				
P-10	Highly sensitive wetlands	Peltier	X	X	X				X		X	X		
P-11	Existing floodprone areas associated with ACD 55 and 72, and Clearwater Creek	Peltier				X	X		X		X			
RE-1	Impaired water for excess nutrients	Reshanau		X					X		X	X	X	
RE-2	High quality forest in WMC	Reshanau			X				X					
RE-3	Unregulated volume	Reshanau	X		X	X				X	X			
RE-4	ACD 25 has altered wetland hydrology	Reshanau	X	X	X	X	X							
RE-5	Partially drained wetlands	Reshanau	X	X	X	X	X		X					
RE-6	Stormwater sensitive wetlands at risk from stormwater runoff from existing conditions	Reshanau	X	X	X				X		X	X		
RI-1	Watershed is nearlly fully developed urban land use	Rice	X	X		X								
RI-2	Intercommunity flows from municipal storm sewer mains	Rice	X								X	X	X	
RI-3	Stormwater ponds may be subject to flooding under future conditions	Rice	X			X								
RI-4	Stormwater sensitive wetlands at risk from stormwater runoff from existing conditions	Rice	X	X	X				X					
RI-5	Impaired water for excess nutrients	Rice		X					X		X	X	X	
RI-6	Unregulated volume	Rice	X		X	X				X	X			
RO-1	Plant communities highly susceptible to urban stormwater	Rondeau	X	X	X				X					
RO-2	High quality wetlands at risk from stormwater runoff and future land development	Rondeau	X	X	X				X					
RO-3	Unregulated volume	Rondeau	X		X	X				X	X			

ISSUE NO.	RMU ISSUE	RMU	Water Rate and Quantity	Water Quality	Wetland Management	Floodpain Management	Public Ditch System	Groundwater Management	Natural Resources	Erosion and Sediment Control	Regulations, Permitting and Reporting	Monitoring, Maintenance, and Inspection	Public Outreach and Education	Financing
S-1	Stormwater sensitive wetlands at risk from stormwater runoff from existing conditions	Sherman	X	X	X				X					
S-2	Unregulated volume	Sherman	X		X	X				X	X			
UR-1	Downstream confined tile requires strict adherence to volume control in future development	Upper Rice Creek	X		X	X	X				X			
WA-1	Water levels controlled by ditched outlets	Wards	X		X	X	X				X			
WA-2	Stormwater sensitive wetlands at risk	Wards	X	X	X				X					
WA-3	Excess total phosphorus	Wards		X					X		X	X	X	
WI-1	Total phosphorus levels exceed state standards	Wilkinson		X					X		X	X	X	
WI-2	Unregulated volumes	Wilkinson	X		X	X				X	X			
WI-3	Stormwater sensitive wetlands at risk	Wilkinson	X	X	X				X					
WI-4	Protect wildlife habitat and migratory refuge	Wilkinson			X				X					
C-1	Increased surface water runoff rates and volumes contribute to erosion problems, water quality and flooding concerns	City	X	X	X	X	X	X	X	X	X	X	X	
C-2	Approximate floodplain boundaries result in unnecessary flood insurance policies and expensive amendment process for residents and landowners.	City	X			X					X	X	X	X
C-3	Contaminants of emerging concern such as chlorides threaten water quality and natural resources	City		X	X			X	X					
C-4	Concern that maximum impervious percentages are out of line with other communities	City	X	X		X	X		X		X			

Appendix B:
Sanitary Sewer System



CHAPTER 402: SANITARY SEWER SYSTEM

Section

402.01 General operation
402.02 Connection with sewer required
402.03 Supervision
402.04 Permits, licenses, fees, bond and insurance
402.05 Standards
402.06 Independent systems
402.07 Types of wastes prohibited
402.08 Sump pump systems required; discharge of surface waters prohibited
402.09 Tampering with municipal sewer system prohibited
402.10 Certain connections prohibited
402.11 Entry upon private property
402.12 Repair of public right-of-way and gas lines
402.13 Variances
402.14 Rates and charges

§ 402.01 GENERAL OPERATION.

The city municipal sanitary sewer system shall be operated as a public utility and convenience from which revenues will be derived, subject to the provisions of this section.

(Prior Code, § 402.02) (Am. Ord. 14-97, passed 6-23-1997)

§ 402.02 CONNECTION WITH SEWER REQUIRED.

(1) Any buildings used for human habitation or for human occupancy, including all business buildings, unless specifically exempted by the Council on the grounds that no human beings occupy or use the buildings and no sewage wastes are generated therein, located on property adjacent to a sewer main, or in a block through which the system extends, shall be required to petition for sanitary sewer service and to connect thereto when their present on-site sewage system fails. The owner of the property shall pay all assessments for sanitary sewer in accordance with Lino Lakes assessment policies. No permits will be granted for reconstruction of existing on-site systems when city sanitary sewer service is available to the property.

(2) Agricultural buildings hereafter constructed within the city on property adjacent to a sewer main or in a block through which the system extends shall be provided with a connection to the municipal sanitary sewer system for the disposal of all human wastes.

(3) Connection to the water system shall be required within seven years from the later date of:

(a) Connection to the sanitary sewer system; or

(b) When the water system is available.

(Prior Code, § 402.02) (Am. Ord. 14-97, passed 6-23-1997)

§ 402.03 SUPERVISION.

The city plumbing inspector shall supervise all house sewer connections made to the municipal sanitary sewer system and all excavations for the purpose of installing or repairing the same and all persons doing or causing the work to be done shall notify the city of the schedule for the work to allow for supervision.

(Prior Code, § 402.03)

§ 402.04 PERMITS, LICENSES, FEES, BOND AND INSURANCE.

(1) *Application*.

(a) Any person desiring to make connection to the municipal sanitary sewer system shall apply to the city for a permit for the connection. The application shall be submitted on blanks furnished by the city and shall be accompanied by plans, specifications and any other information as is required by the city to evaluate the application, together with a permit and inspection fee to be determined in the city fee schedule. All costs and expenses incident to the installation and connection shall be borne by the owner and the owner shall indemnify the city for any loss or damage that may, directly or indirectly, be occasioned by the installation of the sewer connection, including restoring streets and street surfaces.

(Am. Ord. 10-94, passed 4-11-1994)

(b) Any person, firm or corporation who shall commence work of any kind for which a permit is required under this chapter, without first having received the necessary permit therefor, shall, when subsequently securing the permit, be required to pay double the fees provided by this chapter for the permit and shall be subject to all other applicable penal provisions of this code.

(2) *Permits*.

(a) Permits shall only be issued when the applications show that the work is to be done by persons, firms or corporations (other than the owner/occupant of residential property) who have been duly licensed by the city to engage in the business of sewer installation within the city, who have paid the required fee and have filed the bonds and insurance certificates required under this section.

(b) No permit shall be issued until the plumbing in the building to be served is inspected by the Plumbing Inspector and altered, if necessary, to conform to the Minnesota Plumbing and Building Code, to the extent necessary to permit a proper and safe connection to the municipal sanitary sewer system.

(c) Upon completion of the work, a copy of the permit shall be signed and dated by the licensed individual or firm making the sewer installation and delivered to the plumbing inspector at the time he or she makes his or her final inspection of the work. The plumbing inspector shall sign the permit to show that the work and material conform to the city regulations. The permit shall also be filled out showing the kind and size of pipe, the kind of joint used, the length of house connection, the depth at the street, the depth at the house, the distance from either side of the house where the connection is made to the house plumbing, and any other information listed on the permit form or requested by the city plumbing inspector.

(3) *Licenses*. Before any person, firm or corporation is licensed to engage in the business of sewer installation within the city, he or she shall make application to the city for the license, shall pay the following fee, and shall file with the city the following bond and insurance requirements.

(a) The fee for the license shall be established by city resolution and each license shall terminate on December 31 next after its issuance. Licenses shall not be transferable.

(b) A surety bond in the face amount of $5,000 running to the city, approved by the Council, conditioned that the city will be saved harmless from any loss, damage, cost or expense, by reason of any work performed under this chapter, or by reason of improper or inadequate performance or compliance with the terms of this chapter by the holder of the license or his or her agent or employees.

(c) A certificate of insurance or copies of public liability and property damage insurance policies as provided for in the code.

(d) The requirement for a license and a surety bond does not apply to any person licensed by the state as a plumber or journeyman plumber.

(4) *License revocation*. The Council may revoke any license at any time if the licensee shall violate the provisions of this or any

other provision of the code. No licensee shall allow his or her name to be used by any other person for the purpose of doing any work within the city, except that this provision shall not prevent a licensed plumber from employing the services of a licensed pipe layer or licensed sewer installer. All revocations shall follow the procedure in § 601.06 of this code.

(Prior Code, § 402.04)

§ 402.05 STANDARDS.

Materials, installation and excavation shall be governed by the City Engineers Association of Minnesota (CEAM) Standard Utility Specifications for Water Main and Service Line Installation and Sanitary Sewer and Storm Sewer Installation, Revised 1999 and as may be amended from time to time in the future, which is hereby adopted by reference. Copies for public review and purchase shall be kept in the office of the city engineer.

(Prior Code, § 402.05)

§ 402.06 INDEPENDENT SYSTEMS.

(1) *Separate systems*. The drainage and plumbing system of each new building and of new work installed in an existing building shall be separate from and independent of that of any other building except where provided in division (2) of this section, and every building shall have an independent connection with a public sewer when it is available.

(2) *Exception*. Where one building stands to the rear of another building on an interior lot and no private sewer is available or can be constructed to the rear building through an adjoining alley, court, yard or driveway, the building drain from the front building may be extended to the rear building and the whole will be considered as one building drain, where a building drain is nearer the rear wall of the front building.

(Prior Code, § 402.06)

§ 402.07 TYPES OF WASTES PROHIBITED.

(1) *Prohibited wastes*. Except as hereinafter provided, it shall be unlawful to discharge any of the following described waters or wastes into the municipal sanitary sewer system:

(a) Any liquid or vapor having a temperature higher than 150°F;

(b) Any water or waste containing more than 100 parts per million by weight of fat, oil or grease;

(c) Any gasoline, benzene, naphtha, fuel oil or other inflammable or explosive liquid, solid or gas;

(d) Any garbage that has not been properly shredded;

(e) Any ashes, cinders, sand, mud, straw shavings, metal, glass, rags, feathers, plastic, wood, paunch manure or any other solid or viscous substance capable of causing obstruction to the flow in sewers or other interference with the proper operation of the sewer system;

(f) Any waters or wastes containing a toxic or poisonous substance in sufficient quantity to injure or interfere with any sewage treatment process or which constitutes a hazard to humans or animals or creates any hazard in the receiving waters of the sewage treatment plant;

(g) Any waters or wastes containing suspended solids of the character and quantity that unusual attention or expense is required to handle materials at the sewage treatment plant;

(h) Any noxious or malodorous gas or substance capable of creating a public nuisance; and

(i) Grease, oil and sand interceptors shall be provided when, in the opinion of the city engineer, they are necessary for the proper handling of liquid wastes containing grease in excessive amount or any inflammable wastes, sand or other harmful ingredients; except that the interceptors shall not be required for private dwelling units which discharge only normal wastes therefrom. The grease and oil interceptors shall be of substantial construction, water-tight and equipped with easily removable covers which when bolted in place shall be gas-tight and water-tight. All greases, oil and sand interceptors shall be maintained by the owner, at his or her expense, in

continuously efficient operation at all time.

(2) *Industrial wastes*. It shall be unlawful to discharge into the municipal sanitary sewer system any industrial wastes unless the prior approval of the city engineer is obtained. The city engineer shall approve the discharge of industrial wastes when, in his or her opinion, the proposed wastes will not be of an unusual amount or character. When in the opinion of the city engineer the proposed wastes are of an unusual amount or character, the city engineer may approve the wastes.

(Prior Code, § 402.07)

§ 402.08 SUMP PUMP SYSTEMS REQUIRED; DISCHARGE OF SURFACE WATERS PROHIBITED.

(1) *Sump pump systems required*. Sump pump systems shall be installed in new residential buildings.

(2) *Storm water discharges prohibited*. It shall be unlawful for any owner, occupant or user of any premises to direct into or allow any storm water, surface water, ground water, well water or water from industrial or commercial air conditioning systems to drain into the sanitary sewer system of the city. No rain spout or other form of surface drainage and no foundation drainage or sum pump shall be connected or discharged into any sanitary sewer.

(3) *Draintile system*. A draintile, sump basket, pump, electrical receptacle and rigid pipe connection to the outside shall be required for any new residential buildings constructed within the city. The building official may determine the need for such installation when slab on grade construction occurs. The system shall be installed as follows:

(a) The building shall have a draintle placed around the inside perimeter of the foundation connected to a sump pit. The sump pit shall be located at least ten feet away from any inside floor drain.

(b) A discharge pipe shall be installed to the outside wall of the building with rigid pipe (plastic, copper, galvanized or black pipe) three-fourths-inch inside diameter minimum with a union or other approved coupling for easy disconnection for repair or replacement. The discharge pipe shall have a hose bib or three-fourths-inch hose connector at the outside of the house wall.

(c) The electrical receptacle shall be located no greater than five feet from the sump basket.

(d) When the construction consists of hollow masonry units, weep hoses shall be inserted into every core of each block of the 1st course and placed into the gravel filled trench in such manner to protect the hoses from blockage when the concrete floor is poured.

The provisions of this section are not intended to prevent the use of any material or method of construction not specifically prescribed by this section, provided any alternate has been approved and its use authorized by the building official. The building official may approve any such alternate, provided that the proposed design is satisfactory and complies with the provisions of this section and that the material, method or work offered is, for the purpose intended, at least the equivalent of that prescribed in this section. The building official shall require that sufficient evidence or proof be submitted to substantiate any claims that may be made regarding its use. The details of any action granting approval of an alternate shall be recorded and entered in the files of the department of the building official.

(4) *Existing house installations*. When a draintile system is to be installed in an existing structure that had no system of surface water drainage when first constructed, the system shall be installed the same as for new construction.

§ 402.09 TAMPERING WITH MUNICIPAL SEWER SYSTEM PROHIBITED.

No person shall maliciously, willfully or negligently break, damage, destroy, uncover, deface or tamper with any structure, appurtenance or equipment which is a part of the municipal sewage system. No person shall attach any prohibited or unreported lead or line to that system without having a permit to so do, nor shall any unreported connection be made on the owner's premises, inside or outside of the building thereon, which would introduce waters or substances prohibited or forbidden by this chapter.

(Prior Code, § 402.09)

§ 402.10 CERTAIN CONNECTIONS PROHIBITED.

No buildings located on property lying outside the limits of the city shall be connected to the municipal sanitary sewer system unless express authorization therefor is obtained from the Council.

(Prior Code, § 402.10)

§ 402.11 ENTRY UPON PRIVATE PROPERTY.

The city engineer and other duly authorized employees of the city, bearing proper credentials and identification, shall at reasonable times be permitted to enter upon all properties for the purpose of inspection, observation, measurement, sampling and testing in connection with the operation of the municipal sanitary sewer system. Except in emergency situations, no inspection shall occur without the permission of the owner. In non-emergency situations, the engineer and/or superintendent and other duly authorized employees of the city shall obtain an administrative search warrant before entering any property if the owner refuses to give permission to enter. Refusal to give permission to enter may be considered to be grounds for the discontinuance of sewer service, or any other city services or the suspension or revocation of any city licenses or permits.

(Prior Code, § 402.11)

§ 402.12 REPAIR OF PUBLIC RIGHT-OF-WAY AND GAS LINES.

(1) *Final approval*. No connection to the municipal sanitary sewer system shall be finally approved until all streets, pavements, curbs and boulevards or other public improvements thereon have been restored to their former condition to the satisfaction of the city engineer.

(2) *Damage to gas lines*. Whenever any license hereunder or any other person engaged in making a connection to the municipal sanitary sewer system shall damage the coating on any gas mains or gas lines, the damage shall be promptly reported by the person causing the damage to the proper utility company before the gas line or gas main is covered with earth. Failure to make the report shall be considered a violation of this chapter.

(Prior Code, § 402.12)

§ 402.13 VARIANCES.

The city plumbing inspector may permit variations from the strict application of any provision of this chapter if he or she is satisfied that there are special circumstances or conditions affecting the premises for which the variance is requested and that the granting of the variation will not materially affect adversely health, safety or general welfare or public or private property. Any variation permitted under this provision must be noted on the permit.

(Prior Code, § 402.13)

§ 402.14 RATES AND CHARGES.

(1) *Charges*. Notwithstanding anything to the contrary in this chapter, all charges for sewer service within the city shall be established in the city fee schedule.

(2) *Added charges*. In respect to property which shall be connected with the sewer system for the discharge and disposal of other residential, commercial or industrial sewage waste, or any waste unusual in either character or amount, then in addition to all applicable charges hereunder, Council may impose a supplemental sewage rate charge as the Council shall determine as reasonable and warranted in the basis of all relevant factors; however, no charges may be imposed before ten days written notice to the effected party and allowing him or her the right to a hearing before the Council on the charge.

(3) *Sewer availability charge*.

(a) There is hereby imposed upon all new sanitary sewer connections to the municipal sanitary sewer system within the city a sanitary sewer availability charge to reimburse the city for expenses incurred in the past and to be incurred in the future for making sewage treatment facilities available in the sum established annually by the Metropolitan Council Environmental Services.

(Am. Ord. 09-94, passed 6-13-1994)

(b) The city shall pay from the sum any sum charged by the Metropolitan Council Environmental Services (MCES) as a result of

the connection.

(c) Payment of the sanitary sewer availability charge to the city shall precede the issuance of a sanitary sewer connection permit, and the sum shall be paid in addition to any other charges imposed by the city.

(4) *Sewer availability charge reserve charge*.

(a) *Recitals*. As the MCES has determined to reserve unused capacity in the metropolitan disposal system each year commencing in 1973 for local government units in which new buildings to be connected to the system and new connections to the system are commenced during the year; and to allocate the debt service costs of the unused capacity for the year among the local government units as affected, and as the city is affected beginning on March 1, 1973; and in order for the city to pay the costs allocated to it each year, it will be necessary to establish sewer service availability and connection charges for all buildings to be constructed or connected to the metropolitan disposal system on or after March 1, 1973.

(b) *Establishment of charges*. For the purpose of paying costs of reserve capacity so allocated to the city each year by the MCES, there is established a charge for:

1. The availability of treatment works and interceptors comprising the metropolitan disposal system;

2. Connections, direct and indirect, to the metropolitan disposal system;

3. The charge is imposed on each building or structure in the city and each connection to the metropolitan disposal system directly or through the city system, inside any sewer service area established by the MCES, construction of which is commenced on or after March 1, 1973. The charge shall be payable upon the issuance of a building permit or a connection permit, as the case may be, but no charge shall be due upon the issuance of a connection permit if a charge was paid upon issuance of a building permit.

4. The charge for each building or structure shall be equal to the number of units of sewage volume which it will discharge multiplied by the sum as shall be charged, assessed or established by the MCES at the time of the issuance of a building permit or a connection permit, as the case may be, for payment of the costs of reserve capacity to the MCES; and

5. In addition thereto, to cover the costs to the city for inspections, clerical work, contingencies and hook up fees from the building exterior to the property line, each applicant shall pay a fee as established by ordinance adopted by the City Council, which sum shall also be paid to the city at the time of issuance of a building permit or a connection permit, as the case may be.

(c) *The administration*. The city shall prepare or revise building permit or sewage connection permit application forms to provide information necessary for the computation of the number of units assignable to the building or structure in question and shall collect the applicable charge information available to the MCES upon request. If upon filing a report covering the permit with the MCES, the MCES determines that a greater number of units is assignable to the building or structure in question, any additional amount of cost allocated to the city as a result shall be paid by the person or company to whom the permit was granted.

(d) *Credit*. Any monies paid pursuant to this section shall be deducted from and credited toward the sewer availability charge required in this division, when the charge required to be later paid thereunder falls due upon actual connection to the municipal sanitary sewer system within the city.

(5) *Statements*. Statements for sewer rental charges for the preceding quarterly period shall be mailed to each customer on or before the fifth day of January, April, July and October of each year. There shall be added to all statements, not paid by the last of the month following the quarterly period covered by the statement, a penalty charge of 10% of the unpaid balance.

(6) *Collection*. Any amounts for collection due hereunder for sewer charges may be collected in an action brought for that purpose in the name of the city, or the city may certify to the county auditor the amounts due for sewer charges, including penalty, and $30 administration fee, together with the legal description of the premises served, and the county auditor shall thereupon enter the amount for collection with the tax levy on the premises with the taxes for the next ensuing year.

(Prior Code, § 402.14) (Am. Ord. 12-84, passed 11-26-1984)

CHAPTER 403: INDIVIDUAL SUBSURFACE SEWAGE TREATMENT SYSTEMS

Section

403.01 Purpose, applicability, and authority

403.02 General provisions

403.03 Standards adopted

403.04 Permits

403.05 Violations and penalties

§ 403.01 PURPOSE, APPLICABILITY, AND AUTHORITY.

(1) *Purpose.* It is the purpose of this chapter to establish standards for the proper design, installation, location, construction, operation, use and maintenance of subsurface sewage treatment systems (SSTS) and individual subsurface sewage treatment systems (ISTS) in order to protect the public health, safety, and general welfare.

(2) *Applicability.* This chapter shall apply to those sites or facilities that are licensed, permitted, or otherwise regulated by the city. The sewer provisions of this chapter shall also apply to any premises in the city that are not served by a sewage treatment system permitted by the Minnesota Pollution Control Agency.

(3) *Authority.* This chapter is adopted pursuant to the authorization and requirements contained in M.S. § 145A.05, M.S. § 115.55, and Minn. Rules Ch. 7082.

(Ord. 08-13, passed 8-26-2013)

§ 403.02 GENERAL PROVISIONS.

(1) *Treatment required.* All sewage generated in unsewered areas shall be treated and disbursed by an approved SSTS or a system permitted by the Minnesota Pollution Control Agency.

(2) *Administration.* This chapter shall be administered by the City of Lino Lakes Building Department. The term ***DEPARTMENT*** , where used in this chapter, shall mean the City of Lino Lakes Building Department.

(3) *Compliance.* No person shall cause or permit the location, construction, alteration, extension, conversion, operation, or maintenance of a subsurface sewage treatment system, except in full compliance with the provisions of this chapter.

(4) *Conditions.* Violation of any condition imposed by the city on a license, permit, or variance issued under this chapter shall be deemed a violation of this chapter and subject to the penalty provisions set forth herein.

(5) *Site evaluation, system design, construction, inspection, and servicing.* Site evaluation, system design, construction, inspection, and system servicing shall be performed by Minnesota Pollution Control Agency listed SSTS businesses or qualified employees of local governments or persons exempt from licensing in Minn. Rule 7083.0700. For lots platted after January 23, 1996, a design shall evaluate and locate space for a minimum of two soil treatment areas.

(6) *Inspection.* No part of an individual sewage treatment system shall be covered until it has been inspected and approved by the Department. If any part of the system is covered before being inspected and approved as provided herein, it shall be uncovered upon the direction of the Department. The Department shall cause such inspections as are necessary to determine compliance with this chapter. It shall be the responsibility of the permittee to notify the Department that the system is ready for inspection. If the integrity of the system is threatened by adverse weather if left open and the Department is unable to conduct an inspection, the permittee may, after receiving written permission from the Department, document compliance with this chapter by photographic means that show said compliance and submit that evidence to the Department prior to final approval being sought.

(7) *Compliance inspection and certificate of compliance required.* An SSTS compliance inspection and a certificate of compliance are required prior to the issuance of a building permit:

(a) For a new or replacement SSTS.

(b) When altering an existing structure to add a bedroom.

(c) When a parcel having an existing system undergoes development, subdivision, or split.

(8) *Imminent public health and safety threat, failing system, and surface discharge.*

(a) The owner of an SSTS that poses an imminent threat to public health and safety shall immediately abate the threat according to instructions by the Department and be brought into compliance with this chapter in accordance with a schedule established by the Department, which schedule shall not exceed ten months.

(b) A failing system, including an SSTS that is not protective of groundwater, shall be brought into compliance within 24 months after receiving notice from the Department.

(c) An SSTS discharging raw or partially treated wastewater to ground surface or surface water is prohibited unless permitted under the National Pollution Discharge Elimination System.

(9) *Septic tank maintenance.* The owner of a sewage tank, or tanks, shall regularly, but not less frequently than every three years, inspect the tank(s) and measure the accumulations of sludge and scum. If the system is pumped, measurement is not needed. The owner shall remove and sanitarily dispose of septage whenever the top of the sludge layer is less than 12 inches below the bottom of the outlet baffle or transfer hole, or the bottom of the scum layer is less than three inches above the bottom of the outlet baffle or transfer hold. Removal of septage shall include complete removal of scum and sludge. Pumping permits are required prior to pumping of tank(s).

(10) *Non-complying systems.* Existing systems that are non-complying but are not an imminent health or safety threat, failing, or discharging to surface may continue in use so long as the use is not changed or expanded. If the use changes or is expanded, the non-complying elements of the existing system must be brought into compliance.

(11) *Non-complying work*. New individual sewage treatment system construction that is non-compliant, or other work on a system that is non-complying, must be brought into compliance with this chapter in accordance with a schedule established by the Department, which schedule shall not exceed seven days unless the Department finds extenuating circumstances.

(12) *Change in use.* A certificate of compliance may be voided if, subsequent to the issuance of the certificate, the use of the premises or condition of the system has changed or been altered.

(13) *Variances-setback reduction*. Where conditions prevent the construction, alteration, and/or repair of an individual sewage treatment system on an existing developed parcel of real property, the Department may reduce property line and building setbacks and system sizing requirements provided said reduction does not endanger or unreasonably infringe on adjacent properties.

(14) *Floodplain*. An SSTS shall not be located in a floodway or floodplain. Location within the flood fringe is permitted provided that the design complies with this chapter and all of the rules and statutes incorporated herein by reference.

(15) *Class V injection wells.* All owners of a new or replacement SSTS that are considered to be Class V injection wells, as defined in C.F.R. Title 40, Part 144, are required by federal law to submit SSTS inventory information to the Environmental Protection Agency.

(Ord. 08-13, passed 8-26-2013)

§ 403.03 STANDARDS ADOPTED.

(1) *Minnesota Rules adopted.* Minn. Rule Ch. 7080 and Minn. Rule Ch. 7081, that are in effect on the date of passage of this chapter, relating to subsurface sewage treatment systems, are hereby adopted by reference and made a part of this chapter as if fully set forth herein.

(2) *Rules amended.* The Rules, adopted in division (1) above, are amended as follows:

Compliance inspection - 15% vertical separation reduction. Minn. Rule 7080.1500, Subp. 4D, is amended to allow 15% reduction of vertical separation (separation distance no less than 30.6 inches) may be determined to be compliant for existing systems to account for settling and variable interpretation of soil characteristics.

(3) *Holding tanks.* Holding tanks may be allowed for the following applications:

(a) As replacement to a failing system;

(b) As replacement for an SSTS that poses an imminent threat to public health and safety; or

(c) For an existing lot in which an SSTS cannot feasibly be installed and the Department finds extenuating circumstances.

(4) *System abandonment.* An SSTS or any component thereof that is no longer intended to be used must be abandoned in

accordance with the adopted standards of this chapter.

(Ord. 08-13, passed 8-26-2013)

§ 403.04 PERMITS.

(1) *Permit required.* No person shall cause or allow the location, construction, alteration, extension, conversion, modification or pumping of any SSTS without first obtaining a permit for such work from the Department. No person shall construct, alter, extend, convert, or modify any structure that is or will utilize an SSTS without first obtaining a permit.

(a) All work performed on an SSTS shall be done by an appropriately licensed business, qualified employees or persons exempt from licensing. Permit applications shall be submitted by the person doing the individual SSTS construction on forms provided by the Department and accompanied by required site and design data, and permit fees.

(b) Permits shall only be issued to the person doing the individual sewage treatment system construction.

(c) Permit applications for a new and replacement SSTS shall include a management plan for the owner that includes a schedule for septic tank maintenance.

(d) A permit is not required for minor repairs or replacement of damaged or deteriorated components that do not alter the original function, change the treatment capacity, change the location of system components, or otherwise change the original system's design, layout, or function.

(2) *Operating permit.* An operating permit shall be required of all owners of new holding tanks, Type IV and V systems, MSTS, and other SSTS that the Department has determined require operational oversight.

(a) *Application.* Application for an operating permit shall be made on a form provided by the Department.

(b) *Holding tanks.* The owner of holding tanks installed after the effective date of this chapter shall provide the Department with a copy of a contract with a licensed sewage maintenance business for monitoring and removal of holding tank contents.

(Ord. 08-13, passed 8-26-2013)

§ 403.05 VIOLATIONS AND PENALTIES.

(1) *Misdemeanor.* Any person who fails to comply with the provisions of this chapter shall be guilty of a misdemeanor. A separate offense shall be deemed committed upon each day during on which a violation occurs or continues.

(2) *Civil action/injunctive relief.* In the event of a violation or a threat of violation of this chapter, the Department may institute appropriate civil or administration actions or proceedings, including actions seeking damaged, declaratory relief, or injunctive relief to prevent, restrain, correct, or abate such violations or threatened violations, and the City Attorney is authorized to institute such action.

(Ord. 08-13, passed 8-26-2013)

JOINT POWERS AGREEMENT
BETWEEN THE CITY OF BLAINE AND
THE CITY OF LINO LAKES FOR LINO LAKES
PARTICIPATION IN RECONSTRUCTION OF
SUNSET AVENUE (CR #53) FROM NORTH ROAD TO I-35W

NOW, THEREFORE, it is mutually stipulated and agreed:

1. The City of Lino Lakes shall pay the City of Blaine $30,095.04 for street improvements within 45 days after approval of this agreement by the City Councils of Blaine and Lino Lakes.

2. The City of Lino Lakes shall pay the City of Blaine $105,625 for sewer and water improvements for 25 of the 37 benefitted lots. The twelve lots not included are:

	Owner
West half of Lot 1, Block 7	Kellington
Lot 7, Block 6	Requier
Lot 8, Block 6	Majerus
Lot 5, Block 6	Lego
S 121.9' of W 1/2 Lot 8, Block 3	Pocock
S 121.8' of S 243.7' of W 1/2 Lot 8, Block 3	Rivard
Lot 4, Block 3	City of Lino Lakes
Lot 5, Block 3	City of Lino Lakes
West Half of Lot 1, Block 3	Tierney
West Half of Lot 10, Block 2	Johnson & Romero
Lot 8, Block 2	Matheson
Lot 6, Block 2 (Sewer Only)	Livingston

3. The City of Blaine will assess a connection charge against the 11 lots at the time a plumbing permit is issued for connection to the Blaine sewer and water system. Said connection charge will be adjusted on January 1 of each year using the ENR Construction Cost Index and shall be based on a base fee of $4,225 and an ENR Cost Index of 4229.

   The City of Blaine will assess a connection charge against Lot 6, Block 2 at the time a plumbing permit is issued for connection to the Blaine sewer system. Said connection charge will be adjusted on January 1 of each year using the ENR Construction Cost index and shall Be based on a fee of $4,900 and an ENR Cost Index of 4229.

4. The City of Blaine shall provide a list of customers currently connected to the system and a copy of each new plumbing permit.

5. User Charges

A. Water

Lino Lakes shall be responsible for installing, maintaining and reading water meters for all dwellings within the service area. Water usage data, for each dwelling, shall be collected and forwarded to the Blaine City Manager in accordance with a schedule approved by the Blaine City Manager which will enable Blaine to submit an annual water use statement to Lino Lakes as hereinafter provided. The Blaine Engineer shall have authority to randomly sample water usage data by reading individual meters. Lino Lakes shall pay Blaine the total of the individual water use charges ad computed pursuant to Blaine Code 21 and amendments thereto. A quarterly statement for the total water use shall be mailed to Lino Lakes within a reasonable time after the 1st day of January, April, July and October of each year. The quarterly statement shall be due and payable on or before the last day of January, April, July and October.

B. Sanitary Sewer

Lino Lakes shall pay Blaine the total of the individual sanitary sewer use charges for each dwelling as computed pursuant to Blaine Code 21 and amendments thereto. A quarterly statement for the total sanitary sewer use charge shall be mailed to Lino Lakes within a reasonable time after the 1st day of January, April, July and October of each year. The quarterly statement shall be due and payable on or before the last day of January, April, July and October.

6. MWCC Charges

Blaine shall cause sewer availability charges (SAC) to be paid directly to the Metropolitan Waste Control Commission

7. MAINTENANCE - Sewer and Water

The City of Blaine shall be responsible for maintenance of the sewer and water system within the Sunset Avenue right-of-way.

8. Maintenance - Streets and Storm Sewer

Anoka County shall be responsible for maintenance of the paved roadway and storm sewer system within the Sunset Avenue right-of-way.

9. Entire Agreement

It is understood and agreed that the entire agreement of the parties is contained herein and this agreement supersedes all agreements and all negotiations between the parties relating to the subject matter thereof as well as any previous agreement presently in effect between the parties relating to the subject matter thereof. Any alterations, variations, or modifications of the provisions of this agreement shall be valid only when they have been reduced to writing and duly signed by the parties therein.

10. Effective Dates

This agreement shall become effective upon the passage of an appropriate resolution by the City Councils of each party. Each party shall provide the other party with a certified copy of such resolution.

IN WITNESS WHEREOF, the parties have caused this agreement to be executed.

CITY OF BLAINE

Pursuant to authority granted by Council Resolution No. 89-252 adopted on the 16th day of November, 1989.

Mayor

City Manager

CITY OF LINO LAKES

Pursuant to authority granted by Council ~~Resolution No.~~ _____ adopted on the 13th day of December, 1989.

Mayor

City Clerk

JOINT POWERS AGREEMENT
BETWEEN
THE CITY OF LINO LAKES,
THE CITY OF CENTERVILLE
AND
THE COUNTY OF ANOKA

THIS AGREEMENT, is made to be effective July 20, 2011, between the CITY OF LINO LAKES, a municipal corporation under the laws of the State of Minnesota (LINO LAKES), the CITY OF CENTERVILLE, a municipal corporation under the laws of the State of Minnesota (CENTERVILLE) and the COUNTY OF ANOKA, a political subdivision of this State of Minnesota (ANOKA COUNTY).

RECITALS:

A. ANOKA COUNTY operates a beach and campground located in primarily in LINO LAKES with lesser portions in CENTERVILLE (Park Facility).

B. ANOKA COUNTY wishes to make improvements to the Park Facility and desires to connect the Park Facility to municipal sanitary sewer and wishes to have the ability to connect the Park Facility to municipal water at a future date.

C. Lino Lakes does not have sanitary sewer or water available to serve the Park Facility nor is if feasible for LINO LAKES to extend sanitary sewer or water to serve the Park Facility.

D. It is feasible for CENTERVILLE to serve the Park Facility with water service and/or sanitary sewer service, and LINO LAKES desires to have CENTERVILLE do so.

E. ANOKA COUNTY has requested that CENTERVILLE provide the Park Facility with sanitary service at this time and the option of securing water service in the near future.

F. The proposed sewer and water lines for the Park Facility cannot be constructed entirely within Centerville and are proposed to also be constructed through property located in LINO LAKES owned by ANOKA COUNTY.

G. LINO LAKES desires to cooperate with CENTERVILLE and ANOKA COUNTY on the extension of CENTERVILLE sewer and water lines through property located in LINO LAKES, owned by the ANOKA COUNTY, in order to serve the Park Facility.

PURPOSE:

Minnesota Statutes, Section 471.59, provides that two or more governmental units, by agreement entered into through action of their governing bodies, may jointly or cooperatively exercise any power common to the contracting parties or any similar powers, including those which are the same except for the territorial limits within which they are exercised.

AGREEMENT:

Now, therefore, in consideration of the foregoing recitals and mutual undertakings, set forth herein, LINO LAKES, the CENTERVILLE, and ANOKA COUNTY, agree as follows:

SECTION 1 – WATER AND SANITARY SEWER SERVICES

A. **SANITARY SEWER CONNECTION.** ANOKA COUNTY will submit to LINO LAKES and CENTERVILLE for approval, its plans to construct and install, with no cost to LINO LAKES, or CENTERVILLE, adequate and suitable sanitary sewer lines, force mains and pump stations (Sanitary Sewer Service) to serve the Park Facility. Subject to issuance of any required permits of and associated inspections by, LINO LAKES and CENTERVILLE, ANOKA COUNTY will construct the Sanitary Sewer Service in accordance with such approved plans. Within 120 days of completion, ANOKA COUNTY will provide LINO LAKES, and CENTERVILLE with record plans of the Sanitary Sewer Service in a format acceptable to them.

B. **WATER CONNECTION** Subject to the process in paragraph A, ANOKA COUNTY may request a permit to connect the Park Facility to CENTERVILLE's watermain at a future date. Upon issuance of any required permits by LINO LAKES or CENTERVILLE, ANOKA COUNTY may connect the Park Facility to CENTERVILLE's watermains.

C. **HOLD HARMLESS.** Subject to exceptions and limitations provided by law, including but not limited to those contained in Minnesota Statutes, Chapter 466, ANOKA COUNTY shall hold harmless and defend the cities of LINO LAKES and CENTERVILLE from any and all claims made by anyone for any defects or damages of any kind caused by the installation and/or construction of the Sanitary Sewer Service or water service to serve the Park Facility.

D. **EASEMENT.** Easements needed to construct and maintain the sewer or water services shall be acquired by ANOKA COUNTY. Such easements shall be reviewed, approved and accepted by the cities of LINO LAKES, and CENTERVILLE prior to the project being bid out.

E. **OWNERS OF SEWER SERVICE AND WATER SERVICE.** The sanitary sewer and/or water services shall be constructed and owned by ANOKA COUNTY. All maintenance of the services shall be the responsibility of ANOKA COUNTY. Locating of the sanitary service and/or water service lines shall be the responsibility of ANOKA COUNTY.

F. **HOOK-UP FEE.** ANOKA COUNTY will pay with its permit application any sanitary sewer and/or water connection fee per unit as shall be in effect for CENTERVILLE and Metropolitan Council Environmental Services (MCES) based upon the number of fixture units assigned by the MCES formula. The connection fees may be adjusted from time to time by CENTERVILLE, and such fees shall be based upon the same rate charged for similar services furnished by CENTERVILLE for property lying within the city.

G. **METERS AND BILLING.** Appropriate meters with an outside remote reader shall be installed by ANOKA COUNTY at its expense to measure the sanitary sewer discharged in gallons, into CENTERVILLE sewers, which shall be the means of allocating a user charge to the Park Facility. When a future water service is connected, ANOKA COUNTY shall purchase and install a meter and remote reader at its connection to the city water system. ANOKA COUNTY shall pay when due the amount charged for the sewer and/or water service. The rate per gallon shall be equivalent to the rate charged for similar properties located in CENTERVILLE. Such meters and outside remote readers shall also be inspected by, or under the supervision of CENTERVILLE. Such water and sanitary sewer rates may be adjusted annually by CENTERVILLE. Any replacement or upgrading of meters shall be at the expense of ANOKA COUNTY.

H. **RIGHT TO INSPECT.** CENTERVILLE, through its officers, agents and employees, shall have the right, at all times, to examine, inspect and test any materials or work used or to be used in connection with the sewer and/or water system connecting to the CENTERVILLE for the purposes of determining compliance with city code and to detect leakage or infiltration.

I. **INTERRUPTIONS SERVICE.** CENTERVILLE shall not be liable for any direct or indirect damages resulting from lack of water supply or interruption of sewer service to its customers, in the event of repair of sewer or water mains, sewer obstructions or connections of new water mains or in the event of fire prevention, or any other cause, and such sanitary sewer service or water supply may be interrupted for as long as is necessary to complete the necessary work.

J. **PREVIOUS CONNECTION.** The parties acknowledge that ANOKA COUNTY has previously connected its beach facilities to CENTERVILLE sanitary sewer without the benefit of a joint powers agreement. The parties intend that the terms of this agreement shall extend to cover the beach facilities connection, except that no additional permits and no additional connection fees shall be required.

SECTION 2 – MISCELLANEOUS

A. **TERM.** This Agreement may be terminated by LINO LAKES if it determines it will supply the Park Facility with water and/or the Sanitary Sewer Service and/or by CENTERVILLE if it determines it is unable to supply water or the Sanitary Sewer Service to the Park Facility. In case of termination, not less than one year in advance of such termination, notice shall be give to the following:

To ANOKA COUNTY:
Anoka County Administrator
Anoka County Government Center
2100 3rd Ave.
Anoka, MN 55303

To the CITY OF CENTERVILLE:
City Clerk
City of Centerville
1880 Main Street
Centerville, MN 55038

To the CITY OFLINO LAKES:
City Clerk
City of Lino Lakes
600 Town Center Parkway
Lino Lakes, MN 55014

The parties agree that if this Agreement is terminated for any reason, it shall be replaced with another Agreement for provision of sewer and/or water services unless the service is no longer needed by ANOKA COUNTY.

B. The provisions of this Agreement are severable. If any paragraph, section, subdivision, sentence, clause, or phrase of this Agreement is for any reason held to be contrary to law, or contrary to any rule or regulation having the force and effect of law, such decision shall not affect the remaining portions of this Agreement.

IN WITNESS WHEREOF, the COUNTY OF ANOKA, the City of LINO LAKES, and the City of CENTERVILLE have caused this Agreement to be executed on their behalf by their proper Board, Council and Officers.

(signatures on following pages)

ANOKA COUNTY

By: _____
Rhonda Sivarajah, Chair, Anoka County Board of Commissioners

By: _____
Jerry Soma, Anoka County Administrator

Approved as to form:

_____
Dan Klint
County Attorney

STATE OF MINNESOTA)
) ss.
COUNTY OF ANOKA)

The foregoing instrument was acknowledged before me this 3-0 day of August, 2011, by Rhonda Sivarajah, Chair of the Anoka County Board of Commissioners, and Jerry Soma, Anoka County Administrator, by _____, Clerk of the County of Anoka, Minnesota, a political subdivision, on behalf of the County.

_____
Notary Public

ROBERTA A KOEHLER
Notary Public
Minnesota
My Commission Expires January 31, 2014

ROBERTA A KOEHLER
Notary Public
Minnesota
My Commission Expires January 31, 2014

CITY OF CENTERVILLE

By: _____
Tom Wilharber, Its Mayor

By: _____
Teresa Bender, Its City Clerk

STATE OF MINNESOTA)
)
COUNTY OF ANOKA)

The foregoing instrument was acknowledged before me this 26th day of July, 2011 by Tom Wilharber, Mayor of the City of Centerville, and by Teresa Bender, City Clerk of the City of Centerville, Minnesota, a municipal corporation, on behalf of the corporation.

_____
Notary Public

KRIS SWEENEY
NOTARY PUBLIC - MINNESOTA
My Commission Expires Jan. 31, 2015

CITY OF LINO LAKES

By: _____
Jeff Reinert, Mayor

By: _____
Julie Bartell, City Clerk

Dated: July 27, 2011.

STATE OF MINNESOTA)
)
COUNTY OF ANOKA)

The foregoing instrument was acknowledged before me this 27th day of July, 2011, by Jeff Reinert, Mayor of the City of Lino Lakes, and by Julie Bartell, City Clerk of the City of Lino Lakes, Minnesota, a municipal corporation, on behalf of the corporation.

_____
Notary Public

GEORGIA A WOLTJER
NOTARY PUBLIC - MINNESOTA
My Commission Expires Jan. 31, 2014

JOINT POWERS AGREEMENT
BETWEEN
THE CITY OF LINO LAKES
AND
THE CITY OF CENTERVILLE

THIS AGREEMENT, is made to be effective May 2, 2013, between the CITY OF LINO LAKES, a municipal corporation under the laws of the State of Minnesota (LINO LAKES), and the CITY OF CENTERVILLE, a municipal corporation under the laws of the State of Minnesota (CENTERVILLE).

RECITALS:

A. Two Lino Lakes residential properties (7185 and 7193 Mound Trail) are located at the end of Mound Trail.

B. Lino Lakes does not have sanitary sewer or water available to serve the two Lino Lakes residential properties nor is if feasible for LINO LAKES to extend sanitary sewer or water to serve them.

C. It is feasible for CENTERVILLE to serve the two Lino Lakes residential properties with water service and/or sanitary sewer service, and LINO LAKES desires to have CENTERVILLE do so.

D. Both properties have previously connected to CENTERVILLE sanitary sewer service.

E. The resident at 7185 Mound Trail has requested that CENTERVILLE provide them with the option of securing water service in the near future and is prepared to pay the Centerville lateral connection fee to reserve service when it is needed.

F. LINO LAKES desires to cooperate with CENTERVILLE on the extension of CENTERVILLE sewer and water lines to serve property located in LINO LAKES.

PURPOSE:

Minnesota Statutes, Section 471.59, provides that two or more governmental units, by agreement entered into through action of their governing bodies, may jointly or cooperatively exercise any power common to the contracting parties or any similar powers, including those which are the same except for the territorial limits within which they are exercised.

AGREEMENT:

Now, therefore, in consideration of the foregoing recitals and mutual undertakings, set forth herein, LINO LAKES and CENTERVILLE, agree as follows:

SECTION 1 – WATER AND SANITARY SEWER SERVICES

A. **SANITARY SEWER CONNECTION.** Lino Lakes residents at 7185 and 7193 Mound Trail may connect to Centerville sanitary sewer.

B. **WATER CONNECTION** Lino Lakes residents at 7185 and 7193 Mound Trail may connect to Centerville water mains.

C. **HOLD HARMLESS.** Subject to exceptions and limitations provided by law, including but not limited to those contained in Minnesota Statutes, Chapter 466, CENTERVILLE shall hold harmless and defend the City of LINO LAKES from any and all claims made by anyone for any defects or damages of any kind caused by the installation and/or construction of the Sanitary Sewer Service or water service to serve the Lino Lakes residents of Mound Trail.

D. **EASEMENT.** Easements needed (if any) to construct and maintain the sewer or water services shall be acquired by CENTERVILLE.

E. **OWNERS OF SEWER SERVICE AND WATER SERVICE.** The sanitary sewer and/or water mains shall be constructed and owned by CENTERVILLE. All maintenance of the mains shall be the responsibility of CENTERVILLE. Locating of the sanitary and/or water mains and/or service lines shall be the responsibility of CENTERVILLE.

F. **HOOK-UP FEE.** Lino Lakes residents will pay with their permit application any sanitary sewer and/or water connection fee per unit as shall be in effect for CENTERVILLE and Metropolitan Council Environmental Services (MCES) based upon the number of fixture units assigned by the MCES formula. The connection fees may be adjusted from time to time by CENTERVILLE, and such fees shall be based upon the same rate charged for similar services furnished by CENTERVILLE for property lying within the city.

G. **METERS AND BILLING.** Appropriate meters with an outside remote reader shall be installed by Lino Lakes residents at their expense to measure the water used and the sanitary sewer discharged in gallons, into CENTERVILLE sewers, which shall be the means of allocating a user charge to the Lino Lakes residents. The rate per gallon shall be equivalent to the rate charged for similar properties located in CENTERVILLE. Such meters and outside remote readers shall also be inspected by, or under the supervision of CENTERVILLE. Such water and sanitary sewer rates may be adjusted annually by CENTERVILLE.

H. PREVIOUS CONNECTION. The parties acknowledge that the two residential properties have previously connected to CENTERVILLE sanitary sewer without the benefit of a joint powers agreement. The parties intend that the terms of this agreement shall extend to cover those connections, except that no additional permits and no additional connection fees shall be required.

SECTION 2 – MISCELLANEOUS

A. **TERM.** This Agreement may be terminated by LINO LAKES if it determines it will supply the two residential properties with water and/or the Sanitary Sewer Service and/or by CENTERVILLE if it determines it is unable to supply water or the Sanitary Sewer Service to two residential properties. In case of termination, not less than one year in advance of such termination, notice shall be give to the following:

To the CITY OF CENTERVILLE:
City Clerk
City of Centerville
1880 Main Street
Centerville, MN 55038

To the CITY OFLINO LAKES:
City Clerk
City of Lino Lakes
600 Town Center Parkway
Lino Lakes, MN 55014

B. The provisions of this Agreement are severable. If any paragraph, section, subdivision, sentence, clause, or phrase of this Agreement is for any reason held to be contrary to law, or contrary to any rule or regulation having the force and effect of law, such decision shall not affect the remaining portions of this Agreement.

IN WITNESS WHEREOF, the City of LINO LAKES, and the City of CENTERVILLE have caused this Agreement to be executed on their behalf by their proper Council and Officers.

(signatures on following pages)

CITY OF CENTERVILLE

By: _____
Tom Wilharber, Its Mayor

By: _____
Teresa Bender, Its City Clerk

STATE OF MINNESOTA)
)
COUNTY OF ANOKA)

The foregoing instrument was acknowledged before me this 2nd day of May, 2013 by Tom Wilharber, Mayor of the City of Centerville, and by Teresa Bender, City Clerk of the City of Centerville, Minnesota, a municipal corporation, on behalf of the corporation.

_____
Notary Public

KRIS SWEENEY
NOTARY PUBLIC - MINNESOTA
My Commission Expires Jan. 31, 2015

CITY OF LINO LAKES

By: _____
Jeff Reinert, Mayor

By: _____
Julie Bartell, City Clerk

Dated: April 22, 2013.

STATE OF MINNESOTA)
)
COUNTY OF ANOKA)

The foregoing instrument was acknowledged before me this 22nd day of April, 2013, by Jeff Reinert, Mayor of the City of Lino Lakes, and by Julie Bartell, City Clerk of the City of Lino Lakes, Minnesota, a municipal corporation, on behalf of the corporation.

_____
Notary Public

LISA M. HOGSTAD-OSTERHUES
Notary Public
MINNESOTA
My Commission Expires January 31, 2015

Centerville
Established 1857

1880 Main Street, Centerville, MN 55038
651-429-3232 or Fax 651-429-8629

May 2, 2013

Mr. Michael Grochala
City of Lino Lakes
600 Town Center Parkway
Lino Lakes, MN 55014-1182

Dear Mr. Grochala:

Please find the enclosed, fully executed Joint Powers Agreement for the offering of municipal water services to the two (2) Lino Lakes residents located at the end of Mound Trail.

The City of Centerville has retained a copy for our records.

If you have any questions, please do not hesitate in contacting Mr. Dallas Larson, Administrator.

Sincerely,

Teresa Bender, CMC
City Clerk

Enc.

JOINT POWERS AGREEMENT
BETWEEN THE CITY OF LINO LAKES
AND THE CITY OF CENTERVILLE
REGARDING 21st AVENUE STREET AND UTILITY IMPROVEMENTS AND MAINTENANCE

THIS AGREEMENT is made and entered into on the latest date set forth below by and between the City of Centerville and the City of Lino Lakes; both of which are governmental subdivisions of the State of Minnesota located in the County of Anoka.

RECITALS:

WHEREAS, the City of Centerville (hereinafter described as "Centerville") and the City of Lino Lakes (hereinafter described as "Lino Lakes") have received property owner requests to improve 21st Avenue by constructing street, curb and gutter, storm sewer, sanitary sewer, and water mains between Main Street and a point approximately 1400 feet north of Main Street (the "Project"); and

WHEREAS, Lino Lakes and Centerville recognize and acknowledge that the Project will benefit both Lino Lakes and Centerville; and

WHEREAS, it is feasible for Lino Lakes to serve Centerville parcels with sanitary sewer service, and Centerville desires to have Lino Lakes do so; and

WHEREAS, a portion of the Project is to be constructed within the corporate limits of Lino Lakes and a portion is to be constructed within the corporate limits of Centerville (see Exhibit A); and

WHEREAS, subject to the terms hereof, Lino Lakes is assuming responsibility for the design and construction of the Project to be built both within the corporate limits of Lino Lakes and Centerville; and

WHEREAS, the Lino Lakes prepared an estimate of the cost of the Project; and

WHEREAS, Lino Lakes and Centerville will both assess the benefited properties within their jurisdictions for all, or a portion of, the relevant costs of the Project, all as is more fully set forth below.

NOW, THEREFORE, in consideration of the mutual undertakings herein expressed, Lino Lakes and Centerville agree as follows:

SECTION 1. PURPOSE. The purpose of this Agreement is to set forth the terms of the agreement Lino Lakes and Centerville have reached regarding the design, construction, maintenance and financing of the Project both within the corporate limits of Lino Lakes and Centerville, in accordance with Minnesota Statutes, Section 471.59.

SECTION 2. DESIGN AND CONSTRUCTION.

A. Lino Lakes is responsible for the design and construction of both the portion of the Project located within Centerville and the portion of the Project located within Lino Lakes. Therefore, the parties agree that:

1) Lino Lakes shall design the Project, administer the construction and conduct inspections of the construction process. Centerville shall have the right to inspect, review and comment upon construction of the Project. Centerville shall have the right to review and approve the final plans and specifications prior to advertisement for bids.

2) For purposes of performing its obligations under this Agreement, Centerville hereby grants to Lino Lakes the right to use the streets, public ways, and easements of Centerville for purposes of constructing the Project, including any excavations necessary to perform work incidental to the performance of this agreement.

3) Lino Lakes agrees to notify and coordinate with businesses in Centerville that are located along 21st Avenue as early as practical regarding the construction schedule for the Project.

4) Centerville and Lino Lakes will each acquire the necessary right-of-way to permit the construction of the street extension as well as water mains, sanitary sewer, storm sewer and storm water ponds.

B. Centerville shall contribute its share of the project as estimated on the attached Exhibit B, and may collect its share as a special assessment against benefited property owners of Centerville. The remaining portion of the project shall be paid by Lino Lakes who may specially assess all or a portion of its share from benefiting property owners of Lino Lakes. Each municipality shall be responsible for the sale of bonds, if any, and levy of special assessments against properties within their city's boundaries.

C. Each city has the right to terminate this Agreement prior to award of a construction contract. The terminating party is responsible for all design costs incurred up to the date of termination.

D. Lino Lakes shall receive from Centerville ninety percent (90%) of its estimated share of the project cost within 60 days of award of a construction contract. Prior to billing this estimate will be updated by Lino Lakes to reflect actual bid prices as awarded. An updated cost estimate shall be provided to Centerville at the time of billing.

Upon final completion of the project, Centerville's share of the cost will be based upon actual costs incurred. If necessary, adjustments to the initial ninety (90%) charged will be made in the form of credit or additional charges to Centerville's remaining ten percent (10%) share of the project costs. Final payment shall be due within 30 days of billing by Lino Lakes.

E. Before this Agreement shall become binding and effective it shall be approved by appropriate resolutions of the City Councils of Centerville and Lino Lakes, which resolutions shall be attached hereto as Exhibits C and D, respectively.

F. The parties agree that Project design will not commence until Petition and Waiver Agreements have been approved and executed by the respective cities and the benefitting property owners covering 100% of the cost of such improvements and providing for the dedication of right-of-way and easements necessary to construct such improvements.

G. The parties agree that one full access intersection will be constructed within the Project area the centerline of which will be approximately 562 feet north of County State Aid Highway 14 / Main Street.

SECTION 3. SANITARY SEWER SERVICE.

A. Sanitary Sewer Connection. The Centerville properties abutting 21st Avenue may connect to Lino Lakes sanitary sewer. Said connection will require a permit from Lino Lakes.

B. Connection Fees. In addition to any special assessments levied by Centerville for the construction of sanitary sewer improvements, Centerville properties will pay with their permit application any sanitary sewer connection fee per unit as shall be in effect for Lino Lakes and Metropolitan Council Environmental Services (MCES) based upon the number of fixture units assigned by the MCES formula. The connection fees may be adjusted from time to time by Lino Lakes, and such fees shall be based upon the same rate charged for similar services furnished by Lino Lakes for property lying within Lino Lakes.

C. Meters and Billing. Appropriate meters with an outside remote reader shall be installed by Centerville properties at their expense to measure the water used and the sanitary sewer discharged in gallons, into Lino Lakes sewers, which shall be the means of allocating a user charge to the Centerville properties. The per unit and rate per gallon shall be equivalent to 95% the rate charged for similar properties located in Lino Lakes and shall include treatment costs assessed by MCES. Such meters and outside remote readers may also be inspected by Lino Lakes. Such sanitary sewer rates may be adjusted annually by Lino Lakes. Notification of a rate change shall be provided 30 days in advance of the quarter to which the new rate applies. Centerville may bill the affected properties for

sewer use at its own rates, but shall collect not less than the rates stated above and remit the Lino Lakes' share of the collected sewer charges quarterly.

SECTION 4. OWNERSHIP

A. The sanitary sewer mains shall be owned by Lino Lakes. Each City shall own or be responsible for lateral sanitary sewer lines within their respective corporate borders.

B. The storm sewer lines within Lino Lakes shall be owned by Lino Lakes, and Lino Lakes shall hold easements for all lines and related storm water ponds within Centerville that are related to, and part of, the Project

C. Each city shall own and operate its own water main.

SECTION 5. STREET MAINTENANCE

A. Lino Lakes shall maintain 21st Avenue in its entirety, the costs of which shall be split equally between Lino Lakes and Centerville, until such time as a separate maintenance agreement between Lino Lakes and Centerville is approved.

A. Lino Lakes shall maintain the storm sewer system, including all ponds, by performing periodic inspections of the conveyance system/pond and by taking any necessary corrective action.

IN WITNESS WHEREOF, Centerville and Lino Lakes have caused this Agreement to be executed by the proper officers.

CITY OF CENTERVILLE

Mayor

Attest:

City Clerk

10/7/13

Date

CITY OF LINO LAKES

Mayor

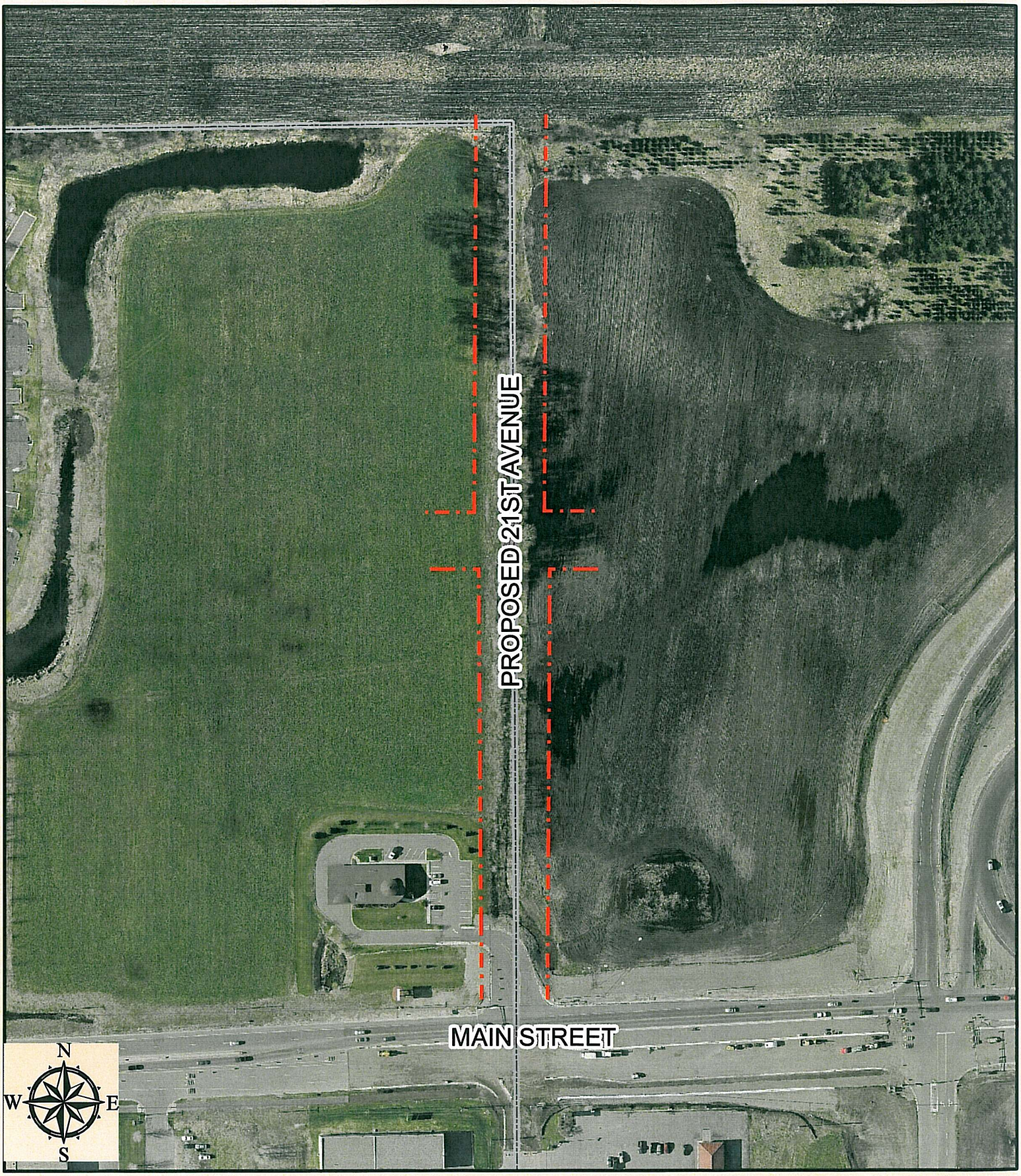
Attest:

City Clerk

9/23/2013

Date

EXHIBIT A



Centerville
Established 1857

Proposed 21st Avenue
Centerville/Lino Lakes

CITY OF LINO LAKES

EXHIBIT B

Cost Share Estimate
Joint Powers Agreement for 21st Avenue
Dated September 17, 2013

Cost Item	Total Cost	Lino Lakes Oversize/ Overdepth	Lino Lakes Base	Lino Lakes Total	Centerville Total
Street Improvements	$ 535,277		$ 339,260	$ 339,260	$ 196,017
Sanitary Sewer	$ 82,016	$ 24,000	$ 29,008	$ 53,008	$ 29,008
Watermain (Lino Lakes)	$ 148,687	$ 48,000	$ 100,687	$ 148,687	
Watermain (Centerville)	$ 37,950				$ 37,950
Storm Sewer	$ 80,548		$ 40,274	$ 40,274	$ 40,274
Wetland Mitigation	$ 84,150		$ 42,075	$ 42,075	$ 42,075
Subtotal	$ 968,627	$ 72,000	$ 551,304	$ 623,304	$ 345,323
Engineering Estimated (18%)	174,352.86	12,960.00	99,234.65	$ 112,195	62,158.21
Project Cost	$1,142,980	$ 84,960	$ 650,538	$ 735,498	$ 407,482
Subtotal for agreement	$1,142,980			$ 735,498	**$ 407,482**
Internal Costs for Legal\Admin (7%)	$ 67,804	$ 5,040	$ 38,591	$ 43,631	$ 24,173
Total Cost	$1,300,784	$ 90,000		$ 779,130	$ 431,654

Notes: Street Improvement estimates include allocation of $114,526 for Bank frontage as follows:
Bank Share $ 50,000 one half to Lino Lakes
Bank Share $ 64,527 to Lino Lakes

Centerville
Established 1857

1880 Main Street, Centerville, MN 55038
651-429-3232 or Fax 651-429-8629

October 7, 2013

Mr. Michael Grochala, AICP
City of Lino Lakes
600 Town Center Parkway
Lino Lakes, MN 55014-1182

Dear Mr. Grochala:

Enclosed, please find a fully executed original Joint Powers Agreement (JPA) for the 21st Avenue project.

