



COMPREHENSIVE PLAN

COMPREHENSIVE SANITARY SEWER PLAN

CITY OF LONG LAKE | MINNESOTA

July 9, 2020

Prepared for:
City of Long Lake
450 Virginia Avenue, P.O. Box 606
Long Lake, MN 55356

WSB PROJECT NO. R-013305-000



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INTRODUCTION

The City of Long Lake is required to prepare a Comprehensive Plan that aligns with the Metropolitan Council's Metropolitan System Plan every ten years per Minnesota Rule 473.858. One component of the Comprehensive Plan is the Sanitary Sewer Plan, which evaluates the adequacy of the existing sanitary sewer system, projects sanitary sewer flows from future development, and recommends improvements to accommodate future flows. Ultimately, this plan is used by both the City, on a local basis, and the Metropolitan Council, on a regional basis, for long-term planning of sanitary sewer infrastructure.

The City of Long Lake's Sanitary Sewer Plan was developed to conform to the Metropolitan Council's Thrive MSP 2040 Water Resources Policy Plan. The Thrive MSP 2040 Plan was approved in May 2014 and outlines regional goals for the wastewater system, including environmental sustainability, water reuse, and water conservation. Additionally, the Thrive MSP 2040 Plan includes population, household, and employment projections, and projected wastewater flows.

The Metropolitan Council estimates that sanitary sewer flows will remain constant between now and 2040 for the City of Long Lake. However, redevelopment of certain areas within the City may cause increased flows in those areas and the sewer system that serves them. This Sanitary Sewer Plan outlines the locations in which the Metropolitan Council can expect to see increased wastewater flows, allowing the Council to determine if capacity upgrades will be required at regional wastewater treatment plants, lift stations, forcemains, and interceptors. This plan also serves as a guiding document for the City's capital improvement planning efforts.

BACKGROUND

The City of Long Lake is located in Hennepin County, in the west portion of the Twin Cities metropolitan area, and it is completely contained by the City of Orono. The bulk of Long Lake is residential, with some commercial and institutional properties in the northwest corner of the City along Wayzata Boulevard West (CSAH 112). Approximately 12 percent of the area of the City is occupied by lakes, principally Long Lake.

Long Lake has been designated entirely as a suburban community. According to the Thrive MSP 2040, suburban communities within the Twin Cities metropolitan area experienced continued growth and expansion during the 1980s and 1990s and typically have lower population densities. The Metropolitan Council expects Long Lake to, “plan for forecasted population and household growth at average densities of at least 5 units per acre for new development and redevelopment ... and to target opportunities for more intensive development near regional transit investments.”

The City of Long Lake has the following goals and objectives for its sanitary sewer system:

Goal 1: To economically provide municipal sanitary sewer facilities to the residents of Long Lake which will provide a high-quality level of service and low maintenance and operation costs.

Objective 1.1: Require all habitable structures to be connected to the City’s sanitary system.

Objective 1.2: Continue to monitor the sewer system eliminating any infiltration and/or inflow problems that may exists or develop in the sanitary sewer system and meet or exceed standards set by the Metropolitan Council.

Objective 1.3: Establish design and construction standards for sanitary sewer installation and maintenance to minimize potential sources of inflow/infiltration in the sewer collection system.

EXISTING SANITARY SEWER SYSTEM

Sanitary sewer systems typically consist of three elements: collection, conveyance and treatment. The Metropolitan Council Environmental Services (MCES) provides treatment for majority of the municipalities in the metropolitan area, including the City of Long Lake. Therefore, the City's sanitary sewer system is a collection and conveyance system only.

Sanitary Sewer Service Area and Intercommunity Flows

The City's sanitary sewer service area was divided into twelve districts. Sanitary sewer districts were delineated based on the connection points between the City's system and the MCES interceptor. It is common practice to divide sewer districts into sub-districts to better allocate wastewater flow to trunk sanitary sewer mains. However, since Long Lake's sewer districts were considered to be small, they were not further divided.

The City receives intercommunity sanitary sewer flows through several interconnections from the City of Orono. The properties in the City of Orono that flow into Long Lake's sanitary sewer system are summarized in **Table 1**. The City of Long Lake and the City of Orono have agreements in place to regulate the properties shown in **Table 1** that flow into Long Lake's sanitary sewer system from Orono (agreements can be found in **Appendix A**). The City's sanitary sewer service area, sewer districts, and areas of intercommunity flows with neighboring communities are shown in **Figure 1**.

Table 1. Intercommunity Flows

Neighboring Community	Flow INTO Long Lake	Flow OUT OF Long Lake
City of Orono	82 residential properties (15 vacant) 4 commercial properties	N/A

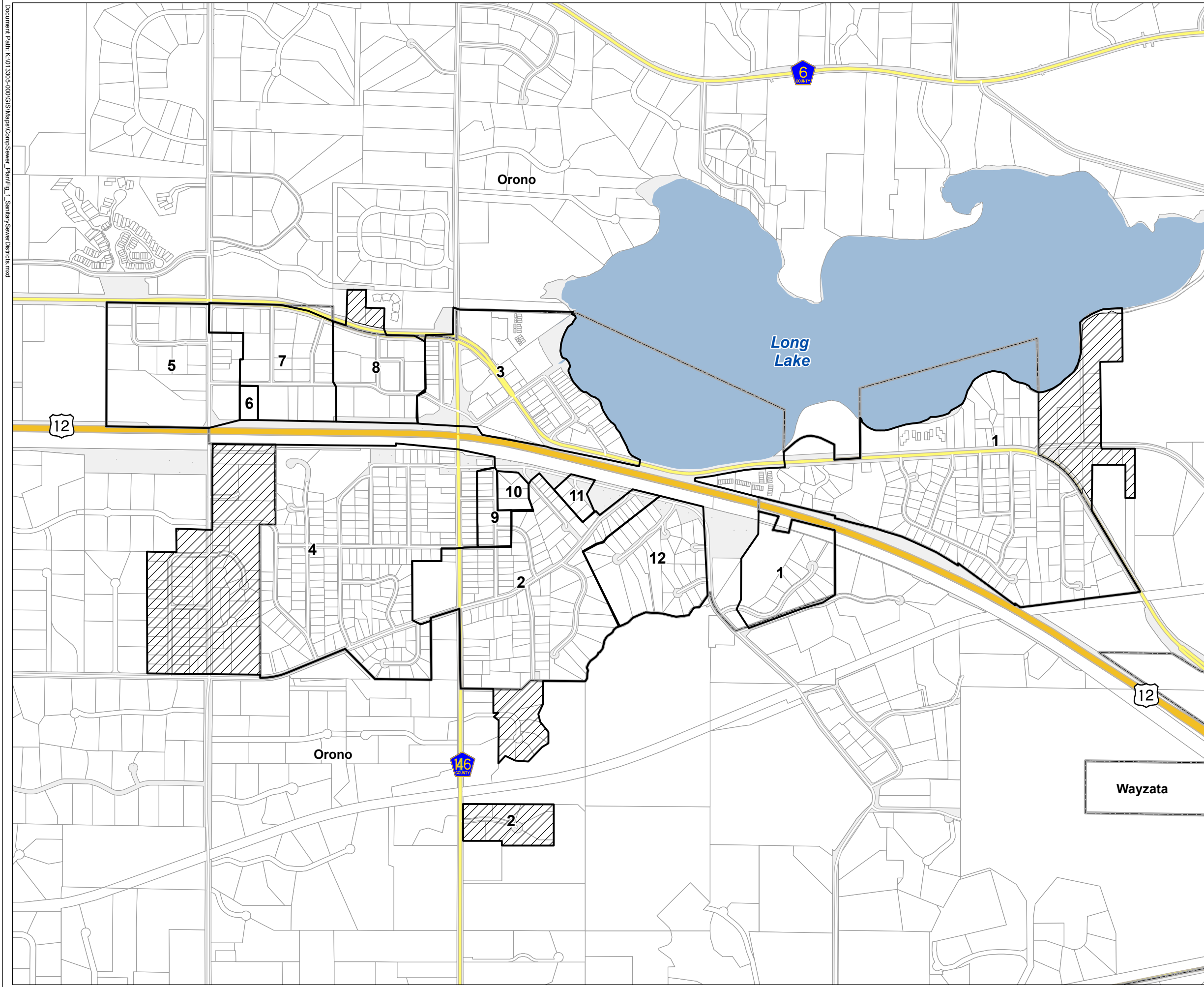
MCES flow meters M430 and M431 measure the entire wastewater flow generated within the City of Long Lake's sanitary sewer service area, which includes several interconnections with the City of Orono, and portions of the City of Orono located north of Long Lake that flow directly into the MCES system. All the wastewater flow collected within the City of Long Lake is conveyed by MCES Interceptor 8352A to MCES Regional Lift Station No. 60. Wastewater pumped by Regional Lift Station No. 60 is conveyed through a series of forcemains and gravity interceptors to the Blue Lake Wastewater Treatment Plant (WWTP), in Shakopee, MN. The Blue Lake WWTP is owned and operated by MCES and has a design capacity of 32 million gallons per day (MGD). MCES infrastructure located within the City of Long Lake is shown in **Figure 2**.

Gravity Sewer

The City of Long Lake's gravity sewer includes 6-inch through 15-inch diameter pipe. Much of the system is vitrified clay pipe (VCP), although other pipe materials include cast iron pipe (CIP), ductile iron pipe (DIP), high density polyethylene (HDPE) pipe, polyvinyl chloride (PVC) pipe, and reinforced concrete pipe (RCP). The City's gravity sanitary sewer system, including its lift stations and their service areas, is shown in **Figure 3**. **Figure 3** also identifies the trunk sewers that were included in the capacity analysis of this Sanitary Sewer Plan.



Long Lake, Minnesota
2040 Comprehensive Plan
Figure 1 - Sanitary Sewer Districts



Legend

- Intercommunity Service Area
- City Sewer Districts
- Parcels
- City Boundary

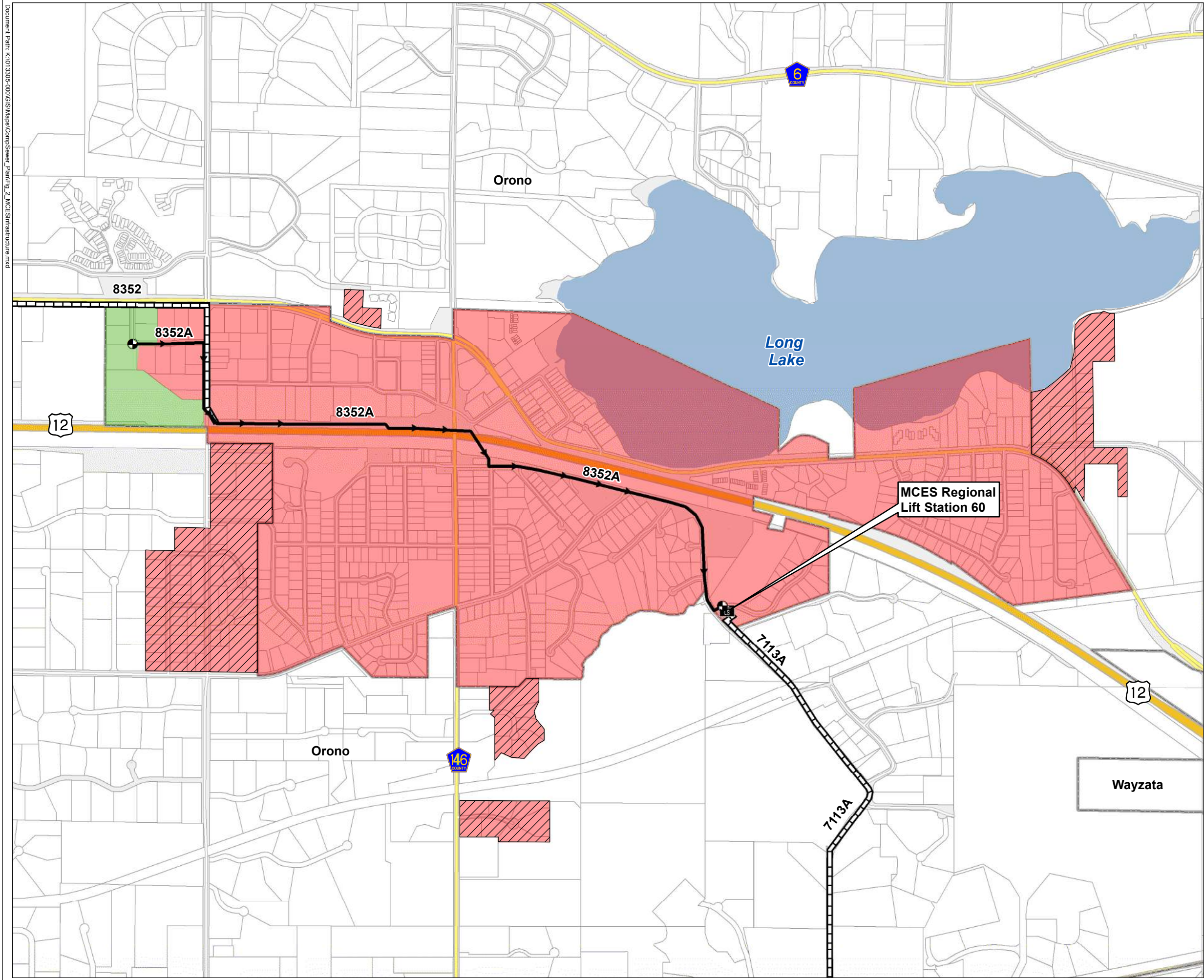


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1 inch = 1,000 feet





**Long Lake, Minnesota
2040 Comprehensive Plan**
Figure 2 - MCES Infrastructure



Legend

- Intercommunity Service Area
- MCES Infrastructure**
 - Lift Station
 - Forcemain
 - Gravity Interceptor
 - Flow Meter
- MCES Metershed**
 - M430
 - M431
 - Parcels
 - City Boundary

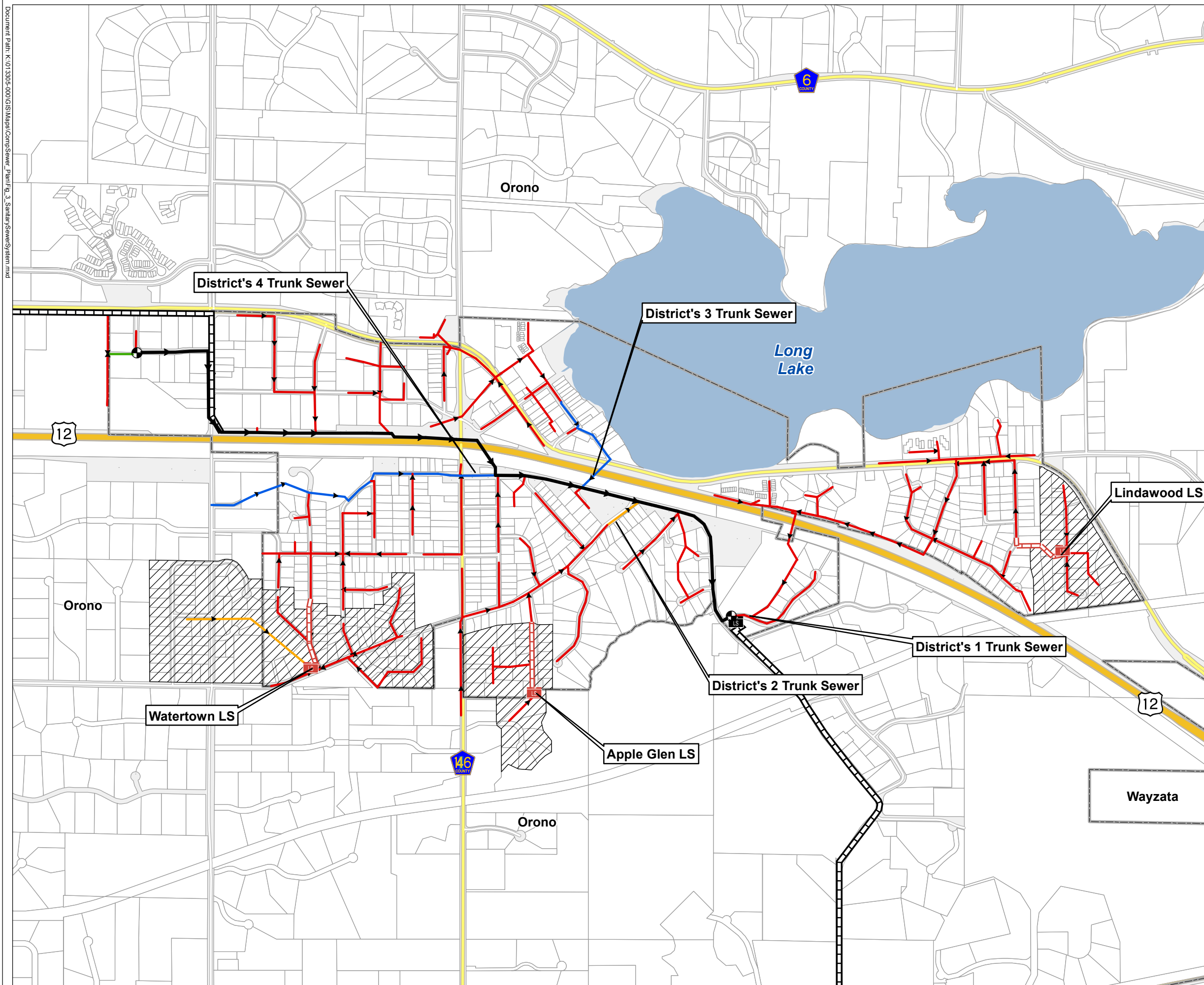


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Long Lake, Minnesota
2040 Comprehensive Plan
Figure 3 - Sanitary Sewer System



Legend

MCES Infrastructure

- Lift Station
- Forcemain
- Gravity Interceptor
- Flow Meter

City Infrastructure

- Lift Station
- Forcemain
- Lift Station Service Areas

Gravity Sewer - Diameter

- 8"
- 10"
- 12"
- 15"

- Parcels
- City Boundary



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Feet
1 inch = 1,000 feet



Existing Wastewater Flows

MCES meter flow data was used to estimate existing and historical wastewater flows for the City of Long Lake. The entire flow generated within the City of Long Lake is measured by MCES meter M430. In addition to the wastewater generated within Long Lake, meter M430 also measures wastewater already metered by upstream MCES meters M431 and M434. Because of that, the flows measured by the upstream meters were subtracted from the readings collected at meter M430 to single out the wastewater generated within Long Lake's sanitary sewer service area. The historical wastewater flow calculated for the City of Long Lake is shown in **Table 2**. Long Lake's 2014-2018 average wastewater flow was approximately 0.305 MGD.

