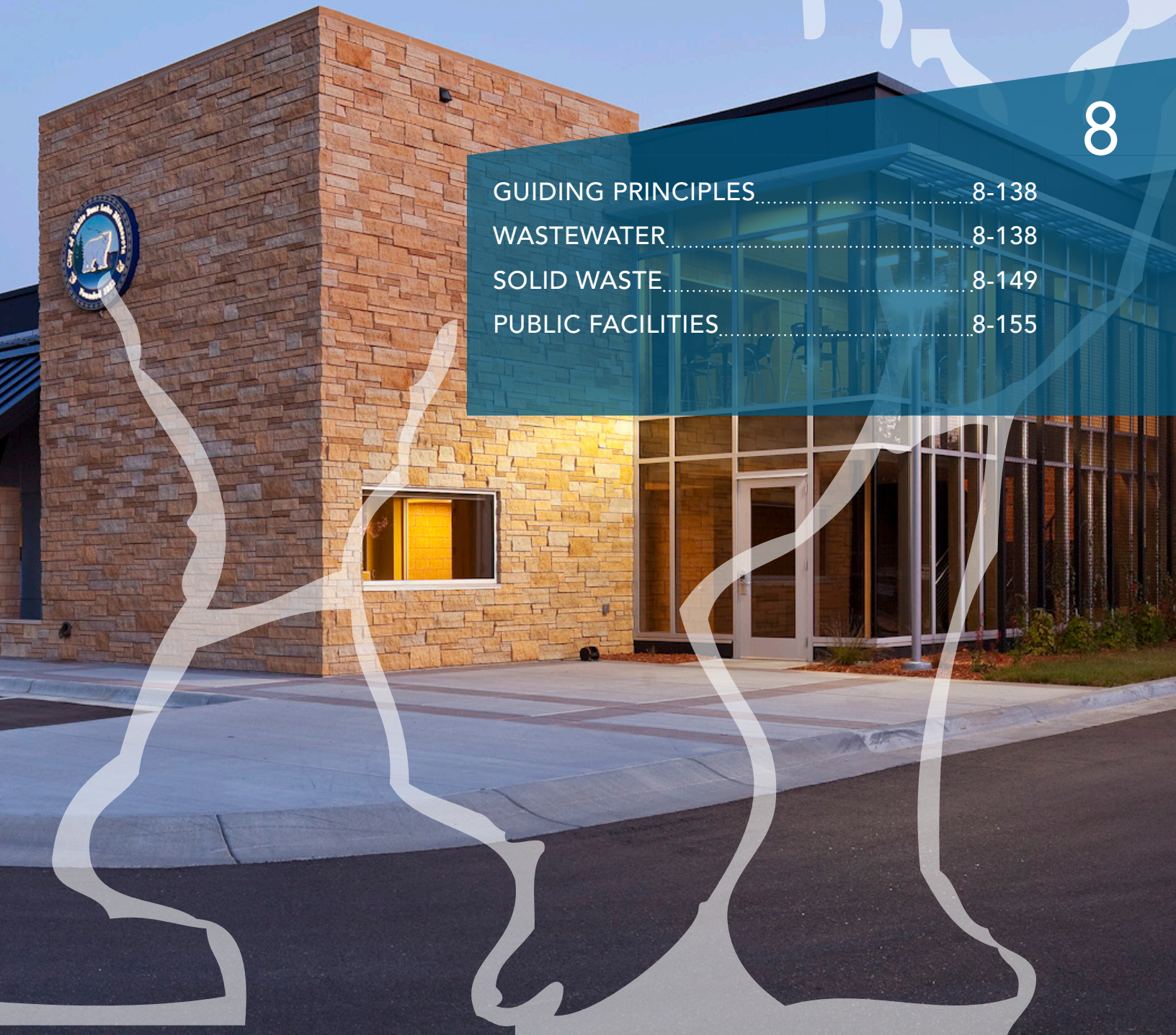


PUBLIC FACILITIES & SERVICES

8

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In the 2030 Comprehensive Plan, the “Public Utilities” chapter included water, wastewater, and stormwater. In this plan, ground water supply is located in the Natural Resources Section, and stormwater is covered in the Surface Water Management Plan (which is attached as an appendix). This chapter now covers wastewater, solid waste and publicly owned and managed facilities outside of public parks.

GUIDING PRINCIPLES

SANITARY SEWER SYSTEM

Operate and maintain the sanitary sewer system to be economically sustainable, provide a high quality of service and to promote preservation and protection of water resources; to promote the elimination of individual sewage treatment systems as municipal service becomes available; and operate the sanitary sewer system to meet Federal and State standards and Metropolitan Council Environmental Services requirements.

SOLID WASTE

Provide a reliable and cost effective waste management program for our residents including refuse and recycling programs through a City led organized collection program and to continue to provide opportunities for residents to responsibly dispose of yard waste, organics, household hazardous waste and electronic waste. The City will follow all applicable requirements of the Ramsey County solid waste management plan and goals of the Minnesota Pollution Control Agency.

PUBLIC FACILITIES

Operate municipal facilities in a cost efficient and responsible manner taking into account energy efficiency and impacts to the natural environment while leading by example in all public facility construction and operations.

WASTEWATER

INVENTORY

Within the City of White Bear Lake the sanitary sewer system consists of 95.5 miles of sanitary sewer pipe including trunks and laterals. In addition, the community is serviced by several Metropolitan Council Environmental Services (MCES) lines consisting of gravity pipes, force mains and interceptors. These lines ultimately lead to the Metropolitan Wastewater Treatment Plant in St. Paul. The City maintains 11 lift stations. Flow information for each lift station is shown on Table 8.1. Also located within the city limits are two Metropolitan Council lift stations (L5 and L6). The location of these facilities are depicted on the Sewer Infrastructure Map, Figure 8.1.

