APPENDIX WR2: WATER SUPPLY, TREATMENT, AND DISTRIBUTION

Cultivate Hopkins Comprehensive Plan

APPROVED 11/17/20

Water Supply, Treatment, & Distribution

This section describes the water supply and distribution system within the City of Hopkins. Much of the information herein is duplicated with the City's Water Supply Plan developed in 2017 to meet Minnesota Department of Natural Resources (DNR) requirements.

Water Supply & Usage

Areas Served by Local Water Supply Systems

The City of Hopkins completed their 3rd generation Water Supply Plan in 2017 and the following data has been taken from that plan. The Water Supply Plan contains a summary of water demand, water storage and treatment, source water condition, water conservation, emergency preparedness, and the Capital Improvement Plan (CIP).

The City of Hopkins is a fully developed community without need for future utility extensions to serve new growth. Expansions of the City's water distribution system is triggered by redevelopments. The attached **Figure W-1** illustrates the layout of Hopkins' water distribution network and water supply infrastructure.

Water Treatment

The City of Hopkins has two water treatment facilities historically, but one (the Moline Tower Treatment Facility) is not currently in service. The City's active Elmo Park Water Treatment facility was constructed in 1967 and has a capacity of 8.64 MGD. It is a gravity filtration system which also utilizes the addition of some common treatment chemicals to remove iron and manganese. Residual materials resulting from the treatment process are discharged to the sanitary sewer. Reclaim water is discharged to a sediment pond in front of the facility, which ultimately discharges to the City's storm sewer system. The City of Hopkins has two water treatment facilities, however the Moline WTF is not active and the City does not use this water plant to treat water. The Elmo Park WTF has a capacity of 6,000 gpm (8.64 MGD) based on 24 hours of operation per day. This WTF is served by wells 4-6. The average maximum day demand is approximately 4.03 MGD, yielding a surplus in treatment capacity of 4.61 MGD, which is sufficient for current demands. Table 7 indicates that the projected peak day demand will continue to increase as the population increases. By 2025, the projected peak day demand is 4.36 MGD, which is still less than the plant capacity. There is adequate treatment capacity for the next 10 – 15 years.

Water Storage

Currently, the City of Hopkins has four (4) storage facilities totaling 3.20 million gallons of storage capacity as shown in **Table WR2.1**. There are two elevated storage facilities and two ground storage facilities. The two elevated storage facilities have a combined total capacity of 2.2 million gallons while the two ground storage facilities have a combined capacity of 1.0 million gallons. Since there are pumps and a generator that can pump the water in the event of a power failure, the 1.0 million gallons in the reservoirs at the WTFs are included in the total storage capacity. AWWA recommends that the storage capacity should equal or exceed the average day demand. Based on the City's historic water usage demand (**Table WR2.2**), the current storage capacity is adequate for current average day demands. Based on the projected future water usage and future average day projections (**Table WR2.3**), by 2025, there is an estimated average day demand of 2.46 MGD, leaving a surplus storage capacity of 740,000 gallons. Looking at 2030, the projected average day demand is 2.52, yielding a surplus in storage of 680,000 gallons. There is adequate storage capacity for the City of Hopkins for the next 10 to 15 years

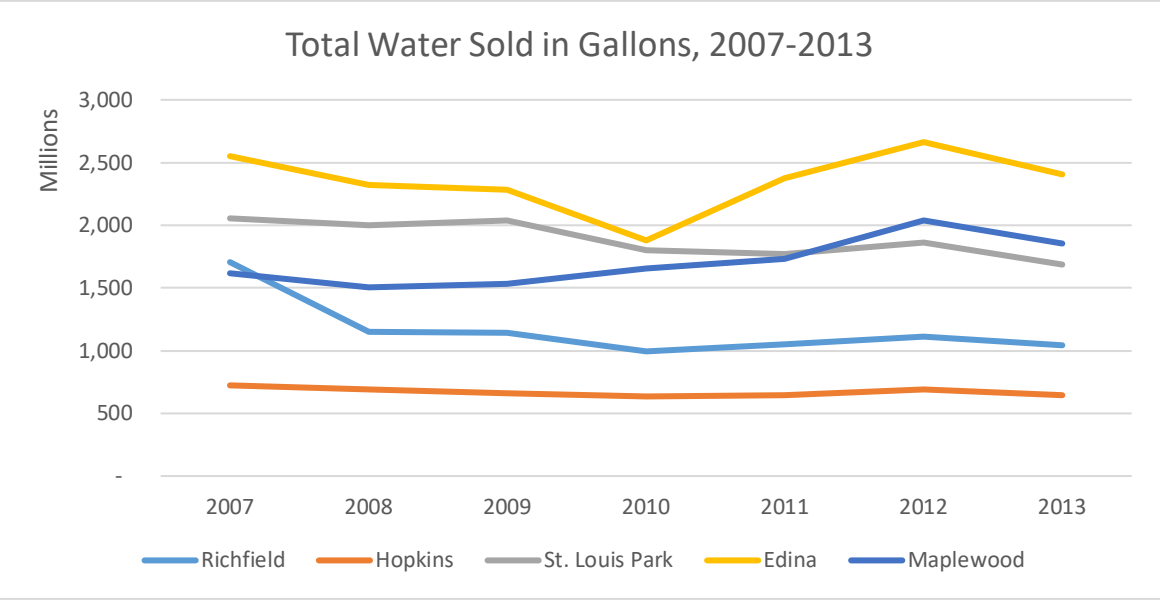
and beyond.

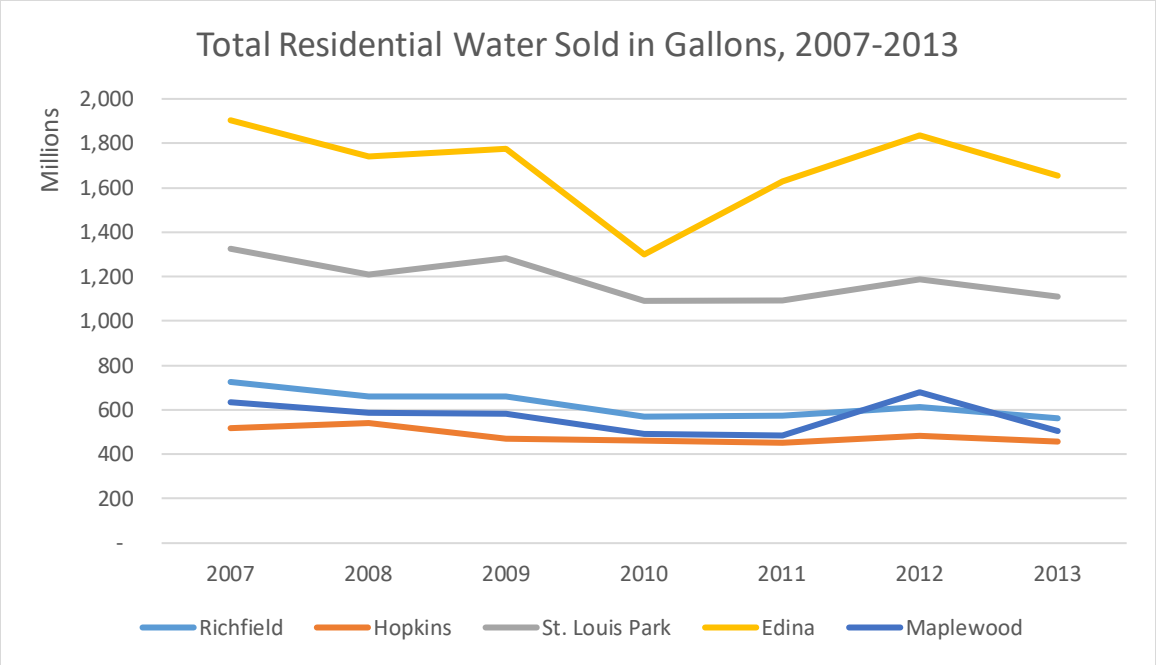
The City has four storage facilities, as summarized in **Table WR2.1** below. The locations of these facilities can be seen in **Figure W-2**.

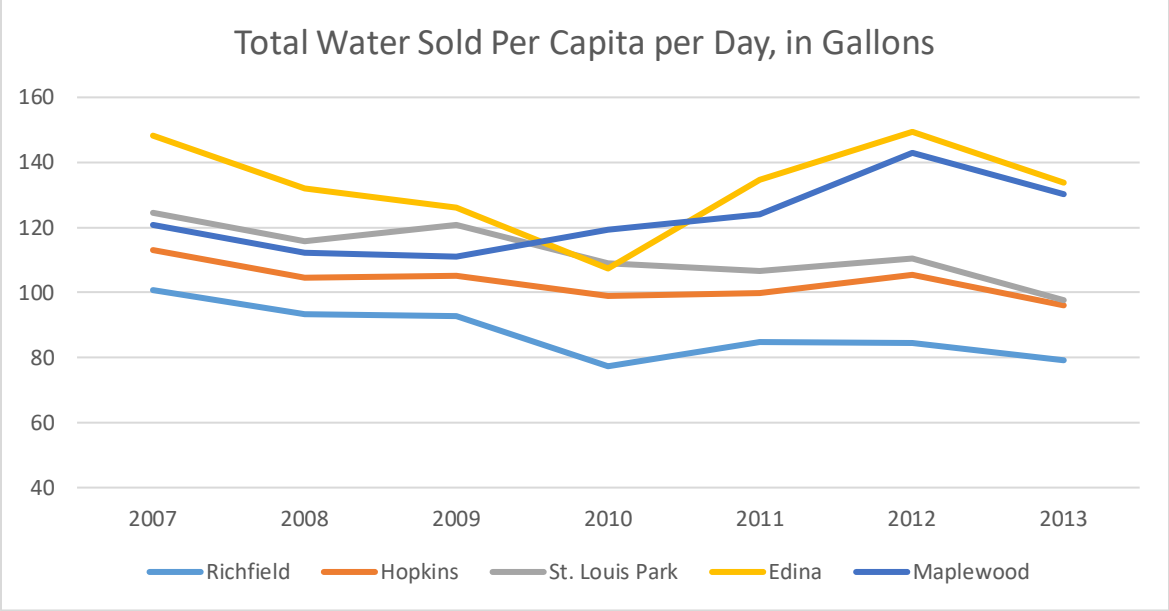
Table WR2.1. Storage Capacity as of December 2017				
Structure Name	**Type of Storage Structure**	**Year Constructed**	**Primary Material**	**Storage Capacity (Gallons)**
Elmo Park WTF Clearwell	Ground storage	1967	Concrete	500,000
Blake Hill Tower	Elevated storage	1962	Steel	500,000
Moline WTF Clearwell*	Ground storage	1963	Concrete	1,700,000
Moline Tower*	Elevated storage	1963	Steel	500,000
Total	NA	NA	NA	3,200,000
*Note: The Moline storage tanks are combined into a single storage structure. The system has an electronically operated valve that transfers water from the high-pressure elevated tank to fill the lower pressure ground storage tank.				

Historic Water Demand & Projected Water Use

Hopkins has the lowest water use among comparable and neighboring cities. Hopkins's water use has gradually decreased since 2007. Residential water use is higher than commercial/industrial water use The following charts show the amount of water sold in Hopkins compared to other communities.




Total Residential Water Sold in Gallons, 2007-2013
Millions
2,000
1,800
1,600
1,400
1,200
1,000
800
600
400
200
-
2007
2008
2009
2010
2011
2012
2013
Richfield
Hopkins
St. Louis Park
Edina
Maplewood


Total Water Sold Per Capita per Day, in Gallons
160
140
120
100
80
60
40
2007
2008
2009
2010
2011
2012
2013
Richfield
Hopkins
St. Louis Park
Edina
Maplewood

The historic water demand in the City of Hopkins is shown in **Table WR2.2**. This table quantifies the volume of water pumped and used for all purposes.

Table WR2.2. Historic Water Demand

Year	Pop. Served	Total Connections	Residential Water Delivered (MG)	C/I/I Water Delivered (MG)	Water used for Non-essential	Wholesale Deliveries (MG)	Total Water Delivered (MG)	Total Water Pumped (MG)	Water Supplier Services	Percent Unmetered/ Unaccounted	Average Daily Demand (MGD)	Max. Daily Demand (MGD)	Date of Max. Demand	Residential Per Capita Demand (GPCD)	Total per capita Demand (GPCD)
2005	17,367	3,126	490	148	0.0	0	638	919	0.0	30.6%	2.52	4.85	7/17/2005	77.3	145.0
2006	17,363	3,552	563	152	0.0	0	715	955	0.0	25.1%	2.62	4.50	7/7/2006	88.8	150.7
2007	17,360	3,914	516	207	0.0	0	723	921	0.0	21.5%	2.52	4.58	7/3/2007	81.5	145.3
2008	17,300	3,562	541	151	0.0	0	692	842	0.0	17.8%	2.31	3.80	7/16/2008	85.6	133.3
2009	17,350	3,556	469	195	0.0	0	664	813	0.0	18.4%	2.23	4.00	7/12/2009	74.0	128.4
2010	17,145	3,559	461	174	0.0	0	635	794	0.0	20.1%	2.18	3.74	8/28/2010	73.7	126.9
2011	17,145	3,723	452	146	46.7	0	644	820	0.0	21.4%	2.25	3.67	6/30/2011	72.2	131.0
2012	17,591	3,660	482	208	0.0	0	690	772	0.0	10.6%	2.11	4.65	9/3/2012	75.1	120.2
2013	17,591	3,682	456	148	41.6	0	645	818	0.0	21.0%	2.24	3.72	9/24/2013	71.0	127.3
2014	17,590	3,660	436	208	0.0	0	644	813	0.0	20.8%	2.23	3.73	7/30/2014	67.9	126.6
2015	18,971	3,606	435	185	0.0	0	620	734	0.0	15.6%	2.01	3.55	6/29/2015	62.8	106.0
2016	19,227	3,566	425	182	0.0	0	614	760	7.0	19.3%	2.08	3.54	7/14/2016	60.6	108.3
Avg. 2010-2016	17,894	3,637	450	178	13	0	642	787	1.0	18.4%	2.16	3.80	N/A	69.0	120.9

MG – Million Gallons **MGD –** Million Gallons per Day **GPCD** – Gallons per Capita per Day

The historical total per capita demand from 2011 through 2016 of 120 gallons per capita per day (gpcd) was used to make water demand projections through 2040. Based on historical trends in per capita demand and future population projections, it is acceptable to use 120 gpcd through 2040. The reason 2011 through 2016 data was used is that the City has implemented water conservation measures over the last several years and the per capita demand reflects those efforts. It is important to consider these water conservation measures when making projections as they can help make accurate projections with regards to the City's plan of conserving water and reducing per capita demands. Commercial and industrial development was accounted for by using the historical demands to make projections. It is assumed that the rate at which commercial and industrial water usage increases will remain the same as the historical demands.

Table WR2.3 illustrated the total projected water demand in the City of Hopkins. These water demand projections are based on historical usage trends and the anticipated increase in population through 2040 per the Metropolitan Council forecasts. The projections assume that the projected service population will equal the projected total population. As shown in the table, the population is projected to gradually increase over the planning period through 2040.

Table WR2.3. Projected Annual Water Demand

Year	Projected Total Population [1]	Projected Population Served	Projected Total Per Capita Water Demand (GPCD)	Projected Average Daily Demand (MGD)	Projected Maximum Daily Demand (MGD) [2]
2016	19,000	19,000	120	2.28	4.03
2017	19,079	19,079	120	2.29	4.05
2018	19,354	19,354	120	2.32	4.11
2019	19,629	19,629	120	2.35	4.17
2020	20,100	20,100	120	2.41	4.27
2021	20,190	20,190	120	2.42	4.29
2022	20,280	20,280	120	2.43	4.31
2023	20,370	20,370	120	2.44	4.33
2024	20,460	20,460	120	2.45	4.34
2025	20,550	20,550	120	2.46	4.36
2030	21,000	21,000	120	2.52	4.46
2040	21,800	21,800	120	2.61	4.63

[1] Total Population Projections based on Metropolitan Council (2016 population estimate is from MN State Demographer)
[2] Peaking Factor based on historical data

GPCD – Gallons per Capita per Day **MGD** – Million Gallons per Day

The projected average day demand was calculated by multiplying the projected total per capita demand of 120 gpcd by the projected service area population. As the population increases and the per capita demand remains constant, the average day demand will increase. By 2040, a projected average day demand of 2.61 MGD is expected.

The projected maximum day demand was calculated by multiplying the average day demand by a peaking factor. The peaking factor used to calculate the projected maximum day demand is the average historical peaking factor from 2005 through 2016 of 1.77. This peaking factor was used to project maximum day demands up to 2040. By 2040, a maximum day demand of 4.63 MGD is projected.

Water Source Quality and Quantity Modeling

Table WR2.4. Information About Water Source Quality and Quantity Monitoring					
MN Unique Well # or Surface Water ID	**Aquifer Name**	**Type of monitoring point**	**Monitoring program**	**Frequency of monitoring**	**Monitoring Method**
204573 Well 1	Dresbach-Shakopee	Production Well	☒ routine MDH sampling ☒ routine water utility sampling ☐ other	☐ continuous ☐ hourly ☒ daily ☒ monthly ☐ quarterly ☒ annually	☐ SCADA ☒ grab sampling ☐ steel tape ☐ stream gauge
204068 Well 4	Jordan-Shakopee	Production Well	☒ routine MDH sampling ☒ routine water utility sampling ☐ other	☐ continuous ☐ hourly ☒ daily ☒ monthly ☐ quarterly ☒ annually	☐ SCADA ☒ grab sampling ☐ steel tape ☐ stream gauge
204570 Well 5	Jordan-Shakopee	Production Well	☒ routine MDH sampling ☒ routine water utility sampling ☐ other	☐ continuous ☐ hourly ☒ daily ☒ monthly ☐ quarterly ☒ annually	☐ SCADA ☒ grab sampling ☐ steel tape ☐ stream gauge
112228 Well 6	Jordan-Shakopee	Production Well	☒ routine MDH sampling ☒ routine water utility sampling ☐ other	☐ continuous ☐ hourly ☒ daily ☒ monthly ☐ quarterly ☒ annually	☐ SCADA ☒ grab sampling ☐ steel tape ☐ stream gauge

Water Conservation

In Hopkins, the average water usage has been progressively decreasing. For residential use, the number of gallons per person per day of water usage has dropped from 80 gallons in 2005-2010, to 68 gallons in 2011-2016. Additionally, the average *total* water usage has decreased from 138 gallons per person per day in 2005-2010 to 120 gallons in 2011-2016.

The Minnesota Department of Natural Resources, and perhaps the Metropolitan Council, are anticipated to intensify restrictions on water usage in the future to reduce the burden that is currently being placed on the aquifers. Continuation of existing water conservation policies and encouraging reductions in water usage will be beneficial moving forward.

Goal: Conserve water resources by continuing education and incentive programs to ensure the city has adequate water supply to meet the long-term needs of the citizens.

Policies:

- Identify and promote water conservation strategies through coordination and outreach with private landowners, developers, citizens, and other local governments.
- Raise water conservation awareness through strategically placing educational signage at decision-making points, such as faucets, showers, and water fountains.
- Encourage the use of drought-tolerant plantings, promote irrigation systems that utilize reclaimed water, and incentivize systems that collect rain water for reuse.
- Meter or otherwise estimate water usage for system maintenance/management and work to identify leaks or wasted water in the system.

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2040 Comprehensive Plan

Hopkins, MN

Water Distribution

March, 2018

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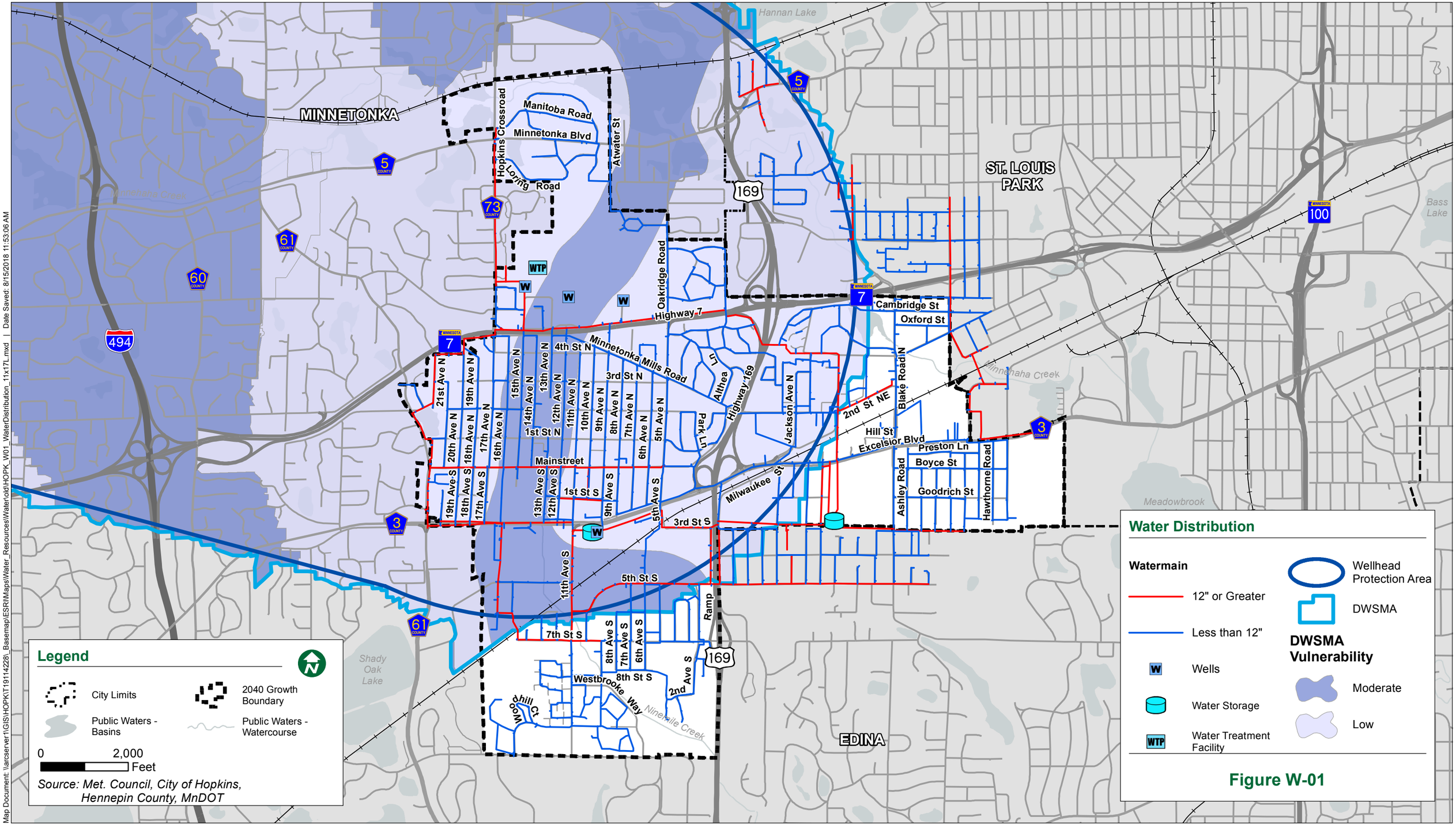

Figure W-01

Map Document: \\arcserver\GIS\HOPKIT\19114228_Basemap\ESRI\Maps\Water_Resources\Water\old\HOPK_W01_WaterDistribution_11x17L.mxd | Date Saved: 8/15/2018 11:53:06 AM

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2040 Comprehensive Plan

Hopkins, MN

Water Distribution

March, 2018

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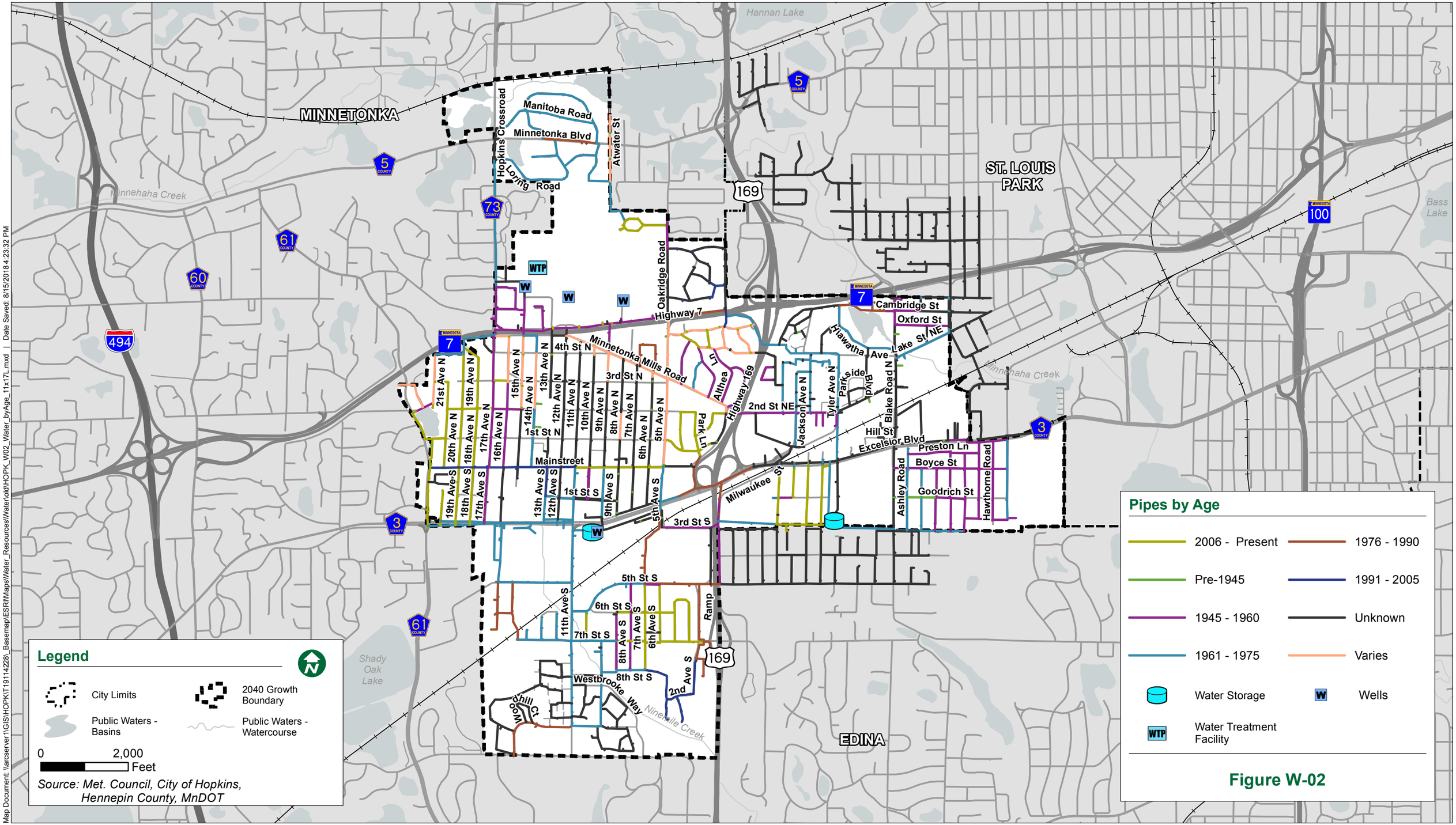

Legend

- City Limits
- 2040 Growth Boundary
- Public Waters - Basins
- Public Waters - Watercourse

0 2,000 Feet

Source: Met. Council, City of Hopkins, Hennepin County, MnDOT

Pipes by Age

- 2006 - Present
- 1976 - 1990
- Pre-1945
- 1991 - 2005
- 1945 - 1960
- Unknown
- 1961 - 1975
- Varies
- Water Storage
- W Wells
- WTP Water Treatment Facility

Figure W-02

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2040 Comprehensive Plan

Hopkins, MN

Water Distribution

March, 2018

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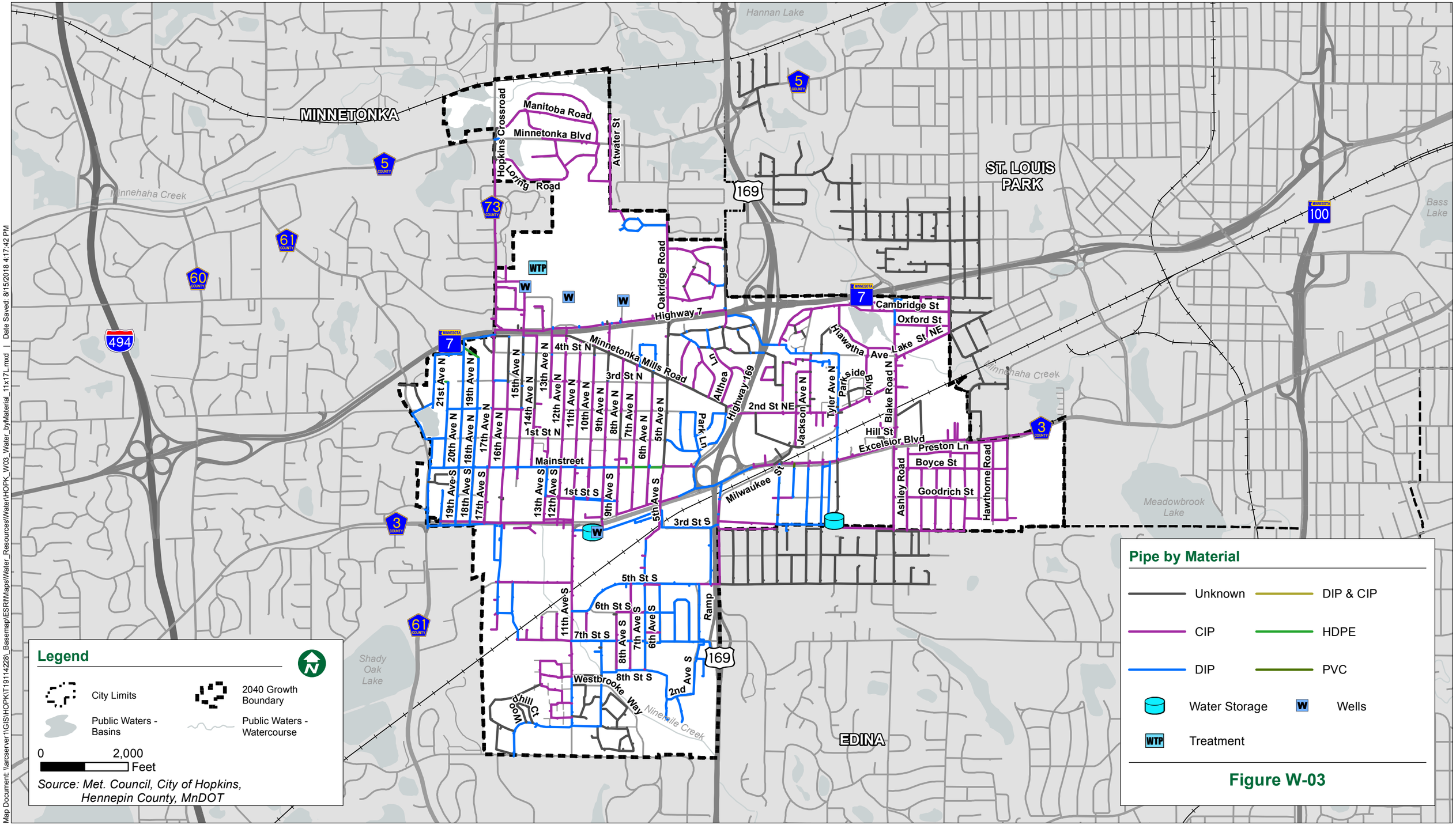

Legend

- City Limits
- 2040 Growth Boundary
- Public Waters - Basins
- Public Waters - Watercourse

0 2,000 Feet

Source: Met. Council, City of Hopkins, Hennepin County, MnDOT

Pipe by Material

- Unknown
- DIP & CIP
- CIP
- HDPE
- DIP
- PVC
- Water Storage
- Wells (W)
- Treatment (WTP)

Figure W-03

Local Water Supply Plan Hopkins, MN
Third Generation for 2016-2018

Revised April 10, 2017

Formerly called Water Emergency & Water Conservation Plan

DEPARTMENT OF NATURAL RESOURCES

Cover photo by Molly Shodeen

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

This information is available in an alternative format upon request.

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INTRODUCTION TO WATER SUPPLY PLANS (WSP)

Who needs to complete a Water Supply Plan

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

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

Groundwater Management Areas (GWMA)

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

Benefits of completing a WSP

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

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

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

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

WSP Approval Process

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

1. Download the DNR/Metropolitan Council Water Supply Plan Template from the DNR Water Supply Plan webpage.
2. Save the document with a file name with this naming convention: WSP_cityname_permitnumber_date.doc.
3. The template is a form that should be completed electronically.
4. Compile the required water use data (Part 1) and emergency procedures information (Part 2)
5. The Water Conservation section (Part 3) may need discussion with the water department, council, or planning commission, if your community does not already have an active water conservation program.
6. Communities in the seven-county Twin Cities metropolitan area should complete all the information discussed in Part 4. The Metropolitan Council has additional guidance information on their Water Supply webpage. All out-state water suppliers ***do not*** need to complete the content addressed in Part 4.
7. Use the Plan instructions and Checklist document from the DNR Water Supply Plan webpage to insure all data is complete and attachments are included. This will allow for a quicker approval process.
8. Plans should be submitted electronically using the MPARS website – no paper documents are required.
9. DNR hydrologist will review plans (in cooperation with Metropolitan Council in Metro area) and approve the plan or make recommendations.
10. Once approved, communities should complete a Certification of Adoption form, and send a copy to the DNR.

Complete Table 1 with information about the public water supply system covered by this WSP.

Table 1. General information regarding this WSP

Requested Information	Description
DNR Water Appropriation Permit Number(s)	**1975-6245**
Ownership	☒ Public or ☐ Private
Metropolitan Council Area	☒ Yes or ☐ No (Hennepin)
Street Address	**1010 1st St. South**
City, State, Zip	**Hopkins, MN 55343**
Contact Person Name	Steve Stadler
Title	Public Works Director
Phone Number	(952) 548-6350
MDH Supplier Classification	Municipal

PART 1. WATER SUPPLY SYSTEM DESCRIPTION AND EVALUATION

The first step in any water supply analysis is to assess the current status of demand and availability. Information summarized in Part 1 can be used to develop Emergency Preparedness Procedures (Part 2) and the Water Conservation Plan (Part 3). This data is also needed to track progress for water efficiency measures.

A. Analysis of Water Demand

Complete Table 2 showing the past 10 years of water demand data.

- Some of this information may be in your Wellhead Protection Plan.
- If you do not have this information, do your best, call your engineer for assistance or if necessary leave blank.

If your customer categories are different than the ones listed in Table 2, please describe the differences below:

Water used for non-essential purposes includes “Other” water sold.

Table 2. Historic water demand (see definitions in the glossary after Part 4 of this template)

Year	Pop. Served	Total Connections	Residential Water Delivered (MG)	C/I/I Water Delivered (MG)	Water used for Non-essential	Wholesale Deliveries (MG)	Total Water Delivered (MG)	Total Water Pumped (MG)	Water Supplier Services	Percent Unmetered/ Unaccounted	Average Daily Demand (MGD)	Max. Daily Demand (MGD)	Date of Max. Demand	Residential Per Capita Demand (GPCD)	Total per capita Demand (GPCD)
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2012	17,591	3,660	482	208	0.0	0	690	772	0.0	10.6%	2.11	4.65	9/3/2012	75.1	120.2
2013	17,591	3,682	456	148	41.6	0	645	818	0.0	21.0%	2.24	3.72	9/24/2013	71.0	127.3
2014	17,590	3,660	436	208	0.0	0	644	813	0.0	20.8%	2.23	3.73	7/30/2014	67.9	126.6
2015	18,971	3,606	435	185	0.0	0	620	734	0.0	15.6%	2.01	3.55	6/29/2015	62.8	106.0
2016	19,227	3,566	425	182	0.0	0	614	760	7.0	19.3%	2.08	3.54	7/14/2016	60.6	108.3
Avg. 2010-2016	17,894	3,637	450	178	13	0	642	787	1.0	18.4%	2.16	3.80	N/A	69.0	120.9

MG – Million Gallons **MGD –** Million Gallons per Day **GPCD** – Gallons per Capita per Day

See Glossary for definitions. A list of Acronyms and Initialisms can be found after the Glossary.

Complete Table 3 by listing the top 10 water users by volume, from largest to smallest. For each user, include information about the category of use (residential, commercial, industrial, institutional, or wholesale), the amount of water used in gallons per year, the percent of total water delivered, and the status of water conservation measures.

Table 3. Large volume users

Customer	Use Category (Residential, Industrial, Commercial, Institutional, Wholesale)	Amount Used (Gallons per Year)	Percent of Total Annual Water Delivered	Implementing Water Conservation Measures? (Yes/No/Unknown)
1.	Duke Realty Services	Commercial	23,864,905	3.9%
2.	Knollwood Towers East	Residential	9,551,615	1.6%
3.	Goodman Group	Residential	7,765,212	1.3%
4.	Augustana Chapel View	Commercial	7,074,310	1.2%
5.	Metes Bounds Mgmt.	Residential	6,585,758	1.1%
6.	Cargill Inc.	Commercial	6,076,762	1.0%
7.	Sela Investments Ltd.	Residential	5,838,406	1.0%
8.	The Towers LLC.	Commercial	5,326,534	0.9%
9.	Hopkins Village	Residential	5,305,539	0.9%
10.	Faelon Business Brok	Commercial	4,631,809	0.8%

B. Treatment and Storage Capacity

Complete Table 4 with a description of where water is treated, the year treatment facilities were constructed, water treatment capacity, the treatment methods (i.e. chemical addition, reverse osmosis, coagulation, sedimentation, etc.) and treatment types used (i.e. fluoridation, softening, chlorination, Fe/MN removal, coagulation, etc.). Also describe the annual amount and method of disposal of treatment residuals. Add rows to the table as needed.

Table 4. Water treatment capacity and treatment processes

Treatment Site ID (Plant Name or Well ID)	Year Constructed	Treatment Capacity (GPD)	Treatment Method	Treatment Type	Annual Volume of Residuals	Disposal Process for Residuals	Do You Reclaim Filter Backwash Water?
Elmo Park Water Treatment Plant	1967	8,640,000 (6,000 gpm)	Gravity Filtration plus chemical addition	Fe/Mn removal	Unknown	Sanitary Sewer	No
Moline Water Treatment Plant	1963	Not Active	Not Active	Not Active	N/A	N/A	N/A
Total	NA	8,640,000	NA	NA	N/A	NA	N/A

Complete Table 5 with information about storage structures. Describe the type (i.e. elevated, ground, etc.), the storage capacity of each type of structure, the year each structure was constructed, and the primary material for each structure. Add rows to the table as needed.

Table 5. Storage capacity, as of the end of the last calendar year

Structure Name	Type of Storage Structure	Year Constructed	Primary Material	Storage Capacity (Gallons)
Elmo Park WTF Clearwell	Ground storage	1967	Concrete	500,000
Blake Hill Tower	Elevated storage	1962	Steel	500,000
Moline WTF Clearwell*	Ground storage	1963	Concrete	1,700,000
Moline Tower*	Elevated storage	1963	Steel	500,000
Total	NA	NA	NA	3,200,000
*Note: The Moline storage tanks are combined into a single storage structure. The system has an electronically operated valve that transfers water from the high-pressure elevated tank to fill the lower pressure ground storage tank.				

Treatment and storage capacity versus demand

It is recommended that total storage equal or exceed the average daily demand.

Discuss the difference between current storage and treatment capacity versus the water supplier's projected average water demand over the next 10 years (see Table 7 for projected water demand):

Currently, the City of Hopkins has four (4) storage facilities totaling 3.20 million gallons of storage capacity. There are two elevated storage facilities and two ground storage facilities. The two elevated storage facilities have a combined total capacity of 2.2 million gallons while the two ground storage facilities have a combined capacity of 1.0 million gallons. Since there are pumps and a generator that can pump the water in the event of a power failure, the 1.0 million gallons in the reservoirs at the WTFs are included in the total storage capacity. AWWA recommends that the storage capacity should equal or exceed the average day demand. Based on the data provided in Table 2, the current storage capacity is adequate for current average day demands. Using table 7 and the future average day projections, by 2025, there is an estimated average day demand of 2.30 MGD, leaving a surplus storage capacity of 900,000 gallons. Looking at 2030, the projected average day demand is 2.33, yielding a surplus in storage of 873,000 gallons. There is adequate storage capacity for the City of Hopkins for the next 10 to 15 years and beyond.

The City of Hopkins has two water treatment facilities (see Table 4), however, the Moline WTF is not active and the City does not use this water plant to treat water. The Elmo Park WTF has a capacity of 6,000 gpm (8.64 MGD) based on 24 hours of operation per day. This WTF is served by wells 4 – 6. Based on the data provided in Table 2, the average maximum day demand is approximately 4.03 MGD, yielding a surplus in treatment capacity of 4.61 MGD, which is sufficient for current demands. Table 7 indicates that the projected peak day demand will continue to increase as the population increases. By 2025, the projected peak day demand is 4.07 MGD, which is still less than the plant capacity. There is adequate treatment capacity for the next 10 – 15 years.

C. Water Sources

Complete Table 6 by listing all types of water sources that supply water to the system, including groundwater, surface water, interconnections with other water suppliers, or others. Provide the name of each source (aquifer name, river or lake name, name of interconnecting water supplier) and the

Minnesota unique well number or intake ID, as appropriate. Report the year the source was installed or established and the current capacity. Provide information about the depth of all wells. Describe the status of the source (active, inactive, emergency only, retail/wholesale interconnection) and if the source facilities have a dedicated emergency power source. Add rows to the table as needed for each installation.