Table 2. Long Lake Historical Wastewater Flow

Year	Average Daily Flow (MGD)	Peaking Factor	Peak Flow (MGD)
2014	0.303	6.2	1.878
2015	0.251	3.9	0.979
2016	0.309	4.4	1.360
2017	0.323	8.2	2.649
2018	0.338	9.0	3.042
5-Year Average	0.305	6.3	1.922

Wastewater Generation Rates

Table 3 shows the assumed sanitary sewer generation rates used in this Sanitary Sewer Plan. These generation rates are based on the existing land use densities of the City of Long Lake. Historical flow meter data obtained from the MCES was used in conjunction with the assumed sewer generation rates listed in **Table 3** to allocate existing wastewater flows to each sanitary district within the City of Long Lake. The calculated flows were used to evaluate existing residual capacities of lift stations and trunk sewers.

Table 3. Assumed Sanitary Sewer Flows by Land Use Type

Land Use	Average Flow	Unit
Single Family Detached	180	gal/day/unit
Single Family Attached	180	gal/day/unit
Multifamily	2,520	gal/day/acre
Mixed Use	2,520	gal/day/acre
Office	800	gal/day/acre
Retail and Commercial	800	gal/day/acre
Institutional	800	gal/day/acre
Industrial and Utility	800	gal/day/acre
Parks and Undeveloped	0	gal/day/acre

Peak Flow Factors

To ensure that the sanitary sewer system is capable of conveying flow fluctuations throughout the day and during rainfall events, peak hourly flow factors were applied to the existing average flows to obtain peak hourly wastewater flows. Pipes that serve smaller areas are more likely to experience larger fluctuations in flow. Therefore, peaking factors typically increase as average flow decreases.

The MCES has a list of standard flow variation peaking factors for sewer design which range from 1.7 to 4.0 depending on average wastewater flows. The historical wastewater flows for the City of Long Lake shown in **Table 2** suggest that the peak hourly factors for the City are larger than those standardized by the MCES. Thus, a peak hourly factor of 6.3, which corresponds to the average of the peaking factors calculated for the last 5 years, was used in this Sanitary Sewer Plan.

Existing Lift Stations

The City's sanitary sewer system includes three (3) lift stations. The year of installation, pumping capacity, peak hourly flow, and existing residual capacity of each lift station is provided in **Table 4**. The firm pumping capacity, which should equal or exceed the peak hourly sanitary flow, is the capacity of the lift station with its largest pump out of service. The location of each lift station is indicated in **Figure 3**. In 2002, Long Lake had four (4) lift stations. However, due to the 2002 Sanitary Sewer and Watermain Utility Improvements project, a deeper sanitary trunk sewer was installed along Symes Street which allowed the City to remove Lift Station B and flow wastewater by gravity.

Table 4. Existing Lift Station Summary

Lift Station	Year of Installation	Number of Pumps	Firm Pumping Capacity (gpm)	Forcemain Diameter (inches)	Existing Flow (gpm)		Residual Capacity (%)
					Average	Peak Hourly	
Watertown ⁽¹⁾	1962	2	189	4.0	18.7	117.7	37
Apple Glen	1972	2	190	4.0	5.0	31.5	83
Lindawood	1980	2	120	4.0	4.5	28.4	76

(1) The City of Long Lake conducted a 4-week flow monitoring study between July 16 and August 16, 2019 to assess sources of I/I within the sanitary sewer service area of the Watertown lift station. This study revealed that average wastewater flows in this lift station are 15.0 gpm, which align with the average flow calculated using current land use data and MCES flow meter data.

The City of Long Lake has rehabilitated their lift stations in several occasions. The Watertown lift station was rehabilitated in 1989 and in 2016, and minor pump maintenance was conducted in 2018. The Apple Glen lift station was only rehabilitated in 1993. However, the pumps were replaced in 2016. Lastly, the Lindawood lift station was rehabilitated in 2006.

The wastewater velocity through each forcemain was calculated using the pumping capacities listed in **Table 4** to ensure recommended flow velocities were achieved based on Ten State Standards. Minimum flow velocity should be maintained at a minimum of 2 feet per second (fps) through the forcemain to prevent settling of solids, whereas maximum flow velocity should be maintained below 8 fps to prevent scouring of the pipe walls and potential damage to valves and

fittings. **Table 5** shows the calculated velocities for the forcemains. As shown in **Table 5**, all the calculated velocities are within the recommended range.

Table 5. Existing Forcemain Summary

Lift Station	Forcemain Inner Diameter (inches)	Forcemain Material	Flow Velocity (fps)
Watertown	4.10	Cast Iron	4.6
Apple Glen	4.10	Cast Iron	4.6
Lindawood	4.22	Ductile Iron	2.8

Existing Trunk Sewers

A trunk main is a sewer pipe having a diameter greater than eight (8) inches. It is important to ensure that trunk mains are sized properly since they convey large volumes of wastewater during peak flow events. A trunk main was identified for each sewer district within the City's service area and their capacities were analyzed. The size, capacity, and sewer district served by each trunk main, existing peak hourly flows, and existing residual capacities are listed in **Table 6**. As shown in **Table 6**, all trunk sewers are sized adequately for existing conditions.

Table 6. Existing Trunk Sewer Summary

Sewer District	Diameter (in)	Pipe Material	Year of Installation	Trunk Slope (%)	Trunk Capacity (gpm) ⁽¹⁾	Peak Flow (gpm) ⁽²⁾	Residual Capacity (%)
1	8	PVC	2003-2004	0.34	317	240	24
2	15	RCP	Unknown	0.16	1,008	117	82
3	10	PVC	2003-2004	0.20	441	120	73
4	10	PVC	2003-2004	0.27	512	309	40

(1) Trunk capacity corresponds to the capacity of the pipe flowing full at the capacity limiting section (shallowest pipe slope) of the trunk.

(2) Peak hourly flow in trunk mains includes all wastewater flow collected in upstream service area/sewer district.

Sanitary sewer trunk mains were not analyzed for Districts 5 through 12 as the wastewater collected in these areas enters the MCES interceptor through multiple 8-inch pipe locations. Additionally, given that those sewer districts are small, it is very likely that the 8-inch connections to the MCES system are adequately sized. Although an 8-inch pipe is not considered a trunk main, it was decided to analyze the pipe section in District 1 as if it were a trunk sewer since all the wastewater collected in sanitary sewer District 1 flows into the MCES interceptor at a single location. Additionally, District 1 is the second largest district in Long Lake.

Community Treatment Systems

There are no public or private community treatment systems within the City of Long Lake. All properties within the City are served by the municipal collection system.

Individual Sewage Treatment Systems

The City requires that all residences and businesses within proximity to the sanitary sewer system connect to the municipal sewer system. Consequently, there are no homes or businesses that utilize private individual sewage systems (ISTS) within the current sanitary sewer service area. Excerpts from Long Lake's City Code regarding ISTS, Chapter 36 - Utilities, are cited below:

Chapter 36 – Utilities, Article III. – Sewer Service, Division 2 – Prohibitions, Section 36-211. – Connection with public sewer, (c): Sewage disposal facilities. Except as otherwise provided, it is unlawful to construct or maintain any privy, vault, septic tank, cesspool or other facility intended or used for the disposal of sewage.

Chapter 36 – Utilities, Article III. – Sewer Service, Division 5 – Treatment, Section 36-301. – Individual and Alternative discharging sewage treatment systems: The improper location, design, installation, use and maintenance of individual sewage treatment systems adversely affects the public health, safety and general welfare by discharge of inadequately treated sewage to the ground surface, surface waters, and groundwaters; therefore, to protect surface water and groundwater and promote public health, safety and general welfare, the city shall regulate all individual and alternative discharging sewage treatment systems in compliance with Minn. Stats. §§ 115.55—115.58 and Minn. Rules ch. 7080, which the city adopts and incorporates by reference.

PROJECTED POPULATION AND SANITARY SEWER FLOW

Population

The Metropolitan Council publishes population and sewer usage forecasts for each city in the Metropolitan Area. These forecasts serve to help cities prepare infrastructure for growth and to promote continued maintenance of municipal infrastructure. The forecast data in **Table 7** is from the Metropolitan Council's Local Planning Handbook Community Page for Long Lake and includes both total and sewered population, households, and employment through 2040.

Table 7. Population Projections

Year	Total			Sewered		
	Population	Households	Employment	Population	Households	Employment
2010	1,768	732	1,093	1,768	732	1,093
2019 ⁽¹⁾	1,806	784	1,142	1,806	784	1,142
2020	1,810	790	1,190	1,810	790	1,190
2025 ⁽¹⁾	1,885	830	1,250	1,885	830	1,250
2030	1,960	870	1,310	1,960	870	1,310
2035 ⁽¹⁾	1,975	885	1,355	1,975	885	1,355
2040	1,990	900	1,400	1,990	900	1,400

(1) Interpolated values.

As shown in **Table 7**, the number of households in the City of Long Lake is expected to increase by approximately twenty-three percent (23%) by the year 2040. Similarly, the population is projected to grow by approximately thirteen percent (13%) by 2040. All of the existing and projected population will be served by the City's sanitary sewer system and since there is only one MCES interceptor in Long Lake, MCES interceptor 8352-A will convey all of the wastewater associated with the population growth shown in **Table 7**.

Land Use

The City's existing and 2040 land-use maps were used to develop the Comprehensive Sanitary Sewer Plan. Detailed information and figures regarding Long Lakes' land use are included in the City's 2040 Comprehensive Land Use Plan. 2040 wastewater flows were estimated using historical MCES metered flow data, as well as existing and future land use data using the methodology explained below.

Estimating 2040 Average Flows

Once the existing average flows were estimated using MCES historical meter data and existing land use conditions, future flows were projected based on the planned 2040 land use from the Land Use Plan. Parcels that are planned to be developed or redeveloped were assigned wastewater flow rates in accordance to their future land use type. **Table 8** lists the assigned flows, which include design considerations for anticipated inflow and infiltration (I/I).

Table 8. Assumed Future Sanitary Sewer Flows by Land Use Type

Land Use	Average Flow ⁽¹⁾	Unit
Low Density Residential	900	gal/day/acre
Medium Density Residential	1,890	gal/day/acre
High Density Residential	2,520	gal/day/acre
Downtown Villa Mixed Use	2,520	gal/day/acre
Office	800	gal/day/acre
Retail and Commercial	800	gal/day/acre
Institutional	800	gal/day/acre
Industrial and Utility	800	gal/day/acre
Parks and Undeveloped	0	gal/day/acre

(1) Average wastewater flows for residential land uses were calculated based on a unit flow of 180 gpd/unit and the projected residential densities shown in the 2040 Comprehensive Land Use Plan.

2040 Intercommunity Flows

The City of Long Lake has intercommunity sanitary sewer connections with the City of Orono in various locations. The areas from the City of Orono that flow into Long Lake are highlighted in **Figures 1** and **2**. Wastewater flows for these areas were estimated using historical MCES meter data and existing land use data. To project 2040 flows, it was assumed that all existing vacant parcels would be developed by 2040 based on the zoning designations indicated in the 2040 Land Use Plans for Long Lake and Orono, respectively. **Table 9** shows the number of properties contributing to intercommunity flows broken down by receiving sewer district. The City of Long Lake has several agreements with City of Orono to regulate the properties shown in **Table 9** that are allowed to flow into Long Lake's sanitary sewer system from Orono (agreements can be found in **Appendix A**). The City of Long Lake is considering revising and updating the agreements in the near future.

Table 9. Intercommunity Flows

Receiving Sewer District	Existing		2040	
	Properties	Avg Wastewater Flows (GPD)	Properties	Avg Wastewater Flows (GPD)
1	10 Single Family 1 Undeveloped	2,299	11 Single Family	2,479
2	14 Single Family 1 Undeveloped	3,219	15 Single Family	3,399
4	43 Single Family 2 Commercial 13 Undeveloped	14,434	56 Single Family 2 Commercial	17,314
8	2 Commercial	2,535	2 Commercial	2,535
Total	71 Developed 15 Undeveloped	22,487	86 Developed	25,727

Projected Average Wastewater Flows

All of the wastewater flow from the City of Long Lake is treated at the MCES Blue Lake WWTP, and any increase in wastewater flow will be treated at that facility. **Table 10** lists the projected total average wastewater flow for Long Lake from MCES and from this Sanitary Sewer Plan. Note that the projections used in this report are greater than the MCES projections. The projections used in this report rely on historical flow data and flow estimates for each parcel of developable land.

Table 10. Total Average Wastewater Projections

Projection Source	2020 Projected Flow (MGD)	2030 Projected Flow (MGD)	2040 Projected Flow (MGD)
MCES ⁽¹⁾	0.240	0.240	0.240
Sanitary Sewer Plan	0.308	0.334	0.361

(1) MCES flow data obtained from the 2015 System Statement for the City of Long Lake

Future flow projections were also divided by sewer district. Average flow projections by sewer district are shown in **Table 11**.

Table 11. Average Wastewater Projections by Sewer District

Sewer District	2020 Projected Flow (MGD)	2030 Projected Flow (MGD)	2040 Projected Flow (MGD)
1 ⁽¹⁾	0.055	0.060	0.066
2 ⁽¹⁾	0.040	0.040	0.040
3	0.030	0.048	0.066
4 ⁽¹⁾	0.071	0.072	0.074
5	0.033	0.034	0.035
6	0.002	0.002	0.002
7	0.024	0.024	0.024
8 ⁽¹⁾	0.019	0.019	0.019
9	0.003	0.003	0.003
10	0.021	0.021	0.021
11	0.003	0.003	0.003
12	0.008	0.008	0.008
Total	0.308	0.334	0.361

(1) Sanitary sewer districts receiving intercommunity flows from the City of Orono.

It is projected that only four sewer districts will experience an increase in average wastewater flow by 2040. These districts are 1, 3, 4, and 5. Out of those four sewer districts, District 3 is projected to experience the highest wastewater flow increase due to future redevelopment of the City's downtown. **Figure 4** shows the projected average wastewater flow increase (existing through 2040) for each sanitary sewer district within Long Lake's service area.

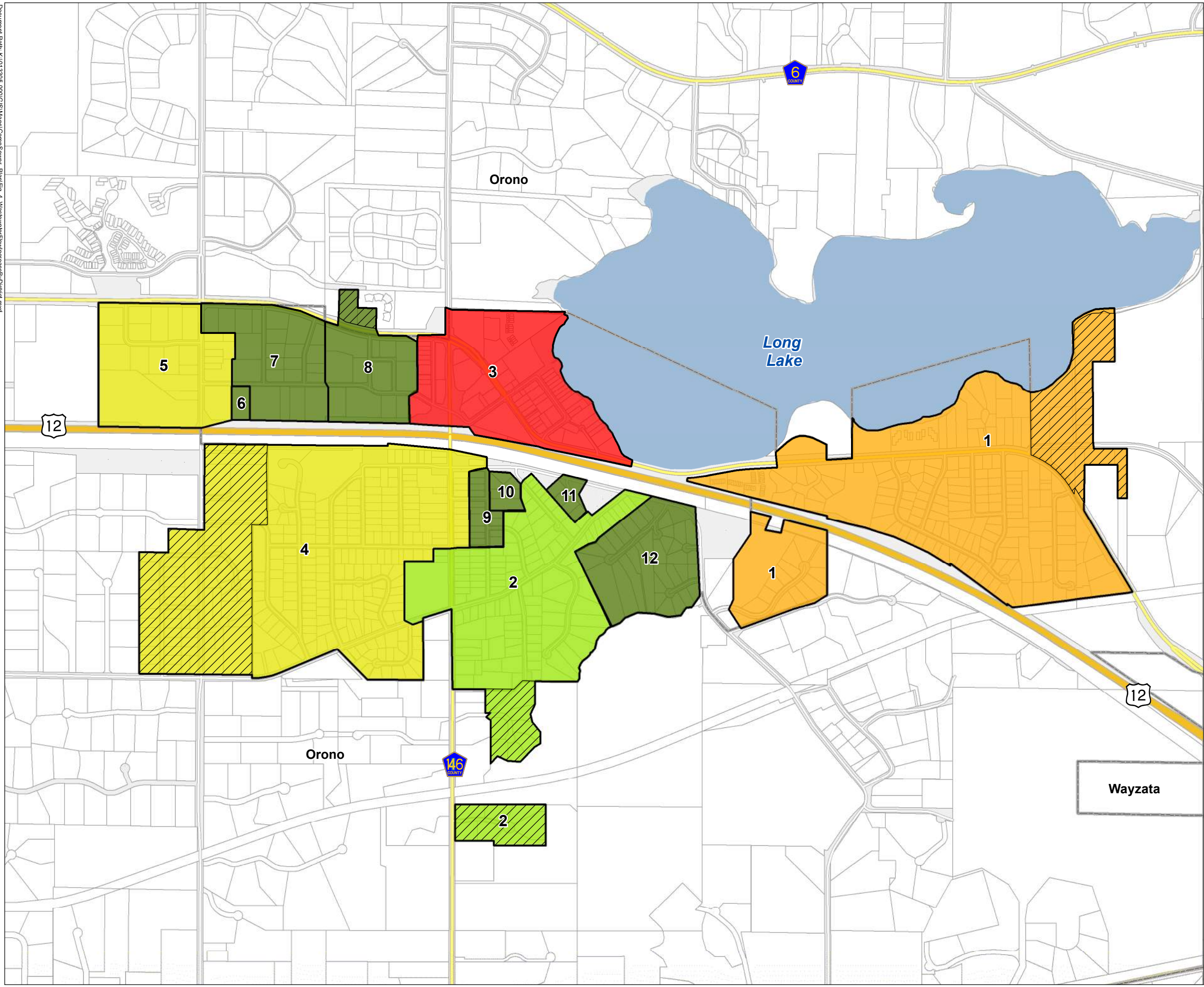
Peak Flow Factors

Historical wastewater flows for the City of Long Lake (shown in **Table 2**) suggest that the City's peak hourly factors are larger than those standardized by the MCES. Thus, a peak hourly factor of 6.3, which corresponds to the average of the peaking factors calculated for the last 5 years, was used in this Sanitary Sewer Plan.