Table 8.1 Lift Station Capacities and Flows

Lift Station	Year of Construction	Pumping Capacity (gpm)	Existing Peak Flow (gpm)	Future Peak Hour Inflow (gpm)
Lift #2	1929	1,000	87	87
Lift #3	1967	500	46	46
Lift #7	1959	250	35	35
Lift #8	1960	600	104	104
Lift #13	1964	400	8	8
Lift #14	1967	1,200	810	810
Lift #15	1972	100	2	2
Lift #16	1972	100	2	2
Lift #17	1972	35	<1	<1
Lift #18	1972	35	<1	<1
Lift #19	2003	125	6	6
Sensor #20	1998	N/A	N/A	N/A

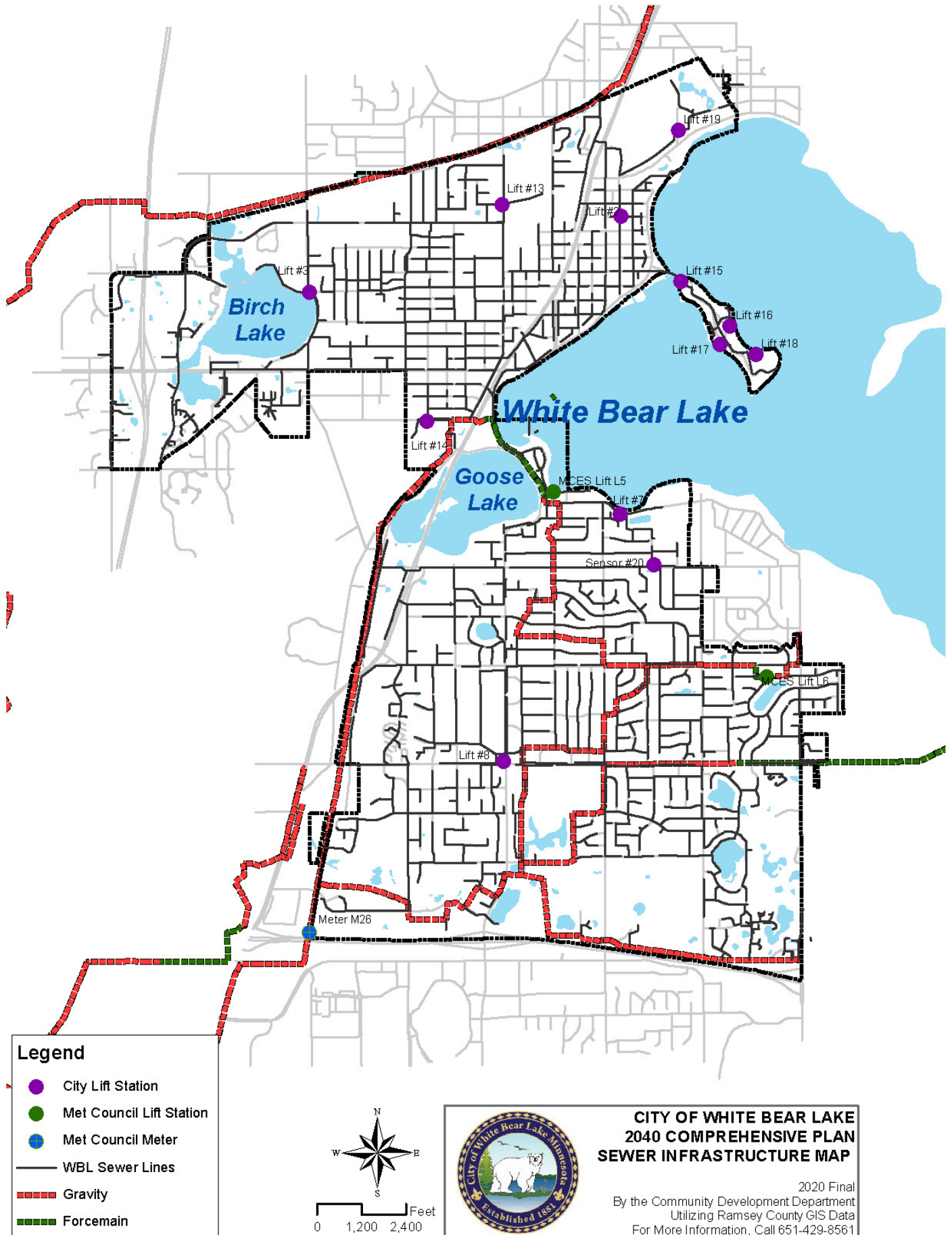
Approximately 95% of the City's wastewater flow is metered at the Metropolitan Council Meter #26 located in the southwest corner of the City. This meter measures the combined flow from White Bear Lake, White Bear Township, Birchwood, and Mahtomedi. Most of the remaining wastewater flows to the north through White Bear Township and into the Metropolitan Council Meter #39, with five (5) single-family properties east of Century Avenue and south of Martin Way which flows into Metropolitan Council Meter #28A. Table 8.2 shows the wastewater flow for the years 2008 through 2016.

Table 8.2 Historic Wastewater Flow (million gallons)

Year	TOTAL	% Change
2008	940.7	
2009	914.0	-2.8%
2010	918.5	0.5%
2011	921.3	0.3%
2012	833.1	-9.5%
2013	805.4	-3.3%
2014	880.2	9.2%
2015	836.7	4.9%
2016	889.8	6.3%

Source: Metropolitan Council Environmental Services, combination of metered and unmetered

Figure 8.1 Sewer Service Map



PROJECTIONS

The Metropolitan Council allocates growth projections by system components in Table 8.3. This allocation must be used in projecting future wastewater flows and system capacity to plan for additional infrastructure needs.

The additional projected flow for the amount of project growth can be handled by the City's existing system with no anticipated system upsizing or addition trunk connections. This is based on observations made during routine maintenance of the system as the City currently does not have a comprehensive system-wide flow model. The City is committed to developing a flow model in conjunction with the development of its GIS system over the next planning cycle. The current GIS information only includes line work for the pipe system and structure locations but does not include such information as sizing and elevations necessary to create a flow model.

Table 8.3 Projected Wastewater Flows by MCES Interceptor Meter (Metro WWTP)

MCES Meter	2010			2020			2030			2040		
	POP	HH	EMP	POP	HH	EMP	POP	HH	EMP	POP	HH	EMP
M025A	-	-	-	-	-	-	-	-	-	-	-	-
M026	21,804	9,007	9,399	22,080	9,541	9,984	2,663	10,153	10,337	23,462	10,640	10,503
M028A	-	-	-	-	-	-	-	-	-	-	-	-
M036	358	160	803	370	160	876	356	160	830	352	160	845
M039	1,588	758	1,067	1,808	781	1,140	1,981	887	1,134	1,986	900	1,152
Sewered Subtotal	23,750	9,925	11,269	24,258	10,482	12,000	25,000	11,200	12,300	25,800	11,700	12,500
Unsewered	47	20	-	42	18	-	-	-	-	-	-	-
Total	23,797	9,945	11,269	24,300	10,500	12,000	25,000	11,200	12,300	25,800	11,700	12,500