If you have any questions, please do not hesitate to contact me.

Sincerely,

Dallas Larson
City Administrator

Enc.

CITY OF LINO LAKES
RESOLUTION NO. 13-91

APPROVING JOINT POWERS AGREEMENT BETWEEN THE CITY OF LINO LAKES AND THE CITY OF CENTERVILLE 21ST AVENUE IMPROVEMENTS

WHEREAS, Minnesota Statutes, Section 471.59, authorizes political subdivisions to enter into Joint Powers Agreements, and

WHEREAS, the City of Lino Lakes and the City of Centerville agree that it is in the best interest of the traveling public to construct the extension of 21st Avenue north of Main Street (CSAH 14); and

WHEREAS, said parties mutually agree that the City of Lino Lakes shall cause the construction of 21st Avenue extension; and

WHEREAS, the parties agree that it is in their best interest that the cost of said project be shared,

NOW, THEREFORE BE IT RESOLVED by The City Council of The City of Lino Lakes

1. that the City Council hereby approves the Joint Powers Agreement with the City of Centerville for the construction of 21st Avenue and authorizes execution of said agreement attached hereto as Exhibit A.

Adopted by the Council of the City of Lino Lakes this 26th day of August, 2013.

The motion for the adoption of the foregoing resolution was introduced by Council Member Roeser and was duly seconded by Council Member Stoesz and upon vote being taken thereon, the following voted in favor thereof:
Roeser, Stoesz, Rafferty, O'Donnell, Reinert
The following voted against same:
none

Jeff Reinert, Mayor

ATTEST:

Julianne Bartell, City Clerk

CITY OF CENTERVILLE

RESOLUTION NO. 13-016

RESOLUTION APPROVING JOINT POWERS AGREEMENT WITH CITY OF LINO LAKES (21ST AVENUE IMPROVEMENTS)

WHEREAS, Minnesota Statutes, Section 471.59, authorizes political subdivisions to enter into Joint Powers Agreements, and

WHEREAS, the City of Centerville and the City of Lino Lakes agree that it is in the best interest of the traveling public to construct the extension of 21st Avenue north of CSAH 14 (Main Street), and

WHEREAS, said parties mutually agree that the City of Centerville shall cause the construction of 21st Avenue extension and backage road, and

WHEREAS, the parties agree that it is in their best interest that the cost of said project be shared.

NOW, THEREFORE BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF CENTERVILLE, MINNESOTA, that the City Council hereby approves the Joint Powers Agreement with the City of Lino Lakes for the construction of 21st Avenue South, said agreement attached hereto as Exhibit A.

BE IT FURTHER RESOLVED, that the Joint Powers Agreement shall be effective and may be executed upon receipt of signed special assessment agreements from property owners covering 100% of the cost of the project.

Adopted by the Centerville City Council this 28th day of August, 2013.

Tom Wilharber, Mayor

Teresa Bender, City Clerk

JOINT POWERS AGREEMENT
BETWEEN THE CITY OF CIRCLE PINES
AND
CITY OF LINO LAKES

THIS AGREEMENT is made as of July 11, 2005 between the City of Circle Pines, Minnesota, a municipal corporation ("Circle Pines") and the City of Lino Lakes, Minnesota, a municipal corporation ("Lino Lakes").

RECITALS

A. By virtue of a Planning Commission resolution (Resolution 04-01), adopted on June 14, 2004 Circle Pines has granted preliminary plat approval for a 52 unit single-family housing development known as Pine Hollow (the Development) to be located on approximately a 12 acre parcel adjacent to Lino Lakes. In order to access the Metropolitan Council wastewater interceptor, the wastewater flow from the Development needs to move through the sanitary sewer lines of Lino Lakes. The owner of the Development, Ryland Homes (Ryland) and Circle Pines have requested that Lino Lakes allow wastewater from the Development to connect to and flow through the sanitary sewer lines of Lino Lakes. Lino Lakes is willing to allow such flows to occur on the terms and conditions hereinafter set forth.

B. Lino Lakes owns and maintains sanitary sewer facilities adjacent to certain parcels located in Circle Pines. The facilities have the capacity to provide sanitary sewer service to Pine Hollow development.

C. It is desire of the parties, the Cities of Lino Lakes and Circle Pines, through this agreement, to provide for sanitary sewer services to the Pine Hollow Development by Lino Lakes.

D. Minnesota Statutes, Section 471.59, provides that two or more governmental units, by agreement entered into through action of their governing bodies, may jointly or cooperatively exercise any power common to the contracting parties or any similar powers, including those which are the same except for the territorial limits within which they exercised.

AGREEMENT

Based upon the foregoing recitals, Circle Pines and Lino Lakes agree as follows.

1. Lino Lakes shall allow wastewater from the Development to connect to and flow through sanitary sewer lines owned and maintained by Lino Lakes, in accordance with the Utility Plan, Pine Hollow Grading, Utility and Streets, dated September 13, 2004.

2. Circle Pines shall maintain all sanitary sewer lines constructed within the Development and any adjacent lands in Circle Pines. Lino Lakes shall maintain all sanitary sewer lines located in Lino Lakes (except interceptors owned by the Metropolitan Council) through which the wastewater generated by the Development or adjacent lands flows. Each city shall maintain its sanitary sewer lines at its own cost and expense.

3. Circle Pines shall provide Lino Lakes with the most current water meter readings no later than five (5) days following the months of March, June, September and December. Lino Lakes will bill Circle Pines for all wastewater flows determined by the meter readings. Billing to Circle Pines at the rate the Metropolitan Council bills Lino Lakes for wastewater plus ten percent (10%).

4. Payments are due to the City of Lino Lakes utility department within thirty (30) days of the billing date.

5. This agreement shall become effective upon its execution by Circle Pines and Lino Lakes.

6. This agreement is effective only for the Development as approved by Planning Commission Resolution 04-01 and the Utility Plan as referenced in item one. No flows in excess of the flows generated by the Developments approval shall be allowed to enter the City of Lino Lakes sanitary sewer system.

7. This agreement may not be amended unless agreed to in writing by both Circle Pines and Lino Lakes.

IN WITNESS WHEREOF the parties have executed this Agreement as of the day above first written.

CITY OF CIRCLE PINES

By: _____
Keith Perlich, Mayor

ATTEST:

By: _____
James W. Keinath, City Administrator

CITY OF LINO LAKES

By: _____
John Bergeson, Mayor

ATTEST:

By: _____
Gordon Heitke, City Administrator

CITY OF LINO LAKES

RESOLUTION NO. 05-95

RESOLUTION APPROVING A JOINT POWERS AGREEMENT BETWEEN THE CITY OF CIRCLE PINES AND CITY OF LINO LAKES FOR THE PINE HOLLOW DEVELOPMENT

WHEREAS, Minnesota Statutes, Section 471.59, authorizes political subdivisions to enter into Joint Power Agreements; and

WHEREAS, the parties of this agreement consider it mutually desirable to provide sanitary sewer services to the Pine Hollow Development by Lino Lakes; and

WHEREAS, Circle Pines has provided documentation of ownership of parcel in Lino Lakes which provides service to Circle Pines; and

WHEREAS, Grading and restoration of the previous park including paving of the trail shall be completed by August 5, 2005.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF LINO LAKES, MINNESOTA:

1. Hereby approves the Joint Powers Agreement between the City of Circle Pines and City of Lino Lakes for the Pine Hollow Development and authorizes Mayor and City Clerk to sign the agreement.

Adopted by the City Council this 11th day of July, 2005.

John J. Bergeson, Mayor

Ann J. Blair, City Clerk

SANITARY SEWER AND WATER MAIN EXTENSION AND SERVICE AGREEMENT SHOREVIEW - LINO LAKES BALDWIN LAKE AREA

I. PARTIES. This agreement is entered into by and between the City of Shoreview, a municipal corporation and political subdivision of the State of Minnesota (herein "Shoreview") and the City of Lino Lakes, a municipal corporation and political subdivision of the State of Minnesota (herein "Lino Lakes").

II. RECITALS. The center line of County Road J in Ramsey County, between its intersection with State Trunk Highway 49 and the western boundary of Lino Lakes (herein the "common border") divides Shoreview and Lino Lakes. Shoreview has constructed trunk and lateral sanitary sewer and water facilities (herein the "Shoreview utilities") on the south side of the common border. Lino Lakes intends to construct lateral sanitary sewer and water facilities (herein the "Lino Lakes utilities") on the north side of the common border which will serve existing and future single family homes on lots which are northerly of and directly adjacent to the common border and on lots to be constructed in an undeveloped 130 acre tract of land northerly of the common border (herein the "Baldwin Lake tract"). The Lino Lakes property which abuts the common border and the proposed Baldwin Lake tract (both areas herein the "service area") are illustrated on Exhibit "A" attached.

In order to more economically provide sanitary sewer and water to the single family homes in the service area, Lino Lakes has requested permission to connect the Lino Lakes utilities to the Shoreview utilities and has requested that Shoreview provide sanitary sewer and water services, as described herein, to single family dwelling units in the service area.

Lino Lakes represents that only single family residential dwellings will be connected directly or indirectly to the Shoreview untilities; that it will allow only one (1) single family residential dwelling to be constructed on each lot in the service area; and that each lot on which a residential dwelling is constructed will abut the publicly dedicated right-of-way in which Shoreview utilities or Lino Lakes utilities are located.

III. TERMS AND CONDITIONS. Now, therefore, in reliance on the representations of Lino Lakes and in consideration of the mutual undertakings herein expressed, Shoreview and Lino Lakes agree as follows:

(A) EXTENSION OF AND CONNECTIONS TO SHOREVIEW UTILITIES. At its sole cost and responsibility, Lino Lakes shall construct or cause to be constructed the Lino Lakes utilities and shall cause the Shoreview utilities to be extended and connected to the Lino Lakes utilities in order to provide municipal sanitary sewer and water to the single family dwellings in the service area.

(1) PLANS AND SPECIFICATIONS. The Lino Lakes utilities shall be done in accordance with plans and specifications which have been approved by the Shoreview engineer.

(2) CONSTRUCTION RECORD DRAWINGS. Upon completion of any of the Lino Lakes utilities, Lino Lakes, at no cost to Shoreview, shall provide Shoreview with construction record drawings containing and properly illustrating all information required by the Shoreview engineer.

(3) INSPECTION. The Shoreview engineer, or his designated representative, shall be allowed to inspect the Lino Lakes utilities at reasonable times during the period of construction and thereafter upon 24 hours written notice to the Lino Lakes Clerk-Treasurer.

(4) MAINTENANCE AND REPAIR OF DEFECTS. Lino Lakes shall maintain the Lino Lakes utilities in good working order and in accordance with the American Water Works Association standards for water mains, or, where applicable, the Minnesota Metropolitan Waste Control Commission standards for sanitary sewer mains. Lino Lakes shall report any defects which occur in the Lino Lakes utilities to the Shoreview engineer. In the event of emergencise, repair procedures shall be undertaken immediately. Normal repair and maintenance shall be completed within reasonable times. The Shoreview engineer may designate any repair work as an "emergency repair" if the defect will have a significant impact on the use of the Shoreview utilities by Shoreview residents or, if the defect will result in unmonitored use of the Shoreview utilities. Emergency repairs include but are not limited to breaks in the water main or sanitary sewer main and abnormal infiltrations of the sanitary sewer mains in Lino Lakes.

(5) PERMITTED CONNECTIONS. Only single family dwellings in the service area may be connected directly to the Shoreview utilities or directly to the Lino Lakes utilities and thereafter indirectly to the Shoreview utilities. Only one (1) single family dwelling may be constructed on each lot in the service area. All direct or indirect connections to the Shoreview utilities must be approved by the Shoreview engineer.

(B) CONNECTION CHARGES.

(1) WATER MAIN - EXISTING AND PROPOSED SINGLE FAMILY DWELLINGS ON THE NORTH SIDE OF THE COMMON BOUNDARY BETWEEN STATE TRUNK HIGHWAY 49 AND ST. ALBANS. Prior to the connection of buildings to the Shoreview water main or to extensions of such water main the total of the following connection charges, as computed by the Shoreview engineer, shall be paid to Shoreview by Lino Lakes:

(a) An amount equal to $335.00 per acre of lot area plus an amount equal to $26.50 per front footage of each lot on which a single family dwelling is constructed (both amounts herein the "base water main construction cost") for all single family dwelling units connected on or before December 31, 1987. Thereafter, the base water main construction cost shall be increased annually on January 1 of each year if the construction cost index of the Engineering News Record has increased, using January 1, 1987, as a base for comparison. Acreage computations shall be based upon a lot depth not to exceed 150 feet as measured from the right-of-way line which is nearest to the lot upon which the single family dwelling is located and which abuts the water main. Lot frontage shall be equal to the lot width at the front yard building setback line or, in the case of irregular shaped lots, at a depth computed by the Shoreview engineer.

(b) All charges required by Shoreview Code Section 501.030 and amendments thereto.

(c) All charges required by Shoreview Resolution No. 82-146 and amendments thereto.

(d) An inspection fee of $15.50 per connection.

(2) WATER MAIN - EXISTING AND PROPOSED SINGLE FAMILY DWELLINGS ON THE NORTH SIDE OF THE COMMON BOUNDARY BETWEEN ST. ALBANS STREET AND THE WESTERN BORDER OF LINO LAKES INCLUDING THE SINGLE FAMILY UNITS TO BE CONSTRUCTED IN THE BALDWIN LAKE TRACT. Prior to the connection of buildings to the Shoreview water main or to extensions of such water main, the total of the following connection charges, as computed by the Shoreview engineer, shal be paid to Shoreview by Lino Lakes:

(a) An amount equal to $335.00 per acre of lot area (herein the "base water main construction cost") for all single family dwelling units connected on or before December 31, 1987. Thereafter, the base water main construction cost shall be increased annually on January 1 of each year if the construction cost index of the Engineering News Record has increased, using January 1, 1987, as a base for comparison. Acreage computations shall be based upon a lot depth not to exceed 150 feet as measured from the right-of-way line which is the nearest to the lot upon which the single family dwelling is located and which abuts the water main.

(b) All charges required by Shoreview Code Section 501.030 and amendments thereto.

(c) All charges required by Shoreview Resolution No. 82-146 and amendments thereto.

(d) An inspection fee of $15.50 per connection.

(3) SANITARY SEWER - SINGLE FAMILY UNITS ON THE NORTH SIDE OF THE COMMON BOUNDARY BETWEEN STATE TRUNK HIGHWAY 49 AND GROTTO STREET. As provided herein, prior to the connection of buildings to the Shoreview sanitary sewer facilities, the total of the following connection charges, as computed by the Shoreview engineer, shall be paid to Shoreview by Lino Lakes.

(a) An amount equal to $600.00 per acre of lot area plus an amount equal to $25.23 per front foot of each lot on which a single family dwelling is constructed (both amounts herein the "base sanitary sewer main construction cost") for all single family dwelling units connected on or before December 31, 1987. Thereafter, the base sanitary sewer cost shall be increased annually

on January 1 of each year if the construction cost index of the Engineering News Record has increased, using January 1, 1987, as a base for comparison. Acreage computations shall be based upon a lot depth not to exceed 150 feet as measured from the right-of-way line which is nearest to the lot upon which the single family dwelling is located and which abuts the sanitary sewer main. Lot frontage shall be equal to the lot width at the front yard building setback line or in the case of irregular shaped lots, at a depth computed by the Shoreview engineer.

(b) All charges required by Shoreview Resolution No. 82-147 and amendments thereto.

(c) An inspection fee of $15.50 per connection.

(d) Lino Lakes shall cause sewer availability charges (SAC) to be paid directly to the Metropolitan Waste Control Commission.

(4) SANITARY SEWER - SINGLE FAMILY UNITS ON THE NORTH SIDE OF THE COMMON BOUNDARY BETWEEN GROTTO AND THE WESTERN BORDER OF LINO LAKES INCLUDING THE BALDWIN LAKE TRACT. Except as provided herein, prior to the connection of buildings to Shoreview sanitary sewer facilities, the total of the following connections charges, as computed by the Shoreview engineer, shall be paid to Shoreview by Lino Lakes.

(a) An amount equal to $600.00 per acre of lot area (herein the "base sanitary sewer main construction cost") for all single family dwelling units connected on or before December 31, 1987. Thereafter, the base sanitary sewer main construction cost shall be increased annually on January 1 of each year if the construction cost index of the Engineering News Record has increased using January 1, 1987, as a base for comparison. Acreage computations shall be based upon a lot depth not to exceed 150 feet as measured from the right-of-way line which is nearest to the lot upon which the single family dwelling is located and which abuts the sanitary sewer main.

(b) All charges required by Shoreview Resolution No. 82-147 and amendments thereto.

(c) An inspection fee of $15.00 per connection.

(d) Lino Lakes shall cause sewer availability charges (SAC) to be paid directly to the Metropolitan Waste Control Commission.

(C) USE CHARGES.

(1) WATER. Lino Lakes shall be responsible for installing, maintaining, and reading water meters for all dwellings within the service area. Water usage data, for each dwelling, shall be collected and forwarded to the Shoreview engineer in accordance with a schedule approved by the Shoreview engineer which will enable Shoreview to submit a quarterly water use statement to Lino Lakes as hereinafter provided. The Shoreview engineer shall have authority to randomly sample water usage data by reading individual meters. Lino Lakes shall pay Shoreview the total of the individual water use charges as computed pursuant to Shoreview Code 501.080 and amendments thereto. A quarterly statement for the total water use charge shall be mailed to Lino Lakes within a reasonable time after the 1st day of February, May, August and November of each year. The statement shall be due and payable on or before the 1st day of the second month following the billing period described in the statement.

(2) SANITARY SEWER. Lino Lakes shall pay Shoreview the total of the individual sanitary sewer use charges for each dwelling as computed pursuant to Shoreview Code 601.110 and amendments thereto. A quarterly statement for the total sanitary sewer use charge shall be mailed to Lino Lakes within a reasonable time after the 1st day of February, May, August and November of each year. The statement shall be due and payable on or before the 1st day of the second month following the billing period described in the statement.

(D) SHOREVIEW CODE AND RESOLUTIONS. Lino Lakes shall comply with and enforce the provisions of Shoreview Code Chapters 550 and 600 and amendments thereto, except as herein modified. All Shoreview codes and resolutions refered to in this agreement are hereby incorporated. Shoreview shall provide Lino Lakes with copies of such codes, resolutions, and future amendments thereto for review and comment. Nothing herein shall be construed to limit the authority of the City of Shoreview to adopt or amend its ordinances and resolutions.

(E) INDEMNIFICATION. Lino Lakes hereby indemnifies and agrees to hold Shoreview harmless for all costs and fees incurred by Shoreview and for all damages which may be assessed against Shoreview as a result of any cause of action, of whatever kind and nature, arising out of the construction of the Lino Lakes utilities, the connection of such utilities to the Shoreview utilities, or the use of the Shoreview utilities by Lino Lakes residents in the service area.

(F) REMEDIES. If Lino Lakes violates any of the terms of this agreement, then, in addition to any other legal or equitable remedies, Shoreview shall be entitled to damages in the amount of $75.00 per day for each day that such violation continues to exist and Shoreview may discontinue providing water and sanitary sewer services to the entire service area. Lino Lakes shall be responsible for all costs incurred by Shoreview in order to discontinue such service, including, but not limited to, administrative costs, engineering costs and legal costs.

(G) EFFECTIVE DATES. This agreement shall become effective upon the passage of an appropriate resolution by the city councils of each party. Each party shall provide the other party with a certified copy of such resolution. This agreement shall continue until terminated as hereinafter provided.

(H) TERMINATION. This agreement may be terminated by Shoreview if Lino Lakes or the residents of Lino Lakes who receive water and sanitary sewer services pursuant to the terms of this agreement, violate the terms of the agreement or the provisions of Shoreview Code Chapters 500 and 600 and amendments thereto, and such violations continue for ten (10) days after Lino Lakes receives a written notice of violation from Shoreview; or, if Lino Lakes fails to properly maintain the Lino Lakes utilities; or if Lino Lakes authorizes a zoning or use change in the areas receiving water and sanitary sewer services pursuant to the terms of this agreement. Payment obligations shall continue up to and including the date of termination. Lino Lakes may terminate this agreement upon serving written notice to Shoreview of its intention to terminate. Upon termination of this agreement by either city, Lino Lakes, at its cost and pursuant to plans approved by the Shoreview engineer, shall disconnect the Lino Lakes utilities from the Shoreview utilities.

IN WITNESS WHEREOF, the parties have caused this agreement to be executed.

CITY OF SHOREVIEW

Richard G. Wedell

Richard Wedell, Mayor

Michael J. Black

Michael J. Black,
Acting City Manager

Pursuant to authority granted by Council Resolution No. 87-26 adopted on the 2nd day of March, 1987

CITY OF LINO LAKES

Mayor

Marilyn H. Carlson

Clerk - Treasurer

Pursuant to authority granted by Council Resolution No. none adopted on the 23rd day of February, 1987

NORTH OAKS
COMPANY LLC

September 20, 2004

Mr. Michael Grochala
Community Development Director
City of Lino Lakes
600 Town Center Parkway
Lino Lakes, MN 55014

Re: Rapp Farm Joint Powers Agreement

Dear Michael:

Enclosed is a fully signed original of the Joint Powers Agreement among White Bear Township, City of Lino Lakes, and the City of North Oaks for the Rapp Farm development in North Oaks.

Thank you very much for all your help in completing this and guiding it through the political process in Lino Lakes.

We will prepare an easement for your review and for review by your City Attorney.

Sincerely,

Carolyn M. McCann

Carolyn M. McCann
President

CMM/lm
Enclosure

5959 Centerville Road, Suite 200 • North Oaks, MN USA 55127 • t: 651-484-3361 • f: 651-484-2704 • www.northoaks.com

RAPP FARM
MASTER
JOINT POWERS AGREEMENT
BETWEEN THE TOWN OF WHITE BEAR,
THE CITY OF LINO LAKES, AND
THE CITY OF NORTH OAKS

THIS AGREEMENT, is made to be effective June 1, 2004, between the TOWN OF WHITE BEAR, a statutory Township under the laws of the State of Minnesota (TOWN), THE CITY OF LINO LAKES, a municipal corporation under the laws of the State of Minnesota (LINO LAKES), and the CITY OF NORTH OAKS, a municipal corporation under the laws of the State of Minnesota (NORTH OAKS).

RECITALS:

A. NORTH OAKS has in the past and will in the future, be petitioned by owners and developers of property within NORTH OAKS for connection of said property to TOWN water service and/or TOWN sewer service.

B. NORTH OAKS has no plans to construct and maintain a water system or sanitary sewer system, but will permit property owners and developers to construct the same, provided the TOWN will maintain and/or allow the same to be connected to the water system and/or sanitary sewer system owned by the TOWN.

C. It is feasible for the TOWN to serve property within NORTH OAKS with TOWN water service and/or sanitary sewer service, and NORTH OAKS desires to have the TOWN do so.

D. North Oaks Company, LLC, a Minnesota limited liability company (the "Developer"), has proposed to NORTH OAKS a new development in an area known as Rapp Farm and has requested that the TOWN provide water service and sanitary sewer service to Rapp Farm.

E. The proposed water and sewer lines for the Rapp Farm development cannot be constructed entirely within NORTH OAKS and are proposed to also be constructed through property located in LINO LAKES owned by the Developer.

F. LINO LAKES does not currently contemplate serving Rapp Farm with its municipal water and sanitary sewer system;

G. LINO LAKES desires to cooperate with NORTH OAKS and the TOWN on the extension of TOWN sewer and water lines through property located in LINO LAKES, owned by the Developer, in order to serve the Rapp Farm development in NORTH OAKS.

PURPOSE:

Minnesota Statutes, Section 471.59, provides that two or more governmental units, by agreement entered into through action of their governing bodies, may jointly or cooperatively exercise any power common to the contracting parties or any similar powers, including those which are the same except for the territorial limits within which they are exercised.

AGREEMENT:

Now, therefore, in consideration of the foregoing recitals and mutual undertakings, set forth herein, the TOWN, LINO LAKES and NORTH OAKS, agree as follows:

SECTION 1 – WATER SERVICES

A. **NORTH OAKS TO HAVE CONSTRUCTED.** NORTH OAKS agrees to have property owners and developers construct and install, with no cost to the TOWN, LINO LAKES, or NORTH OAKS, adequate and suitable watermains and appurtenances for property within NORTH OAKS and LINO LAKES in accordance with specifications and standards that are established by the TOWN, NORTH OAKS and LINO LAKES. NORTH OAKS agrees to have such property owners and developers provide the TOWN, LINO LAKES, and NORTH OAKS with as-built plans of all utility lines in such systems in a format acceptable to them. All watermains, appurtenances, services and connections shall be of the same kind of materials and constructed in the same manner and under the same standards, rules and regulations as are now in effect or as may hereafter be prescribed by the TOWN and LINO LAKES for similar installations in the TOWN and LINO LAKES or under standards otherwise acceptable to the TOWN and LINO LAKES.

B. **RESPONSIBILITIES OF DEVELOPER.** The Developer shall arrange to conduct a site inspection of the property and prepare all of the necessary plans and specifications for the construction of the water system to service the property. The Developer shall hire the Contractor, with the approval of the TOWN, LINO LAKES, and NORTH OAKS to install the improvements.

C. **CONSTRUCTION OF THE WATER SERVICES.** The Developer shall prepare all necessary documents to bid out the project. Such documents shall be reviewed and approved by the TOWN, NORTH OAKS, and LINO LAKES, prior to the project being bid out. The Developer shall hire contractors to install the water system to the property. The contractors shall be of the choosing of the Developer. Neither NORTH OAKS nor LINO LAKES shall be responsible for any actions of the Developer nor the Developer's contractors regarding the installation or construction of the water system. All work to be done in construction and installing the water system within LINO LAKES shall be done subject to the approval of the LINO LAKES City Engineer in accordance with City standards and requirements. All work to be done in constructing and installing the water system within NORTH OAKS shall be done subject to the approval of the NORTH OAKS City Engineer. The water lines and appurtenances shall be constructed in accordance with the direction of the TOWN, NORTH OAKS, and LINO LAKES.

D. **HOLD HARMLESS.** The Developer shall hold harmless and defend the TOWN, NORTH OAKS and LINO LAKES from any and all claims made by anyone for any defects or damages of any kind caused by the installation and/or construction of the water system.

E. **EASEMENT.** Easements needed to construct and maintain the water system shall be provided by the Developer. Such easements shall be reviewed, approved and accepted by the TOWN, LINO LAKES, and NORTH OAKS prior to the project being bid out. The Developer shall obtain any and all easements at no cost to the TOWN, NORTH OAKS, or LINO LAKES.

F. **ESCROW.** Developer shall, contemporaneously with the execution of this Agreement, deposit with LINO LAKES and the TOWN each an escrow of Five Thousand Dollars ($5,000.00) to cover the cost of legal fees, construction documents and observation for the water main in LINO LAKES, engineering fees, administrative expenses, and other costs related to this Joint Powers Agreement and development.

All fees and costs incurred by LINO LAKES and the TOWN in connection with the development shall be charged against said escrow accounts which shall remain in effect until the completion of the construction and connection of the water systems. Any funds remaining in the escrow account after the completion shall be refunded to the Developer.

G. **OWNERS OF WATER SYSTEM.** The system shall initially be owned by the Developer, but, NORTH OAKS within NORTH OAKS shall have the right to acquire said system for a nominal consideration as will be more fully described in development agreements between NORTH OAKS and

such owners and developers. The systems within LINO LAKES shall be owned by the Developer. If LINO LAKES desires to own the system at some time in the future, a separate agreement shall be made at that time regarding the transfer of ownership and ongoing management of the system.

H. **HOOK-UP FEE.** NORTH OAKS will collect from such property owners and developers a hook-up fee per unit as shall be set forth in an addendum to this Agreement in the form attached as ADDENDUM – 2, at the time the water system is connected to each unit to be served. The foregoing fees will be turned over to the TOWN. The hook-up fees may be adjusted annually by Town Board resolution, and such fees shall be based upon the same rate charged for similar services furnished by the TOWN for property lying within the TOWN.

I. **INSPECTION/PERMIT FEE.** NORTH OAKS will collect from Developer, a permit fee per unit as shall be set forth in an addendum to this Agreement in the form attached as ADDENDUM – 2, half of which shall be remitted to the TOWN for connection of the water line to each unit from the street. It is agreed that all service connections from the mains shall be installed by a licensed and bonded contractor under rules identical to those in effect in the TOWN or as may hereafter be modified by the TOWN. Such connections shall also be inspected by or under the supervision of the TOWN prior to backfilling. Such permit fees may be adjusted annually by Town Board resolution, and such fees shall be the same fees charged for similar services furnished by the TOWN for property lying within the TOWN.

J. **WATER METERS.** Water meters with an outside remote reader shall be purchased from the TOWN at a cost provided for in an addendum to this Agreement in the form attached as ADDENDUM – 2. Such meter and outside remote reader shall also be inspected by, or under the supervision of the TOWN. Such meters and permit fees may be adjusted annually by TOWN Board resolution. Any replacement or upgrading of meters shall be at the expense of the property owners and developers for remittance to the TOWN.

K. **EXTENSION OF SYSTEM.** The amount of units requested by NORTH OAKS to be connected to the TOWN water system shall be set forth in an addendum to this Agreement in the form attached as ADDENDUM – 1, specific to each project. All further needs of NORTH OAKS must be reviewed and approved by the Town Board after review of the TOWN'S water system capabilities.

L. **WATER TURN-ONS.** Water turn-ons must be made by the TOWN'S Public Works Department. NORTH OAKS or its agent shall advise or

cause the TOWN to be advised twenty-four (24) hours in advance of water turn-ons to insure that the TOWN'S Public Works Department will be available to comply.

M. **WATER QUANTITY AND QUALITY.** The TOWN will supply to NORTH OAKS the same water quantity and quality that the TOWN provides to its own residents in the same service area.

N. **FUTURE TOWNSHIP IMPROVEMENTS.** NORTH OAKS agrees that in the event there are future improvements or modifications by the TOWN to the TOWN water system benefiting property within NORTH OAKS, then the costs thereof shall be added on as part of the water system charged to the customers of said services in an amount sufficient to pay off their share of the future improvements at rates consistent with benefited TOWN properties.

O. **FUTURE OPERATING CHARACTERISTICS.** The TOWN may desire to change the operating characteristics of its water system from time to time and may request different or additional connections to the system. In that event, NORTH OAKS agrees that property owners and developers benefited by the system shall pay all costs associated with providing the required additional facilities to NORTH OAKS. NORTH OAKS shall collect from the property owners and developers all costs associated with providing the required additional facilities to NORTH OAKS and transfer said monies within sixty (60) days to the TOWN. Additional connections to the TOWN system shall be subject to TOWN approval.

P. **PIPING, FIXTURE, ETC.** NORTH OAKS shall require that all interior piping, fixtures, accessories or on-premises piping in any manner connected to the water system, be of the same materials, installed in the same manner, and meet the same standards as required for same or similar work in the TOWN.

Q. **RIGHT TO INSPECT.** The TOWN, through its officers, agents and employees, shall have the right, at all times, to examine, inspect and test any materials or work used or to be used in connection with the water system connecting to the TOWN for the purposes of determining whether or not they comply with the foregoing provisions, and shall have the right to examine and inspect the materials and work and method of installation of each unit's plumbing connection with said water system for the same purpose.

R. **PROTECTION SERVICE AND HYDRANT USE.** Hydrant use for purposes other than fire fighting by NORTH OAKS shall be subject to the same rules and regulations applied by the TOWN, as they shall change from time to time.

S. **INTERRUPTIONS TO WATER SUPPLY.** The TOWN shall not be liable for any direct or indirect damages resulting from lack of water supply to its customers, in the event of repair of water mains or connections of new water mains or in the event of fire prevention, or any other cause, and such water supply may be interrupted for as long as is necessary to complete the necessary work.

SECTION 2 - SANITARY SEWER SERVICE

A. **CITY TO HAVE CONSTRUCTED.** NORTH OAKS agrees to have the Developer of Rapp Farm construct and install, at its own expense, with no cost to the TOWN, LINO LAKES, or NORTH OAKS, adequate and suitable sanitary sewer lines and appurtenances, in accordance with specifications and standards that are established by the TOWN, LINO LAKES, and NORTH OAKS. NORTH OAKS agrees to have the Developer provide the TOWN, LINO LAKES, and NORTH OAKS with as-built plans of all such sanitary sewer systems in a format acceptable to them. All sanitary sewers, appurtenances, services and connections shall be of the same kind of materials and constructed in the same manner and under the same standards, rules and regulations as are now in effect or as may hereafter be prescribed by the TOWN and LINO LAKES for similar installations in the TOWN and LINO LAKES or under standards otherwise acceptable to the TOWN and LINO LAKES.

B. **RESPONSIBILITIES OF DEVELOPER.** The Developer shall arrange to conduct a site inspection of the property and prepare all of the necessary plans and specifications for the construction of the sanitary sewer system to service the property. The Developer shall hire the contractors, with the approval of the TOWN, LINO LAKES, and NORTH OAKS to install the improvements.

C. **CONSTRUCTION OF THE SANITARY SEWER SYSTEM.** The Developer shall prepare all necessary documents to bid out the project. Such documents shall be reviewed and approved by the TOWN, NORTH OAKS, and LINO LAKES prior to the project being bid out. The Developer shall hire contractors to install the sanitary sewer system to the property. The contractors shall be of the choosing of the Developer. Neither NORTH OAKS nor LINO LAKES shall be responsible for any actions of the Developer nor the Developer's contractors regarding the installation or construction of the sanitary sewer system. All work to be done in construction and installing the sanitary sewer system within LINO LAKES shall be done subject to the approval of the LINO LAKES City Engineer in accordance with City standards and requirements. All work to be done in constructing and installing the sanitary sewer system within

NORTH OAKS shall be done subject to the approval of the NORTH OAKS City Engineer. The sanitary sewer lines and appurtenances shall be constructed in accordance with the direction of the TOWN, NORTH OAKS, and LINO LAKES.

D. **HOLD HARMLESS.** The Developer shall hold harmless and defend the TOWN, NORTH OAKS and LINO LAKES from any and all claims made by anyone for any defects or damages of any kind caused by the installation and/or construction of the sanitary sewer system.

E. **EASEMENT.** Easements needed to construct and maintain the sanitary sewer system shall be provided by the Developer. Such easements shall be reviewed, approved and accepted by the TOWN, NORTH OAKS, and LINO LAKES prior to the project being bid out. The Developer shall obtain any and all easements at no cost to the TOWN, NORTH OAKS or LINO LAKES.

F. **LINO LAKES ESCROW.** Developer shall, contemporaneously with the execution of this Agreement, deposit with LINO LAKES and the TOWN each an escrow of Five Thousand Dollars ($5,000.00) to cover the cost of legal fees, construction documents and observation for the sanitary sewer main in LINO LAKES, engineering fees, administrative expenses, and other costs related to this Joint Powers Agreement and development.

All fees and costs incurred by LINO LAKES and the TOWN in connection with the development shall be charged against said escrow accounts which shall remain in effect until the completion of the sanitary sewer main. Any funds remaining in the escrow account after the completion shall be refunded to the Developer.

G. **OWNERS OF SANITARY SEWER SYSTEM.** That portion of the sanitary sewer systems within NORTH OAKS shall initially be owned by the Developer, but NORTH OAKS shall have the right to acquire said systems for a nominal consideration as will be more fully described in development agreements between NORTH OAKS and the Developer. That portion of the sanitary sewer systems within LINO LAKES shall be owned by the Developer. If LINO LAKES desires to own the system at some time in the future, a separate agreement shall be made at that time regarding the transfer of ownership and ongoing management of the system.

H. **HOOK-UP FEE.** NORTH OAKS will collect from such property owners and developers a hook-up fee per unit as shall be set forth in an addendum to this Agreement in the form attached as ADDENDUM – 2, at the time the sanitary sewer system is connected to each unit to be

served. The foregoing fees will be turned over to the TOWN. The hook-up fees may be adjusted annually by Town Board resolution, and such fees shall be based upon the same rate charged for similar services furnished by the TOWN for property lying within the TOWN.

I. **EXTENSION OF SYSTEM.** The amount of units requested by NORTH OAKS to be connected to the TOWN sanitary sewer system shall be set forth in an addendum on the form attached as ADDENDUM – 1, specific to this project. All further needs of NORTH OAKS must be reviewed and approved by the Town Board after review of the TOWN'S sanitary sewer system capabilities.

J. **FUTURE TOWNSHIP IMPROVEMENTS.** NORTH OAKS agrees that in the event there are future improvements or modifications by the TOWN to the TOWN sanitary sewer system benefiting the property, than the costs thereof shall be added on as part of the sewer system charged to the customers of said services in an amount sufficient to pay off their share of the future improvements at rates consistent with benefited TOWN properties.

K. **PIPING, FIXTURE, ETC.** NORTH OAKS shall require that all interior piping, fixtures, accessories or on-premises piping in any manner connected to the sanitary sewer system, be of the same materials, installed in the same manner, and meet the same standards as required for same or similar work in the TOWN.

L. **RIGHT TO INSPECT.** The TOWN, through its officers, agents and employees, shall have the right, at all times, to examine, inspect and test any materials or work used or to be used in connection with the sanitary sewer system connecting to the TOWN for the purposes of determining whether or not they comply with the foregoing provisions, and shall have the right to examine and inspect the materials and work and method of installation of each unit's plumbing connection with said sanitary sewer system for the same purpose.

M. **MANHOLES AND LIFT STATIONS.** Manhole and lift station use by LINO LAKES and NORTH OAKS shall be subject to the same rules and regulations applied by the TOWN, as they shall change from time to time.

N. **INTERRUPTIONS TO SANITARY SEWER SERVICE.** The TOWN shall not be liable for interruption of sanitary sewer service to its customers, in the event of repair of the sanitary sewer service or connection of new sanitary sewer service, or in the event of any other cause, such sanitary sewer service may be interrupted for as long as necessary to complete the necessary work.

SECTION 3 – BILLING

A. WATER & SANITARY SEWER SERVICE BILLING.

1. **BILLING SERVICE.** The water and sanitary sewer charges for services in connection with this Agreement, will be billed by the TOWN directly to the customers of said services.

2. **PROPERTY IDENTIFICATION NUMBERS.** NORTH OAKS shall provide to the TOWN, at the time the water service is turned on, and the sanitary sewer system is connected to Town sanitary sewer, the Property Identification Number (PIN), as provided by the Ramsey County Department of Property Records and Revenue, and the new owners name and the address, for all units, to allow the TOWN to enter the units into its utility billing system.

3. **SURCHARGE.** The TOWN will add a sufficient surcharge to the utility rate(s) for purposes of building a separate fund to finance repairs to the Sewer and/or Water System. This surcharge shall be transferred to NORTH OAKS annually and used for costs associated with special maintenance and repairs.

4. **DELINQUENCIES.** All sewer and water system bills which are delinquent on September 1st of each year, and have been properly billed, shall be certified by the Town Clerk to NORTH OAKS, together with the prevailing administrative fee charged by the TOWN for processing the delinquency and NORTH OAKS hereby appoints the TOWN as its agent to certify to the Auditor of Ramsey County in accordance with State Law, and the TOWN, as NORTH OAKS' agent, in so certifying such charges to the County Auditor, shall specify the amount thereof, the description of the premises serviced, and the name of the owner thereof. The amount so certified shall be extended by the Auditor on the tax rolls against such premises in the same manner as other taxes. Upon receipt of payment from Ramsey County, NORTH OAKS will pay over to the TOWN, the delinquent charges and administrative fees so collected.

B. WATER AND SANITARY SEWER SYSTEM MAINTENANCE BILLING.

1. **BILLING SERVICE.** The TOWN shall forward all billing statements for costs and charges relating to maintenance and repair of the water and sanitary sewer systems as provided in SECTIONS 5 & 6 of this Agreement directly to the property owners and developers, at such address as will be provided by them.

2. **BILL PAYMENT.** If the property owners and developers do not pay any bill to the TOWN within ninety (90) days after receipt, the TOWN may bill NORTH OAKS for the amount billed. NORTH OAKS agrees to pay the TOWN in full for the amount due, within forty-five (45) days of receipt of the bill. However, such payment by NORTH OAKS shall not relieve the property owners and developers of the obligation to reimburse NORTH OAKS for payment of any such bill.

C. **MANAGEMENT AND RESERVE FEES**. The TOWN shall charge each user an amount of 10% of each billing for water and sewer service which shall be collected by the TOWN and paid to the Developer or the successor owner of the sewer and/or water system for repair, maintenance, and replacement of the lift stations and other system components. This amount may be changed from time to time at the request of the Developer if costs exceed the amounts being charged.

SECTION 4 – RIGHTS OF WAY

A. **RIGHT-OF-WAY CHANGES.** Any and all expenses and costs accruing to the sanitary sewer and water system in NORTH OAKS and LINO LAKES in connection with the maintenance, reconstruction, overlaying or paving of streets, alleys, trails, rights-of-way or easements due to the change of grade on such streets, alleys, trails, rights-of-way, easements or any other changes resulting from action of NORTH OAKS, LINO LAKES, Counties of Ramsey or Anoka or State of Minnesota, as such changes affect mains, services and appurtenances within NORTH OAKS or LINO LAKES and affecting this system, shall be the responsibility of NORTH OAKS or LINO LAKES, depending upon in which City the affected portion of the system is located, who may pass the costs and expenses thereof onto the property owners and developers.

B. **ACCESS.** NORTH OAKS and LINO LAKES agree that the TOWN, NORTH OAKS's contracting fire department, and such other persons or entities as designated by the TOWN, shall have complete access to all roads, streets, trails, easements, rights-of-way, fire hydrants, manholes, lift stations, wells, and other sewer and water utility equipment as may be necessary for the use, maintenance, repair or replacement of the sewer and water system. For the purpose of providing such complete access, NORTH OAKS shall cause the relevant property owners and developers to consent to this Agreement using a Consent in the form attached as Exhibit A. The TOWN agrees to restore or repair any damaged roads or shoulders.

C. **EASEMENT ACQUISITION.** The property owners and developers shall provide the TOWN, LINO LAKES and NORTH OAKS all easements for

access to the sanitary sewer and water systems within the CITY for purposes of repairs, maintenance or replacement or other work deemed necessary by NORTH OAKS, LINO LAKES, or the TOWN.

SECTION 5 – WATER SYSTEM MAINTENANCE

A. **MAINTENANCE.** NORTH OAKS, LINO LAKES and the Developer request that the TOWN provide all necessary maintenance and repair to the water system for the development area referenced in an addendum to this Agreement in the form attached as ADDENDUM – 1, and the TOWN has agreed to do so.

B. **EMERGENCY ON-CALL SERVICE.** The TOWN shall provide twenty-four (24) hour, seven (7) day a week emergency service to service and maintain the water system. Such service shall include the water mains and related appurtenances only and shall not include that part of the system lying between the watermain and the dwelling, which serves as the dwelling's private service connection.

C. **PROTECTION OF WATER LINES.** NORTH OAKS and LINO LAKES agree that they will each assist the TOWN in the protection of the water system and will cooperate with the TOWN in protecting barricades, stored materials, traffic routings, etc., as may be necessary for the maintenance or repair work performed by the TOWN to the water system.

D. **FIRE HYDRANTS.** The TOWN shall flush each area of the development's fire hydrants twice each year for the charge as stated in the attached Rate Schedule which Rate Schedule may be changed annually by resolution of the TOWN.

E. **CHARGES FOR MAINTENANCE.** The charges for maintenance and repairs performed pursuant to this Agreement shall be at the rates established in the attached Addendum 2 which may be changed annually by resolution of the TOWN. All services requiring outside contractors shall be as invoiced by the contractor upon invoice verification and approval by the TOWN.

F. **OTHER AGREEMENTS.** Nothing herein shall prevent NORTH OAKS from entering into contractual agreements with the individual users or any other association comprised at least in part of individual users, provided that such contractual arrangements do not interfere with or alter NORTH OAK'S undertaking herein with respect to the TOWN.

SECTION 6 – SANITARY SEWER SYSTEM MAINTENANCE

A. **MAINTENANCE.** NORTH OAKS, LINO LAKES, and the Developer request that the TOWN provide all necessary maintenance and repair to the sanitary sewer system for the development area referenced in an addendum to this Agreement in the form attached as ADDENDUM - 1, and the TOWN has agreed to do so.

B. **EMERGENCY ON-CALL SERVICE.** The TOWN shall provide twenty-four (24) hour, seven (7) day week emergency service to service and maintain the sanitary sewer system. Such service shall include the sanitary sewer mains and related appurtenances only and shall not include that part of the system lying between the sanitary sewer main and the dwelling, which serves as a private service connection for the dwelling.

C. **PROTECTION OF SEWER LINES.** NORTH OAKS and LINO LAKES also agree that they will each assist the TOWN in the protection of the sanitary sewer system and will cooperate with the TOWN in protecting barricades, stored materials, traffic routings, etc., as may be necessary for the maintenance or repair work performed by the TOWN to the sanitary sewer system. All charges for the work performed by the TOWN shall be paid in accordance with Section 6.C. below.

D. **LIFT STATION MAINTENANCE.** The TOWN shall provide maintenance to each lift station. Lift stations shall be checked at least once per week during normal work hours and routine repair parts shall be purchased by the TOWN, and NORTH OAKS agrees that the TOWN shall be reimbursed for the costs thereof for the lift stations.

E. **FLUSHING OF SANITARY SEWER SYSTEMS.** The TOWN shall clean and flush the gravity portion of the sanitary sewer system once each year for the charges as stated in the attached Rate Schedule which may be adjusted annually by resolution of the TOWN. NORTH OAKS agrees that the property owners and developers shall provide the TOWN, at no charge to the TOWN, all water to be used for accomplishment of services provided for in this Agreement.

F. **CHARGES FOR MAINTENANCE.** The charges for maintenance and repairs performed pursuant to this Agreement shall be at the rates established in attached Addendum 2 which may be adjusted annually by resolution of the TOWN. All services requiring outside contractors shall be as invoiced by the contractor upon invoice verification and approval by the TOWN.

G. **OTHER AGREEMENTS.** Nothing herein shall prevent the CITY from entering into contractual agreements with the individual users or any other association comprised at least in part of individual users, provided said contractual arrangements do not interfere with or alter the CITY's undertaking herein with respect to the TOWN.

SECTION 7 – INDEMNIFICATION

A. **SOD, LANDSCAPING, DRIVEWAYS, SIDEWALKS AND STREETS.** Neither NORTH OAKS, LINO LAKES, nor the TOWN or their agents and employees shall be responsible for damages to landscaping or sod due to maintenance and repairs covered by this Agreement, which damages shall be the ultimate responsibility of such property owners and developers.

B. **INDEMNIFICATION.** NORTH OAKS covenants and agrees to indemnify, save harmless, defend the TOWN, and any and all of its agents, employees and servants, from any and all claims arising from the activities conducted under this Agreement within NORTH OAKS, except claims of reckless disregard or willful misconduct. By consenting to this Agreement, such property owners and developers shall likewise indemnify and save NORTH OAKS harmless from all claims arising from the activities conducted under this Agreement by NORTH OAKS or the TOWN, except for claims of reckless disregard or willful misconduct.

SECTION 8 – TERM

A. **TERM.** This Agreement shall remain in force and effect unless terminated as follows. Either the TOWN, LINO LAKES, or NORTH OAKS may terminate this Joint Powers Agreement by giving two (2) years written termination notice to the other as follows:

To the TOWN: Town Clerk
Town of White Bear
1281 Hammond Road
White Bear Township, MN 55110

To the CITY: City Clerk
City of North Oaks
100 Village Center Drive, Suite 150
North Oaks, MN 55127

To LINO LAKES: City Clerk
City of Lino Lakes

600 Town Center Parkway
Lino Lakes, MN 55014

The parties agree that if this Agreement is terminated for any reason, it shall be replaced with another Agreement for provision of sewer and/or water services. If a new agreement cannot be reached between NORTH OAKS and the TOWN, it is agreed by the parties that the Agreement shall be determined by a board of arbitrators consisting of three (3) persons, one selected by the TOWN, one selected by NORTH OAKS, and a third person mutually selected and agreed upon by the first two arbitrators.

NORTH OAKS or the TOWN shall notify the other party in writing delivered by U.S. Mail, certified or registered, postage prepaid, return receipt requested, of a dispute, stating the name and address of its selected arbitrator. The other party shall notify the party requesting arbitration in writing delivered by U.S. Mail, certified or registered, postage prepaid, return receipt requested, within ten (10) days after receipt of the notice of its selected arbitrator. The two arbitrators shall select a third disinterested arbitrator within fifteen (15) days after the date of the response notice. Each of the arbitrators shall be knowledgeable in the area of municipal utility management.

Arbitration shall be commenced within forty-five (45) days of the date of the original notice given pursuant to this Section, and all proceedings shall be completed and a written decision delivered to the parties within ninety (90) days of the commencement of the arbitration proceedings. All proceedings shall be governed by Minnesota Statutes, Chapter 572. The decision of any two arbitrators shall be binding and conclusive with respect to all claims and disputes submitted in such arbitration proceedings.

SECTION 9 – MISCELLANEOUS PROVISIONS

A. All general and special conditions, plans, special provisions, specifications and contracts for the water system and sanitary sewer system shall and hereby are made a part of this Agreement by reference as if fully set our herein in full.

B. Any connections or extensions of the sanitary sewer and water main within LINO LAKES other than those approved herein shall be subject to and in conformance with LINO LAKES' Comprehensive Plan, ordinances, and policies. Future connections or extensions of the proposed facilities shall be subject to amendment of this Agreement and/or a separate agreement between the TOWN and LINO LAKES.

C. The TOWN makes no representation and is not granting any permission, implied or inferred, that the systems being installed will serve LINO LAKES.

D. All applicable fees relating to this project shall be paid by the Developer, including the cost of recording documents with Ramsey County and/or Anoka County.

E. The Developer shall permit access to the land herein for periodic inspections to assure conformance with the conditions herein.

F. This agreement shall be deemed to be a restrictive covenant and the terms and conditions hereof shall run with the land described on Exhibit A hereto and be binding on and inure to the benefit of the successors and assigns of the parties hereto. Reference herein to the Developers, if there be more than one, shall mean each and all of them.

G. Notwithstanding the foregoing, the terms and conditions of this Agreement shall survive the termination of this Agreement to the full extent necessary for their enforcement and for the protection of the parties hereto, and their successors and assigns.

H. The provisions of this Agreement are severable. If any paragraph, section, subdivision, sentence, clause, or phrase of this Agreement is for any reason held to be contrary to law, or contrary to any rule or regulation having the force and effect of law, such decision shall not affect the remaining portions of this Agreement.

IN WITNESS WHEREOF, the Town of White Bear, the City of Lino Lakes, and the City of North Oaks have caused this Agreement to be executed on their behalf by their proper offices, Board, Council and Officers.

(signatures on following pages)

TOWN OF WHITE BEAR

By: _____
Its Chairman

ATTEST:

By: _____
Its Town Clerk-Treasurer

Dated: May 17, 2004.

Approved as to form:

_____
City Attorney

STATE OF MINNESOTA)
) ss.
COUNTY OF RAMSEY)

The foregoing instrument was acknowledged before me this 17 day of May, 2004, by ROBERT J. WEISENBURGER, Chairman of the Town Board of Supervisors and by WILLIAM F. SHORT, Town Clerk-Treasurer, of the Town of White Bear, Minnesota, a municipal corporation, on behalf of the corporation.

_____
Notary Public

PATTI S. WALSTAD
NOTARY PUBLIC-MINNESOTA
My Commission Expires Jan. 31, 2005

CITY OF NORTH OAKS

By: _____
Its Mayor

By: _____
Its City Clerk

Dated: 9/9, 2004.

STATE OF MINNESOTA)
)
COUNTY OF RAMSEY)

The foregoing instrument was acknowledged before me this 9th day of September, 2004 by Thomas N. Watson, Mayor of the City of North Oaks, and by Jim March, City Clerk of the City of North Oaks, Minnesota, a municipal corporation, on behalf of the corporation.

_____
Notary Public

LYNN D. LINNEMAN
NOTARY PUBLIC-MINNESOTA
My Commission Expires Jan. 31, 2005

CITY OF LINO LAKES

By: _____
Its Mayor

By: _____
Its City Clerk

Dated: May 24, 2004.

STATE OF MINNESOTA)
)
COUNTY OF ANOKA)

The foregoing instrument was acknowledged before me this 12th day of July, 2004, by John Bergeson, Mayor of the City of Lino Lakes, and by Ann J. Blair, City Clerk of the City of Lino Lakes, Minnesota, a municipal corporation, on behalf of the corporation.

_____
Notary Public

LISA M. HOGSTAD
NOTARY PUBLIC - MINNESOTA
My Commission Expires Jan. 31, 2005

EXHIBIT A

CONSENT BY DEVELOPER

The undersigned, property owner and/or developer of the property described in the foregoing ADDENDUM – 1 to the Master Joint Powers Agreement, dated as of June 1, 2004 and additional Addendum – 1, which may provide for construction, hook-up of sanitary sewer and water services, and/or maintenance between the TOWN OF WHITE BEAR, the CITY OF LINO LAKES, and the CITY OF NORTH OAKS, with respect to the development identified therein, state and represent that the undersigned have read, understood, consent to, and agree to be bound by all of the conditions and obligations of the Master Joint Powers Agreement as they relate to the undersigned, including payment of all costs referred to therein, and acknowledge that the same were entered into for the benefit of the undersigned and its successors and assigns.

NORTH OAKS COMPANY, LLC

Dated May 17, 2004

By: Carolyn M. McCann

Carolyn M. McCann, President

ADDENDUM – 1

RAPP FARM PHASE ONE

LOCATION: **Tract E, Registered Land Survey No. 565, Ramsey County, Minnesota**

SERVICE PROVIDED: **Sanitary sewer and water services with maintenance of such systems and billing.**

MAXIMUM # OF HOOK-UPS **35 single family homes**

The Sections of that certain Master Joint Powers Agreement dated as of June 1, 2004, by and between the TOWN OF WHITE BEAR, CITY OF LINO LAKES, and the CITY OF NORTH OAKS, that pertain to this Addendum are as follows:

Section 1: Water Services A – S
Section 2: Sanitary Sewer Service A – N
Section 3: Billing A.1-4, B.1-2, and C
Section 4: Rights of Way A - C
Section 5: Water System Maintenance A – F
Section 6: Sanitary Sewer System Maintenance A – G
Section 7: Indemnification A – B
Section 8: Term A
Section 9: Miscellaneous Provisions A – H

Utility charges will be billed to the homeowners by the Town.

IN WITNESS WHEREOF, the Town of White Bear and the City of North Oaks have caused this Agreement to be executed on their behalf by their property officers, Council and Board.

TOWN OF WHITE BEAR

By: _____
ROBERT J. WEISENBURGER, Chairman

Dated: May 17, 2004.

ATTEST:

By: _____
WILLIAM F. SHORT, Clerk-Treasurer

CITY OF NORTH OAKS

By: _____
Mayor

By: _____
Clerk

Dated: 9/9, 2004.

CITY OF LINO LAKES

By: _____
Mayor

By: _____
Clerk

Dated: May 24., 2004.

ADDENDUM – 2
RATE SCHEDULE
For
MASTER JOINT POWERS AGREEMENT
BETWEEN THE TOWN OF WHITE BEAR,
THE CITY OF LINO LAKES,
AND THE CITY OF NORTH OAKS
Dated as of June 1, 2004

****

HOOK-UP FEES:

• Water Extension Charge	$ 1,300.00	per unit
• Water Tower Charge	50.00	per unit
• Water Availability Charge (WAC)	1,500.00	per unit
• Local Sewer Availability Charge (Local SAC)	500.00	per unit

WATER METER CHARGES:	¾"	$ 150.90
Including Remote Read Charge)	1"	$ 162.31
	1 ½"	$ 372.65

LABOR RATES:

Per worker, per hour, per contract charge – normal duty hours (7:00 a.m. to 3:30 p.m.)	$ 40.00/hour
Per worker, per hour, per contract charge – after normal duty hours (overtime rate)	$ 60.00/hour

EQUIPMENT BILLING RATES:

Pick-Up Truck	$ 25.00/per hour
Jet Machine	60.00/per hour
5-Ton Dump Truck	50.00/per hour
Loader	43.00/per hour
Inspection/Permit Fee	40.00/per util/per unit

LIFT STATION MONITORING

Monthly charge	$ 30.00

FLUSHING

Semi-annual flushing of hydrants	$ 150.00
Cleaning and flushing of sanitary sewer system	$1,000.00

PERMIT/INSPECTION FEE	$40.00/per unit
WATER RATE – QUARTERLY	$1.62 per 1000 gallons ($25.75 minimum per unit)
STATE WATER TESTING FEE – Quarterly	$ 1.31
WATER SERVICE MAINTENANCE – Quarterly (Transmitted to the City of North Oaks)	$ 8.50
SEWER RATE – Quarterly	$52.25

Adopted by Resolution of the Town of White Bear on May 17 **, 2004.**

TOWN OF WHITE BEAR

By: _____
ROBERT J. WEISENBURGER, Chairman

ATTEST:

By: _____
WILLIAM F. SHORT, Clerk-Treasurer

Appendix C: Water Supply Plan



Local Water Supply Plan Template
Third Generation for 2016-2018

Formerly called Water Emergency & Water Conservation Plan



Cover photo by Molly Shodeen



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

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This information is available in an alternative format upon request.

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Table of contents

INTRODUCTION TO WATER SUPPLY PLANS (WSP) 6

Who needs to complete a Water Supply Plan 6

Groundwater Management Areas (GWMA) 6

Benefits of completing a WSP 6

WSP Approval Process 7

PART 1. WATER SUPPLY SYSTEM DESCRIPTION AND EVALUATION 9

A. Analysis of Water Demand 9

B. Treatment and Storage Capacity 11

Treatment and storage capacity versus demand 12

C. Water Sources 12

Limits on Emergency Interconnections 13

D. Future Demand Projections – *Key Metropolitan Council Benchmark* 13

Water Use Trends 13

Projection Method 15

E. Resource Sustainability 15

Monitoring – *Key DNR Benchmark* 15

Water Level Data 16

Potential Water Supply Issues & Natural Resource Impacts – *Key DNR & Metropolitan Council Benchmark* 17

Wellhead Protection (WHP) and Source Water Protection (SWP) Plans 20

F. Capital Improvement Plan (CIP) 20

Adequacy of Water Supply System 21

Proposed Future Water Sources 21

Part 2. Emergency Preparedness Procedures 23

A. Federal Emergency Response Plan 23

B. Operational Contingency Plan 23

C. Emergency Response Procedures 23

Emergency Telephone List 24

Current Water Sources and Service Area 24

Procedure for Augmenting Water Supplies 24

Allocation and Demand Reduction Procedures 25

Notification Procedures 27

Enforcement 28

PART 3. WATER CONSERVATION PLAN 29

Progress since 2006 29

A. Triggers for Allocation and Demand Reduction Actions 30

B. Conservation Objectives and Strategies – *Key benchmark for DNR* 31

Objective 1: Reduce Unaccounted (Non-Revenue) Water loss to Less than 10% 31

Objective 2: Achieve Less than 75 Residential Gallons per Capita Demand (GPCD) 33

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. 34

Objective 4: Achieve a Decreasing Trend in Total Per Capita Demand 35

Objective 5: Reduce Peak Day Demand so that the Ratio of Average Maximum day to the Average Day is less than 2.6. 35

Objective 6: Implement a Conservation Water Rate Structure and/or a Uniform Rate Structure with a Water Conservation Program 36

Objective 7: Additional strategies to Reduce Water Use and Support Wellhead Protection Planning 39

Objective 8: Tracking Success: How will you track or measure success through the next ten years? 39

A. Regulation 40

B. Retrofitting Programs 40

Retrofitting Programs 41

C. Education and Information Programs 41

Proposed Education Programs 42

Part 4. ITEMS FOR METROPOLITAN AREA COMMUNITIES 45

A. Water Demand Projections through 2040 45

B. Potential Water Supply Issues 45
C. Proposed Alternative Approaches to Meet Extended Water Demand Projections 45
D. Value-Added Water Supply Planning Efforts (Optional) 46
Source Water Protection Strategies 46
Technical assistance 46
GLOSSARY 47
Acronyms and Initialisms 49
APPENDICES TO BE SUBMITTED BY THE WATER SUPPLIER 51
Appendix 1: Well records and maintenance summaries – see Part 1C 51
Appendix 2: Water level monitoring plan – see Part 1E 51
Appendix 3: Water level graphs for each water supply well - see Part 1E 51
Appendix 4: Capital Improvement Plan - see Part 1E 51
Appendix 5: Emergency Telephone List – see Part 2C 51
Appendix 6: Cooperative Agreements for Emergency Services – see Part 2C 51
Appendix 7: Municipal Critical Water Deficiency Ordinance – see Part 2C 51
Appendix 8: Graph showing annual per capita water demand for each customer category during the last ten-years – see Part 3 Objective 4 51
Appendix 9: Water Rate Structure – see Part 3 Objective 6 51
Appendix 10: Adopted or proposed regulations to reduce demand or improve water efficiency – see Part 3 Objective 7 51
Appendix 11: Implementation Checklist – summary of all the actions that a community is doing, or proposes to do, including estimated implementation dates – see www.mndnr.gov/watersupplyplans 51

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

INTRODUCTION TO WATER SUPPLY PLANS (WSP)

Who needs to complete a Water Supply Plan

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

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

Groundwater Management Areas (GWMA)

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

Benefits of completing a WSP

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

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

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

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

WSP Approval Process

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

1. Download the DNR/Metropolitan Council Water Supply Plan Template www.mndnr.gov/watersupplyplans
2. Save the document with a file name with this naming convention: WSP_cityname_permitnumber_date.doc.
3. The template is a form that should be completed electronically.
4. Compile the required water use data (Part 1) and emergency procedures information (Part 2)
5. The Water Conservation section (Part 3) may need discussion with the water department, council, or planning commission, if your community does not already have an active water conservation program.
6. Communities in the seven-county Twin Cities metropolitan area should complete all the information discussed in Part 4. The Metropolitan Council has additional guidance information on their webpage http://www.metrocouncil.org/Handbook/Plan-Elements/Water-Resources/Water-Supply.aspx. All out-state water suppliers do *not* need to complete the content addressed in Part 4.
7. Use the Plan instructions and Checklist document to insure all data is complete and attachments are included. This will allow for a quicker approval process. www.mndnr.gov/watersupplyplans
8. Plans should be submitted electronically – no paper documents are required. https://webapps11.dnr.state.mn.us/mpars/public/authentication/login
9. DNR hydrologist will review plans (in cooperation with Metropolitan Council in Metro area) and approve the plan or make recommendations.
10. Once approved, communities should complete a Certification of Adoption form, and send a copy to the DNR.