Document Path: K:\03305-000\GIS\Maps\CompSewer_Plan\Fig 4_WastewaterFlowIncreaseByDistrict.mxd



Long Lake, Minnesota
2040 Comprehensive Plan
Figure 4 - Average Wastewater
Flow Increase by District



Legend

2019 - 2040 Average Flow Increase

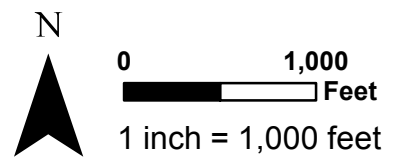
- No Avg Flow Increase
- < 1,000 gpd
- 1,000 - 10,000 gpd
- 10,000 - 20,000 gpd
- 20,000 - 40,000 gpd

Intercommunity Service Area

City Sewer Districts

Parcels

City Boundary



PROPOSED SANITARY SEWER SYSTEM

The existing sanitary sewer system for the City of Long Lake, including gravity mains, forcemains and lift stations, was studied to determine if its current sizing is adequate to convey the projected 2040 peak hourly flows. The generation rates from **Table 8** in conjunction with the 2040 Comprehensive Land Use Plan were used to estimate the future sewer flows. Two separate analyses were completed and are shown in the sections below. These include a lift station analysis and a trunk gravity sewer analysis.

Lift Station Analysis

An analysis of the projected 2040 remaining capacity for each of the City's lift stations is shown in **Table 12**. As shown in **Table 12**, the peak hourly flow projected for the lift station's service areas is not expected to exceed their existing firm pumping capacity.

Table 12. Projected 2040 Peak Flows by Lift Station

Lift Station	Firm Pumping Capacity (gpm)	2040 Flow (gpm)		Residual Capacity (%)
		Average	Peak Hourly	
Watertown ⁽¹⁾	189	20.2	128	32
Apple Glen	190	5.4	34	82
Lindawood	120	5.0	32	73

The City's forcemains were not re-evaluated with the 2040 peak hourly flows since the pump capacity of the existing lift stations and the forcemain sizes are not expected to change.

Trunk Sewer Analysis

The estimated 2040 peak hourly flows and subsequent remaining capacity in the City's trunk sewer lines are shown in **Table 13**. The trunk sections used to analyze 2040 peak hourly flows are the same used to analyze existing peak hourly flows.

Table 13. Projected 2040 Trunk Sewer Capacity Analysis

Sewer District	Diameter (in)	Year of Installation	Trunk Slope (%)	Trunk Capacity (gpm)	Peak Flow (gpm)	Residual Capacity (%)
1	8	2003-2004	0.34	317	290	9
2	15	Unknown	0.16	1,008	177	82
3	10	2003-2004	0.20	441	290	34
4	10	2003-2004	0.27	512	328	36

Given the residual capacities shown in **Table 13**, it is recommended that the City reviews future wastewater flows and capacities within District 1 as development and/or re-development takes place in the district. The remaining City trunks evaluated in this Sanitary Sewer Plan are adequately sized to convey the projected 2040 peak hourly flows.

MCES Interceptor Facility Forecasts

The 2040 projected average daily and peak hourly flows from Long Lake's service area to MCES Interceptor 8352A are listed in **Table 14**. The flows listed are the total, cumulative flows at the final stretch of the interceptor immediately upstream of MCES Lift Station No. 60.

Table 14. Projected 2040 MCES Interceptor Use

MCES Interceptor	Sewer District(s)	2040 Average Daily Flow (MGD)⁽¹⁾	2040 Peak Hourly Flow (MGD)⁽¹⁾
8352A	1 through 12	0.361	2.273

(1) 2040 flows exclude any wastewater flow generated upstream of Long Lake.

Future Individual Sewage Treatment Systems

The City requires that all residences and businesses within proximity to the sanitary sewer system connect to the municipal sewer system. Consequently, all future developments within Long Lake's sanitary sewer service area will be connected to the City's sanitary sewer system and ISTS installation will not be allowed.

INFLOW AND INFILTRATION

General

Inflow is water that enters the sewer system directly through broken manhole covers, sewer cleanouts, sump pumps, foundation drains, and rain leaders during storm events and snow melt.

Infiltration is water, typically groundwater, that leaks into the sewer system through cracks in sewer mains, laterals, joints, and manholes.

Water from inflow and infiltration (I/I) can consume available capacity in the wastewater collection system and increase the flow to treatment facilities. In extreme cases, I/I flow can cause bypasses or overflows of raw wastewater. The additional flow also requires a larger capacity in the city's collection and treatment components, which results in increased capital, operation and maintenance, and replacement costs. As a sewer system ages and deteriorates, I/I can become an increasing burden on a City's system. Therefore, it is imperative that I/I be reduced whenever it is cost effective to do so.

In 2006, the MCES began an Ongoing I/I Program which requires communities within their service area to eliminate excessive I/I. The MCES establishes annual I/I goals for each community discharging wastewater into the Metropolitan Disposal System (MDS) based on average daily flows, adjustments for community growth, and I/I mitigation peaking factors.

Flow metering data is available for MCES Metersheds M430, M431 and M434, and an analysis of this data as it relates to I/I is presented on the following section. The City's strategies, programs, investments, and goals for reducing I/I are also listed in the following sections.

I/I Analysis

Long Lake's sanitary sewer system currently consists of approximately 12 miles of gravity main, 3 lift stations, and 2,250 feet of forcemain. The lift stations were constructed from the 1960s onward. Approximately 50 percent of the residential housing in the City was constructed before 1970 and only a handful of the pre-1970 private services have been evaluated for I/I as failures have been encountered during public sewer repairs. The pre-1970s era public and private sewers are more susceptible to I/I due to their material and age. The City is in the process of identifying and diagnosing sources of I/I within the system, and it is recommended that any pre-1970s era facilities be prioritized for inspection and rehabilitation.

The amount of I/I flow generated within Long Lake's service area, which includes portions of the City of Orono, was estimated by calculating the average annual and peak month I/I rates, which are equal to the wastewater flow (average annual and peak month) minus the base wastewater flow, using MCES meter data from 2012-2017. The base sanitary flow was approximated as the lowest monthly average flow within each year. Based on the data shown in **Table 15**, the average annual I/I rate is 21 percent and the peak month I/I rate is 45 percent. This data indicates the presence of I/I, particularly in peak months.

Table 15. Estimated I/I Rate

Year	Average Flow (MGD)	Annual I/I Rate	Peak Month Flow (MGD)	Peak Month I/I Rate
2012	0.219	13%	0.39	51%
2013	0.246	22%	0.41	53%
2014	0.303	55%	0.64	79%
2015	0.251	5%	0.29	19%
2016	0.311	13%	0.38	28%
2017	0.322	18%	0.43	39%
Average	N/A	21%	N/A	45%

I/I Reduction

The City's strategy for preventing excess I/I include requiring all new development to conform to City standards. Long Lake's City Code prohibiting the discharge of stormwater to the sanitary sewer system is cited below.

Chapter 36 – Utilities, Article III. – Sewer Service, Division 3 – Connections, Section 36-231. – Permit Required: No unauthorized person shall uncover, make any connections with or opening into, use, alter or disturb the municipal sewer system or appurtenance without first obtaining a written permit from the clerk.

Chapter 36 – Utilities, Article III. – Sewer Service, Division 3 – Connections, Section 36-235. – Old Sewer Service Connection: Old sewer service connections may be used for new buildings only when they are found on examination and test by the superintendent to meet all the requirements of this article.

Chapter 36 – Utilities, Article III. – Sewer Service, Division 3 – Connections, Section 36-242. – Inspection by Superintendent: The applicant for sewer connection permit shall notify the superintendent when the service connection is ready for inspection and connection to the public sewer. The connection shall be made under the supervision of the superintendent or his representative.

Chapter 36 – Utilities, Article IV. – Stormwater Drainage and Wastewater, Division 3 – Prohibitions, Section 36-391. – Discharge of Waters: No person shall discharge or cause to be discharged any stormwater, surface water, groundwater, roof runoff, subsurface drainage, cooling water or unpolluted industrial process waters to any sanitary sewer.

The City will consider adopting an ordinance requiring the disconnection of existing foundation drains, sump pumps, and roof leaders from the sanitary sewer system within six (6) months of the adoption of this plan.

In addition to enforcing City standards, the City conducted several activities in recent years directed at recognizing and correcting I/I. The I/I reduction work recently completed is shown in **Table 16**. These I/I mitigation activities have not had a significant impact on I/I reduction in Long Lake.

Table 16. I/I Mitigation Activities

Year	Project Description	Cost
2008	District 4 – Sanitary Sewer Cleaning and Televising	Unknown
2009	District 4 – Placing 60 feet of CIP short liner	Unknown
2010	District 4 – Repairing and Sealing four service connections District 4 – Repairing two leaking manholes District 4 – Chemical grouting and sealing 67 joints of 8" VCP	Unknown
2013	Sanitary Sewer Rehabilitation (1,400 feet of sewer lining and manhole sealing)	\$47,000
2016	Watertown Road Forcemain and gravity sewer replacement	\$54,000
2016	CSAH 112 – Phase 1 Sanitary Sewer Rehabilitation (950 feet of sewer removal and new installation)	\$230,000
2017	CSAH 112 – Phase 2 Sanitary Sewer Rehabilitation (616 feet of sewer removal, new installation and spot repair)	
2019	2019 Inflow and Infiltration Monitoring Study	\$6,000

District 4 was cleaned and televised in 2008 and two I/I mitigation projects were completed in 2009 and 2010 to correct the deficiencies found during the 2008 televising efforts. The bulk of the I/I mitigation work over the past years has been completed along CSAH 112 (Wayzata Boulevard) where the City of Long Lake rehabilitated/replaced over 1,500 feet of gravity sewer main. Data quantifying the reduction in clearwater flow from past I/I mitigation projects is not currently available. The City will explore options for I/I reduction measurement in the future, such as pre- and post-mitigation flow metering.

I/I Implementation

The City understands that the existing sanitary sewer system is susceptible to I/I. Recently, the City completed an I/I study using flow monitoring devices in a portion of the system to identify potential sources of I/I within the City's sanitary sewer service area. Based on 2019 lift station run time data from the Watertown Lift Station and the flow monitoring study completed in 2019, District 4 is still experiencing significant I/I. Short-term I/I mitigation projects include sanitary sewer cleaning and televising as well as the ongoing flow monitoring studies in other parts of the City's system, as shown in **Table 17**. The City is currently in the process of considering and prioritizing I/I reduction projects and more implementation activities will likely be added to **Table 17**.

Table 17. I/I Implementation Activities

Year	Project Description	Cost
2020	District 4 – Sanitary Sewer Cleaning and Televising	\$25,000
2020-2025	Ongoing Infiltration and Inflow Monitoring Studies	\$30,000

The City is currently working on developing a capital improvement plan (CIP) to determine what funds are available to undertake additional I/I reduction projects in the near future. Furthermore, the City of Long Lake has issued an internal moratorium to prohibit additional sanitary sewer connections from surrounding communities until a city-wide I/I assessment is completed with hopes that no new wastewater will be accepted until the condition of the City's sanitary system is assessed and I/I reduction projects are underway.

CAPITAL IMPROVEMENTS

The City of Long Lake does not currently have an existing CIP that highlights future sanitary sewer infrastructure projects. The City is in the process of reviewing its existing sanitary sewer system with the City Engineer to develop a CIP. The parts of the system that will require repair or replacement will be identified and finalized by the end of 2019. The City's CIP sections that pertain to sanitary sewer improvements will be attached as an appendix to this report when it becomes available.

SUMMARY AND OUTCOMES

The analysis shown in this Sanitary Sewer Plan is aimed to provide the City of Long Lake and the Metropolitan Council assistance in planning for wastewater collection, conveyance and treatment. The lift station, forcemain, and trunk sewer analysis completed in this Sanitary Sewer Plan revealed that the City's existing sanitary sewer system is adequately sized to pump and convey the existing and 2040 projected peak hourly flows. However, due to the 2040 remaining capacity projected for the sanitary sewer trunk located in District 1, it is recommended that the City reviews future wastewater flows and capacities within this district as development and/or re-development takes place to ensure the trunk can convey future peak flows.

It is anticipated that the design flows and criteria outlined in this Sanitary Sewer Plan will be used for utility planning as development continues within the City. Tables and figures can be utilized to create budget-level estimates and schematic representations of infrastructure improvements, with specific sizing and routing to be determined during the design phase.

APPENDIX A – INTERCOMMUNITY AGREEMENTS

**EAST LONG LAKE AND
FOX RIDGE SEWER CONNECTION AGREEMENT**

THIS AGREEMENT, made and entered into this 3rd day of October, 2000, by and between the City of Long Lake, a Minnesota municipal corporation (hereinafter "Long Lake") and the City of Orono, a Minnesota municipal corporation (hereinafter "Orono");

WITNESSETH:

WHEREAS, a number of residential properties in Orono located in the Fox Ridge area and the East Long Lake area (hereinafter "Fox Ridge" and "East Long Lake") currently have private septic systems that are non-conforming; and

WHEREAS, Orono has requested and Long Lake has agreed, subject to the terms hereof, that the Fox Ridge and East Long Lake areas may be connected to the existing Long Lake sanitary sewer collection system; and

WHEREAS, the Metropolitan Council's Environmental Services division (hereinafter "MCES") measures sewage flow into the Long Lake system from Orono and is able to charge Orono directly for this sewage flow;

NOW, THEREFORE, in the joint and mutual exercise of their respective powers and in consideration of the mutual covenants and agreements contained herein, the parties agree as follows:

ARTICLE I. SANITARY SEWER CONNECTION

- a. Orono agrees to construct and install the Fox Ridge and East Long Lake collection systems described in the engineering plans and drawings attached hereto as Exhibit A and made a part hereof. Orono agrees to assess the cost thereof to the Orono properties benefited thereby.
- b. Long Lake agrees to provide sufficient capacity in the Long Lake system to accommodate sanitary sewage from the twenty-one (21) single-family residences now situated in Fox Ridge and East Long Lake and more particularly described by street address in Exhibit B attached hereto.
- c. Long Lake agrees that Orono may cause all sewage from the twenty-one (21) residences using the Fox Ridge and East Long Lake collection systems to be discharged into the Long Lake collection system at the connection points designated on the engineering plans attached hereto as Exhibit A.
- d. The parties agree that, owing to limited capacity in the Long Lake collection system, sanitary sewer facilities will be provided only to the twenty-one (21) residences listed in Exhibit B and that no additional sewer connections to the Long Lake system will be permitted or made in Fox Ridge or East Long Lake without the prior approval of Long Lake.

ARTICLE II. RATES & CHARGES

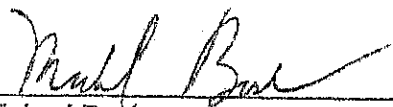
- a. This Agreement contemplates no change in the manner in which sanitary sewage facility users in Orono are presently charged for discharge into sanitary sewage systems in Long Lake. MCES will estimate the flow of sanitary sewage from Fox Ridge and East Long Lake into the Long Lake system and will charge the users in said area by billing Orono, whereupon Orono will rebill the aggregate charge to its own resident-users.
- b. Each residential connection in Fox Ridge and East Long Lake will be required to pay the New Main Line Service Tap fee (\$1,200.00) and the Hook-up fee (\$750.00). Said fees are due upon connection to the Long Lake system. Connection fees required by MCES will be paid directly by Orono to MCES.

ARTICLE III. CANCELLATION, ARBITRATION, & EFFECTIVE DATE

- a. The parties agree that this Agreement may be cancelled or terminated only upon the mutual written agreement of both parties.
- b. Any claims or disagreements arising from or by virtue of the provisions of this Agreement shall be subject to binding arbitration in accordance with the Uniform Arbitration Act.
- c. This Agreement shall become effective and be in force from and after the passage of resolutions by the Long Lake City Council and by the Orono City Council adopting and agreeing to the terms and conditions hereof. Certified copies of said resolutions shall be filed with the City Clerks of Long Lake and Orono immediately after adoption.

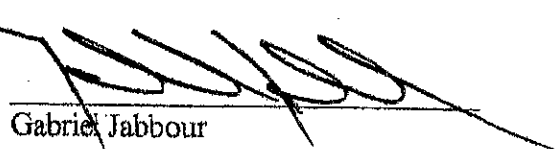
IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first above written.

CITY OF LONG LAKE:



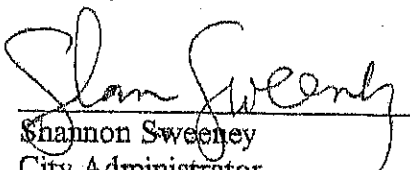
Michael Bash
Mayor

CITY OF ORONO:



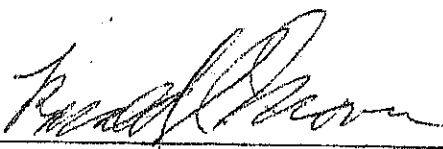
Gabriel Jabbour
Mayor

ATTEST:



Shannon Sweeney
City Administrator

ATTEST:



Ron Moore
City Administrator

EXHIBIT A

ORONO, MINNESOTA

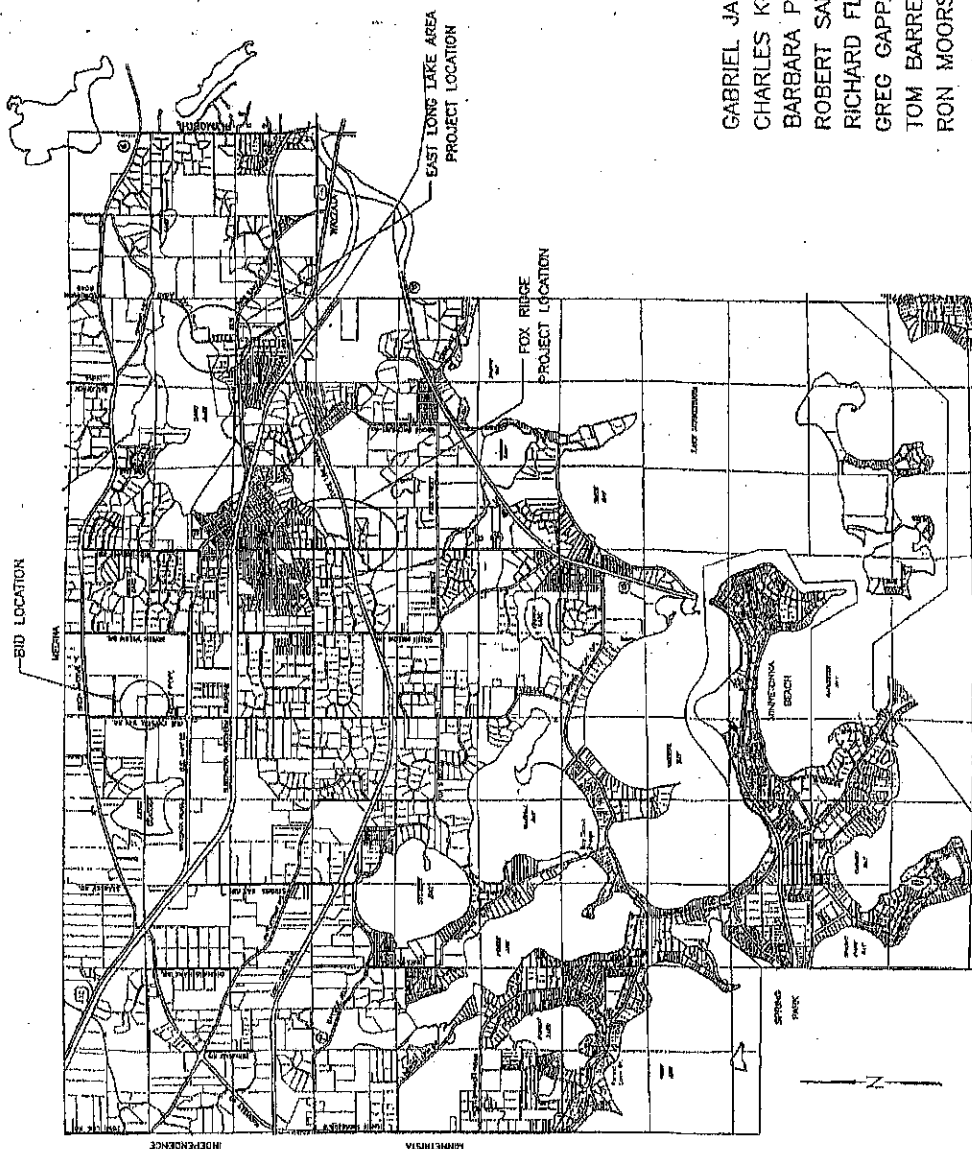
FOX RIDGE
SANITARY SEWER IMPROVEMENTS

EAST LONG LAKE AREA
SANITARY SEWER IMPROVEMENTS

2000
COUNCIL

MAYOR
COUNCILMEMBER
COUNCILMEMBER
COUNCILMEMBER
COUNCILMEMBER
PUBLIC SERVICES DIRECTOR
CITY ATTORNEY
CITY ADMINISTRATOR

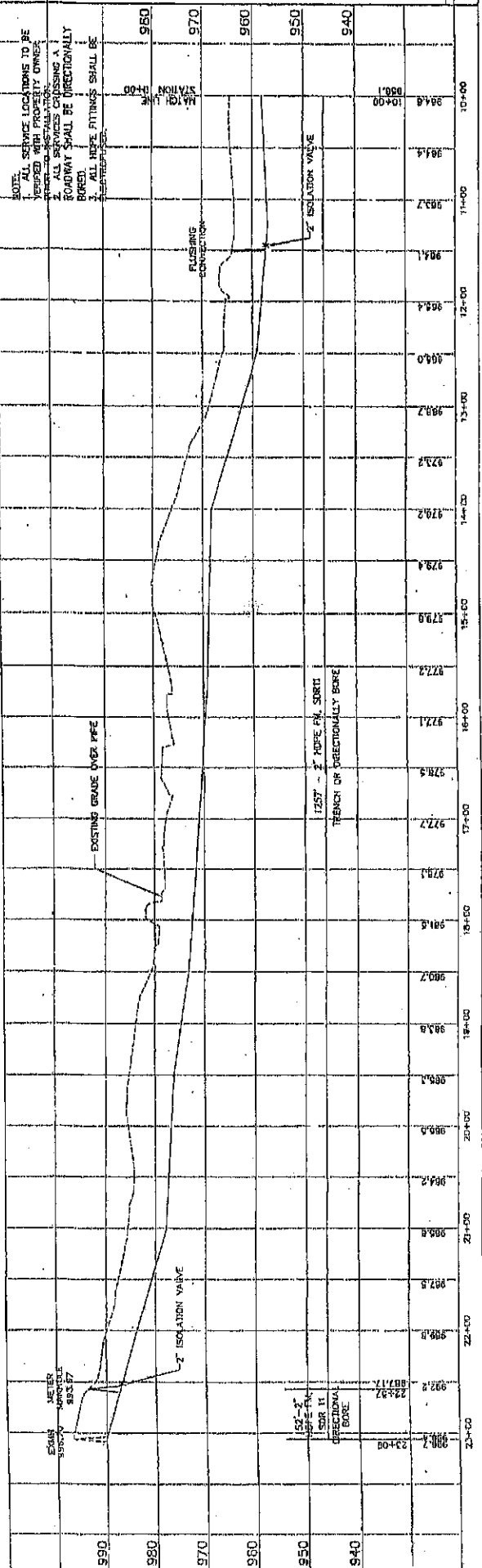
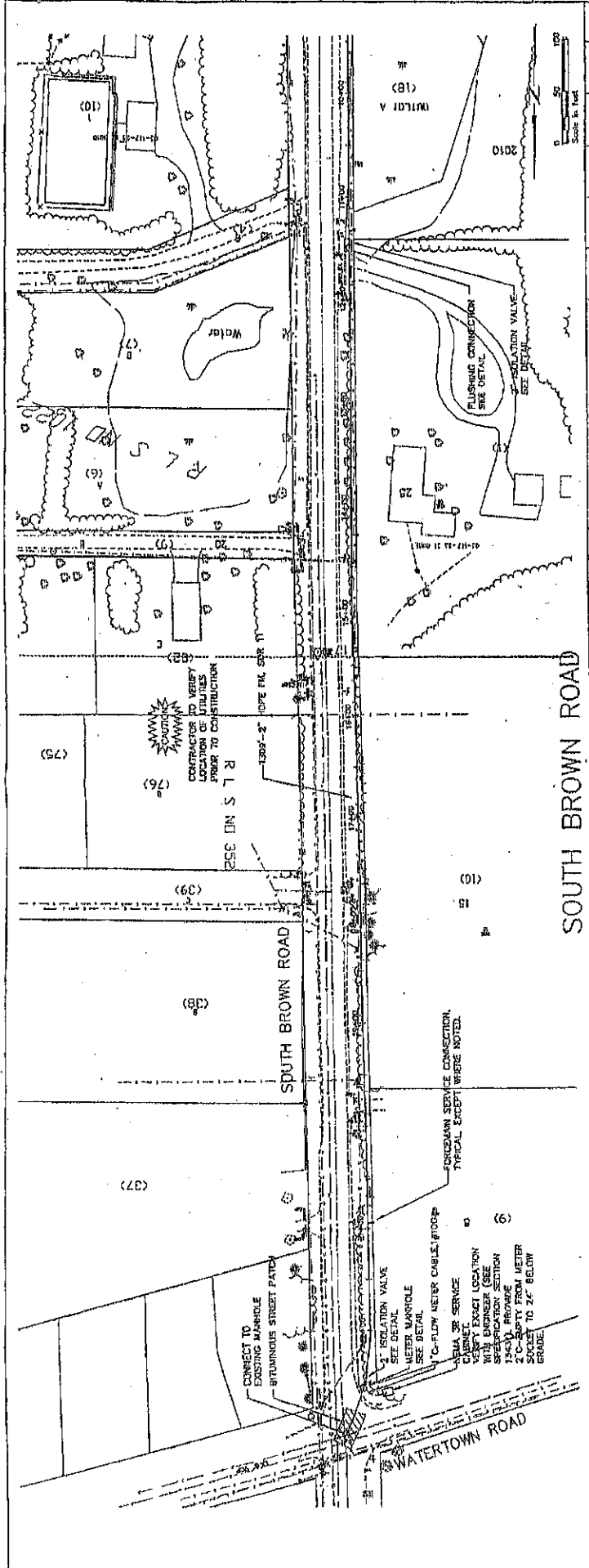
GABRIEL JABBOUR
CHARLES KELLEY
BARBARA PETERSON
ROBERT SANSEVERE
RICHARD FLINT
GREG GAPPA
TOM BARRETT
RON MOORSE



Revised 1/1/00
Original 1/1/00
Author
Checked
Reviewed
Approved
Date
Scale
Sheet
Title
Project
Location
City
County
State
Country

ORONO, MINNESOTA
FOX RIDGE AND EAST LONG LAKE AREA
SANITARY SEWER IMPROVEMENTS
TITLE SHEET

1 10

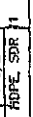
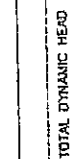


NOTE:
 1. ALL SERVICE LOCATIONS TO BE
 SHOWN WITH PROPERTY OWNERS
 2. ALL SERVICES CROSSING A
 ROADWAY SHALL BE DIRECTIONALLY
 MARKED
 3. ALL PIPE FITTINGS SHALL BE
 CAST-IRON

SOUTH BROWN ROAD

WATERTOWN ROAD

PROB- HABES	PROB- FLOW	NUMBER OF PROBES	PROBES/ FLOW
0	0.0	26	36.3
1	0.0	26	36.3
2	0.0	26	36.3
3	0.0	26	36.3
4	0.0	26	36.3
5	0.0	26	36.3
6	0.0	26	36.3
7	0.0	26	36.3
8	0.0	26	36.3
9	0.0	26	36.3
10	0.0	26	36.3
11	0.0	26	36.3
12	0.0	26	36.3
13	0.0	26	36.3
14	0.0	26	36.3
15	0.0	26	36.3
16	0.0	26	36.3
17	0.0	26	36.3
18	0.0	26	36.3
19	0.0	26	36.3
20	0.0	26	36.3
21	0.0	26	36.3
22	0.0	26	36.3
23	0.0	26	36.3
24	0.0	26	36.3
25	0.0	26	36.3

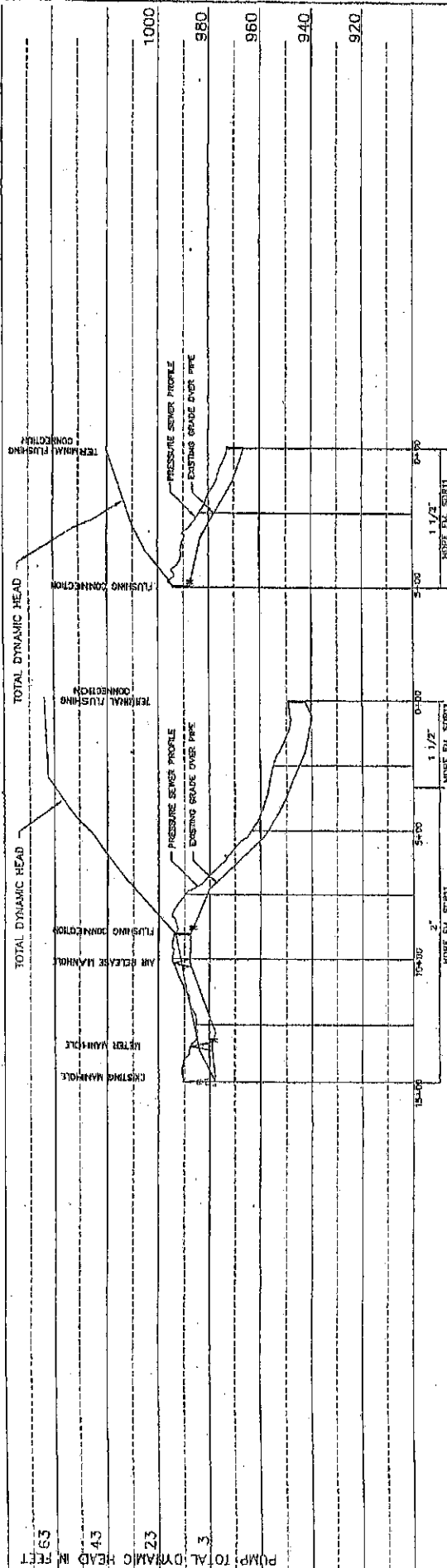
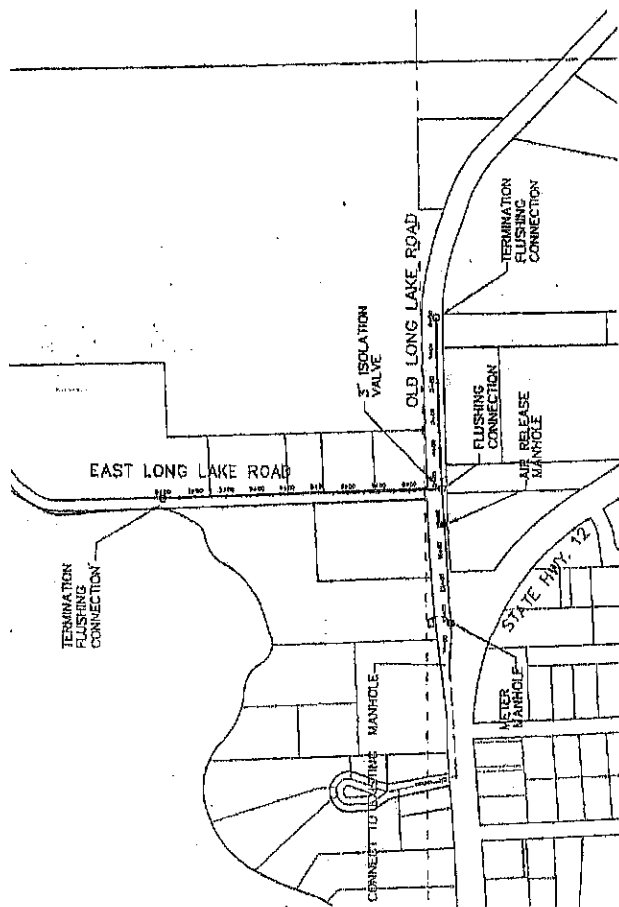


Donstron
Kosute
Ardville &
Associates

Donstron
Kosute
Ardville &
Associates

NOTE:
TOTAL DYNAMIC HEAD IS BASED ON
A HAZEN-WILLIAMS FRICTION FACTOR
OF C=140 AND DESIGN FLOWS
(GAL/MIN) CORRESPONDING TO THE
NUMBER OF HOMES AS FOLLOWS.

NUMBER OF BRACES	DESIGN FLOW	NUMBER OF HOMES	DESIGN FLOW
0	0.0	25	32.5
1	12.0	26	33.5
2	24.0	27	34.5
3	36.0	28	35.5
4	48.0	29	36.5
5	60.0	30	37.5
6	72.0	31	38.5
7	84.0	32	39.5
8	96.0	33	40.5
9	108.0	34	41.5
10	120.0	35	42.5
11	132.0	36	43.5
12	144.0	37	44.5
13	156.0	38	45.5
14	168.0	39	46.5
15	180.0	40	47.5
16	192.0	41	48.5
17	204.0	42	49.5
18	216.0	43	50.5
19	228.0	44	51.5
20	240.0	45	52.5
21	252.0	46	53.5
22	264.0	47	54.5
23	276.0	48	55.5
24	288.0	49	56.5
25	300.0	50	57.5



BOONSTADT
ROBERT
KLEIN
ASSOCIATES
DATE 7/17/2000
SHEET NO. 10

ORONO, MINNESOTA
FOX RIDGE AND EAST LONG LAKE AREA
SANITARY SEWER IMPROVEMENTS
PROPOSED SEWER SYSTEM

10 10

EXHIBIT B

EAST LONG LAKE AREA

430 East Long Lake Road
450 East Long Lake Road
460 East Long Lake Road
550 East Long Lake Road

925 Old Long Lake Road
965 Old Long Lake Road
985 Old Long Lake Road
990 Old Long Lake Road
1000 Old Long Lake Road
1005 Old Long Lake Road

FOX RIDGE AREA

1850 Fox Ridge Road
1895 Fox Ridge Road
1900 Fox Ridge Road
1945 Fox Ridge Road
1950 Fox Ridge Road
1960 Fox Ridge Road
1995 Fox Ridge Road

5 Brown Road South
15 Brown Road South
255 Brown Road South
265 Brown Road South



RESOLUTION 2000 - 10-5

RESOLUTION AUTHORIZING EXECUTION OF
A SANITARY SEWER AGREEMENT BETWEEN THE CITIES OF
LONG LAKE AND ORONO FOR THE FOX RIDGE AND
EAST LONG LAKE AREAS

WHEREAS, the City of Long Lake ("Long Lake") has received a request from the City of Orono ("Orono") for the connection of up to 21 residential units to the Long Lake sanitary sewer system; and

WHEREAS, Long Lake has adequate capacity in its collection system to provide the requested service; and

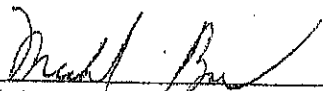
WHEREAS, Long Lake and Orono desire to establish an agreement for the provision of said sanitary sewer service connection; and

WHEREAS, the flow from the 21 Orono residential units will be deducted from the monthly flow charged to Long Lake by the Metropolitan Council;

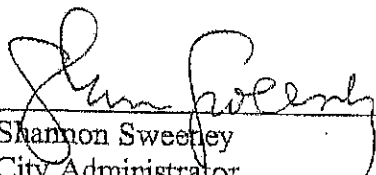
NOW THEREFORE BE IT RESOLVED, by the City Council of the City of Long Lake, Hennepin County, Minnesota that:

The City Council hereby authorizes the execution of a sanitary sewer agreement between the City of Long Lake and the City Orono for the Fox Ridge and East Long Lake areas.

Adopted by the City Council of the City of Long Lake this 3rd Day of October 2000.



Michael Bash
Mayor



Shannon Sweetey
City Administrator

7-28-81

CITY OF LONG LAKE -- CITY OF ORONO -- CITY OF MEDINA

Sanitary Sewer Construction and Service Agreement

THIS AGREEMENT, entered into this 10 day of August, 1981, among the City of Long Lake (hereinafter called "Long Lake"), the City of Orono (hereinafter called "Orono"), and the City of Medina (hereinafter called "Medina"), all municipal corporations situated in Hennepin County, Minnesota;

WITNESSETH:

WHEREAS, Long Lake has constructed and owns and operates various trunk and lateral sanitary sewer lines which serve various land areas in Orono; and

WHEREAS, Orono will construct and/or has constructed and owns and operates various trunk and lateral sanitary sewer lines which serve various land areas in Orono; and

WHEREAS, Medina has a present pollution problem existing with on-site septic systems in that area of Medina known as Medina Morningside, and therefore Medina desires to connect the Medina Morningside area to the Orono trunk sewer system; and

WHEREAS, Orono and Long Lake are willing to assist Medina in solving those pollution problems; and

WHEREAS, Orono has agreed to allow the City of Medina to connect the Medina Morningside area of Medina to the Orono sanitary sewer line which connects to Long Lake's sewer system; and

WHEREAS, Long Lake is willing to allow this connection;

NOW THEREFORE, it is mutually agreed by and among the parties hereto as follows:

Section 1 - Definitions

Subdivision 1. For the purpose of this agreement, the definition of the words and phrases used shall be as set forth in this Section.

Subdivision 2. "Preliminary engineering report" means the engineering report made by the engineering firm of McCombs-Knutson Associates, Inc. which was submitted to Medina, dated October, 1978, attached hereto as Exhibit A and the Addendum to the Preliminary Engineering Report dated November 28, 1979.