Source: City of White Bear Lake, 2020

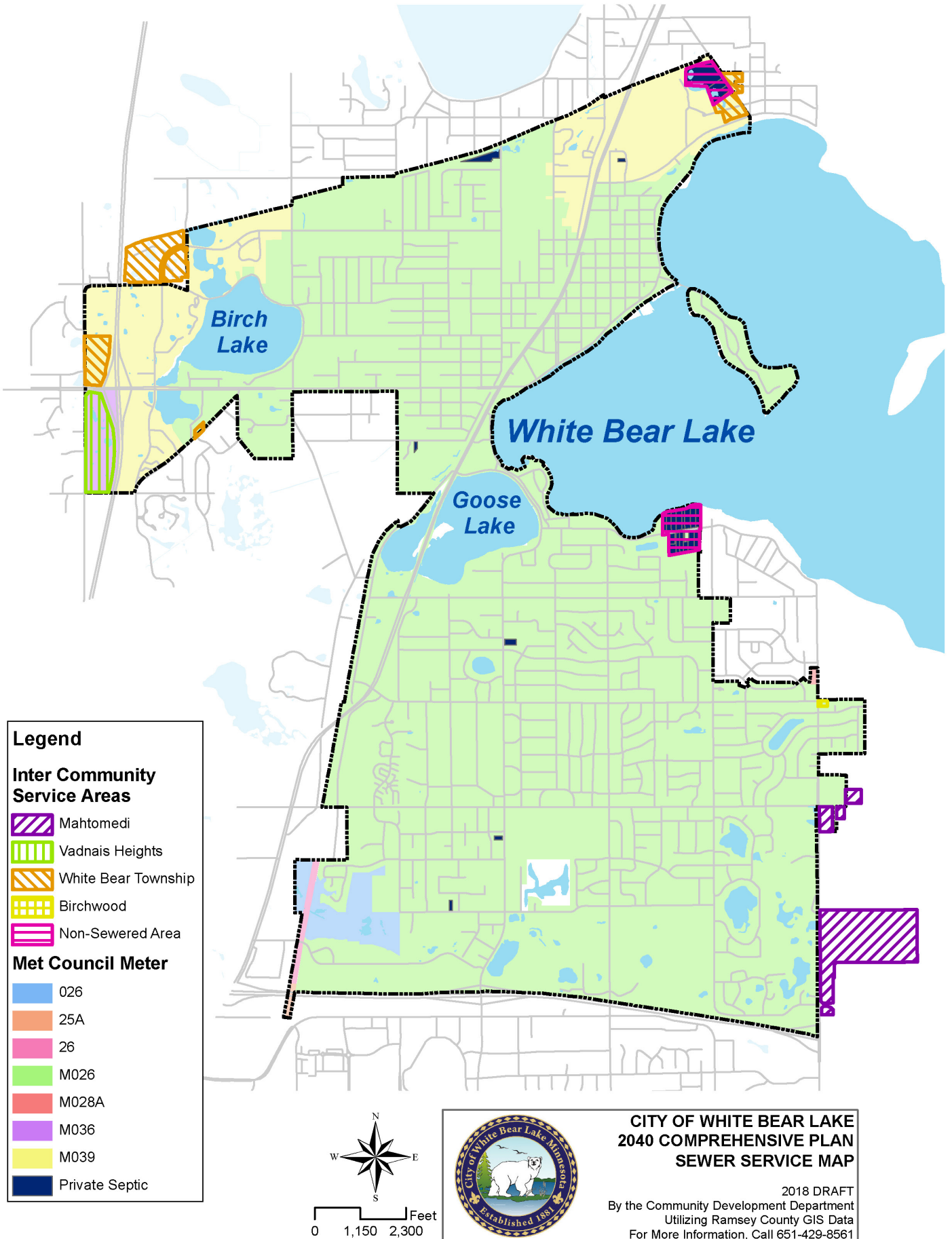
Table 8.4 Projected Wastewater Flows by MCES Interceptor Meter (Metro WWTP)

MCES Meter	2017 Average Flow (MGD)	2017 Peak Hour Flow (MGD)	2020 Average Flow (MGD)	2020 Peak Hour Flow (MGD)	2030 Average Flow (MGD)	2030 Peak Hour Flow (MGD)	2040 Average Flow (MGD)	2040 Peak Hour Flow (MGD)
M025A	-	-	-	-	-	-	-	-
M026	2.546	6.87	2.478	6.69	2.437	6.58	2.418	6.53
M028A	0.001	0.00	0.001	0.00	0.001	0.00	0.001	0.00
M036	0.004	0.02	0.005	0.02	0.004	0.02	0.006	0.02
M039	0.158	0.62	0.152	0.59	0.159	0.62	0.146	0.57
Total System	2.709	7.31	2.636	7.12	2.600	7.02	2.570	6.94

Note:

1. Projected peak hour flows equal the total average flow multiplied by MCES peaking factors.
2. The sum of the peak hour flows does not equal the sum of the peak discharges from each district since the peaking factor decreases as the average flow increases.
3. Peaking factors were taken from MCES Water Resources Policy Plan factors.
4. M025A only exists in WBL along the abandoned BNSF Railway right-of-way and will remain right-of-way
5. Wastewater flows are based on 60 gallons per day (gpd) per person and 15 gpd per employee from new development, and gradual reduction of wastewater flow from existing development.

Figure 8.2 Sewer Service Map



One connection to the Metropolitan Council wastewater system that the City has had contemplated is one at Bald Eagle Avenue at the City's north corporate limits that currently flows to Lift Station 13, then ultimately to MCES Interceptor 7122. The service area would be redirected north to MCES Interceptor 6901 and consists of the White Bear Lake School District North Campus and a small residential area consisting of approximately 85 homes. This connection would allow the City to eliminate a lift station and provide better long term reliable service to this area.

Table 8.6 Projected Wastewater Flows by MCES Interceptor Meter (Metro WWTP)

Existing MCES Interceptor	Sewershed	Flow	Future MCES Interceptor	Timing
7122	Lift Station #13	0.1 MGD	6901	2024

Source: City of White Bear Lake, 2020

INTERCOMMUNITY SERVICE AREAS

There are six intercommunity service areas as depicted on the Sewer Service Map (Figure 8.2) and summarized in the Summary of Wastewater Intercommunity Connections (Table 8.X):

1. White Bear Township provides sanitary sewer service to five businesses and one senior housing facility on Centerville Road north of Highway 96. This intercommunity sanitary sewer service area is governed by a Joint Powers Agreement between the Town of White Bear and the City of White Bear Lake, dated February 10, 1992, which identifies that White Bear Township will bill these properties directly for this sanitary sewer service. On September 23, 1997, Resolution No. 8106 authorized the addition of the single-family residence located at 1333 South Birch Lake Boulevard to the 1992 Joint Powers Agreement and White Bear Township bills the property owner directly for this service.
2. The City of White Bear Lake provides sanitary sewer service to five industrial properties (1185, 1177, 1201 Birch Lake Blvd. N. and 4849 and 4851 White Bear Parkway) and a senior housing community (4700 Golden Ponds Lane). This intercommunity sanitary sewer service area is not formally governed by a Joint Powers Agreement and the two communities should strive to document the arrangement in the coming years. The charges for these sanitary sewer services are billed by White Bear Lake directly to the property owners.
3. White Bear Township provides sanitary sewer service to 17 single-family residences located on Northwest Avenue (7), Hope Street (2), Stillwater Street (1), Lake Avenue (3), 1st Street (2) and 2nd Street (2) in a residential neighborhood located north of White Bear Lake. This intercommunity sanitary sewer service area is governed by a Joint Powers Agreement between the Town of White Bear and the City of