Include copies of well records and maintenance summary for each well that has occurred since your last approved plan in **Appendix 1.**

Table 6. Water sources and status

Resource Type (Groundwater, Surface water, Interconnection)	Resource Name	MN Unique Well # or Intake ID	Year Installed	Capacity (Gallons per Minute)	Well Depth (Feet)	Status of Normal and Emergency Operations (active, inactive, emergency only, retail/wholesale interconnection))	Does this Source have a Dedicated Emergency Power Source? (Yes or No)
Groundwater	Well 1	204573	1920	1,300	780	Inactive	N/A
Groundwater	Well 4	204068	1954	3,600	548	Active	Yes
Groundwater	Well 5	204570	1967	1200	500	Active	Yes
Groundwater	Well 6	112228	1977	2500	545	Active	Yes

Limits on Emergency Interconnections

Discuss any limitations on the use of the water sources (e.g. not to be operated simultaneously, limitations due to blending, aquifer recovery issues etc.) and the use of interconnections, including capacity limits or timing constraints (i.e. only 200 gallons per minute are available from the City of Prior Lake, and it is estimated to take 6 hours to establish the emergency connection). If there are no limitations, list none.

None.

D. Future Demand Projections – *Key Metropolitan Council Benchmark*

Water Use Trends

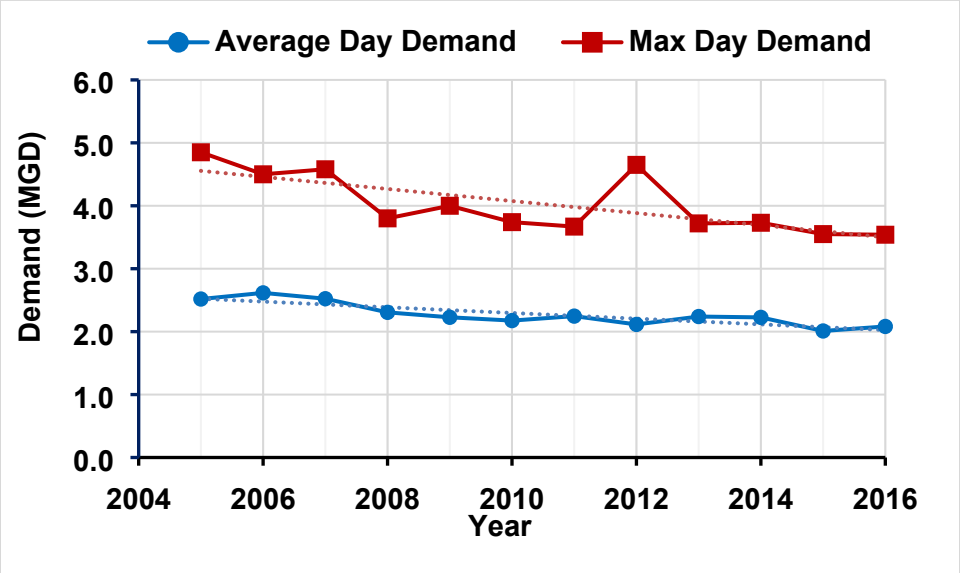
Use the data in Table 2 to describe trends in 1) population served; 2) total per capita water demand; 3) average daily demand; 4) maximum daily demand. Then explain the causes for upward or downward trends. For example, over the ten years has the average daily demand trended up or down? Why is this occurring?

From 2005 to 2016, the City of Hopkins saw an increase in population served of 10.7%, from 17,367 in 2005 to 19,227 in 2016. The population trend has slightly increased over the last 10 years. Based on the historical population, it is anticipated that the projected population will follow similar growth trends.

The total per capita demand has average 129 gallons per capita per day (gpcd) from 2005 through 2016. When looking at data from 2011 through 2016, the average day demand is 119 gpcd. This decrease in average per capita demand reflects water conservation measures the City has been implementing for the last several years. The per

capita demand had a peak in 2006 at 150.7 gpcd. Since then, the per capita demand has been decreasing as water conservation measures have been implemented and education about water conservation becomes easier to find. The demands in 2015 and 2016 have significantly declined (25% less than the average of the previous 10 years). Increased precipitation along with increased water conservation has led to the lower water demands.

Average day demand has been slightly declining over the 10-year historical period. The historical average of the average day demand is 2.27 MGD. Overall, there have not been any major fluctuations in average day demand. The decreasing could be represented by increased precipitation and efforts by the City to implement water conservation techniques and programs. The figure below represents the historical average and max day demand trends for Hopkins.



Maximum day demand has a decreasing trend over the historical period. One major peak occurred in 2012, which corresponds, to a drought year. Peaking factors have been relatively similar over the historical period. The peaking factor averages 1.77. Maximum day demands have decreased by 37% since 2005. Maximum day demands are most likely decreasing due to the implementation of water conservation measures and education about conserving water being more easily accessible to customers.

Use the water use trend information discussed above to complete Table 7 with projected annual demand for the next ten years. Communities in the seven-county Twin Cities metropolitan area must also include projections for 2030 and 2040 as part of their local comprehensive planning.

Projected demand should be consistent with trends evident in the historical data in Table 2, as discussed above. Projected demand should also reflect state demographer population projections and/or other planning projections.

Table 7. Projected annual water demand

Year	Projected Total Population [(1)]	Projected Population Served	Projected Total Per Capita Water Demand (GPCD)	Projected Average Daily Demand (MGD)	Projected Maximum Daily Demand (MGD) [(2)]
2016	19,000	19,000	120	2.28	4.03
2017	19,079	19,079	120	2.29	4.05
2018	19,354	19,354	120	2.32	4.11
2019	19,629	19,629	120	2.35	4.17
2020	20,100	20,100	120	2.41	4.27
2021	20,190	20,190	120	2.42	4.29
2022	20,280	20,280	120	2.43	4.31
2023	20,370	20,370	120	2.44	4.33
2024	20,460	20,460	120	2.45	4.34
2025	20,550	20,550	120	2.46	4.36
2030	21,000	21,000	120	2.52	4.46
2040	21,800	21,800	120	2.61	4.63

[1] Total Population Projections based on council staff recommended forecasts
[2] Peaking Factor based on historical data

GPCD – Gallons per Capita per Day **MGD** – Million Gallons per Day

Projection Method

Describe the method used to project water demand, including assumptions for population and business growth and how water conservation and efficiency programs affect projected water demand:

Water demand projections were based on historical trends and the increase in population. The Metropolitan Council population projections were used to for population projections through 2040. It is assumed that the projected service population will equal the projected total population. It is assumed that the population will remain constant until 2022 where the Met Council has a projected population of 19,000 people (based on linear interpolation between 2020 and 2030 projections).

The historical total per capita demand from 2011 through 2016 of 120 gallons per capita per day (gpcd) was used to make water demand projections through 2040. Based on historical trends in per capita demand and future population projections, it is acceptable to use 120 gpcd through 2040. The reason 2011 through 2016 data was used is that the City has implemented water conservation measures over the last several years and the per capita demand reflects those efforts. It is important to consider these water conservation measures when making projections as they can help make accurate projections with regards to the City's plan of conserving water and reducing per capita demands. Commercial and industrial development was accounted for by using the historical demands to make projections. It is assumed that the rate at which commercial and industrial water usage increases will remain the same as the historical demands.

The projected average day demand was calculated by multiplying the projected total per capita demand of 120 gpcd by the projected service area population. As the population increases and the per capita demand remains constant, the average day demand will slightly increase. By 2040, a projected average day demand of 2.61 MGD is expected.

The projected maximum day demand was calculated by multiplying the average day demand by a peaking factor. The peaking factor used to calculate the projected maximum day demand is the average historical peaking factor

from 2005 through 2016 of 1.77. This peaking factor was used to project maximum day demands up to 2040. By 2040, a maximum day demand of 4.63 MGD is projected.

E. Resource Sustainability

Monitoring – *Key DNR Benchmark*

Complete Table 8 by inserting information about source water quality and quantity monitoring efforts. The list should include all production wells, observation wells, and source water intakes or reservoirs. Groundwater level data for DNR's statewide network of observation wells are available online through the DNR's Cooperative Groundwater Monitoring (CGM) webpage.

Table 8. Information about source water quality and quantity monitoring

MN Unique Well # or Surface Water ID	Type of monitoring point	Monitoring program	Frequency of monitoring	Monitoring Method
204573 Well 1	☒ production well ☐ observation well ☐ source water intake ☐ source water reservoir	☒ routine MDH sampling ☒ routine water utility sampling ☐ other	☐ continuous ☐ hourly ☐ daily ☐ monthly ☐ quarterly ☐ annually	☐ SCADA ☒ grab sampling ☐ steel tape ☐ stream gauge
204068 Well 4	☒ production well ☐ observation well ☐ source water intake ☐ source water reservoir	☒ routine MDH sampling ☒ routine water utility sampling ☐ other	☐ continuous ☐ hourly ☒ daily ☒ monthly ☐ quarterly ☒ annually	☐ SCADA ☒ grab sampling ☐ steel tape ☐ stream gauge
204570 Well 5	☒ production well ☐ observation well ☐ source water intake ☐ source water reservoir	☒ routine MDH sampling ☒ routine water utility sampling ☐ other	☐ continuous ☐ hourly ☒ daily ☒ monthly ☐ quarterly ☒ annually	☐ SCADA ☒ grab sampling ☐ steel tape ☐ stream gauge
112228 Well 6	☒ production well ☐ observation well ☐ source water intake ☐ source water reservoir	☒ routine MDH sampling ☒ routine water utility sampling ☐ other	☐ continuous ☐ hourly ☒ daily ☒ monthly ☐ quarterly ☒ annually	☐ SCADA ☒ grab sampling ☐ steel tape ☐ stream gauge

Water Level Data

A water level monitoring plan that includes monitoring locations and a schedule for water level readings must be submitted as **Appendix 2**. If one does not already exist, it needs to be prepared and submitted with the WSP. Ideally, all production and observation wells are monitored at least monthly.

Complete Table 9 to summarize water level data for each well being monitored. Provide the name of the aquifer and a brief description of how much water levels vary over the season (the difference between the highest and lowest water levels measured during the year) and the long-term trends for each well. If

water levels are not measured and recorded on a routine basis, then provide the static water level when each well was constructed and the most recent water level measured during the same season the well was constructed. Also include all water level data taken during any well and pump maintenance. Add rows to the table as needed.

Groundwater hydrographs illustrate the historical record of aquifer water levels measured within a well and can indicate water level trends over time. For each well in your system, provide a hydrograph for the life of the well, or for as many years as water levels have been measured. Include the hydrographs in **Appendix 3**. An example of a hydrograph can be found on the DNR's Groundwater Hydrograph webpage. Hydrographs for DNR Observation wells can be found in the CGM discussed above.

Table 9. Water level data

Unique Well Number or Well ID	Aquifer Name	Seasonal Variation (Feet)	Long-term Trend in water level data	Water level measured during well/pumping maintenance
204573 Well 1	Dresbach-Shakopee	NA – City is in the process of SCADA upgrades with well monitoring tranducsers	☐ Falling ☐ Stable ☐ Rising	MM/DD/YY:____ MM/DD/YY:____ MM/DD/YY:____
204068 Well 4	Jordan-Shakopee	NA – City is in the process of SCADA upgrades with well monitoring tranducsers	☐ Falling ☐ Stable ☐ Rising	MM/DD/YY:____ MM/DD/YY:____ MM/DD/YY:____
204570 Well 5	Jordan-Shakopee	NA – City is in the process of SCADA upgrades with well monitoring tranducsers	☐ Falling ☐ Stable ☐ Rising	MM/DD/YY:____ MM/DD/YY:____ MM/DD/YY:____
112228 Well 6	Jordan-Shakopee	NA – City is in the process of SCADA upgrades with well monitoring tranducsers	☐ Falling ☐ Stable ☐ Rising	MM/DD/YY:____ MM/DD/YY:____ MM/DD/YY:____

Potential Water Supply Issues & Natural Resource Impacts – *Key DNR & Metropolitan Council Benchmark*

Complete Table 10 by listing the types of natural resources that are or could potentially be impacted by permitted water withdrawals in the future. You do not need to identify every single water resource in your entire community. The goal is to help you triage the most important water resources and/or the water resources that may be impacted by your water supply system – perhaps during a drought or when the population has grown significantly in ten years. This is emerging science, so do the best you can with available data. For identified resources, provide the name of specific resources that may be impacted. Identify what the greatest risks to the resource are and how the risks are being assessed. Identify any resource protection thresholds – formal or informal – that have been established to identify when

actions should be taken to mitigate impacts. Provide information about the potential mitigation actions that may be taken, if a resource protection threshold is crossed. Add additional rows to the table as needed. See the glossary at the end of the template for definitions.

Some of this baseline data should have been in your earlier water supply plans or county comprehensive water plans. When filling out this table, think of what are the water supply risks, identify the resources, determine the threshold and then determine what your community will do to mitigate the impacts.

Your DNR area hydrologist is available to assist with this table.

For communities in the seven-county Twin Cities metropolitan area, the Master Water Supply Plan *Appendix 1 (Water Supply Profiles)*, provides information about potential water supply issues and natural resource impacts for your community.

Steps for completing Table 10

1. ***Identify the potential for natural resource impacts/issues within the community***
   First, review available information to identify resources that may be impacted by the operation of your water supply system (such as pumping).
   Potential Sources of Information:
   - County Geologic Atlas
   - Local studies
   - Metropolitan Council System Statement (for metro communities)
   - Metropolitan Council Master Water Supply Plan (for metro communities)

   ACTION: Check the resource type(s) that may be impacted in the column "Resource Type"

2. ***Identify where your water supply system is most likely to impact those resources (and vice versa).***
   Potential Sources of Information:
   - Drinking Water Supply Management Areas
   - Geologic Atlas - Sensitivity
   - If no WHPA or other information exists, consider rivers, lakes, wetlands and significant within 1.5 miles of wells; and calcareous fens and trout streams within 5 miles of wells

   ACTION: Focus the rest of your work in these areas.

3. ***Within focus areas, identify specific features of value to the community***
   You know your community best. What resources are important to pay attention to? It may be useful to check in with your community's planning and zoning staff and others.

   Potential Sources of Information:
   - Park plans
   - Local studies
   - Natural resource inventories
   - Tourist attractions/recreational areas/valued community resource

ACTION: Identify specific features that the community prioritizes in the "Resource Name" column (for example: North Lake, Long River, Brook Trout Stream, or Green Fen). If, based on a review of available information, no features are likely to be at risk, note "None".

4. Identify what impact(s) the resource is at risk for

Potential Sources of Information:

- Wellhead Protection Plan
- Water Appropriation Permit
- County Geologic Atlas
- MDH or PCA reports of the area
- Metropolitan Council System Statement (for metro communities)
- Metropolitan Council Master Water Supply Plan (for metro communities)

ACTION: Check the risk type in the column "Risk". If, based on a review of available information, no risk is identified, note "None anticipated".

5. Describe how the risk was assessed

Potential Sources of Information:

- Local studies
- Monitoring data (community, WMO, DNR, etc.)
- Aquifer testing
- County Geologic Atlas or other hydrogeologic studies
- Regional or state studies, such as DNR's report 'Definitions and Thresholds for Negative Impacts to Surface Waters'
- Well boring logs

ACTION: Identify the method(s) used to identify the risk to the resource in the "Risk Assessed Through" column

6. Describe protection threshold/goals

What is the goal, if any, for protecting these resources? For example, is there a lower limit on acceptable flow in a river or stream? Water quality outside of an accepted range? A lower limit on acceptable aquifer level decline at one or more monitoring wells? Withdrawals that exceed some percent of the total amount available from a source? Or a lower limit on acceptable changes to a protected habitat?

Potential Sources of Information:

- County Comprehensive Water Plans
- Watershed Plans or One Watershed/One Plan
- Groundwater or Aquifer Plans
- Metropolitan Master Plans
- DNR Thresholds study
- Community parks, open space, and natural resource plans

ACTION: Describe resource protection goals in the "Describe Resource Protection Threshold" column or reference an existing plan/document/webpage

7. ***If a goal/threshold should trigger action, describe the plan that will be implemented.***
   Identify specific action, mitigation measures or management plan that the water supplier will implement, or refer to a partner's plan that includes actions to be taken.

   Potential Sources of Information:
   - County Comprehensive Water Plans
   - Watershed Plans or One Watershed/One Plan
   - Groundwater or Aquifer Plans
   - Metropolitan Master Plans
   - Studies such as DNR Thresholds study

   ACTION: Describe the mitigation measure or management plan in the "Mitigation Measure or Management Plan" column.

8. ***Describe work to evaluate these risks going forward.***
   For example, what is the plan to regularly check in to stay current on plans or new data?

   Identify specific action that the water supplier will take to identify the creation of or change to goals/thresholds, or refer to a partner's plan that includes actions to be taken.

   Potential Sources of Information:
   - County Comprehensive Water Plans
   - Watershed Plans or One Watershed/One Plan
   - Groundwater or Aquifer Plans
   - Metropolitan Master Plans
   - Studies such as DNR Thresholds study

   ACTION: Describe what will be done to evaluate risks going forward, including any changes to goals or protection thresholds in the "Describe how Changes to Goals are monitored" column.

Table 10. Natural resource impacts (*List specific resources in Appendix 12)

Resource Type	Resource Name	Risk	Risk Assessed Through *	Describe Resource Protection Threshold or Goal *	Mitigation Measures or Management Plan	Describe How Thresholds or Goals are Monitored
☒ River or stream	Minnehaha Creek, Ninemile Creek	☐ None anticipated ☒ Flow/water level decline ☒ Degrading water quality trends ☐ Impacts on endangered, threatened, or special concern species habitat ☐ Other: _____	☐ Geologic atlas or other mapping ☐ Modeling ☐ Modeling ☐ Monitoring ☐ Aquifer testing ☐WRAPS or other watershed report ☐Proximity (<1.5 miles) ☒ Other: Observation and public concerns regarding water quality	☐ Not applicable ☒ Additional data is needed to establish ☐ See report: _____ ☐ No data available ☐ Other: _____	☐Not applicable ☐ Change groundwater pumping ☐ Increase conservation ☒ Other: Consult with MN DNR	☐Not applicable ☐ Newly collected data will be analyzed ☐ Regular check-in with these partners: _____ ☒ Other: Consult with MN DNR
☐ Calcareous fen	None	☒ None anticipated ☐ Flow/water level decline ☐ Degrading water quality trends ☐ Impacts on endangered, threatened, or special concern species habitat ☐ Other: _____	☐ Geologic atlas or other mapping ☐ Modeling ☐ Modeling ☐ Monitoring ☐ Aquifer testing ☐WRAPS or other watershed Report ☐Proximity (<5 miles) ☐ Other: _____ ☐ Other: ___	☒ Not applicable ☐ Additional data is needed to establish ☐ See report: _____ ☐ Other: _____	☒Not applicable ☐ Change groundwater pumping ☐ Increase conservation ☐ Other: _____	☒Not applicable ☐ Newly collected data will be analyzed ☐ Regular check-in with these partners: _____ ☐ Other: _____

Resource Type	Resource Name	Risk	Risk Assessed Through *	Describe Resource Protection Threshold or Goal *	Mitigation Measures or Management Plan	Describe How Thresholds or Goals are Monitored
☐ Lake	None	☒ None anticipated ☐ Flow/water level decline ☐ Degrading water quality trends ☐ Impacts on endangered, threatened, or special concern species habitat ☐ Other: _____	☐ Geologic atlas or other mapping ☐ Modeling ☐ Modeling ☐ Monitoring ☐ Aquifer testing ☐WRAPS or other watershed report ☐Proximity (<1.5 miles) ☐ Other: _____ ☐ Other: ___	☒ Not applicable ☐ Additional data is needed to establish ☐ See report: _____ ☐ Other: _____	☒Not applicable ☐ Change groundwater pumping ☐ Increase conservation ☐ Other: _____	☒Not applicable ☐ Newly collected data will be analyzed ☐ Regular check-in with these partners: _____ ☐ Other: _____
☐ Wetland	None	☒ None anticipated ☐ Flow/water level decline ☐ Degrading water quality trends ☐ Impacts on endangered, threatened, or special concern species habitat ☐ Other: _____	☐ Geologic atlas or other mapping ☐ Modeling ☐ Modeling ☐ Monitoring ☐ Aquifer testing ☐WRAPS or other watershed report ☐Proximity (<1.5 miles) ☐ Other: _____	☒ Not applicable ☐ Additional data is needed to establish ☐ See report: _____ ☐ Other: _____	☒Not applicable ☐ Change groundwater pumping ☐ Increase conservation ☐ Other: _____	☒Not applicable ☐ Newly collected data will be analyzed ☐ Regular check-in with these partners: _____ ☐ Other: _____

Resource Type	Resource Name	Risk	Risk Assessed Through *	Describe Resource Protection Threshold or Goal *	Mitigation Measures or Management Plan	Describe How Thresholds or Goals are Monitored
☐ Trout stream	None	☒ None anticipated ☐ Flow/water level decline ☐ Degrading water quality trends ☐ Impacts on endangered, threatened, or special concern species habitat ☐ Other: _____	☐ Geologic atlas or other mapping ☐ Modeling ☐ Monitoring ☐ Aquifer testing ☐WRAPS or other watershed report ☐Proximity (< 5 miles) ☐ Other: _____	☒ Not applicable ☐ Additional data is needed to establish ☐ See report: _____ ☐ Other: _____	☒Not applicable ☐ Change groundwater pumping ☐ Increase conservation ☐ Other: _____	☒Not applicable ☐ Newly collected data will be analyzed ☐ Regular check-in with these partners: _____ ☐ Other: _____
☒ Aquifer	Jordan-Shakopee	☐ None anticipated ☐ Flow/water level decline ☒ Degrading water quality trends ☐ Impacts on endangered, threatened, or special concern species habitat ☐ Other: _____	☐ Geologic atlas or other mapping ☐ Modeling ☒ Monitoring ☐ Aquifer testing ☐Proximity (obwell < 5 miles) ☒ Other: Evaluation of well water level data	☐ Not applicable ☐ Additional data is needed to establish ☐ See report: _____ ☐ Other: _____	☐Not applicable ☐ Change groundwater pumping ☒ Increase conservation ☐ Other: _____	☐Not applicable ☒ Newly collected data will be analyzed ☐ Regular check-in with these partners: _____ ☒ Other: Consult with MN DNR

Wellhead Protection (WHP) and Source Water Protection (SWP) Plans

Complete Table 11 to provide status information about WHP and SWP plans.

The emergency procedures in this plan are intended to comply with the contingency plan provisions required in the Minnesota Department of Health's (MDH) Wellhead Protection (WHP) Plan and Surface Water Protection (SWP) Plan.

Table 11. Status of Wellhead Protection and Source Water Protection Plans

Plan Type	Status	Date Adopted	Date for Update
WHP	☒ In Process ☐ Completed ☐ Not Applicable	2007	2017 – City is in the process of updated the WHP
SWP	☐ In Process ☐ Completed ☒ Not Applicable		

WHP – Wellhead Protection Plan **SWP** – Source Water Protection Plan

F. Capital Improvement Plan (CIP)

Please note that any wells that received approval under a ten-year permit, but that were not built, are now expired and must submit a water appropriations permit.

Adequacy of Water Supply System

Complete Table 12 with information about the adequacy of wells and/or intakes, storage facilities, treatment facilities, and distribution systems to sustain current and projected demands. List planned capital improvements for any system components, in chronological order. Communities in the seven-county Twin Cities metropolitan area should also include information about plans through 2040.

The assessment can be the general status by category; it is not necessary to identify every single well, storage facility, treatment facility, lift station, and mile of pipe.

Please attach your latest Capital Improvement Plan as **Appendix 4**.

Table 12. Adequacy of Water Supply System

System Component	Planned action	Anticipated Construction Year	Notes
Wells/Intakes	☒ No action planned - adequate ☐ Repair/replacement ☐ Expansion/addition	n/a	n/a
Water Storage Facilities	☒ No action planned - adequate ☐ Repair/replacement ☐ Expansion/addition	n/a	n/a
Water Treatment Facilities	☐ No action planned - adequate ☒ Repair/replacement ☐ Expansion/addition	2020	Rehab to WTP #1 to bring the facility back on-line.
Distribution Systems (Pipes, valves, etc.)	☐ No action planned - adequate ☒ Repair/replacement ☐ Expansion/addition	20-year planning	Replace remaining aging and undersized watermains (25% of system)

System Component	Planned action	Anticipated Construction Year	Notes
Pressure Zones	☒ No action planned - adequate ☐ Repair/replacement ☐ Expansion/addition	n/a	n/a
Other:	☐ No action planned - adequate ☐ Repair/replacement ☐ Expansion/addition		

Proposed Future Water Sources

Complete Table 13 to identify new water source installation planned over the next ten years. Add rows to the table as needed.

Table 13. Proposed future installations/sources

Source	Installation Location (approximate)	Resource Name	Proposed Pumping Capacity (gpm)	Planned Installation Year	Planned Partnerships
Groundwater	none	none	none	none	none
Surface Water	none	none	none	none	none
Interconnection to another supplier	none	none	none	none	none

Water Source Alternatives - *Key Metropolitan Council Benchmark*

Do you anticipate the need for alternative water sources in the next 10 years? Yes ☐ No ☒

For metro communities, will you need alternative water sources by the year 2040? Yes ☐ No ☒

If you answered yes for either question, then complete table 14. If no, insert NA.

Complete Table 14 by checking the box next to alternative approaches that your community is considering, including approximate locations (if known), the estimated amount of future demand that could be met through the approach, the estimated timeframe to implement the approach, potential partnerships, and the major benefits and challenges of the approach. Add rows to the table as needed.

For communities in the seven-county Twin Cities metropolitan area, these alternatives should include approaches the community is considering to meet projected 2040 water demand.

Table 14. Alternative water sources

Alternative Source Considered	Source and/or Installation Location (approximate)	Estimated Amount of Future Demand (%)	Timeframe to Implement (YYYY)	Potential Partners	Benefits	Challenges
☐ Groundwater	N/A	N/A	N/A	N/A	N/A	N/A
☐ Surface Water	N/A	N/A	N/A	N/A	N/A	N/A

Alternative Source Considered	Source and/or Installation Location (approximate)	Estimated Amount of Future Demand (%)	Timeframe to Implement (YYYY)	Potential Partners	Benefits	Challenges
☐ Reclaimed stormwater	N/A	N/A	N/A	N/A	N/A	N/A
☐ Reclaimed wastewater	N/A	N/A	N/A	N/A	N/A	N/A
☐ Interconnection to another supplier	N/A	N/A	N/A	N/A	N/A	N/A

PART 2. EMERGENCY PREPAREDNESS PROCEDURES

The emergency preparedness procedures outlined in this plan are intended to comply with the contingency plan provisions required by MDH in the WHP and SWP. Water emergencies can occur as a result of vandalism, sabotage, accidental contamination, mechanical problems, power failings, drought, flooding, and other natural disasters. The purpose of emergency planning is to develop emergency response procedures and to identify actions needed to improve emergency preparedness. In the case of a municipality, these procedures should be in support of, and part of, an all-hazard emergency operations plan. Municipalities that already have written procedures dealing with water emergencies should review the following information and update existing procedures to address these water supply protection measures.

A. Emergency Response Plan

Section 1433(b) of the Safe Drinking Water Act, (Public Law 107-188, Title IV- Drinking Water Security and Safety) requires community water suppliers serving over 3,300 people to prepare an Emergency Response Plan. MDH recommends that Emergency Response Plans are updated annually.

Do you have an Emergency Response Plan? Yes ☒ No ☐

Have you updated the Emergency Response Plan in the last year? Yes ☐ No ☒

When did you last update your Emergency Response Plan? 2009

Complete Table 15 by inserting the noted information regarding your completed Emergency Response Plan.

Table 15. Emergency Response Plan contact information

Emergency Response Plan Role	Contact Person	Contact Phone Number	Contact Email
Emergency Response Lead	STEVE STADLER	(952) 548-6350	SSTADLER@HOPKINSMN.COM
Alternate Emergency Response Lead	ISMAIL EDDIHI	(952) 548-6373	IEDDIHI@HOPKINSMN.COM

B. Operational Contingency Plan

All utilities should have a written operational contingency plan that describes measures to be taken for water supply mainline breaks and other common system failures as well as routine maintenance.

Do you have a written operational contingency plan? Yes ☒ No ☐

At a minimum, a water supplier should prepare and maintain an emergency contact list of contractors and suppliers.

C. Emergency Response Procedures

Water suppliers must meet the requirements of MN Rules 4720.5280. Accordingly, the Minnesota Department of Natural Resources (DNR) requires public water suppliers serving more than 1,000 people to submit Emergency and Conservation Plans. Water emergency and conservation plans that have been approved by the DNR, under provisions of Minnesota Statute 186 and Minnesota Rules, part 6115.0770, will be considered equivalent to an approved WHP contingency plan.

Emergency Telephone List

Prepare and attach a list of emergency contacts, including the MN Duty Officer (1-800-422-0798), as **Appendix 5**. An Emergency Contact List template is available at the MnDNR Water Supply Plans webpage.

The list should include key utility and community personnel, contacts in adjacent water suppliers, and appropriate local, state and federal emergency contacts. Please be sure to verify and update the contacts on the emergency telephone list and date it. Thereafter, update on a regular basis (once a year is recommended). In the case of a municipality, this information should be contained in a notification and warning standard operating procedure maintained by the Emergency Manager for that community. Responsibilities and services for each contact should be defined.

Current Water Sources and Service Area

Quick access to concise and detailed information on water sources, water treatment, and the distribution system may be needed in an emergency. System operation and maintenance records should be maintained in secured central and back-up locations so that the records are accessible for emergency purposes. A detailed map of the system showing the treatment plants, water sources, storage facilities, supply lines, interconnections, and other information that would be useful in an emergency should also be readily available. It is critical that public water supplier representatives and emergency response personnel communicate about the response procedures and be able to easily obtain this kind of information both in electronic and hard copy formats (in case of a power outage).

Do records and maps exist? Yes ☒ No ☐

Can staff access records and maps from a central secured location in the event of an emergency?

Yes ☒ No ☐

Does the appropriate staff know where the materials are located?

Yes ☒ No ☐

Procedure for Augmenting Water Supplies

Complete Tables 16 – 17 by listing all available sources of water that can be used to augment or replace existing sources in an emergency. Add rows to the tables as needed.

In the case of a municipality, this information should be contained in a notification and warning standard operating procedure maintained by the warning point for that community. Municipalities are encouraged to execute cooperative agreements for potential emergency water services and copies should be included in **Appendix 6**. Outstate Communities may consider using nearby high capacity wells (industry, golf course) as emergency water sources.

WSP should include information on any physical or chemical problems that may limit interconnections to other sources of water. Approvals from the MDH are required for interconnections or the reuse of water.

Table 16. Interconnections with other water supply systems to supply water in an emergency

Other Water Supply System Owner	Capacity (GPM & MGD)	Note Any Limitations On Use	List of services, equipment, supplies available to respond
City of Minnetonka City of St. Louis Park City of Edina	UKNOWN AT THIS TIME	USE ONLY DURING EMERGENCIES	NONE

GPM – Gallons per minute MGD – million gallons per day

Table 17. Utilizing surface water as an alternative source

Surface Water Source Name	Capacity (GPM)	Capacity (MGD)	Treatment Needs	Note Any Limitations On Use
NONE	NONE	NONE	NONE	NONE

If not covered above, describe additional emergency measures for providing water (obtaining bottled water, or steps to obtain National Guard services, etc.)

Provide bottled water and provide water through interconnects if possible if capacity of the interconnect can meet demands for a short period.

Allocation and Demand Reduction Procedures

Complete Table 18 by adding information about how decisions will be made to allocate water and reduce demand during an emergency. Provide information for each customer category, including its priority ranking, average day demand, and demand reduction potential for each customer category. Modify the customer categories as needed, and add additional lines if necessary.

Water use categories should be prioritized in a way that is consistent with Minnesota Statutes 103G.261 (#1 is highest priority) as follows:

1. Water use for human needs such as cooking, cleaning, drinking, washing and waste disposal; use for on-farm livestock watering; and use for power production that meets contingency requirements.
2. Water use involving consumption of less than 10,000 gallons per day (usually from private wells or surface water intakes)
3. Water use for agricultural irrigation and processing of agricultural products involving consumption of more than 10,000 gallons per day (usually from private high-capacity wells or surface water intakes)
4. Water use for power production above the use provided for in the contingency plan.
5. All other water use involving consumption of more than 10,000 gallons per day.
6. Nonessential uses – car washes, golf courses, etc.

Water used for human needs at hospitals, nursing homes and similar types of facilities should be designated as a high priority to be maintained in an emergency. Lower priority uses will need to address water used for human needs at other types of facilities such as hotels, office buildings, and manufacturing plants. The volume of water and other types of water uses at these facilities must be carefully considered. After reviewing the data, common sense should dictate local allocation priorities to protect domestic requirements over certain types of economic needs. Water use for lawn sprinkling, vehicle washing, golf courses, and recreation are legislatively considered non-essential.

Table 18. Water use priorities

Customer Category	Allocation Priority	Average Daily Demand (GDP)	Short-Term Emergency Demand Reduction Potential (GPD)
Residential	1	1,240,000	496,000
Commercial/Institutional/Industrial	2	490,000	196,000
Non-Essential	3	40,000	40,000
TOTAL	NA	1,770,000	732,000

GPD – Gallons per Day

Tip: Calculating Emergency Demand Reduction Potential

The emergency demand reduction potential for all uses will typically equal the difference between maximum use (summer demand) and base use (winter demand). In extreme emergency situations, lower priority water uses must be restricted or eliminated to protect priority domestic water requirements. Emergency demand reduction potential should be based on average day demands for customer categories within each priority class. Use the tables in Part 3 on water conservation to help you determine strategies.

Complete Table 19 by selecting the triggers and actions during water supply disruption conditions.

Table 19. Emergency demand reduction conditions, triggers and actions (Select all that may apply and describe)

Emergency Triggers	Short-term Actions	Long-term Actions
☒ Contamination ☒ Loss of production ☒ Infrastructure failure ☒ Executive order by Governor ☐ Other: _____	☐ Supply augmentation through ____ ☒ Adopt (if not already) and enforce a critical water deficiency ordinance to penalize lawn watering, vehicle washing, golf course and park irrigation & other nonessential uses. ☐ Water allocation through____ ☐ Meet with large water users to discuss their contingency plan.	☐ Supply augmentation through ____ ☒ Adopt (if not already) and enforce a critical water deficiency ordinance to penalize lawn watering, vehicle washing, golf course and park irrigation & other nonessential uses. ☐ Water allocation through____ ☒ Meet with large water users to discuss their contingency plan.

Notification Procedures

Complete Table 20 by selecting trigger for informing customers regarding conservation requests, water use restrictions, and suspensions; notification frequencies; and partners that may assist in the notification process. Add rows to the table as needed.

Table 20. Plan to inform customers regarding conservation requests, water use restrictions, and suspensions

Notification Trigger(s)	Methods (select all that apply)	Update Frequency	Partners
☒ Short-term demand reduction declared (< 1 year)	☒ Website ☐ Email list serve ☒ Social media (e.g. Twitter, Facebook) ☐ Direct customer mailing, ☐ Press release (TV, radio, newspaper), ☐ Meeting with large water users (> 10% of total city use) ☐ Other: _____	☐ Daily ☐ Weekly ☐ Monthly ☐ Annually ☒ As needed	none
☒ Long-term Ongoing demand reduction declared	☒ Website ☐ Email list serve ☒ Social media (e.g. Twitter, Facebook) ☐ Direct customer mailing, ☐ Press release (TV, radio, newspaper), ☐ Meeting with large water users (> 10% of total city use) ☐ Other: _____	☐ Daily ☐ Weekly ☐ Monthly ☐ Annually ☒ As needed	none
☒ Governor's critical water deficiency declared	☒ Website ☐ Email list serve ☒ Social media (e.g. Twitter, Facebook)	☐ Daily ☐ Weekly ☐ Monthly ☐ Annually	none

Notification Trigger(s)	Methods (select all that apply)	Update Frequency	Partners
	☐ Direct customer mailing, ☐ Press release (TV, radio, newspaper), ☐ Meeting with large water users (> 10% of total city use) ☐ Other: _____	☒ As needed	

Enforcement

Prior to a water emergency, municipal water suppliers must adopt regulations that restrict water use and outline the enforcement response plan. The enforcement response plan must outline how conditions will be monitored to know when enforcement actions are triggered, what enforcement tools will be used, who will be responsible for enforcement, and what timelines for corrective actions will be expected.

Affected operations, communications, and enforcement staff must then be trained to rapidly implement those provisions during emergency conditions.

Important Note:

Disregard of critical water deficiency orders, even though total appropriation remains less than permitted, is adequate grounds for immediate modification of a public water supply authority's water use permit (2013 MN Statutes 103G.291)

Does the city have a critical water deficiency restriction/official control in place that includes provisions to restrict water use and enforce the restrictions? (This restriction may be an ordinance, rule, regulation, policy under a council directive, or other official control) Yes ☒ No ☐

If yes, attach the official control document to this WSP as **Appendix 7**.

If no, the municipality must adopt such an official control within 6 months of submitting this WSP and submit it to the DNR as an amendment to this WSP.

Irrespective of whether a critical water deficiency control is in place, does the public water supply utility, city manager, mayor, or emergency manager have standing authority to implement water restrictions? Yes ☒ No ☐

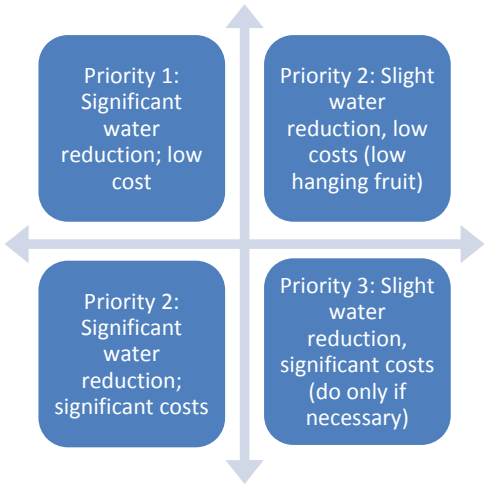
If yes, cite the regulatory authority reference: City Manager.

If no, who has authority to implement water use restrictions in an emergency?

n/a

PART 3. WATER CONSERVATION PLAN

Minnesotans have historically benefited from the state's abundant water supplies, reducing the need for conservation. There are however, limits to the available supplies of water and increasing threats to the quality of our drinking water. Causes of water supply limitation may include: population increases, economic trends, uneven statewide availability of groundwater, climatic changes, and degraded water quality. Examples of threats to drinking water quality include: the presence of contaminant plumes from past land use activities, exceedances of water quality standards from natural and human sources, contaminants of emerging concern, and increasing pollutant trends from nonpoint sources.



There are many incentives for conserving water; conservation:

- reduces the potential for pumping-induced transfer of contaminants into the deeper aquifers, which can add treatment costs
- reduces the need for capital projects to expand system capacity
- reduces the likelihood of water use conflicts, like well interference, aquatic habitat loss, and declining lake levels
- conserves energy, because less energy is needed to extract, treat and distribute water (and less energy production also conserves water since water is used to produce energy)
- maintains water supplies that can then be available during times of drought

It is therefore imperative that water suppliers implement water conservation plans. The first step in water conservation is identifying opportunities for behavioral or engineering changes that could be made to reduce water use by conducting a thorough analysis of:

- Water use by customer
- Extraction, treatment, distribution and irrigation system efficiencies
- Industrial processing system efficiencies
- Regulatory and barriers to conservation
- Cultural barriers to conservation
- Water reuse opportunities

Once accurate data is compiled, water suppliers can set achievable goals for reducing water use. A successful water conservation plan follows a logical sequence of events. The plan should address both conservation on the supply side (leak detection and repairs, metering), as well as on the demand side (reductions in usage). Implementation should be conducted in phases, starting with the most obvious and lowest-cost options. In some cases, one of the early steps will be reviewing regulatory constraints to water conservation, such as lawn irrigation requirements. Outside funding and grants may be available for implementation of projects. Engage water system operators and maintenance staff and customers in brainstorming opportunities to reduce water use. Ask the question: "How can I help save water?"

Progress since 2006

Is this your community's first Water Supply Plan? Yes ☐ No ☒

If yes, describe conservation practices that you are already implementing, such as: pricing, system improvements, education, regulation, appliance retrofitting, enforcement, etc.

n/a

If no, complete Table 21 to summarize conservation actions taken since the adoption of the 2006 water supply plan.

Table 21. Implementation of previous ten-year Conservation Plan

2006 Plan Commitments	Action Taken?
Change water rates structure to provide conservation pricing	☒ Yes ☐ No
Water supply system improvements (e.g. leak repairs, valve replacements, etc.)	☒ Yes ☐ No
Educational efforts	☒ Yes ☐ No
New water conservation ordinances	☒ Yes ☐ No
Rebate or retrofitting Program (e.g. for toilet, faucets, appliances, showerheads, dish washers, washing machines, irrigation systems, rain barrels, water softeners, etc.	☐ Yes ☒ No
Enforcement	☒ Yes ☐ No
Describe other	☐ Yes ☐ No

What are the results you have seen from the actions in Table 21 and how were results measured?

Reduction in average day demand and maximum day demand, which results in lower per capita demands.

A. Triggers for Allocation and Demand Reduction Actions

Complete table 22 by checking each trigger below, as appropriate, and the actions to be taken at various levels or stages of severity. Add in additional rows to the table as needed.

Table 22. Short and long-term demand reduction conditions, triggers and actions

Objective	Triggers	Actions

Objective	Triggers	Actions
Protect surface water flows	☐ Low stream flow conditions ☒ Reports of declining wetland and lake levels ☐ Other: _____	☒ Increase promotion of conservation measures ☐ Other: _____
Short-term demand reduction (less than 1 year	☒ Extremely high seasonal water demand (more than double winter demand) ☒ Loss of treatment capacity ☒ Lack of water in storage ☒ State drought plan ☒ Well interference ☐ Other: _____	☒ Adopt (if not already) and enforce the critical water deficiency ordinance to restrict or prohibit lawn watering, vehicle washing, golf course and park irrigation & other nonessential uses. ☐ Supply augmentation through ____ ☐ Water allocation through____ ☒ Meet with large water users to discuss user's contingency plan.
Long-term demand reduction (>1 year)	☒ Per capita demand increasing ☒ Total demand increase (higher population or more industry). Water level in well(s) below elevation of half of available static head. ☐ Other: _____	☒ Develop a critical water deficiency ordinance that is or can be quickly adopted to penalize lawn watering, vehicle washing, golf course and park irrigation & other nonessential uses. ☐ Enact a water waste ordinance that targets overwatering (causing water to flow off the landscape into streets, parking lots, or similar), watering impervious surfaces (streets, driveways or other hardscape areas), and negligence of known leaks, breaks, or malfunctions. ☒ Meet with large water users to discuss user's contingency plan. ☐ Enhanced monitoring and reporting: audits, meters, billing, etc.
Governor's "Critical Water Deficiency Order" declared	☒ Per capita demand is increasing and there is limited water supply. Water supply wells cannot meet peak day demands.	☒ Supplement water supply through interconnection. Enforce water restriction ordinances and restrict non-essential water usage if possible.