Subdivision 3. "Medina Morningside area" is the shaded area in Medina shown on Exhibit B attached hereto.

Subdivision 4. "Hackberry Area" is the shaded area in Orono shown on Exhibit C attached hereto.

Subdivision 5. "Medina outlet point of interconnection No. 1" is a manhole in the existing sanitary sewer line on Old Crystal Bay Road about 1,640 feet north of the centerline of Trunk Highway 12, and is the point where pipe A connects to pipe B as is located and shown on Exhibit D.

Subdivision 6. "Orono outlet point of interconnection No. 1" is a manhole about 150 feet east of the centerline of Willow Drive in the existing sanitary sewer line on Burlington Northern Railroad right-of-way, and is the point where pipe B connects to pipe C as is located and shown on Exhibit D.

Subdivision 7. "Long Lake outlet point of interconnection No. 1" is a manhole about 1,100 feet east of the centerline of Willow Drive in the existing sanitary sewer line on Burlington Northern Railroad right-of-way and is the point where pipe C connects to pipe D as is located and shown on Exhibit D.

Subdivision 8. "Long Lake outlet point of interconnection No. 2" is a point about 600 feet northeasterly of the centerline of May Street in the existing sanitary sewer line on Watertown Road, and is the point where pipe D connects to pipe E as is located and shown on Exhibit D.

Subdivision 9. "Pipe A" is the forcemain sewer pipe and appurtenances to be constructed from the Medina lift station to Medina outlet point of interconnection No. 1 as set forth in more detail in the Preliminary Engineering Report (Exhibit A).

Subdivision 10. "Pipe B" is the sewer pipe and appurtenances presently in existence and owned by Orono located between Medina outlet point of interconnection No. 1 and Orono outlet point of interconnection No. 1.

Subdivision 11. "Pipe C" is the sewer pipe and appurtenances presently owned by the City of Long Lake and is located between Orono outlet point of interconnection No. 1 and Long Lake outlet point of interconnection No. 1.

Subdivision 12. "Pipe D" is the sewer pipe and appurtenances to be constructed between Long Lake outlet point of interconnection No. 1 and Long Lake outlet point of interconnection No. 2 as is located and shown on Exhibit D and is referred to in Exhibit A as the Proposed Bypass.

Subdivision 13. "Pipe E" is the sewer pipe and appurtenances presently owned by the City of Long Lake as is located and shown on Exhibit D, downstream of Long Lake outlet point of interconnection No. 2.

Subdivision 14. "Pipe F" is the sewer pipe and appurtenances presently owned by the City of Orono which connects the sewer in the Daniels Long Lake Heights Subdivision (known as the Hackberry Area of Orono) to a lift station in Long Lake on Watertown Road. The lift station and a portion of pipe F are shown on Exhibit D.

Subdivision 15. "Maintenance and Operation Costs" mean all costs of use, utilities, maintenance and repair, including labor and materials, which is necessary for the designated sewer pipe, lift station, meters, related improvements, or the replacement of a section of pipe not exceeding ten (10) feet.

Subdivision 16. "Approved construction costs" means:

- A. Payments to contractor pursuant to the approved contract;
- B. Change orders and extras to the approved contract if first approved in writing by Orono;
- C. Amounts paid by Medina to its consulting engineers for their design of pipe D not to exceed 10% of the approved contract amount, and staking and inspection costs of pipe D not to exceed \$7,500.
- D. The amounts paid by Orono to its consulting engineers for their work on this project not to exceed \$2,500.

Subdivision 17. "Approved Contract" means the contract between Medina and the contractor, once it has been approved by Orono as provided for in this agreement, for the construction of pipe A, pipe D, metering stations, and necessary appurtenances.

Subdivision 18. "Approved Easement Costs" means the costs of acquiring the necessary easements for the construction, use and maintenance of Pipe A and Pipe D, once such costs have been approved by Orono, Medina, and Long Lake in writing.

Section 2 - Grant of Limited Access to Orono and Medina by Long Lake

Subdivision 1. Long Lake grants Orono and Medina the right and authority, subject to the provisions of the agreement to construct, or have constructed, a 10-inch sewer line (shown on Exhibit D as pipe D) and to discharge sewage into Long Lake's sewer system at Long Lake point of interconnection No. 2 on Watertown Road as shown on Exhibit D.

Subdivision 2. The allowable discharge from Orono and Medina combined into Long Lake Point of interconnection No. 1 shall never exceed 87 gallons per minute average flow over any 12 month period. This will be a maximum of 82 units in Medina, and a maximum of 216 units in Orono.

Subdivision 3. The only flow from Orono into the Long Lake sewer system at the Lift Station on Watertown Road shall be that from pipe F in Orono servicing the 24 units presently in the Hackberry Area.

Subdivision 4. The sewage being distributed into Long Lake's sewage system shall be normal domestic sewage with a five day BOD and suspended solids content of not to exceed 300 parts per million of each. If other than normal domestic sewage is discharged into Long Lake's sewage system exceeding these concentrations or otherwise deleterious to the sewer system or treatment process downstream, such sewage shall be pretreated or diluted by Orono at its sole cost to produce a mutually satisfactory waste.

Subdivision 5. If Long Lake is required to comply with higher standards (lesser strength) for its sewage input into any treatment plant or downstream sewer pipes serving Long Lake than are provided for in Subdivision 4 of this section, and if such higher standard results from sewage input from Orono, then Orono shall comply with such higher standards notwithstanding the provisions of this section.

Section 3 - Grant of Limited Access to Medina by Orono.

Subdivision 1. Orono grants to Medina the right and authority, subject to the provisions of this agreement, to connect pipe A to pipe B located within the City of Orono; and to construct pipe A in Orono between pipe B and the Orono-Medina City limits.

Subdivision 2. Pipe A may only carry sewage from the Medina lift station. Sewer service to the Medina lift station shall be through sewer pipes to be constructed in that portion of Medina shown shaded in Exhibit B. This will be the 82 units presently in the Medina Morningside area.

Subdivision 3. The total allowable sewage flow through pipe A into pipe B at the Medina outlet point of interconnection No. 1 shall never exceed 24 gallons per minute average flow over any 12 month period.

Subdivision 4. All sanitary sewer system pipes will be constructed in such a way so as not to admit surface water or rain water from roofs, basement drain tiles, yards, streets or alleys.

Subdivision 5. The sewage being discharged into pipe B shall be normal domestic sewage with a five day B.O.D. and suspended solids content of not to exceed 300 parts per million of each. If other than normal domestic sewage is discharged into pipe A exceeding these concentrations or otherwise deleterious to the sewer system or treatment process downstream, such sewage shall be pretreated or diluted by Medina at its sole cost to produce a mutually satisfactory waste.

Subdivision 6. If Orono is required to comply with higher standards (lesser strength) for its residential sewage input into any treatment plant or downstream sewer pipes serving Orono than are provided for in Subdivision 5 of this section, and if such higher standard results from residential sewage input from pipe A, then Medina shall comply with such higher standards notwithstanding the provisions of this section.

Section 4 - Construction of Pipe A.

Orono agrees that pipe A may be constructed by Medina. Medina, at its sole costs, shall obtain the necessary easements to allow for the construction, maintenance, and use of pipe A. If Medina is unable to obtain all the necessary easements from property owners in Orono, Orono shall take all necessary steps to obtain said easements. Medina shall reimburse Orono for all costs incurred in obtaining said easements. After construction of pipe A, Medina, at its sole cost, shall maintain and repair pipe A as long as pipe A is used for the connection of the Medina sewers as provided for herein to pipe B. It is agreed that no hookups of any kind, except as provided for in this agreement, will be allowed by Medina into any sewer system which delivers sewage to the Medina lift station which is served by pipe A without the prior written approval of Orono and Long Lake. Pipe A shall be constructed in accordance with the provisions of Exhibit A. Medina agrees it will obtain any and all necessary permits and easements from governmental bodies having jurisdiction over any property included in the route set forth in Exhibit A. Medina also agrees that after it has completed construction of pipe A, it will repair any damage caused by Medina and its contractors and subcontractors to Orono public streets or private property within Orono and restore Orono public streets to

a condition at least as good as existed prior to construction. The use of Orono streets during construction by Medina shall require reasonable and prudent safety practices and adequate insurance to protect Orono from any claims which may result from the construction. Medina agrees that there will be no substantial change in the plans and specifications approved by Orono and Long Lake unless the change shall have first been approved by Orono and Long Lake in writing.

Section 5 - Construction of Pipe D.

Long Lake and Orono agree that pipe D may be constructed by Medina. Medina shall obtain the necessary easements to allow for the construction, maintenance and use of pipe D. If Medina is unable to obtain all the necessary easements from property owners in Long Lake, Long Lake shall take all necessary steps to obtain said easements. Orono and Medina shall reimburse Long Lake as stated in Section 6 of this agreement for all costs incurred in obtaining said easements. The construction of pipe D shall be in accordance with the provisions of Exhibit A. Medina agrees that it will obtain any and all necessary permits and easements from Hennepin County, the railroad, or other governmental bodies having jurisdiction over any property included in the route set forth in Exhibit A. Medina also agrees that after it has completed the construction of pipe D, that Medina will repair any damage caused by Medina and its contractors and subcontractors to Long Lake public streets or private property within Long Lake and restore Long Lake public streets to their existing condition or better. The utilization of Long Lake streets during construction by Medina shall require reasonable and prudent safety practices and adequate insurance to protect Long Lake from any claims which may result from the construction. Orono and Medina agree that prior to any construction within Long Lake, the Long Lake Council and Engineer shall approve the plans and specifications for the project. Medina agrees that there will be no substantial changes in the plans and specifications approved by Orono and Long Lake for construction within Orono's or Long Lake's corporate boundaries unless the change shall have first been approved by Orono and Long Lake in writing.

Orono and Medina agree that upon completion and acceptance by Long Lake of the construction of pipe D, they will each reimburse Long Lake for one-half of the City of Long Lake's Consulting Engineer's Cost on this project not to exceed \$1000.

Section 6 - Payment for Construction of Pipes A and D.

Neither Orono nor Long Lake shall be responsible for any costs related to the construction, reconstruction, maintenance, repair and use of pipe A and/or the easements required for pipe A. Medina shall pay 100% of all costs related in any way to pipe A.

Long Lake shall not be responsible for any costs related to the construction of pipe D and/or the easements required for pipe D. Orono shall pay 63.6% and Medina 36.4% for any approved construction costs and approved easement costs related to the construction of pipe D, but specifically excluding change orders not approved by Orono which shall be paid for by Medina.

Section 7 - Maintenance and Operation of Sewer Systems.

Subdivision 1. Medina shall be responsible for, and pay 100% of all costs of maintenance, repair, reconstruction, operation, and use of pipe A.

Subdivision 2. Orono shall be responsible for the maintenance and operation of pipe B. Orono shall pay 72.6% and Medina 27.4% of all maintenance and operation costs of pipe B.

Notwithstanding anything to the contrary herein, in the event that that portion of pipe B where there is presently a bad top deflection, which is 120 feet Easterly in the pipe from Manhole 10 towards Manhole 9 as shown on Exhibit D attached hereto, needs to be repaired, the cost of that repair shall be paid solely by Orono.

Subdivision 3. Long Lake shall be responsible for the maintenance and operation of the sewage metering station to be constructed at "Orono outlet point of interconnection No. 1". Orono shall pay 72.6%, and Medina 27.4%, of all maintenance and operation costs of this sewage metering station.

Subdivision 4. Long Lake shall be responsible for the maintenance and operation of pipes C and D. Long Lake shall pay 49%, Medina 14%, and Orono 37% of all maintenance and operation costs of pipes C and D.

Subdivision 5. Long Lake shall be responsible for the maintenance and operation of pipe E. Long Lake shall pay 74%, Orono 20%, and Medina 6%, of all maintenance and operation costs of pipe E.

Subdivision 6. Orono shall be responsible for and pay 100% of the maintenance and operation of pipe F.

Subdivision 7. Long Lake shall be responsible for the maintenance and operation of the sewage lift station and metering device on Watertown Road into which pipe F is connected. Long Lake shall pay 70% and Orono 30% of all maintenance and operation costs of the lift station and metering devices.

Subdivision 8. The level of services rendered by each municipality shall include periodic inspection, meter reading where applicable, maintenance, and repair of all pipes, lift stations, metering devices, and appurtenant structures. Emergency repair service will be done when necessary to keep the sewer system operable. Excessive infiltration will be repaired as soon as possible, but no later than twelve months, after being detected. All services shall be done by qualified personnel under the direction of the head of public works activities for the municipality having jurisdiction as spelled out in Section 7 of this agreement. The degree of services rendered, the standards of performance, and other matters relating to the services shall remain under the control of the municipality having jurisdiction as spelled out in Section 7 of this agreement.

Subdivision 9. Personnel assigned to the inspection, meter reading, maintenance, and repair of the pipes, lift stations, metering devices, and appurtenant structures shall be personnel of the municipality having jurisdiction except when it is necessary to use outside contractors for skills and equipment not available with city personnel. Each municipality shall assume all obligations with

regard to their own employees salary, workers' compensation, P.E.R.A., withholding tax, and health insurance.

Subdivision 10. Long Lake shall submit invoices to Orono and Medina, and Orono shall submit invoices to Medina, for services rendered under this agreement. The invoices shall be submitted within 30 days of performing such services, and shall be due and payable within 30 days of receipt. The cost of the services performed shall include all labor, equipment, materials, parts, and any payment to outside contractors necessary to perform the services. The basic labor and equipment rates shall be those currently in effect in the municipality performing the services.

Subdivision 11. Sharing maintenance and operating costs as well as pipe replacement as defined in Section 7, Subdivision 1 through 10 are based on each city's percent usage as follows:

Sewage Contributions

Pipes C & D

Units in Long Lake	=	291	=	49%
Units in Orono	=	216	=	37%
Units in Medina	=	82	=	14%

Pipe E

Units in Long Lake	=	900	=	74%
Units in Orono	=	240	=	20%
Units in Medina	=	82	=	6%

Lift Station on Watertown Road

Units in Long Lake	=	61	=	72%
Units in Orono	=	24	=	28%
Lineal feet of pipe in Long Lake	=	4,200	=	55%
Lineal feet of pipe in Orono	=	3,500	=	45%
Share cost 70%-30% to reflect some infiltration				

These percentages may be reviewed at any future time at the written request of any City based on updated usage figures in effect at the time of the requested review. These new updated percentages shall be in effect upon approval of two of the three City Councils, and shall remain in effect until such time as a new percent usage review is requested, calculated, and approved.

Section 8 Pipe Replacement.

If it is necessary to replace more than ten feet of pipe, the work shall be done by, or under the supervision of, personnel of the municipality having jurisdiction for maintenance as spelled out in Section 7 of this agreement. The cost and billing for pipe replacement shall be the same as stated in Section 7, Subdivision 10; and the cost sharing shall be the same percentages as stated in Section 7, Subdivisions 1 through 7, for the various pipes and appurtenances.

Section 9 - Acceptance of Flow from Pipe A.

Long Lake agrees that beginning on the day after Long Lake approves and accepts pipe D in writing, Orono may cause sewage originating in that portion of Medina described as the Medina Morningside area to be discharged into pipe C.

Orono agrees that beginning on the day after Orono approves and accepts pipe D in writing and approves the construction of pipe A in writing, and Medina pays Orono \$39,926 which is 27.4% of the present value of pipe B, Medina may cause sewage originating in that portion of Medina described as the Medina Morningside area to be discharged into pipe B, but in no case will Orono be under a duty to accept the sewage from pipe A unless the City of Long Lake has first agreed in writing to accept flow into pipe C.

Section 10 - Metering of Sewage Flow from Pipe A to Pipe B.

The sewage flow from pipe A into pipe B shall be metered at the Medina lift station. Medina shall install hour time meters on the lift station pumps as part of the pipe A contract to measure and record continuously the total sewage flow discharged from pipe A into pipe B. The City of Medina shall furnish sewage flow records to Orono, Long Lake, and the Metropolitan Waste Water Commission on a monthly basis.

The plans and specifications for the hour time meters shall be subject to the review and approval of Orono and Long Lake. All construction, maintenance, and operation costs of the metering station shall be paid solely by Medina. Copies of all sewage flow records will be furnished to Orono and Long Lake, and duly authorized representatives of Orono and Long Lake shall have access to all records and the metering device.

If the metering device fails to operate satisfactorily, and if Medina neglects to provide repairs within 60 days of written notice from duly authorized representatives of Orono or Long Lake, Orono will order the necessary repairs to be completed and the cost of the repairs will be paid by Medina upon receipt of a verified claim from Orono. During periods when the metering device is out of operation, the flow from Medina shall be assumed to be the same as the previous quarterly flow. If Orono shall fail to order the repairs as above stated, then Long Lake may order the same and the cost thereof will be paid by Orono and/or Medina upon receipt of a verified claim from Long Lake.

Section 11 - Metering of Sewage Flow from Pipe B into Pipe C.

The sewage flow from pipe B into pipe C shall be metered at the point of the Orono outlet point of interconnection No. 1. Medina and Orono shall construct at their sole expense a suitable metering station as part of pipe D to measure and record continuously the total sewage flow discharged from pipe B into pipe C. The plans and specifications for the metering station shall be subject to the review and approval of Long Lake and Orono. Copies of all sewage flow records shall be furnished to Orono and Medina, and duly authorized representatives of Orono and Medina shall have access to all records and to the metering device. The City of Long Lake shall furnish sewage flow records to Orono, Medina, and the Metropolitan Waste Water Commission on a monthly basis.

If the metering device fails to operate satisfactorily, Long Lake shall make the necessary repairs within 60 days. During periods when the metering device is out of operation, the flow from Orono shall be assumed to be the same as the previous quarterly flow. If Long Lake fails to make the necessary repairs within 60 days, Orono or Medina may order the same, and the cost thereof will be paid by Orono and Medina according to Section 7, Subdivision 3 of this agreement.

Section 12 - Metering of Sewage Flow from Pipe F.

The sewage flow from pipe F into the lift station on Watertown Road shall be metered at the lift station. The City of Orono shall construct at its own expense, hour time meters on the lift station pumps to measure and record continuously the amount of sewage pumped from the lift station. Copies of all sewage flow records shall be furnished to Orono, and duly authorized representatives of Orono shall have access to all records and to the metering device. The City of Long Lake shall furnish sewage flow records to Orono and the Metropolitan Waste Water Commission on a monthly basis.

If the metering device fails to operate satisfactorily, Long Lake shall make the necessary repairs within 60 days. During periods when the metering device is out of operation, the flow from Orono shall be assumed to be the same as the previous quarterly flow. If Long Lake fails to make the necessary repairs within 60 days, Orono may order the same, and the cost thereof will be paid by Long Lake and Orono according to Section 7, Subdivision 7 of this agreement.