Complete Table 1 with information about the public water supply system covered by this WSP.

Table 1. General information regarding this WSP

Requested Information	Description
DNR Water Appropriation Permit Number(s)	**1985-6168**
Ownership	**Public**
Metropolitan Council Area	**Yes – Anoka County**
Street Address	**600 Town Center Parkway**
City, State, Zip	**Lino Lakes, Minnesota 55014**
Contact Person Name	**Tim Hillesheim**
Title	**Utilities Supervisor**
Phone Number	**(651)-982-2452**
MDH Supplier Classification	**Municipal**

PART 1. WATER SUPPLY SYSTEM DESCRIPTION AND EVALUATION

The first step in any water supply analysis is to assess the current status of demand and availability. Information summarized in Part 1 can be used to develop Emergency Preparedness Procedures (Part 2) and the Water Conservation Plan (Part 3). This data is also needed to track progress for water efficiency measures.

A. Analysis of Water Demand

Complete Table 2 showing the past 10 years of water demand data.

- Some of this information may be in your Wellhead Protection Plan.
- If you do not have this information, do your best, call your engineer for assistance or if necessary leave blank.

If your customer categories are different than the ones listed in Table 2, please describe the differences below:

The city of Lino Lakes separates out commercial, industrial, and irrigation water uses, but does not list institutional uses. This column was removed from Table 2.

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)	Commercial Water Delivered (MG)	Industrial Water Delivered (MG)	Agriculture Water Delivered (MG)	WSS Delivered (MG)	Other * Water Delivered (MG)	Total Water Delivered (MG)	Total Water Pumped (MG)	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	13,196	3,957	400.5	26.53	6.67	21.17	20.45	0	474.30	494.52	4.09%	1.35	4.43	7/20/2005	83	103
2006	14,043	4,118	461.2	51.69	6.85	30.19	0.14	0.24	550.47	565.14	2.60%	1.55	5.08	7/16/2006	90	110
2007	14,493	4,219	488.4	25.52	13.02	32.77	22.48	0	582.16	590.09	1.34%	1.62	6.12	6/12/2007	92	112
2008	14,580	4,305	436.1	27.30	8.70	34.00	22.50	0	528.60	536.36	1.45%	1.47	4.16	8/4/2008	82	101
2009	14,974	4,321	471.6	48.53	6.94	59.53	1.70	0	588.27	588.58	0.05%	1.61	5.56	7/11/2009	86	108
2010	14,980	4,384	399.5	43.00	5.44	38.28	0.02	0	486.22	497.76	2.32%	1.36	5.65	6/1/2010	73	91
2011	14,985	4,425	390.6	43.67	5.17	43.95	2.50	0	485.91	492.15	1.27%	1.35	5.37	9/10/2011	71	90
2012	15,119	4,455	491.6	44.73	6.01	51.69	1.00	0	594.97	609.42	2.37%	1.67	6.73	7/2/2012	89	110
2013	15,201	4,488	429.1	47.37	6.38	35.20	8.82	0	526.81	535.63	1.65%	1.47	4.35	8/28/2013	77	97
2014	15,346	4,486	358.4	46.43	6.10	29.71	0.96	3.11	444.72	444.74	0.00%	1.22	3.89	7/24/2014	64	79
2015	15,411	4,559	353.1	42.68	7.01	30.67	15.15	0	448.64	448.64	0.00%	1.23	3.55	7/13/2015	63	80
Avg. 2010-2015	**15,174**	**4,466**	**403.71**	**44.65**	**6.02**	**38.25**	**4.74**	**0.518**	**497.88**	**504.72**	**1.27%**	**1.38**	**4.92**	**N/A**	**73**	**90**

*uses vary from hydrant flushing and other uncategorized water uses; **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, Wholesale)	Amount Used (MG in 2015)	Percent of Total Annual Water Delivered	Implementing Water Conservation Measures? (Yes/No/Unknown)
1. Correctional Facility	Institutional	6.77	1.51%	No
2. Correctional Facility	Institutional	5.90	1.31%	No
3. Millers Crossroads Village Irrigation	Residential	3.68	0.82%	Unknown
4. Lakewood Apartments	Residential	3.28	0.73%	Unknown
5. Hampton Inn & Suites	Commercial	3.18	0.71%	Unknown
6. YMCA Lino Lakes	Commercial	3.14	0.70%	Unknown
7. City of Lino Lakes Irrigation	Institutional	2.17	0.48%	Yes
8. Susan Litchy*	Residential	1.89	0.42%	Yes*
9.Molin Concrete Plant – Building 3	Commercial	1.71	0.38%	Unknown
10. Century Farms N HOA	Residential	1.65	0.37%	Unknown
*This user had a large pipe burst resulting in high water usage for 2015 only.				

B. Treatment and Storage Capacity

Complete Table 4 with a description of where water is treated, the year treatment facilities were constructed, water treatment capacity, the treatment methods (i.e. chemical addition, reverse osmosis, coagulation, sedimentation, etc.) and treatment types used (i.e. fluoridation, softening, chlorination, Fe/MN removal, coagulation, etc.). Also describe the annual amount and method of disposal of treatment residuals. Add rows to the table as needed.

Table 4. Water treatment capacity and treatment processes

Treatment Site ID (Plant Name or Well ID)	Year Constructed	Treatment Capacity (GPD)	Treatment Method	Treatment Type	Annual Amount of Residuals	Disposal Process for Residuals	Do You Reclaim Filter Backwash Water?
Well 1	1971	972,000	Chemical addition	Chlorination, fluoridation, and addition of polyphosphate	n/a	n/a	n/a
Well 2	1986	900,000	Chemical addition	Chlorination, fluoridation, and addition of polyphosphate	n/a	n/a	n/a
Well 3	1995	1,720,000	Chemical addition	Chlorination, fluoridation,	n/a	n/a	n/a

Treatment Site ID (Plant Name or Well ID)	Year Constructed	Treatment Capacity (GPD)	Treatment Method	Treatment Type	Annual Amount of Residuals	Disposal Process for Residuals	Do You Reclaim Filter Backwash Water?
				and addition of polyphosphate			
Well 4	1995	1,080,000	Chemical addition	Chlorination, fluoridation, and addition of polyphosphate	n/a	n/a	n/a
Well 5	2005	1,584,000	Chemical addition	Chlorination, fluoridation, and addition of polyphosphate	n/a	n/a	n/a
Well 6	2016	1,728,000	Chemical addition	Chlorination, fluoridation, and addition of polyphosphate	n/a	n/a	n/a
Total	n/a	7,984,000	n/a	n/a	n/a	n/a	n/a

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)
Tower 1	Elevated storage	1992	Steel	1,000,000
Tower 2	Elevated storage	1996	Steel	1,000,000
Total	n/a	n/a	n/a	2,000,000

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):

From 2010 to 2015, the average daily demand was 1.4 MG; the City's current storage capacity exceeds the average daily demand by 0.6 MG. It is anticipated that the highest average daily demand over the proceeding decade will be 2.74 MGD. The City is currently undergoing a water storage siting study and plans to construct a third water storage structure by 2020.

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	Prairie du Chien Group - Jordan	240171	1971	700	306	Active	No
Groundwater	Jordan	110471	1986	600	258	Active	No
Groundwater	Prairie du Chien - Jordan	554207	1995	750	338	Active	No
Groundwater	Prairie du Chien - Jordan	559373 722629 767887	1995 2005 2016	1500 1000 1200	283 273 295	Active Active Active	No

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.

Combining water from different in hydraulic grade lines (HGL) can result in limited flow of water between cities. The City of Blaine has a lower HGL than Lino Lakes, likely leading to lower flows and pressures. Combining water sources (treated and untreated water) can result in calcification of watermains, chemical odors, and degradation of water quality.

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 served has continued to increase over the past ten years, and it is anticipated that Lino Lakes will continue to grow through 2040. The residential and total per capita water demand has fluctuated but has generally trended downwards. This is likely due to improved infrastructure and improved water conservation practices. The

average and maximum daily demands do not show a trend. This is likely due to water conservation practices being offset by increased population; it is the result of a larger population served but a lower per capita use.

Use the water use trend information discussed above to complete Table 7 with projected annual demand for the next ten years. Communities in the seven-county Twin Cities metropolitan area must also include projections for 2030 and 2040 as part of their local comprehensive planning.

Projected demand should be consistent with trends evident in the historical data in Table 2, as discussed above. Projected demand should also reflect state demographer population projections and/or other planning projections.

Table 7. Projected annual water demand

Year	Projected Total Population	Projected Population Served	Projected Total Per Capita Water Demand (GPCD)	Projected Average Daily Demand (MGD)	Projected Maximum Daily Demand (MGD)
2017	21,900	16,200	100	1.62	5.67
2018	22,100	16,600	100	1.66	5.81
2019	22,300	17,000	100	1.70	5.95
2020	22,800	17,229	100	1.72	6.03
2021	23,200	17,600	100	1.76	6.16
2022	23,600	18,000	100	1.80	6.30
2023	24,000	18,400	100	1.84	6.44
2024	24,400	18,800	100	1.88	6.58
2025	24,800	19,200	100	1.92	6.72
2030	26,900	21,329	100	2.13	7.47
2040	31,100	25,529	100	2.55	8.94

GPCD – Gallons per Capita per Day **MGD** – Million Gallons per Day
*Data from census or Met Council

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:

Population estimate was linearly extrapolated using Metropolitan Council estimates for 2020, 2030, and 2040. As of 2016, any new population growth will be serviced by the municipal water system. The per capita demands were based on a conservative balance between the Metropolitan Council Water Supply Profile for Lino Lakes and the City's water usage data from the last five years. Maximum day demands were calculated assuming a peak factor of 3.5. Demands were interpolated on dates that data were not available.

E. Resource Sustainability

Monitoring – *Key DNR Benchmark*

Complete Table 8 by inserting information about source water quality monitoring efforts. The list should include all production wells, observation wells, and source water intakes or reservoirs. Additional information on groundwater level monitoring program at: http://www.dnr.state.mn.us/waters/groundwater_section/obwell/index.html Add rows to the table as needed.

Table 8. Information about source water quality monitoring

MN Unique Well # or Surface Water ID	Type of monitoring point	Monitoring program	Frequency of monitoring	Monitoring Method
240171	☑ production well ☐ observation well ☐ source water intake ☐ source water reservoir	☑Routine MDH sampling ☑Routine water utility sampling ☐ other	☐continuous ☐hourly ☑ daily ☑ monthly ☐quarterly ☑annually	☐SCADA ☑ grab sampling ☐ steel tape ☐ stream gauge
110471	☑ production well ☐ observation well ☐ source water intake ☐ source water reservoir	☑Routine MDH sampling ☑Routine water utility sampling ☐ other	☐continuous ☐hourly ☑ daily ☑ monthly ☐quarterly ☑annually	☐SCADA ☑ grab sampling ☐ steel tape ☐ stream gauge
559373	☑ production well ☐ observation well ☐ source water intake ☐ source water reservoir	☑Routine MDH sampling ☑Routine water utility sampling ☐ other	☐continuous ☐hourly ☑ daily ☑ monthly ☐quarterly ☑annually	☐SCADA ☑ grab sampling ☐ steel tape ☐ stream gauge
554207	☑ production well ☐ observation well ☐ source water intake ☐ source water reservoir	☑Routine MDH sampling ☑Routine water utility sampling ☐ other	☐continuous ☐hourly ☑ daily ☑ monthly ☐quarterly ☑annually	☐SCADA ☑ grab sampling ☐ steel tape ☐ stream gauge
722629	☑ production well	☑Routine MDH	☐continuous	☐SCADA

MN Unique Well # or Surface Water ID	Type of monitoring point	Monitoring program	Frequency of monitoring	Monitoring Method
	☐ observation well ☐ source water intake ☐ source water reservoir	sampling ☑Routine water utility sampling ☐ other	☐hourly ☑ daily ☑ monthly ☐quarterly ☑annually	☑ grab sampling ☐ steel tape ☐ stream gauge
767887	☑ production well ☐ observation well ☐ source water intake ☐ source water reservoir	☑Routine MDH sampling ☑Routine water utility sampling ☐ other	☐continuous ☐hourly ☑ daily ☑ monthly ☐quarterly ☑annually	☐SCADA ☑ grab sampling ☐ steel tape ☐ 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 measured during well/pumping maintenance
240171	Praire du Chien	8 ft	☐ Falling ☑ Stable ☐ Rising	See Appendix 3
110471	Jordan – St. Lawrence	4 ft	☐ Falling ☑ Stable ☐ Rising	See Appendix 3
559373	Prairie du Chien	4 ft	☐ Falling ☑ Stable ☐ Rising	See Appendix 3
554207	Prairie du Chien	12 ft	☐ Falling ☑ Stable ☐ Rising	See Appendix 3

Unique Well Number or Well ID	Aquifer Name	Seasonal Variation (Feet)	Long-term Trend in water level data	Water level measured during well/pumping maintenance
722629	Prairie du Chien	10 ft	☐ Falling ☑ Stable ☐ Rising	See Appendix 3
767887	Prairie du Chien	N/A – new well	☐ Falling ☑ Stable ☐ Rising	See Appendix 3
243469	Quaternary Water Table Aquifer	1 ft	☐ Falling ☑ Stable ☐ Rising	See Appendix 3
785579	Mt. Simon Sandstone	14 ft	☑ Falling ☐ Stable ☐ Rising	See Appendix 3
208573	Jordan	10 ft	☑ Falling ☐ Stable ☐ Rising	See Appendix 3

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 the glossary at the end of the template for definitions.

Some of this baseline data should have been in your earlier water supply plans or county comprehensive water plans. When filling out this table, think of what are the water supply risks, identify the resources, determine the threshold and then determine what your community will do to mitigate the impacts.

Your DNR area hydrologist is available to assist with this table.

For communities in the seven-county Twin Cities metropolitan area, the *Master Water Supply Plan Appendix 1 (Water Supply Profiles*, provides information about potential water supply issues and natural resource impacts for your community.

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
☐ River or		☐ Flow/water	☐ GIS analysis		☐ Revise	

Resource Type	Resource Name	Risk	Risk Assessed Through	Describe Resource Protection Threshold*	Mitigation Measure or Management Plan	Describe How Changes to Thresholds are Monitored
stream**		level decline ☐ Degrading water quality trends and/or MCLs exceeded ☐ Impacts on endangered, threatened, or special concern species habitat or other natural resource impacts ☑Other: Unknown	☐ Modeling ☐ Mapping ☐ Monitoring ☐ Aquifer testing ☐ Other: ___		permit ☐ Change groundwater pumping ☐ Increase conservation ☐ Other	
☐ Calcareous fen		☐ Flow/water level decline ☐ Degrading water quality trends and/or MCLs exceeded ☐ Impacts on endangered, threatened, or special concern species habitat or other natural resource impacts ☐Other: _____	☐ GIS analysis ☐ Modeling ☐ Mapping ☐ Monitoring ☐ Aquifer testing ☐ Other: ___		☐ Revise permit ☐ Change groundwater pumping ☐ Increase conservation ☐ Other	
☐ Lake**		☐ Flow/water level decline ☐ Degrading water quality trends and/or MCLs exceeded ☐ Impacts on endangered, threatened, or special concern species habitat or other natural resource impacts ☑Other: Unknown	☐ GIS analysis ☐ GIS analysis ☐ Modeling ☐ Mapping ☐ Monitoring ☐ Aquifer testing ☐ Other: ___		☐ Revise permit ☐ Change groundwater pumping ☐ Increase conservation ☐ Other	

Resource Type	Resource Name	Risk	Risk Assessed Through	Describe Resource Protection Threshold*	Mitigation Measure or Management Plan	Describe How Changes to Thresholds are Monitored
☐ Wetland**		☐ Flow/water level decline ☐ Degrading water quality trends and/or MCLs exceeded ☐ Impacts on endangered, threatened, or special concern species habitat or other natural resource impacts ☑Other: Unknown	☐ GIS analysis ☐ Modeling ☐ Mapping ☐ Monitoring ☐ Aquifer testing ☐ Other: ___		☐ Revise permit ☐ Change groundwater pumping ☐ Increase conservation ☐ Other	
☐ Trout Stream		☐ Flow/water level decline ☐ Degrading water quality trends and/or MCLs exceeded ☐ Impacts on endangered, threatened, or special concern species habitat or other natural resource impacts ☐Other: _____	☐ GIS analysis ☐ Modeling ☐ Mapping ☐ Monitoring ☐ Aquifer testing ☐ Other: ___		☐ Revise permit ☐ Change groundwater pumping ☐ Increase conservation ☐ Other	
☑ Aquifer	Mt. Simon	☑ Flow/water level decline ☐ Degrading water quality trends and/or MCLs exceeded ☐ Impacts on endangered, threatened, or special concern species habitat or other natural resource impacts ☐Other: _____	☐ GIS analysis ☐ Modeling ☐ Mapping ☑ Monitoring ☐ Aquifer testing ☐ Other: ___	Water levels in City wells that are unacceptably low for pumping.	☐ Revise permit ☑ Change groundwater pumping ☑ Increase conservation ☐ Other	The City has water level data in its wells that can be monitored.

Resource Type	Resource Name	Risk	Risk Assessed Through	Describe Resource Protection Threshold*	Mitigation Measure or Management Plan	Describe How Changes to Thresholds are Monitored
☐ Endangered, threatened, or special concern species habitat, other Natural resource impacts						

* 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.

**The City of Lino Lakes has wetlands, lakes, and rivers/streams in its boundaries. For this report, the City compared observation wells in the City to available lake level data and found no correlation. In addition, the Metropolitan Council's Regional Groundwater and Stormwater Capture and Reuse Study, the entirety of Lino Lakes is a "Tier 3 Area," in which the infiltration rate and hydraulic conductivity are low, as is the depth to the water table. The study states that overall, Tier 3 criteria indicate "areas where there is poor potential for enhanced groundwater recharge." Therefore, it is unlikely that groundwater pumping influences surface water in any way in Lino Lakes.

Wellhead Protection (WHP) and Source Water Protection (SWP) Plans

Complete Table 11 to provide status information about WHP and SWP plans.

The emergency procedures in this plan are intended to comply with the contingency plan provisions required in the Minnesota Department of Health's (MDH) Wellhead Protection (WHP) Plan and Surface Water Protection (SWP) Plan.

Table 11. Status of Wellhead Protection and Source Water Protection Plans

Plan Type	Status	Date Adopted	Date for Update
WHP	☐ In Process ☑ Completed ☐ Not Applicable	April 2016	November 2026
SWP	☐ In Process ☐ Completed ☑ Not Applicable		

WHP – Wellhead Protection Plan **SWP** – Source Water Protection Plan

F. Capital Improvement Plan (CIP)

Please note that any wells that received approval under a ten-year permit, but that were not built, are now expired and must submit a water appropriations permit.

Adequacy of Water Supply System

Complete Table 12 with information about the adequacy of wells and/or intakes, storage facilities, treatment facilities, and distribution systems to sustain current and projected demands. List planned capital improvements for any system components, in chronological order. Communities in the seven-county Twin Cities metropolitan area should also include information about plans through 2040.

The assessment can be the general status by category; it is not necessary to identify every single well, storage facility, treatment facility, lift station, and mile of pipe.

Please attach your latest Capital Improvement Plan as **Appendix 4**.

Table 12. Adequacy of Water Supply System

System Component	Planned action	Anticipated Construction Year	Notes
Wells/Intakes	☐ No action planned - adequate ☐ Repair/replacement ☑ Expansion/addition	Current - 2040	-Well No. 7 -Well No. 8 -Pump Houses
Water Storage Facilities	☐ No action planned - adequate ☐ Repair/replacement ☑ Expansion/addition	2018-2020	-New 1.5 MG Water Tower
Water Treatment Facilities	☐ No action planned - adequate ☐ Repair/replacement ☑ Expansion/addition	2025-2040	-Construction of WTP No. 1
Distribution Systems (pipes, valves, etc.)	☐ No action planned - adequate ☐ Repair/replacement ☑ Expansion/addition	Current – 2025	-Watermain replacement -Watermain extension
Pressure Zones	☐ No action planned - adequate ☐ Repair/replacement ☑ Expansion/addition	TBD	-Additional booster station
Other:	☐ No action planned - adequate ☐ Repair/replacement ☐ 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	City or School district property	Jordan	Total = 2,400	Current - 2030	n/a
Surface Water					
Interconnection to another supplier					

Water Source Alternatives - *Key Metropolitan Council Benchmark*

Do you anticipate the need for alternative water sources in the next 10 years? __ Yes ✓ No

For metro communities, will you need alternative water sources by the year 2040? __ Yes ✓ No

If you answered yes for either question, then complete table 14. If no, insert NA.

Complete Table 14 by checking the box next to alternative approaches that your community is considering, including approximate locations (if known), the estimated amount of future demand that could be met through the approach, the estimated timeframe to implement the approach, potential partnerships, and the major benefits and challenges of the approach. Add rows to the table as needed.

For communities in the seven-county Twin Cities metropolitan area, these alternatives should include approaches the community is considering to meet projected 2040 water demand.

Table 14. Alternative water sources

Alternative Source Considered	Source and/or Installation Location (approximate)	Estimated Amount of Future Demand (%)	Timeframe to Implement (YYYY)	Potential Partners	Benefits	Challenges
☐ Groundwater	N/A	N/A	N/A	N/A	N/A	N/A
☐ Surface Water	N/A	N/A	N/A	N/A	N/A	N/A
☐ Reclaimed Stormwater	N/A	N/A	N/A	N/A	N/A	N/A
☐ Reclaimed Wastewater	N/A	N/A	N/A	N/A	N/A	N/A
☐ Interconnection to another supplier	N/A	N/A	N/A	N/A	N/A	N/A

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? The City has an Emergency Response Plan but currently cannot determine the date it was certified. The City has attempted reaching out to multiple parties to locate the Plan but has not had success.

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 Phone Number	Contact Email
Emergency Response Lead	TIM HILLESHEIM	(651) 982-2452	TIM.HILLESHEIM@CI.LINO-LAKES.MN.US
Alternate Emergency Response Lead	RICK DEGARDNER	(651) 982-2444	RICK.DEGARDNER@CI.LINO-LAKES.MN.US

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
Circle Pines	800/1.15	n/a	Emergency use
Blaine	800/1.15	Lower HGL	Emergency use
Hugo	1400/2.02	n/a	Emergency use
Centerville	1400/2.02	n/a	Emergency use
Shoreview	1400/2.02	n/a	Emergency use
MN Correctional Facility	800/1.15	n/a	Emergency use

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.)

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 (GDP)	Short-Term Emergency Demand Reduction Potential (GPD)
Residential	1	1,041,600	*
Commercial Industrial	2	142,400	*
Agriculture/Irrigation	3	87,300	*
WSS	4	25,600	*
Non-Essential	5	Summer: 338,100	338,100
TOTAL	NA	1,296,900	338,100

GPD – Gallons per Day; 2013-2015 Water Use Data;

***Non-essential calculated as increased summer demand between all customer categories**

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
☑Contamination ☑Loss of production ☑Infrastructure failure ☑Executive order by Governor ☐ Other: _____	☐ Supply augmentation through ____ ☑ 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. ☐ Water allocation through____ ☐ Meet with large water users to discuss their contingency plan. ☑ Voluntary reduction measures, encouraged by public service announcements, i.e. bill stuffers, fliers, and notices in local newspaper	☐ Supply augmentation through ____ ☑ 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. ☐ Water allocation through____ ☑ 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
☑ Short-term demand reduction declared (< 1 year)	☑ Website ☐ Email list serve ☑ Social media (e.g. Twitter, Facebook) ☑ Direct customer mailing, ☑ Press release (TV, radio, newspaper), ☐ Meeting with large water users (> 10% of total city use) ☐ Other: _____	☐ Daily ☐ Weekly ☑ Monthly ☐ Annually	City Staff, Consultant
☑ Long-term Ongoing demand reduction declared	☑ Website ☐ Email list serve ☑ Social media (e.g. Twitter, Facebook) ☑ Direct customer mailing, ☑ Press release (TV, radio, newspaper), ☐ Meeting with large water users (> 10% of total city use) ☐ Other: _____	☐ Daily ☐ Weekly ☑ Monthly ☐ Annually	City Staff, MDH, Consultant

Notification Trigger(s)	Methods (select all that apply)	Update Frequency	Partners
☑ Governor's Critical water deficiency declared	☑ Website ☐ Email list serve ☑ Social media (e.g. Twitter, Facebook) ☐ Direct customer mailing, ☑ Press release (TV, radio, newspaper), ☐ Meeting with large water users (> 10% of total city use) ☐ Other: _____	☐ Daily ☑ Weekly ☐ Monthly ☐ Annually	City Staff, MDH, Consultant

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**.

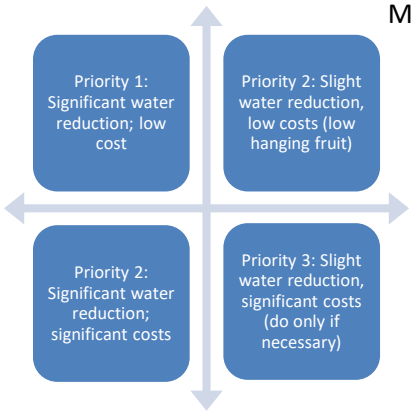
If no, the municipality must adopt such an official control within 6 months of submitting this WSP and submit it to the DNR as an amendment to this WSP.

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: _Section 401.03__.

If no, who has authority to implement water use restrictions in an emergency?

PART 3. WATER CONSERVATION PLAN



Minnesotans have historically benefited from the state's abundant water supplies, reducing the need for conservation. There are however, limits to the available supplies of water and increasing threats to the quality of our drinking water. Causes of water supply limitation may include: population increases, economic trends, uneven statewide availability of groundwater, climatic changes, and degraded water quality. Examples of threats to drinking water quality include: the presence of contaminant plumes from past land use activities, exceedances of water quality standards from natural and human sources, contaminants of emerging concern, and increasing pollutant trends from nonpoint sources.

There are many incentives for conserving water; conservation:

- reduces the potential for pumping-induced transfer of contaminants into the deeper aquifers, which can add treatment costs
- reduces the need for capital projects to expand system capacity
- reduces the likelihood of water use conflicts, like well interference, aquatic habitat loss, and declining lake levels
- conserves energy, because less energy is needed to extract, treat and distribute water (and less energy production also conserves water since water is 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.

The City regularly evaluates its water fees. It currently has a conservation water rate structure, it regularly conducts infrastructure improvements to reduce watermain breaks, and it promotes water conservation in its newsletter. The City is in the process of implementing its Wellhead Protection Plan, and it allocated $10,000 in 2016 for Wellhead Implementation.

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	☑ Yes ☐ No
Water Supply System Improvements (e.g. leak repairs, valve replacements, etc.)	☑ Yes ☐ No
Educational Efforts	☑ Yes ☐ No
New water conservation ordinances	☑ Yes ☐ No
Rebate or retrofitting Program (e.g. for toilet, faucets, appliances, showerheads, dish washers, washing machines, irrigation systems, rain barrels, water softeners, etc.	☐ Yes ☑ No
Enforcement	☑ Yes ☐ No
Describe Other	☐ Yes ☐ No

What are the results you have seen from the actions in Table 21 and how were results measured?

From 2012 to current, the City has seen a gradual decrease in in residential and total capita demand, based on water usage data.

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	☐ Low stream flow conditions ☑ Reports of declining wetland and lake levels ☑ Other: declining surface water quality	☑ Increase promotion of conservation measures ☑ Other: Consider water reuse/stormwater irrigation project for golf courses, car washing facility, etc..
Short-term demand reduction (less than 1 year	☑ Extremely high seasonal water demand (more than double winter demand) ☐ Loss of treatment capacity ☐ Lack of water in storage ☑ State drought plan ☐ Well interference ☐ Other: _____	☑ Enforce the critical water deficiency ordinance to restrict or prohibit lawn watering, vehicle washing, golf course and park irrigation & other nonessential uses. ☐ Supply augmentation through ____ ☐ Water allocation through____ ☐ Meet with large water users to discuss user's contingency plan.
Long-term demand reduction (>1 year)	☑ Per capita demand increase by 20% over 5 year average ☐ Total demand increase (higher population or more industry)Water level in well(s) below elevation of _____ ☐ Other: _____	☑ 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. ☑ 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. ☐ Meet with large water users to discuss user's contingency plan. ☐ Enhanced monitoring and reporting: audits, meters, billing, etc.
Governor's "Critical Water Deficiency Order" declared	Executive Order by Governor and as provided in above triggers. All of the above triggers	Providing water as per water use priorities set by the City

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 ten-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)

The City conducts leak detection as-needed or when a leak is suspected.

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? _~1995___

Frequency of water audits: ☐ **yearly** ☑ **other (specify frequency):** Conducted when a leak is suspected but not apparent. The City does not regularly schedule audits because unmetered water is approximately one percent.
Leak detection and survey: ☐ **every year** ☐ **every other year** ☑ **periodic as needed or biannually**
Year last leak detection survey completed: __N/A_____

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 City's unmetered water has regularly been below 5%.

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	4,338	4,338	4,338	As needed	Replaced at 1 MG
Irrigation meters	68	68	68	As needed	Replaced at 10 MG
Commercial	118	118	110	As needed	Replaced at 10 MG
Industrial	29	29	29	As needed	Replaced at 10 MG
Other: WSS	6	6	6	As needed	Replaced at 1 MG – 10 MG
TOTALS	4,559	4,559	4,551	n/a	n/a

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's distribution system is fully metered.

Table 24. Water source meters

	Number of Meters	Meter testing schedule (years)	Number of Automated Meter Readers	Average age/meter replacement schedule (years
Water Source (wells/intakes)	6	5	6	As needed
Treatment Plant	n/a	n/a	n/a	n/a

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 2005 – 2014 ten-year average residential per capita water demand? 80.9 gpd

Describe the water use trend over that timeframe:

Residential per capita demand showed small fluctuations from 2005 to 2012, from 2012 to 2015 the City has seen a decrease in overall residential per capita demand.

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
☑ Enforce city ordinances/codes to encourage or require water efficient landscaping systems (e.g. those with soil moisture sensors or programmable watering areas) in new installations or system replacements	On-going
☐ 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	
☐ Revise ordinances to limit irrigation. Describe the restricted irrigation plan:	
☐ 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.	
☑ Make water system infrastructure improvements	On-going
☐ Offer free or reduced cost water use audits) for residential customers.	
☐ Implement a notification system to inform customers when water availability conditions change.	
☑ 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.)	The City will consider applying for the Met Council's water efficiency grant when it next becomes available.
☑ 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.)	Annually
☐ Identify supplemental Water Resources	
☑ Conduct audience-appropriate water conservation education and outreach.	On-going
☐ Describe other plans	

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
☑ Conduct a facility water use audit for both indoor and outdoor use, including system components	Annually
☑ Install enhanced meters capable of automated readings to detect spikes in consumption	On-going
☐ 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.),	
☑ Install water conservation fixtures and appliances or change processes to conserve water	On-going
☑ Repair leaking system components (e.g., pipes, valves)	On-going
☑ Investigate the reuse of reclaimed water (e.g., stormwater, wastewater effluent, process wastewater, etc.)	On-going
☑ Reduce outdoor water use at City-owned properties	3-6 years
☑ Train employees how to conserve water	On-going: Include for new employee training
☑ Implement a notification system to inform non-residential customers when water availability conditions change.	On-going
☐ [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 http://www.dli.mn.gov/PDF/docket/4714rule.pdf	
☐ 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.

For each customer category, there were no obvious trends seen in water usage. The fluctuations that are shown in the plot can be attributed to seasonal temperature fluctuations. The projected total per capita water demands shows a decreasing trend from 2015 to 2025.

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 2005-2014 maximum day demand to average 2005-2014 average day demand reported in Table 2 more than 2.6? ☑ Yes ☐ No

Calculate a ten year average (2005 – 2014) of the ratio of maximum day demand to average day demand: 3.5

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: _____gallons___ cubic feet ___ other

Frequency of billing: ☐ Monthly ☐ Bimonthly ☑ Quarterly ☐ Other: _____

Water Rate Evaluation Frequency: ☑ every year ☐ every ___ years ☐ no schedule

Date of last rate change: ___January 1, 2015___

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	☐ Monthly Billing ☑ Increasing block rates (volume tiered rates) ☐ Seasonal rates ☐ Time of Use rates ☐ Water bills reported in gallons ☐ Individualized goal rates ☐ Excess Use rates ☐ Drought surcharge ☐ Use water bill to provide comparisons ☐ Service charge not based on water volume ☑ Other (describe) – time of day irrigation	☐ Uniform ☑ Odd/Even day watering	☐ Service charge based on water volume ☐ Declining block ☐ Flat ☐ Other (describe)
Commercial/ Industrial/ Institutional	☐ Monthly Billing ☑ Increasing block rates ☐ Seasonal rates ☐ Time of Use rates ☐ Bill water use in gallons ☐ Individualized goal rates ☐ Excess Use rates ☐ Drought surcharge ☐ Use water bill to provide comparisons ☐ Service charge not based on water volume ☑ Other (describe) – time of day irrigation	☐ Uniform	☐ Service charge based on water volume ☐ Declining block ☐ Flat ☐ Other (describe)
☐ Other			

*** Rate Structures components that may promote water conservation:**

- **Monthly billing:** is encouraged to help people see their water usage so they can consider changing behavior.
- **Increasing block rates (also known as a tiered residential rate structure):** Typically, these have at least three tiers: should have at least three tiers.
    - The first tier is for the winter average water use.
    - The second tier is the year-round average use, which is lower than typical summer use. This rate should be set to cover the full cost of service.
    - The third tier should be above the average annual use and should be priced high enough to encourage conservation, as should any higher tiers. For this to be effective, the difference in block rates should be significant.
- **Seasonal rate:** higher rates in summer to reduce peak demands
- **Time of Use rates:** lower rates for off peak water use
- **Bill water use in gallons:** this allows customers to compare their use to average rates

- **Individualized goal rates:** typically used for industry, business or other large water users to promote water conservation if they keep within agreed upon goals. **Excess Use rates**: if water use goes above an agreed upon amount this higher rate is charged
- **Drought surcharge:** an extra fee is charged for guaranteed water use during drought
- **Use water bill to provide comparisons**: simple graphics comparing individual use over time or compare individual use to others.
- **Service charge or base fee that does not include a water volume** – a base charge or fee to cover universal city expenses that are not customer dependent and/or to provide minimal water at a lower rate (e.g., an amount less than the average residential per capita demand for the water supplier for the last 5 years)
- **Emergency rates** -A community may have a separate conservation rate that only goes into effect when the community or governor declares a drought emergency. These higher rates can help to protect the city budgets during times of significantly less water usage.

****Conservation Neutral****

- **Uniform rate**: rate per unit used is the same regardless of the volume used
- **Odd/even day watering** –This approach reduces peak demand on a daily basis for system operation, but it does not reduce overall water use.

***** Non-Conserving *****

- **Service charge or base fee with water volume:** an amount of water larger than the average residential per capita demand for the water supplier for the last 5 years
- **Declining block rate:** the rate per unit used decreases as water use increases.
- **Flat rate:** one fee regardless of how much water is used (usually unmetered).

Provide justification for any conservation neutral or non-conserving rate structures. If intending to adopt a conservation rate structure, include the timeframe to do so:

N/A

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 intend to implement within the next 10 years.

Table 28. Additional strategies to Reduce Water Use & Support Wellhead Protection

☐	Participate in the GreenStep Cities Program, including implementation of at least one of the 20 "Best Practices" for water
☐	Prepare a Master Plan for Smart Growth (compact urban growth that avoids sprawl)
☑	Prepare a Comprehensive Open Space Plan (areas for parks, green spaces, natural areas)
☐	Adopt a Water Use Restriction Ordinance (lawn irrigation, car washing, pools, etc.)
☐	Adopt an Outdoor Lawn Irrigation Ordinance
☐	Adopt a Private well Ordinance (private wells in a city must comply with water restrictions)
☑	Implement a Stormwater Management Program
☐	Adopt Non-Zoning Wetlands Ordinance (can further protect wetlands beyond state/federal laws-for vernal pools, buffer areas, restrictions on filling or alterations)
☐	Adopt a Water Offset Program (primarily for new development or expansion)
☐	Implement a Water Conservation Outreach Program
☐	Hire a Water Conservation Coordinator (part-time)
☑	Implement a Rebate program for water efficient appliances, fixtures, or outdoor water management
☑	Other: Consider stormwater irrigation projects, continue to promote conservation through the newsletter, and attempt to locate unlocated wells via MDH grant funding, continue implementation activities outlined in the Wellhead Protection Plan.

Objective 8: Tracking Success: How will you track or measure success through the next ten years?

The City will continue to monitor water usage by customer category, and will consider the program successful if per capita water use continues to decline. The rain barrel and rain garden program is a combined effort by the Rice Creek Watershed District and Anoka County, who monitor the success of these programs.

Tip: The process to monitor demand reduction and/or a rate structure includes:

a) The DNR District Hydrologist or Groundwater Appropriation 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.

A. 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)?
☑ Rainfall sensors required on landscape irrigation systems	☑ Ongoing ☐ Seasonal ☐ Only during declared Emergencies
☑ Water efficient plumbing fixtures required	☑New Development ☐ Replacement ☑ Rebate Programs
☑ Critical/Emergency Water Deficiency ordinance	☑ Only during declared Emergencies
☑ Watering restriction requirements (time of day, allowable days, etc.)	☑ Odd/Even ☐ 2 days/week ☐ Only during declared Emergencies
☐ Water waste prohibited (for example, having a fine for irrigators spraying on the street)	☐ -Ongoing ☐ Seasonal ☐ Only during declared Emergencies
☑ Limitations on turf areas – requirement to preserve as much natural habitat as possible.	☑ New Development ☐ Shoreland/zoning ☐ Other
☑ Soil preparation requirements (after construction, requiring topsoil to be applied to promote good root growth)	☐ New Development ☑ Construction Projects ☐ Other
☑ Tree ratios (requiring a certain number of trees per square foot of lawn)	☐ New development ☐ Shoreland/zoning ☑ Other: The City has a Tree Board whose purpose is recommend the type and spacing of trees on City property.
☐ Permit to fill swimming pool and/or requiring pools to be covered (to prevent evaporation)	☐ Ongoing ☐ Seasonal ☐ Only during declared Emergencies
☐ Ordinances that permit stormwater irrigation, reuse of water, or other alternative water use (Note: be sure to check current plumbing codes for updates)	☐ Describe

B. Retrofitting Programs

Education and incentive programs aimed at replacing inefficient plumbing fixtures and appliances can help reduce per capita water use, as well as energy costs. It is recommended that municipal water

suppliers develop a long-term plan to retrofit public buildings with water efficient plumbing fixtures and appliances. Some water suppliers have developed partnerships with organizations having similar conservation goals, such as electric or gas suppliers, to develop cooperative rebate and retrofit programs.

A study by the AWWA Research Foundation (Residential End Uses of Water, 1999) found that the average indoor water use for a non-conserving home is 69.3 gallons per capita per day (gpcd). The average indoor water use in a conserving home is 45.2 gpcd and most of the decrease in water use is related to water efficient plumbing fixtures and appliances that can reduce water, sewer and energy costs. In Minnesota, certain electric and gas providers are required (Minnesota Statute 216B.241) to fund programs that will conserve energy resources and some utilities have distributed water efficient showerheads to customers to help reduce energy demands required to supply hot water.

Retrofitting Programs

Complete Table 30 by checking which water uses are targeted, the outreach methods used, the measures used to identify success, and any participating partners.

Table 30. Retrofitting programs (Select all that apply)

Water Use Targets	Outreach Methods	Partners
☐ low flush toilets, ☐ toilet leak tablets, ☐ low flow showerheads, ☐ faucet aerators;	☐ Education about ☐ free distribution of ☐ rebate for ☐ other	☐ Gas company ☐ Electric company ☐ Watershed organization
☐ water conserving washing machines, ☐ dish washers, ☐ water softeners;	☐ Education about ☐ free distribution of ☐ rebate for ☐ other	☐ Gas company ☐ Electric company ☐ Watershed organization
☑ rain gardens, ☑ rain barrels, ☐ Native/drought tolerant landscaping, etc.	☑ Education about – rain barrels ☐ free distribution of ☐ rebate for ☑ other – retrofit program for rain gardens	☐ Gas company ☐ Electric company ☑ 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.):

C. 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			☐ Ongoing ☐ Seasonal ☐ Only during declared emergencies
Consumer Confidence Reports	Water quality results from the municipal water supply.	Once per year.	☑ Ongoing ☐ Seasonal ☐ Only during declared Emergencies
Press releases to traditional local news outlets (e.g., newspapers, radio and TV)			☐ Ongoing ☐ Seasonal ☐ Only during declared Emergencies
Social media distribution (e.g., emails, Facebook, Twitter)			☐ Ongoing ☐ Seasonal ☐ Only during declared Emergencies
Paid advertisements (e.g., billboards, print media, TV, radio, web sites, etc.)			☐ Ongoing ☐ Seasonal ☐ Only during declared Emergencies
Presentations to community groups			☐ Ongoing ☐ Seasonal ☐ Only during declared Emergencies
Staff training	Hydrant flushing, water main breaks	Ongoing	☑ Ongoing ☐ Seasonal ☐ Only during declared Emergencies
Facility tours			☐ Ongoing ☐ Seasonal ☐ Only during declared Emergencies
Displays and exhibits			☐ Ongoing ☐ Seasonal ☐ Only during declared Emergencies
Marketing rebate programs (e.g., indoor fixtures & appliances and outdoor practices)			☐ Ongoing ☐ Seasonal ☐ Only during declared Emergencies
Community news letters	Water conservation, turf management,	Quarterly	☑ Ongoing ☐ Seasonal

Education Methods	General summary of topics	#/Year	Frequency
	wellhead protection.		☐ Only during declared Emergencies
Direct mailings (water audit/retrofit kits, showerheads, brochures)	Wellhead protection, water conservation,	As funding allows – quarterly newsletter	☐ Ongoing ☑ Seasonal ☐ Only during declared Emergencies
Information kiosk at utility and public buildings	Wellhead protection, water conservation.		☑ Ongoing ☐ Seasonal ☐ Only during declared Emergencies
Public Service Announcements			☐ Ongoing ☐ Seasonal ☐ Only during declared Emergencies
Cable TV Programs			☐ Ongoing ☐ Seasonal ☐ Only during declared Emergencies
Demonstration projects (landscaping or plumbing)			☐ Ongoing ☐ Seasonal ☐ Only during declared Emergencies
K-12 Education programs (Project Wet, Drinking Water Institute, presentations)			☐ Ongoing ☐ Seasonal ☐ Only during declared Emergencies
Community Events (children's water festivals, environmental fairs)			☐ Ongoing ☐ Seasonal ☐ Only during declared Emergencies
Community education classes			☐ Ongoing ☐ Seasonal ☐ Only during declared Emergencies
Water Week promotions			☐ Ongoing ☐ Seasonal ☐ Only during declared Emergencies
Website: http://www.ci.lino-lakes.mn.us/index.asp?SEC=D2DA133E-72FD-441C-B332-FAF6E7F9C5BF&Type=B_BASIC	General water resources: lakes, creeks, wetlands, management plans, source water protection		☑ Ongoing ☐ Seasonal ☐ Only during declared Emergencies
Targeted efforts (large volume users, users with large increases)			☐ Ongoing ☐ Seasonal ☐ Only during declared Emergencies

Education Methods	General summary of topics	#/Year	Frequency
Notices of ordinances			☐ Ongoing ☐ Seasonal ☐ Only during declared Emergencies
Emergency conservation notices			☐ Ongoing ☐ Seasonal ☐ Only during declared Emergencies
Other:			☐ Ongoing ☐ Seasonal ☐ Only during declared Emergencies

Briefly discuss what future education and information activities your community is considering in the future:

Lino Lakes is considering implementing soil moisture sensors at City-owned irrigation systems. The City will also consider applying for the Metropolitan's Water Efficiency Grant Program if and when it becomes available again.

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
☐ None at this time		
☐ Comprehensive planning that guides development in vulnerable drinking water supply management areas		
☑ Zoning overlay	Currently implemented.	Anoka County has a wellhead protection consortium that works together for Wellhead Protection Plan implementation.
☐ 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

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 – see www.mndnr.gov/watersupplyplans

Appendix 1

Well Records and Maintenance Summaries

E.H. RENNER & SONS
Incorporated
WELL DRILLING FOR FIVE GENERATIONS
15688 JARVIS STREET N.W. / ELK RIVER, MN 55330
PHONE: (763) 427-6100 / FAX: (763) 427-0533
www.ehrenner.com

OPERATIONS & MAINTENANCE MANUAL

FOR

CITY of Lino Lakes
WELL NO 1

UNIQUE WELL NO 204171

LINO LAKES, MN

KT4351-P16

SEPTEMBER, 2016

E.H. RENNER & SONS, INC.
Roger E. Renner, PRESIDENT
CERTIFIED Master Ground Water Contractor
Minnesota License #1431
(763) 427-6100, 427-0533 fax,
rerenner@ehrenner.com

E.H. Renner & Sons

Incorporated

WELL DRILLING FOR FIVE GENERATIONS

*15688 Jarvis Street NW * Elk River, Minnesota 55330*

*Phone (763) 427-6100 * Fax (763) 427-0533 * Toll Free (800) - 409-WELL*

Well No. 01

December 12, 2016

Utility Maintenance
City of Lino Lakes
1189 Main Street
Lino Lakes, MN 55014-2123

City Hall
City of Lino Lakes
600 Town Center Parkway
Lino Lakes, MN 55014

Tim Hillesheim	Contact	
651-464-5567	Phone	651-982-2400
651-464-5560	Fax	651-982-2499
651-248-7333	Mobile	
tim.hillesheim@ci.lino-lakes.mn.us	E-mail	

Project: 2016 Well Rehab
Location: 6768 Blackduck Drive (Past Well No 05 on Right)

Unq. No. 240171 Customer # 0464 File # 4351

Motor: US 60 Hp Type RUSI 460 Volt Pump: Gould 11CHC - 5 Stage

Design GPM	Total Head (Ft.)	RPM	Bowl Effc	Head Loss (Ft.)	Bowl HP
600	**310**	1760	80.0%	3	58.7

90 Ft. Setting 8 In Diam. 1.1875 In. Shaft

Well Depth (Ft.)	Well Diameter (In.)	Liner Length (Ft.)	Outer Casing (In.)	Depth (Ft.)	Open Hole Diameter (In.)
306	12	152	20	138	11.3
255	7/5/2016				

Screen	Diameter (In.)	Length (Ft.)	Slot		Open Hole
None					

Static Level (Ft.)	Test Rate	Pumping Level (Ft.)	Draw Down (Ft.)	SpecificYeild Gals/ft of DD	Date
8	600.0	29.0	21	28.6	11/10/71

Static Level (Ft.)	Design Rate	Pumping Level (Ft.)	Draw Down (Ft.)	SpecificYeild Gals/ft of DD	Elevation (Ft.)
8	600	29.0	21.0	28.6	964.0

Date Well Drilled	Driller	Date Pump Repaired	Pump Installer
11/10/71	Keys Well Co.	03/04/16	E.H. Renner & Sons, Inc.

E.H. Renner & Sons

Incorporated

WELL DRILLING FOR FIVE GENERATIONS

15688 Jarvis Street NW * Elk River, Minnesota 55330

Phone (763) 427-6100 * Fax (763) 427-0533 * Toll Free (800) - 409-WELL

City of Lino Lakes

Tim Hillesheim 651-464-5567

Well No. 01 Pump Data 12-Dec-16

MOTOR	
US	MFG.
60	HP
RUSI	TYPE
S333	MODEL
364TP	FRAME
460	VOLTS
5600	POUNDS TOTAL THRUST
730	POUNDS MOTOR WEIGHT
16.5	IN BD
35.5625	IN AG HEIGHT
31.15625	IN CD HEIGHT
	IN BX DIAMETER
4	NO. OF POLES
3	PHASE
1800	N.L. RPM
1783	F.L. RPM
94.5%	NOMINAL EFF.
93.6%	EFFICIENCY FULL LOAD
95.1%	EFFICIENCY 3/4 LOAD
94.7%	EFFICIENCY 1/2 LOAD
87.2%	POWER FACTOR FULL LOAD
85.9%	POWER FACTOR 3/4 LOAD
80.9%	POWER FACTOR 1/2 LOAD
68.2	FULL LOAD AMPS
435	LOCKED ROTOR AMPS
Yes	V.F.D. RATED
None	TYPE RIGHT ANGLE DRIVE
NA	HEIGHT OF DRIVE
09/12/16	YEAR PURCHASED
E.H. Renner	CONTRACTOR

COLUMN ASSEMBLY	
90	FT COLUMN LENGTH
8	INCH DIAMETER
0.322	WALL
30.3	LB. WEIGHT PER FOOT
2.4	FRICTION LOSS / 100 FT.
0.41	VELOCITY LOSS / 100 FT.
3.06	COLUMN FRIC LOSSS
Steel	MATERIAL
1.1875	IN SHAFT DIAMETER
12	THREADS PER INCH
3.8	WEIGHT PER FT
SS .416	MATERIAL
0.92	HP LOSS PER 100 FT
0.83	SHAFT HP LOSS
None	IN OD SLEEVES
NA	MATERIAL
0.75	INCH RIM RETAINERS
Bronze	MATERIAL
2	INCH OD OF BEARING
3.125	INCH LENGTH
Rubber	MATERIAL
Yes	SUCTION PIPE
8	INCH DIAMETER
10	FOOT LENGTH
0.322	WALL
None	SURGE VALVE
	FRICTION LOSS
	MATERIAL
None	STRAINER
	DIAMETER
	FT. LENGTH
	TYPE
	MATERIAL
09/12/16	YEAR INSTALLED
E.H. Renner	CONTRACTOR

E.H. Renner & Sons

Incorporated

WELL DRILLING FOR FIVE GENERATIONS

15688 Jarvis Street NW * Elk River, Minnesota 55330

Phone (763) 427-6100 * Fax (763) 427-0533 * Toll Free (800) - 409-WELL

City of Lino Lakes

Tim Hillesheim 651-464-5567

Well No. 01 Pump Data 12-Dec-16

DISCHARGE HEAD	
Gould	MFG.
"A"	TYPE
16 1/2 x 8	BASE DIAMETER
Steel	MATERIAL
8	IN. DISCHARGE DIAM.
8	IN. COLUMN PIPE DIAM.
17.5	IN HEIGHT
7.5	IN TO CENTER OF DISCH.
13	IN TO D. FLANGE FACE
0	IN DEDUCT COLUMN HEAD
460	HEAD WEIGHT
Packing	SHAFT SEAL
0.375	SIZE
150	LB. RATING
Graphite	MATERIAL
24" Sq.	FOUNDATION PLATE
18	DIAM. OF OPENING
Steel	MATERIAL
Yes	OSHA GUARD
None	FT. AIR LINE 1/4"
None	DIRECT READ GAUGE
90	FT 3/4" PVC SOUNDING TUBE
0.25	FEET FRICTION LOSS
Yes	TWO PC.HEADSHAFT
	INCH MOTOR SHAFT
12	THREADS PER INCH
SS .416	MATERIAL
60	INCH TOP SHAFT
SS .416	MATERIAL
12	THREADS PER INCH
03/04/02	YEAR INSTALLED
E.H. Renner	CONTRACTOR

BOWL ASSEMBLY	
600	GALLONS PER MINUTE
310	FEET TOTAL HEAD
307	FEET BOWL HEAD
80.0%	EFFC.
59	BOWL HP
Gould	BOWL MANUFACTURE
11CHC	MODEL
3	STAGES
1770	CAT. RPM
1.00	EFFC MULTIPLIER
CI-Enamel	MATERIAL
Closed	TYPE OF IMPELLER
8.130	IMPELLER DIAMETER
71	FEET/STAGE
19	IMPELLER WEIGHT
7.4	K FACTOR
Bronze	MATERIAL
530	POUNDS BOWL WEIGHT
38.5	INCH FIRST STAGE
9.88	IN. EA. SERIES LENGTH
11.75	IN BOWL DIAMETER
58.26	IN TOTAL BOWL LENGTH
1.6875	INCHES SHAFT DIAMETER
8	INCH STICK UP
Stainless	BOWL SHAFT
Bronze	BRG MATERIAL
None	WEAR RINGS
Stainless	FASTNERS
Stainless	COLLETS
8	IN SUCTION DIAMETER
8	IN. DISCHARGE DIAMETER
None	CERTIFIED CURVE
2016	YEAR REHABBED
E.H. Renner	CONTRACTOR

3.31	
3599	FEET TOTAL FRICTION LOSS

Pump Data Sheet - Turbine 60 Hz

Company: E. H. Renner & Sons
Name: Katie
Date: 8/2/2016

Customer:
Order No:

GOULDS WATER TECHNOLOGY
a xylem brand

Pump:

Size: 11CHC (5 stage)

Type: Lineshaft
Synch speed: 1800 rpm

Speed: 1770 rpm
Dia: 7 in

Curve: E3141-2

Impeller:

Specific Speeds:

Ns: 2130
Nss: ---

Dimensions:

Suction: ---
Discharge: ---

Vertical Turbine:

Bowl size: 11 in
Max lateral: 0.75 in
Thrust K factor: 7 lb/ft

Search Criteria:

Flow: ---

Head: ---

Fluid:

Water
Density: 62.32 lb/ft³
Viscosity: 0.9946 cP

Temperature: 68 °F
Vapor pressure: 0.3391 psi a
Atm pressure: 14.7 psi a

NPSHa: ---

Motor:

Standard: NEMA
Enclosure: WPI

Size: 75 hp
Speed: 1800
Frame: 365

Sizing criteria: Max Power on Design Curve

Pump Limits:

Temperature: 120 °F
Pressure: 380 psi g
Sphere size: 0.68 in

Power: ---
Eye area: ---

--- Data Point ---

Flow:	800 US gpm
Head:	243 ft
Eff:	85%
Power:	57.8 hp
NPSHr:	8.74 ft

--- Design Curve ---

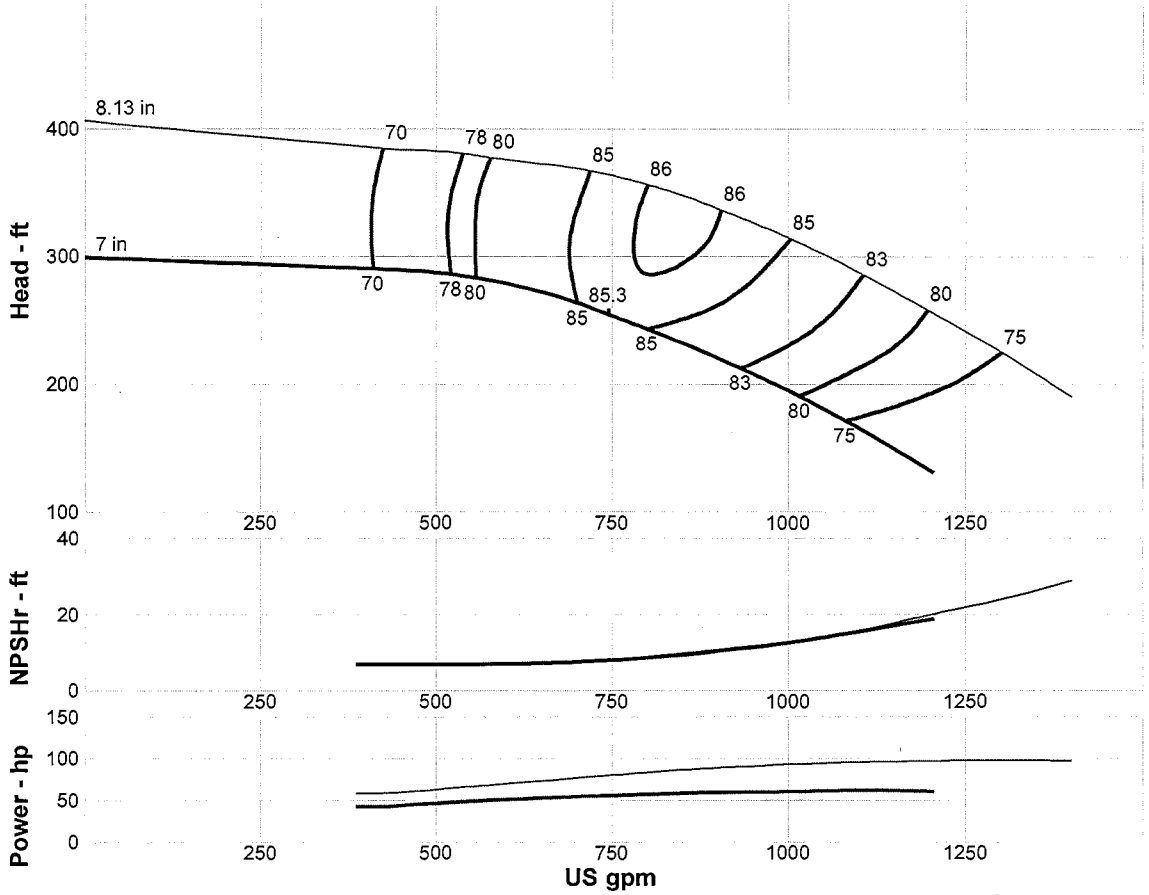
Shutoff head:	299 ft
Shutoff dP:	130 psi
Min flow:	---

BEP: 85.3% @ 745 US gpm

NOL power:
62.3 hp @ 1080 US gpm

-- Max Curve --

Max power:
98.5 hp @ 1300 US gpm



Suction Size-8" Discharge Sizes-6",8". Curves are certified for water at 60°F only. Consult factory for performance with any other fluid.