Table 8.5 MCES Flow Variation Factors for Sewer Design

Average Flow (MGD)	Peak Factor
0.00-0.11	4.0
0.12-0.18	3.9
0.19-0.23	3.8
0.24-0.29	3.7
0.30-0.39	3.6
0.40-0.49	3.5
0.50-0.64	3.4
0.65-0.79	3.3
0.80-0.99	3.2
1.00-1.19	3.1
1.20-1.49	3.0
1.50-1.89	2.9
1.90-2.29	2.8
2.30-2.89	2.7
2.90-3.49	2.6

Source: Met. Council 2040 Water Resources Policy Plan

Table 8.7 Summary of Wastewater Intercommunity Connections

MCES Metershed	Flow From	Flow To	Property Address	Land Use	City	Billed By	Resolution/JPA
M026	Mahtomedi	WBL	3122 Century Avenue	BP Gas Station	Mahtomedi	WBL	#8826 on 8/22/00
M026	Mahtomedi	WBL	3140 Century Avenue	Shopping Center	Mahtomedi	WBL	#8826 on 8/22/00
M026	Mahtomedi	WBL	3194 Century Avenue	SF residence	Mahtomedi	WBL	#8826 on 8/22/00
M026	Mahtomedi	WBL	3218 Century Avenue	SF residence	Mahtomedi	WBL	#8826 on 8/22/00
M026	Mahtomedi	WBL	3220 Century Avenue	SF residence	Mahtomedi	WBL	#8826 on 8/22/00
M026	Mahtomedi	WBL	3224 Century Avenue	SF residence	Mahtomedi	WBL	#8826 on 8/22/00
M026	Mahtomedi	WBL	3230 Century Avenue	SF residence	Mahtomedi	WBL	#8826 on 8/22/00
M026	Mahtomedi	WBL	3300 Century Avenue	Century College-East Campus	Mahtomedi	WBL	#8826 on 8/22/00
M026	Mahtomedi	WBL	3590 Century Avenue	Former Kowalski's Bakery	Mahtomedi	WBL	#8826 on 8/22/00
M026	Mahtomedi	WBL	805 Wildwood Road	East Shore Place Apartments	Mahtomedi	WBL	#8826 on 8/22/00
M026	Mahtomedi	WBL	850 Wildwood Road	Dairy Queen	Mahtomedi	WBL	#8826 on 8/22/00
M026	Mahtomedi	WBL	900 Wildwood Road	Chuck & Don's Offices	Mahtomedi	WBL	#8826 on 8/22/00
M026	Mahtomedi	WBL	910 Wildwood Road	Chuck & Don's Pet Store	Mahtomedi	WBL	JPA on 4/06/06
M026	Mahtomedi	WBL	1000 Wildwood Road	Gas Station at NE Corner 120	Mahtomedi	WBL	#8826 on 8/22/00
M039	WBL	WBT	5215 Northwest Ave	SF Residence	White Bear Lake	WBT	JPA on 11/25/91
M039	WBL	WBT	5225 Northwest Ave	SF Residence	White Bear Lake	WBT	JPA on 6/05/81
M039	WBL	WBT	5231 Northwest Ave	SF Residence	White Bear Lake	WBT	JPA on 11/25/91
M039	WBL	WBT	5235 Northwest Ave	SF Residence	White Bear Lake	WBT	JPA on 11/25/91
M039	WBL	WBT	5255 Northwest Ave	SF Residence	White Bear Lake	WBT	JPA on 11/25/91
M039	WBL	WBT	5258 Northwest Ave	SF Residence	White Bear Lake	WBT	JPA on 11/25/91
M039	WBL	WBT	5266 Northwest Ave	SF Residence	White Bear Lake	WBT	JPA on 6/05/81
M039	WBL	WBT	2544 2nd Street	SF Residence	White Bear Lake	WBT	JPA on 6/05/81
M039	WBL	WBT	2560 2nd Street	SF Residence	White Bear Lake	WBT	#8384 on 11/24/98
M039	WBL	WBT	5260 Hope Street	SF Residence	White Bear Lake	WBT	#8133 on 11/05/97
M039	WBL	WBT	5262 Hope Street	SF Residence	White Bear Lake	WBT	#8133 on 11/05/97
M039	WBL	WBT	2560 1st Street	SF Residence	White Bear Lake	WBT	JPA on 6/19/17
M039	WBL	WBT	2566 1st Street	SF Residence	White Bear Lake	WBT	JPA on 11/05/01
M039	WBL	WBT	2555 Stillwater Street	SF Residence	White Bear Lake	WBT	#6093 on 07/25/89
M039	WBL	WBT	2527 Lake Avenue	SF Residence	White Bear Lake	WBT	#8385 on 11/24/98
M039	WBL	WBT	2563 Lake Avenue	SF Residence	White Bear Lake	WBT	JPA on 11/25/91
M039	WBL	WBT	2565 Lake Avenue	SF Residence	White Bear Lake	WBT	JPA on 6/05/81
M026	WBL	BV	3830 Century Avenue	SF Residence	White Bear Lake	BV	JPA on 5/14/08
M026	WBL	WBT	1333 Birch Lk. Blvd. S.	SF Residence	White Bear Lake	WBT	#8106 on 09/23/97
M039	WBL	WBT	4600 Centerville Road	Anytime Fitness Center	White Bear Lake	WBT	JPA on 2/10/92
M039	WBL	WBT	4612 Centerville Road	Tires Plus	White Bear Lake	WBT	JPA on 2/10/92
M039	WBL	WBT	4630 Centerville Road	Lunds & Byerly's Grocery	White Bear Lake	WBT	JPA on 2/10/92
M039	WBL	WBT	4650 Centerville Road	The Pillars of WBL	White Bear Lake	WBT	JPA on 2/10/92
M039	WBL	WBT	1075 Highway 96	Walgreen's	White Bear Lake	WBT	JPA on 2/10/92
M039	WBL	WBT	1081 Highway 96	McDonald's	White Bear Lake	WBT	JPA on 2/10/92
M039	WBT	WBL	1177 Birch Lk. Blvd. N	Comstock Warehouse	White Bear Twp.	WBT	Informal
M039	WBT	WBL	1185 Birch Lk. Blvd. N	White Bear Medical	White Bear Twp.	WBT	Informal
M039	WBT	WBL	1201 Birch Lk. Blvd. N	Wellspring	White Bear Twp.	WBL	Informal
M039	WBT	WBL	4849 White Bear Pkwy.	Mirumi Property	White Bear Twp.	WBL	Informal
M039	WBT	WBL	4851 White Bear Pkwy.	Sanders Exchange	White Bear Twp.	WBT	Informal
M039	WBT	WBL	4700 White Bear Pkwy.	Cottages of White Bear	White Bear Twp.	WBT	Informal
M026	WBL	VH	4320 Centerville Road	LTG Power Equipment	White Bear Lake	VH	JPA on 5/20/80