B. Conservation Objectives and Strategies – *Key benchmark for DNR*

This section establishes water conservation objectives and strategies for eight major areas of water use.

Objective 1: Reduce Unaccounted (Non-Revenue) Water loss to Less than 10%

The Minnesota Rural Water Association, the Metropolitan Council and the Department of Natural Resources recommend that all water uses be metered. Metering can help identify high use locations and times, along with leaks within buildings that have multiple meters.

It is difficult to quantify specific unmetered water use such as that associated with firefighting and system flushing or system leaks. Typically, water suppliers subtract metered water use from total water pumped to calculate unaccounted or non-revenue water loss.

Is your five-year average (2005-2014) unaccounted Water Use in Table 2 higher than 10%?

Yes ☒ No ☐

What is your leak detection monitoring schedule? (e.g. Monitor 1/3rd of the city lines per year)

The City performs leak detections as needed on a yearly basis. Leak detections will continue in areas deemed vulnerable to leaks.

Water Audits - are designed to help quantify and track water losses associated with water distribution systems and identify areas for improved efficiency and cost recovery. The American Water Works Association (AWWA) has a recommended water audit methodology which is presented in AWWA's M36 Manual of Water Supply Practices: Water Audits and Loss Control Programs. AWWA also provides a free spreadsheet-based water audit tool that water suppliers can use to conduct their own water audits. This free water audit tool can be found on AWWA's Water Loss Control webpage. Another resource for water audit and water loss control information is Minnesota Rural Water Association.

What is the date of your most recent water audit? __2017_____

Frequency of water audits: ☐ **yearly** ☒ **other (specify frequency)** User water audits are conducted monthly by automated meter readings which alert the City of spikes in customer water usage.

Leak detection and survey: ☒ **every year** ☐ **every other year** ☐ **periodic as needed**

Year last leak detection survey completed: ____2017_____

If Table 2 shows annual water losses over 10% or an increasing trend over time, describe what actions will be taken to reach the <10% loss objective and within what timeframe

Water losses are at 18.4% over the historical timeframe (Table 2). With a goal of achieving less than 10% water losses, increased water monitoring will be the focus along with continued leak detections on vulnerable sections of the City's water distribution system. The increased water monitoring would most likely include records of water used for specific purposes such as backwashing at the water plants, hydrant flushing, and other water uses that would be considered substantial. Records of this water use will be recorded and monitored. Leak detections will be an important factor in stopping large leaks and identifying small leaks within the system. Leaks will be repaired in a timely manner. The goal would be to reduce unaccounted for water to 10% or less within 10 years (approximately 0.8 – 1% reduction per year).

Metering -AWWA recommends that every water supplier install meters to account for all water taken into its system, along with all water distributed from its system at each customer's point of service. An effective metering program relies upon periodic performance testing, repair, maintenance or replacement of all meters. Drinking Water Revolving Loan Funds are available for purchase of new meters when new plants are built. AWWA also recommends that water suppliers conduct regular water audits to account for unmetered unbilled consumption, metered unbilled consumption and source

water and customer metering inaccuracies. Some cities install separate meters for interior and exterior water use, but some research suggests that this may not result in water conservation.

Complete Table 23 by adding the requested information regarding the number, types, testing and maintenance of customer meters.

Table 23. Information about customer meters

Customer Category	Number of Customers	Number of Metered Connections	Number of Automated Meter Readers	Meter testing intervals (years)	Average age/meter replacement schedule (years
Residential	3,200	3,308	3,308	As needed	Variable / As needed
Commercial/Industrial/Institutional	361	458	458	As needed	Variable / As needed
Public facilities	5	n/a	n/a	n/a	n/a
TOTALS	3,566	3,766	3,766	NA	NA

For unmetered systems, describe any plans to install meters or replace current meters with advanced technology meters. Provide an estimate of the cost to implement the plan and the projected water savings from implementing the plan.

n/a

Table 24. Water source meters

	Number of Meters	Meter testing schedule (years)	Number of Automated Meter Readers	Average age/meter replacement schedule (years
Water source (wells/intakes)	4	As needed	4	Variable / Check meters yearly and Replacement is as needed
Treatment plant	2	As needed	2	Variable / Check meters yearly and Replacement is as needed

Objective 2: Achieve Less than 75 Residential Gallons per Capita Demand (GPCD)

The 2002 average residential per capita demand in the Twin Cities Metropolitan area was 75 gallons per capita per day.

Is your average 2010-2015 residential per capita water demand in Table 2 more than 75? Yes ☐ No ☒

What was your 2010 – 2015 five-year average residential per capita water demand? 74.2 g/person/day

Describe the water use trend over that timeframe:

Residential water demand decreased from 89 gpcd in 2006 to 60.6 gpcd in 2016. This decrease in demand is most likely attributed to increased water conservation and improved water metering and accounting for lost water and repairing leaks in the system. The total per capita demand follows a similar trend, decreasing from 151 gpcd in 2006 to 108 gpcd in 2016. Overall, residential per capita demand has significantly decreased and has remained below 75 gpcd since 2013. It is projected to remain less than 75 gpcd for future demands.

Complete Table 25 by checking which strategies you will use to continue reducing residential per capita demand and project a likely timeframe for completing each checked strategy (Select all that apply and add rows for additional strategies):

Table 25. Strategies and timeframe to reduce residential per capita demand

Strategy to reduce residential per capita demand	Timeframe for completing work
☐ Revise city ordinances/codes to encourage or require water efficient landscaping.	
☐ Revise city ordinance/codes to permit water reuse options, especially for non-potable purposes like irrigation, groundwater recharge, and industrial use. Check with plumbing authority to see if internal buildings reuse is permitted	
☒ Revise ordinances to limit irrigation. Describe the restricted irrigation plan: Odd-even watering	Ongoing
☐ Revise outdoor irrigation installations codes to require high efficiency systems (e.g. those with soil moisture sensors or programmable watering areas) in new installations or system replacements.	
☒ Make water system infrastructure improvements	Ongoing and part of the capital improvement plan
☒ Offer free or reduced cost water use audits) for residential customers.	City now uses automated meter readings to identify spikes in user water usage and works with the home owner to identify the source.
☐ Implement a notification system to inform customers when water availability conditions change.	
☐ Provide rebates or incentives for installing water efficient appliances and/or fixtures indoors (e.g., low flow toilets, high efficiency dish washers and washing machines, showerhead and faucet aerators, water softeners, etc.)	
☐ Provide rebates or incentives to reduce outdoor water use (e.g., turf replacement/reduction, rain gardens, rain barrels, smart irrigation, outdoor water use meters, etc.)	
☐ Identify supplemental Water Resources	
☒ Conduct audience-appropriate water conservation education and outreach.	Ongoing on the City website.
☐ Describe other plans	

Objective 3: Achieve at least 1.5% annual reduction in non-residential per capita water use

(For each of the next ten years, or a 15% total reduction over ten years.) This includes commercial, institutional, industrial and agricultural water users.

Complete Table 26 by checking which strategies you will used to continue reducing non-residential customer use demand and project a likely timeframe for completing each checked strategy (add rows for additional strategies).

Where possible, substitute recycled water used in one process for reuse in another. (For example, spent rinse water can often be reused in a cooling tower.) Keep in mind the true cost of water is the amount on the water bill PLUS the expenses to heat, cool, treat, pump, and dispose of/discharge the water. Don't just calculate the initial investment. Many conservation retrofits that appear to be prohibitively expensive are actually very cost-effective when amortized over the life of the equipment. Often reducing water use also saves electrical and other utility costs. Note: as of 2015, water reuse, and is not allowed by the state plumbing code, M.R. 4715 (a variance is needed). However, several state agencies are addressing this issue.

Table 26. Strategies and timeframe to reduce institutional, commercial industrial, and agricultural and non-revenue use demand

Strategy to reduce total business, industry, agricultural demand	Timeframe for completing work
☐ Conduct a facility water use audit for both indoor and outdoor use, including system components	
☒ Install enhanced meters capable of automated readings to detect spikes in consumption	Completed and operational
☐ Compare facility water use to related industry benchmarks, if available (e.g., meat processing, dairy, fruit and vegetable, beverage, textiles, paper/pulp, metals, technology, petroleum refining etc.)	
☐ Install water conservation fixtures and appliances or change processes to conserve water	
☒ Repair leaking system components (e.g., pipes, valves)	Ongoing
☐ Investigate the reuse of reclaimed water (e.g., stormwater, wastewater effluent, process wastewater, etc.)	
☐ Reduce outdoor water use (e.g., turf replacement/reduction, rain gardens, rain barrels, smart irrigation, outdoor water use meters, etc.)	
☐ Train employees how to conserve water	
☐ Implement a notification system to inform non-residential customers when water availability conditions change.	
☐ Nonpotable rainwater catchment systems intended to supply uses such as water closets, urinals, trap primers for floor drains and floor sinks, industrial processes, water features, vehicle washing facilities, cooling tower makeup, and similar uses shall be approved by the commissioner. Plumbing code 4714.1702, Published October 31, 2016	
☐ Describe other plans:	

Objective 4: Achieve a Decreasing Trend in Total Per Capita Demand

Include as **Appendix 8** one graph showing total per capita water demand for each customer category (i.e., residential, institutional, commercial, industrial) from 2005-2014 and add the calculated/estimated linear trend for the next 10 years.

Describe the trend for each customer category; explain the reason(s) for the trends, and where trends are increasing.

Total water demands show a decreasing trend. The total demand decreased from 150 gpcd in 2006, to 108 gpcd in 2016, a decrease of 28%. The decrease in demand reflects water conservation efforts that the City has implemented to reduce water demands. Future demands will most likely be linked to residential demand trends. If the residential demand trends continue to decrease, the total demand will most likely decrease. This occurs because the residential demand makes up a majority of the water usage for Hopkins.

Residential water demand follows a similar trend to the total water demand. Because Hopkins water demand is mostly residential usage, this category drives the water demand trends. The residential water usage is a decreasing trend. The residential water usage peaked in 2006 at 89 gpcd and reached a new low in 2016 at 60.6 gpcd, a decrease of 32%. Even during drought years (2007 and 2012), the water demands decreased for this category. This is not typical as during drought conditions, residents tend to water lawns more frequently, which drives up the water usage. The decrease in residential demand over the last 5 years, stems from an increase in water conservation education and changing the utility billing to a tiered system that charges more for high water usage. The decreasing trends are predicted slow down and plateau, but are expected to continue the slight decrease over the next 10 years.

Commercial/Institutional/Industrial water demand has remained stable over the last 10 years. There are peaks and valleys in the graph shown in appendix 8, which is typical as businesses, and commercial industries move into or out of the City. This trend is predicted to continue over the next 10 years.

Objective 5: Reduce Ratio of Maximum day (peak day) to the Average Day Demand to Less Than 2.6

Is the ratio of average 2005-2014 maximum day demand to average 2005-2014 average day demand reported in Table 2 more than 2.6? Yes ☐ No ☒

Calculate a ten-year average (2005 – 2014) of the ratio of maximum day demand to average day demand: 1.77

The position of the DNR has been that a peak day/average day ratio that is above 2.6 for in summer indicates that the water being used for irrigation by the residents in a community is too large and that efforts should be made to reduce the peak day use by the community.

It should be noted that by reducing the peak day use, communities can also reduce the amount of infrastructure that is required to meet the peak day use. This infrastructure includes new wells, new water towers which can be costly items.

Objective 6: Implement Demand Reduction Measures

Water Conservation Program

Municipal water suppliers serving over 1,000 people are required to adopt demand reduction measures that include a conservation rate structure, or a uniform rate structure with a conservation program that achieves demand reduction. These measures must achieve demand reduction in ways that reduce water demand, water losses, peak water demands, and nonessential water uses. These measures must be approved before a community may request well construction approval from the Department of Health or before requesting an increase in water appropriations permit volume (Minnesota Statutes, section 103G.291, subd. 3 and 4). Rates should be adjusted on a regular basis to ensure that revenue of the system is adequate under reduced demand scenarios. If a municipal water supplier intends to use a Uniform Rate Structure, a community-wide Water Conservation Program that will achieve demand reduction must be provided.

Current Water Rates

Include a copy of the actual rate structure in **Appendix 9** or list current water rates including base/service fees and volume charges below.

Volume included in base rate or service charge: 1,000 gallons or ____ cubic feet ___ other

Frequency of billing: ☒ Monthly ☐ Bimonthly ☐ Quarterly ☐ Other: _____

Water Rate Evaluation Frequency: ☒ every year ☐ every ___ years ☐ no schedule

Date of last rate change: January 1, 2017_

Table 27. Rate structures for each customer category (Select all that apply and add additional rows as needed)

Customer Category	Conservation Billing Strategies in Use *	Conservation Neutral Billing Strategies in Use **	Non-Conserving Billing Strategies in Use ***
Residential	☒ Monthly billing ☒ Increasing block rates (volume tiered rates) ☐ Seasonal rates ☐ Time of use rates ☒ Water bills reported in gallons ☐ Individualized goal rates ☐ Excess use rates ☐ Drought surcharge ☐ Use water bill to provide comparisons ☒ Service charge not based on water volume ☐ Other (describe)	☐ Uniform ☒ Odd/even day watering	☐ Service charge based on water volume ☐ Declining block ☐ Flat ☐ Other (describe)
Commercial/ Industrial/ Institutional	☒ Monthly billing ☒ Increasing block rates (volume tiered rates) ☐ Seasonal rates ☐ Time of use rates	☐ Uniform	☐ Service charge based on water volume ☐ Declining block ☐ Flat ☐ Other (describe)

Customer Category	Conservation Billing Strategies in Use *	Conservation Neutral Billing Strategies in Use **	Non-Conserving Billing Strategies in Use ***
	☒ Water bills reported in gallons ☐ Individualized goal rates ☐ Excess use rates ☐ Drought surcharge ☐ Use water bill to provide comparisons ☐ Service charge not based on water volume ☐ Other (describe)		
☐ Other			

*** Rate Structures components that may promote water conservation:**

- **Monthly billing:** is encouraged to help people see their water usage so they can consider changing behavior.
- **Increasing block rates (also known as a tiered residential rate structure):** Typically, these have at least three tiers: should have at least three tiers.
    - The first tier is for the winter average water use.
    - The second tier is the year-round average use, which is lower than typical summer use. This rate should be set to cover the full cost of service.
    - The third tier should be above the average annual use and should be priced high enough to encourage conservation, as should any higher tiers. For this to be effective, the difference in block rates should be significant.
- **Seasonal rate:** higher rates in summer to reduce peak demands
- **Time of Use rates:** lower rates for off peak water use
- **Bill water use in gallons:** this allows customers to compare their use to average rates
- **Individualized goal rates:** typically used for industry, business or other large water users to promote water conservation if they keep within agreed upon goals. **Excess Use rates**: if water use goes above an agreed upon amount this higher rate is charged
- **Drought surcharge:** an extra fee is charged for guaranteed water use during drought
- **Use water bill to provide comparisons**: simple graphics comparing individual use over time or compare individual use to others.
- **Service charge or base fee that does not include a water volume** – a base charge or fee to cover universal city expenses that are not customer dependent and/or to provide minimal water at a lower rate (e.g., an amount less than the average residential per capita demand for the water supplier for the last 5 years)
- **Emergency rates** -A community may have a separate conservation rate that only goes into effect when the community or governor declares a drought emergency. These higher rates can help to protect the city budgets during times of significantly less water usage.

****Conservation Neutral****

- **Uniform rate**: rate per unit used is the same regardless of the volume used
- **Odd/even day watering** –This approach reduces peak demand on a daily basis for system operation, but it does not reduce overall water use.

***** Non-Conserving *****

- **Service charge or base fee with water volume:** an amount of water larger than the average residential per capita demand for the water supplier for the last 5 years
- **Declining block rate:** the rate per unit used decreases as water use increases.
- **Flat rate:** one fee regardless of how much water is used (usually unmetered).

Provide justification for any conservation neutral or non-conserving rate structures. If intending to adopt a conservation rate structure, include the timeframe to do so:

Hopkins has flat meter rate for residential and commercial structures, along with a tired rate, which bills more for higher water usage for commercial, and residential and multi-family dwellings. The flat rate is specific for the size of the meter installed and is indicated in the rate schedule in the appendix.

Objective 7: Additional strategies to Reduce Water Use and Support Wellhead Protection Planning

Development and redevelopment projects can provide additional water conservation opportunities, such as the actions listed below. If a Uniform Rate Structure is in place, the water supplier must provide a Water Conservation Program that includes at least two of the actions listed below. Check those actions that you intent to implement within the next 10 years.

Table 28. Additional strategies to Reduce Water Use & Support Wellhead Protection

☐	Participate in the GreenStep Cities Program, including implementation of at least one of the 20 "Best Practices" for water
☐	Prepare a master plan for smart growth (compact urban growth that avoids sprawl)
☐	Prepare a comprehensive open space plan (areas for parks, green spaces, natural areas)
☒	Adopt a water use restriction ordinance (lawn irrigation, car washing, pools, etc.)
☒	Adopt an outdoor lawn irrigation ordinance
☐	Adopt a private well ordinance (private wells in a city must comply with water restrictions)
☐	Implement a stormwater management program
☐	Adopt non-zoning wetlands ordinance (can further protect wetlands beyond state/federal laws-for vernal pools, buffer areas, restrictions on filling or alterations)
☐	Adopt a water offset program (primarily for new development or expansion)
☐	Implement a water conservation outreach program
☐	Hire a water conservation coordinator (part-time)
☐	Implement a rebate program for water efficient appliances, fixtures, or outdoor water management
☐	Other

Objective 8: Tracking Success: How will you track or measure success through the next ten years?

Monitor per capita demand as well as peak day demand to determine trends.

Tip: The process to monitor demand reduction and/or a rate structure includes:

a) The DNR Hydrologist will call or visit the community the first 1-3 years after the water supply plan is completed.
b) They will discuss what activities the community is doing to conserve water and if they feel their actions are successful. The Water Supply Plan, Part 3 tables and responses will guide the discussion.

For example, they will discuss efforts to reduce unaccounted for water loss if that is a problem, or go through Tables 33, 34 and 35 to discuss new initiatives.

c) The city representative and the hydrologist will discuss total per capita water use, residential per capita water use, and business/industry use. They will note trends.

d) They will also discuss options for improvement and/or collect case studies of success stories to share with other communities. One option may be to change the rate structure, but there are many other paths to successful water conservation.

e) If appropriate, they will cooperatively develop a simple work plan for the next few years, targeting a couple areas where the city might focus efforts.

C. Regulation

Complete Table 29 by selecting which regulations are used to reduce demand and improve water efficiencies. Add additional rows as needed.

Copies of adopted regulations or proposed restrictions or should be included in **Appendix 10** (a list with hyperlinks is acceptable).

Table 29. Regulations for short-term reductions in demand and long-term improvements in water efficiencies

Regulations Utilized	When is it applied (in effect)?
☐ Rainfall sensors required on landscape irrigation systems	☐ Ongoing ☐ Seasonal ☐ Only during declared Emergencies
☐ Water efficient plumbing fixtures required	☐ New development ☐ Replacement ☐ Rebate Programs
☒ Critical/Emergency Water Deficiency ordinance	☒ Only during declared Emergencies
☒ Watering restriction requirements (time of day, allowable days, etc.)	☒ Odd/even ☐ 2 days/week ☐ Only during declared Emergencies
☐ Water waste prohibited (for example, having a fine for irrigators spraying on the street)	☐ Ongoing ☐ Seasonal ☐ Only during declared Emergencies
☐ Limitations on turf areas (requiring lots to have 10% - 25% of the space in natural areas)	☐ New development ☐ Shoreland/zoning ☐ Other
☐ Soil preparation requirement s (after construction, requiring topsoil to be applied to promote good root growth)	☐ New Development ☐ Construction Projects ☐ Other
☐ Tree ratios (requiring a certain number of trees per square foot of lawn)	☐ New development ☐ Shoreland/zoning ☐ Other
☐ Permit to fill swimming pool and/or requiring pools to be covered (to prevent evaporation)	☐ Ongoing ☐ Seasonal ☐ Only during declared Emergencies
☐ Ordinances that permit stormwater irrigation, reuse of water, or other alternative water use (Note: be sure to check current plumbing codes for updates)	☐ Describe

D. Retrofitting Programs

Education and incentive programs aimed at replacing inefficient plumbing fixtures and appliances can help reduce per capita water use, as well as energy costs. It is recommended that municipal water suppliers develop a long-term plan to retrofit public buildings with water efficient plumbing fixtures and appliances. Some water suppliers have developed partnerships with organizations having similar conservation goals, such as electric or gas suppliers, to develop cooperative rebate and retrofit programs.

A study by the AWWA Research Foundation (Residential End Uses of Water, 1999) found that the average indoor water use for a non-conserving home is 69.3 gallons per capita per day (gpcd). The average indoor water use in a conserving home is 45.2 gpcd and most of the decrease in water use is related to water efficient plumbing fixtures and appliances that can reduce water, sewer and energy costs. In Minnesota, certain electric and gas providers are required (Minnesota Statute 216B.241) to fund programs that will conserve energy resources and some utilities have distributed water efficient showerheads to customers to help reduce energy demands required to supply hot water.

Retrofitting Programs

Complete Table 30 by checking which water uses are targeted, the outreach methods used, the measures used to identify success, and any participating partners.

Table 30. Retrofitting programs (Select all that apply)

Water Use Targets	Outreach Methods	Partners
☒ Low flush toilets, ☐ Toilet leak tablets, ☐ Low flow showerheads, ☐ Faucet aerators;	☒ Education about ☐ Free distribution of ☐ Rebate for ☐ Other	☐ Gas company ☐ Electric company ☐ Watershed organization
☐ Water conserving washing machines, ☐ Dish washers, ☐ Water softeners;	☐ Education about ☐ Free distribution of ☐ Rebate for ☐ Other	☐ Gas company ☐ Electric company ☐ Watershed organization
☒ Rain gardens, ☒ Rain barrels, ☐ Native/drought tolerant landscaping, etc.	☒ Education about ☐ Free distribution of ☐ Rebate for ☐ Other	☐ Gas company ☐ Electric company ☐ Watershed organization

Briefly discuss measures of success from the above table (e.g. number of items distributed, dollar value of rebates, gallons of water conserved, etc.):

The City has an exceptional public outreach program for educating the public about their water system and their efforts are measured in the reduction in total and residential gallon per capita day usage over the last 10 years.

E. Education and Information Programs

Customer education should take place in three different circumstances. First, customers should be provided information on how to conserve water and improve water use efficiencies. Second, information should be provided at appropriate times to address peak demands. Third, emergency notices and educational materials about how to reduce water use should be available for quick distribution during an emergency.

Proposed Education Programs

Complete Table 31 by selecting which methods are used to provide water conservation and information, including the frequency of program components. Select all that apply and add additional lines as needed.

Table 31. Current and Proposed Education Programs

Education Methods	General summary of topics	#/Year	Frequency
Billing inserts or tips printed on the actual bill	Water conservation and water system components/operations	4	☐ Ongoing ☒ Seasonal ☐ Only during declared emergencies
Consumer Confidence Reports	Water Conservation and water quality	1	☒ Ongoing ☐ Seasonal ☐ Only during declared emergencies
Press releases to traditional local news outlets (e.g., newspapers, radio and TV)			☐ Ongoing ☐ Seasonal ☐ Only during declared emergencies
Social media distribution (e.g., emails, Facebook, Twitter)	Water Conservation City Utilities Operation		☒ Ongoing ☐ Seasonal ☐ Only during declared emergencies
Paid advertisements (e.g., billboards, print media, TV, radio, web sites, etc.)			☐ Ongoing ☐ Seasonal ☐ Only during declared emergencies
Presentations to community groups	Presentations at schools about the water cycle and city water services		☒ Ongoing ☐ Seasonal ☐ Only during declared emergencies
Staff training			☐ Ongoing ☐ Seasonal ☐ Only during declared emergencies
Facility tours	Water treatment technology	As needed	☒ Ongoing ☐ Seasonal ☐ Only during declared emergencies

Education Methods	General summary of topics	#/Year	Frequency
Displays and exhibits	System water system and utilities. The City has built a water trailer that is hooked up to a fire hydrant and provides free water and drinking fountains on the trailer at public events. Educational information is provided when people utilize the free water trailer.		☐ Ongoing ☒ Seasonal ☐ Only during declared emergencies
Marketing rebate programs (e.g., indoor fixtures & appliances and outdoor practices)			☐ Ongoing ☐ Seasonal ☐ Only during declared emergencies
Community news letters	Water Conservation and Water Quality		☐ Ongoing ☒ Seasonal ☐ Only during declared emergencies
Direct mailings (water audit/retrofit kits, showerheads, brochures)			☒ Ongoing ☐ Seasonal ☐ Only during declared emergencies
Information kiosk at utility and public buildings	Multiple pamphlets at Public Buildings on City services including watering restrictions.		☒ Ongoing ☐ Seasonal ☐ Only during declared emergencies
Public service announcements			☐ Ongoing ☐ Seasonal ☐ Only during declared emergencies
Cable TV Programs			☐ Ongoing ☐ Seasonal ☐ Only during declared emergencies
Demonstration projects (landscaping or plumbing)			☐ Ongoing ☐ Seasonal ☐ Only during declared emergencies
K-12 education programs (Project Wet, Drinking Water Institute, presentations)			☐ Ongoing ☐ Seasonal ☐ Only during declared emergencies
Community events (children's water festivals, environmental fairs)			☐ Ongoing ☐ Seasonal ☐ Only during declared emergencies

Education Methods	General summary of topics	#/Year	Frequency
Community education classes			☐ Ongoing ☐ Seasonal ☐ Only during declared emergencies
Water week promotions			☐ Ongoing ☐ Seasonal ☐ Only during declared emergencies
Website (include address: http://www.hopkinsmn.com/services/water/index.php)	Water quality characteristics, hydrant flushing, lawn watering, utility rates, etc.	Continuous	☒ Ongoing ☐ Seasonal ☐ Only during declared emergencies
Targeted efforts (large volume users, users with large increases)			☐ Ongoing ☐ Seasonal ☐ Only during declared emergencies
Notices of ordinances			☐ Ongoing ☐ Seasonal ☐ Only during declared emergencies
Emergency conservation notices			☐ Ongoing ☐ Seasonal ☐ Only during declared emergencies
Other:			☐ Ongoing ☐ Seasonal ☐ Only during declared emergencies

Briefly discuss what future education and information activities your community is considering in the future:

The City has recently developed trading cards for the various types of public works equipment. The cards are intended to educate the public on how the City maintains their systems. The City may consider expanding the trading cards to include additional information about the water system as an educational effort.

The City will also continue the school presentation to delivery their message on water conservation and quality to as many students as possible.

Additional educational concepts and items are found in Appendix 12.

PART 4. ITEMS FOR METROPOLITAN AREA COMMUNITIES

Minnesota Statute 473.859 requires WSPs to be completed for all local units of government in the seven-county Metropolitan Area as part of the local comprehensive planning process.

Much of the information in Parts 1-3 addresses water demand for the next 10 years. However, additional information is needed to address water demand through 2040, which will make the WSP consistent with the Metropolitan Land Use Planning Act, upon which the local comprehensive plans are based.

This Part 4 provides guidance to complete the WSP in a way that addresses plans for water supply through 2040.

A. Water Demand Projections through 2040

Complete Table 7 in Part 1D by filling in information about long-term water demand projections through 2040. Total Community Population projections should be consistent with the community's system statement, which can be found on the Metropolitan Council's website and which was sent to the community in September 2015.

Projected Average Day, Maximum Day, and Annual Water Demands may either be calculated using the method outlined in *Appendix 2* of the *2015 Master Water Supply Plan* or by a method developed by the individual water supplier.

B. Potential Water Supply Issues

Complete Table 10 in Part 1E by providing information about the potential water supply issues in your community, including those that might occur due to 2040 projected water use.

The Master Water Supply Plan provides information about potential issues for your community in *Appendix 1 (Water Supply Profiles).* This resource may be useful in completing Table 10.

You may document results of local work done to evaluate impact of planned uses by attaching a feasibility assessment or providing a citation and link to where the plan is available electronically.

C. Proposed Alternative Approaches to Meet Extended Water Demand Projections

Complete Table 12 in Part 1F with information about potential water supply infrastructure impacts (such as replacements, expansions or additions to wells/intakes, water storage and treatment capacity, distribution systems, and emergency interconnections) of extended plans for development and redevelopment, in 10-year increments through 2040. It may be useful to refer to information in the community's local Land Use Plan, if available.

Complete Table 14 in Part 1F by checking each approach your community is considering to meet future demand. For each approach your community is considering, provide information about the amount of

future water demand to be met using that approach, the timeframe to implement the approach, potential partners, and current understanding of the key benefits and challenges of the approach.

As challenges are being discussed, consider the need for: evaluation of geologic conditions (mapping, aquifer tests, modeling), identification of areas where domestic wells could be impacted, measurement and analysis of water levels & pumping rates, triggers & associated actions to protect water levels, etc.

D. Value-Added Water Supply Planning Efforts (Optional)

The following information is not required to be completed as part of the local water supply plan, but completing this can help strengthen source water protection throughout the region and help Metropolitan Council and partners in the region to better support local efforts.

Source Water Protection Strategies

Does a Drinking Water Supply Management Area for a neighboring public water supplier overlap your community? Yes ☒ No ☐

If you answered no, skip this section. If you answered yes, please complete Table 32 with information about new water demand or land use planning-related local controls that are being considered to provide additional protection in this area.

Table 32. Local controls and schedule to protect Drinking Water Supply Management Areas

Local Control	Schedule to Implement	Potential Partners
☒ None at this time	Will be discussed	Unknown at this time
☐ Comprehensive planning that guides development in vulnerable drinking water supply management areas		
☐ Zoning overlay		
☐ Other:		

Technical assistance

From your community's perspective, what are the most important topics for the Metropolitan Council to address, guided by the region's Metropolitan Area Water Supply Advisory Committee and Technical Advisory Committee, as part of its ongoing water supply planning role?

☒ Coordination of state, regional and local water supply planning roles
☒ Regional water use goals
☒ Water use reporting standards
☐ Regional and sub-regional partnership opportunities
☐ Identifying and prioritizing data gaps and input for regional and sub-regional analyses
☐ Others: _____

GLOSSARY

Agricultural/Irrigation Water Use - Water used for crop and non-crop irrigation, livestock watering, chemigation, golf course irrigation, landscape and athletic field irrigation.

Average Daily Demand - The total water pumped during the year divided by 365 days.

Calcareous Fen - Calcareous fens are rare and distinctive wetlands dependent on a constant supply of cold groundwater. Because they are dependent on groundwater and are one of the rarest natural communities in the United States, they are a protected resource in MN. Approximately 200 have been located in Minnesota. They may not be filled, drained or otherwise degraded.

Commercial/Institutional Water Use - Water used by motels, hotels, restaurants, office buildings, commercial facilities and institutions (both civilian and military). Consider maintaining separate institutional water use records for emergency planning and allocation purposes. Water used by multi-family dwellings, apartment buildings, senior housing complexes, and mobile home parks should be reported as Residential Water Use.

Commercial/Institutional/Industrial (C/I/I) Water Sold - The sum of water delivered for commercial/institutional or industrial purposes.

Conservation Rate Structure - A rate structure that encourages conservation and may include increasing block rates, seasonal rates, time of use rates, individualized goal rates, or excess use rates. If a conservation rate is applied to multifamily dwellings, the rate structure must consider each residential unit as an individual user. A community may have a separate conservation rate that only goes into effect when the community or governor declares a drought emergency. These higher rates can help to protect the city budgets during times of significantly less water usage.

Date of Maximum Daily Demand - The date of the maximum (highest) water demand. Typically this is a day in July or August.

Declining Rate Structure - Under a declining block rate structure, a consumer pays less per additional unit of water as usage increases. This rate structure does not promote water conservation.

Distribution System - Water distribution systems consist of an interconnected series of pipes, valves, storage facilities (water tanks, water towers, reservoirs), water purification facilities, pumping stations, flushing hydrants, and components that convey drinking water and meeting fire protection needs for cities, homes, schools, hospitals, businesses, industries and other facilities.

Flat Rate Structure - Flat fee rates do not vary by customer characteristics or water usage. This rate structure does not promote water conservation.

Industrial Water Use - Water used for thermonuclear power (electric utility generation) and other industrial use such as steel, chemical and allied products, paper and allied products, mining, and petroleum refining.

Low Flow Fixtures/Appliances - Plumbing fixtures and appliances that significantly reduce the amount of water released per use are labeled “low flow”. These fixtures and appliances use just enough water to be effective, saving excess, clean drinking water that usually goes down the drain.

Maximum Daily Demand - The maximum (highest) amount of water used in one day.

Metered Residential Connections - The number of residential connections to the water system that have meters. For multifamily dwellings, report each residential unit as an individual user.

Percent Unmetered/Unaccounted For - Unaccounted for water use is the volume of water withdrawn from all sources minus the volume of water delivered. This value represents water “lost” by miscalculated water use due to inaccurate meters, water lost through leaks, or water that is used but unmetered or otherwise undocumented. Water used for public services such as hydrant flushing, ice skating rinks, and public swimming pools should be reported under the category “Water Supplier Services”.

Population Served - The number of people who are served by the community's public water supply system. This includes the number of people in the community who are connected to the public water supply system, as well as people in neighboring communities who use water supplied by the community's public water supply system. It should not include residents in the community who have private wells or get their water from neighboring water supply.

Residential Connections - The total number of residential connections to the water system. For multifamily dwellings, report each residential unit as an individual user.

Residential Per Capita Demand - The total residential water delivered during the year divided by the population served divided by 365 days.

Residential Water Use - Water used for normal household purposes such as drinking, food preparation, bathing, washing clothes and dishes, flushing toilets, and watering lawns and gardens. Should include all water delivered to single family private residences, multi-family dwellings, apartment buildings, senior housing complexes, mobile home parks, etc.

Smart Meter - Smart meters can be used by municipalities or by individual homeowners. Smart metering generally indicates the presence of one or more of the following:

- Smart irrigation water meters are controllers that look at factors such as weather, soil, slope, etc. and adjust watering time up or down based on data. Smart controllers in a typical summer will reduce water use by 30%-50%. Just changing the spray nozzle to new efficient models can reduce water use by 40%.
- Smart Meters on customer premises that measure consumption during specific time periods and communicate it to the utility, often on a daily basis.
- A communication channel that permits the utility, at a minimum, to obtain meter reads on demand, to ascertain whether water has recently been flowing through the meter and onto the premises, and to issue commands to the meter to perform specific tasks such as disconnecting or restricting water flow.

Total Connections - The number of connections to the public water supply system.

Total Per Capita Demand - The total amount of water withdrawn from all water supply sources during the year divided by the population served divided by 365 days.

Total Water Pumped - The cumulative amount of water withdrawn from all water supply sources during the year.

Total Water Delivered - The sum of residential, commercial, industrial, institutional, water supplier services, wholesale and other water delivered.

Ultimate (Full Build-Out) - Time period representing the community's estimated total amount and location of potential development, or when the community is fully built out at the final planned density.

Unaccounted (Non-revenue) Loss - See definitions for "percent unmetered/unaccounted for loss".

Uniform Rate Structure - A uniform rate structure charges the same price-per-unit for water usage beyond the fixed customer charge, which covers some fixed costs. The rate sends a price signal to the customer because the water bill will vary by usage. Uniform rates by class charge the same price-per-unit for all customers within a customer class (e.g. residential or non-residential). This price structure is generally considered less effective in encouraging water conservation.

Water Supplier Services - Water used for public services such as hydrant flushing, ice skating rinks, public swimming pools, city park irrigation, back-flushing at water treatment facilities, and/or other uses.

Water Used for Nonessential Purposes - Water used for lawn irrigation, golf course and park irrigation, car washes, ornamental fountains, and other non-essential uses.

Wholesale Deliveries - The amount of water delivered in bulk to other public water suppliers.

Acronyms and Initialisms

AWWA – American Water Works Association
C/I/I – Commercial/Institutional/Industrial
CIP – Capital Improvement Plan
GIS – Geographic Information System
GPCD – Gallons per capita per day
GWMA – Groundwater Management Area – North and East Metro, Straight River, Bonanza,
MDH – Minnesota Department of Health
MGD – Million gallons per day
MG – Million gallons
MGL – Maximum Contaminant Level
MnTAP – Minnesota Technical Assistance Program (University of Minnesota)
MPARS – MN/DNR Permitting and Reporting System (new electronic permitting system)
MRWA – Minnesota Rural Waters Association
SWP – Source Water Protection
WHP – Wellhead Protection

APPENDICES TO BE SUBMITTED BY THE WATER SUPPLIER

Appendix 1: Well records and maintenance summaries
Go to Part 1C for information on what to include in appendix

Appendix 2: Water level monitoring plan
Go to Part 1E for information on what to include in appendix

Appendix 3: Water level graphs for each water supply well
Go to Part 1E for information on what to include in appendix

Appendix 4: Capital Improvement Plan
Go to Part 1E for information on what to include in appendix

Appendix 5: Emergency Telephone List
Go to Part 2C for information on what to include in appendix

Appendix 6: Cooperative Agreements for Emergency Services
Go to Part 2C for information on what to include in appendix

Appendix 7: Municipal Critical Water Deficiency Ordinance
Go to Part 2C for information on what to include in appendix

Appendix 8: Graph of Ten Years of Annual Per Capita Water Demand for Each Customer Category
Go to Objective 4 in Part 3B for information on what to include in appendix

Appendix 9: Water Rate Structure
Go to Objective 6 in Part 3B for information on what to include in appendix

Appendix 10: Ordinances or Regulations Related to Water Use
Go to Objective 7 in Part 3B for information on what to include in appendix

Appendix 11: Implementation Checklist
Provide a table that summarizes all the actions that the public water supplier is doing, or proposes to do, with estimated implementation dates.

Appendix 12: Sources of Information for Table 10
Provide links or references to the information used to complete Table 10. If the file size is reasonable, provide source information as attachments to the plan.

Appendix 1

Well Records and Well Maintenance Summary

Minnesota Unique Well Number

204573

County Hennepin
Quad Hopkins
Quad ID 104B

MINNESOTA DEPARTMENT OF HEALTH

WELL AND BORING REPORT

Minnesota Statutes Chapter 1031

Entry Date 08/24/1991
Update Date 08/18/2015
Received Date

Well Name	Township	Range	Dir	Section	Subsection
HOPKINS 1	117	22	W	25	BAAADB

Elevation 926 ft. **Elev. Method** 7.5 minute topographic map (+/- 5 feet)

Address

Contact HOPKINS MN 55343
Well HOPKINS MN 55343

Stratigraphy Information

Geological Material	From	To (ft.)	Color	Hardness
DRIFT	0	95		
PLATTEVILLE	95	102		
PLATTEVILLE	102	108		
PLATTEVILLE	108	120		
ST. PETER	120	210		
ST. PETER SHALE	210	235		
ST. PETER	235	270		
SHAKOPEE DOLOMITE	270	390		
JORDAN SANDSTONE	390	470		
ST. LAWRENCE SHALE	470	480		
ST. LAWRENCE SHALE	480	526		
ST. LAWRENCE SHALE	526	660		
FRANCONIA	660	705		
DRESBACH SHALE &	705	710		
DRESBACH SHALE &	710	780		

Remarks

GAMMA LOGGED 7-26-1985.
THIS WELL WAS REHABED IN 2008.
DEBRIS WAS REMOVED FROM THE BOTTOM OF THE WELL JULY 2008.
OPEN HOLE GROUTED IN 2 LIFTS JULY 25, 2008 & AUGUST 5, 2OO8.
THE TOP OF THE GROUT IS 482 FEET BELOW GROUND LEVEL.

Well Depth 780 ft. **Depth Completed** 482 ft. **Date Well Completed** 00/00/1920

Drill Method Cable Tool **Drill Fluid**

Use community supply(municipal) **Status** Active

Well Hydrofractured? Yes ☐ No ☐ **From** **To**

Casing Type Step down **Joint**
Drive Shoe? Yes ☐ No ☐ **Above/Below**

Casing Diameter		Weight
12 in.	To 286 ft.	lbs./ft.
16 in.	To 95 ft.	lbs./ft.

Open Hole From 286 ft. To 482 ft.

Screen? ☐ **Type** **Make**

Static Water Level
58 ft. land surface Measure 04/22/1955

Pumping Level (below land surface)

Wellhead Completion
Pitless adapter manufacturer Model
☐ Casing Protection ☐ 12 in. above grade
☐ At-grade (Environmental Wells and Borings ONLY)

Grouting Information Well Grouted? ☒ Yes ☐ No ☐ Not Specified

Material	Amount		From	To
well grouted, type unknown	8	Cubic yards	ft.	ft.