Performance Evaluation:

Flow US gpm	Speed rpm	Head ft	Efficiency %	Power hp	NPSHr ft
1157	1770	146	68.5	61.9	17.5
964	1770	204	81.8	60.6	11.9
771	1770	249	85.1	56.9	8.35
578	1770	280	80.8	50.5	7.1
386	1770	291	66.1	42.9	7

E.H. Renner & Sons

Incorporated

WELL DRILLING FOR FIVE GENERATIONS

*15688 Jarvis Street NW * Elk River, Minnesota 55330*

*Phone (763) 427-6100 * Fax (763) 427-0533 * Toll Free (800) - 409-WELL*

LINESHAFT TURBINE PUMP INSPECTION

City of Lino Lake | Pump: **1**

Tim Hillesheim | Location: Blackduck Lane | Installed: 4/1/2011 | File: 4351

651-464-5567 | Unique No: 240171

		Date	5/25/2016	5/27/2015	5/13/2014	5/9/2012	9/22/2011	5/7/2002
		Report	6	5	4	3	2	Start Up
Protection				CB	CB	CB	CB	CB
Size				60				?
Starter Danfoss Aqua VLT				VFD	VFD	VFD	VFD	New
Hertz				46.2	45.7	48.2	50	55
Estimated RPM Full Load		1775		1381	1352.0	1455.0	1479.2	1627.1
Wiring				OK	OK	OK	OK	OK
Drive Faults				NA	NA	NA	NA	
Reset				NA	NA	NA	NA	
Line Voltage		A-B		480	480	480	480	460
		B-C		480	480	480	480	460
		A-C		480	480	480	480	460
Running Voltage		A-B		315	314	333	398.4	430
		B-C		315	314	333	398.4	430
		A-C		315	314	333	398.4	430
Amperage - Full Load		**73**		**73**	**73**	**73**	**73**	**68.2**
		L1		68	67.3	77.1	73	50
		L2		68	67.3	77.1	73	50
		L3		68	67.3	77.1	73	50
DC Buss Volts				625	628	625		

Not Running Loss production with higher head price out pulling

Driver: **US 60 Hp 364TP RUSI S333**

Static Water Level	(Ft)	DO NOT MEASURE			Lost End to Probe		7
Pumping Water Level	(Ft)	23	23	23	Estimated		23
Gallons per Minute		730	730	866	731		682
Draw Down	(Ft)						16
Gallons per Ft of D. D.							42.6
Pressure	(PSI)	79	70	70	85		66
Est. Friction Loss	(Ft)	2	2	2	2		2
Est. Total Head	(Ft)	187	187	187			177

Pump: **Gould 11CHC - 5 Stage 600 at 310'**

Vibration - Parallel With Discharge Line (Displacement - Inches)						
	Top	0.0005	0.0006	0.0002	0.0006	0.0008
	Bottom	0.0003	0.0001	0.0001	0.0002	0.0004
	Head	0.0002	0.0001	0.0001	0.0001	0.0001
Vibration - Ninety Degrees From Discharge Line (Displacement - inches)						
	Top	0.0005	0.0006	0.0008	0.0020	0.0040
	Bottom	0.0003	0.0001	0.0002	0.0010	0.0020
	Head	0.0002	0.0001	0.0001	0.0004	0.0004
Noise - Decibels	Top	82	82	85	89	Normal
	Bottom	85	82	87	90	Normal
	Head	81	79	85	81	Normal
Check Valve		Ok	Ok	Ok	Ok	Ok
Oil		Change	Change	9/22/2012	New	New
Packing		Ok	Ok	Ok	New	New
Hours		12600	26047	9104.5		0
Other						

Prepared by Katie Welle 12/12/2016

E.H. Renner & Sons

Incorporated

WELL DRILLING FOR FIVE GENERATIONS
*15688 Jarvis Street NW * Elk River, Minnesota 55330*
*Phone (763) 427-6100 * Fax (763) 427-0533 * Toll Free (800) - 409-WELL*

Owner: **City of Lino Lakes**
Contact: Tim Hillesheim
Phone: 651-464-5567
Mobile: 651-248-7333

7/27/2016
Well # 1
Job # 4351

Remove, Inspect, Motor

90 Ft. Setting | 8 In Diam. | 1.1875 In. Shaft | 15-1/8 In. Stickup

New	Reuse	Pulled									
			Motor	X	Inspect		Repair		Replace		
				Motor Mfg	US	Hp	60	RPM	1780	Model	S333A
Motor check				Type	RUSI	In. CD		In. BX		In. BD	
				FL Amps	70	Volts	460	Phase	3		
				Upper Bearing	6211.5				Cat No.		H060V25LG
				Serial No.	)-S333A-M	C5			Location		
			Motor Shaft	1.1875	In. O.D.		In. Lgth.		Keyway		
			Motor Shaft Coupling		In. I.D.		In. Lgth.		TPI - Mat.		
1		1	Head Shaft		In. O.D.	60	In. Lgth.	12	TPI - Mat.		
			Head Shaft Coupl	1.1875	In. I.D.	3	In. Lgth.	12	TPI - Mat.	SS	
			Pump Head	X	Sandblast	LT BLUE	Paint				
			Manufacture	Gould			In. Height		In.Thrd Depth		
			Centerline of discharge		In.	Cente to face of flange			In.		
			Top Column and Head		In. Lgth.		Model				
			Sub Base In.Well OD				In. Sub base ID		Material	Steel	
			Pump Packing Size		In.		Inches lenght		Material	Graphite	
			Packing Box Bush		In. I.D.		In. O.D.		In. Lgth.	Bronze	
	1	1	Top Column Pipe	8	In. Diam.	59.25	In. Lgth.		Sch Mat	Steel	
2	6	8	Int. Column Pipe	8	In. Diam.	119.25	In. Lgth.		Sch Mat	Steel	
1		1	Bot. Column Pipe	8	In. Diam.	59.25	In. Lgth.		Sch Mat	Steel	
			Column Couplings	J	Style				Material	Steel	
	1	1	Suction Pipe	8	In. Diam.	123-1/2	In. Lgth.		Sch Mat	Steel	
	9	9	Bear. Retainers	8.425	In. Diam.	4-Mar	In. Ring Tickness		Material	Bronze	
9		9	Rubber Bearings	1.1875	In. I.D.	2	In. O.D.	3/1/2008	In. Lgth.	Rubber	
		8	Int. Shaft	1.1875	In. O.D.	120	In. Lgth.	12	TPI - Mat.	.416 SS	
		1	Bot. Shaft	1.1875	In. O.D.	60	In. Lgth.		TPI - Mat.	.416 SS	
			Shaft Coupl	1.1875	In. I.D.	3	In. Lgth.	12	TPI - Mat.	.416 SS	
0	0	0	Sleeve		In. I.D.		In. O.D.		In. Lgth.		
	1	1	Bowl Assembly Mfg.	Gould	Model	11CHC	Stages	5	Bowl Mat.	Cl	
			GPM		Ft. Head		RPM		Effc.	83%	
			In. Stickup	15-1/2"	Line Shaft		TPI				
					Discharge		Suction				
			Serial No.				Imp Diam		Imp Mat.	Bronze	
	1	1	Bowl Shaft		In. O.D.		In. Lgth.	12	TPI - Mat.	.416 SS	
	1	1	Disch. Brg.		In. I.D.		In. O.D.		In. Lgth.	Bronze	
	5	5	Seris Brg.		In. I.D.		In. O.D.		In. Lgth.	Bronze	
	1	1	Suction Brg		In. I.D.		In. O.D.		In. Lgth.	Bronze	
	5	5	Collets		Fit		Worn		Material	.416 SS	
	5	5	Impellers	Full	In Diameter		Worn		Material	Bronze	
			Wear Rings		In. I.D.		In. O.D.		In. Lgth.	Bronze	
			Disch.Case		Soft		Worn		Material	Cl	
2			Serie Case		Soft		Worn		Material	Cl	
			Suct. Case		Soft		Worn		Material	Cl	
			Bowl Bolts						Material	.416 SS	
			Strainer		In. I.D.		In. O.D.		In. Lgth.		
			Pipe 1" Sch 80 T&C								
			Coupling 1" PVC Sch 80								
			PVC Cap 1" Sch 80 FIP								
			PVC 1" Plug FIP								

Other

DOWNHOLE WELL SERVICES, LLC.

RVC VIDEO INSPECTION LOG

CITY OF LINO LAKES – MUNICIPAL WELL NO. 1 **Date Video Logged** – August 18, 2016
Minnesota Unique Well No: 240171 **County:** Anoka **Address** – 6768 Black Duck Drive
Township – 31N, **Range** – 22W, **Section** – 28 **Quarter Section** - ABADAB
Date Drilled (Comp.) – November 10, 1971 **Purpose** – Gen. Casing (Post Brushing) / Open Hole Inspection
G.P.S. – N45 deg. 09 min. 07.2 sec. W093 deg. 05 min. 12.7 sec. **Drilling Method** – Cable Tool
Elevation – 887 +/- 5 feet **Reported Formation** – Prairie du Chien / Jordan SS
Depth Reference – Grade? (in 1971) **Drilling Co.** – Keys Well Drilling Company **Driller** – Mr. R. Haley
Reported 20 inch Casing - to 138 feet **Reported 12 inch Casing** – to 152 feet
Reported ? inch Open Hole – 152 to 306 feet
Original Drilled Depth – 306 feet **Completed Depth** – 306 feet **Reported (08/18/2016) Depth** – ? feet
Depth Reference – Top of Pump Pedestal **Stickup** – 20 inches Above Cement Well House Floor
Static Water Level – 10.5 feet **Reported Pump Setting** – 60 feet **12 inch Casing** – to 153.6 feet
? inch Open Hole – 153.6 to 257.33 feet **Maximum Depth Video Logged** – 257.33 feet
Rehab. Contractor / Client – E.H. Renner & Sons, Inc. **Project Manager** – Ms. Katie Renner Welle
Rig Operator – Mr. Arnie Cox
City of Lino Lakes Utility Supervisor – Mr. Tim Hillesheim **Inspected By** - Jim H. Traen

Recording Time		Depths(in feet)	Remarks/Observations
		Centering Guides @ 11 inches	
13:40	0:00:00	004.6	Start Inspection (12 inch Casing)
13:46	0:04:13	010.5	Static Water Level
13:54	0:12:14	036.4	Casing Joint - Welded
14:00	0:18:10	055.1	Casing Joint – Welded
14:06	0:24:30	075.7	Casing Joint – Welded
14:11	0:29:41	096.1	Casing Joint – Welded
14:17	0:35:10	117.8	Casing Joint – Welded
14:19	0:37:47	134.7	Casing Joint – Welded
14:23	0:41:38	153.6	End of 12 inch Casing
14:28	0:46:42	187.4	Hole Shift
14:29	0:47:54	203	Hole Shift
14:31	0:49:41	222.6	Hole "Jump"
		Manipulating Cable to enable Camera into "Jumped" Hole	
14:36	0:54:16	228.1	
14:44	1:02:04	255.0 + 28 inches	Bottom of Open Hole / Well
		229 to 257.33 Cavity	
14:47	1:05:04	223 to 229	**Ledge**
14:51	1:09:33	154.1	End of 12 inch Casing
14:57	1:15:02	018.7	Casing Joint - Welded
14:59	1:17:07	006.0	End of Inspection

fax: (763) 785-1876 *mob: (651) 238-1198* *office: (763) 785-1876*
mail: p.o. box 120190, new brighton, minnesota 55112-0190 *e-mail: jim@downholewellservices.com*
web site: www.downholewellservices.com *address: 8145 long lake road, mounds view, minnesota 55112-6033*

Minnesota Unique Well Number

240171

County Anoka
Quad Centerville
Quad ID 119A

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING REPORT
Minnesota Statutes Chapter 1031

Entry Date 04/15/1991
Update Date 03/10/2014
Received Date

Well Name	Township	Range	Dir Section	Subsection
LINO LAKES 1	31	22	W 28	ABADAB

Elevation 887 ft. **Elev. Method** 7.5 minute topographic map (+/- 5 feet)

Address

Well BLACK DUCK DR LINO LAKES MN 55014
Contact 1189 MAIN ST LINO LAKES MN 55014

Stratigraphy Information

Geological Material	From	To (ft.)	Color	Hardness
BLACK DIRT	0	2		
CLAY AND GRAVEL	2	11		
SAND, GRAVEL AND	11	97		
SAND AND GRAVEL	97	105		
LIMEROCK &	105	114		
LIMEROCK & GRAVEL	114	137		
LIMEROCK	137	175		
SANDROCK	175	266		
SANDROCK & SHALE	266	306		

Remarks

WELL WAS BLASTED AND BAILED. 234 YDS. OF LOOSE SANDROCK WERE REMOVED.

Well Depth	Depth Completed	Date Well Completed
306 ft.	306 ft.	11/10/1971

Drill Method Cable Tool **Drill Fluid**

Use community supply(municipal) **Status** Active

Well Hydrofractured? Yes ☐ No ☐ **From** **To**

Casing Type Step down **Joint**
Drive Shoe? Yes ☐ No ☐ **Above/Below**

Casing Diameter	Weight	Hole Diameter
12 in. To 152 ft.	lbs./ft.	19 in. To 306 ft.
20 in. To 138 ft.	lbs./ft.	

Open Hole From 152 ft. To 306 ft.
Screen? ☐ **Type** **Make**

Static Water Level
8.2 ft. land surface Measure 11/10/1971

Pumping Level (below land surface)
14 ft. 2 hrs. Pumping at 305 g.p.m.

Wellhead Completion
Pitless adapter manufacturer Model
☐ Casing Protection ☒ 12 in. above grade
☐ At-grade (Environmental Wells and Borings ONLY)

Grouting Information Well Grouted? ☒ Yes ☐ No ☐ Not Specified

Material	Amount		From	To
neat cement	11	Cubic yards	0 ft.	152 ft.

Nearest Known Source of Contamination
feet Direction Type
Well disinfected upon completion? ☐ Yes ☐ No

Pump ☐ Not Installed Date Installed 00/00/1971
Manufacturer's name PEERLESS
Model Number HP 40 Volt 440
Length of drop pipe 60 ft Capacity 500 g.p. Typ Turbine

Abandoned
Does property have any not in use and not sealed well(s)? ☐ Yes ☐ No

Variance
Was a variance granted from the MDH for this well? ☐ Yes ☐ No

Miscellaneous
First Bedrock Prairie Du Chien Group Aquifer Prairie Du Chien-
Last Strat St.Lawrence Formation Depth to Bedrock 105 ft
Located by Minnesota Department of Health
Locate Method GPS Differentially Corrected
System UTM - Mad83, Zone 15, Meters X 493165 Y 4999844
Unique Number Verification Information from Inpute Date 07/27/1999

Angled Drill Hole

Well Contractor
Keys Well Co. 62012 HALEY, R.
Licensee Business Lic. or Reg. No. Name of Driller

Minnesota Well Index Report | **240171** | Printed on 12/12/2016
HE-01205-15

Minnesota Unique Well Number

110471

County Anoka
Quad Circle Pines
Quad ID 119B

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING REPORT
Minnesota Statutes Chapter 1031

Entry Date 04/15/1991
Update Date 03/10/2014
Received Date

Well Name	Township	Range	Dir	Section	Subsection
LINO LAKES 2	31	22	W	30	BDBBBB

Elevation 888 ft. **Elev. Method** 7.5 minute topographic map (+/- 5 feet)

Address

Contact 1189 MAIN ST LINO LAKES MN 55014
Well LINO LAKES MN 55014

Stratigraphy Information

Geological Material	From	To (ft.)	Color	Hardness
SILTY SAND	0	49	BROWN	MEDIUM
GRAY CLAY & ROCKS	49	86	GREEN	
SHALE & ROCK	86	99	BROWN	HARD
SHALE & SANDSTONE	99	113	BROWN	MEDIUM
LIMESTONE	113	148	LT. BRN	
JORDAN SANDSTONE	148	248	BROWN	
ST. LAWRENCE	248	258	VARIED	

Remarks
M.G.S. NO. 2584.

Well Depth 258 ft. **Depth Completed** 258 ft. **Date Well Completed** 10/00/1986
Drill Method **Drill Fluid**

Use community supply(municipal) **Status** Active

Well Hydrofractured? Yes ☐ No ☐ **From** **To**

Casing Type Step down **Joint** Welded
Drive Shoe? Yes ☒ No ☐ **Above/Below** 2 ft.

Casing Diameter	Weight
30 in. To 87 ft.	lbs./ft.
24 in. To 162. ft.	lbs./ft.

Open Hole From 162 ft. To 258 ft.
Screen? ☐ **Type** **Make**

Static Water Level
9 ft. land surface Measure 10/00/1986

Pumping Level (below land surface)
33 ft. 12 hrs. Pumping at 800 g.p.m.

Wellhead Completion
Pitless adapter manufacturer Model
☐ Casing Protection ☒ 12 in. above grade
☐ At-grade (Environmental Wells and Borings ONLY)

Grouting Information Well Grouted? ☒ Yes ☐ No ☐ Not Specified

Material	Amount	From	To
neat cement	24 Cubic yards	0 ft.	162.8 ft.

Nearest Known Source of Contamination
feet Direction Type
Well disinfected upon completion? ☐ Yes ☐ No

Pump ☒ Not Installed Date Installed
Manufacturer's name
Model Number HP Volt
Length of drop pipe ft Capacity g.p. Typ

Abandoned
Does property have any not in use and not sealed well(s)? ☐ Yes ☐ No

Variance
Was a variance granted from the MDH for this well? ☐ Yes ☐ No

Miscellaneous
First Bedrock Prairie Du Chien Group Aquifer Jordan-St.
Last Strat St.Lawrence Formation Depth to Bedrock 113 ft
Located by Minnesota Department of Health
Locate Method GPS Differentially Corrected
System UTM - Mad83, Zone 15, Meters X 489188 Y 4999534
Unique Number Verification Information from Inpute Date 07/27/1999

Angled Drill Hole

Well Contractor
Layne Well Co. 27010 HOLLEN, G.
Licensee Business Lic. or Reg. No. Name of Driller

Minnesota Unique Well Number

240171

County Anoka
Quad Centerville
Quad ID 119A

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING REPORT
Minnesota Statutes Chapter 1031

Entry Date 04/15/1991
Update Date 03/10/2014
Received Date

Well Name	Township	Range	Dir	Section	Subsection
LINO LAKES 1	31	22	W	28	ABADAB

Elevation 887 ft. **Elev. Method** 7.5 minute topographic map (+/- 5 feet)

Address

Well BLACK DUCK DR LINO LAKES MN 55014
Contact 1189 MAIN ST LINO LAKES MN 55014

Stratigraphy Information

Geological Material	From	To (ft.)	Color	Hardness
BLACK DIRT	0	2		
CLAY AND GRAVEL	2	11		
SAND, GRAVEL AND	11	97		
SAND AND GRAVEL	97	105		
LIMEROCK &	105	114		
LIMEROCK & GRAVEL	114	137		
LIMEROCK	137	175		
SANDROCK	175	266		
SANDROCK & SHALE	266	306		

Remarks

WELL WAS BLASTED AND BAILED. 234 YDS. OF LOOSE SANDROCK WERE REMOVED.

Well Depth	Depth Completed	Date Well Completed
306 ft.	306 ft.	11/10/1971

Drill Method Cable Tool **Drill Fluid**

Use community supply(municipal) **Status** Active

Well Hydrofractured? Yes ☐ No ☐ **From** **To**

Casing Type Step down **Joint**
Drive Shoe? Yes ☐ No ☐ **Above/Below**

Casing Diameter	Weight	Hole Diameter
12 in. To 152 ft.	lbs./ft.	19 in. To 306 ft.
20 in. To 138 ft.	lbs./ft.	

Open Hole From 152 ft. To 306 ft.

Screen? ☐ **Type** **Make**

Static Water Level
8.2 ft. land surface Measure 11/10/1971

Pumping Level (below land surface)
14 ft. 2 hrs. Pumping at 305 g.p.m.

Wellhead Completion
Pitless adapter manufacturer Model
☐ Casing Protection ☒ 12 in. above grade
☐ At-grade (Environmental Wells and Borings ONLY)

Grouting Information Well Grouted? ☒ Yes ☐ No ☐ Not Specified

Material	Amount	From	To
neat cement	11 Cubic yards	0 ft.	152 ft.

Nearest Known Source of Contamination
feet Direction Type
Well disinfected upon completion? ☐ Yes ☐ No

Pump ☐ Not Installed Date Installed 00/00/1971
Manufacturer's name PEERLESS
Model Number HP 40 Volt 440
Length of drop pipe 60 ft Capacity 500 g.p. Typ Turbine

Abandoned
Does property have any not in use and not sealed well(s)? ☐ Yes ☐ No

Variance
Was a variance granted from the MDH for this well? ☐ Yes ☐ No

Miscellaneous
First Bedrock Prairie Du Chien Group Aquifer Prairie Du Chien-
Last Strat St.Lawrence Formation Depth to Bedrock 105 ft
Located by Minnesota Department of Health
Locate Method GPS Differentially Corrected
System UTM - Mad83, Zone 15, Meters X 493165 Y 4999844
Unique Number Verification Information from Inpute Date 07/27/1999

Angled Drill Hole

Well Contractor

Licensee Business	Lic. or Reg. No.	Name of Driller
Keys Well Co.	62012	HALEY, R.

Minnesota Unique Well Number

554207

County Anoka
Quad Centerville
Quad ID 119A

MINNESOTA DEPARTMENT OF HEALTH

WELL AND BORING REPORT

Minnesota Statutes Chapter 1031

Entry Date 12/14/1995
Update Date 03/10/2014
Received Date

Well Name	Township	Range	Dir	Section	Subsection
LINO LAKES 4	31	22	W	25	ABBAAA

Elevation 928 ft. **Elev. Method** 7.5 minute topographic map (+/- 5 feet)

Address

Well CEDAR ST LINO LAKES MN 55014
Contact 1189 MAIN ST LINO LAKES MN 55014

Stratigraphy Information

Geological Material	From	To (ft.)	Color	Hardness
CLAY & GRAVEL	0	65	GRAY	SOFT
COARSE SAND &	65	84	BROWN	SOFT
SANDSTONE	84	103	TAN	MEDIUM
SHALE & SANDSTONE	103	155	GRN/TAN	MEDIUM
LIMESTONE	155	243	TAN	HARD
SANDSTONE	243	323	BROWN	MEDIUM
SANDSTONE & SHALE	323	338	GRY/BLU	MEDIUM

Remarks
M.G.S. NO. 3629.

Well Depth 338 ft. **Depth Completed** 338 ft. **Date Well Completed** 11/09/1995

Drill Method Cable Tool **Drill Fluid**

Use community supply(municipal) **Status** Active

Well Hydrofractured? Yes ☐ No ☐ **From** **To**

Casing Type Step down **Joint** Welded
Drive Shoe? Yes ☒ No ☐ **Above/Below** 0 ft.

Casing Diameter	Weight	Hole Diameter
14 in. To 203. ft.	54 lbs./ft.	20 in. To 338 ft.
20 in. To 85 ft.	78 lbs./ft.	

Open Hole From 203 ft. To 338 ft.
Screen? ☐ **Type** **Make**

Static Water Level
17 ft. land surface Measure 10/26/1995

Pumping Level (below land surface)
54 ft. 10 hrs. Pumping at 800 g.p.m.

Wellhead Completion
Pitless adapter manufacturer Model
☐ Casing Protection ☒ 12 in. above grade
☐ At-grade (Environmental Wells and Borings ONLY)

Grouting Information Well Grouted? ☒ Yes ☐ No ☐ Not Specified

Material	Amount	From	To
neat cement	24 Cubic yards	0 ft.	203 ft.

Nearest Known Source of Contamination
75 feet Northwes Direction Septic tank/drain field Type
Well disinfected upon completion? ☐ Yes ☐ No

Pump ☒ Not Installed Date Installed
Manufacturer's name
Model Number HP Volt
Length of drop pipe ft Capacity g.p. Typ

Abandoned
Does property have any not in use and not sealed well(s)? ☐ Yes ☒ No

Variance
Was a variance granted from the MDH for this well? ☐ Yes ☐ No

Miscellaneous
First Bedrock St.Peter Sandstone Aquifer Prairie Du Chien-
Last Strat St.Lawrence Formation Depth to Bedrock 84 ft
Located by Minnesota Department of Health
Locate Method GPS Differentially Corrected
System UTM - Mad83, Zone 15, Meters X 497811 Y 4999925
Unique Number Verification Information from Inpute Date 07/27/1999

Angled Drill Hole

Well Contractor
Keys Well Co. 62012 GALVIN, M.
Licensee Business Lic. or Reg. No. Name of Driller

Minnesota Unique Well Number

559373

County Anoka
Quad Centerville
Quad ID 119A

MINNESOTA DEPARTMENT OF HEALTH

WELL AND BORING REPORT

Minnesota Statutes Chapter 1031

Entry Date 07/01/1996
Update Date 03/10/2014
Received Date

Well Name	Township	Range	Dir	Section	Subsection
LINO LAKES 3	31	22	W	28	DABABD

Elevation 890 ft. **Elev. Method** 7.5 minute topographic map (+/- 5 feet)

Address

Well 1180 BIRCH ST LINO LAKES MN 55014
Contact 1189 MAIN ST LINO LAKES MN 55014

Stratigraphy Information

Geological Material	From	To (ft.)	Color	Hardness
CLAY/ROCKS	0	30	GRAY	SOFT
SAND/GRAVEL	30	71	BROWN	MEDIUM
DOLOMITE	71	132	RED/BRN	HARD
DOLOMITE	132	196	TAN/GRN	HARD
JORDAN	196	219	WHITE	MEDIUM
JORDAN	219	239	GRY/BRN	MEDIUM
JORDAN	239	281	BROWN	MEDIUM
ST. LAWRENCE	281	283	GREEN	MEDIUM

Remarks
M.G.S. NO. 3637.

Well Depth	Depth Completed	Date Well Completed
283 ft.	283 ft.	12/31/1995

Drill Method Cable Tool **Drill Fluid**

Use community supply(municipal) **Status** Active

Well Hydrofractured? Yes ☐ No ☐ **From** **To**

Casing Type Step down **Joint** Welded
Drive Shoe? Yes ☒ No ☐ **Above/Below**

Casing Diameter	Weight	Hole Diameter
14 in. To 118 ft.	54.6 lbs./ft.	20 in. To 283 ft.
20 in. To 75 ft.	78.6 lbs./ft.	

Open Hole From 118 ft. To 283 ft.
Screen? ☐ **Type** **Make**

Static Water Level
13 ft. land surface Measure 12/29/1995

Pumping Level (below land surface)
25.5 ft. 16 hrs. Pumping at 2100 g.p.m.

Wellhead Completion
Pitless adapter manufacturer Model
☐ Casing Protection ☒ 12 in. above grade
☐ At-grade (Environmental Wells and Borings ONLY)

Grouting Information Well Grouted? ☒ Yes ☐ No ☐ Not Specified

Material	Amount		From	To
neat cement	7	Cubic yards	0 ft.	118 ft.

Nearest Known Source of Contamination
feet Direction Type
Well disinfected upon completion? ☒ Yes ☐ No

Pump ☐ Not Installed Date Installed 05/31/1996
Manufacturer's name J-LINE
Model Number 12WC-4 HP 150 Volt 460
Length of drop pipe 60 ft Capacity 2000 g.p. Typ Peristaltic

Abandoned
Does property have any not in use and not sealed well(s)? ☐ Yes ☒ No

Variance
Was a variance granted from the MDH for this well? ☐ Yes ☐ No

Miscellaneous
First Bedrock Prairie Du Chien Group Aquifer Prairie Du Chien-
Last Strat St.Lawrence Formation Depth to Bedrock 71 ft
Located by Minnesota Department of Health
Locate Method GPS SA On (averaged)
System UTM - Mad83, Zone 15, Meters X 493328 Y 4999100
Unique Number Verification Information from Inpute Date 04/07/1999

Angled Drill Hole

Well Contractor

Licensee Business	Lic. or Reg. No.	Name of Driller
Renner E.H. Well	71015	COX, A.

Minnesota Unique Well Number

722629

County Anoka
Quad Centerville
Quad ID 119A

MINNESOTA DEPARTMENT OF HEALTH

WELL AND BORING REPORT

Minnesota Statutes Chapter 1031

Entry Date 07/31/2005
Update Date 04/16/2015
Received Date

Well Name	Township	Range	Dir	Section	Subsection
LINO LAKES 5	31	22	W	28	ACADCB

Elevation 886 ft. **Elev. Method** 7.5 minute topographic map (+/- 5 feet)

Address

Well 6670 BLACK DUCK DR LINO LAKES MN 55014
Contact 600 TOWN CENTER PK LINO LAKES MN 55014

Stratigraphy Information

Geological Material	From	To (ft.)	Color	Hardness
SANDY CLAY	0	49	GRAY	SOFT
CLAY & GRAVEL	49	87	GRAY	MEDIUM
SAND & GRAVEL	87	104	VARIED	MEDIUM
SANDY CLAY	104	135	TAN	MEDIUM
DOLOMITE (PDC)	135	180	TAN	HARD
JORDAN SANDSTONE	180	200	YELLOW	MEDIUM
SHALEY SANDSTONE	200	264	TAN	MEDIUM
SHALE/FINE	264	273	WHT/GRN	MEDIUM

Remarks

Well Depth 273 ft. **Depth Completed** 273 ft. **Date Well Completed** 10/14/2005

Drill Method Cable Tool **Drill Fluid** Bentonite

Use community supply(municipal) **Status** Active

Well Hydrofractured? Yes ☐ No ☒ **From** **To**

Casing Type Single casing **Joint** Welded
Drive Shoe? Yes ☒ No ☐ **Above/Below** 1 ft.

Casing Diameter	Weight	Hole Diameter
24 in. To 147 ft.	94.6 lbs./ft.	24 in. To 160 ft.
18 in. To 165 ft.	70.5 lbs./ft.	18 in. To 273 ft.

Open Hole From 160 ft. To 273 ft.
Screen? ☐ **Type** **Make**

Static Water Level
12 ft. land surface Measure 09/27/2005

Pumping Level (below land surface)
64.8 ft. 8 hrs. Pumping at 1500 g.p.m.

Wellhead Completion
Pitless adapter manufacturer Model
☐ Casing Protection ☒ 12 in. above grade
☐ At-grade (Environmental Wells and Borings ONLY)

Grouting Information Well Grouted? ☒ Yes ☐ No ☐ Not Specified

Material	Amount	From	To
neat cement	11 Cubic yards	ft.	160 ft.

Nearest Known Source of Contamination
150 feet West Direction Septic tank/drain field Type
Well disinfected upon completion? ☒ Yes ☐ No

Pump ☒ Not Installed Date Installed
Manufacturer's name
Model Number HP Volt
Length of drop pipe ft Capacity g.p. Typ

Abandoned
Does property have any not in use and not sealed well(s)? ☐ Yes ☒ No

Variance
Was a variance granted from the MDH for this well? ☐ Yes ☒ No

Miscellaneous
First Bedrock Prairie Du Chien Group Aquifer Prairie Du Chien-
Last Strat St.Lawrence Formation Depth to Bedrock 135 ft
Located by Minnesota Department of Health
Locate Method GPS SA Off (averaged)
System UTM - Mad83, Zone 15, Meters X 493118 Y 4999404
Unique Number Verification Inpute Date 05/25/2005

Angled Drill Hole

Well Contractor
Renner E.H. Well 71015 SAMPSON, J.
Licensee Business Lic. or Reg. No. Name of Driller

Minnesota Unique Well Number

767887

County Anoka
Quad Centerville
Quad ID 119A

MINNESOTA DEPARTMENT OF HEALTH

WELL AND BORING REPORT

Minnesota Statutes Chapter 1031

Entry Date 04/08/2015
Update Date 04/09/2015
Received Date

Well Name	Township	Range	Dir	Section	Subsection
LINO LAKE 6	31	22	W	28	DCABDB

Elevation 895.5 **Elev. Method** LiDAR 1m DEM (MNDNR)

Address

Stratigraphy Information

Geological Material	From	To (ft.)	Color	Hardness
SAND	0	2		
CLAY	2	44		
SAND/HARDPAN	44	85		
LIMESTONE	85	207		
SANDSTONE	207	288		
SHALE	288	295		

Remarks

GAMMA LOGGED 4-6-2015. M.G.S. NO. 5470. LOGGED BY JIM TRAEN.

Well Depth 295 ft. **Depth Completed** 295 ft. **Date Well Completed**

Drill Method Cable Tool **Drill Fluid**

Use community supply(municipal) **Status**

Well Hydrofractured? Yes ☐ No ☐ **From** **To**

Casing Type **Joint**
Drive Shoe? Yes ☐ No ☐ **Above/Below**

Casing Diameter	Weight	Hole Diameter
24 in. To 89 ft.	lbs./ft.	24 in. To 295 ft.

Open Hole From ft. To ft.

Screen? ☐ **Type** **Make**

Static Water Level

Pumping Level (below land surface)

Wellhead Completion

Pitless adapter manufacturer Model

☐ Casing Protection ☐ 12 in. above grade
☐ At-grade (Environmental Wells and Borings ONLY)

Grouting Information Well Grouted? ☐ Yes ☐ No ☒ Not Specified

Nearest Known Source of Contamination

feet Direction Type

Well disinfected upon completion? ☐ Yes ☐ No

Pump ☐ Not Installed Date Installed

Manufacturer's name

Model Number HP Volt

Length of drop pipe ft Capacity g.p. Typ

Abandoned

Does property have any not in use and not sealed well(s)? ☐ Yes ☐ No

Variance

Was a variance granted from the MDH for this well? ☐ Yes ☐ No

Miscellaneous

First Bedrock Aquifer

Last Strat Depth to Bedrock ft

Located by Minnesota Department of Health

Locate Method GPS SA Off (averaged)

System UTM - Mad83, Zone 15, Meters X 493077 Y 4998694

Unique Number Verification Info/GPS from data Inpute Date 01/28/2015

Angled Drill Hole

Well Contractor

Keys Well Drilling Co. 1347

Licensee Business Lic. or Reg. No. Name of Driller

Appendix 2

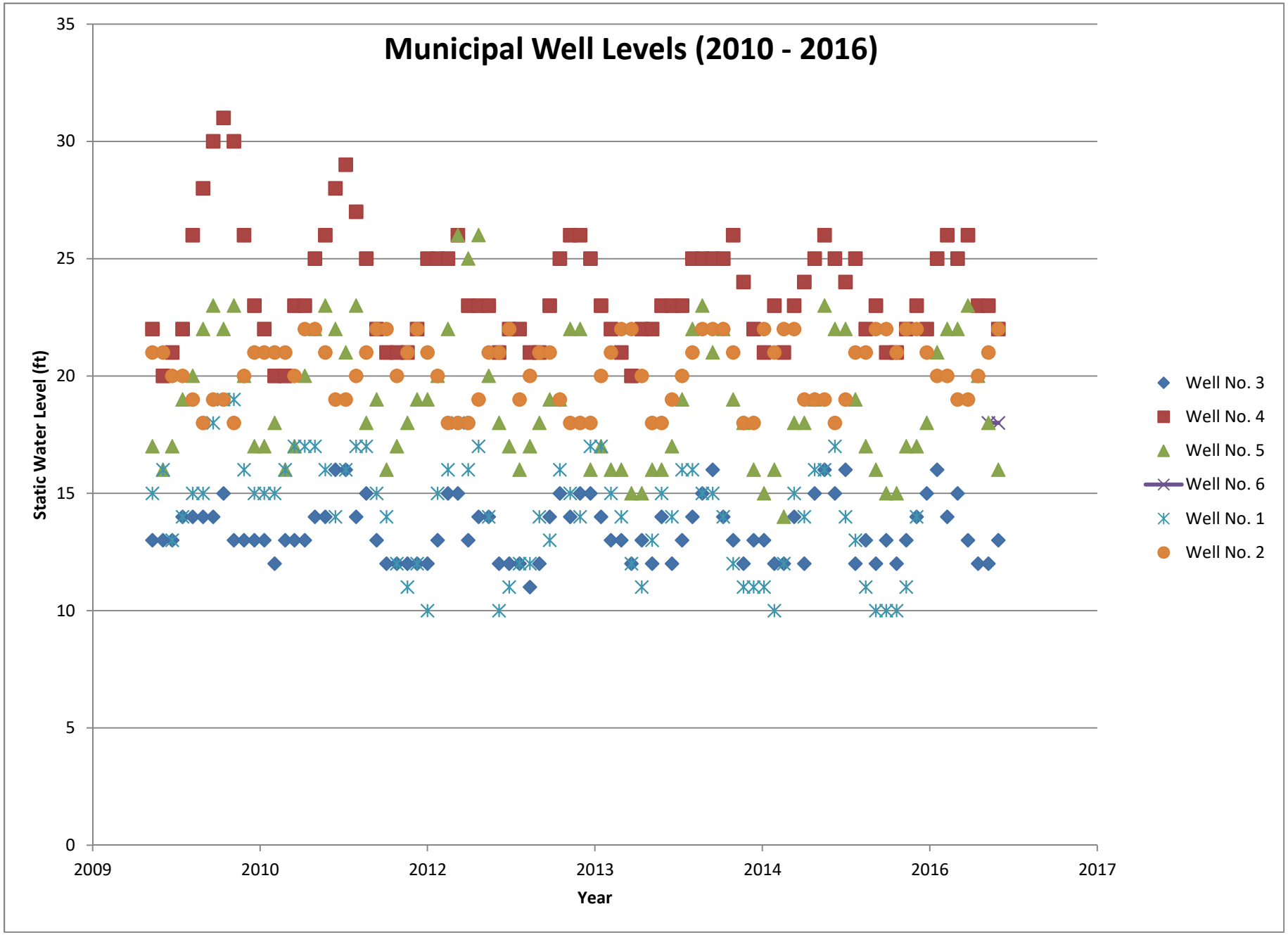
Water Level Monitoring Plan

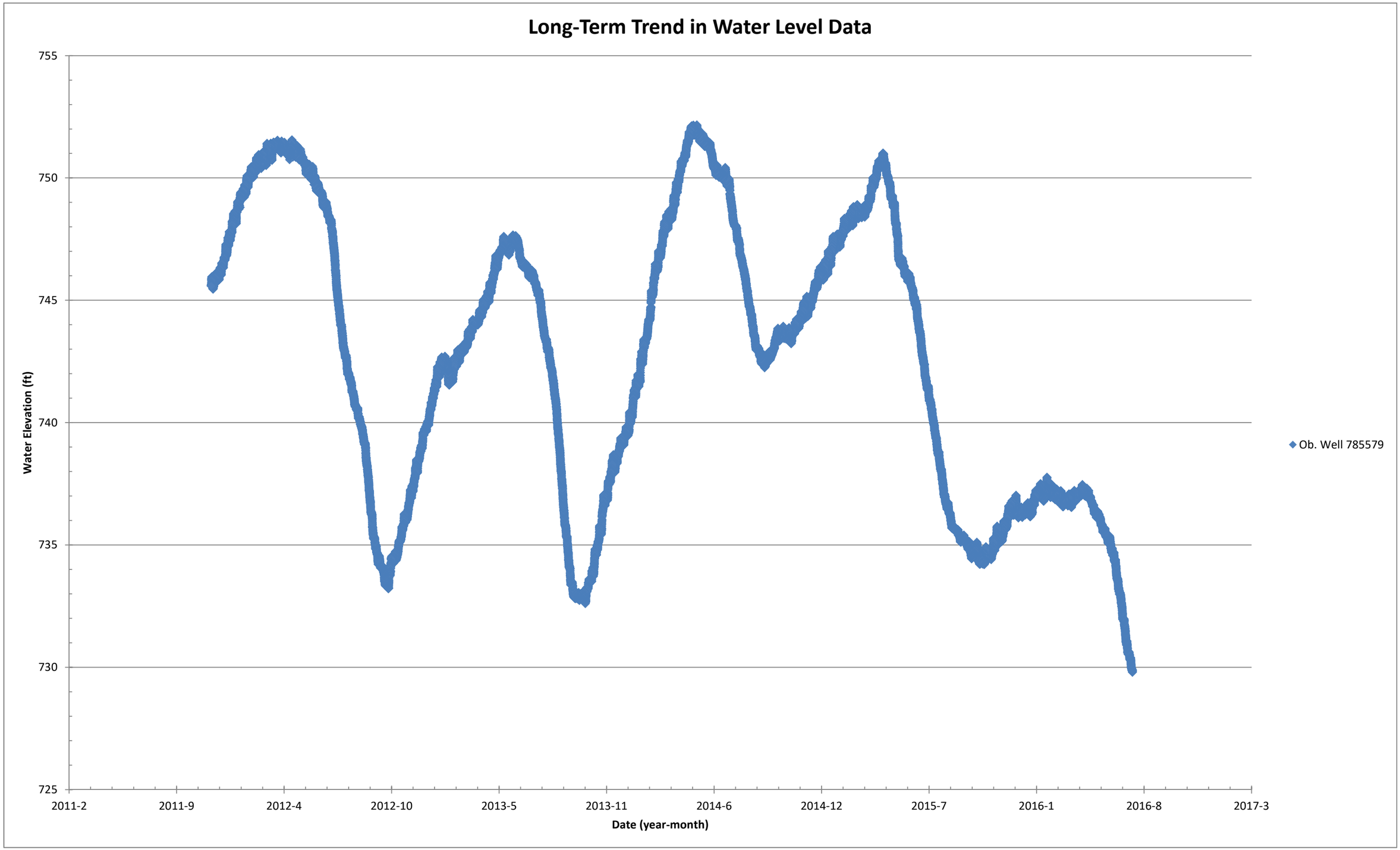
City of Lino Lakes Water Level Monitoring Plan:

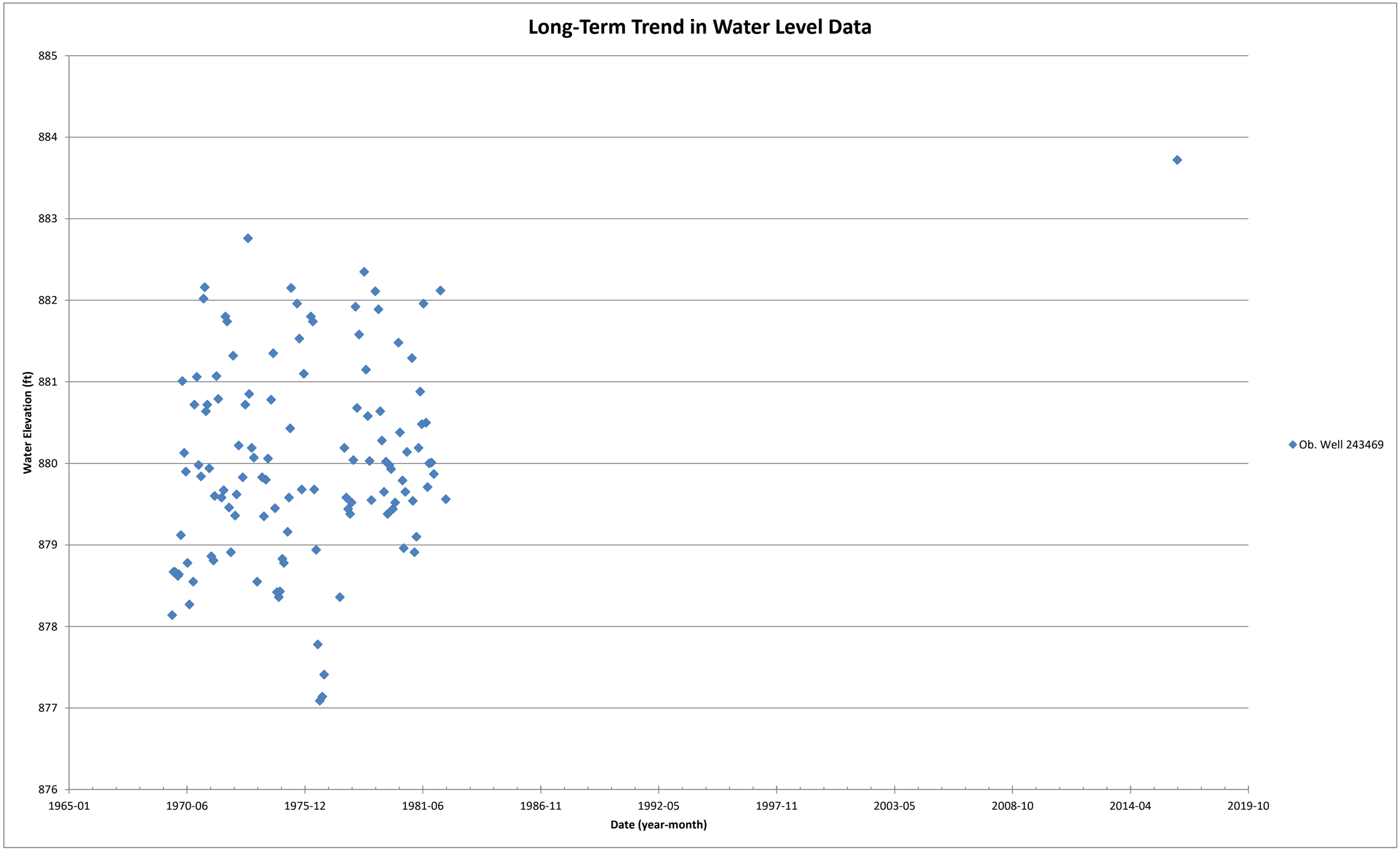
The City of Lino Lakes will continue to use its SCADA system to monitor the water levels within each municipal water well.

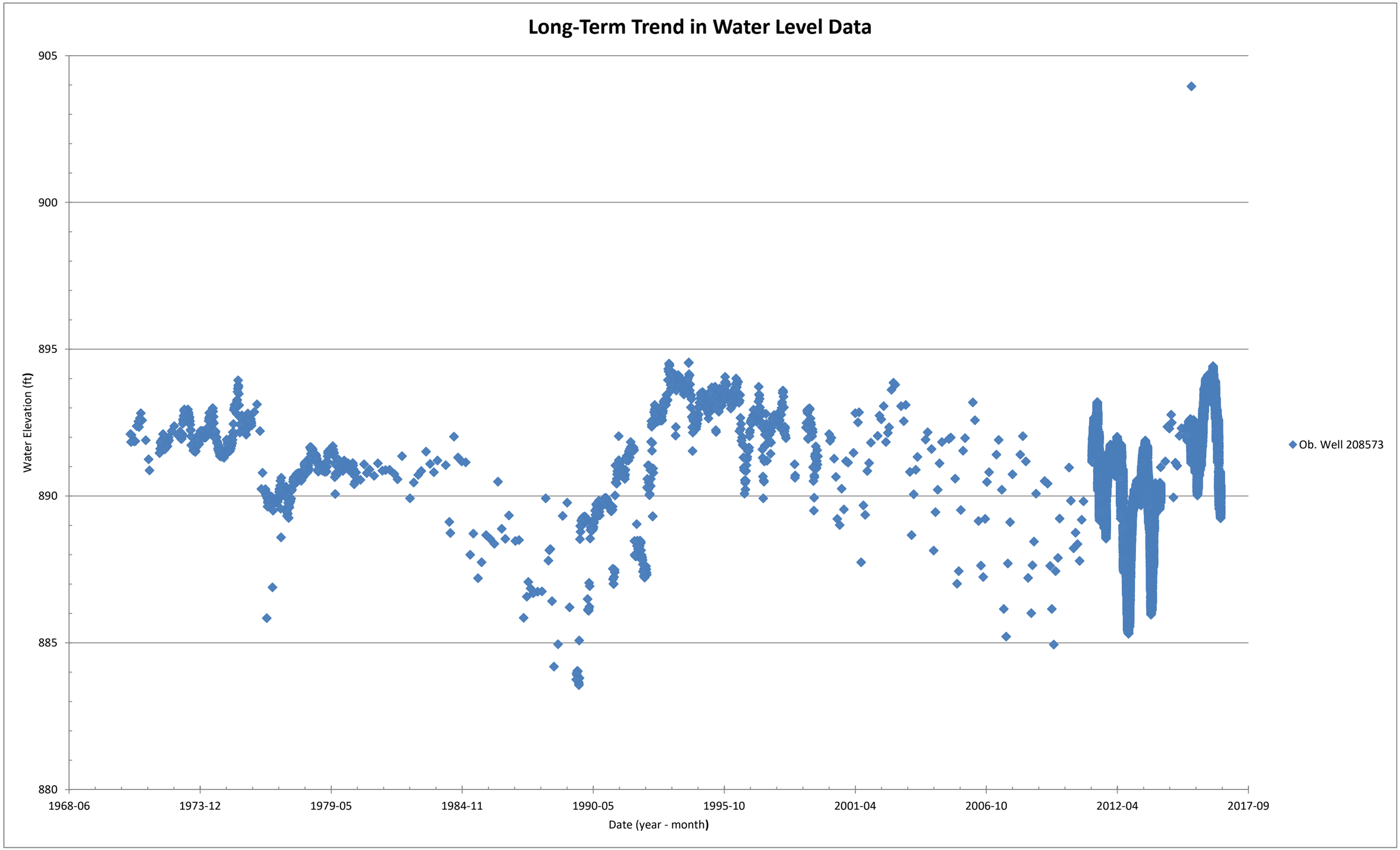
Appendix 3

Water Level Graphs for Observation Wells


Municipal Well Levels (2010 - 2016)
Static Water Level (ft)
35
30
25
20
15
10
5
0
2009
2010
2012
2013
2014
2016
2017
Year
Well No. 3
Well No. 4
Well No. 5
Well No. 6
Well No. 1
Well No. 2


Long-Term Trend in Water Level Data
755
750
745
740
735
730
725
Water Elevation (ft)
2011-2
2011-9
2012-4
2012-10
2013-5
2013-11
2014-6
2014-12
2015-7
2016-1
2016-8
2017-3
Date (year-month)
Ob. Well 785579


Long-Term Trend in Water Level Data
Water Elevation (ft)
885
884
883
882
881
880
879
878
877
876
1965-01
1970-06
1975-12
1981-06
1986-11
1992-05
1997-11
2003-05
2008-10
2014-04
2019-10
Date (year-month)
Ob. Well 243469


Long-Term Trend in Water Level Data
905
900
895
890
885
880
Water Elevation (ft)
1968-06
1973-12
1979-05
1984-11
1990-05
1995-10
2001-04
2006-10
2012-04
2017-09
Date (year - month)
Ob. Well 208573

Appendix 4

Capital Improvement Plan

Capital Improvement Plan

Table 8-21 Capital Improvement Plan summarizes all the proposed infrastructure improvements for the existing water system and future water system. This plan stages projects by an approximate timeframe and by 2008 costs.

Table 8-21. Captial Improvement Plan – City of Lino Lakes Water Supply System

Item No.	Description	Sub Total	Year	Total Cost
1	Construction of Well No. 6 and Pumphouse No. 6 with water main		2010	$950,000
2	Strengthen Trunk Watermain (Phase 1) **		2011	$825,000
3	Lake Drive Trunk Watermain Strengthening (Phase 2) **		2012	$330,000
4	Construction of a 2.5 MG Ground Storage Tank, Booster Station, and Well No. 7 Storage 2.5 MG Booster Station Well No. 7 Optional Alternate Storage 3.0 MG	 $1,925,000 $1,875,000 $495,000 $2,275,000	2013 - 2015 2013 - 2015 2013 - 2015 2013 - 2015 2013 - 2015	$4,295,000
5	Complete Raw Watermains from Wells No. 1, No. 3, No. 5, and No. 6 to reservoir including revision to well pumps		2016	$1,575,000
6	Redundant 16" watermain to replace north loop		2016-2020	$2,000,000
7	Construction of Treatment Plant		2018	$15,680,500
8	Complete Raw Watermain from Well No. 2 to Reservoir Including Revision to Well Pump No. 2		2018	$1,500,000
9	Lake Drive Trunk Watermain Strengthening (Phase 3) **		2020	$627,000
10	Improve Distribution Watermain - Southwest Corner (Phase 4) **		2025+	$1,320,000
11	Construction of Well No. 8 with Pumphouse		2028+	$880,000
12	Construction of Well No. 9 with Pumphouse	$880,000	2035+	$1,980,000
13	Including Raw Watermain for Wells No. 4, No. 9, and No. 10 Construction of Well No. 10 with Pumphouse	$1,100,000	2040+	$880,000
14	Construction of Well No. 11 with Pumphouse and Raw Watermain		2045+	$950,000
15	Construction Well No. 12 with Pumphouse and Raw Watermain		2050+	$950,000

*All Costs are in 2008 dollars

** The trunk watermain strengthening phases are discussed in the Water Distribution System Section.

Appendix 5

Emergency Telephone List

On Call Contact List

	Home	Cell
On-Call Phone		651-248-9103
On-Call Phone voicemail code	1234	
Anoka Co. Dispatch	763-427-1212	
ELECTRICAL CONTRACTORS		
Aid Electric- Office	763-571-7267	
Aid Elect- Noah- cell	612-282-5692	
Rivard Electric	651-426-2444	
SCADA and Station Controls		
Sy-Com- office	612-861-3451	
Tim Kamrath	612-269-2366	
WATER MAIN BREAKS	**Contact On-Call Phone First**	
Valley Rich- office	952-448-3002	
Valley Rich Emergency-after hours	612-839-8502	
Scott (1st call per TH)	612-839-8504	
Valley Rich - Josh	612-839-8507	
Valley Rich- Ted	612-839-8510	
Olson's Sewer	651-464-2082	
LEAK DETECTION- Tony S.	612-600-8716	
SEWER JETTERS		
Infratech	763-428-6488	
American Environmental- Tony Traxler	612-226-0516	
WELL PUMP PROBLEMS		
EH Renner	763-427-6100	
LIFT STATION PROBLEMS		
WW Goetsch- Scott Austin (cell)	612-802-6706	
Tri-State Pump	1-800-537-2040	
Electric Pump	1-800-536-5394	
VFD ISSUES		
Jason LeClaire	651-395-1293	
NAC- HVAC at city hall	651-490-9868	
Well #3 back-up dialer	651-426-1902	to acknowledge, code is 555

SCADA

code to log on when the computer calls the on-call phone:
enter 4100 then press # listen to the prompt, it will ask to you to acknowledge, press 1 to stop the dialer

MN Duty Officer 1-800-422-0798

Appendix 6

Cooperative Agreements for Emergency Services

INTERCONNECT AGREEMENT

CONTRACT FOR JOINT USAGE OF WATER FACILITIES BY AND BETWEEN THE CITY OF LINO LAKES AND THE CITY OF CENTERVILLE, ANOKA COUNTY, MINNESOTA

THIS AGREEMENT, made and entered into this 10 day of March, 1999, by and between the City of Lino Lakes, a municipal corporation, situated in Anoka County, Minnesota, hereinafter called "Lino Lakes", and the City of Centerville, a municipal corporation, situated in Anoka County, Minnesota, hereinafter called "Centerville". Both Lino Lakes and Centerville have the authority to enter into this agreement pursuant to Minnesota Statute 471.59.

WHEREAS, Lino Lakes has constructed a water system capable of providing emergency and peak demand water supply service to Centerville, and Centerville is considering water system improvements including the construction of an elevated water storage tank and trunk watermains.

WHEREAS, until this water system in Centerville is fully developed with source, distribution, and storage capacity, this area can be more effectively served by interconnection with Lino Lakes water system.

WHEREAS, after the completion of the Centerville water system a more reliable water supply in both Lino Lakes and Centerville would result from the interconnection between the two communities water systems.

NOW, THEREFORE, the parties hereto agree as follows:

SECTION 1. GENERAL CONDITIONS

1. In consideration of the covenants and agreements herein set forth, Centerville shall construct a water system connection to the public water system of Lino Lakes subject to all terms, conditions, and provisions of this Agreement as hereinafter expressed.

2. Water flow recording meters shall be installed at the interconnection line for the purpose of measuring the flow from the Lino Lakes water system into the Centerville water system and the flow from the Centerville water system into the Lino Lakes water system.

3. Lino Lakes shall have ownership and be responsible for operation and maintenance of the water line located within the corporate boundaries of Lino Lakes. Centerville shall have ownership and be responsible for operation and maintenance of the interconnection line, metering manhole, and appurtenances of the water lines located within the corporate boundaries of Centerville.

4. Centerville shall commence with the design of the metering manhole within 60 days of the date of this agreement. Centerville shall, within nine (9) months from the date of this agreement, construct and have operational the metering manhole.

5. The meter shall operate automatically according to an agreed upon telemetry system to provide each City with water during an emergency condition.

6. The City of Centerville shall complete the construction of a water storage reservoir within a minimum of eight (8) years from the date of execution of this Agreement. The City of Lino Lakes may extend the time period for the City of Centerville to construct the water storage reservoir based on recommendations from the Lino Lakes Comprehensive Water Plan.

7. The City of Centerville shall adopt an "odd/even" lawn watering policy. The City of Centerville shall comply with and enforce total lawn watering bans that may be implemented by the City of Lino Lakes on Lino Lakes water customers.

SECTION 2. CHARGES

Each of the meters installed pursuant to this Agreement shall be read at the end of each calendar quarter. The city with the greatest net flow will bill the other city, by the 10th of the month following the end of the calendar quarter, for the amount due based upon such excess flow. Payments for water usage shall be at the current respective City residential water rate at the time of billing. Payments shall be made on or before the 20th day of the month following the end of the quarter, and shall be administered by current city ordinance. Centerville shall pay for project costs, including construction costs, pre-engineering, and construction engineering, for the Centerville meter vault systems. Lino Lakes shall pay for the cost of the Lino Lakes control systems.

SECTION 3. WATER STANDARDS AND CONSTRUCTION

1. Lino Lakes and Centerville agree that they shall exercise reasonable care to prevent toxic or harmful substances from contaminating the water supply of either party. Each city's water supply shall provide clean, safe, potable water. On a yearly basis, each city shall supply the other city with copies of yearly analytical test data from the Minnesota Department of Health, Division of Environmental health. In addition, on a yearly basis, each city shall supply test results from a recognized testing lab, whose analyses were performed by EPA or other recognized standard procedures. There shall be results provided for hardness, manganese, iron, and volatile organics. If either city allows volatile organics to be discharged into the water system, such items shall be eliminated by the responsible city. Failure to comply with this section shall be grounds for immediate termination of the water exchange system.

2. The location of connection of the water system of Centerville with the water system of Lino Lakes is designated as the intersection of 20th Avenue and Cedar Street. In the event either party feels the expansion of the water system within the city's boundaries will adversely impact its ability to supply water to its residents, it may elect to terminate this Agreement upon three (3) years written notice. Lino Lakes shall waive any permit application or fee for work in existing utility easements or on the proposed connection.

3. All watermain construction within Centerville or Lino Lakes shall meet the most recent City Engineers Association of Minnesota "Standard Utilities Specifications for Watermain and Service Line Installation and Sanitary Sewer and Storm Installation." Neither party shall substantially change the specifications for any parts of the water system which would be interconnected between the cities without the notification of the other.

SECTION 4. INDEMNIFICATION

Each party agrees to indemnify the other and save the other harmless from any and all claims or demands for damages arising out of or which may result from the water supply pursuant to this Agreement, and from the use, installation, maintenance, and repair of its facilities as set forth in this Agreement.

SECTION 5. TERMINATION

In addition to the termination provisions in Section 3, either city shall have the right to cancel this Agreement on account of any violation of the terms and conditions of this Agreement by the other city by first giving thirty (30) days written notice to the other party of such violation and a failure to correct the violation within said thirty (30) day period of time. Either city shall have the right to cancel and annul this Agreement,

without cause, by first giving three (3) years written notice to the other party of such intent to cancel this Agreement, no further payments shall be due hereunder, except obligations arising prior to the effective date of termination. Upon such effective date of termination, the connection between the water system of Lino Lakes and the water system of Centerville shall immediately be disconnected.

SECTION 6. INSPECTION

1. The City Engineer of Lino Lakes or any employee authorized by the City Council of Lino Lakes shall be permitted, at the expense of Lino Lakes, to inspect the construction, as well as the operation, of the water system in Centerville at any reasonable time to see that same is being constructed and operated according to the plans and specifications and operated in compliance with acceptable municipal practice and that the Agreement herein contained is being complied with insofar as reasonably necessary to protect the City of Lino Lakes.

SECTION 7. EFFECTIVE DATE OF THIS AGREEMENT

This Agreement shall take effect and be in force after the date of execution of the same by the proper officers of Centerville and Lino Lakes, pursuant to a resolution of the governing bodies of the municipalities, accepting and agreeing to abide and be bound by the terms, provisions, and conditions hereof and authorizing such execution.

CITY OF CENTERVILLE

By: _____
Mayor

By: _____
City Clerk

CITY OF LINO LAKES

By: _____
Mayor

By: _____
Deputy City Clerk

RECEIVED
JAN 19 2010
By

INTERCONNECT AGREEMENT

CONTRACT FOR JOINT USAGE OF WATER FACILITIES BY AND BETWEEN THE CITY OF LINO LAKES AND THE CITY OF CENTERVILLE, ANOKA COUNTY, MINNESOTA

THIS AGREEMENT, made and entered into this 29th day of, December, 2009, by and between the City of Lino Lakes, a municipal corporation, situated in Anoka County, Minnesota, hereinafter called "Lino Lakes", and the City of Centerville, a municipal corporation, situated in Anoka County, Minnesota, hereinafter called "Centerville". Both Lino Lakes and Centerville have the authority to enter into this agreement pursuant to Minnesota Statute 471.59.

WHEREAS, Lino Lakes has constructed a water system capable of providing emergency and peak demand water supply service to Centerville, and Centerville has constructed a water system capable of providing emergency and peak demand water supply service to Lino Lakes, including the construction of an elevated water storage tank and trunk watermains.

WHEREAS, an interconnection has been constructed between the two communities water systems providing the means for each city to provide such peak or emergency demand water supply service to the other.

WHEREAS, water flow recording meters have been installed at the interconnection line for the purpose of measuring the flow from the Lino Lakes water system into the Centerville water system and the flow from the Centerville water system into the Lino Lakes water system.

NOW, THEREFORE, the parties hereto agree as follows:

SECTION 1. OWNERSHIP AND MAINTENANCE

1. Lino Lakes shall have ownership and be responsible for operation and maintenance of the water system located within the corporate boundaries of Lino Lakes. Centerville shall have ownership and be responsible for operation and maintenance of the water system located within the corporate boundaries of Centerville.

2. The interconnection line, metering manhole, and appurtenances shall be jointly maintained by the two cities and costs for such maintenance shared equally.

3. The cities of Centerville and Lino Lakes shall adopt an "odd/even" lawn watering policy. The cities shall enforce total lawn watering bans that may be necessary to manage use and available supply.

SECTION 2. CHARGES

The single two-way meter installed on the interconnect shall be read at the end of each calendar quarter. The city receiving the greatest net flow shall reimburse the other city in the form of water which may be used within twelve months. In the event that that city does not have water capacity to provide the reimbursement in the form of water, they shall instead reimburse the providing city for the cost of such water at a rate of 80% of the providing city's residential water rate at the time of billing. Payments shall be made on or before the 20th day of the month following the end of the quarter.

SECTION 3. WATER STANDARDS AND CONSTRUCTION

1. Each city's water supply shall provide clean, safe, potable water. Lino Lakes and Centerville agree that they shall exercise reasonable care to prevent toxic or harmful substances from contaminating the water supply of the other party. In the event that either party finds or has reason to believe that contamination exists in its system, or upon a finding that their water is not potable, that city shall notify the other immediately. Upon request, each city shall supply the other city with copies of yearly analytical test data from the Minnesota Department of Health. If either city allows volatile organics to be discharged into the water system, such items shall be eliminated by the responsible city. Failure to comply with this section shall be grounds for immediate termination of the water exchange system.

2. All watermain construction within Centerville or Lino Lakes shall meet the most recent City Engineers Association of Minnesota "Standard Utilities Specifications for Watermain and Service Line Installation and Sanitary Sewer and Storm Installation." Neither party shall substantially change the specifications for any parts of the water system which would be interconnected between the cities without the notification of the other.

SECTION 4. INDEMNIFICATION

Each party agrees to indemnify the other and save the other harmless from any and all claims or demands for damages arising out of or which may result from the water supply pursuant to this Agreement, and from the use, installation, maintenance, and repair of its facilities as set forth in this Agreement.

SECTION 5. EVENT OF EMERGENCY

Either party shall have the absolute right to close off the interconnect in the event of a water emergency where the City in its sole judgment will be unable to supply any water needs of the other.

SECTION 5. TERMINATION

In addition to the termination provisions in Section 3, either city shall have the

right to cancel this Agreement on account of any violation of the terms and conditions of this Agreement by the other city by first giving thirty (30) days written notice to the other party of such violation and a failure to correct the violation within said thirty (30) day period of time. Either city shall have the right to cancel and annul this Agreement, without cause, by first giving three (3) years written notice to the other party of such intent to cancel this Agreement, no further payments shall be due hereunder, except obligations arising prior to the effective date of termination. Upon such effective date of termination, the connection between the water system of Lino Lakes and the water system of Centerville shall immediately be disconnected by the party terminating the agreement.