MCES Metershed	Flow From	Flow To	Property Address	Land Use	City	Billed By	Resolution/JPA
M026	WBL	VH	4336 Centerville Road	MAVO Systems	White Bear Lake	VH	JPA on 5/20/80
M026	WBL	VH	4350 Centerville Road	Kroonblad Building	White Bear Lake	VH	JPA on 5/20/80
M026	WBL	VH	4444 Centerville Road	Quad 4 Building	White Bear Lake	VH	JPA on 5/20/80
M026	WBL	VH	4452 Centerville Road	North Oaks Auto Service	White Bear Lake	VH	JPA on 5/20/80
M026	WBL	VH	4466 Centerville Road	Stonehouse Catering	White Bear Lake	VH	JPA on 5/20/80
M026	WBL	VH	4470 Centerville Road	Eddie's Auto Repair	White Bear Lake	VH	JPA on 5/20/80
M026	WBL	VH	4480 Centerville Road	Advanced Dermatology	White Bear Lake	VH	JPA on 5/20/80
M026	WBL	VH	4500 Centerville Road	Goodwill	White Bear Lake	VH	JPA on 5/20/80
M026	WBL	VH	4520 Centerville Road	North Suburban Eye Clinic	White Bear Lake	VH	JPA on 5/20/80
M026	WBL	VH	4540 Centerville Road	Holiday Station	White Bear Lake	VH	JPA on 5/20/80

White Bear Lake, dated June 5, 1981 and subsequently amended as additional residences connected to the system. Use charges for the sanitary sewer services to these properties are billed by White Bear Township directly to the property owners.

4. Vadnais Heights provides sanitary sewer service to 11 commercial properties on the east side of Centerville Road south of Highway 96. This intercommunity sanitary sewer service area is governed by a Joint Powers Agreement between the City of Vadnais Heights and the City of White Bear Lake, dated May 20, 1980 and Amended on January 13, 1981. Section 3 of the Amendment to the Agreement clearly identifies that "Vadnais Heights will invoice the uses of sanitary sewer and water for all applicable charges."
5. The City provides sanitary sewer service to five single-family residences and nine commercial properties along the Century Avenue and Wildwood Road corridors in Mahtomedi, including the East Campus of Century College and East Shore Place apartment building. This intercommunity sanitary sewer service area is governed by a Joint Powers Agreement between the City of Mahtomedi and the City of White Bear Lake, approved by Resolution No. 8826 on August 22, 2000 and amended on April 6, 2006.
6. Birchwood Village provides sanitary sewer service to one single-family residence located at 3830 Century Avenue. This intercommunity sanitary sewer service is governed by a Joint Powers Agreement between the City of Birchwood Village and the City of White Bear Lake, dated May 14, 2008. The City of Birchwood Village bills this residential property directly for its sanitary sewer service.

UNSERVED AREAS

Two areas of White Bear Lake are unsewered. The largest is on South Shore Boulevard, adjacent to White Bear Township. The City plans to provide sewer service to a portion of this area during upcoming road reconstruction anticipated in 2022. The other unsewered area is on Northwest Boulevard. This area could be served through an extension of White Bear Lake or White Bear Township sewer service.

PRIVATE SEPTICS

There are 20 remaining single-family properties that utilize “individual sewage treatment systems” (ISTS) – see Figure 8.2. Most of these 20 systems are located where city sanitary sewer service is unavailable. It is anticipated that once city sewer is extended, approximately half of these properties will connect. One of the properties is twelve acres in size and is anticipated to redevelop in the coming years, and connection would be required upon development.

The City has long had an ordinance which requires the owners of properties abutting a public right-of-way containing a main or lateral sewer to connect to the service. This connection must occur within 30 days after written notice is received from the City. This type of notification usually occurs when the city determines that the existing ISTS is failing. However, if the system is in good working condition, connection is not generally required. All new residential and commercial construction is required to connect to the city sanitary sewer system if available.

In 2014, the city updated its ordinance regulating the use of ISTS within the city. The ordinance adopts by reference Minnesota Rule Chapter 7080, 7081 and 7082, pertaining to the installation and use of ISTS. This ordinance establishes site criteria, construction and material guidelines, permitted alternative systems, operation and maintenance requirements, administration, licensing, and enforcement procedures. The City of White Bear Lake is responsible for administering this program.

The City sent notices to the septic systems owners within the City, notifying them of the ordinance and maintenance requirements, and asking them to report their inspection and pumping history every three years. Property owners who fail to pump and maintain their systems are required to have a compliance inspection performed by a third party licensed septic inspector to report the condition of their system. Systems that are failing are required by ordinance to be repaired or replaced or to connect to the City sewer if possible. Since the inception of the report and inspection program in 2010, nine systems have been abandoned and the properties have connected to City sewer.

PRIVATE WASTEWATER TREATMENT FACILITIES

In the City of White Bear Lake, private wastewater treatment plants are prohibited because of the prevalent availability of regional sewer services and because the development of these systems can have negative land use, public health and environmental impacts.

INFLOW AND INFILTRATION

Two issues of concern are inflow and infiltration of clean water into the wastewater collection system. Clean water that enters the sewer system from cross connections with storm sewer, sump pumps, roof drains, or manhole covers is considered inflow. Infiltration is clean water that enters the sanitary sewer system through defects in the sewer pipes, joints, manholes, and service lines. This inflow and infiltration (I&I)

of water can reduce the capacity of the system and increase the fees charged by the MCES. In extreme cases, the added hydraulic load can cause bypasses or overflows of raw wastewater. As sewer systems age and deteriorate, I&I can become an increasing burden on a City's system. In February 2006 the MCES adopted the Ongoing I&I Program which requires communities within their service area to eliminate excessive I&I.

Sources, Extent, and Significance of Existing I&I

The Metropolitan Council does not provide additional capacity within its interceptor system to serve excessive I/I without recovering the costs of this oversizing from municipalities that contribute to the problem. The Metropolitan Council establishes I/I thresholds for each community that uses its system. These are established by reviewing metered flows exiting a community and determining the ratio of peak flow to average flow. Communities that exceed this ratio are required to eliminate excess flow within a reasonable time frame. White Bear Lake has not been identified as a community that has exceeded allowable thresholds.