Section 13 - Payment for Sewage

A sewage treatment and disposal charge shall be paid by Medina for the total flow of sewage from pipe A into pipe B on a gallonage basis. Said gallonage shall be the metered flow at the Medina lift station. The charge shall be that which is set by the Metropolitan Waste Control Commission, or any other such governmental body or agency having authority to charge Orono, Long Lake, or Medina for the flow of sewage from pipe A into pipe B into pipe C and thereafter into pipe D and E and other downstream facilities.

A sewage treatment and disposal charge shall be paid by Orono for the total flow of sewage from pipe B into pipe C, minus the total flow from pipe A into pipe B. Said gallonage shall be the metered flow at Orono outlet point of inter-connection No. 1. A sewage treatment and disposal charge shall also be paid by Orono for the estimated flow of sewage from pipe F into the Watertown lift station. The estimated flow of sewage shall be thirty percent of the flow recorded by the hour time meters on the lift station pumps. The charge shall be that which is set by the Metropolitan Waste Control Commission, or any other such governmental body or agency having authority to charge Orono, Long Lake, or Medina for the flow of sewage through any portion of the sewage system covered in this agreement.

A sewage treatment and disposal charge shall be paid by Long Lake for the total flow of sewage from the Long Lake lift station minus the flow from pipe B into pipe C, and minus 30% of the flow from the lift station on Watertown Road in Long Lake. Said gallonage shall be the metered flow recorded by the hour time meters on the lift station pumps. The charge shall be that which is set by the Metropolitan Waste Control Commission, or any other such governmental body or agency having authority to charge Orono, Long Lake, or Medina for the flow of sewage through any portion of the sewage system covered in this agreement.

If the sewage flow into Long Lake from Orono and/or Medina exceeds the maximum amounts as specified in Section 2 and 3 of this agreement, Orono and/or Medina agree to correct the situation within 90 days after receiving notification from Long Lake. If the sewage flow continues to exceed the maximum beyond the 90 day period, Orono and/or Medina agree to pay Long Lake ten times the charge set by the Metropolitan Waste Control Commission, or any other agency having authority to set such rates, for the flow in excess of the maximum.

Section 14 - Ordinance Relating to Sewage.

Orono, Medina, and Long Lake will adopt ordinances relating to the use of sanitary sewers that are consistent with each other and with the latest State and Federal standards. Included in the ordinances will be the requirement that all buildings generating domestic sewage will connect to the sanitary sewer system within two years after a sanitary sewer lateral becomes available, and that all new construction that will generate domestic sewage and that is served by a public sewer will connect to the public sewer system.

Section 15 - Notification of Hookups.

Orono and Medina shall notify Long Lake within 30 days of each sewer connection permit issued in Orono or Medina for hookups to any sewer line which ultimately discharges to the Long Lake sewer system. Long Lake shall notify Orono within 30 days of each sewer connection permit issued in Long Lake for hookups to any sewer that will discharge into pipe D.

Section 16 - Long Lake's Use of Pipe D.

Long Lake shall have the right to connect portions of its sanitary sewer system into pipe D. It is further agreed that when pipe D is constructed, the two existing sewer lines which presently discharge into the existing sewer on the Burlington Northern right-of-way at Long Lake outlet point No. 1, as shown on Exhibit D, will be connected to pipe D. Nothing in this Agreement shall in any way limit or qualify Long Lake's ability to construct future sewer lines within Long Lake or permit future hookups to sewer lines within Long Lake, except Long Lake will not allow any hookups which will cause the flow of sewage in pipe D to exceed the capacity of pipe D.

Section 17 - Arbitration.

All disagreements which arise regarding the interpretation of this agreement or matters arising from it shall be settled in the following manner:

Subdivision 1. The disagreement shall be submitted to the Mayors of the disputing municipalities for settlement. The settlement shall be binding on each party upon approval of the settlement by each City Council.

Subdivision 2. If any party determines that settlement cannot be reached pursuant to Subdivision 1, it may request arbitration by serving such request in writing by certified mail together with a clear and concise statement of the disagreement and the name of one arbitrator.

Subdivision 3. Within twenty (20) days after request for arbitration, the other party, or parties, shall each name an arbitrator for arbitration. If there are two

parties involved, the two arbitrators so selected shall name a third arbitrator within twenty (20) days of the service of notice of selection of the second arbitrator. If there are three parties involved, the three arbitrators so selected shall name two additional arbitrators within twenty (20) days of the service of notice of the third arbitrator. In the event of the failure to appoint any of the arbitrators, application may be made by any party for appointment thereof by the Chief Judge of the Hennepin County District Court. All arbitrators shall be knowledgeable in municipal affairs.

All arbitration matters not specifically set forth herein shall be governed by Chapter 572 of Minnesota Statutes, Arbitration and Award. The fees and expenses, together with all expenses except attorney's fees, engineering fees, and expert witness fees, shall be divided equally between the parties. An arbitration hearing shall be held at a location convenient to the parties within twenty (20) days after appointment of the final arbitrator, and may be continued from time to time thereafter. The final decision of the arbitration panel shall be in writing, may be rendered by a majority of the arbitrators, shall be served by certified mail on all parties within thirty (30) days of the submission of all evidence, and shall be final and binding on the parties hereto, and any party may make application for confirmation of the arbitration award and entry of judgment thereon in accordance with Chapter 572 of Minnesota Statutes.

Section 18 - Effective Date of Agreement.

This agreement shall take effect and be in force from and after the passage of a resolution by the City Council's of the parties hereto accepting and agreeing to the terms and conditions herein. Certified copies of such resolution, as and when accepted, shall be filed with the City Clerks of the other two municipalities immediately after such adoption. This agreement shall continue until cancelled by mutual written agreement of the parties or pursuant to the termination provisions in Section 19.

Section 19 - Termination.

This agreement cannot be terminated unless by the consent of Long Lake, Medina, and Orono.

Section 20 - Insurance and Indemnity.

Orono shall include Pipe A in purchasing its comprehensive general liability insurance, which insures against risks incurred in rendering sewer services. Any additional premium costs, as determined by the insurer, which are attributable to the inclusion of Pipe A, shall be paid by the City of Medina to the City of Orono.

Subdivision 1. In the event that a judgment is rendered against the City of Orono in excess of the insurance coverage, the City of Orono may request contribution from the City of Medina and any disagreement regarding the amount of contribution shall be arbitrated as provided herein.

Subdivision 2. Medina shall indemnify Orono against all costs, expenses and claims for damages arising out of the construction of Pipes A and D including any act or omission, negligent or otherwise, of Medina or any of its employees and agents. In the event Medina refuses or neglects to defend against any such claims, costs or expenses, Medina shall reimburse Orono for any related costs, including attorney's fees, which Orono may incur in defense against such claims.

Subdivision 3. Orono and Medina shall indemnify Long Lake against all costs, expenses and claims for damages arising out of the construction of pipe D. including any act or omission, negligent or otherwise, of Orono or any of its employees and agents. In the event Orono and/or Medina refuses or neglects to defend against any such claim, cost or expenses, Orono and/or Medina shall reimburse Long Lake for any related costs, including attorney's fees, witness fees and engineering fees, which Long Lake may incur in defense against such claims.

Section 21 - Agreement Supercedes Past Sewer Agreements.

Long Lake, Medina, and Orono agree that when the City Councils of Medina, Orono and Long Lake approve this Agreement and when Pipe A and Pipe D are constructed and completed by the contractor and approved for service by the cities of Medina, Long Lake, and Orono, that the provisions of this Agreement will be in effect and that the two previous sewer agreements between Orono and Long Lake dated December 13, 1967, and October 7, 1975; and the previous sewer agreement between Orono and Medina dated March 10, 1980; will no longer be in effect. The water agreement between Orono and Long Lake will not be affected by this Agreement.

IN WITNESS WHEREOF, the parties have executed this Agreement in duplicate this 10 day of August, 1981.

CITY OF ORONO

William B. Clark
Mayor

William B. Clark
Clerk/Administrator

ATTEST:

Cherita M. Strom

This agreement was approved by the City of Orono by Resolution No. 1303 on August 10, 1981.

CITY OF LONG LAKE

Ernie J. Gallagher
Mayor

D. J. Stinson
Clerk

ATTEST:

Lucy Cap

This Agreement was approved by the City of Long Lake by Resolution No. 8481 on August 4, 1981.

CITY OF MEDINA

James J. Chubb
Mayor

Donna Reck
Clerk

ATTEST:

Suzanne Rudolph

This Agreement was approved by the City of Medina by Resolution No. 81-41 on September 8, 1981.

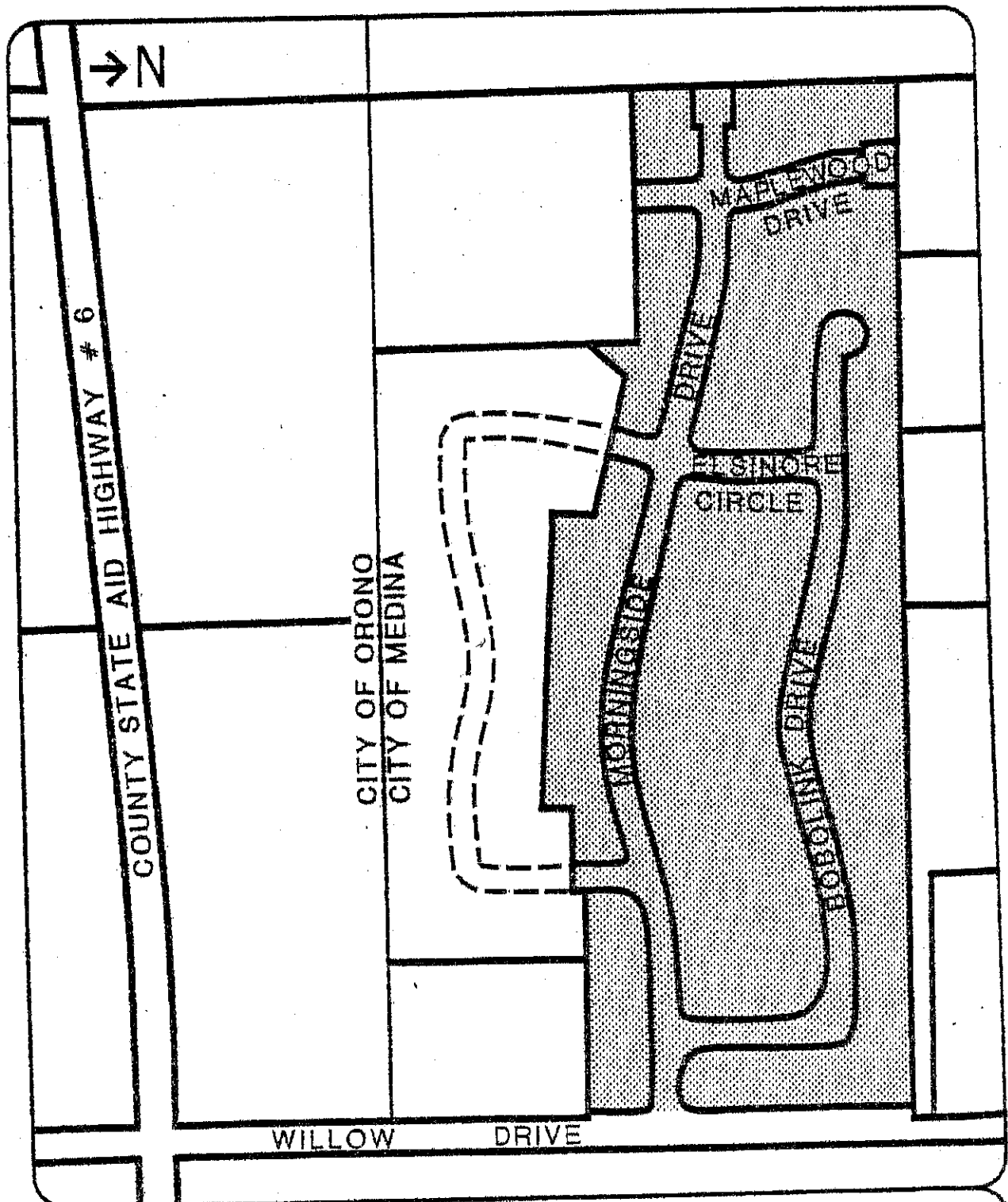
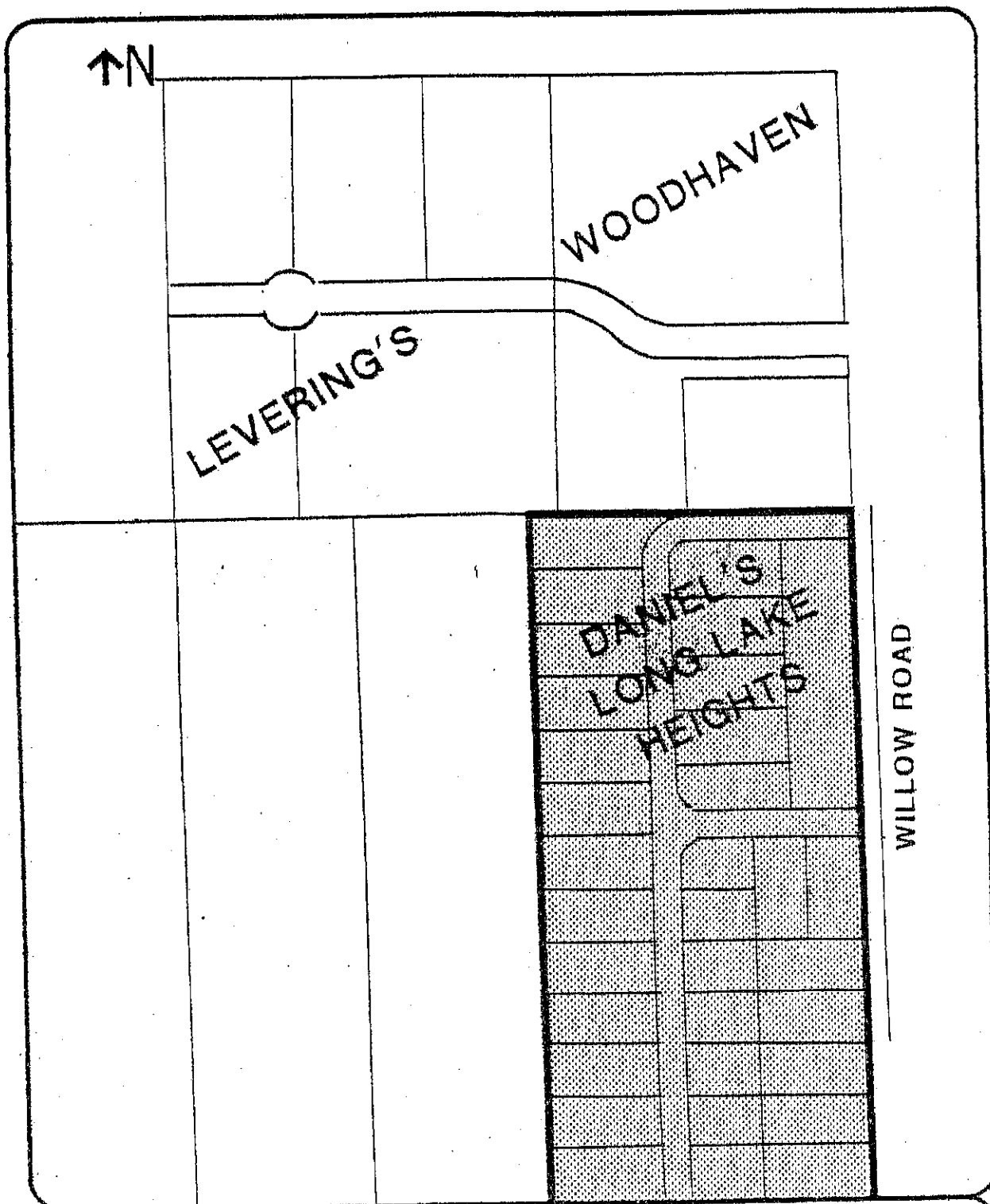


EXHIBIT B

MEDINA-ORONO-LAKE
SANITARY SEWER AGREEMENT




SANITARY SEWER SERVICE AREA IN MEDINA



WATERTOWN
ROAD

EXHIBIT C

MEDINA-ORONO-LONG LAKE
SANITARY SEWER AGREEMENT

 SANITARY SEWER SERVICE AREA
IN HACKBERRY AREA OF ORONO



BARTON-ASCHMAN ASSOCIATES, INC.



City of ORONO

RESOLUTION OF THE CITY COUNCIL

NO. 1333

A RESOLUTION AND AGREEMENT APPROVING DOCUMENTS
PURSUANT TO THE LONG LAKE/ORONO/MEDINA SANITARY SEWER
CONSTRUCTION AND SERVICE AGREEMENT
DATED AUGUST 10, 1981 (HEREINAFTER CALLED "LLOM AGREEMENT")

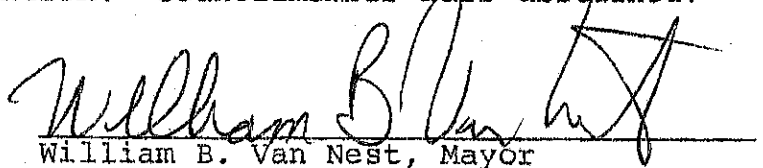
WHEREAS, the City of Orono has received for review the following documents pursuant to the LLOM Agreement:

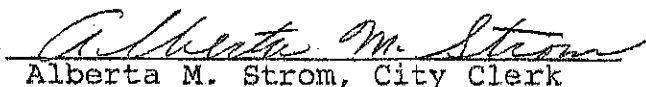
1. Plans, specifications and the proposed construction contract between the City of Medina and the apparent low bidder on the construction contract let pursuant to the LLOM Agreement;
2. A report of Orono's anticipated share of Pipe D construction costs pursuant to the LLOM Agreement in the total amount of \$69,692. This report is an estimate and is not binding upon the City of Orono;
3. A right-of-way report for the construction of Pipe A under the LLOM Agreement showing acquisition costs in the total amount of \$2,284, for which the City of Orono is not liable;

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Orono that the plans, specifications, contract and reports herein contained are hereby approved pursuant to the LLOM Agreement subject to the following:

1. The City of Orono is not agreeing to pay any specific amounts set forth or described in paragraph 2 and 3 above.
2. This approval is subject to no properties being assessed for sewer lateral or trunk in the City of Medina except for those in the Medina-Morningside area as shown in the LLOM Agreement.

Dated: Adopted this 26 day of October, 1981 by a vote of 3 ayes and 0 nays. One abstention. Councilmember Hurr abstained.