Nearest Known Source of Contamination
feet Direction Type
Well disinfected upon completion? ☐ Yes ☐ No

Pump ☐ Not Installed Date Installed
Manufacturer's name
Model Number HP 0 Volt
Length of drop pipe ft Capacity g.p. Typ

Abandoned
Does property have any not in use and not sealed well(s)? ☐ Yes ☐ No

Variance
Was a variance granted from the MDH for this well? ☐ Yes ☐ No

Miscellaneous
First Bedrock Platteville Formation Aquifer Prairie Du Chien-
Last Strat Eau Claire Formation Depth to Bedrock 95 ft
Located by Minnesota Department of Health
Locate Method Digitization (Screen) - Map (1:24,000)
System UTM - NAD83, Zone 15, Meters X 467485 Y 4974179
Unique Number Verification Information from Input Date 10/19/1999

Angled Drill Hole

Well Contractor
Mccarthy Well Co. 27022
Licensee Business Lic. or Reg. No. Name of Driller

Minnesota Unique Well Number

204068

County Hennepin
Quad Hopkins
Quad ID 104B

MINNESOTA DEPARTMENT OF HEALTH

WELL AND BORING REPORT

Minnesota Statutes Chapter 1031

Entry Date 08/24/1991
Update Date 03/10/2017
Received Date

Well Name	Township	Range	Dir	Section	Subsection
HOPKINS 4	117	22	W	13	CCDCBC

Elevation 982 ft. **Elev. Method** LiDAR 1m DEM (MNDNR)

Address

Contact HOPKINS MN 555343
Well HOPKINS MN 55305

Stratigraphy Information

Geological Material	From	To (ft.)	Color	Hardness
DRIFT WITH	0	144		
LIMESTONE	144	147		
LIMESTONE	147	171		
SHALE	171	175	GREEN	
SHALEY SANDSTONE	175	176		
SHALEY SANDSTONE	176	338		
SHALEY SANDSTONE	338	339		
SHAKOPEE-ONEOTA	339	450		
JORDAN SANDSTONE	450	454		
JORDAN SANDSTONE	454	530		
ST. LAWRENCE SHALE	530	535	GREEN	
ST. LAWRENCE SHALE	535	548	GREEN	

Remarks

G.W.Q. NO.0211. GAMMA LOGGED 2-25-1988.
GAMMA LOGGED 2-17-2017. LOGGED FOR MDH.
VIDEO AND HYDROLAB BY MDH 2-17-2017.
VIDEO SHOWS 355 FT. OF 20 IN. CASING.
TWO 4 OR 6 IN. DIAMETER PIPES IN WELL FROM 399 FT. TO 411 FT.
BERGERSON-CASWELL GOING TO TRY TO FISH THEM OUT ON 2-17-2017.
SMALLER DIAMETER HOLE STARTS AT ABOUT 410 OR 411 FT. LOOKS LIKE 10 INCH.
GAMMA LOGGED 3-1-2017 TO DEPTH OF 540.5 FT. LOGGED FOR MDH.
VIDEOED 3-1-2017 BY MDH.

Well Depth 548 ft. **Depth Completed** 548 ft. **Date Well Completed** 05/14/1954

Drill Method Cable Tool **Drill Fluid**

Use community supply(municipal) **Status** Active

Well Hydrofractured? Yes ☐ No ☐ **From** **To**

Casing Type Step down **Joint** Welded
Drive Shoe? Yes ☐ No ☐ **Above/Below** 1.17 ft.

Casing Diameter	Weight	Hole Diameter
20 in. To 355 ft.	lbs./ft.	20 in. To 410 ft.
24 in. To 145 ft.	lbs./ft.	10 in. To 548 ft.

Open Hole From 355 ft. To 548 ft.

Screen? ☐ **Type** **Make**

Static Water Level
159 ft. land surface Measure 02/17/2017

Pumping Level (below land surface)
148 ft. hrs. Pumping at 1500 g.p.m.

Wellhead Completion
Pitless adapter manufacturer Model
☐ Casing Protection ☒ 12 in. above grade
☐ At-grade (Environmental Wells and Borings ONLY)

Grouting Information Well Grouted? ☐ Yes ☐ No ☐ Not Specified

Nearest Known Source of Contamination
feet Direction Type
Well disinfected upon completion? ☐ Yes ☐ No

Pump ☐ Not Installed Date Installed
Manufacturer's name BYRON JACKSON
Model Number HP 0 Volt
Length of drop pipe ft Capacity g.p. Typ Turbine

Abandoned
Does property have any not in use and not sealed well(s)? ☐ Yes ☐ No

Variance
Was a variance granted from the MDH for this well? ☐ Yes ☐ No

Miscellaneous
First Bedrock Platteville Formation Aquifer multiple
Last Strat St.Lawrence Formation Depth to Bedrock 147 ft
Located by Minnesota Department of Health
Locate Method GPS SA On (averaged)
System UTM - NAD83, Zone 15, Meters X 466990 Y 4975893
Unique Number Verification Information from Input Date 10/19/1999

Angled Drill Hole

Well Contractor
Bergerson-Caswell 27058
Licensee Business Lic. or Reg. No. Name of Driller

Minnesota Unique Well Number

204570

County Hennepin
Quad Hopkins
Quad ID 104B

MINNESOTA DEPARTMENT OF HEALTH

WELL AND BORING REPORT

Minnesota Statutes Chapter 1031

Entry Date 08/24/1991
Update Date 03/30/2016
Received Date

Well Name	Township	Range	Dir	Section	Subsection
HOPKINS 5	117	22	W	24	BABABB

Elevation 958 ft. **Elev. Method** 7.5 minute topographic map (+/- 5 feet)

Address

Well 1205 HWY 7 HY HOPKINS MN 55343
Contact HOPKINS MN 55343

Stratigraphy Information

Geological Material	From	To (ft.)	Color	Hardness
CLAY & BOULDERS	0	47		
COARSE GRAVEL	47	51		
SANDY CLAY &	51	98		
SAND & GRAVEL	98	106		
SANDY CLAY	106	127		
SAND & GRAVEL	127	132		
FINE SAND	132	141		HARD
CLAY, STONES & SAND	141	174		
HARD SHALE &	174	183		
HARD SHALE &	183	209		
SHALE	209	217	BROWN	HARD
SHALE & SANDROCK	217	235		
SANDROCK	235	255		
SHALE	255	271		
SANDROCK-SHALEY	271	308		
SANDROCK-SHALEY	308	312		
SHAKOPEE-ONEOTA	312	422		
JORDAN SANDROCK	422	424		
JORDAN SANDROCK	424	484		
ST. LAWRENCE SHALE	484	495		

Remarks

GAMMA LOGGED 3-31-1997.

Well Depth 495 ft. **Depth Completed** 495 ft. **Date Well Completed** 05/00/1967

Drill Method Cable Tool **Drill Fluid**

Use community supply(municipal) **Status** Active

Well Hydrofractured? Yes ☐ No ☐ **From** **To**

Casing Type Telescoping **Joint**
Drive Shoe? Yes ☐ No ☐ **Above/Below**

Casing Diameter		Weight
30 in. To 240 ft.		lbs./ft.
16 in. To 382 ft.		lbs./ft.
24 in. To 321 ft.		lbs./ft.

Open Hole From 382 ft. To 495 ft.

Screen? ☐ **Type** **Make**

Static Water Level

117 ft. land surface Measure 04/26/1967

Pumping Level (below land surface)

121 ft. 4 hrs. Pumping at 2050 g.p.m.

Wellhead Completion

Pitless adapter manufacturer Model

☐ Casing Protection ☐ 12 in. above grade
☐ At-grade (Environmental Wells and Borings ONLY)

Grouting Information Well Grouted? ☐ Yes ☐ No ☐ Not Specified

Nearest Known Source of Contamination

feet Direction Type

Well disinfected upon completion? ☐ Yes ☐ No

Pump ☐ Not Installed Date Installed

Manufacturer's name

Model Number HP 100 Volt

Length of drop pipe ft Capacity g.p. Typ Turbine

Abandoned

Does property have any not in use and not sealed well(s)? ☐ Yes ☐ No

Variance

Was a variance granted from the MDH for this well? ☐ Yes ☐ No

Miscellaneous

First Bedrock St.Peter Sandstone Aquifer Prairie Du Chien-
Last Strat Jordan Sandstone Depth to Bedrock 183 ft
Located by Minnesota Department of Health
Locate Method GPS SA On (averaged)
System UTM - NAD83, Zone 15, Meters X 467294 Y 4975820
Unique Number Verification Information from Input Date 10/19/1999

Angled Drill Hole

Well Contractor

Bergerson-Caswell 27058
Licensee Business Lic. or Reg. No. Name of Driller

Minnesota Unique Well Number

112228

County Hennepin
Quad Hopkins
Quad ID 104B

MINNESOTA DEPARTMENT OF HEALTH

WELL AND BORING REPORT

Minnesota Statutes Chapter 1031

Entry Date 08/24/1991
Update Date 06/01/2017
Received Date

Well Name	Township	Range	Dir	Section	Subsection
HOPKINS 6	117	22	W	24	ABBBAB

Elevation 964.6 **Elev. Method** LiDAR 1m DEM (MNDNR)

Address

Contact HOPKINS MN 55343
Well HOPKINS MN 55343

Stratigraphy Information

Geological Material	From	To (ft.)	Color	Hardness
CLAY, SAND & GRAVEL	0	66		
SAND	66	71	GRAY	
CLAY, SAND & GRAVEL	71	133		
PLATTEVILLE	133	148		
PLATTEVILLE	148	157		
PLATTEVILLE	157	166		
SHALEY SANDROCK &	166	281		
SHALE	281	292	RED	
SHALEY SANDROCK	292	321		HARD
HARD SHALEY	321	333		
LIMEROCK, SANDROCK	333	345		
LIMEROCK	345	356		HARD
SANDROCK	356	440		
SANDROCK	440	545		

Remarks

GAMMA LOGGED 3-12-1998.

Well Depth 545 ft. **Depth Completed** 545 ft. **Date Well Completed** 09/30/1977

Drill Method Cable Tool **Drill Fluid**

Use community supply(municipal) **Status** Active

Well Hydrofractured? Yes ☐ No ☐ **From** **To**

Casing Type Step down **Joint** Welded
Drive Shoe? Yes ☒ No ☐ **Above/Below** 2 ft.

Casing Diameter	Weight
24 in. To 354 ft.	lbs./ft.
30 in. To 132 ft.	lbs./ft.

Open Hole From 354 ft. To 545 ft.

Screen? ☐ **Type** **Make**

Static Water Level

147 ft. land surface Measure 09/29/1977

Pumping Level (below land surface)

150 ft. 16 hrs. Pumping at 3000 g.p.m.

Wellhead Completion

Pitless adapter manufacturer Model

☐ Casing Protection ☒ 12 in. above grade
☐ At-grade (Environmental Wells and Borings ONLY)

Grouting Information Well Grouted? ☒ Yes ☐ No ☐ Not Specified

Material	Amount	From	To
bentonite	50 Cubic yards	0 ft.	354 ft.

Nearest Known Source of Contamination

feet Direction Type

Well disinfected upon completion? ☐ Yes ☐ No

Pump ☒ Not Installed Date Installed

Manufacturer's name

Model Number HP Volt

Length of drop pipe ft Capacity g.p. Typ

Abandoned

Does property have any not in use and not sealed well(s)? ☐ Yes ☐ No

Variance

Was a variance granted from the MDH for this well? ☐ Yes ☐ No

Miscellaneous

First Bedrock Platteville Formation Aquifer Prairie Du Chien-
Last Strat Jordan Sandstone Depth to Bedrock 133 ft
Located by Minnesota Department of Health
Locate Method Digitization (Screen) - Map (1:12,000)
System UTM - NAD83, Zone 15, Meters X 467643 Y 4975815
Unique Number Verification Info/GPS from data Input Date 10/19/1999

Angled Drill Hole

Well Contractor

Bergerson-Caswell 27058 HENRICH, E.
Licensee Business Lic. or Reg. No. Name of Driller

Appendix 2

Water Level Monitoring Plan

The City does not currently have the ability to continually monitor the well water levels. Currently, grab samples are collected at various times throughout the year. However, the data is insufficient to produce well water level hydrographs for Appendix 3. The City is in the process of SCADA upgrades, which will include well water level monitoring transducers. Ultimately, the City will have the capability to monitor the well water levels remotely and track levels and trends. The following table is used as the Water Level Monitoring Plan for the City of Hopkins:

Water Level Monitoring Plan City of Hopkins, MN			
Well Number	Monitoring Location	Date to Start Monitoring Well Water Levels	Water Level Monitoring Frequency*
1	At Well No. 1	January – March 2018	Continuous
4	At Well No. 4	January – March 2018	Continuous
5	At Well No. 5	January – March 2018	Continuous
6	At Well No. 6	January – March 2018	Continuous
• Data point collection will be determined by the City after SCADA upgrades are complete			

Based on the table above, the City will begin to implement water level monitoring starting in 2018 after the SCADA upgrades are completed (this is anticipated to be sometime between January and March of 2018, but it may take longer to implement data recording). The monitoring will occur at the location of each of the four (4) municipal wells. Monitoring will be continuous, meaning that the SCADA system will continuously monitor the well water levels, but data will be recorded on a frequency selected by the City (can be from as frequent as every 15 minutes, to every day, to once per week or month). The City will record data points at least once per month for each well.

Appendix 3

Well Water Level Graphs

The City is in the process of SCADA upgrades, which will include well monitoring transducers. The City does not have sufficient data to produce well water level hydrographs at this time. However, after the SCADA upgrades, the City will have the ability to monitor and track well water levels. See Appendix 2 for the water level monitoring plan.

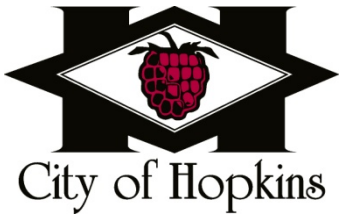
Appendix 4

Capital Improvement Plan

City of Hopkins

CAPITAL IMPROVEMENT PLAN

2017-2021


City of Hopkins

City of Hopkins
1010 First Street South • Hopkins, MN 55343-7573 • Phone: 952-935-8474 • Fax: 952-935-1834
Web address: www.hopkinsmn.com

DATE: December 2016

TO: Honorable Mayor and Members of the City Council

FROM: Mike Mornson, City Manager

SUBJECT: **2017-2021 CAPITAL IMPROVEMENT PLAN**

With this letter I respectfully submit the 2017-2021 Capital Improvement Plan. This five-year planning document represents the combined efforts of city staff, advisory commissions, citizens and the City Council.

The Capital Improvement Plan is a five-year forecast of project needs in the City of Hopkins. It is intended to alert the Council and citizens to the major capital needs on the horizon. The first year of the plan becomes an adopted capital budget and relates almost completely to the operating budget that is approved on a yearly basis. The remaining four year represents an estimate of project needs and funding capabilities of the city. This year's plan does not include proposed equipment purchases. A document relating specifically to equipment replacement needs has been developed into a separate document.

The Capital Improvement Plan is intended to serve as a planning tool and is therefore structured to present a meaningful, long-range perspective of the city's capital programming needs. At the same time, sufficient projected detail is provided to enable those who review the information to make informed decisions on the programming of projects over the next several years.

Please use the information provided to formulate plans, projects and questions. The Capital Improvement Plan can serve the community best by provoking thoughts and actions.

This document was developed by the Finance Department with assistance of all city departments. I want to especially thank all those involved in the development of the Capital Improvement Plan and especially Steve Stadler, Public Works Director, Nate Stanley, City Engineer, Kersten Elverum, Planning and Economic Development Director, and Christine Harkess, Finance Director for their hard work and dedication.

CAPITAL IMPROVEMENT PLAN
2017-2021

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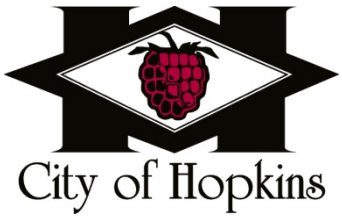
Introduction


City of Hopkins

INTRODUCTION AND PURPOSE

The Capital Improvement Plan is a flexible plan based upon long-range physical planning and financial projections, which schedules the major public improvements that may be incurred by the City over the next five years. Flexibility of the Capital Improvement Plan is established through annual review, and revision if necessary. The annual review assures that the program will become a continuing part of the budgetary process and that it will be consistent with changing demands as well as changing patterns in cost and financial resources. Funds are appropriated only for the first year of the program, which is then included in the annual budget.

The Capital Improvement Plan serves as a tool for implementing certain aspects of the City's comprehensive plan; therefore, the program describes the overall objectives of City development, the relationship between projects with respect to timing and need, and the City's fiscal capabilities.

The Capital Improvement Plan can help assure:

1. A systematic approach to planning and initiating capital projects affording the opportunity to plan the location, timing, and financing of needed public improvements;

2. The development of a realistic program of capital spending within the City's projected fiscal capability to finance such projects, avoiding sharp change in the tax levy or bonded indebtedness;

3. The coordination of public and private improvement projects permitting adequate time for design and engineering to eliminate duplication of effort and expense;

4. The expenditure of public funds that is compatible with the City's adopted Comprehensive Plan;

5. That the public is kept informed of the proposed future projects and expenditures;

6. That private investors are aware of the City's long-range development program so that they may guide their development in a way that is compatible with the City's program;

7. Aid in achieving federal and/or state participation by providing the necessary planning and lead time necessary for a successful application in addition to meeting prerequisites needed for certain federal and state grants.

PROGRAM DESCRIPTIONS

In order to effectively plan for and manage the projects contained in a Capital Improvement Plan, it is necessary to group similar activities into "Program Categories". The City of Hopkins' activities are divided into four program categories which are 1) Utilities, 2) Transportation, 3) Parks, Forestry and Pavilion, and 4) General Public Buildings. The City also includes an outline of proposed expenditures for unscheduled projects. Program categories are explained in the following sections.

UTILITIES PROGRAM

Program Description: The Utilities Program includes the municipal water, municipal sanitary sewer, storm sewer and refuse systems.

Program Goal: Provide reliable, efficient, and safe utility service to all parts of the City with a minimum of adverse effects on the environment.

Subprograms: Water, sanitary sewer, storm sewer, and refuse service.

I. Municipal Water System Subprogram (WA)

A. Subprogram Goal: The goal of the Municipal Water System subprogram is to provide water in sufficient quantities at sufficient pressure, with a high degree of reliability and safety to all parts of the City so as to satisfy the normal demands of the general public for water while at the same time providing sufficient reserves in case of fire emergency or power outages.

B. Objectives:

1. Water quality shall meet the purity standards of the Minnesota Department of Health.

2. Any hydrant on the system shall, under maximum condition, deliver no less than 500 gallons per minute with a residual pressure of 20 pounds per square inch.

3. The system shall be looped to provide maximum reliability.

4. The supply and storage system shall be designed and maintained to have maximum reliability.

II. Municipal Sanitary Sewer Subprogram (SA)

A. Subprogram Goal: The goal of the Municipal Sanitary Sewer subprogram is to promote a healthful environment by collecting all sewage from existing and projected development in a sanitary and economic manner.

B. Objectives:

1. Provide sewer lines of adequate size and grade to collect and transmit all discharge sewage.

2. Prevent sewage from overflowing into the natural environment.

3. Prevent sewage back-ups.

4. Encourage or promote connection of all generators of sewage to the Municipal system.

5. Meet the effluent and infiltration standards of the Metropolitan Waste Control Commission.

III. Storm Sewer Subprogram (SS)

A. Subprogram Goal: Manage and control surface and ground waters in order to protect the man-made and natural environment in a safe and efficient manner.

B. Objectives:

1. Prevent flooding.

2. Prevent damage to property due to erosion.

3. Meet water quality standards established by the controlling regulatory law or authority.

TRANSPORTATION PROGRAM

Program Description: This program includes streets, walkways, traffic signs and signals, vehicular parking facilities, and street lighting.

Program Goal: Provide for the safe and efficient movement of people and goods throughout the city.

Subprograms: Streets, Walkways/Sidewalks, Signs/Signals, Parking Facilities, and Street Lights.

I. Streets Subprogram (ST)

A. Subprogram Goal: The goal of the Streets subprogram is to provide safe, convenient, economic public streets to best facilitate the movement of vehicular traffic.

B. Objectives:

1. Streets should be constructed with permanent surfaces, concrete curb and gutter, and with ancillary storm drainage, to standards established by the City.

2. Streets should be of a size and load capacity consistent with their functional classifications.

3. Timely major repair to preserve the basic capital investment in streets.

II. Walkways/Sidewalks Subprogram (WS)

A. Subprogram Goal: To provide a safe and convenient pedestrian system with incidental recreational benefits.

III. Signs/Signals Subprogram (SI)

A. Subprogram Goal: The goal of the Signs/Signals subprogram is to provide an efficient and orderly system of street and traffic signing so as to promote safe, convenient travel throughout the City.

B. Objectives:

1. Signs and signals should be installed in conformity with the Minnesota Manual on Uniform Traffic Control Devices.

2. Periodic surveys and studies should be made to document the effectiveness of City signing patterns.

IV. Parking Facilities Subprogram (PA)

A. Subprogram Goal: To provide such supporting facilities as will promote maximum use of public parking spaces by employers, employees, customers, and visitors.

B. Objectives:

1. Provide parking facilities for present and anticipated needs of the City of Hopkins.

V. Street Lights Subprogram (SL)

A. Subprogram Goal: To provide a system of street lighting within the City that will promote safe and convenient vehicular and pedestrian travel on City Streets.

B. Objectives:

1. To provide lighting at each street intersection within the City.

2. To provide mid-block street lighting in conformance with the City's street lighting policy, in order to provide equitable, cost efficient lighting.

3. To continually update the system so as to provide energy and cost efficient lighting.

PARKS, FORESTRY AND PAVILION PROGRAM

Program Description: This program includes community parks, neighborhood parks, open spaces, recreational structures and facilities.

Program Goal: The goal of the Park and Recreation Program is to provide facilities for safe, stimulating, and comprehensive leisure time activities of Hopkins citizens.

Subprograms: Neighborhood Facilities, Community Facilities

I. Neighborhood Facilities Subprogram (NF)

A. Subprogram Goals: To acquire ownership or use rights of park sites located to provide convenient walking access to all Hopkins citizens and to develop such sites to provide optimum recreational serviceability consistent with the preservation and enhancement of pleasing aesthetic qualities.

B. Objectives:

1. Acquire property or use rights on those neighborhoods that do not have convenient walking access to neighborhood park facilities.

2. Develop neighborhood park facilities to meet the needs of various user groups.

3. Preserve and maintain existing structures and facilities in order to retain current service and safety levels.

4. Preserve and enhance the aesthetic qualities of neighborhood parks.

II. Community Facilities Subprogram (CF)

A. Subprogram Goals: The goal of the Community Facilities subprogram is to develop, or acquire ownership or use rights of sites which serve the entire City and to provide facilities that serve community-wide needs.

B. Objectives:

1. Acquire sites that have valuable and unique natural characteristics to preserve irreplaceable community resources.

2. Preserve by acquisition, gift, or other arrangement properties that have valuable historic-cultural qualities.

3. Preserve and maintain existing structures and facilities in order to retain current service and safety levels.

4. Construct or acquire structures and facilities necessary to meet the changing needs of the community.

GENERAL PUBLIC BUILDINGS PROGRAM

Program Description: The General Public Buildings Program includes all municipal buildings except those provided for in the Utility and Park Facilities Program.

Program Goal: Provide buildings that are adequate and convenient for the efficient accommodation of City functions.

Subprograms: Administrative Offices, Maintenance Facilities, Fire Facilities, Community Center.

I. Administrative Offices Subprogram (AO)

A. Subprogram Goal: The goal of the Administrative Offices subprogram is to provide facilities for the efficient and safe conduct of legislative and administrative functions of the City.

B. Objectives:

1. Maintain current facilities in a state of good repair so as to maximize cost effectiveness and avoid costly repair.

2. Upgrade facilities as necessary to provide for the efficient, safe, and effective provision of the City services.

II. Maintenance Facilities Subprogram (MF)

A. Subprogram Goal: The goal of the Maintenance Facilities subprogram is to provide facilities for the efficient and safe conduct of City maintenance functions.

B. Objectives:

1. Maintain current facilities in a state of good repair so as to maximize cost effectiveness and avoid costly repair.

2. Upgrade facilities as necessary to provide for the efficient, safe, and effective provision of City services.

III. Fire Facilities Subprogram (FF)

A. Subprogram Goal: To provide a fire station, or stations, for storage of Fire Department equipment and for the training and meetings of volunteer fire fighters to provide prompt and efficient protection to life and property.

B. Objectives:

1. Provide a maximum four-minute daytime and three-minute nighttime response to all points within the City.

2. Meet objective 1 through the use of volunteers.

IV. Community Center Subprogram (CC)

A. Subprogram Goal: To provide a community facility, or facilities, which meet the social, recreational, and cultural needs of all citizens, particularly senior citizens.

B. Objectives:

1. Maintain current facilities in a state of good repair so as to maximize cost effectiveness and avoid costly repairs.

2. Construct or acquire structures and facilities necessary to meet the changing needs of the City.

3. Upgrade facilities as necessary to provide for efficient, safe, and effective provision of City services.

ECONOMIC DEVELOPMENT PROGRAM

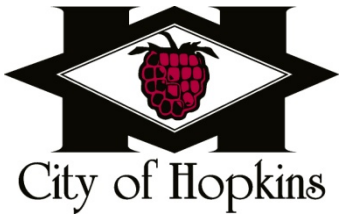
Program Description: This program includes redevelopment projects that have been identified through adopted plans and goals of the City of Hopkins.

Program Goal: To facilitate the redevelopment of key sites in order to achieve the state objectives of the project.

Objectives:

1. Elimination of blight or blighting conditions
2. Creation of jobs
3. Increase property value(s)
4. Catalyst of additional redevelopment
5. Environmental clean-up
6. Increase transit-oriented development around LRT stations

Sources of Funding


City of Hopkins

SOURCES OF FUNDING

In order to fund the anticipated Capital Improvements, the City must draw upon a variety of sources. Many of these sources have a specific or "dedicated" purpose (i.e., the water utility fund will finance water main installation but not a street overlay). Therefore, it is important to identify the uses and limitations of the various revenue sources.

CURRENT REVENUES - GENERAL FUND (CR)

This represents funding from current year revenue collections in the General Fund that support operations and capital outlay expenditures. Revenue sources include property tax levies, state aid payments, and various permit and license fees. This source of funding is generally used only for operations and small capital purchases.

GENERAL FUND RESERVES (GR)

Reserves of the general fund are the funds remaining after subtracting cash flow and emergency amounts from the City's cash balance, sometimes referred to as "fund balance". The use of General Fund Reserves is not recommended for Capital Improvements without significant staff and Council review.

COMMUNICATION (formerly Cable TV) FUND (CT)

This funding source consists of franchise fees received from the local Cable TV company, in excess of the amounts earmarked for the access programming and commission budgets. Expenditures are limited to cable-related facilities, or must have a cable related purpose.

ECONOMIC DEVELOPMENT FUND (ED)

This funding source was established by the Housing and Redevelopment Authority (HRA) and the City of Hopkins, to provide funding for the purpose of promoting development and redevelopment within the City. The Economic Development fund is a revolving fund administered by the HRA, intended to provide an ongoing funding source used to reduce or extend the long term debt involved with development and redevelopment activities. The HRA reviews all proposed uses of this fund on an individual basis.

GRANT-IN-AID (GA)

This is aid received from either the Federal or State government. In many cases, grants are made on matching basis, which means the City shares a portion of the costs of the project being funded.

MUNICIPAL STATE AID STREETS (MS)

This funding source represents funds received from the State of Minnesota to support construction and maintenance of State Aid classified municipal streets. State law defines the types and limits of State Aid Streets expenditures.

PERMANENT IMPROVEMENT REVOLVING/GENERAL OBLIGATION BONDS (PI)

Improvements with a life of several years may be financed from the proceeds of a General Obligation Bond Issue. Law limits the total debt that can be incurred under this method of financing.

With some exception, General Obligation Bonds are generally subject to a referendum process. Examples of projects, which may not require a referendum, are those financed through the use of special assessments where at least 20 percent of the project cost is assessed to the benefiting property owners. The remaining portion not assessed can be financed through general obligation bonds repaid by a tax levy.

PRIVATE SECTOR FUNDING (PF)

This funding source consists primarily of payments made by developers for the purchase of land, the installation of water, sewer, or streets or other related expenditures. It can also refer to donations made to the City by individuals or groups.

OTHER GOVERNMENTAL UNITS (GU)

These are funds received from Hennepin County, adjacent communities, etc. for projects that also benefit a jurisdiction other than the City of Hopkins.

REVENUE BONDS (RB)

These are bonds issued for improvements made for specific revenue producing facility or operation. The debt incurred is repaid from the revenue generated by the facility. If the revenue generated is insufficient, then the difference becomes an annual obligation of the taxpayers and becomes an additional tax levy. These are generally not subject to referendum.

REAL ESTATE SALES FUND (RE)

This funding source consists primarily of funds built up from the sale of City owned property. To date, the fund has been used for building improvements. Because the sale of both general City property and park/recreation property are accumulated into this fund, earmarking a portion for recreational purposes may be justified.

SPECIAL ASSESSMENT (SA)

A number of projects may be realistically financed using Special Assessment to pay the ultimate cost. Almost any project can potentially be financed using the assessment process. In each case it is necessary to make a determination that the assessed property will benefit by the amount of the assessment.

The cost of street reconstruction is shared by the property owner and the City. Special assessments to individual properties are capped per city policy. Concurrent improvement costs to the utility systems are assumed by the respective utility funds.

TAX INCREMENT FINANCING (TF)

This funding source results from the tax value of new development that is "incrementally" greater than the existing tax value. Typically, bonds are sold based on the assumption that the higher tax receipts will retire the bonds. However, the use of TIF funds through a "pay as you go" method has become more common. This type of funding can be used for public improvements within a redevelopment district to support the goals of redevelopment, specifically the elimination of blighted conditions. Approval of the Hopkins HRA should be anticipated prior to the commitment of these funds. State law strictly regulates the use of these funds.

WATER FUNDS (WF)

Water funds consist of revenue generated from the sale of water. The cost of operations plus system (capital) improvements determines the ultimate charge levied for the service provided.

SANITARY SEWER FUNDS (SF)

Sanitary sewer funds consist of revenue generated from charges made for sewage disposal. The cost of operations plus system (capital) improvements determines the ultimate charge levied for the service provided.

STORM SEWER UTILITY REVENUES (SU)

Storm sewer funds consist of revenue generated by charging storm water drainage fee to parcels of land for the availability and use of municipal storm sewer facilities. Expenditures from this funding source are related to drainage facilities.

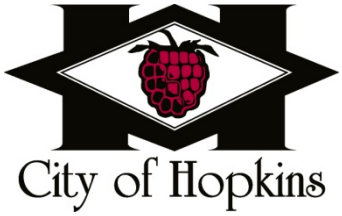
PAVILION FUND (PA)

Pavilion Funds consist of revenues generated from rental fees collected from users of the Pavilion. These funds are utilized to pay for operating, and capital expenditures.

Funding Sources

Communication (formerly Cable TV) Fund	CT
Current Revenues – General Fund	CR
General Fund Reserves	GR
Economic Development Fund	ED
Grant-In-Aid	GA
Housing and Redevelopment Authority	HRA
Municipal State-Aid Streets	MS
Other Government Units	GU
Park Dedication Fund	PDF
Pavilion Fund	PA
Permanent Improvement Revolving/General Obligation Bonds	PI
Private Sector Funds	PF
Real Estate Sales Fund	RE
Revenue Bonds	RB
Sanitary Sewer Fund	SF
Special Assessment	SA
Storm Sewer Fund	SU
Tax Increment Financing	TF
Water Fund	WF

Summary of Impacts on Major Funding Sources


City of Hopkins

SUMMARY OF PROJECT IMPACTS ON MAJOR FUNDING SOURCES

CURRENT REVENUES/GENERAL FUND RESERVES

Expenditures for 2016 are budgeted at an increase of 4.66% over the 2015 budget. The 2016 budget was compiled with an average 2% salary increase. The 2016 budget has no levy limits and the City will receive approximately $413,900 in LGA. The tax levy is the major source of revenues (82%) for the General Fund and therefore presents a challenge when levy limits are in place.

Unassigned fund balance in the General Fund totals $5,439,799 at the end of 2015 and is projected to remain at that level for 2016 or increase slightly. The State Auditor's Office recommends no less than five month of operating expenditures in reserves. For 2016 five months of expenditures would total $4,948,221 or 41.6%. At January 1, 2016 the unassigned fund balance was at 45.8% of budgeted expenditures.

PERMANENT IMPROVEMENT REVOLVING FUND, (P.I.R.) - G.O. DEBT

Funding from bonds is used to reimburse the P.I.R. fund for public improvement projects, which have been previously expended. The debt is funded by special assessment collections and city tax levies over a ten to fifteen year period. Bonds totaling $3,800,000 were sold in 2016 to fund the 2016 street improvement projects. The next bond sale is scheduled for 2017 and will be for the Park Valley and Peacefully Valley neighborhood street projects. These bonds are expected to total approximately $7,700,000.

The P.I.R. fund has completed substantial projects over the last three and this pace is expected to continue with scheduled projects for 2017 totaling $7,742,8000 and future projects in the years 2018-2021 totaling over $17 million. Projects scheduled for 2017 include the Park Valley, Peaceful Valley street reconstruction projects, Eight Avenue Artery project, pedestrian and bicycle access improvements, Blake Road corridor improvements along with street overlay and street sign management programs. The funding is provided for these projects by special assessments and PIR/Bonding.

In the years 2017-2021 as mentioned above, the city has an aggressive residential street improvement schedule planned, all of which will require bonding.

MUNICIPAL STATE AID FUND

Funding for municipal state aid road projects comes from state MSA funding and is drawn down as projects are done. State funding is not sufficient for current planned projects as the City has been aggressive in doing MSA projects. In the queue for reimbursement is a request for is the Shady Oak project. In late 2014 we received an advance on the Shady Oak project which essentially cleared up our receivable backlog for Excelsior Blvd and Minnetonka Mills Road. This leaves Shady Oak Road as the only project in the funding queue.

Currently the only MSA project scheduled is lighting, landscaping and street improvements on County Road 3 from Shady Oak Road to Meadowbrook Road. This is programed for 2021.

CAPITAL IMPROVEMENT FUND

Funding for these improvements comes from a general tax levy that was implemented in 2005. Upon approval of the Financial Management Plan the levy was scaled back in 2015 to allow for other needs to take precedence. The levy is restored in 2016 and increased in 2017. Projects scheduled in 2017 total $76,500 and include upgrades to the public works lunchroom, planning for the city hall lobby upgrade, and Activity Center gym enhancements. Beginning in 2018 projects exceeds available funding, and therefore an interfund loan will be considered with a 4-year payback. The projects currently are placed in the CIP but will not be done if funding is not secured.

PARK IMPROVEMENT FUND

The source of funding for this fund is development fees charged to developers for park development, in addition to franchise fees from gas and electric services. The franchise fees are expected to supply approximately $295,000 to the fund for much needed park projects. Developer payments are uncertain as they are dependent on future development and redevelopment in the city, however there are two projects in the works that will result in developer fees over the next few years. Projects scheduled for 2017 total $1,586,5000 and include improvements for Burnes, Hilltop, Maetzold, and Interlachen Parks along with improvements to Shady Oak Beach.

WATER FUND

Implementing the rates as proposed in the Utility Master Plan (UMP) in 2017 along with a bond sale in 2017 provide the funding needed for projects scheduled for 2017. Bonds will need to be sold each year thereafter in which there are water projects associated with the residential street improvement program.

Projects planned for 2017 include $1,500,000 in water main improvements done in conjunction with street improvements, and water improvements along the Eight Avenue Artery. The public works facility improvement project annual transfer of $45,000 was reinstated in 2014 and goes until 2023.

The City along with their financial advisor prepared a comprehensive rate study which will be implemented on January 1, 2017. The city is implementing a tiered rate structure that is a significant change from past practice. Tiered rates will allow the city to comply with MN Department of Natural Resource requirements for conservation pricing of rates and provide funds for operations, debt service and capital outlay.

SANITARY SEWER FUND

Implementing the rates as proposed in the Utility Master Plan (UMP) in 2017 along with a bond sale in 2017 provide the funding needed for projects scheduled for 2017. Bonds will need to be sold each year thereafter in which there are water projects associated with the residential street improvement program.

Projects planned for 2017 include $1,300,000 in sewer main improvements done in conjunction with street improvements and along the Eight Avenue Artery along with reconstruction of Lift Station No. 7.. In addition to the scheduled capital expenditures, the Metropolitan Waste Control Commission is projecting annual increases in its disposal charges to local governments. The public works facility improvement project annual transfer of $50,000 was reinstated in 2014 and goes until 2023.

The City along with their financial advisor prepared a comprehensive rate study which will be implemented on January 1, 2017. Rates will be increasing from $4.30 to $5.81 per $1,000 gallons of water used. This rate increase will provide funds for operations, debt service and capital outlay.

STORM SEWER FUND

Bonds will be sold in 2015 for the 2015 storm water management project. These bonds issues along with current revenues should provide the needed funding for scheduled projects. Bonds will need to be sold in 2016 and each year thereafter in which there are water projects associated with the residential street improvement program.

Projects planned for 2017 include $600,000 in sewer main improvements done in conjunction with street improvements, Westbrook Way/Smetana Road drainage improvements and alley repairs for storm water management. The public works facility improvement project will cost the storm sewer enterprise $25,000 a year for twenty years (2004–2023).

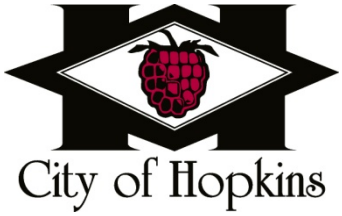
The most recent rate increase pursuant to the 2007 Utility Master Plan was done in 2009. This rate increase is expected to support the storm sewer system well into the future and currently no additional rates increases are proposed.

PAVILION FUND

This facility built in 1990 is starting to need repairs and replacement to areas that are heavily used; capital projects scheduled for 2017 include $140,000 for the Pavilion roof replacement and $200,000 in engineering fees to prepare plans and specs for the refrigeration system replacement which is scheduled for 2018. In 2018-2021 facility projects totaling $2,717,000 will be needed. A major project coming up is the replacement of the refrigeration system 2018 at a cost of $2.4 million.

A Financial Management Plan was developed in 2014 to address the growing capital needs of the Pavilion along with other funds. A levy was put in place for 2015 and 2016 to address the growing capital needs and may be continued in the future depending on the various funds levy needs.