The City of White Bear Lake's I&I is relatively low based on Metropolitan Council flow monitoring and from observation from the City's televising program. The City has approximately 95 miles of sanitary sewer main and laterals. The majority of this system is clay tile pipe with 17.4 miles of PCV pipe in the newer areas. The primary source of I&I appear to be from groundwater seeping into the joints in the clay tile sewer mains, laterals and services. Stormwater inflow into manholes or from footing drains and sump pumps do not appear to be an issue due to the age of the housing stock and lack of draintile systems. The City has 10,642 housing units with 4,906 being constricted prior to 1970. Considering the age of the City's infrastructure and housing stock, I&I does not appear to be an issue.

Table 8.10 and Table 8.9, below, are monthly flow data recorded by MCES for the City's metershed. Using these values and the EPA guidance for estimating I/I, the amount of annual I/I and peak month I/I are shown as a percentage of total flow, using the lowest month flow in that year as the base sanitary flow. The table shows that there is little I/I in the system over the five-year period, but that it is still present.

Table 8.10 Monthly Recorded Flow

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2013	70.10	63.90	72.30	70.50	70.80	75.40	76.20	70.90	64.40	66.70	65.20	71.50
2014	70.80	64.80	75.60	76.80	84.10	91.70	82.90	76.70	73.30	73.10	68.80	71.70
2015	72.30	65.90	72.90	71.30	71.20	71.10	76.40	73.20	71.10	71.50	70.10	77.40
2016	75.60	69.30	73.90	72.90	78.40	78.20	74.90	80.50	78.90	81.80	77.10	83.80
2017	84.40	74.70	82.60	77.90	91.10	82.80	77.70	75.40	70.70	72.80	69.00	70.10

Table 8.8 Age of Residential Housing Stock

Year Unit Built	Number	Percent
Pre-1970 Era	4,906	46%
Post-1970 Era	5,736	54%
Total Housing Units	10,642	100%

Source: US Census Bureau , 2012-2016 ACS

Table 8.9 Summary

Year	Year II	Peak II
2013	6%	13%
2014	8%	25%
2015	2%	7%
2016	6%	12%
2017	10%	22%
Average	6%	16%

Requirements and Standards for Minimizing I&I in White Bear Lake

The City's municipal sewer system ordinance (Section 402 of the municipal code) prohibits the connection of sump pumps, foundation drainage, or other surface water as stated here (402.040, Subd .14):

"It shall be unlawful to discharge or cause to be discharged, any storm water, surface water, ground water, roof runoff, subsurface drainage, cooling waters, or unpolluted industrial process waters to any sanitary sewer..."

The ordinance will continue to be followed and will be amended within six months of the adoption of this plan to include the disconnection of existing clearwater sources.

Some cities with unusually high I&I rates have a sump-pump inspection program to insure compliance with this requirement, but the City of White Bear Lake does not at this time.

I&I Reduction Goals and Strategies

Goals for I&I Reduction:

- » to minimize or eliminate I&I entering private and public sewer infrastructure
- » to reduce ratepayer costs for transporting and treating wastewater
- » to minimize liability from water pollution and public health risks

Policies and strategies for I&I Reduction:

- » Educate property owners about I&I by posting information on city web site and distributing information via email blasts and community newspapers.
- » Encourage private property owners to proactively inspect and repair or replace older segments of private sanitary sewer connections that are beyond their service life.
- » Explore grants or other financial assistance programs to provide financial assistance to private property owners wishing to replace or repair private sewer connections to the city main.
- » Make sure sump pumps and building drains are not connected to the sanitary sewer system. This can be done through educational information and when permits are required for home improvements or expansions.
- » Promote the full metering of White Bear Township's flow through the City's system.
- » Ensure careful construction, maintenance and rehabilitation practices are followed in all aspects, both public and private, of the sanitary sewer system.

Plan for Preventing and Eliminating Excessive I&I

The City has undertaken many projects, city-wide, to eliminate or reduce I&I. Since 1994, when the sanitary sewer lining program began, the City has lined 13.9 miles of sanitary sewer mains, sealed over 1,200 service wye connections and repaired, lined or replaced numerous manholes. In the future, the City will continue to engage in similar inflow and infiltration reduction projects. The City's televising program will also continue to help identify and prioritize project areas for lining. Approximately 70% of the City's sanitary sewer system has been televised to date.

Another opportunity the City has to correct issues to the sanitary sewer system is during its street reconstruction projects. During these projects, based on conditions, manholes are repaired, replaced or lined, pipes are repaired or lined and all sewer service wye connection are televised and residents have the opportunity to partner with the City in sharing the cost to repair those connections that are damaged or leaking.

The City has the following Funding included in its 5-year CIP:

- » \$175,000 per year for Street Construction Project Sanitary Sewer Repairs
- » \$125,000 per year for Sanitary Sewer Lining Projects
- » \$40,000 to 80,000 per year for Sanitary Sewer Wye Replacement Program

SOLID WASTE

The Minnesota Pollution Control Agency (MPCA) regulates and manages solid waste in Minnesota. Recognizing that waste has value and should be viewed as a resource, the state's goal of solid waste management is to use waste for its highest use on the Waste Management Hierarchy (Figure 8.3). The MPCA plan establishes the framework for managing solid waste that emphasizes the upper end of the hierarchy by promoting waste reduction, utilizing reuse/repair industries, recycling, recovering organic material, and energy recovery to minimize landfill disposal.

Table 8.11 MPCA Landfill Reduction Objectives

Management Method	Metro Area MSW Management Objectives				
	2015	2020	2025	2030	2036
Waste Reduction ¹		1.5%	3%	4%	5%
Recycling ¹	45-48%	51%	54%	60%	60%
Organics Recovery ¹	3-6%	12%	14%	15%	15%
Resource Recovery ²	32-34%	35%	31%	24%	24%
Maximum Landfill ³	20%	2%	1%	1%	1%

Source: MPCA

1. Minimum amount of municipal solid waste (MSW) that must be managed by this method.

2. Amount of resource recovery expected to occur after maximizing reduction, recycling, and organics recovery.

3. Maximum amount of land disposal allowed. Does not include ash or residual from other processes.

Figure 8.3 Waste Management Hierarchy



The MPCA policy plan sets quantifiable objectives through the year 2036 to reduce land disposal waste to 1% by 2025 through waste reduction, recycling, organics recovery, and resources recovery, as shown in Table 8.11, below.

Minnesota Statute 473.803 requires Counties in the metro area to prepare County solid waste master plans that implement the state's plan. In turn, the County master plans guide solid waste management in the City.