SECTION 6. EFFECTIVE DATE OF THIS AGREEMENT

This Agreement shall take effect and be in force after the date of execution of the same by the proper officers of Centerville and Lino Lakes, pursuant to approval of the governing bodies of the municipalities, accepting and agreeing to abide and be bound by the terms, provisions, and conditions hereof and authorizing such execution.

CITY OF CENTERVILLE

Mary Capra
Mayor

Attest: Lisa Linder
City Clerk

Dated this 7th day of January, 2010

CITY OF LINO LAKES

John J Bergson
Mayor

Attest: Edward Gartner
City Clerk

Dated this 28 day of December, 2009

Record ID 1791818

CITY OF LINO LAKES

CITY OF LINO LAKES
CERTIFICATION
JOINT POWERS AGREEMENT

STATE OF MINNESOTA)
COUNTY OF ANOKA) SS
CITY OF LINO LAKES)

1991170.001

I, Julianne Bartell, City Clerk of the City of Lino Lakes, in the County of Anoka and State of Minnesota, certify that I have examined the attached copy of a Water Interconnection Joint Powers Agreement between the City of Lino Lanes and the City of Blaine, and have carefully compared the same with the original on file in this office, and that the attached copy is a true, correct and complete copy of the original.

IN WITNESS WHEREOF, I have signed and affixed the city seal on February 15, 2007.

City Clerk

CITY OF LINO LAKES SEAL CORPORATE

600 Town Center Parkway, Lino Lakes, MN 55014
Phone: 651-982-2400 Fax: 651-982-2499

JOINT POWERS AGREEMENT

THIS AGREEMENT made this 7 day of December, 2006 by and among the City of Blaine, Anoka County, Minnesota ("Blaine") and the City of Lino Lakes, Anoka County, Minnesota ("Lino Lakes").

WITNESSETH:

WHEREAS, Lino Lakes has constructed a two-way metered water service interconnection to Sunset Avenue and Elm Street; and,

WHEREAS, the parties hereto desire to enter a Joint Powers Agreement to allow Lino Lakes and Blaine to provide backup water sources for their municipal water systems; and,

WHEREAS, Minnesota Statutes Section 471.59 authorize two (2) or more governmental units by agreement of their governing bodies jointly and cooperatively to exercise any power common to the contracting parties or any similar powers, including those which are the same except for the territorial limits within which they are exercised; and,

WHEREAS, the parties hereto desire to set forth the respective rights and obligations of the parties to this Agreement.

NOW, THEREFORE, IT IS HEREBY AGREED by and among the parties as follows:

ARTICLE I

Responsibilities of Lino Lakes

A. All work to be done in constructing and installing the water system shall be done subject to the approval of the Lino Lakes City Engineer in accordance with Lino Lakes city standards and requirements, and upon plans prepared by Lino Lakes. Lino Lakes agrees to authorize its engineer to inspect the plans and observe the site to insure that the system is adequately and properly installed.

B. The connecting meter shall be read and a summary of water usage between Blaine and Lino Lakes shall be prepared by Lino Lakes personnel and provided to Blaine within a reasonable time after the last day of each year. A statement for the total water provided by Lino Lakes during the year, as determined by the Lino Lakes Finance Director, shall be mailed to Blaine within a reasonable time after the last day of each year. Blaine shall pay Lino Lakes all water utility fees required by the Lino Lakes City Code, City resolutions and amendments thereto. The specific water use rate applicable to Blaine shall be equal to the Lino Lakes rate. Statements shall be due and payable within thirty (30) days of receipt. All invoices shall be sent to the Finance Director for the City of Blaine.

C. Lino Lakes shall pay for Fifty Percent (50%) of the construction cost of the metered water connection and all connecting mains including Fifteen Percent (15%) of the construction costs for Legal, Administration and Engineering.

D. Except as herein provided, Lino Lakes shall be responsible for maintenance of

any water mains within Lino Lakes that use water from Blaine. Lino Lakes shall maintain the water mains in good working order and in accordance with the American Waterworks Association Standards for Water Mains. All repair and maintenance shall be completed within a reasonable time.

E. Lino Lakes shall report to the Blaine Public Services Manager any defects that occur in the Lino Lakes water system. Blaine may designate any defect as requiring an emergency repair if it will have significant impact on the use of the Blaine water system by Blaine residents or businesses, or if the defect will result in unmonitored use of Blaine water. In the event of an emergency, repair procedures shall be undertaken as soon as reasonably possible, but nothing herein shall prevent Blaine from taking appropriate steps to protect the security of the Blaine water system and the health, safety and welfare of the Blaine residents. All repair and maintenance shall be completed within a reasonable time.

ARTICLE II

Responsibilities of Blaine

A. Blaine shall pay for Fifty Percent (50%) of the construction cost of the metered water connection including Fifteen Percent (15%) of the construction costs for Legal, Administration and Engineering.

B. The Blaine Public Works Department shall have the authority to verify the connecting meter readings by Lino Lakes personnel. A statement for the total water provided by Blaine during the year, as determined by the Blaine Finance Director, shall be mailed to Lino Lakes within a reasonable time after the last day of each year. For water provided by Blaine, Lino Lakes shall pay Blaine all water utility fees required by the Blaine City Code, City resolutions and amendments thereto. The specific water use rate applicable to Lino Lakes shall be equal to the Blaine rate. Statements shall be due and payable within thirty (30) days of receipt. All invoices shall be sent to the Finance Director for the City of Lino Lakes.

C. Except as herein provided, Blaine shall be responsible for maintenance of any water mains within Blaine that use water from Lino Lakes. Blaine shall maintain the water mains in good working order and in accordance with the American Waterworks Association Standards for Water Mains. All repair and maintenance shall be completed within a reasonable time.

D. Blaine shall report to the Lino Lakes Director of Public Services any defects that occur in the Blaine water system. Lino Lakes may designate any defect as requiring an emergency repair if it will have significant impact on the use of the Lino Lakes water system by

Lino Lakes residents or businesses, or if the defect will result in unmonitored use of Lino Lakes water. In the event of an emergency, repair procedures shall be undertaken as soon as reasonably possible, but nothing herein shall prevent Lino Lakes from taking appropriate steps to protect the security of the Lino Lakes water system and the health, safety and welfare of the Lino Lakes residents. All repair and maintenance shall be completed within a reasonable time.

ARTICLE III

Miscellaneous Provisions

A. All general and special conditions, plans, special provisions, proposals, specifications and contract for the water system shall and hereby are made a part of this Agreement by reference as if fully set our herein in full.

B. This agreement may be terminated by Lino Lakes in the event that:

1. Blaine violates the terms of this Agreement, the provisions of Lino Lakes City Code relating to the Lino Lakes water system, or amendments thereto; and such violation continues for thirty (30) days after Blaine receives a written notice of violation from Lino Lakes.

2. Blaine fails to properly maintain its water system after reasonable notification and opportunity to cure.

C. This agreement may be terminated by Blaine in the event that:

1. Lino Lakes violates the terms of this Agreement, the provisions of Blaine City Code relating to the Blaine water system, or amendments thereto; and such violation continues for thirty (30) days after Lino Lakes receives a written notice of violation from Blaine.

2. Lino Lakes fails to properly maintain its water system after reasonable notification and opportunity to cure.

D. This Agreement shall be placed of record so as to give notice hereof to subsequent purchasers, the cost of said recording shall be borne by Lino Lakes.

E. This Agreement shall remain in effect from the date hereof, unless terminated in writing by the parties hereto, their successors or assigns.

City of Lino Lakes	Ms. Julianne Bartell Lino Lakes City Clerk 600 Town Center Parkway Lino Lakes, MN 55014
City of Blaine	Mr. Ronald R. Wood City Manager 10801 Town Square Drive Blaine, MN 55449

F. Notwithstanding the foregoing Paragraph E, the terms and conditions of this agreement shall survive the termination of this Agreement to the full extent necessary for their enforcement and for the protection of the parties hereto, their assigns, successors in title and successors.

IN WITNESS WHEREOF, the City of Lino lakes, and the City of Blaine have caused this Agreement to be duly executed on the day and year first above written.

CITY OF BLAINE

By _____
Tom Ryan, Mayor

and

By _____
Ronald R. Wood, City Manager

ATTEST:

By _____
City Clerk

STATE OF MINNESOTA)
) SS
COUNTY OF ANOKA)

On this 7 day of December, 2006. before me, a Notary Public within and for said County, personally appeared **Tom Ryan** (Mayor) and **Ronald R. Wood** (City Manager), to me known to be respectively the Mayor and City Manager of the City of Blaine, and who executed the foregoing instrument and acknowledge that they executed the same on behalf of said City.

CATHERINE B. EKSTRAND
NOTARY PUBLIC-MINNESOTA
My Commission Expires Jan 31 2008

_____
Notary Public

STATE OF MINNESOTA)
) ss.
COUNTY OF _____)

CITY OF LINO LAKES

By John J Bergeson
Mayor

ATTEST:

By Julianne Bartell
Clerk

STATE OF MINNESOTA)
) SS
COUNTY OF ANOKA)

On this 15th day of Feb., 2007 before me, a Notary Public within and for said County, personally appeared

John J Bergeson (Mayor) and Julianne Bartell (Clerk), to me known to be respectively the Mayor and Clerk of the City of Lino Lakes, and who executed the foregoing instrument and acknowledge that they executed the same on behalf of said City.

DAWN L. BUGGE
NOTARY PUBLIC - MINNESOTA
My Commission Expires Jan 31 2010

Notary Public
Dawn L Bugge

STATE OF MINNESOTA)
) ss.
COUNTY OF Anoka)

7 The foregoing instrument was acknowledged before me this 15th day of Feb, 2007, by Jean M. Viger.

Notary Public

JEAN M. VIGER
NOTARY PUBLIC MINNESOTA
My Commission Expires Jan 31 2010

ADDENDUM TO THE WATER USE AGREEMENT
BETWEEN THE CITY OF LINO LAKES AND
THE CITY OF CIRCLE PINES
DATED JUNE 13, 1986



WHEREAS; the City of Lino Lakes and the City of Circle Pines entered into an agreement on June 13, 1986, for interconnection of the two water systems; and

WHEREAS; the City of Lino Lakes has requested a modification to this agreement to expand the service area and the City of Circle Pines has agreed to this expansion;

NOW, THEREFORE, it is hereby agreed that the agreement dated June 13, 1986, shall be modified as follows:

1. The service area for Lino Lakes shall include the area within the MUSA as determined by the Metropolitan Council of Governments.

2. The City of Lino Lakes will begin preparation of plans and specifications, obtain right-of-way and award construction contracts for an elevated storage reservoir after 1000 connections are made to the Lino Lakes water system.

3. The City of Lino Lakes will have an elevated storage reservoir in operation before 1200 connections are made to the Lino Lakes water system.

4. The City of Lino Lakes will share in the proposed maintenance contract for the existing Circle Pines elevated storage reservoir. The estimated cost of this maintenance is $100,000.00.

   Payback shall be based on a life expectancy of 10 years and an annual interest rate of 7%.

   Payment shall be on a quarterly basis and shall be based on a percentage determined by dividing the total connections to the Lino Lakes water system by the total connections to the combined water system of Lino Lakes and Circle Pines.

5. The City of Lino Lakes will pay a prorated share of the depreciation for the Circle Pines elevated storage reservoir. The annual depreciation is $8,000..00.

   Payment shall be on a quarterly basis and shall be based on a percentage determined by dividing the total connections to the Lino Lakes water system by the total connections to the combined water system of Lino Lakes and Circle Pines.

This amendment shall terminate after Lino Lakes has constructed and placed an elevated storage reservoir in operation.

CITY OF CIRCLE PINES

Utility Chair

City Administrator

CITY OF LINO LAKES

Mayor

City Administrator

CONTRACT FOR JOINT USAGE OF WATER FACILITIES

BY AND BETWEEN THE CITY OF LINO LAKES AND

THE CITY OF CIRCLE PINES, ANOKA COUNTY MINNESOTA

THIS AGREEMENT, made and entered into this 13TH day of JUNE, 1986, by and between the City of Lino Lakes, a municipal corporation, situated in Anoka County, Minnesota, hereinafter called "Lino Lakes", and the City of Circle Pines, by and through its Utilities Commission, a municipal corporation, situated in Anoka County, Minnesota, hereinafter called "Circle Pines".

WHEREAS, Circle Pines has constructed a water system capable of serving various areas in the West Central Service Area of Lino Lakes and Lino Lakes is in the process of developing a water system in the West Central Service Area of Lino Lakes.

WHEREAS, until this water system in the Lino Lakes West Central Service Area is fully developed with source, distribution and storage capacity, this area can be more effectively served by interconnection with the Circle Pines water system.

WHEREAS, after the completion of the Lino Lakes water system a more reliable water supply in both Lino Lakes and Circle Pines would result from the interconnection between the two communities' water systems.

shall be read at the end of each calendar quarter. The city with the greatest net flow will bill the other city, by the 10th of the month following the end of the calendar quarter, for the amount due based upon such excess flow. The charge for such excess capacity shall be made at the same rate that Circle Pines bills its customers within Circle Pines, or whichever City has the lowest rate. Payments shall be made on or before the 20th day of the month following the end of the quarter.

SECTION 3. WATER STANDARDS AND CONSTRUCTION.

1. Lino Lakes and Circle Pines agree that they shall exercise reasonable care to prevent toxic or harmful substances from contaminating the water supply of either party. Each city's water supply shall provide clean, safe, potable water. On a yearly basis each city shall supply the other city with copies of yearly analytical test data from the Minnesota Dept. of Health, Division of Environmental Health. In addition, on a yearly basis, each city shall supply test results from a recognized testing lab, whose analyses were performed by EPA or other recognized standard procedures. There shall be results provided for hardness, manganese, iron and volatile organics. If either city allows volatile organics to be discharged into the water system, such items shall be eliminated by the responsible city. Failure to comply with this section shall be grounds for immediate termination of the water exchange system.

SECTION 5. TERMINATION.

In addition to the termination provisions in Section 3, either city shall have the right to cancel and annul this Agreement on account of any violation of the terms and conditions of this Agreement by the other city by first giving thirty (30) days written notice to the other party of such violation and a failure to correct the violation within said thirty (30) day period of time. Either city shall have the right to cancel and annul this Agreement, without cause, by first giving two (2) years written notice to the other party of such intent to cancel this Agreement. In the event of any cancellation under this Agreement, no further payments shall be due hereunder, except obligations arising prior to the effective date of termination. Upon such effective date of termination, the connection between the water system of Lino Lakes and the water system of Circle Pines shall immediately be disconnected.

SECTION 6. INSPECTION.

1. The City Engineer of Lino Lakes or any employee authorized by the City Council of Lino Lakes shall be permitted, at the expense of Lino Lakes, to inspect the construction, as well as the operation, of the water system in Circle Pines at any reasonable time to see that same is being constructed and operated according to the plans and specifications and operated in compliance with acceptable municipal practice and that the

COPY

JOINT POWERS AGREEMENT BETWEEN THE CITY OF CIRCLE PINES AND THE CITY OF LINO LAKES

THIS AGREEMENT is made as of July___, 2007 between the City of Circle Pines, Minnesota, a municipal corporation ("Circle Pines") and the City of Lino Lakes, Minnesota, a municipal corporation ("Lino Lakes").

RECITALS

A. The cities are interested in formalizing cross community water connections along Ash Street.

B. Circle Pines owns and maintains water main facilities adjacent to certain parcels located in Lino Lakes. These facilities have the capacity to provide water service to Lino Lakes customers on or near Ash Street.

C. It is desire of the parties, the Cities of Lino Lakes and Circle Pines, through this agreement, to provide for water services to customers in the Ash Street area in Lino Lakes.

D. Minnesota Statutes, Section 471.59, provides that two or more governmental units, by agreement entered into through action of their governing bodies, may jointly or cooperatively exercise any power common to the contracting parties or any similar powers, including those which are the same except for the territorial limits within which they exercised.

AGREEMENT

Based upon the foregoing recitals, Circle Pines and Lino Lakes agree as follows.

1. Circle Pines shall allow water for approved Lino Lakes residents on or near Ash Street to flow through water mains owned and maintained by Circle Pines.

2. Circle Pines shall maintain all municipal water mains constructed within Ash Street and any adjacent lands in Circle Pines. Lino Lakes shall maintain all water meters within Lino Lakes.

3. Lino Lakes shall read the water meters on a quarterly basis and shall provide Circle Pines with the most current water readings no later than five days following the months of March, June, September and December. Lino Lakes will pay Circle Pines for all water. Circle Pines will receive a monthly base charge of $5.00 plus its current rate of $1.27 per 1,000 gallons for all water flows, as well as periodic increases in the rate per 1,000 gallons. Lino Lakes will retain any water fees over and above those paid to Circle Pines.

4. City WAC fees shall apply for the City providing service.

5. Circle Pines and Lino Lakes agree to indemnify, defend, and hold harmless the other from any claims, causes of action, damages, loss, cost or expenses, including reasonable attorney's fees, resulting from or relating to the actions of each City, its officers, agents or employees in the execution of the duties outlined in this agreement. Under no circumstances, however, shall a party be required to pay on behalf of itself or each other, any amount in excess of the limits of liability established in Minnesota Statutes Chapter 466 applicable to any one party. The limits of liability of each City may not be added together to determine the maximum amount of liability for each City.

6. This agreement shall become effective upon its execution by Circle Pines and Lino Lakes.

7. This agreement is effective only for the Ash Street area.

8. This agreement may not be amended unless agreed to in writing by both Circle Pines and Lino Lakes.

9. This agreement shall terminate upon the mutual agreement in writing by Circle Pines and Lino Lakes.

IN WITNESS WHEREOF the parties have executed this Agreement as of the day above first written.

CITY OF CIRCLE PINES

By: _____
Dave Bartholomay, Mayor

ATTEST:

By: _____
James W. Keinath, City Administrator

CITY OF LINO LAKES

By: _____
John Bergeson, Mayor

ATTEST:

By: _____
Gordon Heitke, City Administrator

APPROVED
5-0

AGENDA ITEM 6E

STAFF ORIGINATOR: James E. Studenski, City Engineer

COUNCIL MEETING DATE: July 9, 2007

TOPIC: Resolution No. 07-94, Approving Joint Powers Agreement Circle Pines, Ash Street Area.

VOTE REQUIRED: Simple Majority

BACKGROUND:

The Russian Baptist Church at 5 Ash Street has requested connection to Circle Pines watermain. The attached Joint Powers Agreement details the cross community water connection for the Russian Baptist Church and any other future connections in the Ash Street area. The Russian Baptist Church was originally designated to use a new private well system. However, through further analysis, they are requesting to connect to the City of Circle Pines water system.

The attached Joint Powers Agreement also defines billing, maintenance, and metering responsibilities of both the City of Lino Lakes and the City of Circle Pines.

Attached is a drawing detailing the City water connection and a copy of the Joint Powers Agreement.

The City of Circle Pine has prepared the Joint Powers Agreement and will be bringing the Agreement to the City of Circle Pines Council for approval.

RECOMMENDATION:

Staff recommends approval of Resolution 07-94, Circle Pines, Ash Street Area Joint Powers Agreement.

APPROVED
5-0
CARLSON — MOTION
O'DONNELL — O'DONNELL

JOINT POWERS AGREEMENT BETWEEN THE CITY OF CIRCLE PINES AND THE CITY OF LINO LAKES

THIS AGREEMENT is made as of July___, 2007 between the City of Circle Pines, Minnesota, a municipal corporation ("Circle Pines") and the City of Lino Lakes, Minnesota, a municipal corporation ("Lino Lakes").

RECITALS

A. The cities are interested in formalizing cross community water connections along Ash Street.

B. Circle Pines owns and maintains water main facilities adjacent to certain parcels located in Lino Lakes. These facilities have the capacity to provide water service to Lino Lakes customers on or near Ash Street.

C. It is desire of the parties, the Cities of Lino Lakes and Circle Pines, through this agreement, to provide for water services to customers in the Ash Street area in Lino Lakes.

D. Minnesota Statutes, Section 471.59, provides that two or more governmental units, by agreement entered into through action of their governing bodies, may jointly or cooperatively exercise any power common to the contracting parties or any similar powers, including those which are the same except for the territorial limits within which they exercised.

AGREEMENT

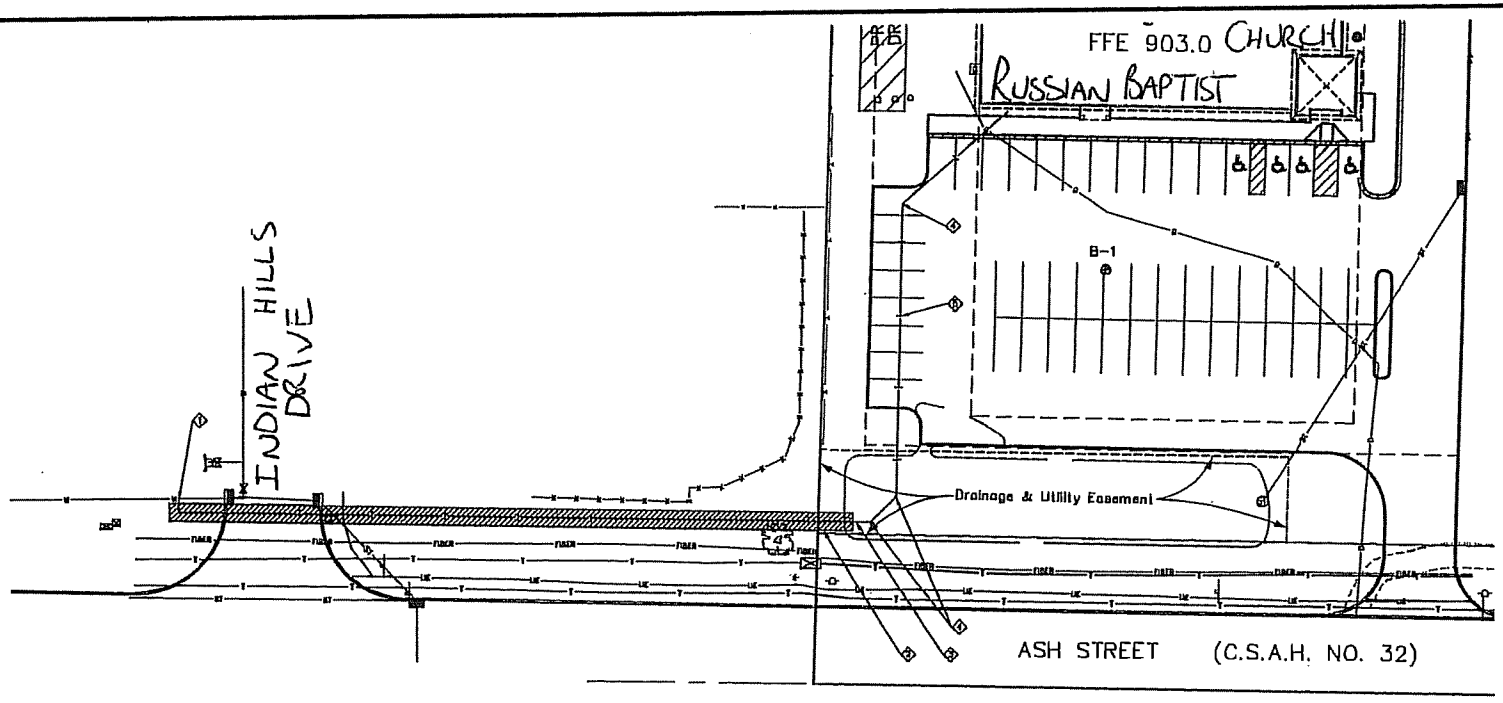
Based upon the foregoing recitals, Circle Pines and Lino Lakes agree as follows.

1. Circle Pines shall allow water for approved Lino Lakes residents on or near Ash Street to flow through water mains owned and maintained by Circle Pines.

2. Circle Pines shall maintain all municipal water mains constructed within Ash Street and any adjacent lands in Circle Pines. Lino Lakes shall maintain all water meters within Lino Lakes.

3. Lino Lakes shall read the water meters on a quarterly basis and shall provide Circle Pines with the most current water readings no later than five days following the months of March, June, September and December. Lino Lakes will pay Circle Pines for all water. Circle Pines will receive a monthly base charge of $5.00 plus its current rate of $1.27 per 1,000 gallons for all water flows, as well as periodic increases in the rate per 1,000 gallons. Lino Lakes will retain any water fees over and above those paid to Circle Pines.

4. City WAC fees shall apply for the City providing service.



N

GRAPHIC SCALE

(IN FEET)

LEGEND

- EXISTING SANITARY SEWER
- EXISTING WATERMAIN
- EXISTING STORM SEWER
- EXISTING FIBER OPTIC
- EXISTING ELECTRIC
- EXISTING TELEPHONE
- EXISTING GAS LINE
- EXISTING LIGHT POLE
- EXISTING GATE VALVE
- EXISTING UTILITY PEDESTAL
- EXISTING UTILITY POLE
- EXISTING SIGN
- EXISTING CATCH BASIN

GENERAL NOTES:

1. MAINTAIN MINIMUM OF 8' OF COVER OVER WATERMAIN.
2. FURNISH AND INSTALL PROPOSED UTILITIES USING APPROVED MATERIALS, METHODS OF PLACEMENT, AND TESTING AS REQUIRED BY THE CITY.
3. LOCATION AND DEPTH OF ANY PUBLIC AND PRIVATELY OWNED UTILITIES SHOWN ON THIS PLAN ARE ONLY APPROXIMATE, AND MUST BE VERIFIED BY THE CONTRACTOR.

   OTHER UTILITIES MAY EXIST AND IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN AND VERIFY THE LOCATION OF SUCH. GOPHER STATE ONE CALL SYSTEM: 612-454-0002.
4. SEED & MULCH ALL DISTURBED AREAS CAUSED BY WATERMAIN CONSTRUCTION IN RIGHT-OF-WAY. SEE BELOW

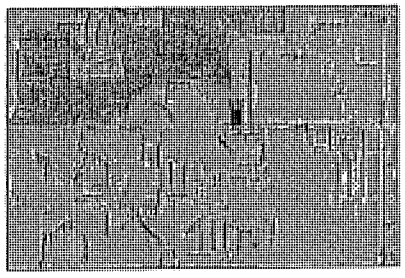
NUMBERED NOTES:

1. 8" WET TAP W/VALVE
2. 230'-8" DR18 PVC WATERMAIN TO BE DIRECTIONAL BORED
3. CONNECT DRI TO D.I.P.
4. 8"-45° BEND
5. 160'-8" D.I.P. WATERMAIN

SEEDING & MULCH NOTES:

1. PERFORM SEEDING FOR FINAL STABILIZATION AS FOLLOWS:
   a. REPLACE TOPSOIL TO PROVIDE A UNIFORM THICKNESS. LOOSEN TOPSOIL TO MINIMUM DEPTH OF 3".
   b. APPLY COMMERCIAL GRADE, SLOW RELEASE FERTILIZER OF ANALYSIS 23-0-10 AT RATE OF 2 POUNDS ACTUAL NITROGEN PER 1,000 SQUARE FEET.
   c. INCORPORATE FERTILIZER INTO SOIL BY USE OF HARROW OR OTHER MEANS TO PLACE FERTILIZER BELOW GROUND LEVEL.
   d. APPLY MNDOT SEED MIXTURE 280 AT RATE OF 100 POUNDS PER ACRE WITH BRILLION TYPE SEEDER OR OTHER MEANS IN ACCORDANCE WITH MN/DOT SPEC. 2575 AND COVER SEED WITH ¼" TO ½" OF TOPSOIL IN ACCORDANCE WITH MN/DOT SPEC. 3877.
   e. APPLY UNIFORM COVERING OF MNDOT TYPE 1 MULCH AT A RATE OF 2 TONS PER ACRE.
   f. ANCHOR MULCH TO DEPTH OF 3 TO 3" WITH DISC ANCHOR OR OTHER MEANS IMMEDIATELY AFTER SEEDING.

SITE LOCATION MAP
NO SCALE



DEVELOPER:
Russian Mideast
P.O. Box 874
Inver Grove Heights, MN 55076
PHONE: (763) 444-0437

ENGINEER:
ANDERSON LAND SURVEYING
A DIVISION OF MARC ENGINEERING, INC.
200 THIRD AVENUE NE
SUITE 120
CAMBRIDGE, MINNESOTA 55008
PHONE: (763) 689-4868

ANDERSON LAND SURVEYING
A DIVISION OF MARC ENGINEERING, INC.
CIVIL ENGINEERS - LAND SURVEYORS
200 THIRD AVENUE NE, SUITE 120, CAMBRIDGE, MINNESOTA 55008
PHONE: (763) 689-4868 FAX: (763) 689-4869

RUSSIAN BAPTIST CHURCH
WATERMAIN INSTALLATION
CIRCLE PINES, MINN - 89 -

Grading Plan

Lino Lakes 2040 Comprehensive Plan

Appendix C Page 105

Return to:
David K. Snyder
ECKBERG, LAMMERS, BRIGGS, WOLFF
& VIERLING, P.L.L.P.
1835 Northwestern Avenue
Stillwater, MN 55082

JOINT POWERS AGREEMENT
AND DEVELOPMENT AGREEMENT

THIS AGREEMENT, made this 11 day of FEBRUARY, 2002, by and among the CITY OF HUGO, Washington, Minnesota ("Hugo"); the City of Lino Lakes, Anoka County, Minnesota ("Lino Lakes"); and POA-SCHERER, LLC, a Minnesota limited liability company ("Developer").

WITNESSETH:

WHEREAS, the Developer has proposed to construct a planned unit development major subdivision in the City of Hugo to be known as "Victor Gardens" ("The Property"); and,

WHEREAS, the Developer desires to service the property with a municipal water system; and,

WHEREAS, Hugo Plans to provide water service to this area by the year 2005; and,

WHEREAS, Hugo does not currently possess the ability to service the property with its existing municipal water system, however, the Hugo envisions that it will be expanding its municipal water service in the future so that the Hugo may, in the future, possess the ability to service the property with its own municipal water system; and,

WHEREAS, Lino Lakes does currently possess the ability to service the property with its existing municipal water system; and,

WHEREAS, the parties hereto desire to enter into a Joint Powers Agreement to allow Lino Lakes to service the property with its municipal water system until Hugo can extend its own municipal water system to the property; and,

WHEREAS, Minnesota Statutes Section 471.59 authorizes two (2) or more governmental units by agreement of their governing bodies jointly and cooperatively to exercise any power common to the contracting parties or any similar powers, including those which are the same except for the territorial limits within which they are exercised; and,

WHEREAS, cities are authorized to enter into development contracts as contemplated in Minnesota Statutes Section 462.358, Subd. 2(a); and,

WHEREAS, the parties hereto desire to set forth the respective rights and obligations of the parties to this Agreement.

NOW, THEREFORE, IT IS HEREBY AGREED by and among the parties as follows:

ARTICLE I

Responsibilities of Developer

A. The Developer shall arrange to conduct a site inspection of the property and prepare all of the necessary plans and specifications for the construction of the water system

to service the property. The Developer shall hire the Contractor, with the approval of the Cities of Lino Lakes and Hugo, to install the improvements.

B. The Developer shall prepare all necessary documents to bid out the project. The Developer shall hire contractors to install the water system to the property. The contractors shall be of the choosing of the Developer. Neither Hugo nor Lino Lakes shall be responsible for any actions of the Developer or the Developer's contractors regarding the installation or construction of the water system. All work to be done in constructing and installing the water system within Lino Lakes shall be done subject to the approval of the Lino Lakes City Engineer in accordance with City standards and requirements. All work to be done in constructing and installing the water system within Hugo shall be done subject to the approval of the Hugo City Engineer. The interconnect and appurtenances shall be contructed in accordance with the direction of both cities.

C. The Developer shall hold harmless and defend Hugo and Lino Lakes from any and all claims made by anyone for any defects or damages of any kind caused by the installation and/or construction of the water system.

D. The Developer shall obtain any and all easements necessary to extend Lino Lakes' water system to the property. This shall be done at no cost to Hugo or Lino Lakes.

E. Developer shall, contemporaneously with the execution of this Agreement, deposit with Hugo an escrow of Two Thousand Dollars ($2,000.00) to cover the cost of legal fees, administrative expenses, and other costs related to this Joint Powers Agreement and development.

All fees and costs incurred by Hugo in connection with the development shall be charged against said escrow account which shall remain in effect until the completion of

the development. Any funds remaining in the escrow accounts after the completion of the development shall be refunded to the Developer.

F. Developer shall, contemporaneously with the execution of this Agreement, deposit with Lino Lakes an escrow of Twelve Thousand Dollars ($12,000.00) to cover the cost of legal fees, construction documents and observation for the water main in Lino Lakes, engineering fees, administrative expenses, and other costs related to this Joint Powers Agreement and development.

All fees and costs incurred by Lino Lakes in connection with the development shall be charged against said escrow account which shall remain in effect until the completion of the development. Any funds remaining in the escrow accounts after the completion of the development shall be refunded to the Developer.

G. When Hugo has developed the capability to service the property, the Developer, its successors in title or assigns, agrees that it will hook up to Hugo's municipal water system. Additionally, the Developer agrees to grant to Hugo any and all easements as may be necessary to connect the property to Hugo's municipal water system, and at no cost to the City of Hugo. Developer makes this representation on behalf of itself and all future property owners within the plat.

H. When the Hugo water system is extended to the property, the Developer, its assigns and its successors in title agree to pay assessments for the costs of the project in accordance with Minnesota Law, and Developer, its assigns and its successors in title waive all formalities or requirements pursuant to Minnesota Statutes Section 429, and specifically waive any right to appeal or contest the assessment of the project costs upon the lands affected hereby.

I. Developer agrees to pay to Hugo, according to Hugo's regular and customary course of business, for all water supplied to the property, together with any water-related fees or costs charged to Hugo by Lino Lakes pursuant to this Agreement.

J. The Developer agrees to construct the water system within the City of Lino Lakes described herein at its own expense and in accordance with Lino Lakes' specifications. Lino Lakes shall prepare plans and specifications for all work within Lino Lakes. The Developer shall engage at its own expense a registered, professional civil engineer to prepare plans and specifications for the project and shall submit the same to the Lino Lakes Engineer for review and approval.

Developer shall provide a financial guarantee to Lino Lakes in the form of a cash escrow or letter of credit, in the amount equal to One Hundred Fifty Percent (150%) of the estimated amount of the cost of the water system to be constructed.

K. The Developer, its successors and assigns shall pay to Hugo the prevailing water availability charges and connection charges as are customary for all water hook-ups in the City of Hugo at the time the Building Permit is requested for a lot. No connection charges or water availability charges shall be paid to the City of Lino Lakes.

L. All water use charges that are delinquent shall be handled in like manner as other delinquent water charges in the City of Hugo.

M. As part of the construction of the water system contemplated herein, Developer shall also install a water meter at or near the junction point with the Lino Lakes municipal water system. This meter shall measure the volume of water used in the City of Hugo in the Victor Gardens plat.

ARTICLE II

Responsibilities of Lino Lakes

A. All work to be done in constructing and installing the water system shall be done subject to the approval of the Lino Lakes City Engineer in accordance with Lino Lakes city standards and requirements, and upon plans prepared by Lino Lakes. Lino Lakes agrees to authorize its engineer to inspect the plans and observe the site to insure that the system is adequately and properly installed.

B. Hugo shall pay Lino Lakes all water utility fees required by the Lino Lakes City Code, City resolutions and amendments thereto. The specific water use rate applicable to Hugo shall be equal to Lino Lakes rate plus Ten Percent (10%). The connecting meter shall be read by Lino Lakes personnel. A statement for the total water provided during the month, as determined by the Lino Lakes Finance Director, shall be mailed to Hugo within a reasonable time after the last day of each month. Statements shall be due and payable within thirty (30) days of receipt. All invoices shall be sent to the Finance Director for the City of Hugo.

C. Lino Lakes shall pay for Fifty Percent (50%) of the construction cost of the metered water connection, but no connecting mains. Hugo shall pay for Fifty Percent (50%) of the construction cost of the metered water connection and Developer shall pay for all connecting mains.

D. Lino Lakes agrees to cooperate with Hugo and the Developer in arranging for the switchover from the Lino Lakes water system to the Hugo system when Hugo develops the ability to service the property. The switchover shall be at no cost to Lino Lakes, and the

Developer, its assigns and its successors in title, shall reimburse Lino Lakes for any costs incurred when this switching over occurs.

E. Lino Lakes shall ensure that the contract documents include a requirement that Developer secure insurance coverage satisfactory to Hugo and Lino Lakes.

ARTICLE III

Responsibilities of Hugo

A. Hugo agrees to allow the property to obtain water service from Lino Lakes until such time as Hugo has the ability to service the property.

B. Except as herein provided, Hugo shall be responsible for maintenance of any water mains within Hugo that use water from Lino Lakes. Hugo shall maintain the water mains in good working order and in accordance with the American Waterworks Association Standards for Water Mains. All repair and maintenance shall be completed within a reasonable time.

C. Hugo shall report to the Lino Lakes Director of Public Services any defects which occur in the Hugo water system. Hugo shall have an on-call contractor available on a twenty-four (24) hour basis for repair of its water main system. Lino Lakes may designate any defect as requiring an emergency repair if it will have significant impact on the use of the Lino Lakes water system by Lino Lakes residents or businesses, if the defect will result in unmonitored use of the Lino Lakes water. In the event of an emergency, repair procedures shall be undertaken as soon as reasonably possible, but nothing herein shall prevent Lino Lakes from taking appropriate steps to protect the security of the Lino Lakes water system and the health, safety and welfare of Lino Lakes residents. All repair and maintenance shall be completed within a reasonable time.

D. Hugo shall comply with the provisions of the Lino Lakes City Code relating to its water system and any amendments thereto. All Lino Lakes codes and resolutions referred to in this Agreement are hereby incorporated. Nothing herein shall be construed to limit the authority of Lino Lakes to adopt or amend its ordinances or resolutions.

ARTICLE IV

Miscellaneous Provisions

A. All general and special conditions, plans, special provisions, proposals, specifications and contracts for the water system shall and hereby are made a part of this Agreement by reference as if fully set out herein in full.

B. All applicable fees relating to this project shall be paid for by the Developer, including the cost of recording documents with Washington County and/or Anoka County.

C. The Developer shall permit access to the land herein for periodic inspections to assure conformance with the conditions herein.

D. This Agreement shall be deemed to be a restrictive covenant and the terms and conditions hereof shall run with the land described on Exhibit A hereto and be binding on and inure to the benefit of the heirs, representatives and assigns of the parties hereto, and shall be binding upon all future owners of all or any part of the land herein, and shall be deemed covenants running with the land. Reference herein to the Developers, if there be more than one, shall mean each and all of them.

E. This Agreement may be terminated by Lino Lakes in the event that:

1. Hugo violates the terms of this Agreement, the provisions of Lino Lakes City Code relating to the Lino Lakes water system, or amendments thereto; and such violation continues for thirty (30)

days after Hugo receives a written notice of violation from Lino Lakes.

2. Hugo fails to properly maintain its water system after reasonable notification and opportunity to cure.

3. Hugo authorizes connection of any non-residential land uses.

4. Hugo authorizes connections of any development outside the boundaries of Victor Gardens, without first notifying and securing approval from the City of Lino Lakes.

F. This Agreement shall be placed of record so as to give notice hereof to subsequent purchasers, the cost of said recording shall be borne by the Developer and charged against the escrow account.

G. This Agreement shall remain in effect for a period of fifty-four (54) months from the date hereof, unless earlier terminated by the City of Hugo, and thereafter it shall expire, unless extended in writing by the parties hereto, their successors or assigns.

City of Lino Lakes	Ms. Ann Blair Lino Lakes City Clerk 600 Town Center Parkway Lino Lakes, MN 55014
City of Hugo	Mr. Michael A. Ericson City Administrator 5524 Upper 146th Street North Hugo, MN 55038
POA-SCHERER, LLC	Mr. Len Pratt 1611 Highway 10 N.E. Spring Lake Park, MN 55432

H. Notwithstanding the foregoing Paragraph G, the terms and conditions of this Agreement shall survive the termination of this Agreement to the full extent necessary for their enforcement and for the protection of the parties hereto, their assigns, successors in title and successors.

IN WITNESS WHEREOF, the City of Lino Lakes, the City of Hugo, and Developer have caused this Agreement to be duly executed on the day and year first above written.

CITY OF HUGO

By _____
Fran Miron, Mayor

By _____
Mary Ann Creager, City Clerk

STATE OF MINNESOTA)
) ss.
COUNTY OF WASHINGTON)

On this 29th day of April, 2002, before me, a Notary Public, personally appeared Fran Miron and Mary Ann Creager, of the City of Hugo, a Minnesota municipality within the State of Minnesota, and that said instrument was signed on behalf of said City of Hugo by the authority of the City Council of the City of Hugo, and Fran Miron and Mary Ann Creager acknowledged said instrument to be the free act and deed of said City of Hugo.

MICHELE M. LINDAU
NOTARY PUBLIC-MINNESOTA
My Commission Expires Jan. 31, 2005

_____
Notary Public

CITY OF LINO LAKES

By _____
John J. Bergeson, Mayor

By _____
Ann Blair, City Clerk

STATE OF MINNESOTA)
) ss.
COUNTY OF ANOKA)

On this 9th day of July, 2002, before me, a Notary Public, personally appeared John J. Bergeson and Ann Blair, of the City of Lino Lakes, a Minnesota municipality within the State of Minnesota, and that said instrument was signed on behalf of said City of Lino Lakes by the authority of the City Council of the City of Lino Lakes, and John J. Bergeson and Ann Blair acknowledged said instrument to be the free act and deed of said City of Lino Lakes.

_____
Notary Public

POA-SCHERER, LLC

By Leonard W. Pratt
Its Partner

By Homer H. Tompkins III
Its CHIEF MANAGER

STATE OF MINNESOTA)
) ss.
COUNTY OF WASHINGTON)

On this 8TH day of APRIL, 2002, before me, a Notary Public, personally appeared LEONARD W. PRATT and HOMER H. TOMPKINS, III, to me personally known who are the PARTNER and CHIEF MANAGER, respectively, of POA-SCHERER, LLC, a Minnesota limited liability corporation, and that said instrument was signed on behalf of POA-SCHERER, LLC, by the authority of its Board of Directors, and said PARTNER and CHIEF MANAGER acknowledged said instrument to be the free act and deed of said corporation.

ANGELA KAY BRAUER
NOTARY PUBLIC - MINNESOTA
MY COMMISSION EXPIRES
JANUARY 31, 2005

Angela Kay Brauer
Notary Public

THIS INSTRUMENT WAS DRAFTED BY:
David K. Snyder
Eckberg, Lammers, Briggs, Wolff
& Vierling, P.L.L.P.
1835 Northwestern Avenue
Stillwater, Minnesota 55082
(651) 439-2878

EXHIBIT A

Legal Description

All of the lots in all of the blocks and outlots A, B, C, D, E, F, G, H, I, J, K and L in the Plat of Victor Gardens.

Return to:
David K. Snyder
Eckberg, Lammers, Briggs,
Wolff & Vierling, P.L.L.P.
1835 Northwestern Avenue
Stillwater, MN 55082

AMENDMENT TO JOINT POWERS AND DEVELOPMENT AGREEMENT

THIS AGREEMENT made this 12 day of August, 2003 by and among the City of Hugo, Washington County, Minnesota ("Hugo") and the City of Lino Lakes, Anoka County, Minnesota ("Lino Lakes") and POA-SCHERER, LLC, a Minnesota limited liability company ("Developer").

WITNESSETH:

WHEREAS, the parties hereto are parties to that certain Joint Powers Agreement dated February 11, 2003; and

WHEREAS, the parties are desirous of amending the agreement to provide for the installation of a second interconnection along CSAH 8.

NOW THEREFORE, IT IS HEREBY AGREED by and among the parties hereto as follows:

1. The Developer shall arrange to conduct a site inspection of the property and shall prepare all necessary plans and specifications for the construction of a second water interconnect along the south side of CSAH 8 between the common line between the City of Lino Lakes and the City of Hugo westerly to a point approximately 650 feet west of Elmcrest Avenue North as directed by the City of Hugo.

2. The Developer shall prepare all necessary documents to bid out the project and shall hire contractors to install the water system. The Contractor shall be the choosing of the Developer, neither Hugo nor Lino Lakes shall be responsible for any actions of the Developer or the Developer's Contractors regarding the installation or the construction of the water system. All work to be done constructing and installing the water system within Lino Lakes shall be done subject to the approval of the perspective City Engineer of the City in which the improvements are installed.

3. In order to allow for connection of commercial uses to the water system constructed pursuant to the Joint Powers Agreement dated February 11, 1998 and this Joint Powers Agreement, Article V, Section E 3 is deleted in its entirety and replaced with the following, "Hugo authorizes connection of any non-residential land uses north of CSAH 8."

4. The Developer shall hold harmless and defend Hugo and Lino Lakes from any and all claims made by anyone for any defects or damages of any kind caused by the installation and/or construction of the water system.

5. The Developer shall contemporaneously with the execution of this agreement deposit an escrow of $2,000.00 with the City of Hugo to cover the costs of legal fees, administrative expenses and other costs related to this amendment.

6. The Developer shall contemporaneously with the execution of this agreement deposit an escrow of $2,000.00 with the City of Lino Lakes to cover the costs of legal fees, administrative expenses and other costs related to this amendment.

7. The Developer shall reimburse the City of Hugo and the City of Lino Lakes for all costs incurred in connection with the inspection, construction, or installation of this water system.

8. This agreement shall be deemed to be a restrictive covenant and the terms and conditions hereof shall run with the land described herein and be binding on and inure to the benefit of the heirs, representatives and assigns of the parties hereto and shall be binding upon all future owners of all or any part of the land herein and shall be deemed covenants running with the land.

9. This agreement shall be placed of record so as to give notice hereof to subsequent purchasers. The cost of said recording shall be borne by the Developer and charged against the escrow account.

10. All terms and conditions of the Joint Powers Agreement and Development Agreement dated the 11th day of February, 2002 shall remain in full force and effect.

CITY OF HUGO

By _____
Fran Miron, Mayor

By _____
Mary Ann Creager, Clerk

STATE OF MINNESOTA)
) ss.
COUNTY OF WASHINGTON)

On this 18th day of August, 2003, before me, a Notary Public, personally appeared FRAN MIRON and MARY ANN CREAGER, of the City of Hugo, a Minnesota municipality within the State of Minnesota, and that said instrument was signed on behalf of the City of Hugo by the authority of the City Council of the City of Hugo, and FRAN MIRON and MARY ANN CREAGER acknowledge said instrument to be the free act and deed of said City of Hugo.

JOHN P. RASK
NOTARY PUBLIC – MINNESOTA
My Commission Expires January 31, 2007

_____
Notary Public

CITY OF LINO LAKES

By _____
Mayor

By _____
Clerk

STATE OF MINNESOTA)
) ss.
COUNTY OF WASHINGTON)

On this 21st day of August, 2003, before me, a Notary Public, personally appeared John Bergeron and Ann Blair, of the City of Lino Lakes, a Minnesota municipality within the State of Minnesota, and that said instrument was signed on behalf of the City of Lino Lakes by the authority of the City Council of the City of Lino Lakes, and Mayor and city clerk acknowledge said instrument to be the free act and deed of said City of Lino Lakes.

LISA M. HOGSTAD
NOTARY PUBLIC - MINNESOTA
My Commission Expires Jan. 31, 2005

_____
Notary Public

Developer
POA – SCHERER LLC

By _____
Its Chief Manager

By _____
Its _____

STATE OF MINNESOTA)
) ss. (Corporate Notary)
COUNTY OF WASHINGTON)

On this 28TH day of AUGUST, 2003, before me, a Notary Public, within and for said County and State, personally appeared HOMER H. TOMPKINS, III and _____, to me personally known, who, being each by me duly sworn did say that they are respectively the CHIEF MANAGER and the _____ of POA-SCHERER LLC, a Minnesota limited liability company, named in the foregoing instrument, and that said instrument was signed on behalf of POA-SCHERER LLC, and said CHIEF MANAGER and _____ acknowledged said instrument to be the free act and deed of said entity.

Angela K. Bellanger
Notary Public

ANGELA KAY BELLANGER
NOTARY PUBLIC MINNESOTA
MY COMMISSION EXPIRES
JANUARY 31, 2005

DRAFTED BY:
David K. Snyder
ECKBERG, LAMMERS, BRIGGS, WOLFF
& VIERLING, P.L.L.P.
1835 Northwestern Avenue
Stillwater, MN 55082
(651) 439-2878

CITY OF SHOREVIEW
CITY OF LINO LAKES
MUNICIPAL WATER SYSTEM CONNECTION
AND SHARED SERVICE AGREEMENT

1.0 **Parties**. This Agreement is dated the 19th day of FEBRUARY, 2002, and is entered into by and between the City of Shoreview, a Minnesota statutory city ("**Shoreview**") and the City of Lino Lakes, a Minnesota charter city ("**Lino Lakes**").

2.0 **Recitals**.

A. Pursuant to prior agreements, residential dwellings in the Baldwin Lake Area of Lino Lakes ("**Baldwin Lakes Area**") are connected to the Shoreview Water Utility System.

B. The Baldwin Lake Area is illustrated on Exhibit A attached.

C. In order to permit the continued use of its Water Utility System for residential dwellings in the Baldwin Lake Area, Shoreview wishes to install a project which would allow it to send a single monthly statement to Lino Lakes for all water supplied to the Baldwin Lake Area.

D. Lino Lakes would then be responsible for sending individual statements to its Baldwin Lake Area residents pursuant to regulations adopted by Lino Lakes.

3.0 **Terms and Conditions**. NOW, THEREFORE, in consideration of the mutual undertakings herein expressed, Shoreview and Lino Lakes agree:

A. **Project**. The Project shall consist of a metered connection system and all necessary appurtenances ("**Project**").

1. **Design/Construction**. The Project shall be designed and constructed by Lino Lakes or its contractors.

2. **Project Costs**. Shoreview shall reimburse Lino Lakes for fifty percent (50%) of the project costs incurred by Lino Lakes to design, construct, or implement the Project. The Lino Lakes City Engineer will notify the Shoreview Public Works Director of the estimated cost of the Project prior to award of a construction contract.

3. **Lino Lakes Easements**. Any temporary or permanent easements on, over, or under property within Lino Lakes which are necessary

in order to construct, operate or maintain the Project shall be acquired by Lino Lakes at its sole cost before construction of the Project.

4. **Ownership of Project**. Pipes, meters, and appurtenances installed as part of the Project shall be owned by Lino Lakes.

B. **Maintenance**. Except as herein provided, Lino Lakes shall be responsible for maintenance of any water mains within Lino Lakes that connect to the Project. Lino Lakes shall maintain the water mains which connect to the Project in good working order and in accordance with the American Waterworks Association Standards for Water Mains. All repair and maintenance shall be completed within a reasonable time.

C. **Defects/Emergencies**. Lino Lakes shall report to the Shoreview Director of Public Works any defects which occur in the Lino Lakes Water Main System. Lino Lakes shall have an on-call contractor available on a 24-hour basis for repair of its water main system. The Shoreview Director of Public Works may designate any defect as requiring an emergency repair if it will have significant impact on the use of the Shoreview Water Utility System by Shoreview residents or, if the defect will result in unmonitored use of the Shoreview Water Utility System. In the event of an emergency, repair procedures shall be undertaken as soon as reasonably possible, but nothing herein shall prevent Shoreview from taking appropriate steps to protect the security of the Shoreview Water Utility System and the health, safety and welfare of Shoreview residents. All repair and maintenance shall be completed within a reasonable time.

D. **Use Charges**. Lino Lakes shall pay Shoreview all water utility fees required by the Shoreview City Code, City resolutions and amendments thereto. The specific water use rate applicable to Lino Lakes shall be equal to Shoreview's middle tier rate plus 25%. The connecting meter shall be read by Shoreview personnel. A statement for the total water provided during the month, as determined by the Shoreview Director of Public Works, shall be mailed to Lino Lakes within a reasonable time after the last day of each month. Statements shall be due and payable within thirty (30) days of receipt.

E. **Shoreview Code and Regulations**. Lino Lakes shall comply with the provisions of the Shoreview City Code relating to its Water Utility System and any amendments thereto. All Shoreview codes and resolutions referred to in this Agreement are hereby incorporated. Nothing herein shall be construed to limit the authority of Shoreview to adopt or amend its ordinances or resolutions.

F. **Termination by Shoreview**. This Agreement may be terminated by Shoreview in the event that:

1. Lino Lakes violates the terms of this Agreement, the provisions of the Shoreview City Code relating to the Shoreview Water Utility System, or amendments thereto; and such violation continues for ten (10) days after Lino Lakes receives a written notice of violation from Shoreview.

2. Lino Lakes fails to properly maintain its water system.

3. Lino Lakes authorizes connections of any development outside the boundaries of the Baldwin Lake Area, without first notifying and securing approval from the Public Works Director of Shoreview.

4. Lino Lakes permits property which is used for non-residential purposes to be connected to the Shoreview Water Utility System, without first notifying and securing approval from the Public Works Director of Shoreview.

G. **Termination by Lino Lakes**. This Agreement may be terminated by Lino Lakes by providing Shoreview with a thirty (30) day written notice of intent to terminate.

H. **Continuation of Terms**. All obligations of this Agreement shall continue up to and including the date of termination by either party.

I. **Rescission of Prior Agreements**. Upon proper execution of this document by both parties, all prior agreements between the parties relating to the provision of municipal water by Shoreview to the Baldwin Lake Area are rescinded.

J. **Effective Date**. This Agreement shall be effective on approval of an appropriate resolution by each party and shall continue in full force and effect until terminated as herein provided.

IN WITNESS WHEREOF, the parties have hereunto set their hands.

CITY OF SHOREVIEW

Pursuant to authority granted by Council Resolution No. ___ adopted on the ___ day of _____, 2002.

By: Sandra Martin
Sandra Martin
Its: Mayor

By: _____
Terry Schwerm
Its: City Manager

CITY OF LINO LAKES

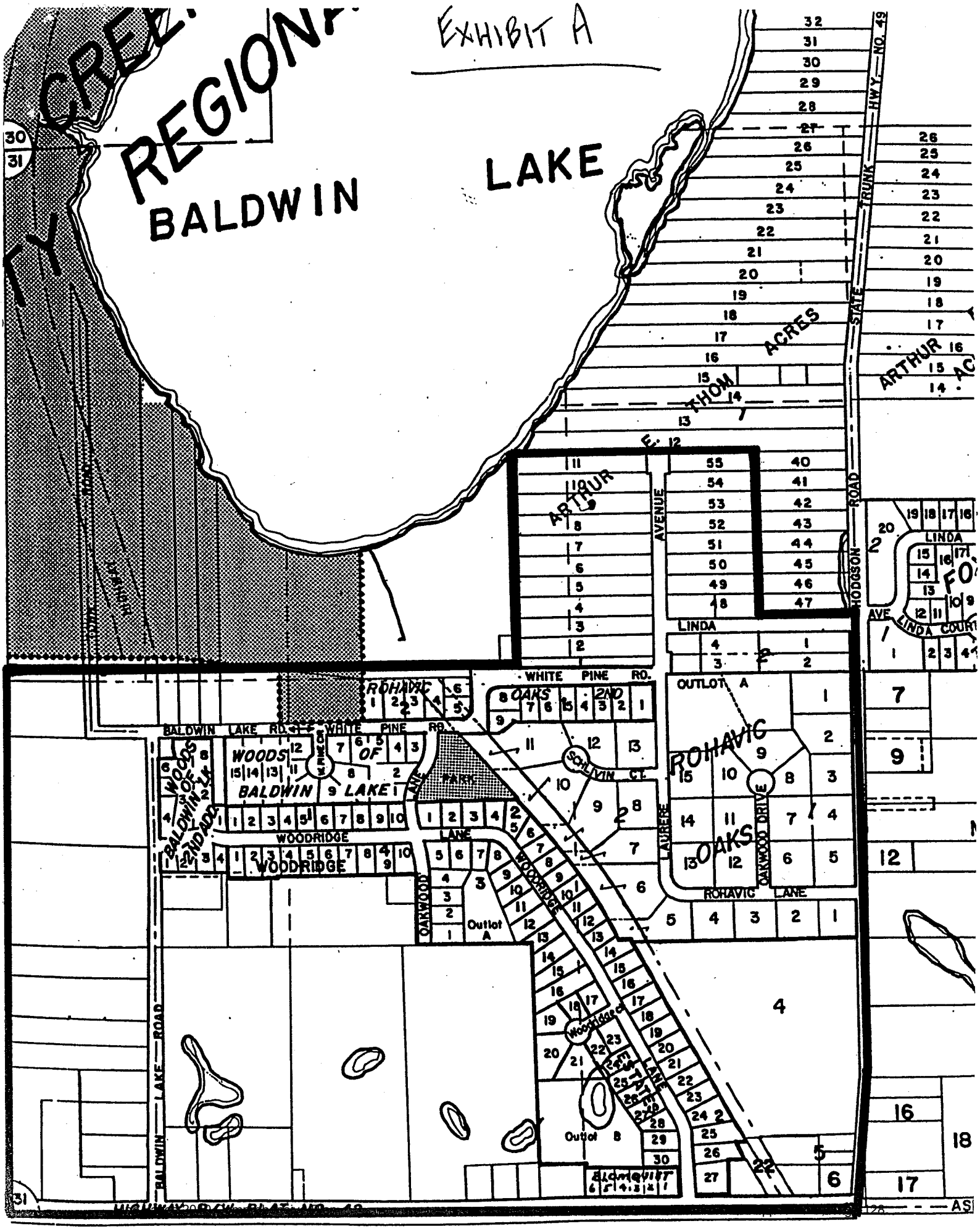
By: _____

Its: Mayor

By: _____

It's City Administrator

Pursuant to authority granted by Council Resolution No. 01-122 adopted on the 10th day of September, 2001.


EXHIBIT A
REGIONAL
CREEK
BALDWIN
LAKE
ROHAVIC
WHITE PINE RD.
BALDWIN LAKE RD.
WOODS OF BALDWIN LAKE
WOODS OF BALDWIN LAKE 2ND ADD
WOODRIDGE
OAKWOOD
OAKWOOD DRIVE
SULLIVAN CT.
LAUREE
LINDA
LINDA COURT
ARTHUR AVENUE
HODGSON ROAD
STATE TRUNK HWY. NO. 49
ACRES
OUTLOT A
Outlot A
Outlot B
PARK
LANE
BALDWIN LAKE ROAD
HIGHWAY R.O.W. PLAT NO. 49

Council Member Carlson introduced the following resolution and moved its adoption:

CITY OF LINO LAKES

RESOLUTION NO. 01-122

RESOLUTION APPROVING A JOINT POWERS AGREEMENT WITH THE CITY OF SHOREVIEW FOR WATER SYSTEM CONNECTION AND SHARED SERVICE AND TO AUTHORIZE THE MAYOR AND DEPUTY CITY CLERK TO SIGN THE AGREEMENT.

WHEREAS, Minnesota Statutes, Section 471.59, authorizes political subdivisions to enter into Joint Powers Agreements, and

WHEREAS, previous agreements allowed the City of Lino Lakes to receive water service from the City of Shoreview, and,

WHEREAS, the Cities wish to install a project which would allow Shoreview to send a single monthly statement to the City of Lino Lakes,

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF LINO LAKES, MINNESOTA:

1. Hereby approves the Joint Powers Agreement with the City of Shoreview for the water system connection and shared water service and authorizes the Mayor and Deputy City Clerk to sign the Agreement.

Adopted by the Lino Lakes City Council this 10th day of September, 2001.

John J. Bergeson, Mayor

Jean Viger, Deputy City Clerk

The motion for adoption of the foregoing resolution was duly seconded by Council Member Dahl and upon vote being taken thereon, the following voted in favor thereof: Bergeson, Carlson, Dahl, Reinert and O'Donnell

The following voted against same: None.

Whereupon said resolution was duly passed and adopted.

CERTIFICATION

I hereby certify that the above is a correct copy of a resolution duly passed, adopted and approved by the City Council on September 10, 2001.

Jean Viger, Deputy City Clerk

EXTRACT OF MINUTES OF MEETING OF THE

CITY COUNCIL OF SHOREVIEW, MINNESOTA

HELD FEBRUARY 19, 2002

* * * * * * * * * * * * *

Pursuant to due call and notice thereof, a meeting of the City Council of the City of Shoreview, Minnesota was duly called and held at the Shoreview City Hall in said City on February 19, 2002, at 7:00 p.m. The following members were present:

Mayor Martin, Council members Huffman, Quigley and Wickstrom

and the following members were absent: Member Landwehr

Member Wickstrom introduced the following resolution and moved its adoption.

RESOLUTION NO. 02-17

RESOLUTION APPROVING
MUNICIPAL WATER SYSTEM CONNECTION
AND SHARE SERVICE AGREEMENT WITH LINO LAKES

WHEREAS, Minnesota Statues, Section 471.59, authorizes Political Subdivisions to enter into Joint Powers Agreements, and

WHEREAS, previous agreements allowed the City of Lino Lakes to receive water service from the City of Shoreview, and

WHEREAS, the Cities wish to construct a project that would allow Shoreview to send a single statement to the City of Lino Lakes for water usage.

NOW, THEREFORE, BE IT RESOLVED by the City Council of Shoreview, Minnesota,

> Hereby approves the Municipal Water System Connection and Shared Service Agreement with Lino Lakes and authorizes the Mayor and City Manager to sign the Agreement.

The motion for the adoption of the foregoing resolution was duly seconded by Member Quigley and upon vote being taken thereon, the following voted in favor thereof: All members present,

and the following voted against the same: None

WHEREUPON, said resolution was declared duly passed and adopted this 19th day of February, 2002.

STATE OF MINNESOTA)
)
COUNTY OF RAMSEY)
)
CITY OF SHOREVIEW)

I, the undersigned, being the duly qualified and acting Manager of the City of Shoreview of Ramsey County, Minnesota, do hereby certify that I have carefully compared the attached and foregoing extract of minutes of a meeting of said City Council held on the 19th day of February, 2002 with the original thereof on file in my office and the same is a full, true and complete transcript therefrom insofar as the same relates to approving the Water System Connection and Shared Service Agreement.

WITNESS MY HAND officially as such Manager and the corporate seal of the City of Shoreview, Minnesota, this 20th day of February, 2002.