Cash Flow Statements


City of Hopkins

PARK CAPITAL IMPROVEMENTS FUND (301) **11/16/2016**

	Actual 2015	Projected 2016	Projected 2017	Projected 2018	Projected 2019	Projected 2020	Projected 2021
Working Capital Beginning Year	141,306	258,547	1,595,722	1,566,394	1,337,686	770,616	728,035
Revenues:							
Taxes (from matured Park Bonds)							
Interest	8,743	4,266	47,872	46,992	40,131	23,118	21,841
Dedication fees	0	0	0	0			
Moline Apts		180,000					
Village Apts			120,000				
Cold Storage Site Redevelopment				300,000			
Joint Rec refunds		6,000	6,000	6,000	6,000	6,000	6,000
Franchise Fees (gas/elec) 2014 incr	87,148	85,300	85,300	85,300	85,300	85,300	85,300
Franchise Fees (gas/elec) 2012 incr	206,227	210,000	210,000	210,000	210,000	210,000	210,000
Transfer in Franchise Fees		316,970					
Bond Proceeds	1,504,382	1,150,000	1,200,000				
Hennepin County Grant							
Cottageville Park Donations		34,689					
BWSR Grant		425,250					
CDBG Funds		180,000					
PIR Funding (Transfer In)	225,000						
Water Funding (Transfer In)	37,500						
Sewer Funding (Transfer In)	37,500						
Storm Sewer Funding (Transfer In)	265,000						
Donations - general	989						
Donations - benches							
Total Revenues	2,372,489	2,592,475	1,669,172	648,292	341,431	324,418	323,141
Expenditures:							
C.I.P. Projects	**101,269**	**858,300**	**1,586,500**	**210,000**	**691,500**	**150,000**	**40,000**
Cottageville Property Acquisition							
Cottageville Park Playground	338,835						
Cottageville Park House Demo	12,107						
Cottageville Park Improvements	1,796,036			**450,000**			
Cottageville Park Pavilion		**380,000**					
Bond Payment Contribution (2015 Bonds)		10,000	10,000	10,000	10,000	10,000	10,000
Bond Payment Contribution (2016 Bonds)			95,000	100,000	100,000	100,000	100,000
Bond Payment Contribution (2017 Bonds)				100,000	100,000	100,000	100,000
Skate Park commitment	7,000	7,000	7,000	7,000	7,000	7,000	7,000
Total Expenditures	2,255,248	1,255,300	1,698,500	877,000	908,500	367,000	257,000
Working Capital Year End	**258,547**	1,595,722	1,566,394	1,337,686	770,616	728,035	794,176

FACILITIES & BUILDINGS **11/16/2016**
CAPITAL IMPROVEMENTS FUND (305)

	Actual 2015	Projected 2016	Projected 2017	Projected 2018	Projected 2019	Projected 2020	Projected 2021
Working Capital Beginning Year	255,974	67,621	(265,588)	67,912	60,252	12,553	4,616
Revenues:							
Interest	1,991	338	0	340	301	63	23
Transfers from General Fund		125,000	100,000	100,000	100,000	100,000	100,000
Transfers from Enterprise Funds		400,000					
Transfer from Real Estate Fund	128,697						
Interfund Loan				350,000			
Tax Levy (red per FMP)	52,311	125,000	310,000	100,000	100,000	100,000	100,000
Total Revenues	182,999	650,338	410,000	550,340	200,301	200,063	200,023
Expenditures:							
C.I.P. Projects	**371,352**	**983,547**	**76,500**	**558,000**	**223,000**	**118,000**	**45,000**
Repay Interfund Loan					25,000	90,000	150,000
Transfer to General Fund							
Total Expenditures	371,352	983,547	76,500	558,000	248,000	208,000	195,000
Working Capital Year End	**67,621**	(265,588)	67,912	60,252	12,553	4,616	9,639

COMMUNICATIONS (Cable TV) - WORKING CAPITAL PROJECTIONS

	Actual 2015	Projected 2016	Projected 2017	Projected 2018	Projected 2019	Projected 2020	Projected 2021
Working Capital Beginning Year	490,071	532,952	542,372	533,381	496,272	504,295	507,488
Revenues:							
Franchise Fees	232,667	225,000	225,000	225,000	225,000	225,000	225,000
Franchise Fees - PEG Fees	35,059	30,000	30,000	30,000	30,000	30,000	30,000
Interest	6,047	2,132	2,169	2,134	1,985	2,017	2,030
Total Revenues	273,773	257,132	257,169	257,134	256,985	257,017	257,030
Expenditures:							
Expense	143,972	148,292	152,740	157,323	162,042	166,903	171,911
Transfer Out	86,920	86,920	86,920	86,920	86,920	86,920	86,920
Capital Outlay	**-**	**12,500**	**26,500**	**50,000**	**-**	**-**	**-**
Total Expenditures	230,892	247,712	266,160	294,243	248,962	253,823	258,831
Change in available funds	42,881	9,420	(8,991)	(37,109)	8,023	3,194	(1,801)
Working Capital Ending Year	**532,952**	**542,372**	**533,381**	**496,272**	**504,295**	**507,488**	**505,688**

11/16/2016

MUNICIPAL STATE AID FUND (302)

	Actual 2015	Projected 2016	Projected 2017	Projected 2018	Projected 2019	Projected 2020	Projected 2021
Working Capital Beginning Bal	513,074	422,235	424,346	426,467	428,600	830,743	1,234,897
Revenues:							
State MSA Funds, projects	600,766	0	0	0	400,000	400,000	400,000
State MSA Advance							
Interest Earnings	18,630	2,111	2,122	2,132	2,143	4,154	6,174
Hennepin County -SOR Land Reimb							
Shady Oak Rd - Land Sale proceeds							
Bond issue							
Total Revenues	619,396	2,111	2,122	2,132	402,143	404,154	406,174
Transfer Out for Projects							
CIP State Aid Projects							
Highway 7 & 5th Ave Traffic Signal							
Shady Oak Rd - Co Rd 61	542,662						
Shady Oak Rd ROW Purchase							
Shady Oak Rd Land Acqusition							
Mainstreet Rehabilitation	109,935						
ARTery - 8th Ave S							
County Road 3 - EB							700,000
Sixth St S (11th - 12th Ave)							
Landscape - Excelsior Blvd Median	25,424						
Misc Expenses	32,214						
Total Expenditures	710,235	0	0	0	0	0	700,000
Working Capital Ending Balance	**422,235**	424,346	426,467	428,600	830,743	1,234,897	941,071
includes cash, interest rcvbl, & A/P							

Cash Flow Analysis **P.I.R. FUND (501)** **11/16/2016**

	Actual 2015	Projected 2016	Projected 2017	Projected 2018	Projected 2019	Projected 2020	Projected 2021
Working Capital Beginning Year	2,785,317	442,413	422,657	364,757	246,274	91,289	18,654
Revenues:							
Property Taxes	1,260						
Special Assessment Revenues - from levy	53,803	55,000	50,000	50,000	50,000	50,000	55,000
Special Assessment Revenues - Prepaid							
County Grant	122,929						
State Gas Tax	120,554						
Interest	43,183	4,424	1,902	1,641	1,108	411	84
Bond Proceeds	5,361,851	3,800,000	7,700,000	4,300,000	4,800,000	4,200,000	4,300,000
Total Revenues	5,703,580	3,859,424	7,751,902	4,351,641	4,851,108	4,250,411	4,355,084
Expenditures:							
C.I.P. Projects	**6,338,523**	**2,505,000**	**5,678,800**	**3,365,300**	**3,290,300**	**2,220,000**	**2,245,000**
C.I.P. Projects - Special Assm		**1,310,000**	**2,064,000**	**900,000**	**1,500,000**	**1,885,000**	**1,885,000**
Transfers for SA Debt collected thru Assm							
Debt Service Transfers - 2010A - Imprv	61,358	64,180	67,002	69,824	80,794	83,045	69,238
Debt Service Transfers (prepaids to DS funds)							
Debt Fund - Zion Special Assessments	22,482						
Transfer Out - Bond Proceeds to Enterprise Funds	1,399,121						
Transfer for Cottageville Park	225,000						
Total Expenditures	8,046,484	3,879,180	7,809,802	4,470,124	5,006,094	4,323,045	4,334,238
Working Capital Year End	**442,413**	422,657	364,757	246,274	91,289	18,654	39,500
Total Projects Scheduled (CIP & SA)	**6,338,523**	**3,815,000**	**7,742,800**	**4,265,300**	**4,790,300**	**4,105,000**	**4,130,000**

WATER FUND - WORKING CAPITAL PROJECTION

11/16/2016

	Actual 2015	Projected 2016	Projected 2017	Projected 2018	Projected 2019	Projected 2020	Projected 2021
Working Capital Beginning Year	73,581	(176,360)	(100,308)	283,577	830,552	1,351,182	1,839,135
Revenues:							
Operating Revenues	1,347,992	1,401,911	2,035,905	2,147,880	2,266,014	2,390,644	2,522,130
Other	166,245	165,235	172,272	179,661	187,418	195,564	204,116
Interest	2,555	0	0	0	0	0	0
Grants/Other Govt Funding							
Gain on Sale of Asset							
Trsansfer In - Bond Proceeds	496,275						
Bond Issuance		2,200,000	1,700,000	1,550,000	1,760,000	1,500,000	1,500,000
Total Revenues	2,013,066	3,767,146	3,908,177	3,877,541	4,213,432	4,086,208	4,226,246
Expenditures:							
Operation Expense	1,396,476	1,111,244	1,150,027	1,190,249	1,231,969	1,275,245	1,320,140
Other Exp - bond issuance-fiscal fee							
Other Exp - int on current bonds	50,003	0	0	0			
Other Exp - int on refunded bonds							
Other Exp - int on 2009 bonds		21,350	19,725	17,887	15,963	13,900	11,600
Other Exp - int on 2012 bonds		12,529	11,629	10,729	9,829	8,929	7,979
Other Exp - int on 2013 bonds		16,431	15,431	14,381	13,281	12,181	11,081
Other Exp -est interest on Future Bonds		*13,000*	*153,000*	*258,000*	*328,000*	*438,000*	
Equipment Replacement Items		**35,000**	**222,000**			**0**	**0**
Capital Improvements	**376,710**	**2,270,000**	**1,700,000**	**1,550,000**	**1,768,000**	**1,510,000**	**1,500,000**
Principal Bond payment							
Principal Bond payment - refunded	180,000						
Principal Bond pymnt - 2009 debt	50,000	50,000	50,000	55,000	55,000	55,000	60,000
Principal Bond pymnt - 2012 debt	40,000	45,000	45,000	45,000	45,000	45,000	50,000
Principal Bond pymnt - 2013 debt	50,000	50,000	50,000	55,000	55,000	55,000	55,000
Transfer for 2014A Debt Payment	17,800	17,800	17,800	17,800	17,800	17,800	17,800
Principal Bond pymnt - Future Debt		*3,740*	*44,680*	*71,520*	*89,960*	*112,200*	
Transfer Out - Cottageville Park	37,500						
Capital Lease (PW Facility) (1)	45,000	45,000	45,000	45,000	45,000	45,000	45,000
Total Expenditures	2,243,489	3,691,094	3,524,292	3,330,566	3,692,802	3,598,255	3,078,600
Change in available funds	(230,423)	76,052	383,885	546,975	520,630	487,953	1,147,646
Inventory change	(16,182)						
Bond Premium/Discount Exp	(3,335)						
Working Capital Ending Year	**(176,360)**	**(100,308)**	**283,577**	**830,552**	**1,351,182**	**1,839,135**	**2,986,781**

(1) Capital Lease moved to Storm Sewer - back to water fund in 2014

Rate History *(water/sprinkler)*

1984 $0.85
1993 $1.05
1997 $1.10
2000 $1.20
2005 $1.40
Per Utility Master Plan (10/07)
2008 $1.65
2009 $1.86
2010 $1.90
2011 $1.94/2.40 - not incr, left at $1.90
2012 $1.96 / 2.40
2013 $2.02 / 2.40
2014 $2.10 / 2.50
2015 $2.18 / 2.60
2017 Tiered Rate Structure Implemented

	Monthly Water Rates				
	Current	Proposed Rates			
	2016	2017	2018	2019	2020
Flat Rates					
Residential - 5/8" Meter		2.39	2.55	2.72	2.91
Residential - 1" Meter		2.39	2.55	2.72	2.91
Apt/Commercial - 1 1/2" to 2" Meter		4.77	5.09	5.44	5.80
Apt/Commercial - 3" Meter		7.16	7.64	8.16	8.71
Apt/Commercial - 4" Meter		9.54	10.18	10.87	11.61
Apt/Commercial - 6" Meter		14.31	15.28	16.31	17.41
Residential and Multi Family					
All usage	2.18				
0 - 3,000 gallons		2.44	2.60	2.78	2.97
3,001 - 5,000 gallons		2.81	3.00	3.20	3.42
Over 5,000 gallons		3.23	3.45	3.68	3.93
Commercial					
All usage	2.18				
0-10,000 gallons		2.33	2.49	2.66	2.83
10,001 -20,000 gallons		2.68	2.86	3.05	3.26
Over 20,000 gallons		3.08	3.29	3.51	3.75
Irrigation					
All usage	2.60	2.92	3.12	3.33	3.55

SEWER FUND - WORKING CAPITAL PROJECTION 11/16/2016

	Actual 2015	Projected 2016	Projected 2017	Projected 2018	Projected 2019	Projected 2020	Projected 2021
Working Capital Beginning Year	116,280	385,285	575,986	664,282	1,247,100	1,797,676	2,444,650
Revenues:							
Operating Revenues	2,172,278	2,496,600	2,917,804	3,078,283	3,247,589	3,426,206	3,614,648
Grants/Other Govt Funding							
Other	150	20,000	20,000	20,000	20,000	20,000	0
Interest	2,270	963	1,440	1,661	3,118	4,494	6,112
Transfer In - Bond Proceeds	297,004						
Bond Issuance	0	650,000	1,300,000	1,000,000	1,000,000	760,000	750,000
Total Revenues	2,471,701	3,167,563	4,239,244	4,099,944	4,270,707	4,210,700	4,370,760
Expenditures:							
Operation Expense	519,685	589,319	609,053	629,484	650,634	672,533	695,207
MWCC Charges (3% inflation)	1,321,360	1,361,001	1,401,831	1,443,886	1,487,203	1,531,819	1,577,774
Other - Bond Issuance-fiscal fees							
Interest Expense	39,084	26,575	24,463	22,187	19,825	17,200	14,300
Interest Expense - 2012 Debt		2,749	2,549	2,349	2,149	1,949	1,749
Interest Expense - 2013 Debt		9,318	8,719	8,119	7,519	6,919	6,319
Interest Expense - Future Debt		*19,500*	*57,200*	*83,300*	*107,402*	*122,306*	
Equipment Replacement Items		**33,600**	**531,000**				**0**
Capital Improvements	**106,249**	**762,000**	**1,300,000**	**1,025,000**	**1,053,000**	**760,000**	**750,000**
Principal Bond payment (2009)	60,000	65,000	65,000	65,000	70,000	70,000	75,000
Principal Bond payment (2012)	10,000	10,000	10,000	10,000	10,000	10,000	10,000
Principal Bond payment (2013)	30,000	30,000	30,000	30,000	30,000	30,000	30,000
Transfer for 2014A Debt Payment	17,800	17,800	17,800	17,800	17,800	17,800	17,800
Principal Bond payments Future Deb	*0*	*0*	*43,333*	*130,000*	*196,600*	*263,200*	
Transfer Out - Cottageville Park	37,500						
Capital Lease (PW Facility) (1)	50,000	50,000	50,000	50,000	50,000	50,000	50,000
Total Expenditures	2,191,680	2,976,862	4,150,948	3,517,125	3,720,131	3,563,726	3,228,148
Change in available funds	280,021	190,701	88,296	582,819	550,575	646,974	1,142,611
Inventory change	(9,424)						
Bond Premium/Discount Exp	(1,592)						
Working Capital Ending Year	**385,285**	**575,986**	**664,282**	**1,247,100**	**1,797,676**	**2,444,650**	**3,587,261**

(1) Capital Lease moved to Storm Sewer - back in fund in 2014

Rate History
1983 $1.50
1989 $1.75
1991 $2.00
1993 $2.50
1999 $2.25 Rate DECREASE
2006 $2.50 rate increase
Per Utility Master Plan (10/07)
2008 $2.70
2009 $3.10
2010 $3.40
2011 $3.70 - act 3.60
2012 $3.75
2013 $3.90
2014 $4.10
2015 $4.30
Rates per 2016 Utility FMP
2017 $5.81
2018 $6.12
2019 $6.46
2020 $6.82

STORM SEWER FUND - WORKING CAPITAL PROJECTION **11/16/2016**

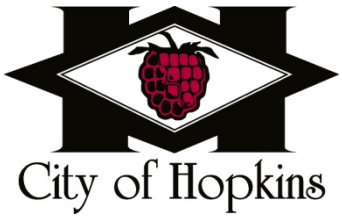
	Projected 2015	Projected 2016	Projected 2017	Projected 2018	Projected 2019	Projected 2020	Projected 2021
Working Capital Beginning Year	508,676	755,174	1,171,790	1,459,343	1,684,310	898,580	1,137,846
Revenues:							
Operating Revenues	799,306	799,306	799,306	799,306	799,306	799,306	799,306
Other	6,236	5,000	5,000	5,000	5,000	5,000	5,000
Interest	8,149	1,888	2,929	3,648	4,211	2,246	2,845
Transfer In - PY Cottageville Park Exp	282,119						
Transfer In - Bond Proceeds	605,843						
Bond Issuance		500,000	900,000	350,000	500,000	700,000	700,000
Total Revenues	1,701,653	1,306,194	1,707,235	1,157,954	1,308,517	1,506,552	1,507,151
Expenditures:							
Operation Expense	135,296	138,002	140,762	143,577	146,449	149,378	152,365
Other - Bond Issuance-fiscal fees							
Bond Interest - existing	27,901						
Bond Interest - 2009 refunded bonds							
Bond Interest - 2010 bonds		13,623	12,485	11,173	9,629	7,805	5,765
Bond Interest - 2012 bonds		5,281	4,881	4,481	4,081	3,681	3,281
Bond Interest - 2013 bonds		7,338	6,888	6,388	5,888	5,388	4,888
Interest Expense - Future Debt		*15,000*	*41,000*	*48,700*	*60,200*	*76,700*	
Capital Outlay (per ERP)		0	0	0	0	0	0
Cottageville Property purchase							
Cottageville Park Storm Water Mgmt							
Capital Improvements	**752,892**	**561,000**	**1,026,000**	**471,000**	**1,592,000**	**710,000**	**700,000**
2009 Principal Bond payment	125,000						
2010 Principal Bond payment	70,000	70,000	70,000	70,000	75,000	80,000	80,000
2012 Principal Bond payment	20,000	20,000	20,000	20,000	20,000	20,000	20,000
2013 Principal Bond payment	20,000	20,000	25,000	25,000	25,000	25,000	25,000
Transfer for 2014A Debt Payment	14,334	14,334	14,334	14,334	14,334	14,334	14,334
Principal Bond payments Future Debt	*0*	*0*	*33,333*	*93,333*	*116,667*	*150,001*	
Transfer Out - Cottageville Park	265,000						
Capital Lease - PW Facility (1)	25,000	25,000	25,000	25,000	25,000	25,000	25,000
Total Expenditures	1,455,424	889,578	1,419,683	932,986	2,094,247	1,267,287	1,030,633
Change in available funds	246,229	416,616	287,552	224,968	(785,731)	239,266	476,517
Inventory change	413						
Bond Premium/Discount Exp (net)	(144)						
Working Capital Ending Year	**755,174**	**1,171,790**	**1,459,343**	**1,684,310**	**898,580**	**1,137,846**	**1,614,363**

Rate History (per month)
1989 $4.75 per quarter
1991 $6.00 per quarter
1992 $2.50
1993 $3.00
1998 $3.20
1999 $4.00
2006 $4.50
2009 $5.00

PAVILION - ICE ARENA - WORKING CAPITAL PROJECTIONS **11/16/2016**

	Projected 2015	Projected 2016	Projected 2017	Projected 2018	Projected 2019	Projected 2020	Projected 2021
Working Capital Beginning Year	(45,591)	20,731	(54,646)	(327,645)	440,042	258,406	131,101
Revenues:							
Operating Revenues	392,306	356,000	460,449	483,471	507,645	533,027	559,679
Leases							
Levy per FMP	64,160	65,000	-	65,000	65,000	65,000	65,000
Other	5,925	31,100	20,000	20,000	20,000	20,000	10,000
Interest							
Bond Proceeds				3,300,000			
Transfer In							
Total Revenues	462,391	452,100	480,449	3,868,471	592,645	618,027	634,679
Expenditures:							
Operation Expense	373,218	379,852	391,248	402,985	415,075	427,527	440,353
Capital Outlay - ERP	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Capital Improvements	**-**	**125,000**	**340,000**	**2,676,000**	**41,000**	**-**	**-**
Equip Certif - principal	20,000	20,000	20,000	20,000	20,000	20,000	20,000
Equip Certif - interest	2,550	2,625	2,200	1,800	1,400	1,000	600
Payment on Interfund Loan	-	-					
Bond Repayment					296,806	296,806	296,806
Total Expenditures	395,768	527,477	753,448	3,100,785	774,281	745,333	757,759
Change in available funds	66,623	(75,377)	(272,999)	767,686	(181,636)	(127,305)	(123,080)
Bond Premium/Discount Exp (net)	(301)						
Working Capital Ending Year	**20,731**	**(54,646)**	**(327,645)**	**440,042**	**258,406**	**131,101**	**8,021**

Five Year
Project Summaries


City of Hopkins

City of Hopkins, MN

CAPITAL IMPROVEMENT PLAN

2017 thru 2021

PROJECTS BY YEAR

Project Name	Department	Project #	Priority	Project Cost
2017				
City Hall Lobby Upgrade	City Hall Administration	*09-CIP-CH030*	n/a	15,000
Activity Center - Dishwasher	Comm Svcs - Activity Center	*14-CIP-AC004*	4	15,000
Activity Center - Room/Gym Enhancements	Comm Svcs - Activity Center	*17-CIP-AC037*	1	25,000
Arts Center - Replace Rooftop HVAC Units	Comm Svcs - Arts Center	*08-CIP-AR013*	n/a	320,000
Arts Center - Paint Theatre	Comm Svcs - Arts Center	*14-CIP-AR003*	2	15,000
Arts Center - Jaycee Studio Curtain System	Comm Svcs - Arts Center	*16-CIP-AR002*	2	30,000
Arts Center - Lighting Improvements	Comm Svcs - Arts Center	*17-CIP-AR003*	2	12,200
Arts Center - Door Handles and Locks	Comm Svcs - Arts Center	*17-CIP-AR006*	1	10,000
Technology Improvement - Council Chambers & Studio	Comm Svcs - Communications	*13 CIP-CM001*	n/a	23,000
Pavilion Roof Replacement	Pavilion	*09-CIP-PV026*	1	140,000
Pavilion - Refrigeration System - Engineering Fees	Pavilion	*16-CIP-PV327*	n/a	200,000
PW - Public Works Lunchroom	Public Works: Bldg/Equip Serv	*16-CIP-B006*	1	25,000
Hilltop Park - Play Equipment	Public Works: Parks	*08-CIP-P014*	n/a	120,000
Burnes Park - 2-5 Play Equipment	Public Works: Parks	*13-CIP-P043*	n/a	100,000
Maetzold Field - Play Equipment	Public Works: Parks	*13-CIP-P062*	n/a	100,000
Burnes Park Warming House & Splash Pad	Public Works: Parks	*14-CIP-P002*	n/a	1,200,000
Interlachen Park - Portable Hockey Boards	Public Works: Parks	*16-CIP-P003*	n/a	50,000
Residential Street Improvements and Utilities	Public Works: Streets/Traffic	*01-CIP-S101*	n/a	6,600,000
Citywide Concrete Alleys	Public Works: Streets/Traffic	*01-CIP-S103*	n/a	80,000
Pedestrian & Bicycle Access Improvements	Public Works: Streets/Traffic	*13-CIP-S040*	n/a	25,000
Blake Road Corridor Improvements	Public Works: Streets/Traffic	*15-CIP-S001*	n/a	2,648,800
Street Overlay Improvements	Public Works: Streets/Traffic	*16-CIP-S041*	n/a	275,000
Street Sign Management	Public Works: Streets/Traffic	*16-CIP-S042*	n/a	20,000
Eighth Avenue Artery Project	Public Works: Transportation	*01-CIP-S503*	n/a	5,313,000
Westbrook Way/Smetana Rd Drainage Improvements	Public Works: Transportation	*16-CIP-S045*	n/a	100,000
Storm Drainage System Maintenance - Alley Repairs	Public Works: Utilities	*01-CIP-U002*	n/a	21,000
Reconstruct Lift Station No. 7	Public Works: Utilities	*16-CIP-U015*	n/a	700,000
Shady Oak Beach Improvements	Recreation	*16-CIP-R003*	3	50,000
	Total for 2017			18,233,000
2018				
City Hall Lobby Upgrade	City Hall Administration	*09-CIP-CH030*	n/a	260,000
Activity Center - Replace Gymnasium Roof	Comm Svcs - Activity Center	*08-CIP-AC018*	n/a	105,000
Activity Center - Raspberry Room Roof Replacement	Comm Svcs - Activity Center	*08-CIP-AC024*	n/a	80,000
Activity Center - Lower Roof Replacement	Comm Svcs - Activity Center	*09-CIP-AC031*	n/a	80,000
Arts Center - Replace Lobby Carpet	Comm Svcs - Arts Center	*09-CIP-AR027*	n/a	52,000
Arts Center - Remodel Administrative Offices	Comm Svcs - Arts Center	*14-CIP-AR004*	2	50,000
Technology Improvement - Council Chambers & Studio	Comm Svcs - Communications	*13 CIP-CM001*	n/a	15,000
Fire - Replace Carpet and Apparatus Floor Finish	Fire	*08-CIP-FD019*	n/a	28,000
Pavilion Restroom/Lobby Floor Improvement	Pavilion	*07-CIP-PV313*	n/a	35,000
Pavilion Overhead Door Improvement	Pavilion	*07-CIP-PV314*	n/a	65,000
Pavilion - Skate Tile Replacement	Pavilion	*10-CIP-PV317*	n/a	75,000
Pavilion - Refrigeration Equip & Arena Floor Repl	Pavilion	*10-CIP-PV318*	n/a	2,400,000
Pavilion Entry and Lobby Door Replacement	Pavilion	*13-CIP-PV324*	3	25,000

Project Name	Department	Project #	Priority	Project Cost
Pavilion - Paint Exterior Building	Pavilion	*13-CIP-PV325*	1	28,000
Pavilion Painting the Arena Ceiling and Bar Joist	Pavilion	*14-CIP-PV010*	1	48,000
Replace Carpet - Police Station	Police	*08-CIP-PD016*	n/a	40,000
Park Valley - Play Equipment	Public Works: Parks	*08-CIP-P010*	n/a	120,000
Burnes Park - Resurface Tennis Courts	Public Works: Parks	*08-CIP-P011*	n/a	20,000
Oakes Park - Tennis Courts	Public Works: Parks	*13-CIP-P044*	n/a	20,000
Elmo Park - 2-5 Play Equipment	Public Works: Parks	*13-CIP-P055*	n/a	50,000
Cottageville Park - Phase III Improvements	Public Works: Parks	*16-CIP-P002*	n/a	450,000
Residential Street Improvements and Utilities	Public Works: Streets/Traffic	*01-CIP-S101*	n/a	3,450,000
Pedestrian & Bicycle Access Improvements	Public Works: Streets/Traffic	*13-CIP-S040*	n/a	25,000
Blake Road Corridor Improvements	Public Works: Streets/Traffic	*15-CIP-S001*	n/a	7,949,900
Street Overlay Improvements	Public Works: Streets/Traffic	*16-CIP-S041*	n/a	300,000
Street Sign Management	Public Works: Streets/Traffic	*16-CIP-S042*	n/a	20,000
Light Rail Transit Stations (3)	Public Works: Transportation	*01-CIP-S502*	n/a	1,500,000
Storm Drainage System Maintenance - Alley Repairs	Public Works: Utilities	*01-CIP-U002*	n/a	21,000
	Total for 2018			17,311,900

2019

City Hall Roof Replacement	City Hall Administration	*09-CIP-CH029*	n/a	115,000
Activity Center - Former Historical Society Area	Comm Svcs - Activity Center	*16-CIP-AC035*	1	50,000
Activity Center - Bathroom Improvements	Comm Svcs - Activity Center	*17-CIP-AC039*	1	15,000
Activity Center - Raspberry Room Enhancements	Comm Svcs - Activity Center	*17-CIP-AC041*	4	25,000
Arts Center - Theater Curtains	Comm Svcs - Arts Center	*17-CIP-AR004*	3	80,000
Pavilion Mezzanine Rooftop Unit Replacement	Pavilion	*13-CIP-PV321*	1	30,000
Pavilion HHS Team Room Rooftop Unit Repl	Pavilion	*13-CIP-PV322*	1	11,000
Public Works - Replace Overhead Doors	Public Works: Bldg/Equip Serv	*08-CIP-B023*	n/a	90,000
Pavilion Addion/Warming House	Public Works: Parks	*13-CIP-P050*	n/a	600,000
Harley Hopkins Park - Warming House	Public Works: Parks	*13-CIP-P056*	n/a	30,000
Harley Hopkins Park - Lighting	Public Works: Parks	*13-CIP-P057*	n/a	50,000
Residential Street Improvements and Utilities	Public Works: Streets/Traffic	*01-CIP-S101*	n/a	5,575,000
Pedestrian & Bicycle Access Improvements	Public Works: Streets/Traffic	*13-CIP-S040*	n/a	25,000
Blake Road Corridor Improvements	Public Works: Streets/Traffic	*15-CIP-S001*	n/a	7,449,900
Street Overlay Improvements	Public Works: Streets/Traffic	*16-CIP-S041*	n/a	325,000
Street Sign Management	Public Works: Streets/Traffic	*16-CIP-S042*	n/a	20,000
Light Rail Transit Stations (3)	Public Works: Transportation	*01-CIP-S502*	n/a	3,181,000
Storm Drainage System Maintenance - Alley Repairs	Public Works: Utilities	*01-CIP-U002*	n/a	22,000
Lift Station # 4	Public Works: Utilities	*08-CIP-U001*	n/a	160,000
Shady Oak Beach Improvements	Recreation	*16-CIP-R003*	3	35,000
	Total for 2019			17,888,900

2020

City Hall - Replace Carpeting	City Hall Administration	*08-CIP-CH010*	n/a	58,000
Art Center - Various Rooms and Hallway (Carpet)	Comm Svcs - Arts Center	*09-CIP-AR028*	n/a	21,500
Arts Center - Seal Floors in Restroom & Kitchen	Comm Svcs - Arts Center	*16-CIP-AR006*	1	15,000
Public Works - Replace Wash Bay Roof	Public Works: Bldg/Equip Serv	*08-CIP-B021*	n/a	50,000
Public Works Garage Roof Replacement	Public Works: Bldg/Equip Serv	*09-CIP-B034*	n/a	50,000
Central Park Tennis Courts	Public Works: Parks	*05-CIP-P202*	n/a	20,000
Interlachen Park - Lighting	Public Works: Parks	*13-CIP-P059*	n/a	50,000
Maetzold Field - Pavilion	Public Works: Parks	*13-CIP-P063*	n/a	80,000
Residential Street Improvements and Utilities	Public Works: Streets/Traffic	*01-CIP-S101*	n/a	6,660,000
Pedestrian & Bicycle Access Improvements	Public Works: Streets/Traffic	*13-CIP-S040*	n/a	25,000
Street Overlay Improvements	Public Works: Streets/Traffic	*16-CIP-S041*	n/a	350,000
Street Sign Management	Public Works: Streets/Traffic	*16-CIP-S042*	n/a	20,000
	Total for 2020			7,399,500

Project Name	Department	Project #	Priority	Project Cost
2021				
Arts Center-Replace Office Carpet - Stages Theatre	Comm Svcs - Arts Center	*08-CIP-AR006*	n/a	20,225
Fire Station - Replace Boilers	Fire	*08-CIP-B123*	n/a	45,000
Hilltop - Picnic Shelter	Public Works: Parks	*13-CIP-P058*	n/a	40,000
Residential Street Improvements and Utilities	Public Works: Streets/Traffic	*01-CIP-S101*	n/a	6,660,000
County Road 3	Public Works: Streets/Traffic	*01-CIP-S104*	n/a	2,300,000
Pedestrian & Bicycle Access Improvements	Public Works: Streets/Traffic	*13-CIP-S040*	n/a	25,000
Street Overlay Improvements	Public Works: Streets/Traffic	*16-CIP-S041*	n/a	375,000
Street Sign Management	Public Works: Streets/Traffic	*16-CIP-S042*	n/a	20,000
	Total for 2021			9,485,225
GRAND TOTAL				70,318,525

City of Hopkins, MN

CAPITAL IMPROVEMENT PLAN

2017 thru 2021

DEPARTMENT SUMMARY

Department	2017	2018	2019	2020	2021	Total
City Hall Administration	15,000	260,000	115,000	58,000		*448,000*
Comm Svcs - Activity Center	40,000	265,000	90,000			*395,000*
Comm Svcs - Arts Center	387,200	102,000	80,000	36,500	20,225	*625,925*
Comm Svcs - Communications	23,000	15,000				*38,000*
Fire		28,000			45,000	*73,000*
Pavilion	340,000	2,676,000	41,000			*3,057,000*
Police		40,000				*40,000*
Public Works: Bldg/Equip Serv	25,000		90,000	100,000		*215,000*
Public Works: Parks	1,570,000	660,000	680,000	150,000	40,000	*3,100,000*
Public Works: Streets/Traffic	9,648,800	11,744,900	13,394,900	7,055,000	9,380,000	*51,223,600*
Public Works: Transportation	5,413,000	1,500,000	3,181,000			*10,094,000*
Public Works: Utilities	721,000	21,000	182,000			*924,000*
Recreation	50,000		35,000			*85,000*
TOTAL	**18,233,000**	**17,311,900**	**17,888,900**	**7,399,500**	**9,485,225**	***70,318,525***

City of Hopkins, MN

CAPITAL IMPROVEMENT PLAN

2017 thru 2021

PROJECTS BY DEPARTMENT

Department	Project#	Priority	2017	2018	2019	2020	2021	Total
City Hall Administration								
City Hall - Replace Carpeting	*08-CIP-CH010*	n/a				58,000		*58,000*
City Hall Roof Replacement	*09-CIP-CH029*	n/a			115,000			*115,000*
City Hall Lobby Upgrade	*09-CIP-CH030*	n/a	15,000	260,000				*275,000*
City Hall Administration Total			15,000	260,000	115,000	58,000		*448,000*
Comm Svcs - Activity Center								
Activity Center - Replace Gymnasium Roof	*08-CIP-AC018*	n/a		105,000				*105,000*
Activity Center - Raspberry Room Roof Replacement	*08-CIP-AC024*	n/a		80,000				*80,000*
Activity Center - Lower Roof Replacement	*09-CIP-AC031*	n/a		80,000				*80,000*
Activity Center - Dishwasher	*14-CIP-AC004*	4	15,000					*15,000*
Activity Center - Former Historical Society Area	*16-CIP-AC035*	1			50,000			*50,000*
Activity Center - Room/Gym Enhancements	*17-CIP-AC037*	1	25,000					*25,000*
Activity Center - Bathroom Improvements	*17-CIP-AC039*	1			15,000			*15,000*
Activity Center - Raspberry Room Enhancements	*17-CIP-AC041*	4			25,000			*25,000*
Comm Svcs - Activity Center Total			40,000	265,000	90,000			*395,000*
Comm Svcs - Arts Center								
Arts Center-Replace Office Carpet - Stages Theatre	*08-CIP-AR006*	n/a					20,225	*20,225*
Arts Center - Replace Rooftop HVAC Units	*08-CIP-AR013*	n/a	320,000					*320,000*
Arts Center - Replace Lobby Carpet	*09-CIP-AR027*	n/a		52,000				*52,000*
Art Center - Various Rooms and Hallway (Carpet)	*09-CIP-AR028*	n/a				21,500		*21,500*
Arts Center - Paint Theatre	*14-CIP-AR003*	2	15,000					*15,000*
Arts Center - Remodel Administrative Offices	*14-CIP-AR004*	2		50,000				*50,000*
Arts Center - Jaycee Studio Curtain System	*16-CIP-AR002*	2	30,000					*30,000*
Arts Center - Seal Floors in Restroom & Kitchen	*16-CIP-AR006*	1				15,000		*15,000*
Arts Center - Lighting Improvements	*17-CIP-AR003*	2	12,200					*12,200*
Arts Center - Theater Curtains	*17-CIP-AR004*	3			80,000			*80,000*
Arts Center - Door Handles and Locks	*17-CIP-AR006*	1	10,000					*10,000*
Comm Svcs - Arts Center Total			387,200	102,000	80,000	36,500	20,225	*625,925*
Comm Svcs - Communications								
Technology Improvement - Council Chambers & Studio	*13 CIP-CM001*	n/a	23,000	15,000				*38,000*
Comm Svcs - Communications Total			23,000	15,000				*38,000*
Fire								
Fire Station - Replace Boilers	*08-CIP-B123*	n/a					45,000	*45,000*
Fire - Replace Carpet and Apparatus Floor Finish	*08-CIP-FD019*	n/a		28,000				*28,000*
Fire Total				28,000			45,000	*73,000*
Pavilion								
Pavilion Restroom/Lobby Floor Improvement	*07-CIP-PV313*	n/a		35,000				*35,000*

Department	Project#	Priority	2017	2018	2019	2020	2021	Total
Pavilion Overhead Door Improvement	*07-CIP-PV314*	n/a		65,000				*65,000*
Pavilion Roof Replacement	*09-CIP-PV026*	1	140,000					*140,000*
Pavilion - Skate Tile Replacement	*10-CIP-PV317*	n/a		75,000				*75,000*
Pavilion - Refrigeration Equip & Arena Floor Repl	*10-CIP-PV318*	n/a		2,400,000				*2,400,000*
Pavilion Mezzanine Rooftop Unit Replacement	*13-CIP-PV321*	1			30,000			*30,000*
Pavilion HHS Team Room Rooftop Unit Repl	*13-CIP-PV322*	1			11,000			*11,000*
Pavilion Entry and Lobby Door Replacement	*13-CIP-PV324*	3		25,000				*25,000*
Pavilion - Paint Exterior Building	*13-CIP-PV325*	1		28,000				*28,000*
Pavilion Painting the Arena Ceiling and Bar Joist	*14-CIP-PV010*	1		48,000				*48,000*
Pavilion - Refrigeration System - Engineering Fees	*16-CIP-PV327*	n/a	200,000					*200,000*
Pavilion Total			340,000	2,676,000	41,000			*3,057,000*
Police								
Replace Carpet - Police Station	*08-CIP-PD016*	n/a		40,000				*40,000*
Police Total				40,000				*40,000*
Public Works: Bldg/Equip Serv								
Public Works - Replace Wash Bay Roof	*08-CIP-B021*	n/a				50,000		*50,000*
Public Works - Replace Overhead Doors	*08-CIP-B023*	n/a			90,000			*90,000*
Public Works Garage Roof Replacement	*09-CIP-B034*	n/a				50,000		*50,000*
PW - Public Works Lunchroom	*16-CIP-B006*	1	25,000					*25,000*
Public Works: Bldg/Equip Serv Total			25,000		90,000	100,000		*215,000*
Public Works: Parks								
Central Park Tennis Courts	*05-CIP-P202*	n/a				20,000		*20,000*
Park Valley - Play Equipment	*08-CIP-P010*	n/a		120,000				*120,000*
Burnes Park - Resurface Tennis Courts	*08-CIP-P011*	n/a		20,000				*20,000*
Hilltop Park - Play Equipment	*08-CIP-P014*	n/a	120,000					*120,000*
Burnes Park - 2-5 Play Equipment	*13-CIP-P043*	n/a	100,000					*100,000*
Oakes Park - Tennis Courts	*13-CIP-P044*	n/a		20,000				*20,000*
Pavilion Addion/Warming House	*13-CIP-P050*	n/a			600,000			*600,000*
Elmo Park - 2-5 Play Equipment	*13-CIP-P055*	n/a		50,000				*50,000*
Harley Hopkins Park - Warming House	*13-CIP-P056*	n/a			30,000			*30,000*
Harley Hopkins Park - Lighting	*13-CIP-P057*	n/a			50,000			*50,000*
Hilltop - Picnic Shelter	*13-CIP-P058*	n/a					40,000	*40,000*
Interlachen Park - Lighting	*13-CIP-P059*	n/a				50,000		*50,000*
Maetzold Field - Play Equipment	*13-CIP-P062*	n/a	100,000					*100,000*
Maetzold Field - Pavilion	*13-CIP-P063*	n/a				80,000		*80,000*
Burnes Park Warming House & Splash Pad	*14-CIP-P002*	n/a	1,200,000					*1,200,000*
Cottageville Park - Phase III Improvements	*16-CIP-P002*	n/a		450,000				*450,000*
Interlachen Park - Portable Hockey Boards	*16-CIP-P003*	n/a	50,000					*50,000*
Public Works: Parks Total			1,570,000	660,000	680,000	150,000	40,000	*3,100,000*
Public Works: Streets/Traffic								
Residential Street Improvements and Utilities	*01-CIP-S101*	n/a	6,600,000	3,450,000	5,575,000	6,660,000	6,660,000	*28,945,000*
Citywide Concrete Alleys	*01-CIP-S103*	n/a	80,000					*80,000*
County Road 3	*01-CIP-S104*	n/a					2,300,000	*2,300,000*
Pedestrian & Bicycle Access Improvements	*13-CIP-S040*	n/a	25,000	25,000	25,000	25,000	25,000	*125,000*
Blake Road Corridor Improvements	*15-CIP-S001*	n/a	2,648,800	7,949,900	7,449,900			*18,048,600*
Street Overlay Improvements	*16-CIP-S041*	n/a	275,000	300,000	325,000	350,000	375,000	*1,625,000*
Street Sign Management	*16-CIP-S042*	n/a	20,000	20,000	20,000	20,000	20,000	*100,000*
Public Works: Streets/Traffic Total			9,648,800	11,744,900	13,394,900	7,055,000	9,380,000	*51,223,600*

Department	Project#	Priority	2017	2018	2019	2020	2021	Total
Public Works: Transportation								
Light Rail Transit Stations (3)	*01-CIP-S502*	n/a		1,500,000	3,181,000			*4,681,000*
Eighth Avenue Artery Project	*01-CIP-S503*	n/a	5,313,000					*5,313,000*
Westbrook Way/Smetana Rd Drainage Improvements	*16-CIP-S045*	n/a	100,000					*100,000*
Public Works: Transportation Total			5,413,000	1,500,000	3,181,000			*10,094,000*
Public Works: Utilities								
Storm Drainage System Maintenance - Alley Repairs	*01-CIP-U002*	n/a	21,000	21,000	22,000			*64,000*
Lift Station # 4	*08-CIP-U001*	n/a			160,000			*160,000*
Reconstruct Lift Station No. 7	*16-CIP-U015*	n/a	700,000					*700,000*
Public Works: Utilities Total			721,000	21,000	182,000			*924,000*
Recreation								
Shady Oak Beach Improvements	*16-CIP-R003*	3	50,000		35,000			*85,000*
Recreation Total			50,000		35,000			*85,000*
GRAND TOTAL			18,233,000	17,311,900	17,888,900	7,399,500	9,485,225	*70,318,525*

City of Hopkins, MN

CAPITAL IMPROVEMENT PLAN

2017 thru 2021

FUNDING SOURCE SUMMARY

Source	2017	2018	2019	2020	2021	Total
AC - Arts Center Fund	387,200	102,000	80,000	36,500	20,225	*625,925*
CI - Capital Improvement Fund	76,500	558,000	223,000	118,000	45,000	*1,020,500*
CT - Cable Franchise Fees	26,500	50,000				*76,500*
GU - Other Governmental Units	4,047,500	5,954,600	7,632,100		1,600,000	*19,234,200*
MS - Municipal State Aid Streets					700,000	*700,000*
PA - Pavilion Fund	340,000	2,676,000	41,000			*3,057,000*
PDF- Park Dedication Fund	1,586,500	660,000	691,500	150,000	40,000	*3,128,000*
PI - PIR/General Obligation Bonds	5,678,800	3,365,300	3,290,300	2,220,000	2,245,000	*16,799,400*
RF - Refuse Fund			18,000	10,000		*28,000*
SA - Special Assessment	2,064,000	900,000	1,500,000	1,885,000	1,885,000	*8,234,000*
SF - Sanitary Sewer Fund	1,300,000	1,025,000	1,053,000	760,000	750,000	*4,888,000*
SU - Storm Sewer Fund	1,026,000	471,000	1,592,000	710,000	700,000	*4,499,000*
WF - Water Fund	1,700,000	1,550,000	1,768,000	1,510,000	1,500,000	*8,028,000*
GRAND TOTAL	**18,233,000**	**17,311,900**	**17,888,900**	**7,399,500**	**9,485,225**	***70,318,525***