REFUSE

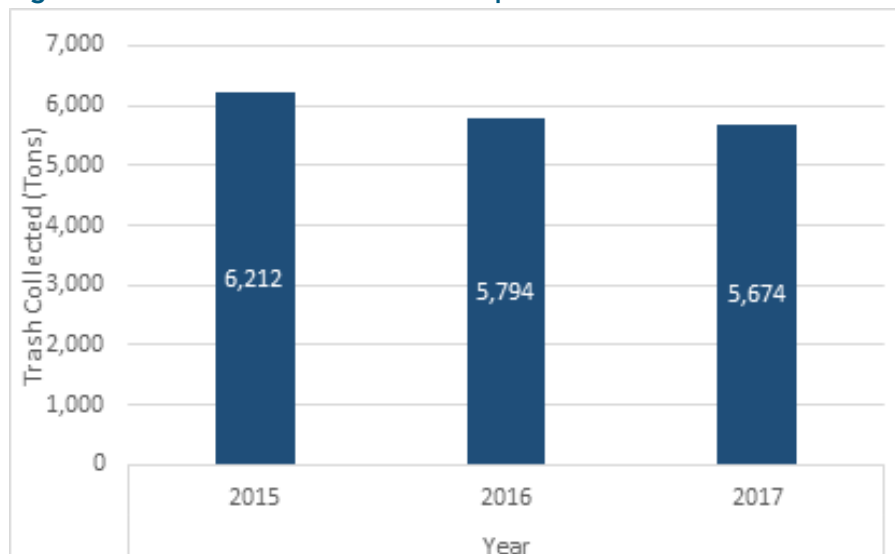
Through an ordinance and municipal contract, White Bear Lake residents have been provided citywide organized refuse and recycling collection services for the past 30 years. With organized collection, the City contracts with only one hauler for residential refuse and recycling collection, versus an open system where residents choose their own hauler. Among the many advantages of organized collection is reduced truck traffic, resulting in decreased street wear, vehicle noise, fuel consumption, and emissions.

The City's contract hauler uses an automated service that requires universal use of trash and recycling carts provided by the hauler. The trash carts are available in 30 gallon, 60 gallon, and 90 gallon sizes. The refuse fee is less for smaller cart sizes to encourage residents to minimize waste and increase recycling. The State of Minnesota collects a Solid Waste Management Tax on municipal refuse collection and disposal charges. Ramsey and Washington Counties collect a County Environmental Charge (CEC) on municipal refuse collection and disposal charges. Revenue from the CEC is used for County solid waste services such as household hazardous waste collection, recycling grants to municipalities, and operation of the Recycling and Energy Center in Newport. Charges for recycling and organics collection are exempt from the State tax and County fees.

Refuse collected in Ramsey and Washington Counties is transported to a solid waste processing facility in Newport that prepares the waste to be used as fuel to generate electricity. In 2016, Ramsey and Washington Counties purchased the processing facility from a private company and renamed the facility the Recycling & Energy (R&E) Center. Historically subsidies were needed to provide an incentive for haulers to bring trash to the Recycling & Energy Center because of the higher cost of processing over landfilling. Starting January 1, 2018, all trash generated in both counties must be brought to the facility.

The R&E Center produces monthly tonnage reports for refuse collected from residential properties in the City of White Bear Lake. The Yearly refuse totals are shown in Figure 8.4.

Figure 8.4 Residential Trash Collected per Year



Source: Recycling and Energy Center WBL Tonnage Reports

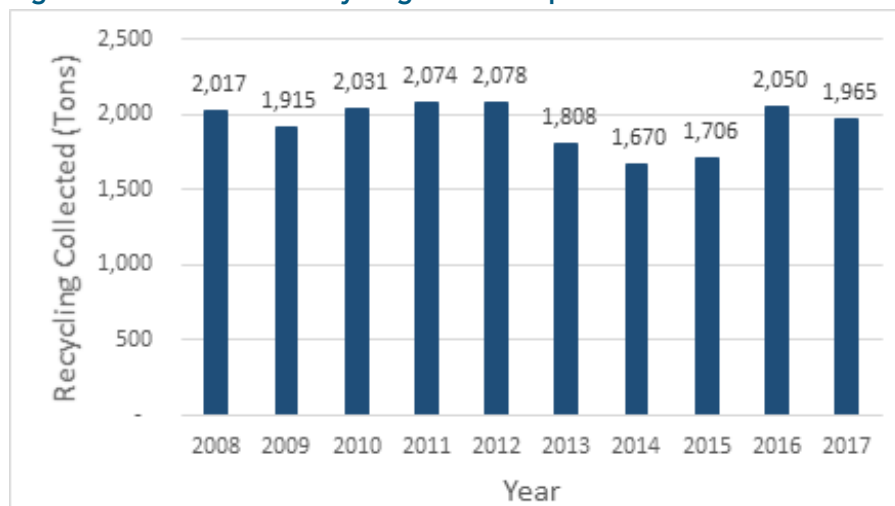
RECYCLING

White Bear Lake first implemented its curbside recycling program in 1988, whereby residents were required to sort recyclables by type. The recycling program has evolved considerably over the years and is now a single sort system in which all paper, plastics, metals, glass and other recyclables are mixed together in one recycling cart that is provided by the City's residential contract hauler. Curbside recycling is collected once per week on the same day as refuse pickup and brought to a Materials Recovery Facility (MRF) where the materials are sorted, bundled, and shipped to end-user manufacturers.

Figure 8.5 shows the tonnage of recycling collected each year from residential properties in the City of White Bear Lake.

Ramsey and Washington Counties provide financial support to municipalities for municipal recycling and related programs using state SCORE (Select Committee on Recycling and the Environment)

Figure 8.5 Residential Recycling Collected per Year



Source: Eureka Recycling WBL Tonnage and Revenue Reports

funds. SCORE is funded through revenue from the State's Solid Waste Management Tax imposed on trash collection and disposal. The City of White Bear Lake receives a portion of this money, on a per capita basis, from Ramsey and Washington Counties to provide partial support for the City's recycling program and related education initiatives. To receive SCORE funding the City must develop a County approved work plan. The County uses this work plan to verify and track City efforts and progress.

Commercial, industrial, and multi-unit properties are not currently included in the City's organized refuse and recycling program and must choose their own trash and recycling hauler from a list of haulers licensed in the City. In 2017, the MPCA enacted a business recycling law (MN Statutes 115A.151) that requires public entities, commercial buildings, multi-unit properties, and sports facilities in the seven county metro area that contract for four cubic yards or more of solid waste collection to also collect at least three types of recyclable materials. In 2015, the City conducted site visits to all residential properties with more than four units as part of a larger research project funded by a Ramsey County Public Entities Innovation Grant (PEIG). The site visits identified only four properties out of thirty-eight that do not offer recycling for their tenants. A similar inventory has not yet been completed for businesses within the City.

Ramsey County and Washington County started the BizRecycling program in 2013 to help East Metro businesses reduce waste and improve recycling. BizRecycling connects businesses with recycling experts who can help identify recycling and waste reduction opportunities. They offer free on-site consultations, technical assistance, and grants of up to \$10,000 per business to start or improve business recycling.