Terry C. Schwerm
City Manager

SEAL

Appendix 7

Municipal Critical Water Deficiency Ordinance

CHAPTER 209: EMERGENCY MANAGEMENT

Section

209.01 Policy and purpose

209.02 Definitions

209.03 Establishment of emergency management organization

209.04 Powers and duties of Director

209.05 Local emergencies

209.06 Emergency regulations

209.07 Emergency management a government function

209.08 Participation in labor disputes or politics

§ 209.01 POLICY AND PURPOSE.

Because of the existing possibility of the occurrence of disasters of unprecedented size and destruction resulting from fire, flood, tornado, blizzard, destructive winds or other natural causes, or from sabotage, hostile action, or from hazardous material mishaps of catastrophic measure; and in order to ensure that preparations of this city will be adequate to deal with those disasters, and generally, to provide for the common defense and to protect the public peace, health and safety, and to preserve the lives and property of the people of this city, it is hereby found and declared to be necessary:

(1) To establish a city emergency management organization responsible for city planning and preparation for emergency government operations in time of disasters;

(2) To provide for the exercise of necessary powers during emergencies and disasters;

(3) To provide for the rendering of mutual aid between this city and other political subdivisions of this state and of other states with respect to the carrying out of emergency-preparedness functions; and

(4) To comply with the provisions of M.S. Ch. 12, § 12.25, as it may be amended from time to time, which requires that each political subdivision of the state shall establish a local organization for emergency management.

(Ord. 11-07, passed 9-24-2007)

§ 209.02 DEFINITIONS.

For the purpose of this chapter, the following definitions shall apply unless the context clearly indicates or requires a different meaning.

DISASTER. A situation which creates an immediate and serious impairment to the health and safety of any person, or a situation which has resulted in or is likely to result in catastrophic loss to property, and for

which traditional sources of relief and assistance within the affected area are unable to repair or prevent the injury or loss.

EMERGENCY. An unforeseen combination of circumstances which calls for immediate action to prevent from developing or occurring.

EMERGENCY MANAGEMENT. The preparation for and the carrying out of all emergency functions, other than functions for which military forces are primarily responsible, to prevent, minimize, and repair injury and damage resulting from disasters caused by fire, flood, tornado and other acts of nature, or from sabotage, hostile action or from industrial hazardous material mishaps. These functions include, without limitation, fire-fighting services, police services, emergency medical services, engineering, warning services, communications, radiological and chemical evacuation, congregate care, emergency transportation, existing or properly assigned functions of plant protection, temporary restoration of public utility services and other functions related to civil protection, together with all other activities necessary or incidental for carrying out the foregoing functions. ***EMERGENCY MANAGEMENT*** includes those activities sometimes referred to as "civil defense" functions.

EMERGENCY MANAGEMENT FORCES. The total personnel resources engaged in city-level emergency management functions in accordance with the provisions of this chapter or any rule or order thereunder. This includes personnel from city departments, authorized volunteers and private organizations and agencies.

EMERGENCY MANAGEMENT ORGANIZATION. The staff responsible for coordinating city-level planning and preparation for disaster response. This organization provides city liaison and coordination with federal, state and local jurisdictions relative to disaster preparedness activities and assures implementation of federal and state program requirements.

(Ord. 11-07, passed 9-24-2007)

§ 209.03 ESTABLISHMENT OF EMERGENCY MANAGEMENT ORGANIZATION.

There is hereby created with the city government an emergency management organization which shall be under the supervision and control of the City Emergency Management Director, hereinafter called the "Director." The Director shall be appointed by the City Council/Mayor and shall be paid his or her necessary expenses. The Director shall have direct responsibility for the organization, administration and operation of the emergency preparedness organization, subject to the direction and control of the City Council/Mayor.

(Ord. 11-07, passed 9-24-2007)

§ 209.04 POWERS AND DUTIES OF DIRECTOR.

(1) The Director, with the consent of the Council/Mayor, shall represent the city on any regional or state conference for emergency management. The Director shall develop proposed mutual aid agreements with other political subdivisions of the state for reciprocal emergency management aid and assistance in an emergency too great to be dealt with unassisted, and shall present the agreements to the Council/Mayor for its action. The arrangements shall be consistent with the State Emergency Plan.

(2) The Director shall make studies and surveys of the manpower, industries, resources and facilities of the city as deemed necessary to determine their adequacy for emergency management and to plan for their most efficient use in time of an emergency or disaster. The Director of emergency management shall establish the economic stabilization systems and measures, service staffs, boards and sub-boards required, in accordance with state and federal plans and directions subject to approval of the Council/Mayor.

(3) The Director shall prepare a comprehensive emergency plan for the emergency preparedness of the city including municipal and unincorporated areas and shall present the plan to the Council/Mayor for its approval. When the Council/Mayor has approved the plan by resolution, it shall be the duty of all city agencies and all emergency preparedness forces of the city to perform the duties and functions assigned by the plan as approved. The plan may be modified in like manner from time to time. The Director shall coordinate the emergency management activities of the city to the end that they shall be consistent and fully integrated with the emergency plan of the federal government and the state and correlated with emergency plans of other political subdivisions within the state.

(4) In accordance with the state and county emergency plan, the Director shall institute training programs, public information programs and conduct practice warning alerts and emergency exercises as may be necessary to assure prompt and effective operation of the city emergency plan when a disaster occurs.

(5) The Director shall utilize the personnel, services, equipment, supplies and facilities of existing departments and agencies of the city to the maximum extent practicable. The officers and personnel of all such departments and agencies shall, to the maximum extent practicable, cooperate with and extend the services and facilities to the City Emergency Management organization and to the Governor upon request. The head of each department or agency, in cooperation with the Director, shall be responsible for the planning and programming of the emergency activities as will involve the utilization of the facilities of the department or agency.

(6) The Director shall, in cooperation with existing city departments and agencies affected, assist in the organizing, recruiting and training of the emergency management personnel that may be required on a volunteer basis to carry out the emergency plans of the city and state. To the extent that the emergency personnel recruited to augment a regular city department or agency for emergencies shall be assigned to the departments or agencies and shall be under the administration and control of the department or agency.

(7) Consistent with the state emergency services law, the director shall coordinate the activity of municipal emergency management organizations within the city and assist in establishing and conducting training programs as required to assure emergency operational capability in the several services (M.S. Ch. 12, § 12.25, as it may be amended from time to time).

(8) The Director shall carry out all orders, rules and regulations issued by the Governor with reference to emergency management.

(9) The Director shall act as principal aide and advisor to the city official responsible for direction and control of all city emergency operations during an emergency. The Director's main responsibility is to assure coordination among the operating departments, non-governmental groups, and with higher and adjacent governments.

(10) The Director shall prepare and submit reports on emergency preparedness activities as may be requested by the City Council/Mayor.

(Ord. 11-07, passed 9-24-2007)

§ 209.05 LOCAL EMERGENCIES.

(1) Only the Mayor of a municipality or their legal successors may declare a local emergency. It shall not be continued for a period in excess of three days except by or with the consent of the governing board of the political subdivision. Any order or proclamation declaring, continuing or terminating a local emergency shall be given prompt and general publicity and shall be filed promptly by the Chief of the locals records-keeping agency of the subdivision.

(2) A declaration of a local emergency shall invoke necessary portions of the response and recovery aspects of applicable local or inter-jurisdictional disaster plans, and may authorize aid and assistance there

under.

(3) No jurisdictional agency or official may declare a local emergency unless expressly authorized by the agreement under which the agency functions. However, an inter-jurisdictional disaster agency shall provide aid and services in accordance with the agreement under which it functions.

(Ord. 11-07, passed 9-24-2007)

§ 209.06 EMERGENCY REGULATIONS.

(1) Whenever necessary to meet a declared emergency or to prepare for an emergency for which adequate regulations have not been adopted by the Governor or the City Council/Mayor, the Council/Mayor may, by resolution, promulgate regulations, consistent with applicable federal or state law or regulation, respecting: the conduct of persons and the use of property during emergencies; the repair, maintenance and safeguarding of essential public services, emergency health, fire and safety regulation, drills or practice periods required for preliminary training, and all other matters which are required to protect public safety, health and welfare in declared emergencies.

(2) Every resolution of emergency regulations shall be in writing; shall be dated; shall refer to the particular emergency to which it pertains, if so limited, and shall be filed in the Office of the City Administrator, which copy shall be kept posted and available for public inspection during business hours. Notice of the existence of the regulation and its availability for inspection at the Administrator's Office shall be conspicuously posted at the front of the City Hall or other headquarters of the city or at such other places in the affected area as the Council/Mayor shall designate in the resolution. By like resolutions, the Council/Mayor may modify or rescind any regulation.

(3) The City Council/Mayor may rescind any regulation by resolution at any time. If not sooner rescinded, every regulation shall expire at the end of 30 days after its effective date or at the end of the emergency to which it relates, whichever comes first. Any resolution, rule or regulation inconsistent with an emergency regulation promulgated by the Council/Mayor shall be suspended during the period of time and to the extent the conflict exists.

(4) During a declared emergency, the city is, notwithstanding any statutory or charter provision to the contrary, empowered, through its governing body, acting within or without the corporate limits of city, to enter into contracts and incur obligations necessary to combat the disaster by protecting the health and safety of persons and property and providing emergency assistance to the victims of the disaster. The city may exercise powers in the light of the exigencies of the disaster without compliance with the time consuming procedures and formalities prescribed by law pertaining to the performance of public work, entering rental equipment agreements, purchase of supplies and materials, limitations upon tax levies and the appropriation and expenditure of public funds including, but not limited to, publication of resolutions, publication of call for bids, provisions of personnel laws and rules, provisions relating to low bids, and requirement for budgets.

(Ord. 11-07, passed 9-24-2007)

§ 209.07 EMERGENCY MANAGEMENT A GOVERNMENT FUNCTION.

All functions there under and all other activities relating to emergency management are hereby declared to be governmental functions. The provisions of this section shall not affect the right of any person to receive benefits to which he or she would otherwise be entitled under this resolution or under the worker's compensation law, or under any pension law, nor the right of any person to receive any benefits or compensation under any act of Congress.

(Ord. 11-07, passed 9-24-2007)

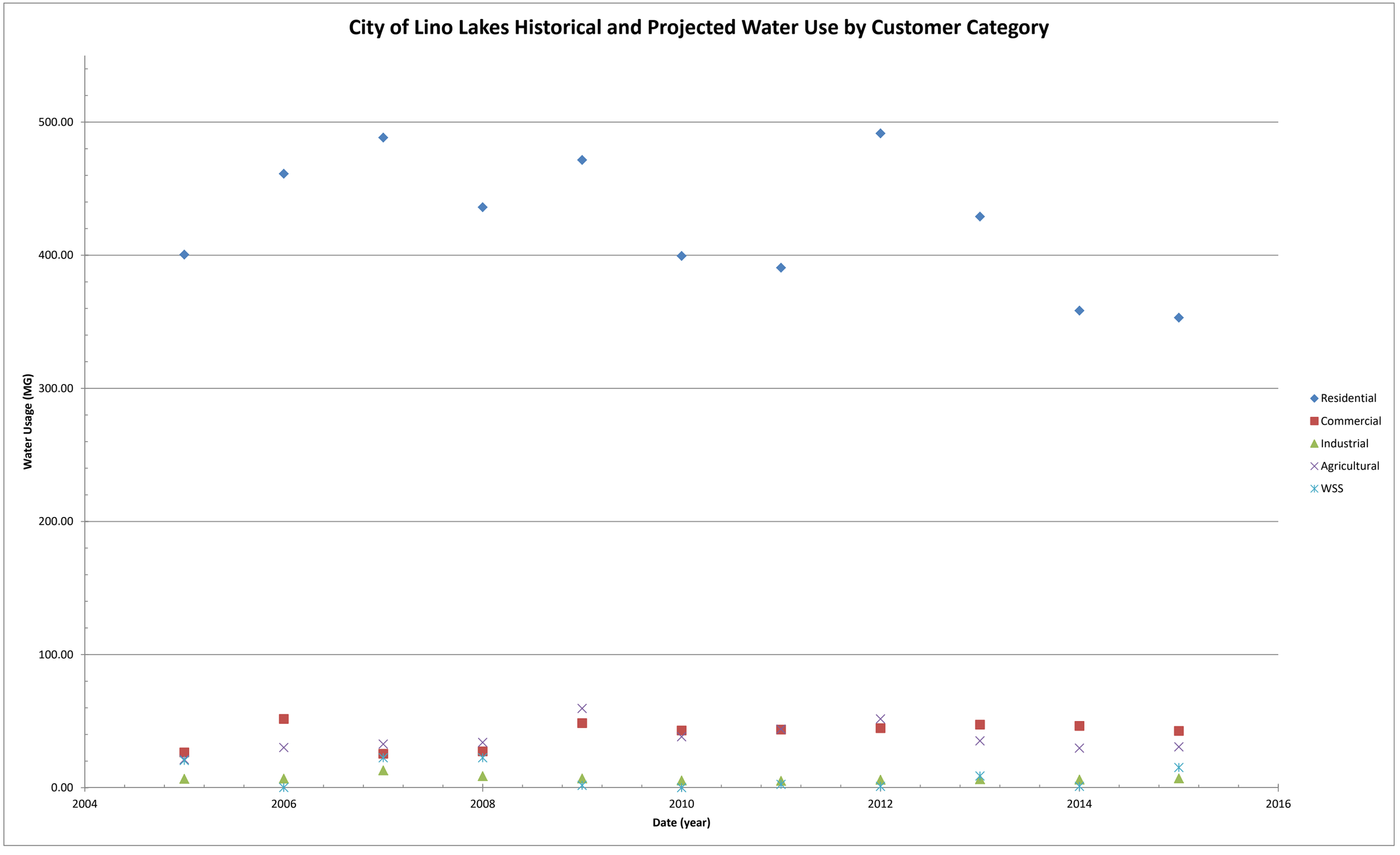
§ 209.08 PARTICIP ATION IN LABOR DISPUTES OR POLITICS.

The emergency management organization shall not participate in any form of political activity, nor shall it be employed directly or indirectly for political purposes, nor shall it be employed in a labor dispute.

(Ord. 11-07, passed 9-24-2007)

Appendix 8

Historic and Projected Annual per Capita Water Usage by Customer Category


City of Lino Lakes Historical and Projected Water Use by Customer Category
Water Usage (MG)
500.00
400.00
300.00
200.00
100.00
0.00
2004
2006
2008
2010
2012
2014
2016
Date (year)
Residential
Commercial
Industrial
Agricultural
WSS

Appendix 9

Water Rate Structure

1st Reading: November 25, 2013	**Publication:** December 17, 2013
2nd Reading: December 9, 2013	**Effective:** January 16, 2014

City of Lino Lakes
Ordinance No. 11-13

AN ORDINANCE SETTING WATER AND SEWER UTILITY RATES

The City of Lino Lakes City Council does ordain the following:

Section 1. Findings. Pursuant to Minnesota Law, the Lino Lakes City Charter, and the Lino Lakes City Code, and upon a review of a study conducted by City Staff, the water and sewer utility rate schedule is hereby adopted as follows:

Effective January 1, 2014:

Water Utility Rates

Residential

$10.00 Per Quarter / REU*, plus
$1.84 Per Thousand Gallons (0 – 20,000 Gal.)
$2.04 Per Thousand Gallons (20,001 – 40,000 Gal.)
$2.55 Per Thousand Gallons (40,001 – 80,000 Gal.)
$3.06 Per Thousand Gallons (80,001 – 120,000 Gal.)
$3.57 Per Thousand Gallons (over 120,000 Gal.)

Non-Residential Domestic

$10.00 Per Quarter / REU*, plus
$1.84 Per Thousand Gallons (0 – 20,000 Gal.)
$2.04 Per Thousand Gallons (20,001 – 40,000 Gal.)
$2.30 Per Thousand Gallons (over 40,000 Gal.)

Non-Residential Irrigation

$2.55 Per Thousand Gallons (0 – 40,000 Gal.)
$3.06 Per Thousand Gallons (40,001 – 80,000 Gal.)
$3.57 Per Thousand Gallons (over 80,000 Gal.)

Sewer Utility Rates

Metered Sewer Rate	$54.08/Quarter/REU*, plus $1.04 Per 1,000 Gallons Over 10,000 Gallons (based on winter average)
Flat Sewer Only	$64.08/Quarter/REU*

Effective January 1, 2015:

Water Utility Rates

Residential

$10.00 Per Quarter / REU*, plus
$1.87 Per Thousand Gallons (0 – 20,000 Gal.)
$2.08 Per Thousand Gallons (20,001 – 40,000 Gal.)
$2.60 Per Thousand Gallons (40,001 – 80,000 Gal.)
$3.12 Per Thousand Gallons (80,001 – 120,000 Gal.)
$3.64 Per Thousand Gallons (over 120,000 Gal.)

Non-Residential Domestic

$10.00 Per Quarter / REU*, plus
$1.87 Per Thousand Gallons (0 – 20,000 Gal.)
$2.08 Per Thousand Gallons (20,001 – 40,000 Gal.)
$2.35 Per Thousand Gallons (over 40,000 Gal.)

Non-Residential Irrigation

$2.60 Per Thousand Gallons (0 – 40,000 Gal.)
$3.12 Per Thousand Gallons (40,001 – 80,000 Gal.)
$3.64 Per Thousand Gallons (over 80,000 Gal.)

Sewer Utility Rates

Metered Sewer Rate	$55.70/Quarter/REU*, plus $1.07 Per 1,000 Gallons Over 10,000 Gallons (based on winter average)
Flat Sewer Only	$65.70/Quarter/REU*

* REU = a residential equivalent connection:

1. Residential – a single housing unit
2. Non-Residential REU = per Met Council Service Availability Charge Procedures Manual

Non-Residential users with irrigation systems that do not have a separate irrigation meter will be charged at residential rates until such time that a separate irrigation meter is installed and inspected.

Section 2. Effective Date of Ordinance. This Ordinance shall be effective as of January 1, 2014.

Passed by the Lino Lakes City Council this 9th day of December, 2013.

Jeff Reinert, Mayor

ATTEST:

Julie Bartell, City Clerk

The motion for the adoption of the foregoing ordinance was introduced by Council Member Roeser and was duly seconded by Council Member Rafferty and upon vote being taken thereon, the following voted in favor thereof:

Roeser, Rafferty, O'Donnell, Stoesz, Reinert

The following voted against same:
none

CITY COUNCIL
AGENDA ITEM 5A

STAFF ORIGINATOR: Rick DeGardner, Public Services Director

MEETING DATE: December 9, 2013

TOPIC: Second Reading of Ordinance No. 11-13 Setting the Water and Sewer Utility Rate Schedule.

VOTE REQUIRED: 3/5

INTRODUCTION

The First Reading and Public Hearing were conducted on November 25, 2013 on the proposed adjustment in water and sewer utility rates. The last water rate increase was in 2009 and the last sewer rate increase was 2001.

BACKGROUND

In June, 2012, the City Council authorized Springsted, Inc., to perform a utility rate study for the City. This study was prepared and coordinated with the Water Management and Conservation Plan. The Water and Sewer Rate Study (dated January 28, 2013) was originally presented to the City Council at the February, 2013 work session. Since then, the City Council has analyzed and discussed various reports/information during the March, April, June, July, and November work sessions.

The rate structure and other revenue in each fund must provide sufficient revenue to cover anticipated operating and maintenance expenses, debt service including principal and interest, capital improvements, replacements, and to provide adequate cash reserves. At the same time, the rate structure should promote water conservation. Total revenue collected should reflect not only recent cost experience, but should recognize anticipated future costs during the period for which rates are being established.

The attached proposed rate adjustments are expected to provide sufficient revenues that will cover capital and operational costs. A 2% water rate increase for 2014 and a 2% increase in 2015 is recommended. The proposed sewer rates reflect a 4% rate increase for 2014 and 3% increase for 2015. The primary reason sewer rates need to be increased is to more fully fund depreciation (last increased in 2001). It should be noted that the current Water Availability Charges (WAC) and Sewer Availability Charges (SAC) are adequate to fund projected capital costs.

RECOMMENDATION

Staff is recommending that the City Council approve the second reading of Ordinance 11-13. The adopted rates will be implemented in January, 2014.

ATTACHMENTS

Ordinance 11-13.

Appendix 10

Adopted Regulations to Reduce Water Demand or Improve Water Efficiency

§ 401.03 USE OF WATER RESTRICTED TO AUTHORIZED PERSONS.

(1) *Use of water restricted to authorized persons.* No person shall make, construct or install any water service installation or make use of any water service which is connected to the water system except in the manner provided in this chapter.

(2) *Annual water use r*estrictions. To protect the health and safety of the consumers and the general welfare of the city, and to encourage water conservation, the city hereby adopts the following permanent restrictions.

(a) The irrigating or watering of lawns and gardens is prohibited from May 15 to September 15 each year; provided, however, that odd-numbered property addresses may water on odd-numbered days, and even-numbered property addresses may water on even-numbered days.

(b) Homeowner's associations, apartment complexes or any property that provide a common irrigation system may water only every other day.

(c) Water can not be used for the purposes of irrigating or watering lawns, gardens, sod or seeded areas between 10:00 a.m. and 6:00 p.m. daily and year around.

(3) *Authority to restrict use.* The City of Lino Lakes hereby reserves the right to limit the use of water from the city water supply and distribution system and to prescribe emergency conditions for use of water. The City Administrator or Director of Public Services may in his or her discretion implement emergency measures if necessary supplementing the sprinkling ban under division (1) with a total prohibition on sprinkling.

(4) Exceptions. The water use restrictions in § 402.03(1) do not apply in the following situations.

(a) Hand watering of plants using a hose.

(b) Irrigating or watering of new landscaping, sod or seed within 28 days of installation. A permit for 28-day new landscaping, sod or seed watering will be required; or

(c) Property owners using a private well for sprinkling.

(5) Violation. No person shall cause water to be used in violation of the provisions of this section. The first violation shall result in a $25 citation, and a $50 subsequent citation for those individuals who repeat violations.

(Prior Code, § 401.02) (Am. Ord. 14-04, passed 6-14-2004; Am. Ord. 06-08, passed 4-14-2008)

Appendix 11

Implementation Checklist

City of Lino Lakes
Implementation Checklist

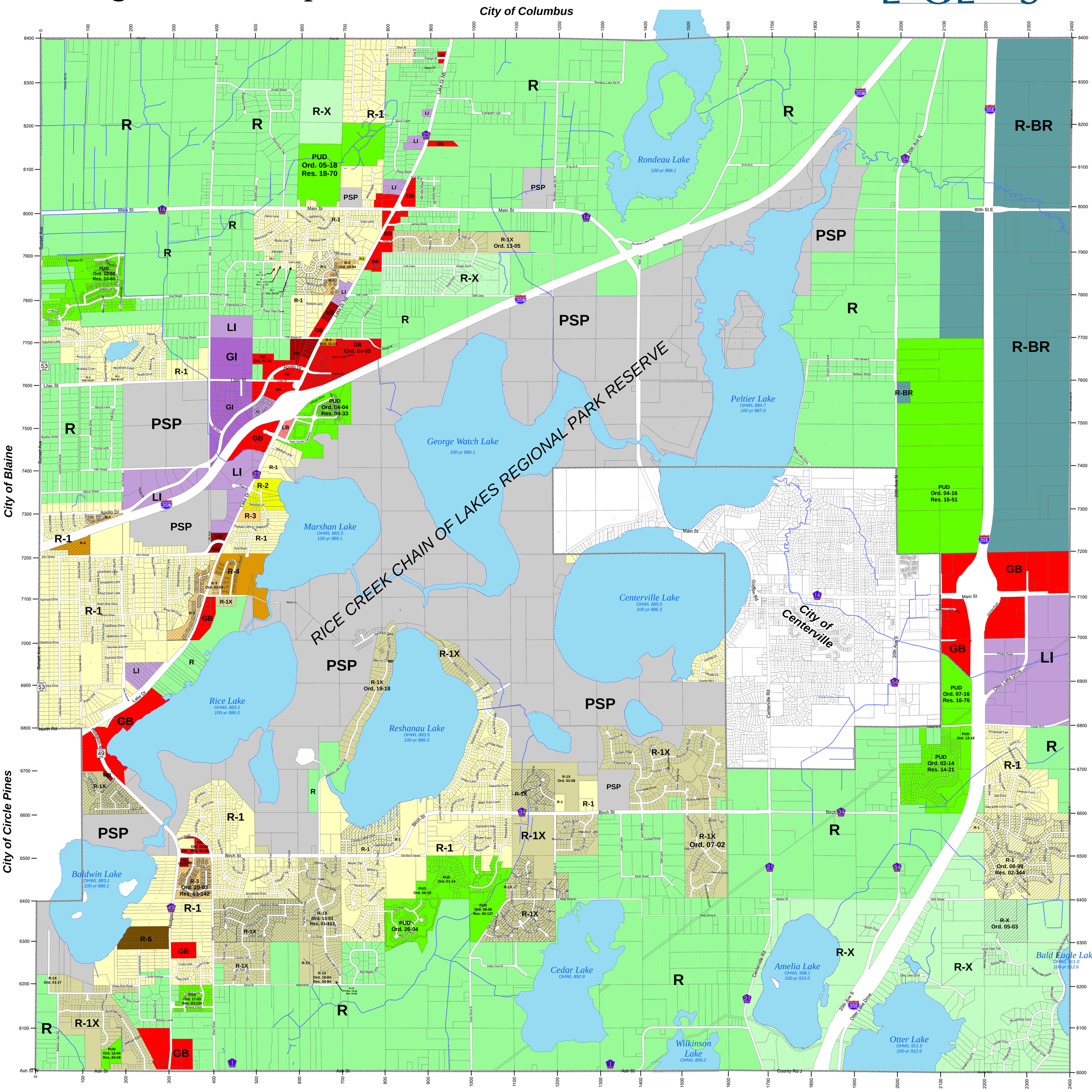
Action	Description	Timeframe				
		ongoing	annually	1-3 yrs	1-5 yrs	3-6 yrs
Review city ordinances/codes	To encourage or require water efficient landscaping	✓				
Make water system infrastructure improvements	As needed or outlined in the Comprehensive Plan	✓				
Rebates	Consider applying for the Metropolitan Council Water Efficiency Grant.			✓		
Conduct audience-appropriate water conservation education and outreach		✓				
Conduct a facility water use audit	For both indoor and outdoor use, including system components		✓			
Install enhanced meters	Capable of automated readings to detect spikes in consumption	✓				
Install water conservation fixtures and appliances or change processes to conserve water	Toilets, faucets, etc.	✓				
Repair leaking system components	(e.g., pipes, valves)	✓				
Investigate the reuse of reclaimed water	(e.g., stormwater, wastewater effluent, process wastewater, etc.)	✓				
Reduce outdoor water use	(e.g., turf replacement/reduction, rain gardens, rain barrels, smart irrigation, outdoor water use meters, etc.)	✓				
Train employees how to conserve water	Include for new employee training - hydrant flushing, water main breaks	✓				
Implement notification system	To inform non-residential customers when water avialability conditions change	✓				
Implement a stormwater management program	To address runoff quality and quantity	✓				
Consumer Confidence Reports	Report of City's water quality		✓			
Direct mailings (water audit/retrofit kits, showerheads, brochures)	Lino Lakes will continue to use the community newsletter to educate residents on water conservation, turf management, and wellhead protection.	✓				
K-12 Education programs (Project Wet, Drinking Water Institute, presentations)	Making programs to educate school age children on water resources		✓			
Sustainability Report			✓			

Appendix D: Implementation



City of Lino Lakes

Zoning District Map



Lino Lakes
Community Development
600 Town Center Parkway
Lino Lakes, Minnesota 55014

Phone (651) 982-2400

HOUSE NUMBERING SYSTEM

Coordinate System:
Anoka County NAD83 Feet
Lambert Conformal Conic

Anoka County Parcel Data:
Jun 2017 Release

March 21, 2019

Maps are for illustrative purposes only.
Recent changes may not be included.
Land Use and Zoning Information
should be verified with City Staff.

Legend

- Parcels
- Streams
- Lake
- PDO Planned Development

ZONING

- R Rural
- R-X Rural Executive
- R-1 Single Family Residential
- R-1X Single Family Executive
- R-2 Two Family Residential
- R-3 Medium Density Residential
- R-4 High Density Residential
- R-6 Manufactured Home Park
- LB Limited Business
- GB General Business
- NB Neighborhood Business
- GI General Industrial
- LI Light Industrial
- R-BR Rural/Business Reserve
- PSP Public Semi-Public
- PUD

Updated Through Ordinance No. 19-18

Map Document: J:\gis\city\Lino Lakes\Maps\ZoningDistrictMap.mxd

Five Year Capital Plan 2019 - 2023 CIP

		Program Year	Project Name	Project Type		Area & Unit	SWMP	MSAS	County Funds	TIF	Assessments	Property Tax Bonding	GF Tax Levy	Sanitary Operating	Water Operating	Other Funding	check
3		2019	Cedar Street	Streets	$ 978,500	$ -	$ -	$ 350,000	$ -	$ -	$ 250,000	$ -	$ -	$ -	$ -	$ 378,500	$ 978,500
4	1	2019	Gravity Trunk Sewer NE Area SD 5A	Utility	$ 367,500	$ 367,500	$ -	$ -	$ -	$ -		$ -	$ -	$ -	$ -	$ -	$ 367,500
5	2	2019	NE Drainage Area PH 1 & 2 20th to Peliter; 35Exing	Utility	$ 3,150,000	$ -	$ 3,150,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 3,150,000
6	3	2019	Sanitary Sewer Lining Project	Utility	$ 55,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 55,000	$ -	$ -	$ 55,000
7	4	2019	Street Rehabilitation Program	Streets	$ 630,000	$ -					$ -	$ -	$ 630,000	$ -	$ -	$ -	$ 630,000
8	5	2019	Surface Water Management Project	Utility	$ 140,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 140,000	$ -	$ -	$ -	$ 140,000
9	6	2019	Water Tower No. 3	Utility	$ 4,350,000	$ 4,350,000.00	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 4,350,000
10																	
11		**2019**	**2019 Total**		**$ 9,671,000**	**$ 4,717,500**	**$ 3,150,000**	**$ 350,000**	**$ -**	**$ -**	**$ 250,000**	**$ -**	**$ 770,000**	**$ 55,000**	**$ -**	**$ 378,500**	$ 9,671,000
12																	
13	7	2020	49/J intersection improvements	Streets	$ 350,000			$ 100,000								$ 250,000	$ 350,000
14	8	2020	Lake Drive Trunk Wtr (Park Ct. to Forsham Lake Dr)	Utility	$ 170,000	$ 170,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -		$ -		$ 170,000
15	9	2020	Sanitary Sewer Lining Project	Utility	$ 58,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 58,000	$ -	$ -	$ 58,000
16	10	2020	Street Rehabilitation Program	Streets	$ 661,500	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 661,500	$ -	$ -	$ -	$ 661,500
17	11	2020	Surface Water Management Project	Utility	$ 154,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 154,000	$ -	$ -	$ -	$ 154,000
18	11	2020	Well No. 1 Pumphouse Revision	Utility	$ 650,000										$ 650,000		$ 650,000
19	12	2020	Upgrade LS No. 8	Utility	$ 73,500	$ -					$ -	$ -	$ -	$ 73,500	$ -	$ -	$ 73,500
20	13	2020	Woodridge Lane to Hodgson Road Trunk SWR/Watermain Loop	Utility	$ 600,000	$ 200,000.00										$ 400,000.00	$ 600,000
21																	
22		**2020**	**Total**		**$ 2,717,000**	**$ 370,000**	**$ -**	**$ 100,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 815,500**	**$ 131,500**	**$ 650,000**	**$ 650,000**	**$ 2,717,000**
23																	$ -
24	14	2021	Birch Street Recon - Ware to Deerwood LN	Streets	$ 5,000,000			$ 300,000.00	$ 4,700,000.00								$ 5,000,000
25	15	2021	County Road J/Centerville Road Intersection	Utility	$ 1,500,000			$ 250,000	$ 1,000,000							$ 250,000	$ 1,500,000
26	16	2021	Lift Station and Forcemain SD 3D (Nadeau)	Utility	$ 252,000	$ 52,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 200,000	$ 252,000
27	17	2021	Raw Watermain wells 1,5 and 6 to future WTP No. 1 site	Utility	$ 1,575,000	$ 1,575,000.00	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,575,000
28	18	2021	Sanitary Sewer Lining Project	Utility	$ 61,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 61,000	$ -		$ 61,000
29	19	2021	Street Rehabilitation Program	Streets	$ 727,650	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 727,650	$ -	$ -	$ -	$ 727,650
30	20	2021	Street Reconstruction	Streets	$ 2,524,000	$ -	$ -	$ -	$ -	$ -	$ -	$ 2,524,000	$ -	$ -	$ -	$ -	$ 2,524,000
31	21	2021	Surface Water Management Project	Utility	$ 169,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 169,000	$ -	$ -	$ -	$ 169,000
32	22	2021	Well No. 7 with Pumphouse	Utility	$ 1,100,000	$ 1,100,000.00	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,100,000
33																	$ -
34		**2021**	**Total**		**$ 12,908,650**	**$ 2,727,000**	**$ -**	**$ 550,000**	**$ 5,700,000**	**$ -**	**$ -**	**$ 2,524,000**	**$ 896,650**	**$ 61,000**	**$ -**	**$ 450,000**	$ 12,908,650
35																	$ -
36	23	2022	Main Street Trail - LL Elem to 35W	Trail	$ 1,200,000			$ 150,000								$ 1,050,000	$ 1,200,000
37	24	2022	Sanitary Sewer Lining Project	Utility	$ 64,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 64,000	$ -	$ -	$ 64,000
38	25	2022	Street Rehabilitation Program	Streets	$ 800,415	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 800,415	$ -	$ -	$ -	$ 800,415
39	26	2022	Surface Water Management Project	Utility	$ 186,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 186,000	$ -	$ -	$ -	$ 186,000
40	27	2022	Trunk SWR Century Farm North SD 2I	Utility	$ 1,050,000	$ 250,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 800,000	$ 1,050,000
41	28	2022	Upgrade LS No. 10 (Century Farm North; SD 2I)	Utility	$ 73,500	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 73,500	$ -	$ -	$ 73,500
42																	$ -
43		**2022**	**Total**		**$ 3,373,915**	**$ 250,000**	**$ -**	**$ 150,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 986,415**	**$ 137,500**	**$ -**	**$ 1,850,000**	$ 3,373,915
44																	
45	29	2023	Surface Water Management Project	Utility	$ 200,000	$ -	$ -	$ -	$ -	$ -	$ -	$ 200,000	$ -	$ -	$ -	$ -	$ 200,000
46	30	2023	Lake Drive Trunk Wtr PH 3- (2nd Ave- Ivy Ct)	Utility	$ 627,000	$ 627,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 627,000
47	31	2023	Maple Street LS and Forcemain SD 2K	Utility	$ 300,000	$ 300,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 300,000
48	32	2023	Street Rehabilitation Program	Streets	$ 880,500	$ -	$ -		$ -	$ -	$ -	$ -	$ 880,500	$ -	$ -	$ -	$ 880,500
49	33	2023	Street Reconstruction - Oak Ln, Joyer, Karth, Tralle, Canfield, Gaage	Streets	$ 2,780,000	$ -	$ -	$ -	$ -	$ -	$ -	$ 2,780,000	$ -	$ -	$ -	$ -	$ 2,780,000
50	34	2023	Water Treatment Plant No. 1	Utility	$ 12,000,000	$ 12,000,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 12,000,000
51	35	2023	Well No. 2 Pumphouse Revisions	Utiltiy	$ 650,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 650,000.00	$ -	$ 650,000
52	36	2023	West Side Relief Sewer SD 2E, 2F, 2I, 2J	Utility	$ 3,360,000	$ 3,360,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 3,360,000
53	37	2023	Sanitary Sewer Lining Project	Utility	$ 67,000									$ 67,000			$ 62,000
54																	
55		**2023**	**Total**		**$ 20,664,500**	**$ 16,287,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 2,780,000**	**$ 880,500**	**$ 67,000**	**$ 650,000**	**$ -**	$ 20,664,500
56																	
57			**Grand Total**		**$ 49,335,065**	**$ 24,351,500**	**$ 3,150,000**	**$ 1,150,000**	**$ 5,700,000**	**$ -**	**$ 250,000**	**$ 5,304,000**	**$ 4,349,065**	**$ 452,000**	**$ 1,300,000**	**$ 3,328,500**	**$ 49,335,065**

DISTRICT PROVISIONS

§ 1007.070 GENERAL ZONING DISTRICT PROVISIONS.

(1) *District Establishment.* The zoning districts are so designed as to assist in carrying out the intents and purposes of the Comprehensive Plan and to control residential densities in such a manner as to adequately provide public services and utilities. The zoning districts are based upon the Comprehensive Plan, which has the purpose of protecting the public health, safety, convenience, and general welfare by controlling the needs for public utilities, protecting against traffic congestion and accident hazards, protecting the public health from adverse influences generated by non-residential uses, protecting against the danger of fire conflagration, and other purposes of a similar nature. For purposes of this Ordinance, the City of Lino Lakes is hereby divided into the following zoning districts:

(a) *Rural Districts.*

1. R, Rural.
2. R-X, Rural Executive.

(b) *Residential Districts.*

1. R-1, Single Family Residential.
2. R-1X, Single Family Executive Residential.
3. R-EC, Single Family Estate Conservation District.
4. R-2, Two Family Residential.
5. R-3, Medium Density Residential.
6. R-4, High Density Residential.
7. R-6, Manufactured Home Park.
8. R-7, Manufactured Home Subdivision.

(c) *Business Districts.*

1. NB, Neighborhood Business.
2. LB, Limited Business.
3. GB, General Business.

(d) *Industrial Districts.*

1. LI, Light Industrial.
2. GI, General Industrial.

(e) *Special Districts.*

1. PSP, Public and Semi-Public.

2. R-BR, Rural Business Reserve.
3. PUD, Planned Unit Development.
4. AZO, Airport Zoning Overlay.
5. Shoreland Overlay.
6. Floodplain Overlay.

(2) *Zoning District Boundaries.* Zoning district boundary lines established by this Ordinance generally follow lot lines, the centerlines of railroad right-of-way lines, street rights-of-way, water courses or the corporate limit lines, all as they exist upon the effective date of this Ordinance.

(a) Appeals concerning the exact location of a zoning district boundary line shall be heard by the Council, serving as the Board of Adjustment and Appeals, pursuant to § 1007.018 of this Ordinance.

(b) Whenever any street, alley or other public way is vacated by official action of the City, the zoning district adjoining each side of such street, alley or public way shall be automatically extended to the center of such vacation, and all area included in the vacation shall then and henceforth be subject to all appropriate regulations of the extended districts.

(c) All streets, alleys, public ways and railroad rights-of-way, if not otherwise specifically designated, shall be deemed to be in the same zone as the property in the most restrictive classification immediately abutting upon such alleys, streets, public ways or railroad rights-of-way. Where the centerline of a street, alley, public way or railroad right-of-way serves as a district boundary, the zoning of such areas, unless otherwise specifically designated, shall be deemed to be the same as that of the abutting property up to such centerline.

(d) All areas within the corporate limits of the City which are under water and which are not shown as included within any zone shall be subject to all regulations of the zone which immediately adjoins such water area. If such water area adjoins two or more zones, the boundaries of each zone shall be construed to be extended into the water area in a straight line until they meet the other district at the half-way point and/or to the corporation limits.

(3) *Zoning Map.* The location and boundaries of the districts established by this text are hereby set forth on the Zoning Map, entitled "Zoning Map of Lino Lakes". Said map shall be on file with the Zoning Administrator, and hereinafter referred to as the "Zoning Map". Said map and all the notations, references and other information shown thereon shall have the same force and effect as if fully set forth herein and thereby made a part of this Ordinance by reference.

(4) *Annexations.* In the event of annexation proceedings becoming final before the permanent zoning is determined, the annexed area shall be placed in the most restrictive district and such classification shall be considered an interim step pending permanent classification.

RURAL DISTRICTS

§ 1007.080 R, RURAL DISTRICT.

(1) *Purpose.* This district is designed and intended to aid in guiding development toward fulfillment of the Comprehensive Plan and to serve the following functions:

(a) To preserve productive land for agricultural use and maintain "open space" within and near to urban areas.

(b) To help guide development of urban and rural areas along an orderly design to preserve continuity and efficiency of service.

(c) To provide a method by which the urban farm can be guided so as to control urban sprawl and still conserve land in an economic status until such time as the need is present for an amendment to the Comprehensive Plan.

(d) To reduce the possibilities of rural-urban conflicts in establishing types and levels of service, methods of financing the services and needs. To maintain an acceptable per capita cost for such services as sanitary sewer, water, police, fire, road maintenance, school transportation, and other necessary services.

(2) Lot and Yard Requirements.

(a) *Minimum Lot Size.* Ten (10) gross acres. Two (2) acres buildable, except as provided for in §1007.042 (2)(b)**.**

(b) *Minimum Lot Width.* Three hundred thirty (330) feet, except as provided for in §1007.042 (2)(b), which shall require a minimum lot width of two hundred (200) feet.

(c) *Setbacks.* (The greater of the following:)

1. From Streets.

a. *Local Street.* Thirty (30) feet.

b. *Collector or Arterial Street.* Forty (40) feet.

2. Rear Yard.

a. *Principal Building.* Thirty (30) feet.

b. *Accessory Building.* Thirty (30) feet.

3. Side Yard.

a. *Principal Building.* Ten (10) feet.

b. *Accessory Building.* Five (5) feet.

(d) *Rural Lot Resubdivision.* Principal and accessory buildings shall be located on a rural lot so as to allow for future resubdivision per §1007.003 (2)(d) of this Ordinance.

(3) Building Requirements.

(a) The minimum floor area for single family dwellings measured using the outside building dimensions shall be as follows:

3 Bedroom Rambler	1,050 square feet
2 Bedroom Rambler	1,010 square feet
1-1/2 Story	980 square feet
Split Foyer/Entry	980 square feet
Split Level-3 level minimum	980 square feet
Two Story	850 square feet

(b) All dwellings without basements in this district shall be required to provide an additional one hundred (100) square feet of floor area to house utilities.

(c) All dwellings shall have a double garage.

(4) *Height Regulations.* No building shall be erected or structurally altered to exceed thirty-five (35) feet in height. These regulations shall not apply to barns, silos, or other farm buildings.

(5) *Permitted Uses.* In the R District, no building or land shall be used and no building shall be erected, converted, or structurally altered, unless otherwise provided herein, except for one or more of the following uses:

(a) Agriculture, gardening and sod farming.

(b) Commercial greenhouses and nurseries.

(c) Day care facilities (fourteen (14) or fewer persons).

(d) Golf courses and driving ranges.

(e) Governmental and public regulated utility buildings and structures necessary for the health, safety and general welfare of the City.

(f) Keeping of farm animals of up to three hundred (300) animal units in conformance with Chapter 503. No more than one (1) animal unit per two (2) acres.

(g) Public parks.

(h) Single family detached dwellings.

(i) State licensed residential care facility serving six (6) or fewer persons.

(j) Temporary stands for the sale of agricultural products produced on the premises in accordance with §1007.043 (4)(g) of this Ordinance.

(k) Community Gardens operated by the city.

(6) *Accessory Uses.* Subject to applicable provisions of this Ordinance, the following are permitted accessory uses in the R District:

(a) Accessory apartments as regulated by §1007.049 of this Ordinance.

(b) Accessory buildings including garages, tool houses, sheds and similar buildings for storage of domestic and farm supplies, and non-commercial recreational equipment, as regulated by §1007.043 (4) of this Ordinance.

(c) Fences, as regulated by §1007.043 (18) of this Ordinance.

(d) Home occupation Level A as regulated by §1007.047 of this Ordinance.

(e) Operation, parking, or storage of such vehicles, equipment and machinery which are incidental and customary to permitted or conditional uses allowed in this district.

(f) Radio and television receiving antennas, satellite dishes, TVROs three (3) meters or less in diameter, short-wave radio dispatching antennas, or those necessary for the operation of electronic equipment including radio receivers, ham radio transmitters and television receivers as regulated by §1007.054 of this Ordinance.

(g) Recreational vehicles and equipment per §1007.043 (16) of this Ordinance.

(h) Signs as regulated by the city sign ordinance, Ord. No. 12-97, as amended, of the City Code.

(i) Swimming pools, sport courts and other recreational facilities which are operated for the enjoyment and convenience of the residents of the principal use and their guests, as regulated by §1007.043 (4) of this Ordinance.

(7) *Conditional Uses.* The following are conditional uses in the R District. These uses require a conditional use permit based on the standards and procedure outlined in §1007.016 of this Ordinance.

(a) Bicycle racing arenas, provided that:

1. The facility is provided adequate private on-site sewer and water facilities of sufficient size to accommodate the occupancy capacity of the arena.

2. Side yard setbacks shall not be less than fifty (50) feet.

3. Adequate screening from abutting residential uses and landscaping is provided in compliance with §1007.043 (17) of this Ordinance.

4. Adequate off-street parking and access is provided on the site or on lots directly abutting or directly across a public street or alley to the principal use in compliance with §1007.044 of this Ordinance and that such parking is adequately screened and landscaped from surrounding and abutting residential uses in compliance with §1007.043 (17) of this Ordinance.

5. Adequate off-street loading and service entrances are provided and regulated where applicable by §1007.045 of this Ordinance.

(b) Cemeteries provided that:

1. At minimum, the site accesses on a "collector" street.

2. Where abutting a rural or residential zoning district, the periphery of the site shall be screened in accordance with §1007.043 (17) of this Ordinance.

(c) Commercial and public radio and television transmitting antennas, and public utility microwave antennas less than two hundred (200) feet in height as regulated by §1007.054 of this Ordinance.

(d) Commercial Stables, Commercial Kennels, and similar uses provided that:

1. The applicable provisions of Chapter 503 are determined to be satisfied.

2. Property shall be in conformance with minimum lot size requirements of this zoning district.

3. Cages, enclosures, and housing facilities shall be a minimum of 50 feet from any neighboring habitable dwelling and 100 feet from any property line, or located in the middle of the parcel, whichever is greater.

(e) Veterinary Hospitals provided that:

1. Property shall be in conformance with minimum lot size requirements of this zoning district.

2. All areas in which animals are confined are located indoors and are properly soundproofed from adjacent properties.

3. Animal carcasses are properly disposed of in a manner not utilizing on-site garbage facilities or incineration and the carcasses are properly refrigerated during periods prior to disposal.

4. An animal kennel is permitted as an accessory use to the veterinary hospital provided that:

a. The number of animals boarded shall not exceed forty (40).

b. An enclosed indoor or exterior exercise area shall be provided to accommodate the periodic exercising of animals boarded at the kennel.

c. A ventilation system shall be designed so that no odors or organisms will spread between wards or to the outside air and will be capable of completely exchanging internal air at a rate of at least twice per hour. Air temperature must be maintained between 60 and 75 degrees Fahrenheit.

d. A room separate from the kennel area shall be provided of sufficient size to adequately separate animals that are sick or injured from healthy animals.

e. Indoor animal kennel floors and walls shall be made of non-porous materials or sealed concrete to make it non-porous.

f. Animal wastes shall be flushed down an existing sanitary sewer system or enclosed in a container of sufficient construction to eliminate odors and organisms and shall be properly disposed of at least once a day.

g. A commercial kennel license is obtained from the City.

5. The applicable provisions of Chapter 503 are determined to be satisfied.

6. All State Health Department and Minnesota Pollution Control Agency requirements for such facilities are met.

(f) Day care facilities (exceeding fourteen (14) persons) provided that:

1. Screening is provided along shared property boundaries. Such required fencing and screening shall comply with the applicable provisions of §1007.043 (17) of this Ordinance.

2. All day care facility operations comply with the minimum requirements of the Minnesota Department of Health and Human Services regulations, as may be amended.

(g) Planned unit development rural cluster subdivision as per §1007.024 of this Ordinance.

(h) Public and private airports provided that:

1. All applicable requirements of the Federal Aviation Administration (FAA), Minnesota Department of Transportation (MnDOT), and Metropolitan Airports Commission (MAC) are satisfactorily met.

(i) Public, Educational and Religious Buildings. Public or semi-public recreational buildings and neighborhood or community centers; public and private educational institutions limited to elementary, junior high and senior high schools; and religious institutions such as churches, chapels, temples, mosques and synagogues provided that:

1. Side yard setbacks shall not be less than fifty (50) feet.

2. Adequate screening from abutting residential uses and landscaping is provided in compliance with §1007.043 (17) of this Ordinance.

3. Adequate off-street parking and access is provided on the site or on lots directly abutting directly across a public street or alley to the principal use in compliance with §1007.044 of this Ordinance and that such parking is adequately screened and landscaped from surrounding and abutting residential uses in compliance with §1007.043 (17) of this Ordinance.

(j) Wild game farms and gun clubs provided that:

1. The principal use, function or activity is open, outdoor in character, and the site shall contain a minimum of one hundred (100) acres.

2. Not more than five (5) percent of the land area of the site be covered by buildings or structures.

3. Any operation involving the discharge of firearms shall comply with Section 504 of the City Code.

4. When abutting a residential use and a residential district, the property is screened and landscaped in compliance with §1007.043 (17) of this Ordinance.

(k) Home Occupation Level C as regulated by §1007.047 of this Ordinance.

(8) *Uses by Administrative Permit.* Subject to applicable provisions of this Ordinance, the following uses are allowed by administrative permit, as may be approved by the Zoning Administrator:

(a) Personal wireless service antennas as secondary uses as regulated by §1007.054 of this Ordinance.

(b) Home Occupation Level B as regulated by §1007.047 of this Ordinance.

(c) Open Air Market accessory to an institutional use and limited in area to 25% of the gross floor area of the principal building.

(d) Transient Merchants.

(9) *Interim Uses.* Subject to applicable provisions of this Ordinance, the following are interim uses in the R District and governed by §1007.017 of this Ordinance.

(a) Temporary Batch Plants.

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§ 1007.081 R-X, RURAL EXECUTIVE DISTRICT.

(1) *Purpose.* This district is designed and intended to aid in guiding development toward fulfillment of the Comprehensive Plan and to serve the following functions:

(a) To preserve productive land for agricultural use.

(b) To maintain "open space" within and near urban areas.

(c) To help guide development of urban and rural areas along an orderly design to preserve continuity and efficiency of service.

(d) To provide a method by which the urban farm can be guided so as to control urban sprawl and still conserve land in an economic status until such time as the need is present for an amendment to the Comprehensive Plan.

(e) To reduce the possibilities of rural-urban conflicts in establishing types and levels of service, methods of financing the services and needs. To maintain an acceptable per capita cost for such services as sanitary sewer, water, police, fire, road maintenance, school transportation, and other necessary services.

(f) To provide areas for high value, rural residences.

(2) *Lot and Yard Requirements.*

(a) *Minimum Lot Size.* Ten (10) gross acres. Two (2) acres buildable, except as provided for in §1007.042 (2)(b).

(b) *Minimum Lot Width.* Three hundred thirty (330) feet, except as provided for in §1007.042 (2)(b) which shall require a minimum lot width of two hundred (200) feet.

(c) *Setbacks.* (The greater of the following:)

1. From Street.

a. *Local Street.* Thirty (30) feet.

b. *Collector or Arterial Street.* Forty (40) feet.

2. *Rear Yard.*

a. *Principal Building.* Thirty (30) feet.

b. *Accessory Building.* Thirty (30) feet.

3. Side Yard.

a. 1) *Principal Building.* Ten (10) feet.

b. *Accessory Building.* Five (5) feet.

(d) *Rural Lot Resubdivision.* Principal and accessory buildings shall be located on a rural lot so as to allow for future resubdivision per §1007.003 (2)(d) of this Ordinance.

(3) Building Requirements.

(a) The minimum floor area for single family dwellings measured using the outside building dimensions shall be as follows:

Rambler	1,260 square feet
1-1/2 Story	1,092 square feet
Split Foyer/Entry	1,248 square feet
Split Level-3 level minimum	1,248 square feet
Two Story	1,040 square feet

(b) All dwellings without basements in this district shall be required to provide an additional one hundred (100) square feet of floor area to house utilities.

(c) All dwellings shall have a double garage.

(4) *Height Regulations.* No building shall be erected or structurally altered to exceed thirty-five (35) feet in height. These regulations shall not apply to barns, silos, or other farm buildings.

(5) *Permitted Uses.* In the R-X District, no building or land shall be used and no building shall be erected, converted, or structurally altered, unless otherwise provided herein, except for one or more of the following uses:

(a) Agriculture, gardening and sod farming.

(b) Commercial greenhouses and nurseries.

(c) Day care facilities (fourteen (14) or fewer persons).

(d) Golf courses and driving ranges.

(e) Governmental and public regulated utility buildings and structures necessary for the health, safety and general welfare of the City.

(f) Keeping of farm animals of up to three hundred (300) animal units in conformance with Chapter 503. No more than one (1) animal unit per two (2) acres.

(g) Public parks.

(h) Single family detached dwellings.

(i) State licensed residential care facility serving six (6) or fewer persons.

(j) Temporary stands for the sale of agricultural products produced on the premises in accordance with §1007.043 (4)(g) of this Ordinance.

(k) Community Gardens operated by the city.

(6) *Accessory Uses.* Subject to applicable provisions of this Ordinance, the following are permitted accessory uses in the R-X District:

(a) Accessory apartments as regulated by §1007.049 of this Ordinance.

(b) Accessory buildings including garages, tool houses, sheds and similar buildings for storage of domestic and farm supplies, and non-commercial recreational equipment, as regulated by §1007.043 (4) of this Ordinance.

(c) Fences, as regulated by §1007.043 (18) of this Ordinance.

(d) Home occupation Level A as regulated by §1007.047 of this Ordinance.

(e) Operation, parking, or storage of such vehicles, equipment and machinery which are incidental and customary to permitted or conditional uses allowed in this district.

(f) Radio and television receiving antennas, satellite dishes, TVROs three (3) meters or less in diameter, short-wave radio dispatching antennas, or those necessary for the operation of electronic equipment including radio receivers, ham radio transmitters and television receivers as regulated by §1007.054 of this Ordinance.

(g) Recreational vehicles and equipment per §1007.043 (16) of this Ordinance.

(h) Signs as regulated by the city sign ordinance, Ord. No. 12-97, as amended, of the City Code.

(i) Swimming pools, sport courts and other recreational facilities which are operated for the enjoyment and convenience of the residents of the principal use and their guests, as regulated by §1007.043 (4) of this Ordinance.

(7) *Conditional Uses.* The following are conditional uses in the R-X District. These uses require a conditional use permit based on the criteria and procedures outlined in §1007.016 this Ordinance.

(a) Cemeteries provided that:

1. At minimum, the site accesses on a “collector” street.

2. Where abutting a rural or residential zoning district, the periphery of the site shall be

screened in accordance with §1007.043 (17) of this Ordinance.

(b) Commercial and public radio and television transmitting antennas, and public utility microwave antennas less than two hundred (200) feet in height as regulated by §1007.054 of this Ordinance.

(c) Commercial Stables, Commercial Kennels, and similar uses provided that:

1. The applicable provisions of Chapter 503 are determined to be satisfied.

2. Property shall be in conformance with minimum lot size requirements of this zoning district.

3. Cages, enclosures, and housing facilities shall be a minimum of 50 feet from any neighboring habitable dwelling and 100 feet from any property line, or located in the middle of the parcel, which ever is greater.

(d) Veterinary Hospitals provided that:

1. Property shall be in conformance with minimum lot size requirements of this zoning district.

2. All areas in which animals are confined are located indoors and are properly soundproofed from adjacent properties.

3. Animal carcasses are properly disposed of in a manner not utilizing on-site garbage facilities or incineration and the carcasses are properly refrigerated during periods prior to disposal.

4. An animal kennel is permitted as an accessory use to the veterinary hospital provided that:

a. The number of animals boarded shall not exceed forty (40).

b. An enclosed indoor or exterior exercise area shall be provided to accommodate the periodic exercising of animals boarded at the kennel.

c. A ventilation system shall be designed so that no odors or organisms will spread between wards or to the outside air and will be capable of completely exchanging internal air at a rate of at least twice per hour. Air temperature must be maintained between 60 and 75 degrees Fahrenheit.

d. A room separate from the kennel area shall be provided of sufficient size to adequately separate animals that are sick or injured from healthy animals.

e. Indoor animal kennel floors and walls shall be made of non-porous materials or sealed concrete to make it non-porous.

f. Animal wastes shall be flushed down an existing sanitary sewer system or enclosed in a container of sufficient construction to eliminate odors and organisms and shall be properly disposed of at least once a day.

g. A commercial kennel license is obtained from the City.

5. The applicable provisions of Chapter 503 are determined to be satisfied.

6. All State Health Department and Minnesota Pollution Control Agency requirements for such facilities are met.

(e) Day care facilities (exceeding fourteen (14) persons) provided that:

1. Screening is provided along shared property boundaries. Such required fencing and screening shall comply with the applicable provisions of §1007.043 (17) of this Ordinance.

2. All day care facility operations comply with the minimum requirements of the Minnesota Department of Health and Human Services regulations, as may be amended.

(f) Planned unit development rural cluster subdivision as per §1007.024 of this Ordinance.

(g) Public, Educational and Religious Buildings. Public or semi-public recreational buildings and neighborhood or community centers; public and private educational institutions limited to elementary, junior high and senior high schools; and religious institutions such as churches, chapels, temples, mosques and synagogues provided that:

1. Side yard setbacks shall not be less than fifty (50) feet.

2. Adequate screening from abutting residential uses and landscaping is provided in compliance with §1007.043 (17) of this Ordinance.

3. Adequate off-street parking and access is provided on the site or on lots directly abutting directly across a public street or alley to the principal use in compliance with §1007.044 of this Ordinance and that such parking is adequately screened and landscaped from surrounding and abutting residential uses in compliance with §1007.043 (17) of this Ordinance.

(h) Home Occupation Level C as regulated by §1007.047 of this Ordinance.

(8) *Uses by Administrative Permit.* Subject to applicable provisions of this Ordinance, the following uses are allowed by administrative permit, as may be approved by the Zoning Administrator:

(a) Personal wireless service antennas as secondary uses as regulated by §1007.054 of this Ordinance.

(b) Home Occupation Level B as regulated by §1007.047 of this Ordinance.

(c) Open Air Market accessory to an institutional use and limited in area to 25% of the gross floor area of the principal building.

(d) Transient Merchants.

(9) *Interim Uses.* Subject to applicable provisions of this Ordinance, the following are interim uses in the R-X District and governed by §1007.017 of this Ordinance.

(a) Temporary Batch Plants.

RESIDENTIAL DISTRICTS

§ 1007.090 R-1, SINGLE FAMILY RESIDENTIAL DISTRICT.

(1) *Purpose.* This district is intended to provide a residential atmosphere for those persons desiring a single family neighborhood with a suburban density. This district is intended for development of single family detached homes on lots served with public sanitary sewer and water. Land to be zoned R-1 shall be served with public sanitary sewer and water; shall be in a Low Density Residential land use category according to the comprehensive plan; and development density shall be consistent with that land use category.

(2) *Lot and Yard Requirements.*

(a) *Minimum Lot Size.* Ten thousand eight hundred (10,800) square feet contiguous buildable land as defined by §1007.001 (2).

(b) *Minimum Lot Width.*

1. *Interior Lots.* Eighty (80) feet.

2. *Corner Lots.* One hundred (100) feet.

3. Lots of one and one-half (1.5) acres recorded prior to 22 February 1988 may be resubdivided in accordance with the following:

a. *Interior Lots.* Seventy-five (75) feet.

b. *Corner Lots.* Ninety-five (95) feet.

(c) *Minimum Lot Depth.* One hundred thirty-five (135) feet.

1. *Double Frontage Lots.* One hundred forty-five (145) feet.

(d) *Building Setbacks.*

1. *From Streets (Principal and Accessory Buildings)*

a. *Local Street.* Thirty (30) feet.

b. *Collector or Arterial Street.* Forty (40) feet.

2. *Rear Yard.*

a. *Principal Building.* Thirty (30) feet.

b. *Accessory Building.* Five (5) feet.

3. *Side Yard.*

a. *Principal Building.* Ten (10) feet.

b. *Accessory Building.* Five (5) feet.

(e) *Buffer*. Any property adjacent to a collector or arterial street shall provide a fifteen (15) foot buffer in accordance with §1007.043 (17).

(3) *Impervious Surface Coverage.* The impervious surface of the property shall not exceed forty percent (40%).

(4) *Building Requirements.*

(a) The minimum footprint, less garage area, for a single family dwelling unit shall be as follows:

3 Bedroom Rambler	1,050 square feet
2 Bedroom Rambler	1,010 square feet
1-1/2 Story	980 square feet
Split Foyer/Entry	980 square feet
Split Level - 3 level minimum	980 square feet
Two Story	850 square feet

(b) All dwellings without basements in this district shall be required to provide an additional one hundred (100) square feet of floor area to house utilities.

(c) All dwellings shall have a double garage at a minimum.

(d) All dwellings shall comply with the Design and Construction Standards of §1007.043 (2).

(5) *Height Regulations.* No building shall be erected or structurally altered to exceed thirty-five (35) feet in height except as allowed by §1007.043 (3).

(6) *Sanitary Sewer*. No R-1 subdivision creating a lot less than ten (10) acres shall be permitted in this district without public sanitary sewer and water.

(7) *Permitted Uses.* In the R-1 District, no building or land shall be used and no building shall be erected, converted or structurally altered unless otherwise provided herein, except for one or more of the following uses:

(a) Day care facilities serving fourteen (14) or fewer persons.

(b) Governmental and public regulated utility buildings and structures necessary for the health, safety and general welfare of the City.

(c) Public parks.

(d) Single family detached dwellings.

(e) State licensed residential care facility serving six (6) or fewer persons.

(f) Community Gardens operated by the city.

(8) *Accessory Uses.* Subject to applicable provisions of this Ordinance, the following are permitted accessory uses in the R-1 District:

(a) Accessory apartments as regulated by §1007.048 of this Ordinance.

(b) Accessory buildings including garages, tool houses, sheds and similar buildings for storage of domestic supplies and equipment, as regulated by §1007.043 (4) of this Ordinance.