City of Hopkins, MN

CAPITAL IMPROVEMENT PLAN

2017 thru 2021

PROJECTS BY FUNDING SOURCE

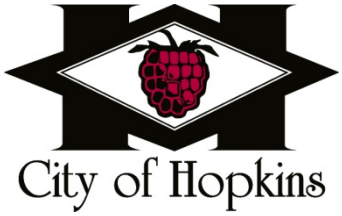
Source	Project#	Priority	2017	2018	2019	2020	2021	Total
AC - Arts Center Fund								
Arts Center-Replace Office Carpet - Stages Theatre	*08-CIP-AR006*	n/a					20,225	*20,225*
Arts Center - Replace Rooftop HVAC Units	*08-CIP-AR013*	n/a	320,000					*320,000*
Arts Center - Replace Lobby Carpet	*09-CIP-AR027*	n/a		52,000				*52,000*
Art Center - Various Rooms and Hallway (Carpet)	*09-CIP-AR028*	n/a				21,500		*21,500*
Arts Center - Paint Theatre	*14-CIP-AR003*	2	15,000					*15,000*
Arts Center - Remodel Administrative Offices	*14-CIP-AR004*	2		50,000				*50,000*
Arts Center - Jaycee Studio Curtain System	*16-CIP-AR002*	2	30,000					*30,000*
Arts Center - Seal Floors in Restroom & Kitchen	*16-CIP-AR006*	1				15,000		*15,000*
Arts Center - Lighting Improvements	*17-CIP-AR003*	2	12,200					*12,200*
Arts Center - Theater Curtains	*17-CIP-AR004*	3			80,000			*80,000*
Arts Center - Door Handles and Locks	*17-CIP-AR006*	1	10,000					*10,000*
AC - Arts Center Fund Total			387,200	102,000	80,000	36,500	20,225	*625,925*
CI - Capital Improvement Fund								
Activity Center - Replace Gymnasium Roof	*08-CIP-AC018*	n/a		105,000				*105,000*
Activity Center - Raspberry Room Roof Replacement	*08-CIP-AC024*	n/a		80,000				*80,000*
Public Works - Replace Wash Bay Roof	*08-CIP-B021*	n/a				10,000		*10,000*
Public Works - Replace Overhead Doors	*08-CIP-B023*	n/a			18,000			*18,000*
Fire Station - Replace Boilers	*08-CIP-B123*	n/a					45,000	*45,000*
City Hall - Replace Carpeting	*08-CIP-CH010*	n/a				58,000		*58,000*
Fire - Replace Carpet and Apparatus Floor Finish	*08-CIP-FD019*	n/a		28,000				*28,000*
Replace Carpet - Police Station	*08-CIP-PD016*	n/a		40,000				*40,000*
Activity Center - Lower Roof Replacement	*09-CIP-AC031*	n/a		80,000				*80,000*
Public Works Garage Roof Replacement	*09-CIP-B034*	n/a				50,000		*50,000*
City Hall Roof Replacement	*09-CIP-CH029*	n/a			115,000			*115,000*
City Hall Lobby Upgrade	*09-CIP-CH030*	n/a	11,500	225,000				*236,500*
Activity Center - Dishwasher	*14-CIP-AC004*	4	15,000					*15,000*
Activity Center - Former Historical Society Area	*16-CIP-AC035*	1			50,000			*50,000*
PW - Public Works Lunchroom	*16-CIP-B006*	1	25,000					*25,000*
Activity Center - Room/Gym Enhancements	*17-CIP-AC037*	1	25,000					*25,000*
Activity Center - Bathroom Improvements	*17-CIP-AC039*	1			15,000			*15,000*
Activity Center - Raspberry Room Enhancements	*17-CIP-AC041*	4			25,000			*25,000*
CI - Capital Improvement Fund Total			76,500	558,000	223,000	118,000	45,000	*1,020,500*
CT - Cable Franchise Fees								
City Hall Lobby Upgrade	*09-CIP-CH030*	n/a	3,500	35,000				*38,500*
Technology Improvement - Council Chambers & Studio	*13 CIP-CM001*	n/a	23,000	15,000				*38,000*
CT - Cable Franchise Fees Total			26,500	50,000				*76,500*
GU - Other Governmental Units								

Source	Project#	Priority	2017	2018	2019	2020	2021	Total
County Road 3	*01-CIP-S104*	n/a					1,600,000	*1,600,000*
Light Rail Transit Stations (3)	*01-CIP-S502*	n/a			1,904,000			*1,904,000*
Eighth Avenue Artery Project	*01-CIP-S503*	n/a	2,745,000					*2,745,000*
Blake Road Corridor Improvements	*15-CIP-S001*	n/a	1,269,000	5,954,600	5,704,600			*12,928,200*
Shady Oak Beach Improvements	*16-CIP-R003*	3	33,500		23,500			*57,000*
GU - Other Governmental Units Total			4,047,500	5,954,600	7,632,100		1,600,000	*19,234,200*
MS - Municipal State Aid Streets								
County Road 3	*01-CIP-S104*	n/a					700,000	*700,000*
MS - Municipal State Aid Streets Total							700,000	*700,000*
PA - Pavilion Fund								
Pavilion Restroom/Lobby Floor Improvement	*07-CIP-PV313*	n/a		35,000				*35,000*
Pavilion Overhead Door Improvement	*07-CIP-PV314*	n/a		65,000				*65,000*
Pavilion Roof Replacement	*09-CIP-PV026*	1	140,000					*140,000*
Pavilion - Skate Tile Replacement	*10-CIP-PV317*	n/a		75,000				*75,000*
Pavilion - Refrigeration Equip & Arena Floor Repl	*10-CIP-PV318*	n/a		2,400,000				*2,400,000*
Pavilion Mezzanine Rooftop Unit Replacement	*13-CIP-PV321*	1			30,000			*30,000*
Pavilion HHS Team Room Rooftop Unit Repl	*13-CIP-PV322*	1			11,000			*11,000*
Pavilion Entry and Lobby Door Replacement	*13-CIP-PV324*	3		25,000				*25,000*
Pavilion - Paint Exterior Building	*13-CIP-PV325*	1		28,000				*28,000*
Pavilion Painting the Arena Ceiling and Bar Joist	*14-CIP-PV010*	1		48,000				*48,000*
Pavilion - Refrigeration System - Engineering Fees	*16-CIP-PV327*	n/a	200,000					*200,000*
PA - Pavilion Fund Total			340,000	2,676,000	41,000			*3,057,000*
PDF- Park Dedication Fund								
Central Park Tennis Courts	*05-CIP-P202*	n/a				20,000		*20,000*
Park Valley - Play Equipment	*08-CIP-P010*	n/a		120,000				*120,000*
Burnes Park - Resurface Tennis Courts	*08-CIP-P011*	n/a		20,000				*20,000*
Hilltop Park - Play Equipment	*08-CIP-P014*	n/a	120,000					*120,000*
Burnes Park - 2-5 Play Equipment	*13-CIP-P043*	n/a	100,000					*100,000*
Oakes Park - Tennis Courts	*13-CIP-P044*	n/a		20,000				*20,000*
Pavilion Addion/Warming House	*13-CIP-P050*	n/a			600,000			*600,000*
Elmo Park - 2-5 Play Equipment	*13-CIP-P055*	n/a		50,000				*50,000*
Harley Hopkins Park - Warming House	*13-CIP-P056*	n/a			30,000			*30,000*
Harley Hopkins Park - Lighting	*13-CIP-P057*	n/a			50,000			*50,000*
Hilltop - Picnic Shelter	*13-CIP-P058*	n/a					40,000	*40,000*
Interlachen Park - Lighting	*13-CIP-P059*	n/a				50,000		*50,000*
Maetzold Field - Play Equipment	*13-CIP-P062*	n/a	100,000					*100,000*
Maetzold Field - Pavilion	*13-CIP-P063*	n/a				80,000		*80,000*
Burnes Park Warming House & Splash Pad	*14-CIP-P002*	n/a	1,200,000					*1,200,000*
Cottageville Park - Phase III Improvements	*16-CIP-P002*	n/a		450,000				*450,000*
Interlachen Park - Portable Hockey Boards	*16-CIP-P003*	n/a	50,000					*50,000*
Shady Oak Beach Improvements	*16-CIP-R003*	3	16,500		11,500			*28,000*
PDF- Park Dedication Fund Total			1,586,500	660,000	691,500	150,000	40,000	*3,128,000*
PI - PIR/General Obligation Bonds								
Residential Street Improvements and Utilities	*01-CIP-S101*	n/a	2,000,000	1,000,000	1,825,000	1,825,000	1,825,000	*8,475,000*
Citywide Concrete Alleys	*01-CIP-S103*	n/a	16,000					*16,000*

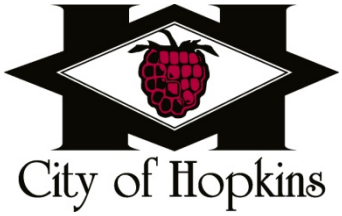
Source	Project#	Priority	2017	2018	2019	2020	2021	Total
Light Rail Transit Stations (3)	*01-CIP-S502*	n/a		1,000,000	325,000			*1,325,000*
Eighth Avenue Artery Project	*01-CIP-S503*	n/a	1,963,000					*1,963,000*
Pedestrian & Bicycle Access Improvements	*13-CIP-S040*	n/a	25,000	25,000	25,000	25,000	25,000	*125,000*
Blake Road Corridor Improvements	*15-CIP-S001*	n/a	1,379,800	1,020,300	770,300			*3,170,400*
Street Overlay Improvements	*16-CIP-S041*	n/a	275,000	300,000	325,000	350,000	375,000	*1,625,000*
Street Sign Management	*16-CIP-S042*	n/a	20,000	20,000	20,000	20,000	20,000	*100,000*
PI - PIR/General Obligation Bonds Total			5,678,800	3,365,300	3,290,300	2,220,000	2,245,000	*16,799,400*
RF - Refuse Fund								
Public Works - Replace Wash Bay Roof	*08-CIP-B021*	n/a				10,000		*10,000*
Public Works - Replace Overhead Doors	*08-CIP-B023*	n/a			18,000			*18,000*
RF - Refuse Fund Total					18,000	10,000		*28,000*
SA - Special Assessment								
Residential Street Improvements and Utilities	*01-CIP-S101*	n/a	2,000,000	900,000	1,500,000	1,885,000	1,885,000	*8,170,000*
Citywide Concrete Alleys	*01-CIP-S103*	n/a	64,000					*64,000*
SA - Special Assessment Total			2,064,000	900,000	1,500,000	1,885,000	1,885,000	*8,234,000*
SF - Sanitary Sewer Fund								
Residential Street Improvements and Utilities	*01-CIP-S101*	n/a	500,000	500,000	500,000	750,000	750,000	*3,000,000*
Light Rail Transit Stations (3)	*01-CIP-S502*	n/a		150,000				*150,000*
Eighth Avenue Artery Project	*01-CIP-S503*	n/a	100,000					*100,000*
Public Works - Replace Wash Bay Roof	*08-CIP-B021*	n/a				10,000		*10,000*
Public Works - Replace Overhead Doors	*08-CIP-B023*	n/a			18,000			*18,000*
Lift Station # 4	*08-CIP-U001*	n/a			160,000			*160,000*
Blake Road Corridor Improvements	*15-CIP-S001*	n/a		375,000	375,000			*750,000*
Reconstruct Lift Station No. 7	*16-CIP-U015*	n/a	700,000					*700,000*
SF - Sanitary Sewer Fund Total			1,300,000	1,025,000	1,053,000	760,000	750,000	*4,888,000*
SU - Storm Sewer Fund								
Residential Street Improvements and Utilities	*01-CIP-S101*	n/a	600,000	350,000	500,000	700,000	700,000	*2,850,000*
Light Rail Transit Stations (3)	*01-CIP-S502*	n/a			952,000			*952,000*
Eighth Avenue Artery Project	*01-CIP-S503*	n/a	305,000					*305,000*
Storm Drainage System Maintenance - Alley Repairs	*01-CIP-U002*	n/a	21,000	21,000	22,000			*64,000*
Public Works - Replace Wash Bay Roof	*08-CIP-B021*	n/a				10,000		*10,000*
Public Works - Replace Overhead Doors	*08-CIP-B023*	n/a			18,000			*18,000*
Blake Road Corridor Improvements	*15-CIP-S001*	n/a		100,000	100,000			*200,000*
Westbrook Way/Smetana Rd Drainage Improvements	*16-CIP-S045*	n/a	100,000					*100,000*
SU - Storm Sewer Fund Total			1,026,000	471,000	1,592,000	710,000	700,000	*4,499,000*
WF - Water Fund								
Residential Street Improvements and Utilities	*01-CIP-S101*	n/a	1,500,000	700,000	1,250,000	1,500,000	1,500,000	*6,450,000*
Light Rail Transit Stations (3)	*01-CIP-S502*	n/a		350,000				*350,000*
Eighth Avenue Artery Project	*01-CIP-S503*	n/a	200,000					*200,000*
Public Works - Replace Wash Bay Roof	*08-CIP-B021*	n/a				10,000		*10,000*
Public Works - Replace Overhead Doors	*08-CIP-B023*	n/a			18,000			*18,000*
Blake Road Corridor Improvements	*15-CIP-S001*	n/a		500,000	500,000			*1,000,000*

Source	Project#	Priority	2017	2018	2019	2020	2021	Total
WF - Water Fund Total			1,700,000	1,550,000	1,768,000	1,510,000	1,500,000	*8,028,000*
GRAND TOTAL			18,233,000	17,311,900	17,888,900	7,399,500	9,485,225	*70,318,525*

Project Descriptions
And Narratives


City of Hopkins

Utilities


City of Hopkins

CAPITAL IMPROVEMENT PLAN

2017 *thru* 2021

City of Hopkins, MN

Project # 01-CIP-U002

Project Name Storm Drainage System Maintenance - Alley Repairs

Future

Department Public Works: Utilities

Contact Public Works Director

Type Improvement

Useful Life Unassigned

Category Utilities: Municipal Sanitary Se

Priority n/a

Total Project Cost: $211,000

Description

2015-2019 Concrete alley repairs

Justification

Annual alley pavement concrete slab repairs are needed.

Expenditures	2017	2018	2019	2020	2021	Total
Construction/Maintenance	21,000	21,000	22,000			64,000
Total	21,000	21,000	22,000			64,000

Funding Sources	2017	2018	2019	2020	2021	Total
SU - Storm Sewer Fund	21,000	21,000	22,000			64,000
Total	21,000	21,000	22,000			64,000

Budget Impact/Other

Consistent with the Storm Water Management Plan.

CAPITAL IMPROVEMENT PLAN

2017 *thru* 2021

City of Hopkins, MN

Project # 08-CIP-U001

Project Name Lift Station # 4

Future

Department Public Works: Utilities

Contact Public Works Director

Type Improvement

Useful Life

Category Utilities: Municipal Sanitary Se

Priority n/a

Total Project Cost: $160,000

Description

Rehabilitate LS No. 4

Justification

Lift station No. 4 was identified for rehab in the 2007 comprehensive utility plan

Regular major maintenance identified in the 2007 comprehensive utility plan.

Expenditures	2017	2018	2019	2020	2021	Total
Construction/Maintenance			160,000			160,000
Total			160,000			160,000

Funding Sources	2017	2018	2019	2020	2021	Total
SF - Sanitary Sewer Fund			160,000			160,000
Total			160,000			160,000

Budget Impact/Other

CAPITAL IMPROVEMENT PLAN

2017 *thru* 2021

City of Hopkins, MN

Project # 16-CIP-U015

Project Name Reconstruct Lift Station No. 7

Future

Department Public Works: Utilities

Contact Public Works Director

Type Improvement

Useful Life 30 years

Category Utilities: Municipal Sanitary Se

Priority n/a

Total Project Cost: **$700,000**

Description

Construction of a new submersible lift station. The new lift station would accommodate three submersible pumps. The existing control building would remain to house the controls and electrical equipment including the existing backup generator,

Justification

Lift Station No, 7 is the City's largest lift station pumping an average of 0.5 million gallons a day. The existing lift station is over 40 years old. It was partially rehabilitated in 2003, however the station design is wet well/dry well with little storage in the event of pumping failure and maintenance or repair/removal of pumps is a safety concern and extremely difficult and time consuming. The existing steel dry well is corroding quickly due to the harsh environment.

Expenditures	2017	2018	2019	2020	2021	Total
Construction	700,000					700,000
Total	700,000					700,000

Funding Sources	2017	2018	2019	2020	2021	Total
SF - Sanitary Sewer Fund	700,000					700,000
Total	700,000					700,000

Budget Impact/Other

Appendix 5

Emergency Telephone List

Attachment 5
Hopkins, MN
Emergency Telephone List

Emergency Response Team	Name	Work Telephone	Alternate Telephone
Emergency Response Lead	Steve Stadler	952-548-6350	
Alternate Emergency Response Lead			
Water Operator	Ismail Eddihi	952-548-6373	
Alternate Water Operator			
Public Communications			

State and Local Emergency Response Contacts	Name	Work Telephone	Alternate Telephone
State Incident Duty Officer	Minnesota Duty Officer	800/422-0798 Out State	651-649-5451 Metro
County Emergency Director			
National Guard	Minnesota Duty Officer	800/422-0798 Out State	651-649-5451 Metro
Mayor/Board Chair	Molly Cummings	952-933-4452	
Fire Chief	Dale Specken	952-548-6451	
Sheriff	Richard Stanek	612-348-2347	
Police Chief	Brent Johnson	952-938-8885	
Ambulance			
Hospital			
Doctor or Medical Facility			

State and Local Agencies	Name	Work Telephone	Alternate Telephone
MDH District Engineer			
MDH	Drinking Water Protection	651-201-4700	
State Testing Laboratory	Minnesota Duty Officer	800/422-0798 Out State	651-649-5451 Metro
MPCA			
DNR Area Hydrologist	Jason Spiegel	651-259-5822	
County Water Planner			

Utilities	Name	Work Telephone	Alternate Telephone
Electric Company			
Gas Company			
Telephone Company			
Gopher State One Call		612-454-0002	
Highway Department			

Mutual Aid Agreements	Name	Work Telephone	Alternate Telephone
Neighboring Water System			
Emergency Water Connection			
Emergency Water Connection			
Emergency Water Connection			

Technical/Contracted Services/Supplies	Name	Work Telephone	Alternate Telephone
MRWA Technical Services			
Well Driller/Repair	Bergerson-Caswell Well Co.	612-479-3121	
Pump Repair	Bergerson-Caswell Well Co.	612-479-3121	
Electrician			
Plumber			
Backhoe			

Chemical Feed			
Meter Repair			
Generator	Ziegler Power Systems	612-888-4121	
Valves			
Pipe & Fittings			
Water Storage			
Laboratory			
Engineering firm			

Communications	**Name**	**Work Telephone**	**Alternate Telephone**
News Paper			
Radio Station			
School Superintendent			
Property & Casualty Insurance			

Critical Water Users	**Name**	**Work Telephone**	**Alternate Telephone**
Hospital Critical Use:			
Nursing Home Critical Use:			
Public Shelter Critical Use:			

Appendix 6

Cooperative Agreements for Emergency Services

(The City does not have any written cooperative agreements with any neighboring communities. The interconnects that are in place but are used only when neighboring communities agree with the City for their use during an emergency.)

Appendix 7

Municipal Critical Water Deficiency Ordinance

(See Section 705.703 regarding water use restrictions and control during a water emergency)

Section 710 - Water system

710.01. Water superintendent. The city manager shall appoint a superintendent who shall have control and management of the water works and system of the city. The superintendent shall do and perform all acts necessary for the efficient and economical management and protection of the system.

710.03. Superintendent: powers: duties. Subdivision 1. Records. The superintendent shall keep a complete set of books showing distribution of accounts of the water department, and shall keep a record of all tanks, reservoirs, mains laid, castings, valves, gates and hydrants located in the system.

Subd. 2. Collections. The director of finance shall keep a correct account of all receipts and make out all bills for water usage or materials furnished to consumers, collect the same and deposit the money so collected with the treasurer, to the credit of the water utility fund of the city and in accordance with law and requirements of the city manager and council. (Amended Ord. 92-711)

Subd. 3. Taps and permits. The superintendent shall be notified of all permits issued for tapping mains, and shall keep a record of all taps and services, their sizes and location. The Inspections division shall issue permits and shall be required to keep inspection records. (Amended Ord. 92-711)

Subd. 4. Equipment and tools. The superintendent shall see that hydrants and valves are in order and that all leaks are promptly repaired and is responsible for all city tools and material used by the department.

Subd. 5. Inspections. The superintendent, or an inspector appointed by the City, shall supervise all taps for services and examine all service pipes and see that they are properly laid, and stop-cocks placed in proper position, and perform such other duties as may be directed by the manager. (Amended Ord. 92-711)

Subd. 6. Inventory. The superintendent shall keep a full set of record books, showing in detail the location and measurements for all water pipes, hydrants, valves, taps, stop-boxes, tees, crosses and other measurements or records which may be necessary in the department.

Subd. 7. Location. The superintendent or inspector shall report the location, and at least two measurements taken from two separate permanent points, for each tap and stop-box made in the water mains and service pipes. (Amended Ord. 92-711)

Subd. 8. Inspection of premises. The superintendent shall inspect the premises entered by service pipes, and examine the condition of meters and other water fixtures; and shall be vigilant to detect and warn against all abuses, whether from waste or other improper use of water.

Subd. 9. Meter records. The superintendent shall keep a record of each meter in use and of the amount of water used by each consumer. The superintendent shall perform such other duties as may be directed by the manager. (Amended Ord. 92-711)

Subd. 10. Pumps; pumping stations. The superintendent shall have charge of the pumping stations and of the pump machinery and tools therein.

710.05. Fire department. The chief of the fire department shall see that all gates and hydrants are restored to their proper condition after use by the fire department and report to the superintendent all breaks, defective hydrants and taps.

710.07. Tapping: turning off or on. No person, except those authorized by the superintendent, shall tap any distributing pipes, or insert stop-cocks or corporation stops therein, or turn on or off water from any service pipe or cause water to be so turned on or off. (Amended Ord. 92-711)

710.09. Permits. Subdivision 1. Required. No public water main shall be tapped or connection made thereto from any lot without first securing the permits required by this code from the building official and the superintendent and paying the required fees. (Amended Ord. 92-711)

Subd. 2. Application. Application shall be made in writing to the building official for a permit to tap a public water main located in a right of way. The application shall be made upon forms to be provided therefor by the city and shall contain the following information:

a) exact legal description of premises for which water or sewer connection is applied, including plat and parcel number;

b) address of premises;

c) name and address of plumber or other contractor;

d) name and address of owner of premises;

e) date of opening and installation of connection;

f) general description of type and method of connection to be used or made; and

g) such other pertinent information as the building official may require.

710.11. Taps. No permit to tap any main will be granted unless application therefore has been made in writing and signed by the owner or his agent duly authorized by him to do the work. The application must be made to the City's Inspection division on a form furnished by the city, and all information required by the form shall be provided. (Amended Ord. 92-711)

710.13. Charges. The following charges shall accompany each application for each connection of any premises to the public water mains:

a) the charges and cost of inspections as established by City Council resolution; (Amended Ord. 92-711)

b) if, for the parcel described in such application, the city has not been reimbursed or otherwise secured for said parcel's proportionate beneficial share of the special benefit and total cost of the construction and installation of the public sewers within the project district or area in or from which said parcel is to be served, the applicant shall pay in addition to all other permit fees, a sum equal to that proportionate share of such special benefit and cost which said parcel bears to such entire area or district and which was specially assessed or charged for said public improvement, plus interest on said sum at the rate of seven percent per annum from the date or dates of the original construction or installation of such public improvements to the date of the issuance of the connection permits.

710.15. Special fund. Charges shall be deposited or paid into a special assessment fund or account and may be credited to the special assessments which may have been theretofore levied for water improvements involving the premises for which the special connection fee has been collected. (Amended Ord. 92-711)

710.17. Terms and conditions. Subdivision 1. General rule. Permits shall be subject to the following terms and conditions, and the making of the application for such a permit, the granting of the permit by the city, and the tapping of the water main pursuant to the permit shall constitute a binding acceptance of such terms and conditions by the owner of the property, and by all assignees, successors, grantees, heirs or representatives of such owner.

Subd. 2. Backfill. The applicant shall backfill the opening in the street and leave the street, curb and sidewalk in a condition satisfactory to the city;

Subd. 3. Authorized use. No permit shall authorize anything not stated in the application, and for any misrepresentation in such application the permit will be revoked. The owner shall abide by all the laws, rules and regulations governing or relating to the use of city water, or pertaining to the water system of the city that are now in force or may hereafter be enacted. The permit is to be used for no premises other than those stated in the application. (Amended Ord. 92-711)

Subd. 4. Additional mains. The owner shall make no objection to the laying of additional water mains in the streets adjoining said land, and upon any such mains being laid the owner shall sever the permitted connection and make a new connection with such mains laid after the granting of such permit if required by the superintendent so to do.

Subd. 5. Waiver. By the permit the owner waives all claims for damages against the city on account of damages to water pipes caused by freezing, breaking or from any other cause.

Subd. 6. Water Charges. Water charges accruing for water used through the permitted connection shall be a charge against and payable by the owner of the land served, as well as by the person using the water. The city may cut off the connection permitted for nonpayment of water charges, and to keep the same cut off until the provisions of the permit have been complied with and all back charges and penalties have been fully paid. (Amended Ord. 92-711)

Subd. 7. Meters. All meters shall be an approved brand that is compatible with the city's meter reading system and must measure by gallon units. A City permit from the Public Works Department is required prior to the replacement of any commercial meter or any meter larger than one inch. All meters must be equipped with a transponder(s) approved by the City. All meters that are two (2) inches or larger shall have a transponder for each register, one for high flow and one for low flow. The approval of meters shall be made by the City Manager or his/her designee. No turbine meters shall be installed, unless it has been approved by the Utility Superintendent or an approved designee. The owner shall pay for the meter & transponder larger than 1" in diameter in advance. The owner shall ensure that the meter and transponder are readily accessible to city staff, with a twelve (12) inch clear radius around the meter and transponder. (Amended Ord. 2004-929)

Subd. 8. Moving Transponder Unit. The transponder unit shall not be moved or removed from the property without proper authorization from the City Manager or his/her designee, If the transponder or wires connecting to the meter have been moved or removed without authorization, the property owner will be charged for the cost of relocation and/or replacement of the unit. (Added Ord. 97-798) (Amended Ord 2004-929

710.19. Work: material: standards. Subdivision 1. Placement. Service pipes must be laid in such a manner as to prevent rupture by settlement and must extend from the main to the inside of the building or, if not taken into a building, then to the hydrant or other fixtures which it is intended to supply, and a stop-cock must be placed outside in an extension service box placed between the sidewalk and the curb, and shut-off stop-cock or other stop-cock, with waste, of the size and strength required, shall be placed close to the inside of the building, well protected from freezing. Where a pipe passes through or is laid within two feet of foundation walls the pipe should be protected from frost by enclosing in wood. (Amended Ord. 92-711)

Subd. 2. Material requirements. Service pipes from the main to the inside shut-off shall be as follows: for repairs to existing 3/4 inch service, a 3/4 inch corporation stop, 3/4 inch copper tubing, ground stop curb stop with extension service box including a riser operating rod fastened to the curb box; for a one inch service and all new residential services, a one inch corporation stop, 1 inch copper tubing, ground stop curb box with extension service box including riser operating rod fastened to the curb stop; for 1 1/2 inch or 2 inch services a tapping saddle will be used, and the appropriate corporation stop installed into the saddle and copper tubing to a curb stop box with a riser operating rod installed. Copper pipe must conform in all respects to the standards published by the American Water Works Association, copies of which will be kept available in the office of the Water Superintendent. The service pipes must be a continuous piece from the main to the curbstop and from the curbstop to the structure if new construction. No compression fittings may be installed on services. For service lines over two inches, stainless steel tapping sleeves and rubber edged gate valves must be used and ductile iron service pipe; all materials to be of approved size and design. No deviation in size or weights or pipe is permitted unless a written special permit is obtained for that purpose. (Amended Ord. 92-711)

Subd. 3. Supply from one corporation stop. No more than one house maybe supplied from one corporation stop, which may not be larger than one inch, unless by special permit. No more than one building may be supplied from one pipe, connecting with the distribution main. Each building must have a separate stop box. (Added Ord. 92-711)

Subd. 4. Manifold Repairs. When manifolds incorporating two or more corporations are in need of repair the manifold system must be abandoned and a new corporation installed in accordance with the "Material Requirements" subdivision. Furthermore, the abandoned corporation from the manifold must be abandoned in accordance with "Old stops plugged" subdivision. No deviation from this subdivision is permitted unless a written special permit is obtained from the superintendent. (Added Ord. 92-711)

Subd. 5. Old stops plugged. When new buildings are erected on the sites of old ones, and it is desired to increase or change the old water service, no connections with the mains are permitted until the old corporation stops have been removed and the main plugged or the old corporation stops have been shut off if not leaking. When a building is demolished or being moved the existing water service must be shut off at the main and a section of the water line must be cut off so that a physical break exists. (Added Ord. 92-711)

Subd. 6. Responsibility of owner. The operation and maintenance of the service pipe from the property served to the main is the responsibility of the owner of the property served including the corporation stop connection at the main and the curb stop and curb box in the boulevard, and other valves and fixtures inside the building. (Amended Ord. 92-711)

Subd. 7. Street excavation. The street must be opened in a manner which will occasion the least inconvenience to the public, and provide for the passage of water along the gutters. One half of the street must be in good and safe condition at all times for the passage of vehicles or an adequate detour provided. No tunneling is permitted except when the exigencies of the case require such a permit. No excavation in any street or public place shall be left open over night except thoroughly barricaded or fenced off in accordance with the Minnesota Manual on Uniform Traffic Control Devices, and properly lighted so as to secure public safety. When a trench for pipe must be left open during the night, a sufficient number of lighted lanterns shall be placed over such trench, from twilight until daylight, and the trench shall be properly fenced. (Amended Ord. 92-711)

Subd. 8. Refilling openings. In refilling openings the earth must be replaced in the trench, and thoroughly tamped as directed by the Water Superintendent. The Water Superintendent may require new trench material hauled in and existing material hauled away if existing material is unacceptable. Disposing of the unacceptable material is the responsibility of the contractor. (Added Ord. 92-711)

Subd. 9. Pipes: protection. If openings are made for any purpose whatsoever, and water mains and service pipes exposed, measures must be taken to protect them from frost. In refilling openings, all the earth must be replaced in the trench, and if the earth is frozen, it must be removed and the excavation filled with pure bank sand, in layers of not over six inches, and thoroughly tamped to prevent after-settlement. (Amended Ord. 92-711)

Subd. 10. Inspections. The superintendent or inspector may examine, inspect and superintend plumbing work, excavating, refilling, materials and fixtures. A refusal to permit such inspection, or any interference with the inspector in the performance of his duty, is grounds for a suspension or forfeiture of the permit. (Amended Ord. 92-711)

Subd. 11. Change in schedule; notice required. If the plumber laying the service pipe fails to have the corporation stop inserted at the time specified in the application, notice must be left with the superintendent or inspector fixing another day on which the plumber wishes the corporation stop to be inserted. The notice must be given at least two days previous to the excavation for laying of the service pipe, and the corporation stop must be inserted before 4:00 o'clock p.m., local time, except in special cases, and then the work shall be done only by written order from the superintendent. (Amended Ord. 92-711)

710.21. Plumber's return. Plumbers shall make full returns of the ordinary and special uses to which the water is designed to be applied with a description of the apparatus and arrangements for using the water. The return shall be made by the plumber who obtained the permit within five days after the main is tapped and filed with the superintendent. The plumber's return shall also contain a correct measurement of the distance north or south, east or west, of the particular service pipe from the nearest corner, the measurement to be made on the face or front of the houses on the streets. The return shall contain the name of the street containing the pipe which has been tapped and whether the service pipe enters on the north, south, east or west side of the street, and the exact location of the stop-cock, and any other information required by the superintendent.

710.23. Leaks; failure to repair. In case of failure upon the part of any consumer or owner to repair any leak occurring upon a service pipe, within 24 hours after verbal or written notice to the owner or occupant of the premises, the water will be shut off and will not be turned on until the charges established by City Council resolution have been paid, together with such additional sum as may be necessary to reimburse the city of all expenses incurred by it because of such break. When the waste of water is great, or when damage is likely to result from the leak, the water will be turned off if the repair is not proceeded with immediately upon the giving of the notice. (Amended Ord.. 92-711)

710.25. Private water supplies. Subdivision 1. Separation. Water pipes of the city's public water system may not be connected to a pump, well or tank that is connected to a private waterworks system. (Added Ord. 92-711)

Subd. 2. Time for Connection. All properties consuming water for domestic purpose must either connect to the municipal water system within two years after such service becomes available, or annually submit a water test to the city's Inspection department that was performed by a State Certified laboratory. This test must be submitted by May 1st of every year, along with the proper processing fee established by Council Resolution. Tests must indicate that the water is potable according to the standards of the Minnesota Department of Health and that there is no evidence of recirculated sewage, including nitrates and coliform bacteria. If, from any cause, the water is not potable according to the standards, or the owner fails to submit the certification by June 15 of each given year, the owner shall make connection with the municipal water system within 30 days after written notice is given to the owner or occupant by the city. After the connection has been completed, the city will notify the Department of Health that a well, not in use, is located on said property. (Added Ord. 92-711)

Subd. 3. City installation. If the owner or occupant of any property notified in writing to install a water service and make the proper water connections thereto, fails, refuses, or neglects to make such connections within 30 days after written notice pursuant to subdivision 2 has been given, the council may, by resolution, direct that a water service be installed and connections be made with the water mains and that the cost of the installation be paid in the first instance out of the permanent improvement revolving fund of the city, and the actual cost thereof assessed against the property so benefited. (Added Ord. 92-711)

Subd. 4. Cost assessed. After such installation and connections are completed, there shall be served a written notice of such assessment and an order directing the owner or occupant of the property to pay the assessment within ten days after the service of notice. Upon proof of the service of such notice and order and proof that said assessment has not been paid within the ten days allowed, the clerk shall certify to the county auditor for collection of other assessments and benefits. The assessments shall be spread over a term of three years and shall become a lien upon said property until paid. (Added Ord. 92-711)

710.27. Frozen services. It is unlawful to connect electric welders to any portion of the water service for the purpose of thawing out a service. Any other method used for this purpose must be approved by the Water Superintendent. (Added Ord. 92-711)

710.29. Meter Tampering. Except for extinguishing fires, no person except authorized city employees may use water from the water system of the city or permit water to be drawn therefrom, unless the water is metered by passing through a meter supplied or approved by the city, or unless the water is paid for on a flat rate basis when using a hydrant. No person may connect, disconnect, take apart, or in any manner change, or cause to change, or interfere with a meter or the action thereof unless authorized by the Water Superintendent or his/her designee. Violation of this section shall subject the property owner to a fee of $50.00. Violation may also result in the discontinuance of water service either by shutting off the water at the stop box or by severing the service at the water main if the stop box is inoperable. Should the water service be discontinued, reestablishment may not be made until:

(1) All charges for discontinuance of the water service are paid, including the fee for interfering with a meter, if applicable;
(2) All charges for reinstitution of water service are paid. (Amended Ord. 2004-929)

New 710.30. Meter Responsibility & Testing. Subdivision 1. The city will maintain and repair or replace all residential meters up to and including one (1) inch when rendered unserviceable through ordinary wear and tear. When replacement, repair or adjustment of a meter is rendered necessary by the act, neglect or carelessness of the owner or occupant of a premises, the expense caused the city thereby will be charged against and collected from the owner or occupant of the premises by a statement of charge itemizing the repairs. The property may be tagged and appropriately charged, and the water service may be disconnected until the cause is corrected and the charge collected. All residential meters up to and including one (1) inch are the property of the city, and may be replaced or changed by the Water Superintendent when necessary. (Amended Ord. 2004-929)

Subd. 2. Repair and maintenance of all meters over one (1) inch shall be the responsibility of the property owner. Maintenance of meters over one (1) inch shall include: certification testing once every ten years or when deemed necessary by the city's utility billing department, necessary meter repairs to correct deficiencies, meter replacement when deemed necessary by the City Public Works Department or Finance Department to ensure water metering accuracy or to maintain compatibility with a city meter reading program and technology and submittal of test results to the city's billing department demonstrating meter is accurate. (Amended Ord. 2004-929)

Subd. 3. Failure to allow the city access to the water meter for inspection or repair purposes, or failure to test and repair all meters after 30 days written notice from the city shall be considered an act of negligence and shall be subject to a fine of $100 per month including the 30 day notice period. A person violating this subsection is guilty of a misdemeanor and the superintendent may disconnect the water supply to such meter. (Amended Ord. 2004-929)

710.31. Hydrants: tampering. A fire hydrant may not be opened without the proper authority. Any person violating this section shall be guilty of a misdemeanor and in addition thereto shall be liable to the city for the value, at regular city rates, for the amount of water running out of the hydrant during the period it was open, as such amount of water may be determined by the superintendent.

710.33. Special Connections. Where a connection is made to an automatic sprinkler system, stand pipe for standby service only, or a fire hydrant on private property, meters or detector check valves must be installed on such services as required by the city. Should it be found that water not metered is used through a fire connection for any purpose other than the extinguishing of fire upon the premises, the owner and occupant will be notified, and if such improper conditions are not corrected within ten days, the water will be shut off until proper adjustments are made and the owner shall be subject to the penalties as provided in this ordinance. Regular inspections shall be made of all fire service connections with all piping, fire gates and other attached appurtenances.
Employees of the Water and Fire departments shall have access to the premise for such inspection and shall keep a record of all inspections made. (Added Ord. 92-711)

710.35. Water towers: checking. It is unlawful for a person to ascend the ladders or steps connected with the water towers or tanks of the city, or stand upon the platforms thereof, unless authorized to do so by the superintendent or manager. Violation of this subsection is a misdemeanor.

710.37. Right to shut off water or vary water pressure. The Public Works department reserves the right, at any time when necessary and without notice, to discontinue water supply or to vary water pressure for the purpose of making repairs or extensions or for any other purpose deemed to be in the best interest of the general public health and welfare. No claim shall be made against the city for any damage that may result from shutting off water or from varying the water pressure. The Public Works department shall give notice prior to shutting off water if conditions are such that it is possible to do so. (Added Ord. 92-711)

710.39. Pressure and supply not guaranteed. The Public Works department does not guarantee the customer any fixed pressure or a continuous supply. In emergencies water may be shut off without notice. (Added Ord. 92-711)

710.40 Water use restrictions.

Subd 1. Whenever there is a fire in any area served by the public water system, all lawn hoses, sprinklers, and other irrigation systems must be shut off and all other unnecessary use of water must by stopped immediately. (Added Ord 2008-998)

Subd. 2. Whenever the City Manager determines that a shortage threatens the City's water supply, the City Manager may, by published notice, limit the times and hours during which water may be used for lawn or garden watering, irrigation, car washing, swimming pools, recreational use, air conditioning or other uses, notwithstanding any provision of Subd. 3 to the contrary. No person may violate the terms of this published notice. A notice of these special limitations shall be mailed or delivered to a violator upon a first offense. The city may discontinue water service to any customer who continues to cause or otherwise permits water to be used in violation of the provisions after notification of the first offense. (Added Ord 2008-998)

Subd 3. To conserve water resources and allow the City's water system adequate opportunity to replenish the water supply in the City's water storage tanks, certain limitations must be placed on the use of the City's water supply. At any time of year, a person may only sprinkle or irrigate lawns, gardens, or other planted landscaping or vegetation in the City:

a) Before 11:00 a.m. and after 5:00 p.m. on calendar dates ending in an odd number for properties with street addresses ending in an odd number, or on calendar dates ending in an even number for
properties with street addresses ending in an even number. (Added Ord 2008-998)

Subd 4. The restrictions established in 710.40, subd 3. do not apply to the use of water:

a) from a hose being held by a person during the entire time it is in operation.

b) under the conditions of a permit issued by the public works director for special situations such as the watering of new sod or when establishing new turf areas by seeding.

c) from a source of water other than the city's water system if the water user has registered the other source with the city and obtained a water appropriation permit if required under Minnesota Statutes and posted a sign provided by the city that clearly informs the public of the alternative water source. The city reserves the right to inspect the property of any person that is using water under an exception to ensure compliance with the exception provisions. (Added Ord 2008-998)

Subd 5. Penalties.

a) A violation of the restrictions contained in Section 710.40 is a petty misdemeanor; however, a third or subsequent violation within a 12 month period is a misdemeanor.