William B. Van Nest, Mayor

Attest: 
Alberta M. Strom, City Clerk



City of ORONO

RESOLUTION OF THE CITY COUNCIL

NO. 1343

A RESOLUTION TO AMEND RESOLUTION #1333 A RESOLUTION AND AGREEMENT APPROVING DOCUMENTS PURSUANT TO THE LONG LAKE/ORONO/MEDINA SANITARY SEWER CONSTRUCTION AND SERVICE AGREEMENT DATED AUGUST 10, 1981 (HEREAFTER CALLED LLOM AGREEMENT)

WHEREAS, on October 28, 1981, the Orono City Council adopted Resolution #1333 a resolution approving documents pursuant to the LLOM agreement, and

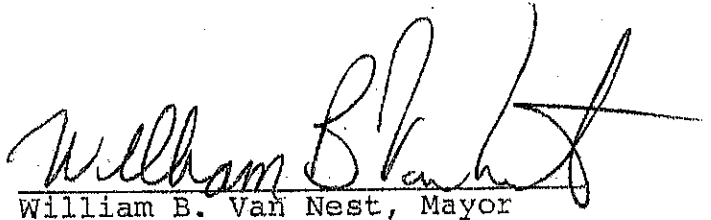
WHEREAS, on that same date, the City Engineer suggested that the estimated amount of \$69,692, in item #2 of the resolution may be incorrect, and

WHEREAS, the City of Orono has received a revised estimate in the amount of \$88,516 for the City of Orono's share of the construction of Pipe D, as per the LLOM agreement, and

WHEREAS, the City Engineer has reviewed and recommends approval of the estimated amount of \$88,516 for Orono's share of the construction of Pipe D, as per the LLOM agreement.

NOW, THEREFORE BE IT RESOLVED by the City Council of the City of Orono that the amount stated in item #2 of Resolution #1333 be amended to be the estimated amount of \$88,516 as Orono's share of Pipe D, as per the LLOM agreement.

Adopted by the City Council of the City of Orono, Minnesota at a regular meeting held December 14, 1981.


William B. Van Nest, Mayor

Attest: 
Alberta M. Strom, City Clerk



City of ORONO

RESOLUTION OF THE CITY COUNCIL

NO. 1303

A RESOLUTION APPROVING THE SANITARY SEWER CONSTRUCTION
AND SERVICE AGREEMENT BETWEEN THE
CITY OF LONG LAKE - CITY OF ORONO - CITY OF MEDINA

WHEREAS, Long Lake has constructed and owns and operates various trunk and lateral sanitary sewer lines which serve various land areas in Orono; and

WHEREAS, Orono will construct and/or has constructed and owns and operates various trunk and lateral sanitary sewer lines which serve various land areas in Orono; and

WHEREAS, Medina has a present pollution problem existing with on-site septic systems in that area of Medina known as Medina-Morningside, and therefore, Medina desires to connect the Medina-Morningside area to the Orono trunk sewer system; and

WHEREAS, Orono and Long Lake are willing to assist Medina in solving those pollution problems; and

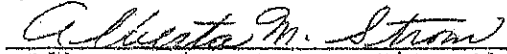
WHEREAS, Orono has agreed to allow the City of Medina to connect the Medina-Morningside area of Medina to the Orono sanitary sewer line which connects to Long Lake's sewer system; and

WHEREAS, Long Lake is willing to allow this connection;

NOW, THEREFORE, BE IT RESOLVED that the City of Orono approves the Sanitary Sewer Construction and Service Agreement between the City of Long Lake-City of Orono-City of Medina allowing the construction of pipes A & D and service of pipes A, B, C, D, E & F.

Adopted by the City Council of the City of Orono, Minnesota at a regular meeting held August 10, 1981.


William B. Van Nest, Mayor

Attest: 
Alberta M. Strom, City Clerk

City of Medina

2052 County Road 24
Hamel, Minnesota 55340

RESOLUTION NO. 81-41

A RESOLUTION APPROVING THE SANITARY SEWER CONSTRUCTION
AND SERVICE AGREEMENT BETWEEN THE
CITY OF LONG LAKE - CITY OF ORONO - CITY OF MEDINA

WHEREAS, Long Lake has constructed and owns and operates various trunk and lateral sanitary sewer lines which serve various land areas in Orono; and

WHEREAS, Orono will construct and/or has constructed and owns and operates various trunk and lateral sanitary sewer lines which serve various land areas in Orono; and

WHEREAS, Medina has a present pollution problem existing with on-site septic systems in that area of Medina known as Medina-Morningside, and therefore, Medina desires to connect the Medina-Morningside area to the Orono trunk sewer system; and

WHEREAS, Orono and Long Lake are willing to assist Medina in solving those pollution problems; and

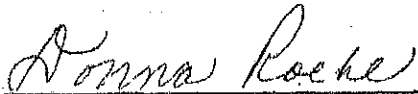
WHEREAS, Orono has agreed to allow the City of Medina to connect the Medina-Morningside area of Medina to the Orono sanitary sewer line which connects to Long Lake's sewer system; and

WHEREAS, Long Lake is willing to allow this connection;

NOW, THEREFORE, BE IT RESOLVED that the City of Medina approves the Sanitary Sewer Construction and Service Agreement between the City of Long Lake-City of Orono-City of Medina allowing the construction of pipes A & D and service of pipes A, B, C, D, E & F.

Adopted by the City Council of the City of Medina, Minnesota .
this 8 day of September 1981.


Thomas Anderson, Mayor


Donna Roche, City Clerk

City of Long Lake
P.O. BOX L
LONG LAKE, MINN. 55356

RESOLUTION 8481

A RESOLUTION APPROVING THE SANITARY SEWER CONSTRUCTION
AND SERVICE AGREEMENT BETWEEN THE
CITY OF LONG LAKE - CITY OF ORONO - CITY OF MEDINA

WHEREAS, Long Lake has constructed and owns and operates various trunk and lateral sanitary sewer lines which serve various land areas in Orono; and

WHEREAS, Orono will construct and/or has constructed and owns and operates various trunk and lateral sanitary sewer lines which serve various land areas in Orono; and

WHEREAS, Medina has a present pollution problem existing with on-site septic systems in that area of Medina known as Medina-Morningside, and therefore, Medina desires to connect the Medina-Morningside area to the Orono trunk sewer system; and

WHEREAS, Long Lake and Orono are willing to assist Medina in solving those pollution problems; and

WHEREAS, Orono has agreed to allow the City of Medina to connect the Medina-Morningside area of Medina to the Orono sanitary sewer line which connects to Long Lake's sewer system; and

WHEREAS, Long Lake is willing to allow this connection;

NOW, THEREFORE, BE IT RESOLVED that the City of Long Lake approves the Sanitary Sewer Construction and Service Agreement between the City of Long Lake-City of Orono-City of Medina allowing the construction of pipes A & D and service of pipes A, B, C, D, E & F.

Adopted by the City Council of the City of Long Lake, Hennepin County, Minnesota, at a Regular Council Meeting on the 4th day of August, 1981.

Attest:

A. J. Stinson
City Clerk

Diane J. Gallagher
Mayor

ADDENDUM

To

Preliminary Engineering Report

Medina Morningside Sewers

City of Medina

November 28, 1979

The Bypass line through the City of Long Lake shall be increased from 8 inch to 10 inch in diameter.

A meter shall be installed where the sewage discharge leaves Medina, where the sewage discharge leaves Orono at Willow Drive and the railroad and where the discharge leaves the Hackberry Area.

Long Lake will be allowed to connect portions of their sewer system, which now flows through the lift station on Symes Street, to the bypass line.

A maximum flow rate will be established on waste coming into the Long Lake system from the Orono Hackberry and Willow Drive area.

A maximum of 25 homes in the Hackberry area will be allowed to remain connected to the Long Lake system if the 10 inch bypass is constructed.

GLENDALE COVE SEWER & WATER SERVICE AGREEMENT

THIS AGREEMENT is entered into effective retroactively to the 1st day of July, 2011 by and between the **CITY OF ORONO**, a Minnesota municipal corporation ("Orono"), and the **CITY OF LONG LAKE**, a Minnesota municipal corporation ("Long Lake"), hereinafter collectively referred to as the "Cities."

RECITALS

- A. The Cities desire to enter into agreements for the extension of water and/or sanitary sewer service to certain properties located within the City of Orono; and
- B. Under Minn. Stat. § 471.59, subd. 10, the Cities are empowered to enter into agreements for the joint exercise of powers with other governmental units for public purposes, such as the providing of water and/or sanitary sewer service;

NOW, THEREFORE, the Cities agree as follows:

1. PURPOSES. This Agreement shall establish the responsibilities of the Cities regarding the operation, maintenance and extension of water and sanitary sewer service from Long Lake to Orono for the properties listed in Exhibit "A" ("Glendale Cove Service Area") as shown on Exhibit "B."

2. IMPROVEMENTS. The following subparagraphs (a) through and including (c) apply only to the "Improvements" (defined below) constructed in the Glendale Cove Service Area:

a. Existing System. Orono has inspected and approved construction of the existing water and sanitary sewer service to the Glendale Cove Service Area ("Improvements"), and Long Lake has inspected and approved construction of the connections of the Improvements to the Long Lake sanitary sewer and water systems.

b. Future Extensions. Orono will oversee and shall be solely responsible for the costs associated with the construction of any future extensions to the Improvements (as further discussed in subsection (c) (below). The existing Improvements are located substantially as shown on Exhibit "C," attached hereto, and will be available for use only by the properties depicted in Exhibits "A" and "B." No further use or extension of the Improvements may be made without express written approval of Long Lake, to be given in its sole discretion. Long Lake shall not be charged for any costs associated with future extensions to the Improvements nor shall Long Lake residents be assessed for costs associated with such extensions.

c. Costs. Any extensions to the Improvements for the benefit of Orono properties will be the sole responsibility of Orono which may, in its sole discretion, charge said costs to the developer of the benefitted land or owners of the benefitted properties, as determined in Orono's sole discretion. Long Lake will not be responsible for any costs related to the construction of such extensions to the Improvements whether said extensions are located within the boundaries of the City of Orono or the boundaries of the City of Long Lake.

3. OPERATION AND MAINTENANCE. Long Lake agrees to continually supply water to and accept sewer flow from the Glendale Cove Service Area so long as systems are maintained and operable to allow such service. Orono agrees to maintain, at its sole cost, that portion of the water/sewer system that is located within the boundaries of City of Orono. Long Lake agrees to maintain, at its sole cost, that portion of the water/sewer system that is located within the boundaries of the City of Long Lake.

4. USAGE CHARGES.

a. Properties with Sewer Only. All existing Category 1 and 2 developed properties in the Glendale Cove Service Area have connected to available municipal water, and all undeveloped Category 1 properties have municipal water available and will be required to connect to municipal water at the time of development. In the event that any Category 3 properties or other properties currently not within but which later become part of the Glendale Cove Service Area connect to municipal sewer but do not connect to municipal water ("Sewer Only Properties"), the use of water billing flows for sanitary sewer billing purposes will not be feasible. Also, the use of sanitary sewer flow metering is not practical or feasible based on the limited number of residences which may become Sewer Only Properties. Therefore, for sanitary sewer billing purposes for the Sewer Only Properties, Long Lake will quarterly invoice Orono a standard flat rate sanitary sewer charge based upon the average calendar first quarter municipal water usage for properties in the Glendale Cove Service Area for each property connected to Long Lake's sanitary sewer system. Orono will provide notification to Long Lake with the number of Sewer Only Properties and shall pay the flat rate for each such Sewer Only Property within thirty (30) days of receipt of the invoice.

b. Properties with Water and Sewer. For water and sewer billing purposes, Orono will read the water meters for those properties connected to Long Lake's water system in the Glendale Cove Service Area on a quarterly basis and forward the water usage information to Long Lake. Long Lake will quarterly invoice Orono for such usage at the same billing rate for both water and sewer that is charged Long Lake customers. Orono shall pay the invoice within thirty (30) days of receipt of the invoice.

5. LONG LAKE SEWER CONNECTION CHARGES. Long Lake will bill Orono a sanitary sewer connection charge for each property designated as a Category 3 property in Exhibit A that connects to sanitary sewer in the Glendale Cove Service Area. At any time upon request of Long Lake, Orono will provide Long Lake with the total number of properties connected to the sanitary sewer system, and will also notify Long Lake at the time each new connection occurs. The sewer connection charge will be as indicated in Long Lake's fee schedule for the current year, and shall consist only of a hookup fee. The hookup fee shall be the same rate as that charged to Long Lake residents. Orono shall pay the invoice within thirty (30) days of receipt of the invoice. Long Lake, with assistance from Orono, shall have the right to audit the number of homes within the Glendale Cove Service Area that have sewer connections. The following applies to the properties within each Category:

Category 1 Properties: The Long Lake sewer hookup fee for all Category 1 properties was paid to Long Lake at the time those properties were platted (or in the case of 190 North Willow, was paid to Orono at the time of connection, for pass-through to Long Lake) but no sewer tap fee was paid. The Cities agree that no tap fees will be due for Category 1 properties.

Category 2 Property: This property connected directly to the Long Lake sewer system in 2002 and paid the appropriate MCES SAC charges at that time. The Cities agree that no sewer hookup or sewer tap fees are due.

Category 3 Properties: These properties are guided for low-medium density single-family residential use in the Orono 2008-2030 Comprehensive Plan and represent potential future connections to the Long Lake sewer system.

6. MCES CHARGES.

a. MCES Sewer Availability Charges. Orono will issue connection permits for each new connection and will collect the MCES Sewer Availability Charge (SAC) and forward same to MCES.

b. MCES Wastewater Charges. Long Lake will be responsible for paying the ongoing MCES Wastewater Charges.

7. WATER CONNECTION CHARGES. Long Lake will bill Orono a water connection charge for each property designated as a Category 3 property in Exhibit A that connects to municipal water in the Glendale Cove Service Area. Connection to the water system for Category 3 properties is on a voluntary basis for each property and is not mandated by Orono. At any time upon request of Long Lake, Orono will provide Long Lake with the total number of properties connected to the water system, and will also notify Long Lake at the time each new connection occurs. The water connection charge will be as indicated in Long Lake's fee schedule for the current year and shall consist only of a hookup fee. Orono shall pay the invoice within 30 days of receipt of the invoice. Long Lake, with assistance from Orono, shall have the right to audit the number of homes within the Glendale Cove Service Area that have water connections. The following applies to the properties within each Category:

Category 1 Properties: The Long Lake water hookup fee for all Category 1 properties was paid to Long Lake at the time those properties were platted (or in the case of 190 North Willow, was paid to Orono at the time of connection, for pass-through to Long Lake) but no water tap fee was paid. The Cities agree that no tap fees will be due for Category 1 properties.

Category 2 Property: This property connected directly to the Long Lake water system many years ago. The Cities agree that no water hookup or water tap fees are due.

Category 3 Properties: These properties are guided for low-medium density single-family residential use in the Orono 2008-2030 Comprehensive Plan and represent potential future connections to the Long Lake water system.

8. METERS. Orono, at its sole cost, will install, maintain, service, and read all water meters in the Glendale Cove Service Area but Long Lake will have access to meters for inspection and verification purposes. An Orono employee will be present during such inspections.

9. FUTURE SERVICE TO CATEGORY 3 PROPERTIES. The Category 3 properties if redeveloped for residential use at the low-medium density for which they are guided within the Orono 2008-2030 Comprehensive Plan, could result in 15-25 additional future connections to the Long Lake sewer and water systems. Long Lake agrees to provide sewer and water service for up to 25 residential sewer and water connections within the Category 3 properties under the terms provided for in paragraphs (5.) and (7.) above.

10. REGULATION OF USE. Orono agrees to regulate and control the use of the sanitary sewer system within Orono so as to prevent the discharge of waste or any storm water, surface water, ground water, roof runoff, or subsurface drainage into the sewer system that is in violation of Long Lake City Ordinances, as such may be amended from time-to-time. In case of any continuing violations of such ordinances after reasonable notice, Long Lake shall have the option to terminate this Agreement per the provisions of Paragraph 16 of this Agreement.

11. LIABILITY; INDEMNIFICATION. Each party to this Agreement shall be liable for the acts of their own officers, employees and agents and the results thereof to the extent authorized by law and shall not be responsible for the acts of the other party, its officers; employees and/or agents. Liability and damages arising from the Cities' acts and omissions are governed by the provisions of the Minnesota Tort Claims Act, Minnesota Statutes, Chapter 466, the Minnesota Tort Claims Act, Section 471.59, and other applicable law. Each party warrants that they have an insurance or self-insurance program and that each has minimum coverage consistent with the liability limits contained in Chapter 466. This Agreement does not constitute a waiver by either party of limitations on liability provided by Chapter 466 or other applicable law. This clause will not be construed to bar any legal remedies that each party may have for the other party's failure to fulfill its obligations under this Agreement. Each party shall defend, indemnify and hold the other party harmless from any and all liability, on account of injury to persons or damage to property occasioned by the alleged negligent or intentional acts of the indemnifying party. Neither party shall be indemnified for losses or claims occasioned by its own negligence or intentional acts.

12. AMENDMENTS. This Agreement may be amended to provide for additional connections to Long Lake's water and sanitary sewer systems by written agreement between the Cities.

13. NOTICES. Any notice required hereunder shall be hand delivered or mailed as follows:

AS TO ORONO: City of Orono
 Attn.: City Administrator
 2750 Kelley Parkway
 P.O. Box 66
 Crystal Bay, MN 55323

AS TO LONG LAKE: City of Long Lake
 Attn.: City Administrator
 450 Virginia Avenue
 P.O. Box 606
 Long Lake, MN 55356

14. DATA PRACTICES ACT. This Agreement is subject to the Minnesota Government Data Practices Act, Minnesota Statutes, Chapter 13. If either party receives a data request affecting data or property of the other party, the party receiving the request shall immediately notify the other party of the request and of the scope of intended disclosure. Each party retains its full rights under the Act.

15. RECORDS. Each party will keep proper books and records to reflect all expenses and receipts relevant to the subject matter of this Agreement. Long Lake agrees that its books will reflect the application of receipts to capital and operating accounts in accordance with sound accounting practice. Each party will have access to all relevant books and records of the other party.

16. DURATION/DISPUTES/TERMINATION. This Agreement begins on the day it was approved and signed by the Cities and is effective retroactively to July 1, 2011 and shall be perpetual in duration unless terminated by the written agreement of both parties. Either party may terminate this Agreement upon 24 months advance written notice to the other party. However, Long Lake may not terminate this Agreement unless alternative services are available to Orono on a reasonable basis. Any dispute under this Agreement shall be determined by binding arbitration in accordance with the Rules of the American Arbitration Association (or similar Association reasonably acceptable to the Cities) and judgment resulting from such arbitration may be entered into any Court having jurisdiction.