(c) Fences, as regulated by §1007.043 (18) of this Ordinance.

(d) Home occupation Level A as regulated by §1007.047 of this Ordinance.

(e) Non-commercial greenhouses provided they do not exceed two hundred (200) square feet in area.

(f) Parking spaces and car ports for licensed and operable passenger cars and trucks.

(g) Radio and television receiving antennas, satellite dishes, TVROs three (3) meters or less in diameter, short-wave radio dispatching antennas, or those necessary for the operation of electronic equipment including radio receivers, ham radio transmitters and television receivers as regulated by §1007.054 of this Ordinance.

(h) Parking of recreational vehicles and equipment per §1007.044 (11) of this Ordinance.

(i) Signs, as regulated by Chapter 1010 of the City Code.

(j) Swimming pools, sport courts, and other recreational facilities which are operated for the use of the residents of the principal use and their guests as regulated by §1007.043 (4). This does not include racing/riding courses for off-road vehicles.

(9) *Conditional Uses.* The following are conditional uses in the R-1 District: These uses require a conditional use permit based on the criteria and procedures outlined in §1007.016 of this Ordinance.

(a) Cemeteries provided that:

1. At minimum, the site accesses on a collector street.

2. Where abutting a rural or residential zoning district, the periphery of the site shall be screened in accordance with §1007.043 (17) of this Ordinance.

(b) Commercial outdoor recreational areas including golf courses, country clubs, driving ranges, swimming pools, and similar facilities provided that:

1. The principal use, function or activity is open, outdoor in character.

2. Not more than five (5) percent of the land area of the site be covered by buildings or structures.

3. When abutting a residential use and a residential use district, the property is screened and landscaped in compliance with §1007.043 (17) of this Ordinance.

4. The site must be accessed via a collector street or arterial street.

(c) Day care facilities serving more than fourteen (14) persons provided that:

1. Day care facility has access to municipal sewer and water.

2. Screening is provided along shared property boundaries. Such required fencing and screening shall comply with the applicable provisions of §1007.043 (17) of this Ordinance.

3. All day care facility operations comply with the minimum requirements of the Minnesota Department of Health and Human Services regulations, as may be amended.

(d) Public, Educational, and Religious Buildings. Public or semi-public recreational buildings and neighborhood or community centers; limited to nursery, elementary, junior high and senior high schools; and religious institutions such as churches, chapels, temples, mosque, and synagogues provided that:

1. Side yards shall not be less than fifty (50) feet.

2. Adequate screening from abutting residential uses and landscaping is provided in compliance with §1007.043 (17) of this Ordinance.

3. Adequate off-street parking and access is provided on the site or on lots directly abutting directly across a public street or alley to the principal use in compliance with §1007.044 of this Ordinance and that such parking is adequately screened and landscaped from surrounding and abutting residential uses in compliance with §1007.043 (17) of this Ordinance.

(e) Home Occupation Level C as regulated by §1007.047 of this Ordinance.

(10) *Uses by Administrative Permit.* Subject to applicable provisions of this Ordinance, the following uses are allowed by administrative permit, as may be approved by the Zoning Administrator:

(a) Personal wireless service antennas as secondary uses as regulated by §1007.054 of this Ordinance.

(b) Home Occupation Level B as regulated by §1007.047 of this Ordinance.

(c) Open Air Market accessory to an institutional use and limited in area to 25% of the gross floor area of the principal building.

(d) Transient Merchants.

(11) *Interim Uses.* Subject to applicable provisions of this Ordinance, the following are interim uses in the R-1 District and governed by §1007.016 of this Ordinance.

(a) None.

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§ 1007.091 R-1X, SINGLE FAMILY EXECUTIVE RESIDENTIAL DISTRICT.

(1) *Purpose.* This district is intended to provide a residential atmosphere for those persons desiring a single family neighborhood with a suburban density. This district is intended for development of single family detached homes on lots served with public sewer and water. Land to be zoned R-1X shall be served with public sanitary sewer and water; shall be in a Low Density Residential land use category according to the comprehensive plan; and development density shall be consistent with that land use category.

(2) *Lot and Yard Requirements.*

(a) *Minimum Lot Size.* Twelve thousand eight hundred twenty-five (12,825) square feet contiguous buildable land as defined by §1007.001 (2) of this Ordinance.

(b) *Minimum Lot Width.*

1. *Interior Lots.* Ninety (90) feet.

2. *Corner Lots.* One hundred fifteen (115) feet.

(c) *Minimum Lot Depth.* One hundred thirty-five (135) feet.

1. *Double Frontage Lots.* One hundred forty-five (145) feet.

(d) *Building Setbacks.*

1. *From Streets (Principal and Accessory Buildings).*

a. *Local Street.* Thirty (30) feet.

b. *Collector or Arterial Street.* Forty (40) feet.

2. *Rear Yard.*

a. *Principal Building.* Thirty (30) feet.

b. *Accessory Building.* Five (5) feet.

3. *Side Yard.*

a. *Principal Building.* Ten (10) feet.

b. *Accessory Building.* Five (5) feet.

(e) *Buffer*. Any property adjacent to a collector or arterial street shall provide a fifteen (15) foot buffer in accordance with §1007.043 (17).

(3) *Impervious Surface Coverage.* The impervious surface of the property shall not exceed forty percent (40%).

(4) *Building Requirements.*

(a) The minimum footprint, less garage area, for a single family dwelling unit shall be as follows:

Rambler	1,260 square feet
1-1/2 Story	1,092 square feet
Split Foyer/Entry	1,248 square feet
Split Level - 3 level minimum	1,248 square feet
Two Story	1,040 square feet

(b) All dwellings without basements in this district shall be required to provide an additional one hundred (100) square feet of floor area to house utilities.

(c) All dwellings shall have a double garage of a minimum six hundred (600) square feet.

(d) All dwellings shall comply with the Design and Construction Standards of §1007.043 (2).

(5) *Height Regulations.* No building shall be erected or structurally altered to exceed thirty-five (35) feet in height except as allowed by §1007.043 (3).

(6) *Sanitary Sewer.* No R-1X subdivision creating a lot of less than ten (10) acres shall be permitted in this district without public sanitary sewer and water.

(7) *Permitted Uses.* In the R-1X District, no building or land shall be used and no building shall be erected, converted or structurally altered unless otherwise provided herein, except for one or more of the following uses:

(a) Day care facilities serving fourteen (14) or fewer persons.

(b) Governmental and public regulated utility buildings and structures necessary for the health, safety and general welfare of the City.

(c) Public parks.

(d) Single family detached dwellings.

(e) State licensed residential care facility serving six (6) or fewer persons.

(f) Community Gardens operated by the city.

(8) *Accessory Uses.* Subject to applicable provisions of this Ordinance, the following are permitted accessory uses in the R-1X District:

(a) Accessory apartments as regulated by §1007.048 of this Ordinance.

(b) Accessory buildings including garages, tool houses, sheds and similar buildings for storage of domestic supplies and equipment, as regulated by §1007.043 (4) of this Ordinance.

(c) Fences, as regulated by §1007.043 (18) of this Ordinance.

(d) Home occupation Level A as regulated by §1007.047 of this Ordinance.

(e) Non-commercial greenhouses provided they do not exceed two hundred (200) square feet in area.

(f) Parking spaces and car ports for licensed and operable passenger cars and trucks.

(g) Radio and television receiving antennas, satellite dishes, TVROs three (3) meters or less in diameter, short-wave radio dispatching antennas, or those necessary for the operation of electronic equipment including radio receivers, ham radio transmitters and television receivers as regulated by §1007.054 of this Ordinance.

(h) Parking of recreational vehicles and equipment per §1007.044 (11) of this Ordinance.

(i) Signs, as regulated by Chapter 1010 of the City Code.

(j) Swimming pools, sport courts, and other recreational facilities which are operated for the use of the residents of the principal use and their guests as regulated by §1007.043 (d). This does not include racing/riding courses for off-road vehicles.

(9) *Conditional Uses.* The following are conditional uses in the R-1X District: These uses require a conditional use permit based on the criteria and procedures outlined in §1007.016 of this Ordinance.

(a) Cemeteries provided that:

1. At minimum, the site accesses on a collector street.

2. Where abutting a rural or residential zoning district, the periphery of the site shall be screened in accordance with §1007.043 (17) of this Ordinance.

(b) Commercial outdoor recreational areas including golf courses, country clubs, driving ranges, swimming pools, and similar facilities provided that:

1. The principal use, function or activity is open, outdoor in character.

2. Not more than five (5) percent of the land area of the site be covered by buildings or structures.

3. When abutting a residential use and a residential use district, the property is screened and landscaped in compliance with §1007.043 (17) of this Ordinance.

4. The site must be accessed via a collector street or arterial street.

(c) Day care facilities serving more than fourteen (14) persons provided that:

1. Day care facility has access to municipal sewer and water.

2. Screening is provided along shared property boundaries. Such required fencing and screening shall comply with the applicable provisions of §1007.043 (17) of this Ordinance.

3. All day care facility operations comply with the minimum requirements of the Minnesota Department of Health and Human Services regulations, as may be amended.

(d) Public, Educational and Religious Buildings. Public or semi-public recreational buildings and neighborhood or community centers; limited to nursery, elementary, junior high and senior high schools; and religious institutions such as churches, chapels, temples, mosque, and synagogues provided that:

(e) Side yards shall not be less than fifty (50) feet.

1. Adequate screening from abutting residential uses and landscaping is provided in compliance with §1007.043 (17) of this Ordinance.

2. Adequate off-street parking and access is provided on the site or on lots directly abutting directly across a public street or alley to the principal use in compliance with §1007.044 of this Ordinance and that such parking is adequately screened and landscaped from surrounding and abutting residential uses in compliance with §1007.043 (17) of this Ordinance.

(f) Home Occupation Level C as regulated by §1007.047 of this Ordinance.

(10) *Uses by Administrative Permit.* Subject to applicable provisions of this Ordinance, the following uses are allowed by administrative permit, as may be approved by the Zoning Administrator:

(a) Personal wireless service antennas as secondary uses as regulated by §1007.044 of this Ordinance.

(b) Home Occupation Level B as regulated by §1007.047 of this Ordinance.

(c) Open Air Market accessory to an institutional use and limited in area to 25% of the gross floor area of the principal building.

(d) Transient Merchants.

(11) *Interim Uses.* Subject to applicable provisions of this Ordinance, the following are interim uses in the R-1X District and governed by §1007.001 of this Ordinance.

(a) None.

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§ 1007.093 R-2, TWO FAMILY RESIDENTIAL DISTRICT.

(1) *Purpose.* This district is intended to provide a residential atmosphere for those persons desiring a single family neighborhood with a suburban density. This district is intended for development of single and two family detached homes on lots served with public sewer and water: no land shall be zoned R-2 unless the site is within the MUSA and city sanitary sewer and city water are available. Land to be zoned R-2 shall be served with public sanitary sewer and water; shall be in a Low Density Residential or Medium Density Residential land use category according to the comprehensive plan; and development density shall be consistent with the land use category.

(2) *Lot and Yard Requirements.*

(a) *Minimum Lot Size.* Lot size shall consist of contiguous buildable land as defined by §1007.001 (2).

1. *Two Family.*

a. *Base Lots.* Fifteen thousand (15,000) square feet.

b. *Unit Lots.* Seven thousand five hundred (7,500) square feet.

2. *Single Family.* Seven thousand five hundred (7,500) square feet.

(b) *Minimum Lot Width.*

1. *Two Family.*

a. *Base Lots.* One hundred (100) feet.

b. *Unit Lots.* Fifty (50) feet.

2. *Single Family.*

a. *Interior Lots.* Sixty (60) feet.

b. *Corner Lots.* Eighty (80) feet.

(c) *Minimum Lot Depth.* One hundred twenty-five (125) feet.

1. *Double Frontage Lots.* One hundred thirty-five (135) feet.

(d) *Building Setbacks.*

1. *From Streets (Principal and Accessory Buildings).*

a. *Local Street.* Twenty-five (25) feet.

b. *Collector or Arterial Street.* Forty (40) feet.

2. *Rear Yard.*

a. *Principal Building.* Twenty-five (25) feet.

b. *Accessory Building.* Five (5) feet.

3. *Side Yard.*

a. *Principal Building.* Ten (10) feet.

b. *Accessory Building.* Five (5) feet.

4. *Zero Lot Line.* Side yard setback requirements shall not be applied to a common wall of a two family dwelling unit.

(e) *Buffer*. Where a side or rear lot line abuts a collector or arterial street a fifteen (15) foot wide buffer shall be provided in accordance with §1007.043 (17).

(3) *Impervious Surface Coverage Area.* The impervious surface of the property shall not exceed forty percent (40%) in a Low Density Residential land use area, or fifty percent (50%) in a Medium Density Residential land use area.

(4) *Building Design Standards.*

(a) Floor Area**.** The minimum footprint area, less garage area, for single and two family dwelling units shall be as follows:

1. *Single Family Dwellings.*

3 Bedroom Rambler	1,050 square feet
2 Bedroom Rambler	1,010 square feet
1-1/2 Story	980 square feet
Split Foyer/Entry	980 square feet
Split Level – 3 level minimum	980 square feet
Two Story	850 square feet

2. *Two Family Dwellings.* Eight hundred (800) square feet first floor above grade, plus one hundred (100) additional square feet for each bedroom.

(b) All dwellings without basements in this district shall be required to provide an additional one hundred (100) square feet of floor area to house utilities.

(c) Garages. All single family dwellings shall have a double garage and shall comply with the following:

1. Compliance with the Building Type and Construction Standards of §1007.043 (2), and

2. All garages, except side or rear loaded garages, shall not protrude forward of the front wall of the house, unless the house includes a front porch that is unenclosed, a minimum of 8 feet in depth, and extends across 100 percent of the front façade of the house. The garage shall then not protrude forward of the front porch, and

3. If the garage door faces the street, the length of the garage wall facing the street shall not be greater than fifty percent (50%) of the length of the entire front facade of the structure; except on houses that comply with all of the following conditions:

a. The second floor living space extends over the two-car portion of the garage; and

b. The garage doors are decorative and have a strip of windows; and

c. Garages in excess of two stalls shall be broken up so the additional stalls are recessed four feet from the main garage façade; and

d. Garage width does not exceed 32 feet.

(d) All dwellings shall comply with the Design and Construction Standards of §1007.043 (2).

(5) *Height Regulations.* No two family dwelling shall hereafter be erected or structurally altered to exceed thirty-five (35) feet in height.

(6) *Sanitary Sewer.* No R-2 subdivision creating a lot of less than ten (10) acres shall be permitted in this district without public sanitary sewer and water.

(7) *Permitted Uses.* In the R-2 District, no building or land shall be used and no building shall be erected, converted or structurally altered unless otherwise provided herein, except for one or more of the following uses:

(a) Day care facilities serving sixteen (16) or fewer persons.

(b) Governmental and public regulated utility buildings and structures necessary for the health, safety, and general welfare of the City.

(c) Public parks.

(d) Single family detached dwellings.

(e) State licensed residential care facility serving sixteen (16) or fewer persons.

(f) Two family dwellings.

(g) Community Gardens operated by the city.

(8) *Accessory Uses.* Subject to applicable provisions of this Ordinance, the following are permitted accessory uses in the R-2 District:

(a) Accessory buildings including garages, tool houses, sheds and similar buildings for storage of domestic supplies and equipment, as regulated by §1007.043 (4) of this Ordinance.

(b) Accessory apartments within single family homes as regulated by §1007.048 of this Ordinance.

(c) Fences per §1007.043 (18) of this Ordinance.

(d) Home occupation Level A as regulated by §1007.047 of this Ordinance.

(e) Non-commercial greenhouses provided they do not exceed two hundred (200) square feet in area.

(f) Parking and car ports for licensed and operable passenger cars and trucks.

(g) Radio and television receiving antennas, satellite dishes, TVROs three (3) meters or less in diameter, short-wave radio dispatching antennas, or those necessary for the operation of electronic equipment including radio receivers, ham radio transmitters and television receivers as regulated by §1007.054 of this Ordinance.

(h) Parking of recreational vehicles and equipment per §1007.044 (11) of this Ordinance.

(i) Signs as regulated by Chapter 1010 of the City Code.

(j) Swimming pools, sport courts, and other recreational facilities which are operated for the use of the residents of the principal use and their guests as regulated by §1007.043 (4). This does not include racing/riding courses for off-road vehicles.

(9) *Conditional Uses.* The following are conditional uses in the R-2 District: These uses require a conditional use permit based on the criteria and procedures outlines in §1007.001 of this Ordinance.

(a) Commercial outdoor recreational areas including golf courses, country clubs, driving ranges, swimming pools, and similar facilities provided that:

1. The principal use, function or activity is open, outdoor in character.

2. Not more than five (5) percent of the land area of the site be covered by buildings or structures.

3. When abutting a residential use and a residential use district, the property is screened and landscaped in compliance with §1007.043 (17) of this Ordinance.

4. The site shall be accessed via a collector street or arterial street.

(b) Day care facilities serving more than sixteen (16) persons provided that:

1. Such day care facility has access to municipal sewer and water or has adequate private sewer and water to protect the health and safety of all persons who occupy the facility.

2. Screening is provided along shared property boundaries. Such required fencing and screening shall comply with the applicable provisions of §1007.043 (17) of this Ordinance.

3. All day care facility operations comply with the minimum requirements of the Minnesota Department of Health and Human Services regulations, as may be amended.

(c) Public, educational, and religious buildings, public or semi-public recreational buildings and neighborhood or community centers limited to nursery, elementary, junior high and senior high schools; and religious institutions such as churches, chapels, temples, mosques, and synagogues provided that:

1. Side yard setbacks shall not be less than fifty (50) feet.

2. Adequate screening from abutting residential uses and landscaping is provided in compliance with §1007.043 (17) of this Ordinance.

3. Adequate off-street parking and access is provided on the site or on lots directly abutting directly across a public street or alley to the principal use in compliance with §1007.044 (4) of this Ordinance and that such parking is adequately screened and landscaped from surrounding and abutting residential uses in compliance with §1007.043 (17) of this Ordinance.

(d) Home Occupation Level C as regulated by §1007.047 of this Ordinance.

(10) *Uses by Administrative Permit.* Subject to applicable provisions of this Ordinance, the following uses are allowed by administrative permit, as may be approved by the Zoning Administrator:

(a) Personal wireless service antennas as secondary uses as regulated by §1007.054 of this Ordinance.

(b) Home Occupation Level B as regulated by §1007.047 of this Ordinance.

(c) Open Air Market accessory to an institutional use and limited in area to 25% of the gross floor area of the principal building.

(d) Transient Merchants.

(11) *Interim Uses.* Subject to applicable provisions of this Ordinance, the following are interim uses in the R-2 District and governed by §1007.016 of this Ordinance:

(a) None.

§ 1007.094 R-3, MEDIUM DENSITY RESIDENTIAL DISTRICT.

(1) *Purpose.* This district is intended to provide setting for multiple family structures of up to eight (8) dwelling units per building in areas that have good thoroughfare access, have proper relationship to other uses, and are accessible to major activity centers, recreation areas and shopping areas. Land to be zoned R-3 shall be served with public sanitary sewer and water; shall be in a Medium Density Residential land use category according to the comprehensive plan; and development density shall be consistent with that land use category.

(2) *Lot and Yard Requirements.*

(a) *Minimum Lot Size.* Lot size shall consist of contiguous buildable land as defined by §1007.001 (2).

1. *Base Lots.*

a. *Two Family Dwellings.* Fourteen thousand (14,000) square feet.

(b) *Townhomes and Other Multiple Family Dwellings.* Twenty four thousand (24,000) square feet.

(c) *Minimum Lot Width.*

1. *Base Lots.* One hundred (100) feet.

(d) *Minimum Lot Depth.* There is no minimum lot depth in the R-3 zoning district.

(e) *Building Setbacks.*

1. *From Streets (Principal and Accessory Buildings).*

a. *Residential Street.* Thirty (30) feet.

b. *Collector or Arterial Street.* Forty (40) feet.

c. *Parking Lot from street.* Fifteen (15) feet.

2. *Rear Yard.*

a. *Principal Building.* Thirty (30) feet.

b. *Accessory Building.* Five (5) feet.

c. *Parking Lot.* Five (5) feet.

3. *Side Yard.*

a. *Principal Building.* Ten (10) feet.

b. *Accessory Building.* Five (5) feet.

c. *Parking Lot.* Five (5) feet.

4. *Zero Lot Line.* Side yard setback requirements shall not be applied to a common wall of multi-family dwelling units.

5. *From Low Density Residential.* Principal buildings shall be a minimum of thirty-five (35) feet from any land guided for low density residential.

(f) *Buffer.* Where a side or rear lot line abuts land guided for low density residential, a collector street, or an arterial street a twenty (20) foot wide buffer shall be provided in accordance with §1007.043 (17).

(3) *Impervious Surface Coverage Area.* The impervious surface of the property shall not exceed fifty percent (50%) in a Medium Density Residential land use area, or sixty-five percent (65%) in a High Density Residential land use area.

(4) *Building Design Standards.*

(a) Floor Area**.** The minimum livable floor area for each multiple family dwelling unit shall be seven hundred (700) square feet plus one hundred (100) additional square feet for each bedroom.

(b) Utility Area. Dwellings with dedicated individual access shall be required to provide an additional one hundred (100) square feet of floor area to house utilities, unless a basement is present. Dwellings with shared access shall be required to provide adequate floor area within the building to house utilities.

(c) All dwelling units shall have parking provided in accordance with §1007.044 (6).

(d) All dwellings shall comply with the Design and Construction Standards of §1007.043 (2).

(5) *Height Regulations.* No building shall be erected or structurally altered to exceed the height of the greater of three stories or thirty-six (36) feet in height except as allowed by §1007.043 (3).

(6) *Sanitary Sewer***.** No R-3 subdivision creating a lot of less than ten (10) acres shall be permitted in this district without public sanitary sewer and water.

(7) *Permitted Uses.* In the R-3 District, no building or land shall be used and no building shall be erected, converted or structurally altered unless otherwise provided herein, except for one or more of the following uses:

(a) Day care facilities serving sixteen (16) or fewer persons.

(b) Governmental and public regulated utility buildings and structures necessary for the health, safety and general welfare of the City.

(c) Multiple dwellings containing eight (8) units or less.

(d) Public parks.

(e) State licensed residential care facility serving sixteen (16) or fewer persons.

(f) Townhomes and quadraminiums.

(g) Two family dwellings.

(h) Community Gardens operated by the city.

(8) *Accessory Uses.* Subject to applicable provisions of this Ordinance, the following are permitted accessory uses in the R-3 District:

(a) Accessory buildings including garages, tool houses, sheds and similar buildings for storage of domestic supplies and equipment, as regulated by §1007.043 (4) of this Ordinance.

(b) Fences per §1007.043 (18) of this Ordinance.

(c) Home occupation Level A as regulated by §1007.047 of this Ordinance.

(d) Non-commercial greenhouses provided they do not exceed two hundred (200) square feet in area.

(e) Parking and car ports for licensed and operable passenger cars and trucks.

(f) Radio and television receiving antennas, satellite dishes, TVROs three (3) meters or less in diameter, short-wave radio dispatching antennas, or those necessary for the operation of electronic equipment including radio receivers, ham radio transmitters and television receivers as regulated by §1007.054 of this Ordinance.

(g) Parking of recreational vehicles and equipment per §1007.044 (11) of this Ordinance.

(h) Signs as regulated by Chapter 1010 of the City Code.

(i) Swimming pools, sport courts, and other recreational facilities which are operated for the use of the residents of the principal use and their guests as regulated by §1007.043 (4). This does not include racing/riding courses for off-road vehicles.

(9) *Conditional Uses.* The following are conditional uses in the R-3 District: These uses require a conditional use permit based upon the criteria and procedures outlined in §1007.001 of this Ordinance.

(a) Commercial outdoor recreational areas including golf courses, country clubs, driving ranges, swimming pools, and similar facilities provided that:

1. The principal use, function or activity is open, outdoor in character.

2. Not more than five (5) percent of the land area of the site be covered by buildings or structures.

3. When abutting a residential use and a residential use district, the property is screened and landscaped in compliance with §1007.043 (17) of this Ordinance.

4. The site shall be accessed via a collector street or arterial street.

(b) Day care facilities serving more than sixteen (16) persons provided that:

1. Such day care facility has access to municipal sewer and water or has adequate private sewer and water to protect the health and safety of all persons who occupy the facility.

2. Screening is provided along shared property boundaries. Such required fencing and screening shall comply with the applicable provisions of §1007.043 (17) of this Ordinance.

3. All day care facility operations comply with the minimum requirements of the Minnesota Department of Health and Human Services regulations, as may be amended.

(c) Public, educational and religious buildings, public or semi-public recreational buildings and neighborhood or community centers limited to nursery, elementary, junior high and senior high schools; and religious institutions such as churches, chapels, temples, mosques, and synagogues provided that:

1. Side yard setbacks shall not be less than fifty (50) feet.

2. Adequate screening from abutting residential uses and landscaping is provided in compliance with §1007.043 (17) of this Ordinance.

3. Adequate off-street parking and access is provided on the site or on lots directly abutting or directly across a public street or alley to the principal use in compliance with §1007.044

of this Ordinance and that such parking is adequately screened and landscaped from surrounding and abutting residential uses in compliance with §1007.043 (17) of this Ordinance.

(d) Home Occupation Level C as regulated by §1007.047 of this Ordinance.

(10) *Uses by Administrative Permit.* Subject to applicable provisions of this Ordinance, the following uses are allowed by administrative permit, as may be approved by the Zoning Administrator:

(a) Personal wireless service antennas as secondary uses as regulated by §1007.054 of this Ordinance.

(b) Home Occupation Level B as regulated by §1007.047 of this Ordinance.

(c) Open Air Market accessory to an institutional use and limited in area to 25% of the gross floor area of the principal building.

(d) Transient Merchants.

(11) *Interim Uses.* Subject to applicable provisions of this Ordinance, the following are interim uses in the R-3 District and governed by §1007.017 of this Ordinance.

(a) None.

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§ 1007.095 R-4, HIGH DENSITY RESIDENTIAL DISTRICT.

(1) *Purpose.* This district is intended to provide setting for multiple family housing in areas that have good thoroughfare access, have proper relationship to other uses, and are accessible to major activity centers, recreation areas and shopping areas. Land to be zoned R-4 shall be served with public sanitary sewer and water; shall be in a High Density Residential land use category according to the comprehensive plan; and development density shall be consistent with that land use category.

(2) *Lot and Yard Requirements.*

(a) *Minimum Lot Size.* Lot size shall consist of contiguous buildable land as defined by §1007.001 (2).

1. *Base Lots.*

a. *Two Family.* Twelve thousand (12,000) square feet.

b. *Townhome/Quadraminium and Other Multiple Family Dwellings.* Twenty thousand (20,000) square feet.

(b) *Minimum Lot Width.*

1. *Base Lots.* One hundred (100) feet.

(c) *Minimum Lot Depth.* There is no minimum lot depth in the R-4 zoning district.

(d) *Building Setbacks.*

1. *From Streets.*

a. *Residential Street.* Thirty (30) feet.

b. *Collector or Arterial Street.* Forty (40) feet.

c. *Parking Lot From Street.* Fifteen (15) feet.

2. *Rear Yard.*

a. *Principal Building.* Thirty (30) feet.

b. *Accessory Building.* Five (5) feet.

c. *Parking Lot.* Five (5) feet.

3. *Side Yard.*

a. *Principal Building.* Twenty (20) feet.

b. *Accessory Building.* Five (5) feet.

c. *Parking Lot.* Five (5) feet.

4. *Zero Lot Line.* Side yard setback requirements shall not be applied to a common wall of multi-family dwelling units.

5. *From Low Density Residential District.* Principal buildings shall be a minimum of thirty-five (35) feet from any land guided for low density residential.

(e) *Buffer.* Where a side or rear lot line abuts land guided for low density residential, a collector street, or an arterial street a fifteen (20) foot wide buffer shall be provided in accordance with §1007.043 (17).

(3) *Impervious Surface Coverage Area.* The impervious surface of the property shall not exceed sixty-five percent (65%).

(4) *Building Design Standards.*

(5) Floor Area. The minimum livable floor area for each multiple family dwelling unit shall be seven hundred (700) square feet plus one hundred (100) additional square feet for each bedroom.

(6) Utility Area. Dwellings with dedicated individual access shall be required to provide an additional one hundred (100) square feet of floor area to house utilities, unless a basement is present. Dwellings with shared access shall be required to provide adequate floor area within the building to house utilities.

(7) All dwellings shall provide parking in accordance with §1007.044 (11).

(8) All dwellings shall comply with the Design and Construction Standards of §1007.043 (2).

(9) *Height Regulation.* No building shall be erected or structurally altered to exceed forty-five (45) feet in height—or, for a multiple dwelling building, the greater of four (4) stories or forty-five (45) feet—except as allowed by §1007.043 (3).

(10) *Sanitary Sewer.* No R-4 subdivision creating a lot less than ten (10) acres shall be permitted in this district without public sanitary sewer and water.

(11) *Permitted Uses.* In the R-4 District, no building or land shall be used and no building shall be erected, converted or structurally altered unless otherwise provided herein, except for one or more of the following uses:

(a) Day care facilities serving sixteen (16) or fewer persons.

(b) Governmental and public regulated utility buildings and structures necessary for the health, safety and general welfare of the City.

(c) Multiple family dwellings.

(d) Public parks.

(e) State licensed residential care facility serving sixteen (16) or fewer persons.

(f) Townhomes and quadraminiums.

(g) Two family dwellings.

(h) Community Gardens operated by the city.

(12) *Accessory Uses.* Subject to applicable provisions of this Ordinance, the following are permitted accessory uses in the R-4 District:

(a) Accessory buildings including garages, tool houses, sheds and similar buildings for storage of domestic supplies and equipment, as regulated by §1007.043 (4) of this Ordinance.

(b) Fences per §1007.043 (18) of this Ordinance.

(c) Home occupation Level A as regulated by §1007.047 of this Ordinance.

(d) Non-commercial greenhouses provided they do not exceed two hundred (200) square feet in area.

(e) Parking and car ports for licensed and operable passenger cars and trucks.

(f) Radio and television receiving antennas, satellite dishes, TVROs three (3) meters or less in diameter, short-wave radio dispatching antennas, or those necessary for the operation of electronic equipment including radio receivers, ham radio transmitters and television receivers as regulated by §1007.054 of this Ordinance.

(g) Parking of recreational vehicles and equipment per §1007.044 (11) of this Ordinance.

(h) Signs as regulated by Chapter 1010 of the City Code.

(i) Swimming pools, sport courts, and other recreational facilities which are operated for the use of the residents of the principal use and their guests as regulated by §1007.043 (4). This does not include racing/riding courses for off-road vehicles.

(13) *Conditional Uses.* The following are conditional uses in the R-4 District: These uses require a conditional use permit based upon the criteria and procedures outlined in §1007.016 of this Ordinance.

(a) Clinics, hospitals and nursing homes provided that:

1. Side yards are double the minimum requirements established for this district and are screened in compliance with §1007.043 (17) of this Ordinance.

2. Only the rear yard shall be used for play or recreational areas. Said area shall be fenced and controlled and screened in compliance with §1007.043 (17) of this Ordinance.

3. The site shall be served by an arterial or collector street of sufficient capacity to accommodate traffic which will be generated.

4. All signing and informational or visual communication devices shall be in compliance with Appendix C of the City Code.

5. All State Statutes and regulations governing such use are strictly adhered to and all required operating permits are secured.

6. Adequate off-street parking is provided in compliance with §1007.044 of this Ordinance.

7. Adequate off-street loading space is provided in compliance with §1007.045 this Ordinance.

(b) Commercial outdoor recreational areas including golf courses, country clubs, driving ranges, swimming pools, and similar facilities provided that:

1.The principal use, function or activity is open, outdoor in character.

2.Not more than five (5) percent of the land area of the site be covered by buildings or structures.

3.When abutting a residential use and a residential use district, the property is screened and landscaped in compliance with §1007.043 (17) of this Ordinance.

4.The site shall be accessed via a collector street or arterial street.

(c) Day care facilities serving more than sixteen (16) persons provided that:

1. Such day care facility has access to municipal sewer and water or has adequate private sewer and water to protect the health and safety of all persons who occupy the facility.

2. Screening is provided along shared property boundaries. Such required fencing and screening shall comply with the applicable provisions of §1007.043 (17) of this Ordinance.

3. All day care facility operations comply with the minimum requirements of the Minnesota Department of Health and Human Services regulations, as may be amended.

(d) Funeral homes and mortuaries provided that:

1. The site and related parking and service entrances are served by an arterial or collector street or sufficient capacity to accommodate the traffic which will be generated.

2. Adequate off-street parking is provided in compliance with §1007.044 of this Ordinance.

3. Adequate off-street loading is provided in compliance with §1007.045 of this Ordinance.

4. Vehicular entrances to parking or service areas shall create a minimum of conflict with through traffic movement.

5. When abutting residential zoning districts, a buffer area with screening and landscaping in compliance with §1007.043 (17) of this Ordinance shall be provided.

6. All signing and information or visual communications devices shall be in compliance with Appendix C of the City Code.

(e) Public, educational and religious buildings, public or semi-public recreational buildings and neighborhood or community centers limited to nursery, elementary, junior high and senior high schools; and religious institutions such as churches, chapels, temples, mosques, and synagogues provided that:

1. Side yard setbacks shall not be less than fifty (50) feet.

2. Adequate screening from abutting residential uses and landscaping is provided in compliance with §1007.043 (17) of this Ordinance.

3. Adequate off-street parking and access is provided on the site or on lots directly abutting or directly across a public street or alley to the principal use in compliance with §1007.044 of this Ordinance and that such parking is adequately screened and landscaped from surrounding and abutting residential uses in compliance with §1007.043 (17) of this Ordinance.

(f) Home Occupation Level C as regulated by §1007.047 of this Ordinance.

(14) *Uses by Administrative Permit.* Subject to applicable provisions of this Ordinance, the following uses are allowed in the R-4 District by administrative permit, as may be approved by the Zoning Administrator:

(a) Personal wireless service antennas as secondary uses as regulated by §1007.054 of this Ordinance.

(b) Home Occupation Level B as regulated by §1007.047 of this Ordinance.

(c) Open Air Market accessory to an institutional use and limited in area to 25% of the gross floor area of the principal building.

(d) Transient Merchants.

(15) *Interim Uses.* Subject to applicable provisions of this Ordinance, the following are interim uses in the R-4 District and governed by §1007.017 of this Ordinance.

(a) None.

§ 1007.096 R-6, MANUFACTURED HOME PARK DISTRICT.

(1) *Purpose.* This district is intended to provide opportunities whereby manufactured housing may be located on a leased or rented site in a planned community. This district is intended to provide opportunities for almost all types of manufactured homes including those which may not be able to meet the design standards established in other residential districts. All manufactured home parks are required to conform to the provisions of this section and other appropriate sections of this Ordinance. Land to be zoned R-6 and any new manufactured home park shall be served with public sanitary sewer and water; and the density of the park shall be consistent with the land use category according to the Comprehensive Plan.

(2) *Lot and Yard Requirements.*

(a) *Minimum Park Size.* Five (5) acres.

(b) *Minimum Lot or Site Size.* Six thousand (6,000) square feet per unit exclusive of roadways, walkways or other property used for park purposes.

(c) *Minimum Lot or Site Width.* Sixty (60) feet measured at right angles to its side lines.

(d) *Setbacks.* (The greater of the following:)

1. *From Public Streets.*

a. *Local Street.* Thirty (30) feet.

b. *Collector Street.* Forty (40) feet.

2. *Front Yard.*

a. *Private Park Street.* Twenty (20) feet.

b. *Common Park Walk.* Ten (10) feet.

3. *Rear Yard.* Ten (10) feet.

4. *Side Yard.* Ten (10) feet. Side yard setback for interior lot lines may be reduced to zero, if it is part of an overall park plan to maximize private yard space for each unit. This zero side yard setback allowance will only be permitted if the distance to the manufactured home that shares that side lot line is at least thirty (30) feet in distance.

5. There shall not be less than twenty (20) feet of space between manufactured homes in all directions.

6. *From Low Density Residential.* Principal buildings shall be a minimum of thirty-five (35) feet from any land guided for low density residential.

(e) *Buffer*. Where a side or rear lot line abuts land guided for low density residential, a collector street, or an arterial street a twenty (20) foot wide buffer shall be provided in accordance with §1007.043 (17).

(3) *Park Requirements.*

(a) *Skirt.* All manufactured homes shall have skirts around the entire unit made of metal, plastic, fiberglass or comparable, non-combustible material approved by the Building Official and shall be finished to be harmonious with the manufactured home so that it will enhance the general appearance thereof.

(b) *Parking.* The parking of more than one (1) manufactured home on any single lot shall not be permitted.

(c) *Fire Protection.* Fire protection shall be in accordance with Minnesota Health Department Rule 187 Fire Protection Regulations. Each occupied manufactured home shall be equipped with a Fire Marshal approved type extinguisher in usable condition. The occupant of a manufactured home shall be responsible for providing such extinguisher.

(d) *Support and Tie Down Systems.* The Minnesota Department of Administration Building Code Division Rules for Manufactured Home Support and Tie Down Systems, authorized by Minnesota Statutes Section 327.31 to 327.34, are hereby adopted by reference and made a part of this Ordinance as if fully set forth herein. All new and relocated manufactured homes shall be equipped with an anchoring and support system as defined and approved by state rules.

(e) *Construction Material Storage.* All construction materials not currently in use for construction shall be stored indoors, or totally screened from the eye level view from public streets and adjacent properties.

(f) *Drainage.* Every manufactured home park shall be located on a well drained area and the premises shall be properly graded so as to prevent the accumulation of storm or other waters.

(g) *Common Walks.* Where deemed necessary, common walks shall be provided. Such walks shall be a minimum width of three (3) feet.

(h) *Individual Walks.* All manufactured homes shall be connected to common walks, to paved streets, or to paved driveways or parking spaces connecting to a paved street. Such individual walks shall have a minimum width of two (2) feet.

(i) *Patio.* A patio may be constructed on the ground beside each manufactured home parking space; this patio shall be not greater than one hundred fifty (150) square feet in area and constructed of concrete with a minimum thickness of four (4) inches or approved equal.

(j) *Shade Tree.* At least one (1) shade tree (minimum diameter two (2) inches at time of planting) shall be placed and maintained on each site or lot.

(k) *Landscaping.* Except for the areas used for the manufactured home, patio, walkways and off-street parking space, the entire site or lot shall be sodded, seeded or adequately landscaped.

(l) *Street Access.* Each unit shall abut on and have access to a street. This street shall be constructed according to standards approved by the City.

(m) *Curbing.* A concrete curb and gutter shall be constructed on each side of the street and the face of its curb shall be at least fifteen (15) feet from the centerline of said street; the design shall be of a type approved by the City.

(n) *Speed Limit.* Speed limit signs shall be clearly posted throughout the manufactured home park. Ten (10) miles per hour shall be the maximum speed posted.

(o) *Parking.*

1. Each manufactured home site shall have off-street parking space paved with concrete and/or bituminous for two (2) automobiles.

2. Each manufactured home park shall maintain a hard surfaced off-street parking lot for guests of occupants of at least one (1) space for each five (5) manufactured home lots.

3. Access drives off roads to all parking spaces and manufactured home lots shall be surfaced with concrete or bituminous according to specifications established by the City.

4. There shall be a separate area of storage provided for boats, boat trailers, travel trailers, etc. The area shall be located away from any public road and shall be fenced and screened from view of public road and adjacent properties.

(p) *Utilities.*

1. All manufactured homes shall be served by a central water and sanitary sewer system.

2. All utilities shall be underground. There shall be no overhead wires or supporting poles except those essential for street or other lighting purposes.

3. Access in the skirting shall be provided to allow the inspection of plumbing, electrical facilities and related manufactured home equipment.

4. Water facilities, sewage disposal and street lighting shall be installed and maintained by the owner of the manufactured home park and shall meet all appropriate standards established by the City.

(q) *Street Lighting.* The park shall have a street lighting plan approved by the City.

(r) *Accessory Buildings.* Any accessory building for outside storage of equipment or refuse shall be constructed of weather resistant material and be finished in a manner conforming with the appearance of the principal dwelling and shall be consistent in appearance with the other accessory buildings in the manufactured home park.

(s) *Community Building.* All manufactured home parks may have a central community building with laundry drying areas and washing machines.

(t) *Emergency Storm Protections.* Manufactured home parks established prior to 1 July 1993 shall comply with emergency room protections as required by Minnesota Statutes. A new manufactured home park established after 1 July 1993 shall have storm shelters in compliance with Minnesota Statutes. Additionally, all emergency storm protection measures shall be subject to the approval of the City Council.

(u) *Recreational Space.* All manufactured home parks shall have at least ten (10) percent of the land area developed for recreational use (sport courts, children's play equipment, swimming pool, golf green, etc.) developed and maintained at the owner's expense.

(v) *Refuse Handling.* The handling of refuse shall be in compliance with the applicable provisions of §1007.043 (5) of this Ordinance. The refuse handling shall be allowed provided such equipment is screened from adjacent uses, and all public and private street rights-of-way.

(4) *Permitted Uses.* In the R-6 District, unless otherwise provided in this Ordinance, no building or land shall be used and no building shall be erected or structurally altered except for one or more of the following uses:

(a) Community/recreation buildings.

(b) Manufactured homes.

(c) Personal wireless service antennas as secondary uses as regulated by §1007.054 of this Ordinance.

(d) Community Gardens operated by the city.

(e) Day care facilities serving fourteen (14) or fewer persons.

(f) State licensed residential care facility serving six (6) or fewer persons.

(5) *Accessory Uses.* Subject to applicable provisions of this Ordinance, the following are permitted accessory uses in the R-6 District:

(a) Accessory buildings, including garages, tool houses, sheds and similar buildings for storage of domestic supplies and equipment, as regulated by §1007.043 (4) of this Ordinance.

(b) Civil defense buildings/storm shelters.

(c) Community laundry facilities, park office, recreational building(s) provided such structures are of a permanent nature and comply with the provisions of the State Building Code.

(d) Fences per §1007.043 (18) of this Ordinance.

(e) Radio and television receiving antennas, satellite dishes, TVROs three (3) meters or less in diameter, short-wave radio dispatching antennas, or those necessary for the operation of electronic equipment including radio receivers, ham radio transmitters and television receivers as regulated by §1007.054 of this Ordinance.

(f) Signs as regulated by Chapter 1010 of the City Code.

(g) Swimming pools, sport courts, and other recreational facilities which are operated for the use of the residents of the principal use and their guests as regulated by §1007.043 (4). This does not include racing/riding courses for off-road vehicles.

(6) *Conditional Uses.* The following are conditional uses in the R-6 District: These uses require a conditional use permit based on the criteria and procedures outlined in §1007.016 of this Ordinance.

(a) Day care facilities serving more than fourteen (14) persons provided that:

1. Day care facility has access to municipal sewer and water.

2. Screening is provided along shared property boundaries. Such required fencing and screening shall comply with the applicable provisions of §1007.043 (17) of this Ordinance.

3. All day care facility operations comply with the minimum requirements of the Minnesota Department of Health and Human Services regulations, as may be amended.

(7) *Uses by Administrative Permit.* Subject to applicable provisions of this Ordinance, the following uses are allowed in the R-6 District by administrative permit, as may be approved by the Zoning Administrator:

(a) Personal wireless service antennas as secondary uses as regulated by §1007.054 of this Ordinance.

(b) Transient Merchants.

(8) *Interim Uses.* Subject to applicable provisions of this Ordinance, the following are interim uses in the R-6 District and governed by §1007.017 of this Ordinance.

(a) None.

(9) *Review and Approval Procedures.* No person shall establish, develop, extend or enlarge a manufactured home park within the City of Lino Lakes without first obtaining approval from the City Council with review by the Planning and Zoning Board. Approval shall be granted only upon compliance with all of the following:

(a) *Planning and Zoning Board Review.* The Planning and Zoning Board shall review all applications for manufactured home parks and shall hold public hearings as deemed necessary or proper. The findings and recommendations of the Planning and Zoning Board shall be forwarded to the City Council for action.

(b) *Approval or Denial.* The City Council shall consider and act on the application. Approval shall be granted only upon compliance with all of the procedures and requirements established in this ordinance.

(c) *Submission Requirements.* Submission for manufactured home park approval shall include the following:

1. All submittal requirements for a zoning amendment and/or conditional use permit, as appropriate, required by §1007.015 through §1007.024 as amended. If the site is to be subdivided, the submittal also must comply with the requirements of Chapter 1001 of the City Code.

2. *Proof of Agency Review.* The applicant shall provide proof that the plans submitted have been approved by the State of Minnesota Department of Health, and have satisfied all other federal, state, county, city and watershed district laws and regulations.

(d) *Access.* It shall be the duty of the park owner to give the Building Inspector free access to all lots at reasonable times for the purposes of inspection.

§ 1007.110 NB, NEIGHBORHOOD BUSINESS DISTRICT.

(1) *Purpose.* The purpose of the NB, Neighborhood Business District is to provide for the establishment of local businesses for convenience, limited office, retail or service outlets which deal directly with the daily requirements of the immediate neighborhood and which are located along a collector or arterial roadway. These businesses are not intended to draw customers from the entire community. No new land shall be zoned NB, Neighborhood Business unless the site or area lies within the City's MUSA and sanitary sewer and municipal water are available.

(2) *Lot and Yard Requirements.*

(a) *Minimum Lot Size.*

1. *Sewered Lot.* Eleven thousand two hundred fifty (11,250) square feet.

2. *Unsewered Lot.* Ten (10) acres, in accordance with applicable provisions of §1007.041 of this Ordinance.

(b) *Minimum Lot Width.*

1. *Sewered Lot-Interior*. Seventy-five (75) feet.

2. *Sewered Lot-Corner.* One hundred (100) feet.

3. *Unsewered Lot.* One hundred fifty (150) feet.

(c) *Setbacks.* (The greater of the following:)

1. *From Streets.*

a. *Principal Building - Local Street.* Thirty (30) feet.

b. *Principal Building - Collector or Arterial Street.* Forty (40) feet.

c. *Parking Lot.* Fifteen (15) feet.

2. *Rear Yard.*

a. *Principal Building.* Thirty (30) feet.

b. *Accessory Building.* Ten (10) feet.

c. *Parking Lot/Driveway:* Ten (10) feet.

3. *Side Yard.*

a. *Principal Building.* Thirty (30) feet.

b. *Accessory Building.* Ten (10) feet.

c. *Parking Lot Driveway:* Ten (10) feet.

4. *From Residential District.* Thirty-five (35) feet.

5. *Between Principal Buildings.* Not less than one-half (1/2) the sum of the building heights of the two (2) buildings.

(3) *Height Regulations.* No building in the NB District shall be erected or structurally altered to exceed thirty-five (35) feet in height.

(4) *Impervious Surface Coverage.* In no event shall off-street parking space, structures of any type, buildings, or other features cover more than sixty-five (65) percent of the lot area resulting in less than thirty-five (35) percent pervious landscaped area.

(5) *Building Requirements.* All newly constructed commercial buildings shall meet the exterior building standards of §1007.043 (2)(d) of this Ordinance.

(6) *Permitted Uses.* In the NB District, unless otherwise provided in this Ordinance, no building or land shall hereafter be erected, or structurally altered except for one or more of the following uses.

(a) Adult use – accessory.

(b) Governmental or public regulated utilities, buildings, or structures necessary for the health, safety, and general welfare of the City.

(c) Office business – clinic.

(d) Office business – general.

(e) Personal services (subject to any licensing requirements of City Code, County or State).

(f) Restaurant without drive-through service facilities and without outdoor dining or seating.

(g) Retail business without drive-through service facilities.

(h) Service business – on-site without drive-through service facilities.

(i) Liquor sales: on-sale wine and malt liquor (beer) only, off-sale 3.2 percent malt liquor (beer) only.

(j) Community Gardens operated by the city.

(7) *Accessory Uses.* Subject to applicable provisions of this Ordinance, the following are accessory uses in the NB District:

(a) Accessory buildings and structures as regulated by §1007.043 (4)(i) of this Ordinance.

(b) Fences, as regulated by §1007.043 (18) of this Ordinance.

(c) Off-street loading as regulated by §1007.045 of this Ordinance.

(d) Off-street parking as regulated by §1007.044 of this Ordinance.

(e) Outside services, sales, and equipment rental accessory to the principal use and limited in area to twenty-five (25) percent of the gross floor area of the principal building.

(f) Radio and television receiving antennas, satellite dishes, TVROs three (3) meters or less in diameter, short-wave dispatching antennas, or those necessary for the operation of electronic equipment including radio receivers, ham radio transmitters and television receivers as regulated by §1007.053 of this Ordinance.

(g) Signs, as regulated by the city sign ordinance, Ord. No. 12-97, as amended, of the City Code.

(h) Home Occupation Level A as regulated by §1007.047 of this Ordinance.

(8) *Conditional Uses.* Subject to applicable provisions of this Ordinance, the following are conditional uses in the NB District: These uses require a conditional use permit based on the criteria and procedures outlined in §1007.016 of this Ordinance.

(a) Commercial day care facilities provided that:

1. All requirements of the Minnesota Department of Health and Human Services, as may be amended, are satisfactorily met and the structure and operation is licensed accordingly.

2. Screening is provided along all shared property lines. Such required fencing and screening shall be in compliance with the applicable provisions of §1007.043 (17) of this Ordinance.

3. Adequate off-street parking is provided in a location separated from any outdoor play area(s).

(b) Planned unit development – commercial including shopping centers as regulated by §1007.024 of this Ordinance.

(c) Specialty schools such as music, dance or business schools provided that:

1. Provisions are made to buffer and screen any adjoining residential uses.

2. The site is served by an arterial or collector street of sufficient capacity to accommodate traffic which will be generated.

(9) *Uses by Administrative Permit.* Subject to applicable provisions of this Ordinance, the following uses are allowed by administrative permit, as may be approved by the Zoning Administrator:

(a) Personal wireless service antennas as secondary uses as regulated by §1007.053 of this Ordinance.

(b) Home Occupation Level B as regulated by §1007.047 of this Ordinance.

(c) Accessory outdoor dining or seating facilities intended for consumption of food or beverages purchased on site, provided that requirements of §1007.054 are met. This administrative permit may be incorporated into another approval such as but not limited to a site plan, planned unit development, or building permit.

(d) Transient Merchants.

(10) *Interim Uses.* Subject to applicable provisions of this Ordinance, the following are interim uses in the NB District and are governed by §1007.017 of this Ordinance:

(a) None.

§ 1007.111 LB, LIMITED BUSINESS DISTRICT.

(1) *Purpose.* There may be some areas which are suitable only for commercial uses of a limited (less intense) nature. This may be due to the close proximity of residential uses. This may include high quality commercial areas such as an "office park" development. Also, the LB District can be used as a transitional district or buffer between non-compatible uses such as intense commercial (GB) and residential uses. No new land shall be zoned LB, Limited Business unless the site or area lies within the City's MUSA and sanitary sewer and municipal water is available.

(2) *Lot and Yard Requirements.*

(a) *Minimum Lot Size.*

1. *Sewered Lots.* Fifteen thousand (15,000) square feet.

2. *Unsewered Lots.* Ten (10) acres in accordance with applicable provisions of §1007.041 of this Ordinance.

(b) *Minimum Lot Width.*

1. *Sewered Lots.* One hundred (100) feet.

2. *Unsewered Lots.* One hundred fifty (150) feet.

(c) *Setbacks.* (The greater of the following:)

1. *From Streets.*

a. *Principal Building - Local Street.* Thirty (30) feet.

b. *Principal Building - Collector or Arterial Street.* Forty (40) feet.

c. *Parking Lot.* Fifteen (15) feet.

2. *Rear Yard.*

a. *Principal Building.* Thirty (30) feet.

b. *Accessory Building.* Ten (10) feet.

c. *Parking Lot.* Ten (10) feet.

3. *Side Yard.*

a. *Principal Building.* Ten (10) feet.

b. *Accessory Building.* Ten (10) feet.

c. *Parking Lot/Driveway.* Ten (10) feet.

4. *From Residential District*. Thirty-five (35) feet.

5. *Between Principal Buildings.* Not less than one-half (1/2) the sum of the building heights of the two (2) buildings.

(3) *Height Regulations.* No building in the LB District shall exceed a height of three (3) stories or thirty-six (36) feet, whichever is higher.

(4) *Impervious Surface Coverage.* In no event shall off-street parking space, structures of any type, buildings, or other features cover more than sixty-five (65) percent of the lot area resulting in less than thirty-five (35) percent pervious landscaped area.

(5) *Building Requirements.* All newly constructed buildings shall meet the exterior building standards of §1007.043 (2)(d) of this Ordinance.

(6) *Permitted Uses.* In the LB District, no building or land shall be used, and no building shall be erected, converted or structurally altered unless otherwise provided herein, except for one or more of the following uses.

(a) Adult use – accessory.

(b) Governmental or public regulated utilities, buildings, or structures necessary for the health, safety, and general welfare of the City.

(c) Liquor sales – on and off sale.

(d) Office business – clinic.

(e) Office business – general.

(f) Personal services (subject to any licensing requirements of City Code, County or State).

(g) Residential extended care facilities such as nursing homes.

(h) Restaurants and Brew Pubs without drive-through service facilities and without outdoor dining or seating.

(i) Retail business.

(j) Service business – off-site.

(k) Service business – on-site, without drive-through facilities.

(l) Community Gardens operated by the city.

(7) *Accessory Uses***.** Subject to applicable provisions of this Ordinance, the following are accessory uses in the LB District:

(a) Accessory buildings and structures as regulated by §1007.043 (4)(i) of this Ordinance.

(b) Fences, as regulated by §1007.043 (18) of this Ordinance.

(c) Off-street loading as regulated by §1007.045 of this Ordinance.

(d) Off-street parking as regulated by §1007.044 of this Ordinance.

(e) Outside services, sales, and equipment rental accessory to the principal use and limited in area to twenty-five (25) percent of the gross floor area of the principal building.

(f) Radio and television receiving antennas, satellite dishes, TVROs three (3) meters or less in diameter, short-wave dispatching antennas, or those necessary for the operation of electronic equipment including radio receivers, ham radio transmitters and television receivers as regulated by §1007.053 of this Ordinance.

(g) Signs, as regulated by the city sign ordinance, Ord. No. 12-97, as amended, of the City Code.

(h) Home Occupation Level A as regulated by §1007.047 of this Ordinance.

(8) *Conditional Uses.* Subject to applicable provisions of this Ordinance, the following are conditional uses in the LB District: These uses require a conditional use permit based on the criteria and procedures outlined in §1007.016 of this Ordinance.

(a) Accessory drive-through facilities provided that:

1. Not less than one hundred twenty (120) feet of segregated automobile stacking must be provided for the single service lane. Where multiple service lanes are provided, the minimum automobile stacking may be reduced to sixty (60) feet per lane.

2. The stacking lane and its access must be designed to control traffic in a manner to protect the buildings and will not interfere with on-site traffic circulation or access to the required parking space.

3. No part of the public street or boulevard may be used for stacking of automobiles.

4. The stacking lane, order board intercom, and window placement shall be designed and located in such a manner as to minimize glare to adjacent premises, particularly residential premises, and to maximize maneuverability of vehicles on the site.

5. The drive-through window and its stacking lanes shall be screened from view of adjoining residential zoning districts and public street rights-of-way.

6. A lighting and photometric plan will be required that illustrates the drive-through service lane lighting and shall comply with §1007.043 (6) of this Ordinance.

(b) Commercial day care facilities provided that:

1. All requirements of the Minnesota Department of Health and Human Services, as may be amended, are satisfactorily met and the structure and operation is licensed accordingly.

2. Screening is provided along all shared property lines. Such required fencing and screening shall be in compliance with the applicable provisions of §1007.043 (17) of this Ordinance.

3. Adequate off-street parking is provided in a location separated from any outdoor play area(s).

4. Adequate off-street loading spaces in compliance with §1007.045 of this Ordinance.

(c) Motor fuel stations provided that:

1. *Motor Fuel Facilities.* Motor fuel facilities shall be installed in accordance with State and City standards. Additionally, adequate space shall be provided to access fuel pumps and allow maneuverability around the pumps. Underground fuel storage tanks are to be positioned to allow adequate access by motor fuel transports and unloading operations which do not conflict with circulation, access and other activities on the site. Fuel pumps shall be installed on pump islands.

2. *Architectural Standards*.

a. As a part of the conditional use permit application, a color illustration of all building elevations shall be submitted.

b. The architectural appearance, scale, and functional plan of the building(s) and canopy shall be complementary and compatible with each other and the existing buildings in the neighborhood setting.

c. All sides of the principal and accessory structures are to have essentially the same or a coordinated harmonious finish treatment pursuant to §1007.043 (2) of this Ordinance.

d. Exterior wall treatments like brick, stone (natural or artificial), decorative concrete block and stucco shall be used.

e. Earth tone colors of exterior materials including the canopy columns shall be required. "Earth tone colors" shall be defined as any various soft colors like those found in nature in soil, vegetation, etc., such colors are limited to brown, black, gray, tan, beige, brick red, soft green, soft blue, or white.

f. Ten (10) percent of the building facade may contain contrasting colors. Contrasting colors shall be those colors not defined as earth tones. The canopy may have contrasting color bands or accent lines not to exceed an accumulative width of four (4) inches. The color bands shall not be illuminated.

3. *Canopy*. A protective canopy structure may be located over the pump island(s), as an accessory structure. The canopy shall meet the following performance standards:

a. The edge of the canopy shall be thirty (30) feet or more from the front and/or side lot line, provided that adequate visibility both on-site and off-site is maintained.

b. The canopy shall not exceed eighteen (18) feet in height and must provide fourteen (14) feet of clearance to accommodate a semi-trailer truck passing underneath.

c. The canopy fascia shall not exceed three (3) feet in vertical height.

d. Canopy lighting shall consist of canister spotlights recessed into the canopy. No portion of the light source of fixture may extend below the ceiling of the canopy. Total canopy illumination may not exceed one hundred fifteen (115) foot candles below the canopy at ground level.

e. The architectural design, colors, and character of the canopy shall be consistent with the principal building on the site.

f. Signage may be allowed on a detached canopy in lieu of wall signage on the principal structure, provided that:

i. The individual canopy sign does not exceed more than twenty (20) percent of the canopy facade facing a public right-of-way.

g. Canopy posts/sign posts shall not obstruct traffic or the safe operation of the gas pumps.

4. *Pump Islands.* Pump islands shall comply with the following performance standards:

a. Pump islands shall be elevated six (6) inches above the traveled surface of the site.

b. All pump islands shall be set at least thirty (30) feet back from any property line. Additionally, the setback between the pump islands curb face must be at least twenty-four (24) feet.

5. *Dust Control and Drainage.* The entire site other than taken up by a building, structure, or plantings shall be surfaced with asphalt, concrete, cobblestone, or paving brick. Plans for surfacing and drainage shall be subject to approval of the City Engineer. Drainage from all fueling areas shall be directed to an oil/grit separator. Minimum design standards for the oil/grit separator shall include the following:

a. A minimum of four hundred (400) cubic feet of permanent pool storage capacity per acre of drainage area.

b. A minimum pool depth of four (4) feet.

c. A minimum oil containment capacity of eight hundred (800) gallons.

d. Minimum maintenance/inspection of two (2) times per year and/or after measurable spill events. A measurable spill shall be defined by the Minnesota Pollution Control Agency (MPCA). Any measurable spill event must be reported to the MPCA.

6. *Landscaping.*

a. At least thirty-five (35) percent of the lot, parcel or tract of land used exclusively for the gas sales facility shall remain as a grass plot, including trees, shrubbery, plantings or fencing and shall be landscaped. Required minimum green area should be emphasized in the front and side yards abutting streets or residential property.

b. At the boundaries of the lot, the following landscape area shall be required:

i. From side and rear property lines, an area of not less than ten (10) feet wide shall be landscaped in compliance with §1007.043 (17) of this Ordinance.

ii. From all road rights-of-way, an area of not less than fifteen (15) feet wide shall be landscaped in compliance with §1007.043 (17) of this Ordinance.

iii. Where lots abut residentially zoned property, a buffer yard of not less than twenty (20) feet wide shall be landscaped and screened in accordance with §1007.043 (17) of this Ordinance.

iv. The property owner shall be responsible for maintenance of all landscaping, including within the boulevard.

7. *Exterior Lighting.* The lighting shall be accomplished in such a way as to have no direct source of light visible from adjacent land in residential use or from the public right-of-way and shall be in compliance with §1007.043 (6) of this Ordinance. A comprehensive lighting plan shall be submitted as part of the conditional use permit application, and shall be subject to the following performance standards:

a. *Canopy Lighting.* Canopy lighting under the canopy structure shall consist of canister spotlights recessed into the canopy. No portion of the light source or fixture may extend below the ceiling of the canopy. Total canopy illumination below the canopy may not exceed one hundred fifteen (115) foot candles at ground level.

b. *Perimeter Lighting.* Lighting at the periphery of the site and building shall be directed downward, and individual lights shall not exceed fifteen (15) foot candles at ground level.

c. *Illumination.* Maximum site illumination shall not exceed four-tenths (0.4) foot candle at ground level when measured at any boundary line with an adjoining residential property or any public property.

d. *Access.* Vehicular access points shall create a minimum of conflict with through traffic movement and shall comply with §1007.044 of this Ordinance.

8. *Circulation and Loading.* The site design must accommodate adequate turning radius and vertical clearance for a semi-trailer truck. Designated loading areas must be exclusive of off-street parking stalls and drive aisles. A site plan must be provided to illustrate adequate turning radius, using appropriate engineering templates.

9. *Parking.*

a. Parking spaces shall be calculated solely based upon the use(s) and the square footage of the principal building(s).

b. Parking spaces shall be screened from abutting residential properties in compliance with §1007.043 (19) of this Ordinance.

10. Noise. Public address system shall not be audible at any property line. Play of music or advertisement from the public address system is prohibited. Noise control shall be required as regulated in §1007.043 (10) of this Ordinance.