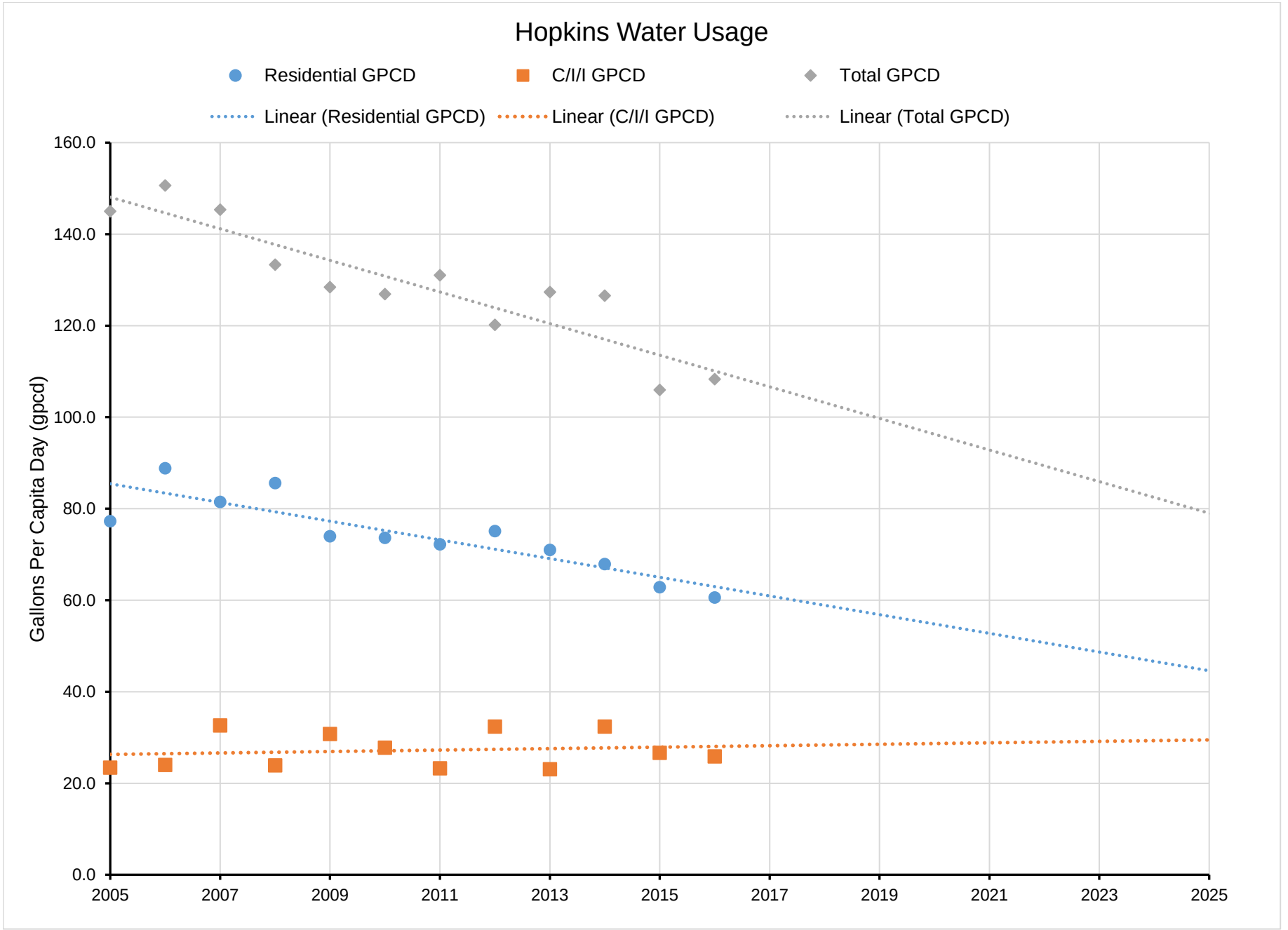
b) In addition, an administrative penalty may also be imposed for each violation of the restrictions contained in Section 710.40. This administrative penalty will be collected with water usage charges as a surcharge for the premises where the violation occurred. The penalty will be $50 for the first violation and will increase by $25 for each subsequent violation within a calendar year. The City Manager or designee will mail a notice of surcharge to the violator upon imposition of a surcharge. A surcharge may be appealed in writing within 20 days to the Public Works Director. (Added Ord. 2008-998)

710.41. Disclaimer of liability. The Public Works department shall not be held responsible by reason of the breaking of any service pipe or apparatus, frozen water services, shut-off, fixtures within the premise, for failure in the supply of water, or variances in pressure. (Added Ord. 92-711)

710.43. Authority: manager. The manager, with the approval of the council, may make rules and regulations supplemental and in addition to the terms and provisions of this section regulating and governing the water works system and the employees of the city working in, or assigned to the water utility department. The manager may limit, regulate or prohibit the use of city water furnished by the city water utility to any person and may, with the approval of the council, issue orders or regulations from time to time prohibiting or otherwise regulating the use of city-furnished water for sprinkling, air conditioning or any other use which may in the opinion of the manager be detrimental to the proper maintenance and functioning of the city water utility system or to the health, safety and general welfare of the residents of the city. (Amended Ord. 92-711)

Appendix 8

Graph(s) showing annual per-capita water demand for each customer category


Hopkins Water Usage
Residential GPCD
C/I/I GPCD
Total GPCD
Linear (Residential GPCD)
Linear (C/I/I GPCD)
Linear (Total GPCD)
Gallons Per Capita Day (gpcd)
160.0
140.0
120.0
100.0
80.0
60.0
40.0
20.0
0.0
2005
2007
2009
2011
2013
2015
2017
2019
2021
2023
2025

Appendix 9

Water Rate Structure

CITY OF HOPKINS, MINNESOTA
Home > City Services > Water & Sewer > Utility Rates & Billing

Utility Rates & Billing

Utility bills are sent out no later than the third working day of the month and are due the 20th* of the month (or next working day if the 20th falls on a weekend or federal holiday).

There is a 3-calendar day grace period before a 10% penalty on the current water, sewer, refuse and storm sewer charges will be applied to the account.

*The due date is NOT a postmark date. Payments must be received on or before the 20th of the month. (However, payments **received** within three calendar days of the due date will not receive a penalty.)

View a sample bill with information on how to read the bill.

Welcome Packet for New Utility Accounts

The Utility Billing Welcome Packet contains utility information on the property you recently purchased.

Payment Options

Online payment

Pay Utility Bill Online >

Paying online for the first time?

Automatic Payment from Checking or Savings Account

Automatic payment from your checking or savings account is available. Download the authorization form to fill out, mail, and return to the City.

Credit Card Payment In Person/Through Online Portal

Visa, MasterCard or Discover are accepted. You may stop into City Hall or pay online through the utility billing portal.

After Hours Payment

An after hours utility payment drop box is available 24 hours a day, seven days a week at City Hall. The drop box is located on the east side of City Hall next to visitor parking.

Fees on your utility bill (effective January 1, 2017)

Service	Rate	Description
Water	**Flat Meter Rates** Residential – 5/8" meter: $2.39 Residential – 1" meter: $2.39 Apt/Commercial – 1.5-2" meter: $4.77 Apt/Commercial – 3" meter: $7.16 Apt/Commercial – 4" meter: $9.54 Apt/Commercial – 6" meter: $14.31	The monthly charge is based on meter size and number of meters. This is a monthly fixed charge for all customers.
	Residential and Multi-Family Consumption Tiered Rates 0-3,000 gallons: $2.44 3,001-5,000 gallons: $2.81 5,001 gallons and over: $3.23	The water consumption charges per 1,000 gallons for residential and multi-family units. Multi-family units receive credit for each unit in the complex when calculating tiered rates. For example, if a multi-family unit has 50 units, each unit is treated as an individual user when calculating the tiers. In this multi-family example of 50 units using 319,000 gallons the bill would be calculated as follows:

		50 units x 3,000 gallon for the 1st tier rate (150,000 gallons) 50 units x 1,999 gallons for the 2nd tier rate (99,950 gallons) All usage above would be at the 3rd tier rate (319,000-150,000-99,950 = 69,050 gallons) These charges will vary with water usage
	Commercial Tiered Rates 0-10,000 gallons: $2.33 10,001-20,000 gallons: $2.68 20,001 gallons and over: $3.08	The water consumption charges per 1,000 gallons for commercial customers. These charges will vary with water usage.
	Production Meter: $2.45	The water consumption charge for customers who use water as a component of a product (ie. beverages).
Sanitary Sewer	$5.81/1,000 gallons used	A sewer base or cap is calculated each year during the winter period for residential accounts. How is the residential sanitary sewer charge calculated?
Irrigation Meter	$2.92/1,000 gallons used	Rate charged for metered lawn irrigation. Implemented to comply with the state water conservation law .
Storm Sewer	$5	Flat fee that each resident pays per month. The storm sewer charge is for maintenance, renovation, and additions to the existing storm sewer system. The storm sewer is for water runoff (rainstorms, winter thaw, etc).
Recycling	$5	Flat fee that each resident pays per month.
Refuse 35 Gallon 65 Gallon 95 Gallon	 $17.85 $21.85 $25.30	Flat fee that each resident pays for one container. This fee covers charges connected in the garbage collection process: container costs, vehicle costs, labor, insurance, and disposal of garbage at a designated facility, etc.
State Solid Waste Mgmt Fee	Varies	State charge of 9.75% calculated on the refuse portion of the bill. Also applies to bulk pickup charges. These fees are remitted back to the State of Minnesota.
State Health Fee	$6.36	Yearly charge for connection to public utility. This is a State mandated charge. All funds collected by the City are remitted to the State Department of Revenue.
Hennepin County Solid Waste Mgmt Fee	Varies	Hennepin County charge of 9% calculated on the Refuse portion of the bill. Also applies to bulk pickup charges. These fees are remitted back to Hennepin County.

Starting or Cancelling Services for a Property

Purchasing Property

If you are purchasing a property, please contact the Utility Billing office **before** the date that you close on the property. You will need to request a water meter reading for the date you close on the property. We will need to know the name that you would like to appear on the account and the address where the bills should be sent.

We will also be able to let you know if the former owner has called to stop their service, and if there are any outstanding utility bill amounts owing on the property. If the former owner does not pay their final utility bill, it remains with the property and utility account. The new owner is responsible for all amounts owing on the account.

Rental Property

If the property is or will be a rental property, the account must remain in the owner's name, and the bills mailed to the owner's address. All utility accounts remain in the owners' name only, and cannot be placed in a renters' name. Owners are responsible for receiving and paying the monthly bills. The owner is liable to the City for all bills accruing through the use of utility services whether used by the owner, renter/lessee, or other occupant.

About certification of delinquent utility charges to be collected with property taxes

Delinquent utility service charges left unpaid by current or former customers along with associated administrative fees, plus interest, may become a lien on the property served and be certified to Hennepin County to be collected with next year's property taxes.

Notices are mailed on or before July 1 each year for accounts with delinquent balances owing on charges billed through May 31 of the current year. If the delinquent balances are not cleared, the amounts are sent to the Assessing Department for certification to the property taxes. A list of delinquent accounts is published in the Sun Sailor in mid-November.

Why are City utilities the responsibility of the property owner, when it is the tenant or occupant using the utilities?
Does the City have authority to make me responsible for utilities used by the tenant?
What difficulties has the City encountered in billing the property's tenant?
Why can't the landlord have the tenant's water shut off?

Selling Property

If you are selling a property, please contact the Utility Billing office **before** the closing date. You will need to request a final water meter reading for the property. After the final water meter reading is taken, a final billing will be issued. We will also need to know the address where the final bill is to be sent.

Contacts

Accounting Technician & Utility Billing
Vicky Granite
952-548-6332

Save Water

Read 20 tips to lower your water bill

Temporary stop of refuse services

If your house will be vacant for 30 days or more, you can temporarily stop refuse services. You must contact the City to let us know the date you will be leaving, as well as the date to re-instate services. The garbage container must be stored in a secure area, such as your garage.

Utility Services

To have the water turned on or shut off at the curb, contact the Utility Services Division at the Public Works main office number 952-939-1382.

Appendix 10

Adopted or Proposed regulations to reduce demand or improve water efficiency

CITY OF HOPKINS, MINNESOTA
Home > Your Home & Yard > Yards & Gardens > Lawn Watering

Lawn Watering

Water is our most precious natural resource. To help conserve it and ensure adequate water is available for normal daily use and emergency situations, the City of Hopkins enforces the following watering restrictions year-round. (City Code Section 710.40 .)

Watering restrictions

No watering is allowed from 11 a.m. to 5 p.m.
This reduces water wasted through evaporation and allows pumps to refill water storage tanks for evening peak use.

Odd/even sprinkling is allowed at all other times
Homes with even-numbered addresses may water their lawns before 11 a.m. or after 5 p.m. on even-numbered dates. Homes with odd-numbered addresses may water before 11 a.m. or after 5 p.m. on odd-numbered dates.

Exceptions

No-cost permits are available through the Public Works Department to allow proper watering of new sod or seeded areas.

Residents may hand-water flower beds, wash cars, etc. as long as the water use is not unattended.

The restrictions do not apply to people using sources of water other than the City water system.

Enforcement

City employees enforce the water restrictions when they see violations. Warning tickets will be issued, followed by fines for repeat offenders.

Keep your lawn green with less water

Lawn watering is the single biggest residential use of water. You can have a green lawn and conserve water by following these guidelines:

Keep grass at **3.5 inches** in height to encourage deeper roots and retain more water

Established lawns require only **1 to 1.5 inches of water** every 7 to 10 days, including rainfall. Time how long it takes to fill a pan set out on the lawn with one inch of water and use that information in the future to avoid excessive watering.

It is better to water on infrequent, but deep watering cycles.

The best time to water your lawn is in the **early morning**.

Contacts

Water & Sewer Superintendent
Ismail Eddihi
952-548-6373

Use a Rain Barrel

The Recycling Association of Minnesota provides opportunities to buy inexpensive rain barrels every spring.

Rain barrels collect rain from your rain gutter for use in your garden. This saves money by cutting down on water usage. The water is clean and environmentally friendly, and healthier for plants.

CITY OF HOPKINS, MINNESOTA
Home > More for Residents > Environment > 20 Ways to Save Water

20 Ways to Save Water

1. Use a displacement device (a water-filled bottle) in the toilet tank to reduce the amount of water required to flush.
2. Use toilet only for its intended purpose. Don't use the toilet to dispose of trash or tissues.
3. **Repair** leaky taps or toilets immediately. A slow drip wastes 15-20 gallons of water/day.
4. Consider a small capacity toilet when replacing an old one.
5. Take **shorter showers**.
6. Don't let the faucet run when brushing teeth, or shaving. Turn on only when needed.
7. **Flush toilets less** often whenever possible.
8. Let smaller children bathe together.
9. When washing dishes by hand fill a basin or sink for rinsing rather than let the water run.
10. Run dishwashers **only when full**.
11. Avoid running the tap for a glass of water. Put a bottle in the refrigerator to stay cold.
12. Never pour oil or grease in the drain. It requires too much water to rinse it down and may clog the drain.
13. **Wash only full loads** of clothes.
14. Use buckets and tubs to wash your car or the dog, rather than a continuous running hose.
15. Water lawns and gardens only when needed and only during the early morning or evening when evaporation is lower. (See Hopkins Watering Restrictions)
16. Use a nozzle on your garden hose to act as flow-restrictor and reduce water use significantly.
17. Cutting grass to **no less than 2 or 3 inch height** will reduce the amount of water needed.
18. Sweep sidewalks and driveways instead of washing them down with a hose.
19. **Reuse** as much water as possible.
20. If lawn watering is scheduled let kids play in the hose or sprinkler in a grassy area instead of filling a wading pool.

Contacts

Solid Waste Coordinator
Pam Hove
952-548-6351

Appendix 11

Implementation Checklist

The City of Hopkins plans to focus on continuing to reduce and maintain low residential and total demands. They currently are proactive in reducing demands and will continue to utilize all resources to reduce demands.

Activity Implemented	Activity or Action Item	Timeframe
X	Revise city ordinances/codes to limit irrigation	Ongoing. City continues to review and revise as needed
X	Make water system infrastructure improvements	Ongoing
X	Revise ordinance to limit irrigation – Odd and even day sprinkling ban enforcement	Ongoing. City continues to review and revise as needed
	Implement a notification system to inform customers when water availability conditions change.	Possibly within 10 years. Must discuss with Council and other planning groups
	Conduct audience-appropriate water conservation education and outreach.	Possibly within 5 – 7 years
X	Offer free or reduced cost water use audits) for residential customers.	City now uses automated meter readings to identify spikes in user water usage and works with the homeowner to identify the source.
X	Repair leaking system components (e.g., pipes, valves)	Ongoing

Minnesota Water Supply Plan Instructions & Checklist 2016-2018

Public Water Suppliers

All public water suppliers in Minnesota that operate a public water distribution system, serve more than 1,000 people and/or all cities in the seven-county metropolitan area, must have a water supply plan approved by the Department of Natural Resources (DNR). Water supply plans must be updated and submitted to the DNR for approval every ten years. This requirement, in place since the 1990s, is designed to encourage communities to deal proactively with providing sustainable drinking water for citizens, businesses, and industry.[1]

These plan updates will be due between 2016 and 2018; the DNR will be notifying communities of the due date for each specific city water plan. All sections of the water supply plan must be completed in order for the plan to be approved. A checklist is included with these instructions on pages 4 and 5.

What is New?

- Plans can be submitted through Minnesota DNR Permitting and Reporting System (MPARS).
- DNR Hydrologists will be meeting with clusters of communities rather than individually. In the Twin Cities metropolitan area, Metropolitan Council staff will also provide technical assistance and in Greater MN, staff from MN Rural Waters Association will join us.
- There is a greater emphasis on water conservation/demand reduction and on developing rate structures that encourage conservation.
- Simplified reporting: More tables with check boxes; less writing required.
- Part 4 of the plan, required for communities in the seven-county metropolitan area, now reflects the Twin Cities metropolitan area Master Water Supply Plan
- Resources - can be found at www.mndnr.gov/watersupplyplans including copies of sample rate structures, conservation ordinances, education programs, water level recording forms, certificate of adoption, and other items as well as links to useful conservation web pages.

Submitting a Plan for DNR Approval

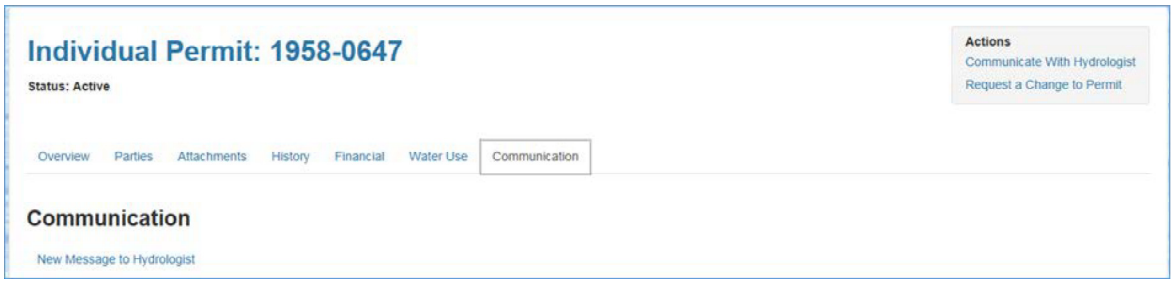
Preferably, please submit plans electronically to:

https://webapps11.dnr.state.mn.us/mpars/public/authentication/login

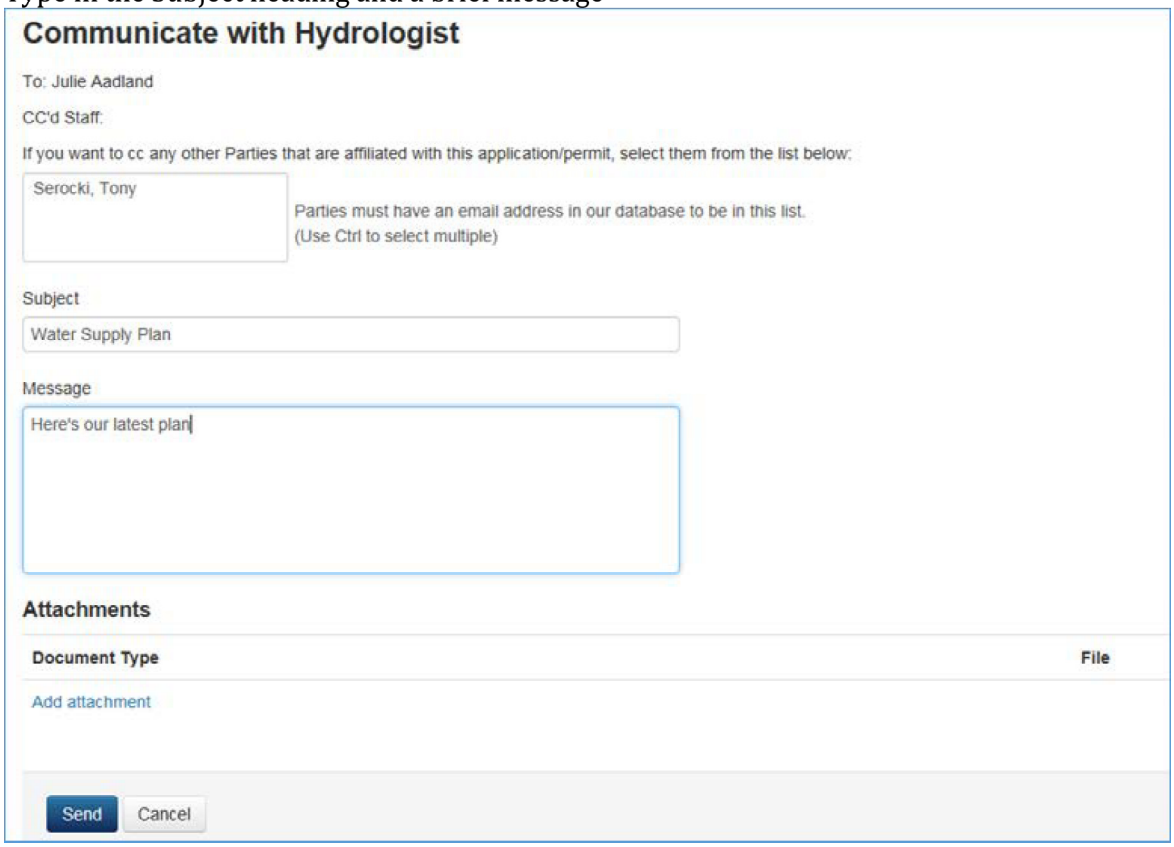
Steps for electronic submission:

1. Follow the above link and log into MPARS.
2. From your Account Overview Permits Tab, click on your primary Water Supply Permit Number.
3. Then click on Communication Tab.
4. Click New Message to Hydrologist (under Communication heading)

[1] see Minn. Stat. 103G.291



5. Type in the Subject heading and a brief message



6. Click Add Attachment
7. Under Document Type drop down, select Water Supply Plan
8. Click choose file and attach your Water Supply Plan - Naming convention: WSP_cityname_permitnumber_date.doc
   Please include list of all permit numbers associated with this Water Supply in the message field
9. Hit Send at the bottom of the page

Or submit completed plans to:

DNR Waters
Water Permit Programs Supervisor
500 Lafayette Road
St. Paul, MN 55155-4025

Plans for communities in the seven-county metropolitan area will be automatically shared with the Metropolitan Council.

If you have questions regarding water supply plans, please call (651) 259-5034 or e-mail questions to wateruse.dnr@state.mn.us

Twin Cities Metropolitan Area Requirements

All communities that operate a public water supply system within the seven county Twin Cities metropolitan area, even those with fewer than 1,000 people, must complete a local water supply plan and submit it to the Metropolitan Council, adjacent communities, and the county for review and comment. These plans include completion of Part 4 of the local water supply plan template.

Please submit plans to DNR Ecological and Water Resources Division as described above. Plans for communities in the seven-county metropolitan area will be shared with the Metropolitan Council.

Final Plan Adoption by City or Board

Communities give the plan preliminary approval subject to DNR review and, for communities in the seven-county metropolitan area, by Metropolitan Council review.

If the DNR or Metropolitan Council have recommended changes, the community should incorporate them into the plan or respond before the plan is finally adopted.

Communities and utility boards must officially adopt the plan after it is approved by the DNR and, for metro communities, reviewed by Metropolitan Council.

A template of a city certification of adoption is found at www.mndnr.gov/watersupplyplans

Water Supply Plan Checklist

All sections of the plan must be completed in order for the plan to be approved. The following checklist can be used to make sure all elements of the plan have been completed.

Part 1. Water Supply System Description and Evaluation

☑	Table 1. DNR Water Appropriation Permit Number & Utility Contact Information
☑	Table 2. Historic Water Demand (Part 1, A)
☑	Table 1. Large volume users (Part 1, A)
☑	Table 2. Water treatment capacity and treatment processes (Part 1, B
☑	Table 3. Storage capacity, as of the end of the last calendar year (Part 1, B)) & discussion of current and future storage capacity needs
☑	Table 4. Water sources & status (Part 1, C) & discussion of limitations
☑	Table 5. Projected annual water demand (Part 1, D) & discussion of water use trends & projection method
☑	Table 6. Source water quality monitoring (Part 1, E)
☑	Table 9. Water level data (Part 1, E)
☑	Table 10. Natural resource impacts (Part 1, E)
☑	Table 11. Status of Wellhead Protection and Source Water Protection Plans (Part 1, E)
☑	Table 12. Adequacy of Water Supply System (Part 1, F)
☑	Table 13. Proposed future installations/sources (Part 1, F)
☑	Table14. Alternative water sources (Part 1, F)
☑	Appendix 1: Well records and maintenance summaries
☑	Appendix 2: Water level monitoring plan
☑	Appendix 3: Water level graphs for each water supply well
☑	Appendix 4: Capital Improvement Plan

Part 2. Emergency Planning and Response Procedures

☑	Table 15. Emergency response plan contact information (Part 2, A) & Y/N questions
☑	Table 16. Interconnections with other water supply systems to supply water in an emergency (Part 2, C) & Y/N questions
☑	Table 17. Utilizing Surface Water as an Alternative Source (Part 2, C) & discussion of additional emergency water provisions
☑	Table 18. Water use priorities (Part 2, C)
☑	Table 19. Emergency demand reduction conditions, triggers and actions (Part 2, C)
☑	Table 20. Plan to Inform Customers Regarding Conservation Requests, Water Use Restrictions, and Suspensions (Part 2, C) & discussion of restriction authority
☑	Appendix 5: Emergency Telephone List
☑	Appendix 6: Cooperative Agreements for Emergency Services
☑	Appendix 7: Municipal Critical Water Deficiency Ordinance

Part 3. Water Conservation Plan

☑	Table 21. Implementation of previous ten-year Conservation Plan (Part 3, A) & discussion of progress and results
☑	Table 22. Short and long-term demand reduction conditions, triggers & actions (Part 3, A)
☑	Y/N & discussion of leak detection monitoring , water audits & water loss (Part 3, B)
☑	Table 23. Customer Meters (Part 3, B)
☑	Table 24. Water Source Meters (Part 3, B)
☑	Y/N & discussion of water use trends in residential GPCD (Part 3, B)
☑	Table 25. Strategies and timeframe to reduce residential per capita demand (Part 3, B)
☑	Table 26. Strategies and timeframe to reduce institutional, commercial, industrial, and agricultural and non-revenue use demand (Part 3, B)
☑	Describe trends in customer use categories (Part 3, B)
☑	Calculate ratio of maximum day demand to average day demand (Part 3, B)
☑	Table 27. Rate structures for each customer category (add additional rows as needed)
☑	Table 28. Additional strategies to Reduce Water Use & Support Wellhead Protection (Part 3, B)
☑	Discuss how you will track success (Part 3, B)
☑	Table 29. Regulations for short-term reductions in demand and long-term improvements in water efficiencies (Part 3, B)
☑	Table 30. Retrofitting programs (Part 3, B)
☑	Table 31. Current and Proposed Education Programs (Part 3, C) and discussion of future education plans
☑	Appendix 8: Graph showing annual per capita water demand for each customer category during the last ten-years
☑	Appendix 9: Water Rate Structure
☑	Appendix 10: Adopted or proposed regulations to reduce demand/improve water efficiency
☑	Appendix 11: Implementation Checklist

Part 4. Items Metropolitan Area Water Suppliers

☑	Table 32. Alternative Approaches (Part IV, D)
☑	Complete Technical Assistance question

Plan Submittal and Adoption

☐ Follow MPARS submission guidelines on page 1 of this document (preferred) or
Mail to: DNR Ecological & Water Resources
Water Permit Programs Supervisor
500 Lafayette Road
St. Paul, MN 55155-4032 Or e-mail to http://www.dnr.state.mn.us/mpars/index.html

☐ *(Metro communities with less than 1,000 people only)*
Follow MPARS submission guidelines on page 1 of this document (preferred) or
Mail to: Metropolitan Council
Reviews Coordinator
390 N Robert St
St. Paul, MN 55101 Or e-mail to ReviewsCoordinator@metc.state.mn.us

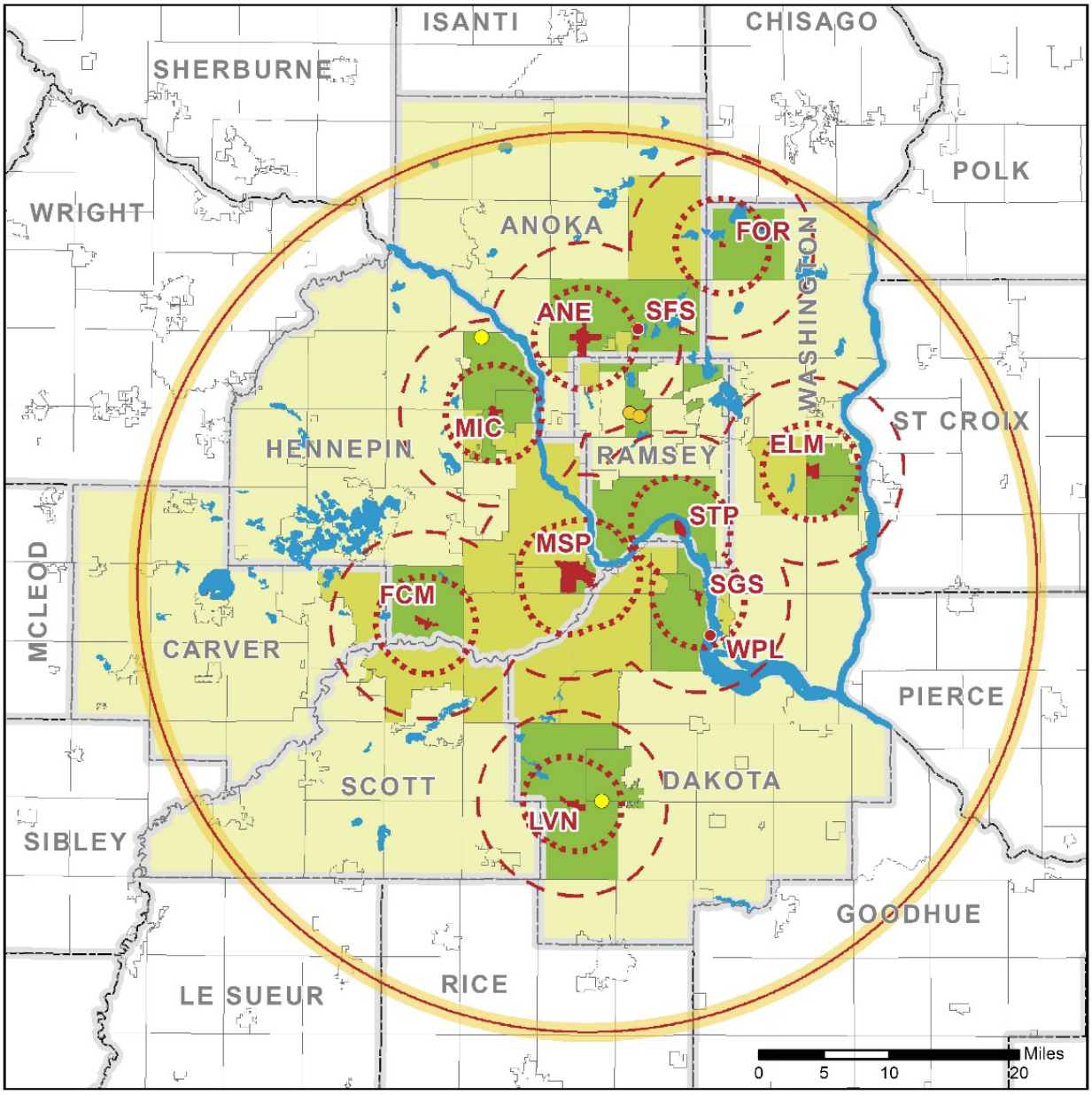
Certification of Plan Adoption Date:

Appendix 12

Sources of Information/Additional Educational Material

Figure 9-1 of the TPP

Airport Service Areas



Public Owned Public Use Airport

Airport Compatibility Area
(3 NM's – Noise, Zoning, Infrastructure)
(6 NM's – Landfills, Wind Towers)

MSP Minneapolis – St. Paul International Airport *(Wold-Chamberlain Field)*

STP St. Paul Downtown Airport *(Holman Field)*

ANE Anoka County – Blaine Airport *(Janes Field)*

FCM Flying Cloud Airport

MIC Crystal Airpot

SGS South St. Paul Airport *(Fleming Field)*

ELM Lake Elmo Airport

LVN Airlake Airport

FOR Forest Lake Airport

Privately Owned Public Use Airport

SFS Surf-Side Seaplane Base *(Rice Lake)*

WPL Wipline Seaplane Base *(Miss. River)*

Minneapolis Class-B Airspace Boundary

Permitted Seaplane Surface Waters *(within 7 County Area only)*

VOR Protection Zone

Tall Tower Areas

Aviation Facility Located in Community

Community Directly Affected by Facility(s)

General Airspace Notification/Protection

WATER RESOURCE REQUIREMENTS/ WASTEWATER SYSTEM STATEMENT

City of Hopkins

The *2040 Water Resources Policy Plan* includes policies and strategies to achieve the following goal:

> *To protect, conserve, and utilize the region's groundwater and surface water in ways that protect public health, support economical growth and development, maintain habitat and ecosystem health, and provide for recreational opportunities, which are essential to our region's quality of life.*

The Policy Plan takes an integrated approach to water supply, water quality, and wastewater issues. This approach moves beyond managing wastewater and stormwater only to meet regulatory requirements by viewing wastewater and stormwater as resources, with the goal of protecting the quantity and quality of water our region needs now and for future generations.

The Policy Plan includes policies and strategies to:

- Maximize regional benefits from regional investments in the areas of wastewater, water supply and surface water.
- Pursue reuse of wastewater and stormwater to offset demands on groundwater supplies.
- Promote greater collaboration, financial support, and technical support in working with partners to address wastewater, water quality, water quantity and water supply issues.
- Implement environmental stewardship in operating the regional wastewater system by reusing wastewater, reducing energy use and air pollutant emissions, and reducing, reusing, and recycling solid waste.

Key Concepts in the *2040 Water Resources Policy Plan*

Adopted by the Metropolitan Council in May 2015, the *2040 Water Resources Policy Plan* is the metropolitan system plan for metropolitan wastewater services with which local comprehensive plans must conform. The Policy Plan incorporates the following changes*:*

- Centers on and around an integrated approach to water supply, wastewater, and surface water planning.
- Promotes the investigation of the issues and challenges in furthering our work in water conservation, wastewater and stormwater reuse, and low impact development practices in order to promote a more sustainable region.
- Promotes the concept of sustainable water resources where, through collaboration and cooperation, the region will take steps to manage its water resources in a sustainable way aimed at:
  - Providing an adequate water supply for the region
  - Promoting and implementing best management practices that protect the quality and quantity of our resources
  - Providing efficient and cost effective wastewater services to the region
  - Efficiently addressing nonpoint and point sources pollution issues and solutions, and,
  - Assessing and monitoring lakes, rivers, and streams so that we can adequately manage, protect, and restore our valued resources.
- Continues the Council's position that communities that permit the construction and operation of subsurface sewage treatment systems and other private wastewater treatment systems are

responsible for ensuring that these systems are installed, maintained, managed and regulated consistent with Minnesota Rules Chapter 7080-7083.
- Includes requirements in Appendix C for comprehensive sewer plans, local water plans, and local water supply plans.
- Establishes inflow and infiltration goals for all communities served by the regional wastewater system and requires all communities to include their inflow and infiltration mitigation programs in their comprehensive sewer plan.
- Works with the State to attempt to (1) make funds available for inflow and infiltration mitigation, and (2) promote statutes, rules, and regulations to encourage I/I mitigation.

Hopkins should consult the complete Policy Plan in preparing its local comprehensive plan. In addition, Hopkins should consult *Thrive MSP 2040* and the *Local Planning Handbook* for specific information needed in its comprehensive plan.

System Plan Considerations Affecting Your Community

Metropolitan Sewer Service

Under state law (Minn. Stat. 473.513) local governments are required to submit both a wastewater plan element to their comprehensive plan as well as a comprehensive sewer plan describing service needs from the Council. Specific requirements for the sewer element of your comprehensive plan can be found in the Water Resources section of the *Local Planning Handbook*.

Forecasts

The forecasts of population, households, employment, and wastewater flows for Hopkins as contained in the adopted *2040 Water Resources Policy Plan* can be found at: *http://www.metrocouncil.org/Wastewater-Water/Planning/2040-Water-Resources-Policy-Plan.aspx* and on your Community Page in the *Local Planning Handbook*. These forecasts are for sewered development. The sewered housing forecasts were estimated using SAC data, annual city reports, current trends, existing and future local wastewater service areas and other information relating to your community. The wastewater flows are based on historical wastewater flow data, future projected wastewater generation rates, and the projected sewered population and employment data.

The Council will use these growth and wastewater flow forecasts to plan future interceptor and treatment works improvements needed to serve your community. The Council will not design future interceptor improvements or treatment facilities to handle peak hourly flows in excess of the allowable rate for your community. Hopkins, through its comprehensive planning process, must decide the location and staging of development, and then plan and design its local wastewater collection system to serve this development. The Council will use its judgment as to where to assign growth within your community to determine regional system capacity adequacy. If Hopkins wishes to identify specific areas within the community to concentrate its growth, it should do so within its Comprehensive Sewer Plan.

You should also note that urban development at overall densities that are substantially lower than those identified for your community in the Community Designation Section of this Systems Statement will also be analyzed by the Council for their potential adverse effects on the cost of providing metropolitan sewer service.

Description of the Metropolitan Disposal System Serving Your Community

Figure 1 shows the location of the Metropolitan Disposal System (MDS) serving your community.. Wastewater flow from the northern portion of Hopkins is conveyed through Minnetonka and treated at

the Blue Lake WWTP, whereas the rest of the City's wastewater flow is treated at the Metropolitan WWTP located in St. Paul.

Description of the Regional Inflow/Infiltration (I/I) Program

The *2040 Water Resources Policy Plan* states that the Council will establish I/I goals for all communities discharging wastewater to the MDS. Communities that have excessive I/I in their sanitary sewer systems will be required to eliminate excessive I/I. The Council will continue the implementation of its on-going I/I reduction program. Communities identified through the program as needing to eliminate excessive I/I will be required to submit a work plan that details work activities to identify and eliminate sources of I/I. The Council can limit increases in service within those communities having excess I/I that do not demonstrate progress in reducing their excess I/I. The Council will meet with the community and discuss this alternative before it is implemented.

It is required that those communities that have been identified as contributors of excessive I/I, and that have not already addressed private property sources, do so as part of their I/I program. Significant work has been accomplished on the public infrastructure portion of the wastewater system. The Council will pursue making funds available through the State for I/I mitigation, and promote statutes, rules and regulations to encourage I/I mitigation.

Management of Subsurface Sewage Treatment Systems (SSTS) and Private Systems

The Metropolitan Land Planning Act requires the sewer element of the local comprehensive plan to describe the standards and conditions under which the installation of subsurface sewage treatment systems and other private wastewater treatment systems will be permitted and to the extent practicable, the areas not suitable for public or private systems.

The appropriate density for development with subsurface sewage treatment systems depends on the suitability of the soils to treat wastewater and whether space is available for a primary and back up drainfield. It is the Council's position that all municipalities and counties allowing subsurface sewage treatment systems should incorporate current MPCA regulations (Minn. Rules Chapter 7080-7083) as part of a program for managing subsurface sewage treatment systems in the sewer element of their local comprehensive plan and implement the standards in issuing permits.

Hopkins should adopt a management program consistent with state rules. An overview of Hopkins's management program must be included in the community's local comprehensive plan update. If adequate information on the management program is not included; the comprehensive plan will be found incomplete for review until the required information is provided to the Council. Specific requirements for the local comprehensive plan can be found in the *Local Planning Handbook*.

Small private treatment plants are located throughout the Metropolitan Area serving such developments as individual industries, mobile home parks, and other urban type uses. The Council's position is that such private wastewater treatment plants should be permitted only if they are in areas not programmed for metropolitan sewer service in the future and they are provided for in a community's comprehensive plan that the Council has approved. Furthermore, the community is responsible for permitting all community or cluster wastewater treatment systems consistent with Minnesota Rules Chapter 7080-7083 and MPCA standards. The Council will not provide financial support to assist communities if these systems fail.

Hopkins should include in the sewer element of its local comprehensive plan the conditions under which private treatment plants or municipal treatments would be allowed, and include appropriate

management techniques sufficiently detailed to ensure that the facilities conform to permit conditions. Hopkins is responsible for ensuring that permit conditions for private treatment plants are met and financial resources to manage these facilities are available.

Surface Water Management

In 1995, Minnesota Statutes Section 473.859, subd. 2 was amended to make the local water plan (often referred to as local surface water management plans) required by section 103B. 235 a part of the land use plan of the local comprehensive plan. Minnesota Rules Chapter 8410, updated in July of 2015, includes the requirements for local water management plans. The main change that you need to be aware of is that all communities in the metropolitan area must update their local water plan between January 1, 2017 and December 31, 2018. This means that Hopkins must update its local water plan as part of the comprehensive plan update. The community's updated local water plan should be submitted to the Council for its review concurrent with the review by the Watershed Management Organization(s) within whose watershed(s) the community is located. **Failure to have an updated local water plan will result in the comprehensive plan being found incomplete for review until the required plan is provided to the Council.**

Local water plans must meet the requirements for local water plans in Minnesota Statutes, section 103B.235 and Minnesota Rules Chapter 8410. In general, local surface water plans need to include a summary of the priorities and problems in the community; structural, nonstructural and programmatic actions to take to address the priorities and problems; and clearly identified funding mechanisms to fix the problems.

More detailed guidance for the local water plans can be found in Appendix C of the Council's *2040 Water Resources Policy Plan* and in the Council's current *Local Planning Handbook.*

In addition, the Council has also updated its priority lake list that was first developed in the 1980s as part of the *Water Resources Policy Plan* update. Figure 2 shows the priority lakes for Hopkins. The Council uses the priority lake list to focus its limited resources. The list is also used in the environmental review process. Where a proposed development may impact a priority lake, the project proposer must complete a nutrient budget analysis for the lake as part of the environmental review process.

Also included on Figure 2 is the watershed organization(s) that Hopkins is part of and a list of impaired waters in the community for use in development of your local water plans.

Other Plan Considerations

Water Supply

Local comprehensive plans also address water supply (Minn. Stat., Sec. 473.859). For communities in the metropolitan area with municipal water supply systems, this local comprehensive plan requirement is met by completing the local water supply plan template, which was jointly developed by the Metropolitan Council and the Minnesota Department of Natural Resource (DNR).

FOR COMMUNITIES WHO OWN/OPERATE A PUBLIC WATER SUPPLY SYSTEM:

Because your community owns/operates a municipal community public water supply system (PWS), the local water supply plan must be updated as part of the local comprehensive plan (Minn. Stat., Sec. 103G.291).

The updated local water supply plan should include information about your community along with information about any neighboring communities served by your system.

You should update your local water supply plan upon notification by DNR. Local water supply plan due dates will be staggered between January 1, 2017 and December 31, 2018. Your updated local water supply plan should be submitted to the DNR. DNR will share the plan with the Council, and it will be reviewed concurrently by both agencies. This schedule allows the local water supply plans to be completed and included in the local comprehensive plan.

Failure to have an updated local water plan will result in the comprehensive plan being found incomplete for review until the required plan is provided to the Council.

The water supply plan template fulfills multiple statutory obligations including:

- Minn. Stat., Sec. 103G.291 to complete a water supply plan including demand reduction
- Minn. Stat., Sec. 473.859 to address water supply in local comprehensive plans
- Minn. Administrative Rules 4720.5280 to address contingency planning for water supply interruption

The plan must be officially adopted by your community, and if applicable the utility board, as part of the local comprehensive plan.