17. TERMINATION OF PRIOR AGREEMENTS. This Agreement shall supersede all prior agreements between the Cities regarding sewer and water issues pertaining to the Glendale Cove Service Area.

[NEXT PAGE IS THE SIGNATURE PAGE]

Dated: 1/9/12

CITY OF ORONO

BY: Lili Tod McMillan
Lili Tod McMillan, Mayor

ATTEST:

Linda S. Vee
Linda S. Vee, City Clerk

Dated: 1/9/12

CITY OF LONG LAKE

BY: Tim Hultman
Tim Hultman, Mayor

AND Terry Post 12/20/11
(Jeanette Moeller, City Clerk or
Terry Post, City Administrator)

**“EXHIBIT A”
GLENDALE COVE SERVICE AREA**

The Glendale Cove Service Area consists of the following properties:

Category 1 properties:

Lot 1, Block 1, Glendale Cove	(190 Willow Drive North)	PINS #34-118-23 32 0052
Lot 3, Block 1, Glendale Cove	(2340 Glendale Cove Lane)	PINS #34-118-23 33 0062
Lot 4, Block 1, Glendale Cove	(2330 Glendale Cove Lane)	PINS #34-118-23 33 0063
Lot 5, Block 1, Glendale Cove	(2320 Glendale Cove Lane)	PINS #34-118-23 33 0064
Lot 6, Block 1, Glendale Cove	(2325 Glendale Cove Lane)	PINS #34-118-23 33 0065
Lot 7, Block 1, Glendale Cove	(2335 Glendale Cove Lane)	PINS #34-118-23 33 0066
Lot 8, Block 1, Glendale Cove	(2345 Glendale Cove Lane)	PINS #34-118-23 33 0067
Lot 9, Block 1, Glendale Cove	(2365 Glendale Cove Lane)	PINS #34-118-23 33 0068
Lot 10, Block 1, Glendale Cove	(2385 Glendale Cove Lane)	PINS #34-118-23 33 0069

Category 2 property:

Lot 2, Block 1, Glendale Cove	(177 Glendale Drive)	PINS #34-118-23 32 0053
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Category 3 properties:

Lot 1, Block 1, Hunters Green	(2340 Watertown Road)	PINS #34-118-23 33 0057
Lot 2, Block 1, Hunters Green	(2350 Watertown Road)	PINS #34-118-23 33 0058
Lot 2, Block 1, Ulmer Estates	(xxx Willow Drive North)	PINS #34-118-23 33 0055
Unplatted Sec. 34	(2380 Watertown Road)	PINS #34-118-23 33 0004

Glendale Cove Service Area

EXH. A

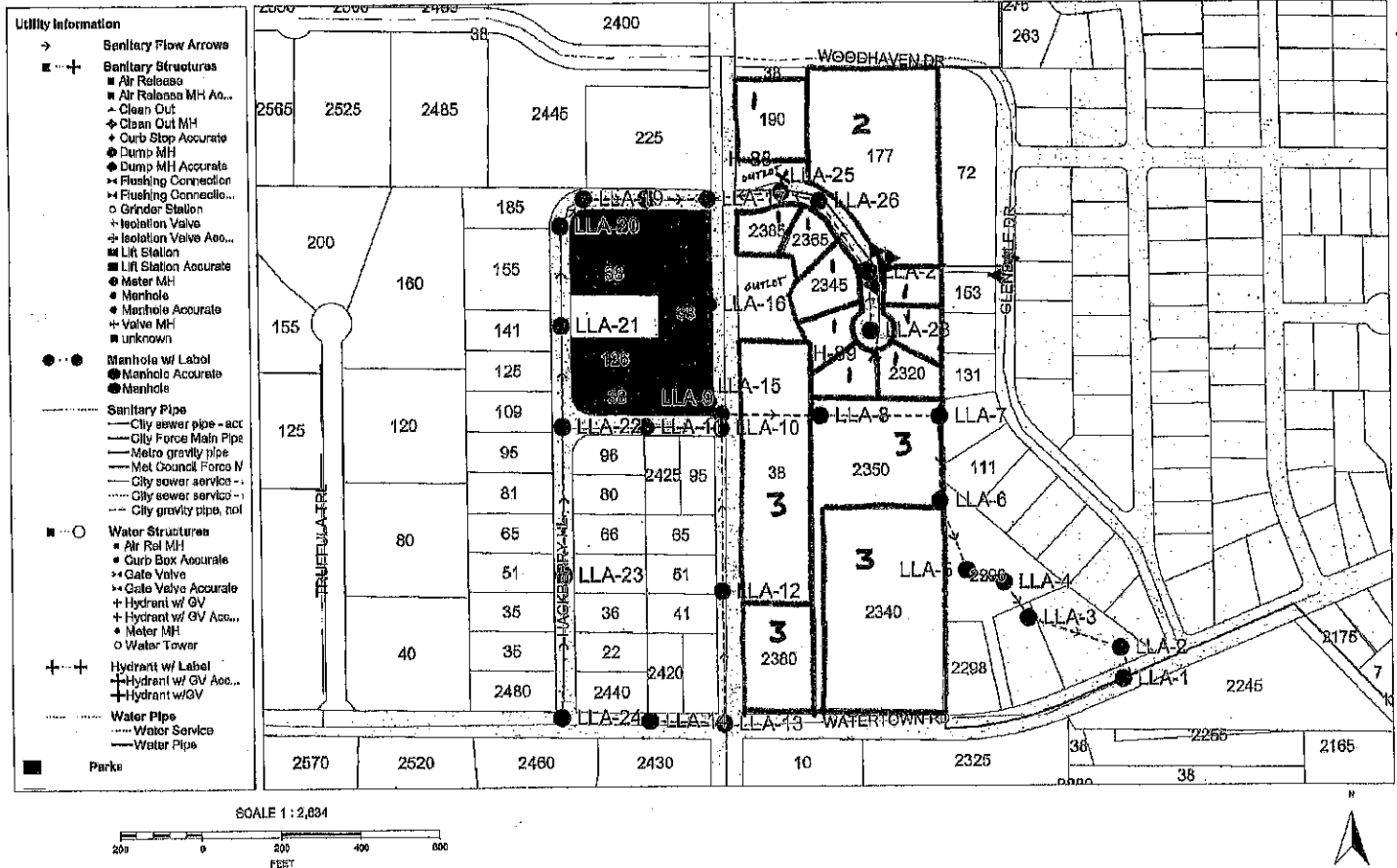


http://www.bonastroo.no/infaseek_rap/Crono/mw/DataEntry.mwf

Fri, June 03, 2011 9:40 AM

NOTE: HACKBERRY PARK IS NOT PART OF THE
DEFINED GLENDALE COVE SERVICE AREA.

Glendale Cove Service Area - Property Categories EXH. B



"EXHIBIT C"
GLENDAL COVE SERVICE AREA IMPROVEMENTS

(Sewer and Water as-built drawings will be attached here)

CREEKSIDE SEWER & WATER SERVICE AGREEMENT

THIS AGREEMENT is entered into effective retroactively to the 1st day of July, 2011 by and between the **CITY OF ORONO**, a Minnesota municipal corporation ("Orono"), and the **CITY OF LONG LAKE**, a Minnesota municipal corporation ("Long Lake"), hereinafter collectively referred to as the "Cities."

RECITALS

- A. The Cities desire to enter into agreements for the extension of water and/or sanitary sewer service to certain properties located within the City of Orono; and
- B. Under Minn. Stat. § 471.59, subd. 10, the Cities are empowered to enter into agreements for the joint exercise of powers with other governmental units for public purposes, such as the providing of water and/or sanitary sewer service;

NOW, THEREFORE, the Cities agree as follows:

1. **PURPOSES.** This Agreement shall establish the responsibilities of the Cities regarding the operation, maintenance and extension of water and sanitary sewer service from Long Lake to Orono for the properties listed in Exhibit "A" ("Creekside Service Area") as shown on Exhibit "B."

2. **IMPROVEMENTS.** The following subparagraphs (a) through and including (c) apply only to the "Improvements" (defined below) constructed in the Creekside Service Area:

a. Existing System. Orono has inspected and approved construction of the existing water and sanitary sewer service to the Creekside Service Area ("Improvements"), and Long Lake has inspected and approved construction of the connections of the Improvements to the Long Lake sanitary sewer and water systems.

b. Future Extensions. Orono will oversee and shall be solely responsible for the costs associated with the construction of any future extensions to the Improvements (as further discussed in subsection 'c.' below). The existing Improvements are located substantially as shown on Exhibit "C," attached hereto, and will be available for use only by the properties depicted in Exhibits "A" and "B." No further use or extension of the Improvements may be made without express written approval of Long Lake, to be given in its sole discretion. Long Lake shall not be charged for any costs associated with future extensions to the Improvements nor shall Long Lake residents be assessed for costs associated with such extensions.

c. Costs. Any extensions to the Improvements for the benefit of Orono properties will be the sole responsibility of Orono which may, in its sole discretion, charge said costs to the developer of the benefitted land or owners of the benefitted properties, as determined in Orono's sole discretion. Long Lake will not be responsible for any costs related to the construction of such extensions to the Improvements whether said extensions are located within the boundaries of the City of Orono or the boundaries of the City of Long Lake.

3. **OPERATION AND MAINTENANCE.** Long Lake agrees to continually supply water to and accept sewer flow from the Creekside Service Area so long as systems are maintained

and operable to allow such service. Orono agrees to maintain, at its sole cost, that portion of the water/sewer system that is located within the boundaries of City of Orono. Long Lake agrees to maintain, at its sole cost, that portion of the water/sewer system that is located within the boundaries of the City of Long Lake.

4. USAGE CHARGES.

a. Properties with Sewer Only. Because one or more properties in the Creekside Service Area do not have access to municipal water or have not yet connected to available municipal water, the use of water billing flows for sanitary sewer billing purposes is not feasible ("Sewer Only Properties"). Also, the use of sanitary sewer flow metering is not practical or feasible based on the limited number of residences which are Sewer Only Properties. Therefore, for sanitary sewer billing purposes for the Sewer Only Properties, Long Lake will quarterly invoice Orono a standard flat rate sanitary sewer charge based upon the average calendar first quarter municipal water usage for properties in the Creekside Service Area for each property connected to Long Lake's sanitary sewer system. Orono will provide notification to Long Lake with the number of Sewer Only Properties and shall pay the flat rate for each such Sewer Only Property within thirty (30) days of receipt of the invoice.

b. Properties with Water and Sewer. For water and sewer billing purposes, Orono will read the water meters for those properties connected to Long Lake's water system in the Creekside Service Area on a quarterly basis and forward the water usage information to Long Lake. Long Lake will quarterly invoice Orono for such usage at the same billing rate for both water and sewer that is charged Long Lake customers. Orono shall pay the invoice within thirty (30) days of receipt of the invoice.

5. **LONG LAKE SEWER CONNECTION CHARGES.** Long Lake will bill Orono a sanitary sewer connection charge for each property designated as a Category 2 or Category 3 property in Exhibit A that connects to sanitary sewer in the Creekside Service Area. Connection to the sanitary sewer for Category 2 and Category 3 properties is on a voluntary basis for each property and is not mandated by the City of Orono. At any time upon request of Long Lake, Orono will provide Long Lake with the total number of properties connected to the sanitary sewer system, and will also notify Long Lake at the time each new connection occurs. The sewer connection charges for Category 2 and 3 properties will be as indicated in Long Lake's fee schedule for the current year, and shall consist only of a hookup fee. The hookup fee shall be the same rate as that charged to Long Lake residents. Orono shall pay the invoice within thirty (30) days of receipt of the invoice. Long Lake, with assistance from Orono, shall have the right to audit the number of homes within the Creekside Service Area that have sewer connections. Note that the Long Lake connection charges for all Category 1 properties were paid in full at the time the subdivision was developed.

6. MCES CHARGES.

a. MCES Sewer Availability Charges. Orono will issue connection permits for each new connection and will collect the MCES Sewer Availability Charge (SAC) and forward same to MCES.

b. MCES Wastewater Charges. Long Lake will be responsible for paying the ongoing MCES Wastewater Charges.

7. **WATER CONNECTION CHARGES.** Long Lake will bill Orono a water connection charge for each property designated as a Category 2 property in Exhibit A that connects to municipal water in the Creekside Service Area. Connection to the water system for Category 2 properties is on a voluntary basis for each property and is not mandated by Orono. At any time upon request of Long Lake, Orono will provide Long Lake with the total number of properties connected to the water system, and will also notify Long Lake at the time each new connection occurs. The water connection charges will be as indicated in Long Lake's fee schedule for the current year and shall consist only of a hookup fee. Orono shall pay the invoice within 30 days of receipt of the invoice. Long Lake, with assistance from Orono, shall have the right to audit the number of homes within the Creekside Service Area that have water connections. The following applies to the properties within each category:

Category 1 Properties: The Long Lake water connection charges for all Category 1 properties, consisting of hookup fees and tap fees, were paid in full at the time the subdivision was developed.

Category 2 Properties: These developed properties have not been connected to the sewer or water system and no Long Lake fees have been paid.

Category 3 Properties: The Category 3 property has been directly connected to the Long Lake water system since approximately 1962. It has not been connected to sewer and no Long Lake fees have been paid for sewer.

8. **METERS.** Orono, at its sole cost, will install, maintain, service, and read all water meters in the Creekside Service Area but Long Lake will have access to meters for inspection and verification purposes. An Orono employee will be present during such inspections.

9. **REGULATION OF USE.** Orono agrees to regulate and control the use of the sanitary sewer system within Orono so as to prevent the discharge of waste or any storm water, surface water, ground water, roof runoff, or subsurface drainage into the sewer system that is in violation of Long Lake City Ordinances, as such may be amended from time-to-time. In case of any continuing violations of such ordinances after reasonable notice, Long Lake shall have the option to terminate this Agreement per the provisions of Paragraph 15 of this Agreement.

10. **LIABILITY; INDEMNIFICATION.** Each party to this Agreement shall be liable for the acts of their own officers, employees and agents and the results thereof to the extent authorized by law and shall not be responsible for the acts of the other party, its officers; employees and/or agents. Liability and damages arising from the Cities' acts and omissions are governed by the provisions of the Minnesota Tort Claims Act, Minnesota Statutes, Chapter 466, the Minnesota Tort Claims Act, Section 471.59, and other applicable law. Each party warrants that they have an insurance or self-insurance program and that each has minimum coverage consistent with the liability limits contained in Chapter 466. This Agreement does not constitute a waiver by either party of limitations on liability provided by Chapter 466 or other applicable law. This clause will not be construed to bar any legal remedies that each party may have for the other party's failure to fulfill its obligations under this Agreement. Each party shall defend, indemnify and hold the other

party harmless from any and all liability, on account of injury to persons or damage to property occasioned by the alleged negligent or intentional acts of the indemnifying party. Neither party shall be indemnified for losses or claims occasioned by its own negligence or intentional acts.

11. AMENDMENTS. This Agreement may be amended to provide for additional connections to Long Lake's water and sanitary sewer systems by written agreement between the Cities.

12. NOTICES. Any notice required hereunder shall be hand delivered or mailed as follows:

AS TO ORONO: City of Orono
Attn.: City Administrator
2750 Kelley Parkway
P.O. Box 66
Crystal Bay, MN 55323

AS TO LONG LAKE: City of Long Lake
Attn.: City Administrator
450 Virginia Avenue
P.O. Box 606
Long Lake, MN 55356

13. DATA PRACTICES ACT. This Agreement is subject to the Minnesota Government Data Practices Act, Minnesota Statutes, Chapter 13. If either party receives a data request affecting data or property of the other party, the party receiving the request shall immediately notify the other party of the request and of the scope of intended disclosure. Each party retains its full rights under the Act.

14. RECORDS. Each party will keep proper books and records to reflect all expenses and receipts relevant to the subject matter of this Agreement. Long Lake agrees that its books will reflect the application of receipts to capital and operating accounts in accordance with sound accounting practice. Each party will have access to all relevant books and records of the other party.

15. DURATION/DISPUTES/TERMINATION. This Agreement begins on the day it was approved and signed by the Cities and is effective retroactively to July 1, 2011 and shall be perpetual in duration unless terminated by the written agreement of both parties. Either party may terminate this Agreement upon 24 months advance written notice to the other party. However, Long Lake may not terminate this Agreement unless alternative services are available to Orono on a reasonable basis. Any dispute under this Agreement shall be determined by binding arbitration in accordance with the Rules of the American Arbitration Association (or similar Association reasonably acceptable to the Cities) and judgment resulting from such arbitration may be entered into any Court having jurisdiction.

16. TERMINATION OF PRIOR AGREEMENTS. This Agreement shall supersede all prior agreements between the Cities regarding sewer and water issues pertaining to the Creekside Service Area.

[NEXT PAGE IS THE SIGNATURE PAGE]

Dated: 1/9/12

CITY OF ORONO

BY: Lili Tod McMillan
Lili Tod McMillan, Mayor

ATTEST:

Linda S. Vee
Linda S. Vee, City Clerk

Dated: 1/9/12

CITY OF LONG LAKE

BY: Tim Hultman
Tim Hultman, Mayor

AND T. H. Moeller 12/20/11
(Jeanette Moeller, City Clerk or
Terrance Post, City Administrator)

**“EXHIBIT A”
CREEKSIDE SERVICE AREA**

The Creekside Service Area consists of the following properties:

Category 1 properties:

Lot 1, Block 1, Creekside In Orono	(105 Creek Ridge Pass)	PINS #03-117-23 12 0012
Lot 2, Block 1, Creekside In Orono	(115 Creek Ridge Pass)	PINS #03-117-23 12 0013
Lot 3, Block 1, Creekside In Orono	(120 Creek Ridge Pass)	PINS #03-117-23 12 0014
Lot 4, Block 1, Creekside In Orono	(110 Creek Ridge Pass)	PINS #03-117-23 12 0015
Lot 5, Block 1, Creekside In Orono	(100 Creek Ridge Pass)	PINS #03-117-23 12 0016
Lot 6, Block 1, Creekside In Orono	(90 Creek Ridge Pass)	PINS #03-117-23 12 0017
Lot 7, Block 1, Creekside In Orono	(80 Creek Ridge Pass)	PINS #03-117-23 12 0018

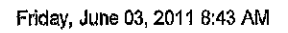
Category 2 properties:

Lot 1, Block 1, Kallestad Acres	(130 Brown Road South)	PINS #03-117-23 12 0010
Lot 2, Block 1, Kallestad Acres	(140 Brown Road South)	PINS #03-117-23 12 0011

Category 3 properties:

Tracts A, B & C, R.L.S. 1022	(20 Brown Road South)	PINS #03-117-23 12 0006/7/8
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EXH. A



EXH. B