11. Outside Storage, Sales and Service. No outside storage or sales shall be allowed, except as follows:

a. Public phones may be located on site as long as they do not interrupt on-site traffic circulation, and are not located in a yard abutting residentially zoned property.

b. Propane sales of twenty (20) pound capacity tanks may be located outside provided the propane tanks are secured in a locker and meets all State Uniform Building and Fire Codes.

c. Large, bulk sale propane tanks must meet all applicable building and fire code requirements.

d. A compressed air service area may be located on site as long as it does not interrupt on-site traffic circulation.

e. Accessory outdoor services, sales, or rental as regulated by §1007.111 (7)(e) of this Ordinance.

12. *Litter Control.* The operation shall be responsible for litter control on the subject property, which is to occur on a daily basis. Trash receptacles shall be provided at a convenient location on site to facilitate litter control.

13. *Additional Stipulations*. All conditions pertaining to a specific site are subject to change when the Council, upon investigation in relation to a formal request finds that the general welfare and public betterment can be served as well or better by modifying or expanding the conditions set forth herein.

(d) Planned unit development – commercial including shopping centers as regulated by §1007.024 of this Ordinance.

(e) Private lodges and clubs provided that:

1. Screening from residential uses and landscaping is provided in compliance with requirements for business or industrial uses in §1007.043 (17) of this Ordinance

2. Adequate off-street parking and access is provided on the site or on lots directly abutting directly across a public street or alley to the principal use in compliance with §1007.044 of this Ordinance

3. Parking is screened and landscaped in compliance with requirements for business or industrial uses in §1007.043 (17) of this Ordinance.

4. Adequate off-street loading and service entrances are provided and regulated where applicable by §1007.045 of this Ordinance.

(f) Public, Educational, and Religious Buildings. Public or semi-public recreational buildings and neighborhood or community centers; limited to nursery, elementary, junior high and senior high schools; and religious institutions such as churches, chapels, temples, mosque, and synagogues provided that:

1. Screening from residential uses and landscaping is provided in compliance with requirements for business or industrial uses in §1007.043 (17) of this Ordinance.

2. Adequate off-street parking and access is provided on the site or on lots directly abutting directly across a public street or alley to the principal use in compliance with §1007.044 of this Ordinance

3. Parking is screened and landscaped in compliance with requirements for business or industrial uses in §1007.043 (17) of this Ordinance.

4. Adequate off-street loading and service entrances are provided and regulated where applicable by §1007.045 of this Ordinance.

(g) Specialty schools such as music, dance or business schools provided that:

1. Provisions are made to buffer and screen any adjoining residential uses.

2. The site is served by an arterial or collector street of sufficient capacity to accommodate traffic which will be generated.

(h) Residential apartments accessory to permitted or conditional uses in the LB District provided that:

1. The apartment is located in the same building as the principal use.

2. Residential and non-residential use are not contained on the same floor.

3. The residential and non-residential uses do not conflict in any manner.

(9) *Uses by Administrative Permit.* Subject to applicable provisions of this Ordinance, the following uses are allowed by administrative permit, as may be approved by the Zoning Administrator:

(a) Personal wireless service antennas as secondary uses as regulated by §1007.053 of this Ordinance.

(b) Home Occupation Level B as regulated by §1007.047 of this Ordinance.

(c) Accessory outdoor dining or seating facilities intended for consumption of food or beverages purchased on site, provided that requirements of §1007.054 are met. This administrative permit may be incorporated into another approval such as but not limited to a site plan, planned unit development, or building permit.

(d) Transient Merchants.

(10) *Interim Uses.* Subject to applicable provisions of this Ordinance, the following are interim uses in the LB District and are governed by §1007.017 of this Ordinance:

(a) None.

§ 1007.112 GB, GENERAL BUSINESS DISTRICT.

(1) *Purpose.* There are areas containing a wide variety of business uses including retail, service, and semi-industrial uses. As such, they may contain businesses which tend to serve other business and industry as well as those catering to shoppers' needs. No new land shall be zoned GB, General Business unless the site or area lies within the City's MUSA and sanitary sewer and municipal water is available.

(2) *Lot and Yard Requirements.*

(a) *Minimum Lot Size.*

1. *Sewered Lot.* Twenty thousand (20,000) square feet.

2. *Unsewered Lot.* Ten (10) acres in accordance with applicable provisions of §1007.041 of this Ordinance.

(b) *Minimum Lot Width.* One hundred (100) feet.

(c) *Setbacks.* (The greater of the following:)

1. *From Streets.*

a. *Principal Building - Local Street.* Thirty (30) feet.

b. *Principal Building - Collector or Arterial Street.* Forty (40) feet.

c. *Parking Lot/Driveway.* Fifteen (15) feet.

2. *Rear Yard.*

a. *Principal Building.* Thirty (30) feet.

b. *Accessory Building.* Five (5) feet.

c. *Parking Lot.* Ten (10) feet.

3. *Side Yard.*

a. *Principal Building.* Ten (10) feet.

b. *Accessory Building.* Ten (10) feet.

c. *Parking Lot .* Ten (10) feet.

4. *From Residential District.* Thirty-five (35) feet.

5. *Between Principal Buildings.* Not less than one-half (1/2) the sum of the building heights of the two (2) buildings.

(3) *Height Regulations.* No building in the GB District shall be erected or structurally altered to exceed forty-five (45) feet in height.

(4) *Impervious Surface Coverage.* In no event shall off-street parking space, structures of any type, buildings, or other features cover more than seventy-five (75) percent of the lot area resulting in less than twenty-five (25) percent pervious landscaped area.

(5) *Building Requirements.* All newly constructed buildings shall meet the exterior building standards of §1007.043 (2)(d) of this Ordinance.

(6) *Permitted Uses.* In the GB District, no building or land shall be used, and no building shall be erected, converted or structurally altered unless otherwise provided herein, except for one or more of the following uses.

(a) Adult use – principal and accessory.

(b) Governmental and public regulated utilities, buildings, and structures necessary for the health, safety, and general welfare of the City.

(c) Commercial greenhouses and nurseries.

(d) Hospitality business.

(e) Liquor sales, on and off sale.

(f) Office business – clinical.

(g) Office business – general.

(h) Personal Services. *(Added per Ord. 21-03)*

(i) 9 Recreational business contained entirely within the principal building.

(j) Restaurants and Brew Pubs with or without drive-through facilities, without outdoor dining or seating.

(k) Retail business.

(l) Service business – off-site.

(m) Service business – on-site.

(n) Specialty schools such as music, dance, gymnastics, or business/trade schools.

(o) Theaters.

(p) Community Gardens operated by the city.

(7) *Accessory Uses.* Subject to applicable provisions of this Ordinance, the following are accessory uses in the GB District:

(a) Accessory buildings and structures as regulated by §1007.043 (4)(i) of this Ordinance.

(b) Drive-through service facilities:

1. Not less than one hundred twenty (120) feet of segregated automobile stacking must be provided for the single service lane. Where multiple service lanes are provided, the minimum automobile stacking may be reduced to sixty (60) feet per lane.

2. The stacking lane and its access must be designed to control traffic in a manner to protect the buildings and will not interfere with on-site traffic circulation or access to the required parking space.

3. No part of the public street or boulevard may be used for stacking of automobiles.

4. The stacking lane, order board intercom, and window placement shall be designed and located in such a manner as to minimize glare to adjacent premises, particularly residential premises, and to maximize maneuverability of vehicles on the site.

5. The drive-through window and its stacking lanes shall be screened from view of adjoining residential zoning districts and public street rights-of-way.

6. A lighting and photometric plan will be required that illustrates the drive-through service lane lighting and shall comply with §1007.043 (6) of this Ordinance.

(c) Fences, as regulated by §1007.043 (18) of this Ordinance.

(d) Off-street loading as regulated by §1007.045 of this Ordinance.

(e) Off-street parking as regulated by §1007.044 of this Ordinance.

(f) Outside services, sales, and equipment rental accessory to the principal use and limited in area to twenty-five (25) percent of the gross floor area of the principal building.

(g) Radio and television receiving antennas, satellite dishes, TVROs three (3) meters or less in diameter, short-wave dispatching antennas, or those necessary for the operation of

electronic equipment including radio receivers, ham radio transmitters and television receivers as regulated by §1007.053 of this Ordinance.

(h) Signs, as regulated by the city sign ordinance, Ord. No. 12-97, as amended, of the City Code.

(i) Home Occupation Level A as regulated by §1007.047 of this Ordinance.

(8) *Conditional Uses.* Subject to applicable provisions of the Ordinance, the following are conditional uses in the GB District: These uses require a conditional use permit based upon the criteria and procedures outlined in §1007.016 of this Ordinance.

(a) Automobile and truck repair (including body shops) provided that:

1. The architectural appearance and functional plan of the building and site shall not be so dissimilar to the existing buildings or area as to cause impairment in property values or constitute a blighting influence.

2. The entire area other than occupied by buildings or structures or planting shall be surfaced with bituminous or concrete which will control dust and drainage. The entire area shall have a perimeter curb barrier, a storm water drainage system and is subject to the approval of the City Engineer.

3. All buildings shall provide an interior location for trash handling or an enclosed trash receptacle area in conformance with the following:

a. Exterior wall treatment shall be similar and/or complement the principal building.

b. The enclosed trash receptacle area shall be located in the rear or in a side yard which is not abutting a street.

c. The trash enclosure must be in an accessible location for pick up hauling vehicles.

d. The trash enclosure must be fully screened from view of adjacent properties.

4. All painting must be conducted in an approved paint booth. All paint booths and all other activities of the operation shall thoroughly control the emission of fumes, dust or other particulated matter so that the use shall be in compliance with the State of Minnesota Pollution Control Standards, Minnesota Regulation APC 1-15, as amended.

5. The emission of odor by a use shall be in compliance with and regulated by the State of Minnesota Pollution Control Standards, Minnesota regulations APC, as amended.

6. All flammable materials, including liquids and rags, shall conform with the applicable provisions of the Minnesota Uniform Fire Code.

7. All outside storage shall be prohibited except the storage of customer vehicles waiting for repair.

8. All conditions pertaining to a specific site are subject to change when the Council, upon investigation in relation to a formal request, finds that the general welfare and public betterment can be served by modifying the conditions.

(b) Bus garage provided that:

1. When abutting a residential use or residential district, the property shall be screened and landscaped in accordance with §1007.043 (17) of this Ordinance.

2. The architectural appearance and functional plan of the building and site shall not be so dissimilar to the existing buildings or areas as to cause impairment in property values or constitute a blighting influence.

3. The entire area other than occupied by the building or planting shall be surfaced with blacktop or concrete which will control dust and drainage which is subject to the approval of the City Engineer.

4. The entire area shall have a drainage system which is subject to the approval of the City Engineer.

5. Vehicular access points shall be limited, shall create a minimum of conflict with through traffic movement and shall be subject to the approval of the City Engineer.

6. Provisions are made to control and reduce noise.

7. An internal site pedestrian circulation system shall be defined and appropriate provisions made to protect such areas from encroachments by parked cars or moving vehicles.

8. Motor fuel activities associated with the bus service shall be installed in accordance with State and City standards. Additionally, adequate space shall be provided to access gas pumps and allow maneuverability around the pumps. Underground fuel storage tanks are to be positioned to allow adequate access by motor fuel transports and unloading operations do not conflict with circulation, access and other activities on the site. Fuel pumps shall be installed on pump islands.

(c) Commercial car washes (drive-through, mechanical and self-service) provided that:

1. The site is serviced by municipal sanitary sewer.

2. The architectural appearance and functional plan of the building and site shall not be so dissimilar to the existing buildings or areas as to cause impairment in property values or constitute a blighting influence.

3. Magazining or stacking space is constructed to accommodate that number of vehicles which can be washed during a maximum thirty (30) minute period and shall be subject to the approval of the City Engineer.

4. At the boundaries of a residential district, a strip of not less than five (5) feet shall be landscaped and screened in compliance with §1007.043 (17) of this Ordinance.

5. Parking or car magazine storage space shall be screened from view of abutting residential districts in compliance with §1007.043 (17) of this Ordinance.

6. The entire area other than occupied by the building or plantings shall be surfaced with material which will control dust and drainage which is subject to the approval of the City Engineer.

7. The entire area shall have a drainage system which is subject to the approval of the City.

8. All lighting shall be hooded and so directed that the light source is not visible from the public right-of-way or from an abutting residence and shall be in compliance with §1007.043 (6) of this Ordinance.

9. Vehicular access points shall be limited, shall create a minimum of conflict with through traffic movement and shall be subject to the approval of the City Engineer.

10. Provisions are made to control and reduce noise.

(d) Commercial day care facilities provided that:

1. All requirements of the Minnesota Department of Health and Human Services, as may be amended, are satisfactorily met and the structure and operation is licensed accordingly.

2. Screening is provided along all shared property lines. Such required fencing and screening shall be in compliance with the applicable provisions of §1007.043 (19) of this Ordinance.

3. Adequate off-street parking is provided in a location separated from any outdoor play area(s).

4. Adequate off-street loading spaces in compliance with §1007.045 of this Ordinance.

(e) Contractor shops and offices provided that:

1. All outside storage is prohibited. The storage of contractor equipment and materials must be completely inside.

2. When abutting a residential land use, a buffer area with screening and landscaping in compliance with §1007.043 (17) of this Ordinance is provided.

(f) Hospitals provided that:

1. Side yards are double the minimum requirements established for this district and are screened in compliance with §1007.043 (17) of this Ordinance.

2. The site shall be served by an arterial or collector street of sufficient capacity to accommodate traffic which will be generated.

3. All State Statutes and regulations governing such use are strictly adhered to and all required operating permits are secured.

4. Adequate off-street loading space is provided in compliance with §1007.045 of this Ordinance.

(g) Motor fuel stations provided that:

1. Motor Fuel Facilities. Motor fuel facilities shall be installed in accordance with State and City standards. Additionally, adequate space shall be provided to access fuel pumps and allow maneuverability around the pumps. Underground fuel storage tanks are to be positioned to allow adequate access by motor fuel transports and unloading operations which do not conflict with circulation, access and other activities on the site. Fuel pumps shall be installed on pump islands.

2. Architectural Standards.

a. As a part of the conditional use permit application, a color illustration of all building elevations shall be submitted.

b. The architectural appearance, scale, and functional plan of the building(s) and canopy shall be complementary and compatible with each other and the existing buildings in the neighborhood setting.

c. All sides of the principal and accessory structures are to have essentially the same or a coordinated harmonious finish treatment pursuant to §1007.043 (2) of this Ordinance.

d. Exterior wall treatments like brick, stone (natural or artificial), decorative concrete block and stucco shall be used.

e. Earth tone colors of exterior materials including the canopy columns shall be required. "Earth tone colors" shall be defined as any various soft colors like those found in nature in soil, vegetation, etc., such colors are limited to brown, black, gray, tan, beige, brick red, soft green, soft blue, or white.

f. Ten (10) percent of the building facade may contain contrasting colors. Contrasting colors shall be those colors not defined as earth tones. The canopy may have contrasting color bands or accent lines not to exceed an accumulative width of four (4) inches. The color bands shall not be illuminated.

3. *Canopy*. A protective canopy structure may be located over the pump island(s), as an accessory structure. The canopy shall meet the following performance standards:

a. The edge of the canopy shall be thirty (30) feet or more from the front and/or side lot line, provided that adequate visibility both on-site and off-site is maintained.

b. The canopy shall not exceed eighteen (18) feet in height and must provide fourteen (14) feet of clearance to accommodate a semi-trailer truck passing underneath.

c. The canopy fascia shall not exceed three (3) feet in vertical height.

d. Canopy lighting shall consist of canister spotlights recessed into the canopy. No portion of the light source or fixture may extend below the ceiling of the canopy. Total canopy illumination may not exceed one hundred fifteen (115) foot candles below the canopy at ground level.

e. The architectural design, colors, and character of the canopy shall be consistent with the principal building on the site.

f. Signage may be allowed on a detached canopy in lieu of wall signage on the principal structure, provided that:

i. The individual canopy sign does not exceed more than twenty (20) percent of the canopy facade facing a public right-of-way.

g. Canopy posts/sign posts shall not obstruct traffic or the safe operation of the gas pumps.

4. Pump Islands. Pump islands shall comply with the following performance standards:

a. Pump islands shall be elevated six (6) inches above the traveled surface of the site.

b. All pump islands shall be set at least thirty (30) feet back from any property line. Additionally, the setback between the pump islands curb face must be at least twenty-four (24) feet.

5. *Dust Control and Drainage.* The entire site other than taken up by a building, structure, or plantings shall be surfaced with asphalt, concrete, cobblestone, or paving brick. Plans for surfacing and drainage shall be subject to approval of the City Engineer. Drainage from all fueling areas shall be directed to an oil/grit separator. Minimum design standards for the oil/grit separator shall include the following:

a. A minimum of four hundred (400) cubic feet of permanent pool storage capacity per acre of drainage area.

b. A minimum pool depth of four (4) feet.

c. A minimum oil containment capacity of eight hundred (800) gallons.

d. Minimum maintenance/inspection of two (2) times per year and/or after measurable spill events. A measurable spill shall be defined by the Minnesota Pollution Control Agency (MPCA). Any measurable spill event must be reported to the MPCA.

6. *Landscaping.*

a. At least twenty-five (25) percent of the lot, parcel or tract of land used exclusively for the gas sales facility shall remain as a grass plot, including trees, shrubbery, plantings or fencing and shall be landscaped. Required minimum green area should be emphasized in the front and side yards abutting streets or residential property.

b. At the boundaries of the lot, the following landscape area shall be required:

i. From side and rear property lines, an area of not less than ten (10) feet wide shall be landscaped in compliance with §1007.043 (17) of this Ordinance.

ii. From all road rights-of-way, an area of not less than fifteen (15) feet wide shall be landscaped in compliance with §1007.043 (17) of this Ordinance.

iii. Where lots abut residentially zoned property, a buffer yard of not less than twenty (20) feet wide shall be landscaped and screened in accordance with §1007.043 (17) of this Ordinance.

iv. The property owner shall be responsible for maintenance of all landscaping, including within the boulevard.

7. *Exterior Lighting.* The lighting shall be accomplished in such a way as to have no direct source of light visible from adjacent land in residential use or from the public right-of-way and shall be in compliance with §1007.043 (6) of this Ordinance. A comprehensive lighting

plan shall be submitted as part of the conditional use permit application, and shall be subject to the following performance standards:

a. *Canopy Lighting.* Canopy lighting shall only be permitted under the canopy structure, and shall consist of canister spotlights recessed into the canopy. No portion of the light source or fixture may extend below the ceiling of the canopy. Total canopy illumination below the canopy may not exceed one hundred fifteen (115) foot candles at ground level.

b. *Perimeter Lighting.* Lighting at the periphery of the site and building shall be directed downward, and individual lights shall not exceed fifteen (15) foot candles at ground level.

c. *Illumination.* Maximum site illumination shall not exceed four-tenths (.4) foot candle at ground level when measured at any boundary line with an adjoining residential property or any public property.

d. *Access.* Vehicular access points shall create a minimum of conflict with through traffic movement and shall comply with §1007.044 of this Ordinance.

8. *Circulation and Loading.* The site design must accommodate adequate turning radius and vertical clearance for a semi-trailer truck. Designated loading areas must be exclusive of off-street parking stalls and drive aisles. A site plan must be provided to illustrate adequate turning radius, using appropriate engineering templates.

9. *Parking.*

a. Parking spaces shall be calculated solely based upon the use(s) and the square footage of the principal building(s).

b. Parking spaces shall be screened from abutting residential properties in compliance with §1007.043 (17) of this Ordinance.

10. *Noise.* Public address system shall not be audible at any property line. Play of music or advertisement from the public address system is prohibited. Noise control shall be required as regulated in §1007.043 (10) of this Ordinance.

11. *Outside Storage, Sales and Service.* No outside storage or sales shall be allowed, except as follows:

a. Public phones may be located on site as long as they do not interrupt on-site traffic circulation, and are not located in a yard abutting residentially zoned property.

b. Propane sales of twenty (20) pound capacity tanks may be located outside provided the propane tanks are secured in a locker and meets all State Uniform Building and Fire Codes.

Large, bulk sale propane tanks must meet all applicable building and fire code requirements.

c. A compressed air service area may be located on site as long as it does not interrupt on-site traffic circulation.

d. Accessory outdoor services, sales, or rental as regulated by §1007.112 (7)(f) of this Ordinance.

12. *Litter Control.* The operation shall be responsible for litter control on the subject property, which is to occur on a daily basis. Trash receptacles shall be provided at a convenient location on site to facilitate litter control.

13. *Additional Stipulations.* All conditions pertaining to a specific site are subject to change when the Council, upon investigation in relation to a formal request finds that the general welfare and public betterment can be served as well or better by modifying or expanding the conditions set forth herein.

(h) Outdoor recreation facilities provided that:

1. The facilities are an accessory use to a principal use allowed within the GB District.

2. The facilities meet the principal building setbacks.

3. The facilities shall maintain a fifty (50) foot setback from residential districts.

4. The facilities shall be screened from adjoining properties or public rights-of-way.

5. The City may set limits on the hours of operation to avoid nuisance issues.

(i) Motor Vehicle Sales Lot provided that:

1. Outside sales areas are fenced or screened from view of neighboring residential uses or an abutting residential district in compliance with §1007.043 (17) of this Ordinance.

2. Outside services and sales are associated with a principal building of at least one thousand (1,000) square feet of floor area.

3. The entire sales lot and off-street parking area is paved.

4. Parking for customers and employees must be provided in compliance with §1007.044 (6)(x).

5. For automobile sales activities, a minimum of three hundred eighty (380) square feet of sales area per vehicle is provided exclusive of required parking areas. Minimum sales

area for all other motor vehicles will be determined by the City Council during the review of the conditional use permit.

6. A perimeter curb is provided around the sales/parking lot.

7. All lighting shall be hooded and so directed that the light source is not visible from the public right-of-way or from an abutting residence and shall be in compliance with §1007.043 (6) of this Ordinance.

8. Vehicles for sale shall be displayed in an orderly manner.

(j) Planned unit development – commercial including shopping centers regulated by §1007.024 of this Ordinance.

(k) Private lodges and clubs provided that:

1. Screening from residential uses and landscaping is provided in compliance with requirements for business or industrial uses in §1007.043 (17) of this Ordinance

2. Adequate off-street parking and access is provided on the site or on lots directly abutting directly across a public street or alley to the principal use in compliance with §1007.044 of this Ordinance

3. Parking is screened and landscaped in compliance with requirements for business or industrial uses in §1007.043 (17) of this Ordinance.

4. Adequate off-street loading and service entrances are provided and regulated where applicable by §1007.045 of this Ordinance.

(l) Public, Educational, and Religious Buildings. Public or semi-public recreational buildings and neighborhood or community centers; limited to nursery, elementary, junior high and senior high schools; and religious institutions such as churches, chapels, temples, mosque, and synagogues provided that:

1. Screening from residential uses and landscaping is provided in compliance with requirements for business or industrial uses in §1007.043 (17) of this Ordinance.

2. Adequate off-street parking and access is provided on the site or on lots directly abutting directly across a public street or alley to the principal use in compliance with §1007.044 of this Ordinance

3. Parking is screened and landscaped in compliance with requirements for business or industrial uses in §1007.043 (17) of this Ordinance.

4. Adequate off-street loading and service entrances are provided and regulated where applicable by §1007.045 of this Ordinance.

(m) Small engine and boat repair provided that:

1. The lighting shall be accomplished in such a way as to have no direct source of light visible from adjacent land in residential use or from the public right-of-way and shall be in compliance with §1007.043 (6) of this Ordinance.

2. At the boundaries of a residential district, a strip of not less than five (5) feet shall be landscaped and screened in compliance with §1007.043 (17) of this Ordinance.

3. Vehicular access points shall create a minimum of conflict with through traffic movement and shall comply with §1007.044 of this Ordinance and shall be subject to the approval of the City Engineer.

4. Provisions are made to control and reduce noise.

5. No outside storage, repair or sales except in compliance with §1007.112 (7)(f) or §1007.112 (8)(i) of this Ordinance shall be allowed.

6. All conditions pertaining to a specific site are subject to change when the Council, upon investigation in relation to a formal request, finds that the general welfare and public betterment can be served as well or better by modifying the conditions.

(n) Veterinary Hospitals provided that:

1. All areas in which animals are confined are located indoors and are properly soundproofed from adjacent properties.

2. Animal carcasses are properly disposed of in a manner not utilizing on-site garbage facilities or incineration and the carcasses are properly refrigerated during periods prior to disposal.

3. An indoor animal kennel is permitted as a use accessory to the veterinary hospital provided that:

a. The number of animals boarded shall not exceed twenty (20).

b. An indoor exercise area shall be provided to accommodate the periodic exercising of animals boarded at the kennel. No outdoor exercising of animals shall be permitted.

c. A ventilation system shall be designed so that no odors or organisms will spread between wards or to the outside air and will be capable of completely exchanging internal air at a rate of at least twice per hour. Air temperature must be maintained between 60 and 75 degrees Fahrenheit.

d. A room separate from the kennel area shall be provided of sufficient size to adequately separate animals that are sick or injured from healthy animals.

e. Indoor animal kennel floors and walls shall be made of non-porous materials or sealed concrete to make it non-porous.

f. Animal wastes shall be flushed down an existing sanitary sewer system or enclosed in a container of sufficient construction to eliminate odors and organisms and shall be properly disposed of at least once a day.

4. The appropriate license is obtained from the City and the conditions of Chapter 503 relating to the keeping of animals are satisfactorily met.

5. All State Health Department and Minnesota Pollution Control Agency requirements for such facilities are met.

(9) *Uses by Administrative Permit.* Subject to applicable provisions of this Ordinance, the following uses are allowed by administrative permit, as may be approved by the Zoning Administrator:

(a) Personal wireless service antennas as secondary uses as regulated by §1007.053 of this Ordinance.

(b) Home Occupation Level B as regulated by §1007.047 of this Ordinance.

(c) Accessory outdoor dining or seating facilities intended for consumption of food or beverages purchased on site, provided that requirements of §1007.055 are met. This administrative permit may be incorporated into another approval such as but not limited to a site plan, planned unit development, or building permit.

(d) Open Air Markets.

(e) Transient Merchants.

(10) *Interim Uses.* Subject to applicable provisions of this Ordinance, the following are interim uses in the GB District and are governed by §1007.017 of this Ordinance:

(a) None.

§ 1007.113 CB, CENTRAL BUSINESS DISTRICT AND SC, SHOPPING CENTER DISTRICT

(1) Land formerly within a CB, Central Business District or SC, Shopping Center District is hereby zoned GB, General Business District. *(as amended per Ord. No. 04-05)*

§ 1007.114 SC, SHOPPING CENTER DISTRICT/PDO, PLANNED DEVELOPMENT OVERLAY

(1) Land formerly within a SC, Shopping Center District that has been rezoned to PDO, Planned Development Overlay prior to adoption of this ordinance shall be subject to the provisions of the PDO ordinance. Where provisions are not specified within the PDO ordinance the property shall be governed by the requirements of the GB, General Business District. *(as amended per ord. No. 04-05)*

INDUSTRIAL DISTRICTS

§ 1007.120 LI, LIGHT INDUSTRIAL DISTRICT.

(1) *Purpose.* These areas are intended to attract and encourage new light industrial, high-tech business and professional services. These areas have the prerequisites for industrial development, but because of proximity to residential areas or the need to protect certain areas or uses from adverse influences, high development standards will be necessary. LI uses include service industries and industries which manufacture, fabricate, assemble or store, where the process is not likely to create offensive noise, vibrations, dust, heat, smoke, odor, glare, or other objectionable influences. Generally, these include wholesale, service and light industries which are dependent upon raw materials refined elsewhere. No new land shall be zoned LI, Light Industrial unless the site or area lies within the City's MUSA and sanitary sewer and municipal water is available.

(2) Lot and Yard Requirements.

(a) Minimum Lot Size.

1. *Sewered Lot.* One (1) acre.

2. *Unsewered Lot.* Ten (10) acres in accordance with applicable provisions of §1007.041 of this Ordinance.

(b) *Minimum Lot Width.* One hundred (100) feet.

(c) *Setbacks.* (The greater of the following:)

1. From Streets.

a. *Principal and Accessory Building - Local Street.* Thirty (30) feet.

b. *Principal and Accessory Building - Collector or Arterial Street.* Fifty (50) feet.

c. *Parking Lot.* Fifteen (15) feet.

2. Rear Yard.

a. *Principal Building.* Fifteen (15) feet.

b. *Accessory Building.* Ten (10) feet.

c. *Parking Lot.* Five (5) feet.

3. Side Yard.

a. *Principal Building.* Ten (10) feet.

b. *Accessory Building.* Ten (10) feet.

c. *Parking Lot.* Five (5) feet.

4. *From property guided by the comprehensive plan for residential development.* Seventy-five (75) feet.

(3) *Buffer.* Where a side or rear lot line in an LI District coincides with an adjacent public road right-of-way or property guided by the comprehensive plan for residential or commercial development, a landscape buffer area shall be provided along such side or rear lot line not less than forty (40) feet in depth and shall contain landscaping, planting, berming or other effective screening suitable to provide an effective screen in compliance with §1007.043 (17)(f) of this Ordinance.

(4) *Maximum Building Height.* Forty-five (45) feet in height, except as allowed by §1007.043 (3).

(5) *Maximum Impervious Surface Coverage.* Seventy-five (75) percent of the lot area.

(6) *Building Requirements.* All newly constructed industrial buildings shall meet the exterior building standards of §1007.043 (2)(d) of this Ordinance.

(7) *Permitted Uses.* Subject to applicable provisions of this Ordinance, the following are permitted uses in the LI District.

(a) Beverage production and bottling, including public tours of the facilities and gift shops containing merchandise directly related to the facility.

(b) Building material sales.

(c) Carpet and rug cleaning.

(d) Community gardens operated by the city.

(e) Construction-related businesses, including shops and offices for plumbing, heating, glazing, painting, paper hanging, roofing, ventilating, electrical, carpentry, welding, landscaping, excavating, general contracting and similar uses, including contractor storage of equipment and building materials if enclosed within a building, but not storage yards.

(f) Feed and seed sales.

(g) Greenhouses, nurseries.

(h) Laundry, dry cleaning or dying plant.

(i) Manufacturing or assembly of a wide variety of products that produces no exterior noise, glare, fumes, noxious products, by-products, or wastes, or creates other objectionable impact on the environment, including the generation of large volumes of traffic.

(j) Mass transit terminals.

(k) Office business—clinic and general.

(l) Radio and television stations.

(m) Recreational business contained entirely within the principal building.

(n) Research laboratories

(o) Trade or Business schools.

(p) Warehousing and distribution facilities, but not including truck freight trucking terminal or mini self-storage facilities per §1007.001 (2) of this Ordinance.

(q) Wholesale businesses/showrooms.

(8) *Accessory Uses.* Subject to applicable provisions of this Ordinance, the following are accessory uses in the LI District:

(a) Accessory buildings and structures as regulated by §1007.043 (4)(j) of this Ordinance.

(b) Accessory indoor retail, rental or service activities other than that allowed as a permitted or conditional use within the Light Industrial zoning district, provided such use is related and accessory to a principle use allowed within the Light Industrial zoning district.

(c) Fences as regulated by §1007.043 (18) of this Ordinance.

(d) Off-street loading as regulated by §1007.045 of this Ordinance.

(e) Off-street parking as regulated by §1007.044 of this Ordinance.

(f) Radio and television receiving antennas, satellite dishes, TVROs three (3) meters or less in diameter, short-wave dispatching antennas, or those necessary for the operation of electronic equipment including radio receivers, ham radio transmitters and television receivers as regulated by §1007.053 of this Ordinance.

(g) Signs as regulated by Chapter 1010 of the City Code.

(h) Brewer taprooms accessory to a malt liquor beverage production and bottling facility.

(i) Liquor sales, on sale through brewer taprooms and off sale pursuant to Minnesota Statutes section 340A.301, subdivision 7(b), all accessory to a malt liquor beverage production and bottling facility.

(9) *Conditional Uses.* Subject to applicable provisions of this Ordinance, the following are conditional uses in the LI District. These uses require a conditional use permit based on criteria and procedures outlined in §1007.016 of this Ordinance.

(a) Automobile and truck repair provided that:

1. All painting must be conducted in an approved paint booth per §1007.043 (8).

2. All flammable materials, including liquids and rags, shall conform with the applicable provisions of the Minnesota Uniform Fire Code.

3. All outside storage shall be prohibited except the storage of customer vehicles waiting for repair.

(b) Commercial and Public Radio and Television Transmitting Antennas, and Public Utility Microwave Antennas greater than forty-five (45) feet in height and less than two hundred (200) feet in height as regulated by §1007.053 of this Ordinance.

(c) Commercial Kennels, provided that:

1. The applicable provisions of Chapter 503 are determined to be satisfied.

2. Cages, enclosures and housing facilities shall be at least five hundred (500) feet from any residential property line.

3. An enclosed indoor or exterior exercise area shall be provided to accommodate the periodic exercising of animals boarded at the kennel. Exterior exercise areas shall be enclosed by an eight (8) foot high solid fence.

4. All animals shall be housed indoors for overnight boarding.

(d) Mini self-storage facilities provided that:

1. No single building shall be greater than one hundred fifty (150) feet in length.

2. If an “on-premises” caretaker dwelling unit is provided on site, construction of said dwelling unit shall conform to all design standard regulations for multiple family dwelling units of the Minnesota State Building Code.

3. No retailing, wholesaling, manufacturing, repair, or other such activity other than storage is to occur within the mini self-storage facility.

(e) Open and outdoor storage (not outdoor sales lots) as an accessory use provided that:

1. The designated storage area shall comply with all building setback requirements for the district. Outside storage is prohibited between the principal structure and any public right-of-way.

2. The storage area is landscaped and screened from view of adjacent uses and public rights-of-way via a fence and greenbelt planting strip, in accordance with §1007.043 (17)(f) of this Ordinance.

3. The entire storage area is fenced and secured in an appropriate manner.

4. The storage area is blacktopped or concrete surfaced, unless an alternative wear-resistant material is determined by the City Engineer to be suitable to control dust and drainage and is specifically approved by the City Council.

5. The storage area does not take up parking space or loading space as required for conformity to this Ordinance and is not located in the front yard.

6. The property shall not abut I-35W or I-35E.

7. The ratio of storage area to building footprint shall not exceed 2.5:1.

8. All parking, loading and truck staging activities shall occur on site. On-street parking and loading associated with the use is prohibited.

9. Storage shall not include material considered hazardous under Federal or State Environmental Law.

(f) Veterinary Hospitals provided that:

1. All areas in which animals are confined are located indoors and are properly soundproofed from adjacent properties.

2. Animal carcasses are properly disposed of in a manner not utilizing on-site garbage facilities or incineration and the carcasses are properly refrigerated during periods prior to disposal.

3. An indoor animal kennel is permitted as a use accessory to the veterinary hospital provided that:

a. The number of animals boarded shall not exceed forty (40).

b. An enclosed indoor or exterior exercise area shall be provided to accommodate the periodic exercising of animals boarded at the kennel. Exterior exercise areas shall be limited to a maximum of twenty-five (25) percent of the gross floor area of the principal use.

c. A ventilation system shall be designed so that no odors or organisms will spread between wards or to the outside air and will be capable of completely exchanging internal air at a rate of at least twice per hour. Air temperature must be maintained between 60 and 75 degrees Fahrenheit.

d. A room separate from the kennel area shall be provided of sufficient size to adequately separate animals that are sick or injured from healthy animals.

e. Indoor animal kennel floors and walls shall be made of non-porous materials or sealed concrete to make it non-porous.

f. Animal wastes shall be flushed down an existing sanitary sewer system or enclosed in a container of sufficient construction to eliminate odors and organisms and shall be properly disposed of at least once a day.

4. The appropriate license is obtained from the City and the conditions of Chapter 503 relating to the keeping of animals are satisfactorily met.

5. All State Health Department and Minnesota Pollution Control Agency requirements for such facilities are met.

(10) *Uses by Administrative Permit.* Subject to applicable provisions of this Ordinance, the following uses are allowed by administrative permit, as may be approved by the Zoning Administrator:

(a) Personal wireless service antennas as secondary uses as regulated by §1007.053 of this Ordinance.

(b) Telecommunication towers as regulated by §1007.053 of this Ordinance.

(c) Temporary mobile towers as regulated by §1007.053 of this Ordinance.

(d) Open Air Markets.

(e) Transient Merchants.

(f) Accessory outdoor dining or seating facilities intended for consumption of food or beverages purchased on site, provided that requirements of §1007.054 are met.

(11) *Interim Uses.* Subject to applicable provisions of this Ordinance, the following are interim uses in the LI District and are governed by §1007.017 of this Ordinance:

(a) Temporary Batch Plants.

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§ 1007.121 GI, GENERAL INDUSTRIAL DISTRICT.

(1) *Purpose.* These are areas which, because of availability to thoroughfares, suitable topography, and isolation, are appropriate for industrial uses of a more intense nature and ones which may have certain nuisance characteristics. No new land shall be zoned GI, General Industrial unless the site or area lies within the City's MUSA and sanitary sewer and municipal water is available.

(2) District, Lot and Yard Requirements.

(a) Minimum Lot Size.

1. Sewered Lot. One (1) acre.

2. Unsewered Lot. Ten (10) acres in accordance with applicable provisions of §1007.041 of this Ordinance.

(b) *Minimum Lot Width.* One hundred (100) feet.

(c) *Setbacks.* (The greater of the following:)

1. From Streets.

a. *Principal and Accessory Building - Local Street.* Fifty (50) feet.

b. *Principal and Accessory Building - Collector or Arterial Street.* Fifty (50) feet.

c. *Parking Lot.* Fifteen (15) feet.

2. Rear Yard.

a. *Principal Building.* Fifteen (15) feet.

b. *Accessory Building.* Ten (10) feet.

c. *Parking Lot.* Five (5) feet.

3. Side Yard.

a. *Principal Building.* Ten (10) feet.

b. *Accessory Building.* Ten (10) feet.

c. *Parking Lot.* Ten (10) feet.

4. *From property guided by the comprehensive plan for residential development.* One hundred (100) feet.

(3) *Buffer.* Where a side or rear lot line in a GI District coincides with an adjacent public road right-of-way or property guided by the comprehensive plan for residential or commercial development, a landscape buffer area shall be provided along such side or rear lot line not less than forty (40) feet in depth and shall contain landscaping, planting, berming or other effective screening suitable to provide an effective visual screen in compliance with §1007.043 (17)(f) of this Ordinance.

(4) *Maximum Building Height.* Forty-five (45) feet, except as allowed by §1007.043 (3).

(5) *Maximum Impervious Surface Coverage.* Seventy-five (75) percent of the lot area.

(6) *Building Requirements.* All newly constructed industrial buildings shall meet the exterior building standards of §1007.043 (2)(d) of this Ordinance.

(7) *Permitted Uses.* Subject to applicable provisions of this Ordinance, the following are permitted uses, in the GI District:

(a) Beverage production and bottling, including public tours of the facilities and gift shops containing merchandise directly related to the facility.

(b) Building material sales.

(c) Commercial (production) bakery.

(d) Community gardens operated by the city.

(e) Construction-related businesses, including shops and offices for plumbing, heating, glazing, painting, paper hanging, roofing, ventilating, electrical, carpentry, welding, landscaping, excavating, general contracting and similar uses, including contractor storage of equipment and building materials if enclosed within a building, but not storage yards.

(f) Feed and seed sales.

(g) Greenhouses, nurseries.

(h) Laundry, dry cleaning or dying plant.

(i) Manufacturing or assembly of a wide variety of products that produces no exterior noise, glare, fumes, noxious products, by-products, or wastes, or creates other objectionable impact on the environment, including the generation of large volumes of traffic.

(j) Mass transit terminals.

(k) Office business—clinic and general.

(l) Radio and television stations.

(m) Warehousing and distribution facilities, but not including truck freight transfer stations or mini self-storage facilities.

(n) Wholesale businesses/showrooms.

(8) *Accessory Uses.* Subject to applicable provisions of this Ordinance, the following are accessory uses in the GI District:

(a) Accessory buildings and structures as regulated by §1007.043 (4)(j) of this Ordinance.

(b) Accessory indoor retail, rental or service activities other than that allowed as a permitted or conditional use within the General Industrial zoning district, provided such use is related and accessory to an allowed principal use in the district.

(c) Crude oil, gasoline or other liquid storage tanks (not including bulk propane at motor fuel stations for providing service to the general public) where related and accessory to an allowed principal use in the district.

(d) Fences as regulated by §1007.043 (18) of this Ordinance.

(e) Off-street loading as regulated by §1007.045 of this Ordinance.

(f) Off-street parking as regulated by §1007.044 of this Ordinance.

(g) Radio and television receiving antennas, satellite dishes, TVROs three (3) meters or less in diameter, short-wave dispatching antennas, or those necessary for the operation of electronic equipment including radio receivers, ham radio transmitters and television receivers as regulated by §1007.053 of this Ordinance.

(h) Signs as regulated by Chapter 1010 of the City Code.

(i) Brewer taprooms accessory to a malt liquor beverage production and bottling facility.

(j) Liquor sales, on sale through brewer taprooms and off sale pursuant to Minnesota Statutes section 340A.301, subdivision 7(b), all accessory to a malt liquor beverage production and bottling facility.

(9) *Conditional Uses.* Subject to applicable provisions of this Ordinance, the following are conditional uses in the GI District. These uses require a conditional use permit based on the criteria and procedures outlined in §1007.016 of this Ordinance.

(a) Automobile and truck repair provided that:

1. All painting must be conducted in an approved paint booth per §1007.043 (8).

2. All flammable materials, including liquids and rags, shall conform to the applicable provisions of the Minnesota Uniform Fire Code.

3. All outside storage shall be prohibited except the storage of customer vehicles waiting for repair.

(b) Commercial and Public Radio and Television Transmitting Antennas, and Public Utility Microwave Antennas greater than forty-five (45) feet in height and less than two hundred (200) feet in height as regulated by §1007.054 of this Ordinance.

(c) Concrete product plants, building materials production and similar uses provided that:

1. Storage areas are landscaped, fenced and screened from view of neighboring uses, properties guided by the comprehensive plan for residential or commercial development, and public rights-of-way in compliance with §1007.043 (17)(f) of this Ordinance.

(d) Commercial Kennels, provided that:

1. The applicable provisions of Chapter 503 are determined to be satisfied.

2. Cages, enclosures and housing facilities shall be at least five hundred (500) feet from any residential property line.

3. An enclosed indoor or exterior exercise area shall be provided to accommodate the periodic exercising of animals boarded at the kennel. Exterior exercise areas shall be enclosed by an eight (8) foot high solid fence.

4. All animals shall be housed indoors for overnight boarding.

(e) Manufacture of materials, including but not limited to, rubber, corrosive acids, petroleum and chemical products, which pose potential health and safety risks and which when produced give off potentially noxious odors.

(f) Mini self-storage facilities provided that:

1. No single building shall be greater than one hundred fifty (150) feet in length.

2. If an “on-premises” caretaker dwelling unit is provided on site, construction of said dwelling unit shall conform to all design standard regulations for multiple family dwelling units of the Minnesota State Building Code.

3. No retailing, wholesaling, manufacturing, repair, or other such activity other than storage is to occur within the mini self-storage facility.

(g) Open and outdoor storage (not outdoor sales lots) as an accessory use provided that:

1. The designated storage area shall comply with all building setback requirements for the district. Outside storage is prohibited between the principal structure and any public right-of-way.

2. The storage area is landscaped and screened from view of adjacent uses and public rights-of-way via a fence and greenbelt planting strip, in accordance with §1007.043 (17)(f) of this Ordinance.

3. The entire storage area is fenced and secured in an appropriate manner.

4. The storage area is blacktopped or concrete surfaced, unless an alternative wear-resistant material is determined by the City Engineer to be suitable to control dust and drainage and is specifically approved by the City Council.

5. The storage area does not take up parking space or loading space as required for conformity to this Ordinance and is not located in the front yard.

6. The property shall not abut I-35W or I-35E.

7. All parking, loading and truck staging activities shall occur on site. On-street parking and loading associated with the use is prohibited.

8. Storage shall not include material considered hazardous under Federal or State Environmental Law.

(h) Refuse/garbage transfer stations provided that:

1. No refuse or garbage shall be stored or in any way disposed of on the site.

2. The storage of refuse or garbage in the front yard shall be prohibited.

3. The site shall be maintained free of litter and any other undesirable materials and will be cleaned of loose debris on a daily basis.

4. One (1) off-street parking space shall be provided for each commercial vehicle operated by the business. Parking requirements will otherwise be as mandated by the provisions of §1007.044 of this Ordinance.

5. All in bound and out bound trucks and equipment, excluding employee's personal vehicles, shall be restricted to designated routes established by the City, except for times when providing collection service to customers within the City limits.

6. The hours of operation shall be limited as necessary to minimize the effects of nuisance factors such as traffic, noise, and glare upon any existing neighboring residential uses, or residential zoning districts.

(i) Trucking terminals provided that:

1. Vehicular access points shall be located along arterial streets and shall be limited and designed and constructed to create a minimum of conflict with through traffic movement.

(10) *Uses by Administrative Permit.* Subject to applicable provisions of this Ordinance, the following uses are allowed by administrative permit, as may be approved by the Zoning Administrator:

(a) Personal wireless service antennas as secondary uses as regulated by §1007.053 of this Ordinance.

(b) Telecommunication towers as regulated by §1007.053 of this Ordinance.

(c) Temporary mobile towers as regulated by §1007.053 of this Ordinance.

(d) Open Air Markets.

(e) Transient Merchants.

(f) Accessory outdoor dining or seating facilities intended for consumption of food or beverages purchased on site, provided that requirements of §1007.054 are met.

(11) *Interim Uses.* Subject to applicable provisions of this Ordinance, the following are interim uses in the GI District:

(a) Temporary Batch Plants.

§ 1007.130 PSP, PUBLIC AND SEMI-PUBLIC DISTRICT.

(1) *Purpose.* This district is designed and intended to aid in guiding development towards fulfillment of the Comprehensive Plan and to serve the following functions:

(a) To provide the community with properly located schools, colleges, and health institutions.

(b) To provide the community with properly located public services, public utilities, and public or private communication antennas.

(c) To provide the community with properly located open green space, parks, playgrounds and recreational facilities.

(d) To relate public and semi-public locations with thoroughfare system.

(2) *Lot and Yard Requirements.*

(a) *Minimum Lot Size.*

1. *Sewered Lot.* One (1) acre.

2. *Unsewered Lot.* Ten (10) acres in accordance with applicable provisions of §1007.041 of this Ordinance.

(b) *Minimum Lot Width.* One hundred fifty (150) feet.

(c) *Setbacks.* (The greater of the following:)

1. *From Streets.*

a. *Local Street.* Fifty (50) feet.

b. *Collector or Arterial Street.* Fifty (50) feet.

2. *Rear Yard.*

a. *Principal Building.* Thirty (30) feet.

b. *Accessory Building.* Ten (10) feet.

c. *Parking Lot/Driveway.* Ten (10) feet.

3. *Side Yard.*

a. *Principal Building*. Ten (10) feet.

b. *Accessory Building.* Ten (10) feet.

c. *Parking Lot/Driveway.* Five (5) feet.

(3) *Height Regulations.* No building in the PSP District shall be erected or structurally altered to exceed forty-five (45) feet in height.

(4) *Impervious Surface Coverage.* In no event shall off-street parking space, structures of any type, buildings, or other features cover more than sixty-five (65) percent of the lot area resulting in less than thirty-five (35) percent pervious landscaped area.

(5) *Building Requirements.* All newly constructed buildings in the PSP District shall meet the applicable exterior building standards of §1007.043(2)(D) of this Ordinance.

(6) *Permitted Uses.* In the PSP District, no building or land shall be used, and no building shall be erected, converted or structurally altered unless otherwise provided herein, except for one or more of the following uses.

(a) All public buildings for county and state government.

(b) All public buildings for municipal government, such as City Hall, water works, sewage plant, police, fire, etc.

(c) Cemeteries.

(d) Clinics, rest homes, nursing homes.

(e) Public parks and recreation facilities, golf courses.

(f) Community Gardens operated by the city.

(7) *Accessory Uses.* Subject to applicable provisions of this Ordinance, the following are permitted accessory uses in the PSP District:

(a) Accessory buildings and structures as regulated by §1007.043(4)(i) of this Ordinance.

(b) Fences, as regulated by §1007.043 (18) of this Ordinance.

(c) Off-street parking as regulated by §1007.044 of this Ordinance.

(d) Off-street loading as regulated by §1007.045 of this Ordinance.

(e) Radio and television receiving antennas, satellite dishes, TVROs three (3) meters or less in diameter, short-wave dispatching antennas, or those necessary for the operation of electronic equipment including radio receivers, ham radio transmitters and television receivers as regulated by §1007.054 of this Ordinance.

(f) Signs, as regulated by the city sign ordinance, Ord. No. 12-97, as amended, of the City Code.

(g) Parks, playgrounds, or athletic fields accessory to an allowed principal use.

(8) *Conditional Uses.* The following conditional uses may be allowed in the PSP District, subject to the provisions of §1007.016 of this Ordinance.

(a) All schools (public and private) provided that:

1. Side yards shall be double that required for the district, but no greater than thirty (30) feet.

2. Adequate screening from abutting residential uses and landscaping is provided in compliance with §1007.043 (17) of this Ordinance.

3. Adequate off-street parking and access is provided on the site or on lots directly abutting or directly across a public street or alley to the principal use in compliance with §1007.044 of this Ordinance and that such parking is adequately screened and landscaped from surrounding and abutting residential uses in compliance with §1007.043 (17) this Ordinance.

4. Adequate off-street loading and service entrances are provided and regulated where applicable by §1007.045 of this Ordinance.

5. The provisions of §1007.016 of this Ordinance are considered and determined to be satisfied.

(b) Hospitals provided that:

1. Side yards are double the minimum requirements established for this district and are screened in compliance with §1007.043 (17) of this Ordinance.

2. Only the rear yard shall be used for play or recreational areas. Said area shall be fenced and controlled in compliance with §1007.043 (17) of this Ordinance.

3. The site shall be served by an arterial or collector street of sufficient capacity to accommodate traffic which will be generated.

4. All State Statutes and regulations governing such use are strictly adhered to and all required operating permits are secured.

5. The provisions of §1007.016 of this Ordinance are considered and determined to be satisfied.

(9) *Uses by Administrative Permit.* Subject to applicable provisions of this Ordinance, the following uses are allowed by administrative permit, as may be approved by the Zoning Administrator:

(a) Personal wireless service antennas as secondary uses as regulated by §1007.054 of this Ordinance.

(b) Telecommunication towers as regulated by §1007.054 of this Ordinance.

(c) Temporary mobile towers as regulated by §1007.054 of this Ordinance.

(d) Open Air Markets.

(e) Transient Merchants.

(10) *Interim Uses.* Subject to applicable provisions of this Ordinance, the following are interim uses in the PSP District, and are governed by §1007.017 of this Ordinance:

(a) Farms, Farm Dwellings, Horticulture and Agriculture.

§ 1007.131 R-BR, RURAL-BUSINESS RESERVE DISTRICT.

(1) *Purpose.*

(a) This district is intended to preserve a rural very low density environment until such time as the land is needed for commercial and industrial uses. Residents of this district can expect to fully use the land for farming, grazing, animal husbandry, propagation of nursery stock, gardening, and other traditional rural uses. In addition, the district is meant to prevent incursion of those land uses that would adversely affect or diminish the rural character of the land. In particular, subdivisions of land for residential purposes as well as commercial and industrial uses without access to suitable infrastructure is not to be permitted. This district is also meant to serve the following functions:

1. To control and limit urban sprawl.

2. To conserve land in a viable economic status until such time as the need is present for rezoning to a business use district.

3. To reduce the possibility of rural-urban conflict in both the use of the land and in the extension of utilities and other infrastructure items.

4. To maintain acceptable per capita costs for City services such as snowplowing, road maintenance, and fire and police protection.

5. To define a "trigger mechanism" that will establish a formula for the rezoning of rural-business reserve land to a business use as needed.

(b) The R-BR District shall only be specifically applied to the following areas:

1. Rural residential properties located along 77th Street West.

2. Properties along I-35E north of the existing MUSA.

(2) *Rezoning (Trigger Mechanism).* Land in the R-BR District shall be rezoned by the City upon demonstration that all of the following applicable to a specific site are true:

(a) The land is within the City's MUSA and sanitary sewer service or municipal water is available or MUSA reserve is available and utilities can be extended to the site.

(b) The proposed use is not premature according to the requirements of the subdivision ordinance and/or site and building plan review.

(c) Rural residential properties along 77th Street West can be phased out through redevelopment and land assembly efforts in cooperation with property owners.

(d) Along I-35E, rezoned land shall be adjacent to the existing business district and shall extend from south to north in quarter mile increments. From that point on, rezoning may be initiated whenever the corridor has an inventory of land that is zoned business or industrial of no more than two hundred (200) acres.

(3) *Impact on Adjoining Property.* To protect the rural nature of the R-BR District, no activity in the adjacent business zoning district shall result in the following:

(a) Loud, boisterous, and disturbing noise levels.

(b) Hazardous traffic conditions.

(c) Offensive, obnoxious, and disturbing odors.

(d) Excessive litter.

(e) Excessive artificial lighting.

(f) Any other condition inconsistent with the reasonable use and enjoyment of adjoining property and inconsistent with the health, safety, and general welfare of the adjoining community.

(4) *Lot and Yard Requirements.*

(a) *Minimum Lot Size.* Ten (10) acres.

(b) *Minimum Lot Width.* Three hundred thirty (330) feet.

(c) *Setbacks.*

1. *From Streets.*

a. *Local Street.* Thirty (30) feet.

b. *Collector or Arterial Street.* Forty (40) feet.

2. *Rear Yard.* Thirty (30) feet.

3. *Side Yard.*

a. *Interior.* Ten (10) feet.

b. *Corner.* Thirty (30) feet.

(5) *Minimum Floor Area Requirements.* The minimum outside dimension and floor area for single family dwellings shall be as follows:

(a) *Rambler.*

1. *Three Bedroom.* One thousand fifty (1,050) square feet.

2. *Two Bedroom.* Nine hundred eighty (980) square feet.

(b) *One and one-half Story.* Nine hundred eighty (980) square feet.

(c) *Split Foyer (Foyer, Stairs).* Nine hundred eighty (980) square feet.

(d) *Two Story.* Eight hundred fifty (850) square feet.

(6) *Height Regulations.* No building in the R-BR District shall be erected or structurally altered to exceed thirty (30) feet in height. These regulations shall not apply to barns, silos, or other farm buildings.

(7) *Permitted Uses.* In the R-BR District, no building or land shall be used or divided, and no building shall be erected, converted or structurally altered unless otherwise provided herein, except for one or more of the following uses.

(a) Agriculture, gardening and sod farming.

(b) Commercial greenhouses and nurseries.

(c) Day care nurseries (fourteen (14) or fewer persons).

(d) Golf courses and driving ranges.

(e) Governmental and public regulated utility buildings and structures necessary for the health, safety, and general welfare of the City.

(f) Home occupations as provided for in §1007.049 of this Ordinance.

(g) Public parks.

(h) Single family detached dwellings.

(i) State licensed residential care facility serving six (6) or fewer persons.

(j) Keeping of farm animals in compliance with Chapter 503.

(k) Temporary stands for the sale of agricultural products produced on the premises.

(l) Transmission towers/radio, television and other similar towers up to forty-five (45) feet in height.

(m) Community Gardens operated by the city.

(8) *Accessory Uses.* Subject to applicable provisions of this Ordinance, the following are accessory uses in the R-BR District:

(a) Accessory apartments as regulated by §1007.049 of this Ordinance.

(b) Accessory buildings including garages, tool houses, sheds and similar buildings for storage of domestic and farm supplies and non-commercial recreational equipment, as regulated by §1007.043 (4) of this Ordinance.

(c) Fences as regulated by §1007.043 (18) of this Ordinance.

(d) Home occupation Level A as regulated by §1007.047 of this Ordinance.

(e) Operation, parking, or storage of such vehicles, equipment and machinery which are incidental and customary to permitted or conditional uses allowed in this district.

(f) Radio and television receiving antennas, satellite dishes, TVROs three (3) meters or less in diameter, short-wave radio dispatching antennas, or those necessary for the operation of electronic equipment including radio receivers, ham radio transmitters and television receivers as regulated by §1007.054 of this Ordinance.

(g) Recreational vehicles and equipment per §1007.043 (16) of this Ordinance.

(h) Signs as regulated by the city sign ordinance, Ord. No. 12-97, as amended, of the City Code.

(i) Swimming pools, tennis courts and other recreational facilities which are operated for the enjoyment and convenience of the residents of the principal use and their guests, as regulated by §1007.043 (4) of this Ordinance.

(9) *Conditional Uses.* The following are conditional uses in the R-BR District:

1. Bicycle racing arenas, provided that:

2. The facility is provided adequate private on-site sewer and water facilities of sufficient size to accommodate the occupancy capacity of the arena.

3. Side yard setbacks shall not be less than fifty (50) feet.

4. Adequate screening from abutting residential uses and landscaping is provided in compliance with §1007.043 (17) of this Ordinance.

5. Adequate off-street parking and access is provided on the site or on lots directly abutting or directly across a public street or alley to the principal use in compliance with §1007.044 of this Ordinance and that such parking is adequately screened and landscaped from surrounding and abutting residential uses in compliance with §1007.043 (17) of this Ordinance.

6. Adequate off-street loading and service entrances are provided and regulated where applicable by §1007.045 of this Ordinance.

(b) Cemeteries provided that:

1. At minimum, the site accesses on a "major collector" street.

2. Where abutting a rural or residential zoning district, the periphery of the site shall be screened in accordance with §1007.043 (17) of this Ordinance.

(c) Commercial and Public Radio and Television Transmitting Antennas, and Public Utility Microwave Antennas greater than forty-five (45) feet in height and less than two hundred (200) feet in height as regulated by §1007.054 of this Ordinance.

(d) Commercial Stables, Commercial Kennels, and similar uses provided that:

1. The applicable provisions of Chapter 503 are determined to be satisfied.

2. Property shall be in conformance with minimum lot size requirements of this zoning district.

3. Cages, enclosures, and housing facilities shall be a minimum of 50 feet from any neighboring habitable dwelling and 100 feet from any property line, or located in the middle of the parcel, whichever is greater.

(e) Veterinary Hospitals provided that:

1. Property shall be in conformance with minimum lot size requirements of this zoning district.

2. All areas in which animals are confined are located indoors and are properly soundproofed from adjacent properties.

3. Animal carcasses are properly disposed of in a manner not utilizing on-site garbage facilities or incineration and the carcasses are properly refrigerated during periods prior to disposal.

4. An animal kennel is permitted as an accessory use to the veterinary hospital provided that:

a. The number of animals boarded shall not exceed forty (40).

b. An enclosed indoor or exterior exercise area shall be provided to accommodate the periodic exercising of animals boarded at the kennel.

c. A ventilation system shall be designed so that no odors or organisms will spread between wards or to the outside air and will be capable of completely exchanging internal air at a rate of at least twice per hour. Air temperature must be maintained between 60 and 75 degrees Fahrenheit.

d. A room separate from the kennel area shall be provided of sufficient size to adequately separate animals that are sick or injured from healthy animals.

e. Indoor animal kennel floors and walls shall be made of non-porous materials or sealed concrete to make it non-porous.

f. Animal wastes shall be flushed down an existing sanitary sewer system or enclosed in a container of sufficient construction to eliminate odors and organisms and shall be properly disposed of at least once a day.

g. A commercial kennel license is obtained from the City.

5. The applicable provisions of Chapter 503 are determined to be satisfied.

6. All State Health Department and Minnesota Pollution Control Agency requirements for such facilities are met.

(f) Day care facilities (exceeding fourteen (14) persons) provided that:

1. Such day care facility has access to adequate private sewer and water to protect the health and safety of all persons who occupy the facility.

2. Screening is provided along shared property boundaries. Such required fencing and screening shall comply with the applicable provisions of §1007.043 (17) of this Ordinance.

3. All day care facility operations comply with the minimum requirements of the Minnesota Department of Health and Human Services regulations, as may be amended.

(g) Public, Educational and Religious Buildings. Public or semi-public recreational buildings and neighborhood or community centers; public and private educational institutions limited to elementary, junior high and senior high schools; and religious institutions such as churches, chapels, temples, mosques and synagogues provided that:

1. Side yard setbacks shall not be less than fifty (50) feet.

2. Adequate screening from abutting residential uses and landscaping is provided in compliance with §1007.043 (17) of this Ordinance.

3. Adequate off-street parking and access is provided on the site or on lots directly abutting or directly across a public street or alley to the principal use in compliance with §1007.04 of this Ordinance and that such parking is adequately screened and landscaped from surrounding and abutting residential uses in compliance with §1007.043 (17) of this Ordinance.

(h) Home Occupation Level C as regulated by §1007.047 of this Ordinance.

(10) *Uses by Administrative Permit.* Subject to applicable provisions of this Ordinance, the following uses are allowed by administrative permit, as may be approved by the Zoning Administrator:

(a) Personal wireless service antennas as secondary uses as regulated by §1007.054 of this Ordinance.

(b) Home Occupation Level B as regulated by §1007.047 of this Ordinance.

(c) Open Air Market accessory to an institutional use and limited in area to 25% of the gross floor area of the principal building.

(d) Transient Merchants.

(11) *Interim Uses.* Subject to applicable provisions of this Ordinance, the following are interim uses in the R-BR District and are governed by §1007.017 of this Ordinance:

(a) Temporary Batch Plants.

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§ 1007.132 PUD, PLANNED UNIT DEVELOPMENT DISTRICT.

(1) *Purpose.* The purpose of the PUD, Planned Unit Development District is to provide for the integration and coordination of land parcels, as well as the combination or mixture of varying types of residential, commercial, and/or industrial land uses.

(2) *Application.* All permitted, permitted accessory or conditional uses contained in all zoning districts identified in §1007.080 through §1007.132 of this Ordinance shall be directed as potentially permitted uses within the PUD District.

(3) *Procedure.* Whether requested as a rezoning or initially established by City action alone, a PUD, Planned Unit Development District shall be established and governed subject to the amendment and procedure requirements as outlined in §1007.015 of this Ordinance, plus the procedures, conditions, and standards imposed by §1007.024 of this Ordinance.

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