At a minimum, the updated local water supply plan must use the joint DNR and Metropolitan Council template and include water demand projections that are consistent with the community's population forecast provided in the introductory section of this system statement. Potential water supply issues should be acknowledged, monitoring and conservation programs should be developed, and approaches to resolve any issues should be identified.

Guidance and information for water supply planning can be found in the Appendix C of the *2040 Water Resources Policy Plan*, the *Local Planning Handbook*, and the Council's *Master Water Supply Plan.*

The Council's *Master Water Supply Plan* provides communities in the region with planning assistance for water supply in a way that:

- Recognizes local control and responsibility for owning, maintaining and operating water systems
- Is developed in cooperation and consultation with municipal water suppliers, regional stakeholders and state agencies
- Protects critical habitat and water resources over the long term
- Meets regional needs for a reliable, secure water supply
- Highlights the benefits of integrated planning for stormwater, wastewater and water supply
- Emphasizes and supports conservation and inter-jurisdictional cooperation
- Provides clear guidance by identifying key challenges/issues/considerations in the region and available approaches without dictating solutions

Figures 3-5 illustrate some water supply considerations that the community may consider as they develop their local water supply plans, such as: aquifer water levels, groundwater and surface water interactions, areas where aquifer tests or monitoring may be needed to reduce uncertainty, regulatory and management areas, and emergency interconnections.

Figure 1. MCES Sanitary Sewer Meter Service Areas

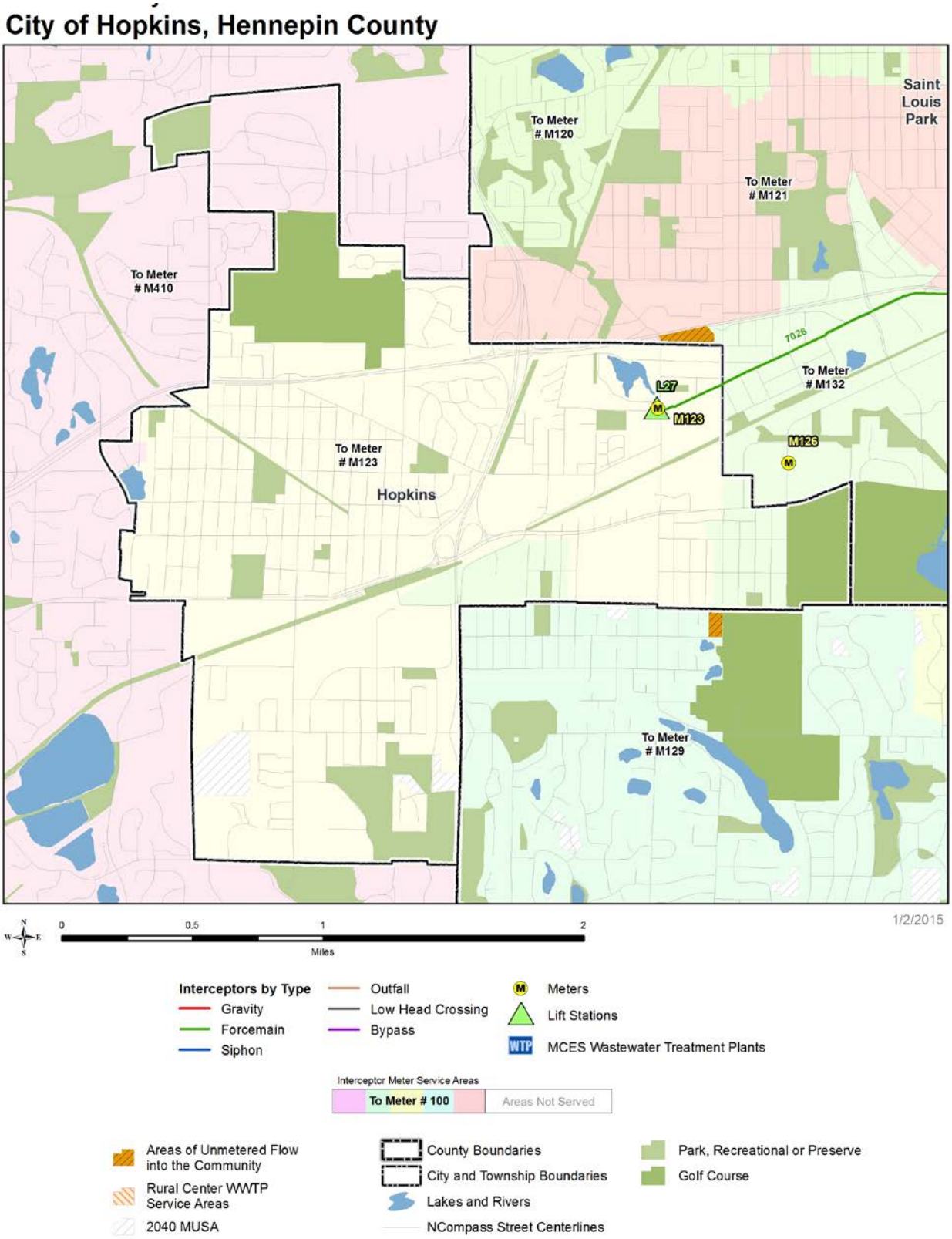


Figure 2. Surface Water Resources

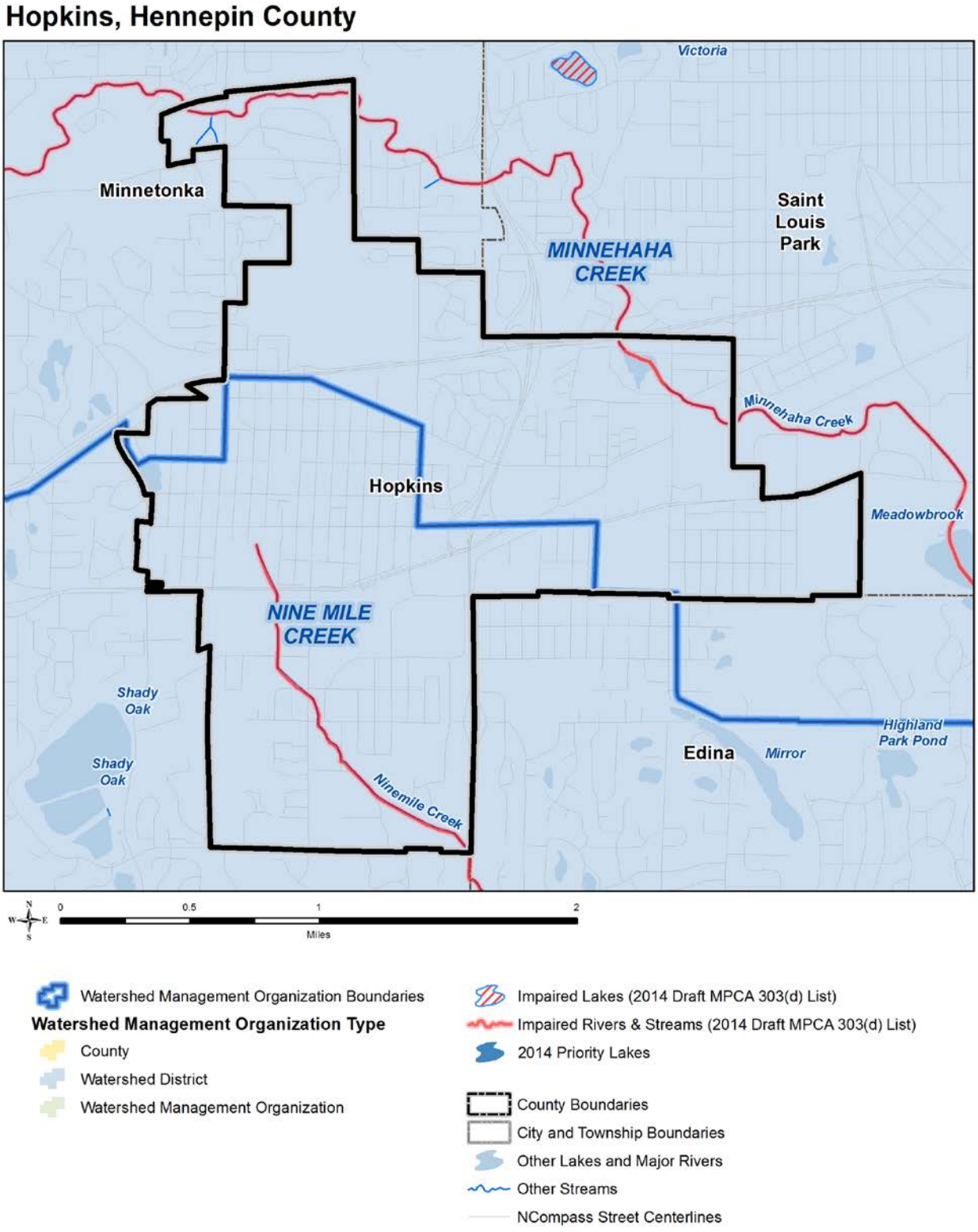


Figure 3. Surface water features and interaction with the regional groundwater system, and state-protected surface water features

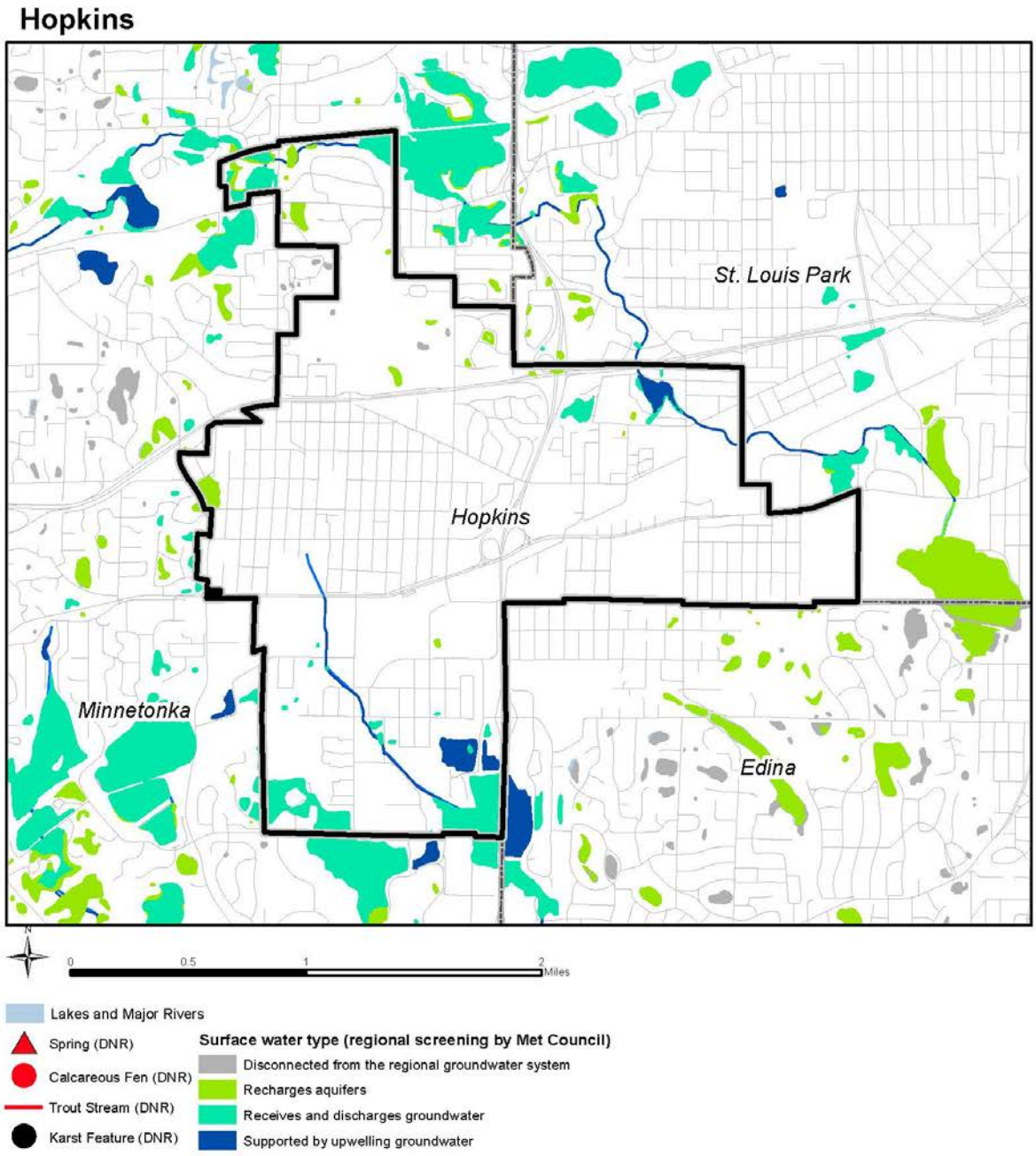


Figure 4. Availability of MN Department of Natural Resources groundwater level and MN Department of Health aquifer test data

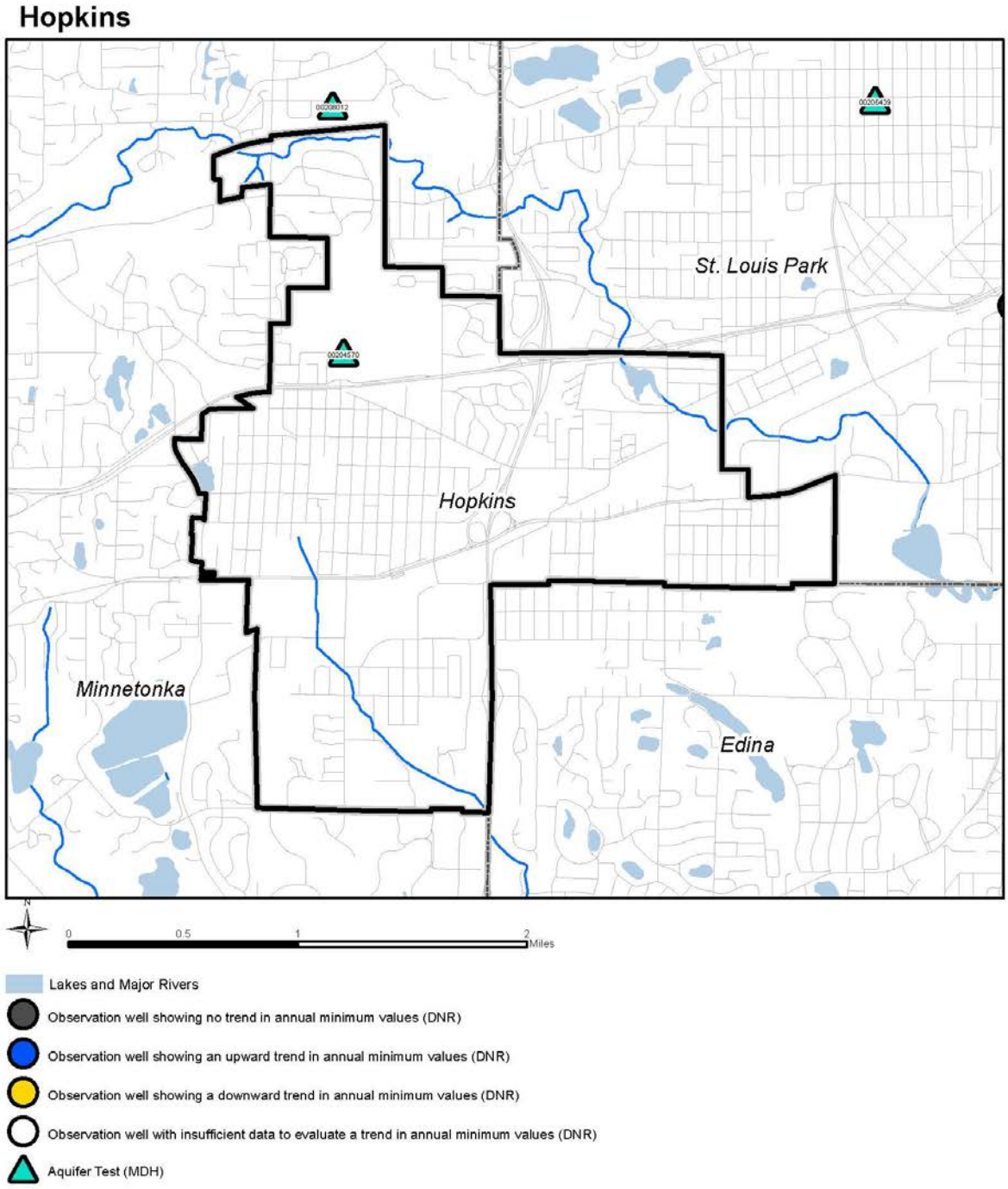
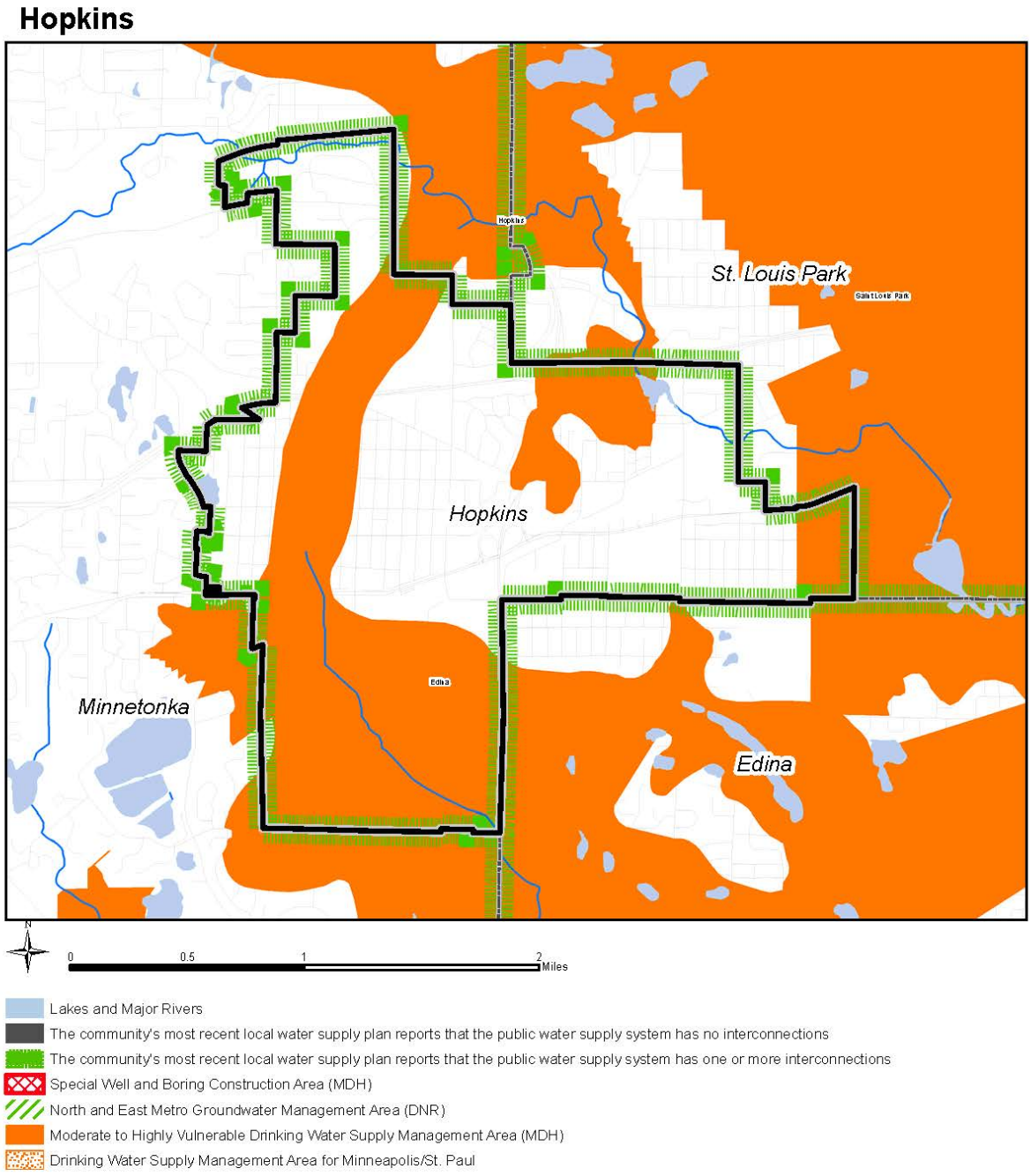


Figure 5. Municipal public water supply system interconnections and regulatory management areas



Hopkins Water Supply Profile

Overview of water system and use in the community

The community owns and operates their own water supply system.

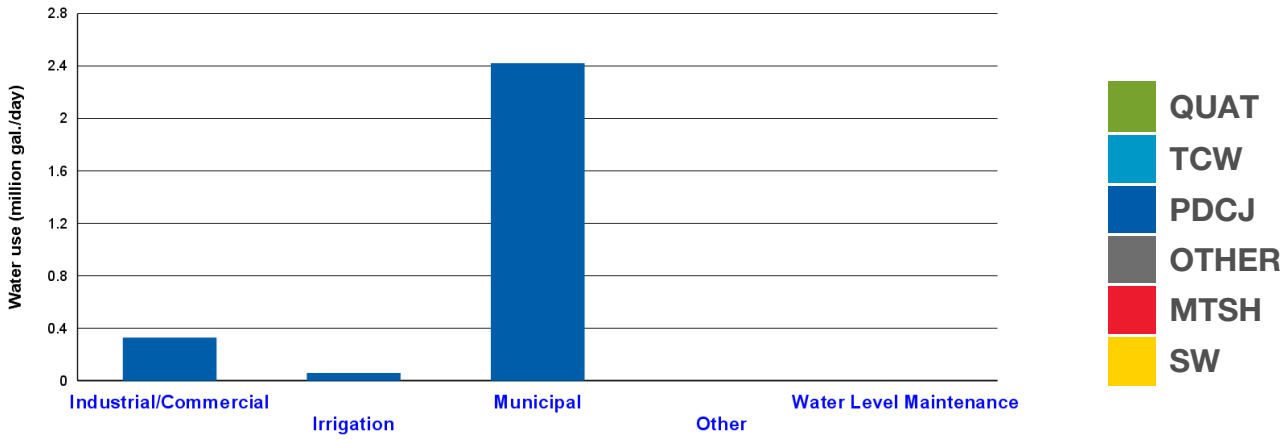
Available approaches to meet current and future demand

1. Conservation
2. Groundwater sources
3. Stormwater reuse
4. Reclaimed wastewater
5. Enhanced recharge
6. Surface water sources

Number of active public and private DNR-permitted wells and surface water intakes that provide water to residents and businesses in the community

Source	Municipal Wells or intakes in the community	Non-Municipal Wells or intakes in the community	Municipal Wells or intakes outside the community
Mt. Simon-Hinckley (MTSH)	0	0	0
Prairie du Chien-Jordan (PDCJ)	3	1	0
Quaternary (QUAT)	0	0	0
Tunnel City-Wonewoc (TCW)	0	0	0
Multi-aquifer (MULTI)	1	0	0
Surface Water (SW)	0	0	0

Amount of water used, on average, by water appropriation permit holders in key water use categories (chart will be blank if no DNR-permitted wells or intakes provide water in the community)



Municipal Water Use

Municipal water treatment: Disinfection, Iron removal, Fluoride , Corrosion control - Lead/Copper

Rate structure: Flat

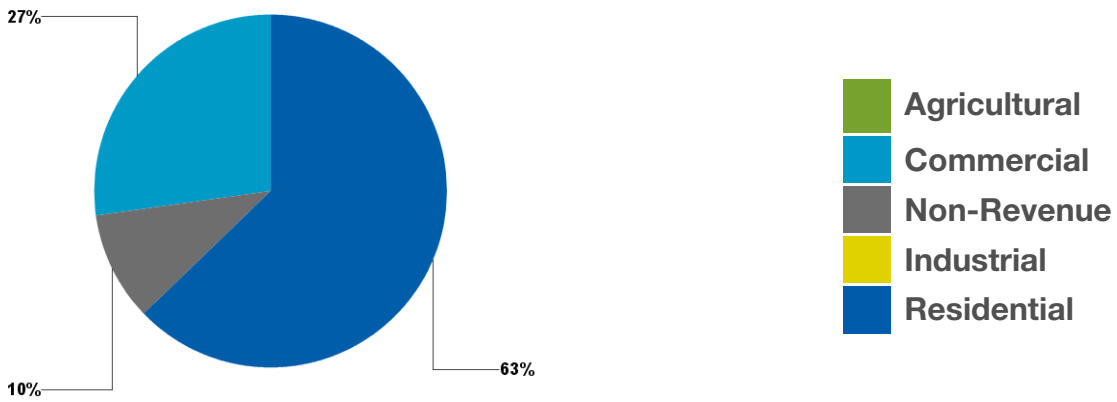
Permitted amount in 2012: 1000 (million gallons/year)

Reported use in 2012: 772 (million gallons/year) 2.12 (million gallons/day)

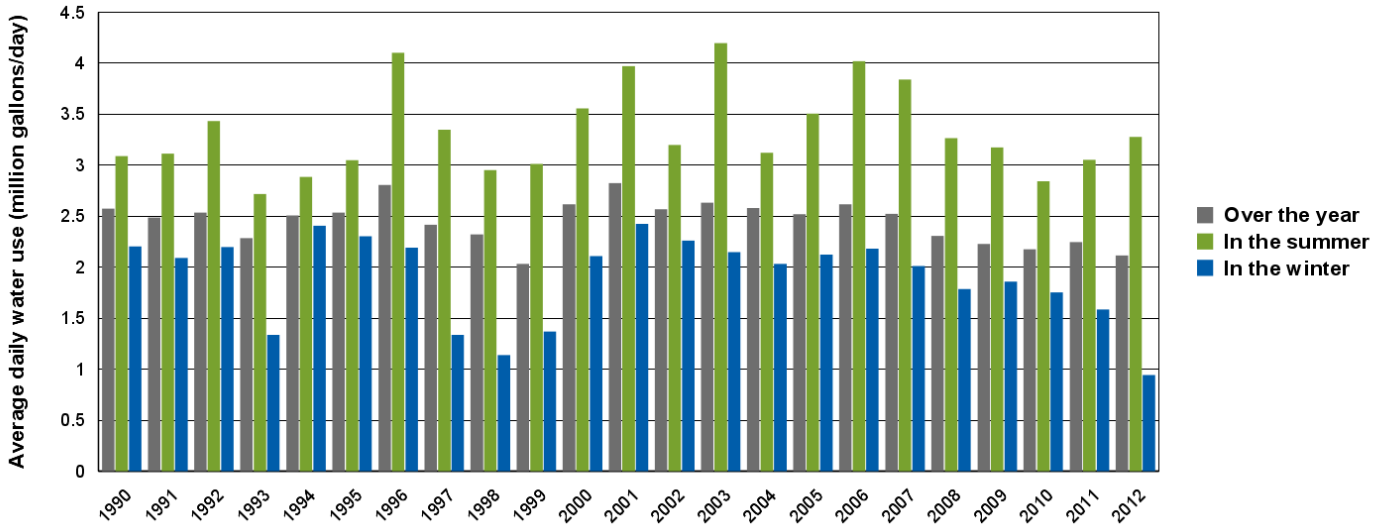
Note: this may be higher than permitted amount if, for example, water is purchased from a neighbor

Residential water use per person in 2012: 73 gallons per person per day

Water use by major categories in 2012



Historical municipal water use in the community



Projected municipal water use

	2020	2030	2040
Population Served	18,900	19,400	19,900
Total Population	18,900	19,400	19,900
Projected Average Daily Water Use (Million Gal./Day), Plus or Minus 20%	2.61	2.68	2.75
Total Per Capita Water Use (Gal./Person/Day)	138	138	138
What per capita water use would be, if population grew without changing total water use:	112	109	106

Water resource plans and permits that address the following issues support more sustainable water supplies

- State and federal requirements, such as Safe Drinking Water Act standards, conditions identified on water appropriation permits issued by the DNR, water quality permits issued by the MPCA and others
- Potential for water use conflicts and well interference
  - Due to the pervasiveness of private wells in the metro area, there exists a potential water use conflict and well interference of all appropriators
- Potential for impacts of groundwater pumping on surface water features and ecosystems
  - Surface waters in this area may be directly connected to regional groundwater system
- Significant vulnerability to contamination
  - A vulnerable Drinking Water Supply Management Area has been designated in the area
  - Travel time from land surface to bedrock aquifers is estimated to be less than 50 years
- Significant uncertainty about aquifer productivity and extent
  - Part of the area may not be well-represented by a Minnesota Department of Health aquifer test
  - The county geologic atlas is more than twenty years old
  - Part of the area may not be represented by a Minnesota Department of Natural Resources or community observation well

Note: Local studies may be underway or completed to provide more information about these issues.

The Metropolitan Council's Local Planning Handbook contains interactive maps of all of these issues, and they are also summarized in Chapter 5 of this Master Water Supply Plan.

As appropriate, incorporate the following actions into plans and programs, consistent with your organization's roles and responsibilities

- Acknowledge the issues above and support partnerships to address them in local water supply plans and water appropriation permit applications.
- Explore and support water demand (water conservation) programs such as incentives, ordinances, education and outreach, rates and other approaches. The Metropolitan Council Water Conservation Toolbox can support these efforts.
- Promote the evaluation of water conflict and well interface as part of the water appropriation permit request and review process. Before requesting water appropriations, water users in this areas should evaluate the need to address water conflict and well interference including a) an inventory of all active domestic and public water supply wells near proposed well locations and b) an analysis of existing water level/water withdrawal data to identify where future drawdowns could affect domestic wells.

- Work with partners to evaluate relationships between aquifer withdrawals and surface water features. If a connection is likely, management plans should include aquifer testing, monitoring water levels and pumping rates and surface water flow, triggers and actions to protect aquifer levels, a schedule for periodic analysis of data to identify the need for action to mitigate impacts, and a schedule for periodic and timely reporting to DNR.
- Collaborate with partners, including MDH, to support local actions that prevent the spread of contamination. This may include implementation of source-water protection plan measures to mitigate public health risks. Where significant contamination exists, MDH will continue enhanced monitoring, and public water suppliers in the area may need to implement treatment processes to meet Safe Drinking Water Act requirements and manage pumping to better control the extent and magnitude of contaminant plumes.
- Work with partners to identify opportunities for sharing information, reducing duplicate work, and partnering on projects that improve understanding about aquifer productivity and extent.
- Support collaborative efforts to periodically review local water supply risks and potential alternatives to mitigate those risks. Technical advances, regulatory adjustments and sub-regional developments can present new opportunities for local water suppliers to enhance the resiliency, sustainability, and affordability of their water supplies.
- Continue to work with local, state and federal agencies, as required.

Note: The actions listed above may be underway or completed, and information may be available from local public water suppliers, planners, or water resource managers.

Additional information and guidance is provided in the Local Planning Handbook. Metropolitan Council staff can also provide technical and planning assistance.

CITY OF HOPKINS, MINNESOTA
Home > More for Residents > Environment > 20 Ways to Save Water

20 Ways to Save Water

1. Use a displacement device (a water-filled bottle) in the toilet tank to reduce the amount of water required to flush.
2. Use toilet only for its intended purpose. Don't use the toilet to dispose of trash or tissues.
3. **Repair** leaky taps or toilets immediately. A slow drip wastes 15-20 gallons of water/day.
4. Consider a small capacity toilet when replacing an old one.
5. Take **shorter showers**.
6. Don't let the faucet run when brushing teeth, or shaving. Turn on only when needed.
7. **Flush toilets less** often whenever possible.
8. Let smaller children bathe together.
9. When washing dishes by hand fill a basin or sink for rinsing rather than let the water run.
10. Run dishwashers **only when full**.
11. Avoid running the tap for a glass of water. Put a bottle in the refrigerator to stay cold.
12. Never pour oil or grease in the drain. It requires too much water to rinse it down and may clog the drain.
13. **Wash only full loads** of clothes.
14. Use buckets and tubs to wash your car or the dog, rather than a continuous running hose.
15. Water lawns and gardens only when needed and only during the early morning or evening when evaporation is lower. (See Hopkins Watering Restrictions)
16. Use a nozzle on your garden hose to act as flow-restrictor and reduce water use significantly.
17. Cutting grass to **no less than 2 or 3 inch height** will reduce the amount of water needed.
18. Sweep sidewalks and driveways instead of washing them down with a hose.
19. **Reuse** as much water as possible.
20. If lawn watering is scheduled let kids play in the hose or sprinkler in a grassy area instead of filling a wading pool.

Contacts

Solid Waste Coordinator
Pam Hove
952-548-6351

Year-Round Watering Restrictions

Year-round watering restrictions (City Code: Water Systems 710.40) in Hopkins are:

Odd/Even—Odd-numbered addresses water on odd-numbered days of the month (1, 3, 5, etc), even-numbered addresses on even-numbered days of the month (0, 2, 4, etc).

Check the clock—NO lawn irrigation between 11 am and 5 pm. Evaporation rates from lawns are the highest during these hours, so your lawn only gets a percentage of the water used.

The watering restrictions are for lawn watering only and **do not include outdoor activities such as hand watering, car washing or children playing with water toys**, as long as the activity is supervised.

Violation Charges

Violations of the lawn watering restrictions will result in a violation notice followed by a penalty fee on your utility bill. Fees for violating the water use restrictions are determined based on the number of violations within a calendar year.

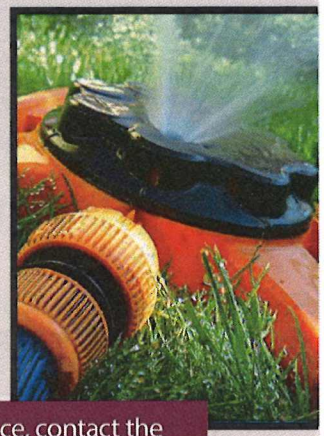
- First offense - Violation warning notice
- Second offense - $50
- Third offense - $75
- Additional offense - Penalty fee increases at $25 increments

Exceptions

Exceptions to odd-even watering restrictions include lawns with new seed, new sod or new landscaping. With the exemption, you are allowed to water on both even and odd days, but you are still not allowed to water between 11 am and 5 pm. Private wells are also exempt from the City ordinance.

Residents must call Public Works (952-939-1382) and request an exception to the watering restrictions and register their address.

These restrictions allow for lawn quality to be maintained while removing midday watering which results in inefficient watering and a waste of resources. In addition, demand for water resources is more evenly spread out which in-turn reduces strain on water pumping equipment and reduces the need to construct additional capacity into the water system.



For additional assistance, contact the Utility Superintendent at 952-548-6373 or ieddihi@hopkinsmn.com.

Lawn Care & Watering Tips

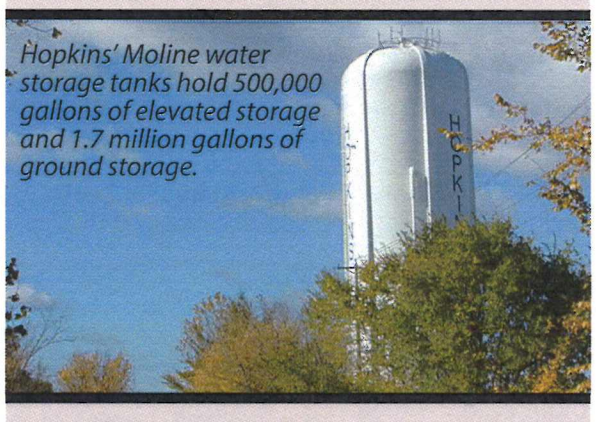
1 Keep grass at 3.5 inches in height to encourage deeper roots, shade the ground and retain more water.

2 Established lawns in most areas require only 1 to 1 ½" of water per week, including rainfall. Over watering is detrimental to the lawn, as it encourages shallow, weak roots as well as fungal diseases.

3 Determine how much water your lawn receives during watering by placing a bucket or shallow pan on the lawn. Time how long it takes to fill the pan with one inch of water. Use this information for future watering in order to avoid excessive watering.

4 It is better to water on infrequent, but deep watering cycles. Letting the upper layer of soil dry out between watering will help prevent weeds from sprouting and lead to a healthier lawn.

5 The best time to water your lawn is in the early morning. Afternoon evaporation rates are extremely high, requiring much more water to get the same amount of water into the soil. Early evening and night watering is tolerated, but the lawn may remain wet longer, promoting lawn diseases and fungus.



Hopkins' Moline water storage tanks hold 500,000 gallons of elevated storage and 1.7 million gallons of ground storage.

Why Citywide Watering Restrictions?

The City of Hopkins Public Works Department is responsible for providing safe, clean drinking water to its residents and businesses. The City has one million gallons of water in two elevated storage tanks and 2.2 million gallons stored in ground tanks plus three wells—our water system is able to pump over 5 million gallons of water each day. Our average daily usage is just less than 2 million gallons per day.

However, during the peak summer months water demand can rise as high as 6-7 million gallons per day. High peak demands like this from lawn watering can put a strain on our system and have the potential to create a dangerous situation for fire fighters who depend on our water supply in emergency situations. To ensure that the water system can provide water for primary needs such as drinking water and fire protection, the City enforces a water restriction ordinance to prevent water consumption from exceeding the capacity of the system.

City of Hopkins

Public Works Department

11100 Excelsior Boulevard
Hopkins, MN 55343

952-939-1382
952-939-1381 (Fax)

www.hopkinsmn.com

Revised March 2016

Watering Restrictions

Summer lawn watering in Hopkins

Hopkins Public Works

Freightliner Dump Truck 2/9

Hopkins Public Works

Vactor 2100 Series 7/9

Hopkins Public Works

Freightliner Garbage Truck 3/9

Hopkins Public Works

Freightliner Water Truck 8/9

Hopkins Public Works

Caterpillar 938G Loader 5/9

Hopkins Public Works

Forestry Boom Truck 9/9

Inspire • Educate • Involve • Communicate

The city owns 4 dump trucks. We use them for plowing streets and hauling all sorts of things like snow, asphalt, leaves and rocks. They can carry 12 tons that is 24000 lbs.

Did you know: In 1893 Al Cooper became the first full time police officer. Stories are told that as far away as Montana there were transients who would avoid Hopkins because of the officer named Cooper. He retired in 1926.

Hopkins Public Works
Safe • Efficient • Professional

Inspire • Educate • Involve • Communicate

Vactor combination sewer cleaners combine high-pressure water jetting and a high-flow vacuum source to scour pipes clean then vacuum up material to remove blockages and restore and maintain normal sewer flow.

Did you know: We maintain 44 miles of sewer collection pipes and we clean 1/3 of them per year on a rotational basis.

Hopkins Public Works
Safe • Efficient • Professional

Inspire • Educate • Involve • Communicate

The City of Hopkins employees provide the city's residential refuse service; they service about 3000 garbage cans weekly. We can fit 18 yards of garbage in one truck which equals 14,000 lbs.

Hopkins Public Works
Safe • Efficient • Professional

Inspire • Educate • Involve • Communicate

This truck holds 2000 gallons of water. It is used to water down roads for sweeping, water down leaves for free leaf pick up and, of course, making ice rinks in the winter. The truck can spray out water at 360 degrees while driving.

Hopkins Public Works
Safe • Efficient • Professional

Inspire • Educate • Involve • Communicate

The City of Hopkins owns three front loaders in all different sizes. We use them to plow streets and alleys, attach a huge snow blower to blow snow into trucks to clear snow from the downtown area, stack brush and with a 3.5 yard bucket carry and lift anything.

Hopkins Public Works
Safe • Efficient • Professional

Inspire • Educate • Involve • Communicate

This is a piece of equipment the forestry department uses to trim and cut down trees. The boom extends 65 feet which is as tall as the largest dinosaur. This is very useful, so the forestry department can reach the top of the trees.

Did you know: We have two full time employees that work for the Forestry department; in a typical year they will cut down 175 trees and plant 120 new ones.

Hopkins Public Works
Safe • Efficient • Professional

Hopkins Public Works

Caterpillar 420E Loader Backhoe 1/9

Hopkins Public Works

Tymco 435 Sweeper 6/9

Hopkins Public Works

Groundsmaster 4100 D 4/9

Inspire • Educate • Involve • Communicate

The Backhoe is used for digging up water main breaks, bulk drop off, stump removal and sewer repairs. The backhoe alone can reach 18.5ft. It is a very useful piece of equipment that allows our city workers to be more efficient and safe.

Did you know: In 1954 City of Hopkins well 4 was the largest municipal well in Minnesota, it was 575 feet deep and pumped 2300 gallons per minute. Today, the well is 548 feet deep and pumps 3200 gallons per minute.

Hopkins
Public Works
Safe • Efficient • Professional

Inspire • Educate • Involve • Communicate

The Tempco street sweeper is used to clean streets and parking lots during spring, summer and fall seasons. It holds three yards of street sweepings and comes with its own water spray nozzles to prevent dust. We sweep every street and alley about three times during these three seasons.

Did you know: The City of Hopkins was named after a pioneer and its first postmaster, Harley H. Hopkins, who made an arrangement with the railroad that the depot on his property be called "Hopkins".

Hopkins
Public Works
Safe • Efficient • Professional

Inspire • Educate • Involve • Communicate

The Toro Groundsmaster is the biggest of five mowers that the city owns. In one pass it will cut 10.5 feet which makes mowing our parks more efficient.

Did you know: The farmers credited with bringing raspberries to Hopkins in 1880 are Joe and John Empanger. By 1920 the Hopkins area had over 800 acres planted in raspberries and became known as the "Raspberry Capital of the World".

Hopkins
Public Works
Safe • Efficient • Professional

The City of Hopkins provides opportunities for the public to be engaged and understand where the City obtains its water supply and how that water is treated before being distributed. Below are two instances where City staff have participated and engaged with the public during outreach events. City staff have been playing a key role in educating customers where their water comes from and how water conservation plays a key role in sustaining the water supply for the City.

Above: City of Hopkins staff discusses where City water comes from and provides the public free water samples along with discussions on water conservation

Above: City of Hopkins Water & Sewer Superintendent explains to students where drinking water comes from and how conservation plays a key role in sustaining the City's water supply