In 2015, the City helped 11 nearby businesses in the downtown area collaborate to install a shared trash/recycling/organics dumpster and enclosure. The project involved seventeen public and private partners. The City received a Ramsey County Public Entity Innovation Grant (PEIG) for design and construction, and the businesses received BizRecycling grants for initial set-up and education. Twenty-four cubic yards of recyclables are now collected weekly, compared to the 18.3 cubic yards prior to the project's start – a 31.1% increase in volume. The project received a Recycling Association of Minnesota 2016 Green Project Award and a League of Minnesota Cities 2017 City of Excellence Award. The hope is to facilitate similar projects in the future in order to expand services, consolidate pick-up, and beautify the area.

YARD WASTE

State law prohibits the disposal of yard waste such as leaves, branches, weeds, and grass clippings in the trash. White Bear Lake residents may subscribe with the City's contacted hauler to have their yard waste picked up curbside for a fee. Alternatively, residents may bring their yard waste to one of seven Ramsey County yard waste collection sites free of charge. The closest site for White Bear Lake residents is located in White Bear Township off County Road J, west of Centerville Road.

ORGANICS

Food is the largest source of waste in Ramsey County, making up 26% of the total trash sent for disposal each year. This represents a loss of not only the food itself, but also the resources it took to grow, manufacture, distribute, and prepare. Ramsey County expanded services offered at their yard waste sites by adding drop-off organics collection in 2015. Residents can place bagged organic materials (food scraps and non-recyclable paper such as tissues and paper towels) in the organics recycling dumpster located at each of the yard waste sites. Organics must be disposed of in compostable bags that are available free of charge at the yard waste sites. Organic waste collected at the yard waste sites is transported to commercial composting facilities where it is converted into a compost that can be used as a soil amendment. Ramsey County also promotes home composting of organics and yard waste by providing a discount on the price of compost bins as part of the Recycling Association of MN spring rain barrel and compost bin sale.

To meet the state's organics recovery goal of 15% by 2030, the Ramsey County Solid Waste Management Master Plan identifies strategies to co-develop and fund organics drop-off sites in each community. The City is currently working with Ramsey County to locate an organics drop-off site in one of the City's parks. Ramsey County's Solid Waste Management Master Plan states that municipalities shall ensure single family, multi-unit with four or more units, and townhomes have organics collection service available by December 31, 2025. The Ramsey/Washington Recycling and Energy Center is in the preliminary stages of establishing a curbside organics collection program for all residents and small businesses in Ramsey and Washington Counties using durable compostable bags (DCBs). These bags will be collected with the trash and sorted at the R&E Center. The R&E Center intends to launch this service in 2021. Municipalities in Ramsey and Washington Counties will assist with outreach and education efforts and potentially help distribute DCBs. The City is supportive of this method of collecting organics as it would have very little impact on current waste hauling services and would not require additional hauling trucks or an additional cart.

HOUSEHOLD HAZARDOUS WASTE

Residents in Ramsey, Washington, Hennepin, Anoka, Dakota, and Carver Counties can dispose of household hazardous waste (HHW) year-round at the Washington County Environmental Center located in Woodbury or the Ramsey County site at Bay West in Saint Paul. Ramsey County also offers mobile HHW sites at different locations from April through October. The City hosted a Ramsey County HHW mobile collection event at Podvin Park for two weekends in August of 2018. The White Bear Lake event proved successful and was expanded in 2019 to the west parking lot at WBL High School north campus for three weekends in July. This location provided a larger space that did not conflict with other events. The 2019 mobile site collected approximately 45,023 pounds of HHW from 783 households. Due to its continued success, the County, School District, and City expressed interest in holding the event again in 2020.

In 2016, the City of White Bear Lake Police Department partnered with Ramsey County to provide a medicine drop-off location at the Public Safety building for residents to properly dispose of unwanted medications. Proper disposal of medications is important to help prevent accidental poisoning or abuse and to protect our water resources. There are five other medicine drop boxes located throughout Ramsey County, however, maintaining a location close to our residents is a priority as convenience helps increase use.

ELECTRONIC WASTE

Electronic video display devices (VDDs) such as televisions, computer monitors, and laptop computers are banned from the waste stream. These devices include cathode-ray tubes (CRTs), which have been categorized as hazardous waste. White Bear Lake residents may dispose of electronics for a fee curbside through the City contract hauler or at the City spring and fall clean-up events.

PUBLIC FACILITIES

The City has various reasons for acquiring property. If redevelopment of an area is anticipated, ownership of property in the area will give the City “a seat at the table” providing a greater ability to ensure the redevelopment serves the needs of the community. Acquisitions are also made in anticipation of future needs in relation to housing the operations of our public utilities and services. As the City grows, the public services grow and good planning foresees change and takes advantage of opportunities as they arise.

One of the improvements the Police and Fire Departments hope to implement is the construction of a public safety facility near Station One. Station One is currently at capacity, causing several vehicles with computer equipment to be parked outside. The City owns the two properties directly across Miller Avenue from the station and are currently utilizing one for surface parking. The site design and architecture of the facility should be respectful of the adjacent residential properties.

The former Public Works site is a potential candidate for redevelopment in conjunction with the future installation of a Rush Line BRT stop. Consequently, the current uses on that site, including storage for public works equipment and supplies, will need to be relocated. The City is currently researching possible alternative locations, including the properties directly north of the New Public Works site and the existing municipal cold storage building at 2365 Orchard Lane. Additional exploration is needed and no one site may be the answer. Again, such decisions should be made with regards to the context of the surrounding neighborhood.

Building and site construction uses resources, generates waste, potentially generates emissions and changes the ability of the land to absorb heat and water. Where possible, we should strive to preserve and retrofit existing buildings rather than build new. However, retrofit is not always possible. The new Public Works facility was constructed to LEED standards with features such as a green roof, solar panels and south facing windows. This project is a prime example of how public buildings are an opportunity to lead by example with resilient site design and sustainable infrastructure.

The City aims to improve the energy efficiency of our existing buildings through physical upgrades and procedural changes. Both normal maintenance activities (replacement of mechanical equipment as required) and special projects can contribute to reducing energy consumption to the extent possible.

In addition, the City endeavors to power the remaining energy needs through renewable energy sources. It appears that the preferred method may be through rooftop solar panels on appropriate city-owned buildings, however, more analysis is needed. A secondary option would be to explore the pros and cons of participating in a community solar garden. The City is participating in the new CERTs partnership "Cities Charging Ahead" whose members are leveraging the cohort for bulk purchasing, technical assistance sharing and other collaborative opportunities as they arise. The collaboration is also hoping to receive low-cost or no-cost fleet analysis from Xcel Energy for the purposes of introducing electric vehicles into municipal operations where appropriate.