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. Champlin 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, 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 3and 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

The City of Champlin's Water Supply Plan is below.

Local Water Supply Plan Template
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.

Equal opportunity to participate in and benefit from programs of the Minnesota Department of Natural Resources is available to all individuals regardless of race, color, creed, religion, national origin, sex, marital status, public assistance status, age, sexual orientation, disability or activity on behalf of a local human rights commission. Discrimination inquiries should be sent to Minnesota DNR, 500 Lafayette Road, St. Paul, MN 55155-4049; or the Equal Opportunity Office, Department of the Interior, Washington, DC 20240.

Table of contents

INTRODUCTION TO WATER SUPPLY PLANS (WSP)

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- 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)	**1979-6303**
Ownership	☒ Public or ☐ Private
Metropolitan Council Area	☒ Yes or ☐ No (and county name)
Street Address	11955 Champlin Drive
City, State, Zip	Champlin, Minnesota 55331
Contact Person Name	Tim Hanson
Title	City of Champlin City Engineer
Phone Number	(763) 923-7105
MDH Supplier Classification	Municipal

PART 1. WATER SUPPLY SYSTEM DESCRIPTION AND EVALUATION

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

A. Analysis of Water Demand

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

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

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

The City has not had any wholesale or institutional deliveries so these columns were removed from the table. Water used for Water Supplier Services (WSS) includes irrigation for city property.

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)	Total Water Delivered (MG)	Total Water Pumped (MG)	Water Supplier Services (MG)	Percent Unmetered/ Unaccounted	Average Daily Demand (MGD)	Max. Daily Demand (MGD)	Date of Max. Demand	Residential Per Capita Demand (GPCD)	Total per capita Demand (GPCD)
2005	24,071	7,110	810	75	900	947	15	4.9	2.59	7.29	8/7/2005	92	108
2006	23,860	7,172	916	84	1025	1108	25	7.5	3.04	N/A	N/A	105	127
2007	23,990	7,214	920	82	1025	1071	23	4.3	2.93	7.51	7/30/2007	105	122
2008	23,983	7,339	838	79	940	1013	23	7.2	2.77	6.91	7/6/2008	96	116
2009	23,934	7,355	846	74	947	1047	26	9.5	2.87	6.49	7/12/2009	97	120
2010	23,089	7,420	767	71	861	907	23	5.0	2.48	5.95	5/28/2010	91	108
2011	23,223	7,442	754	63	838	887	20	5.5	2.43	5.24	6/30/2011	89	105
2012	23,536	7,464	849	74	956	996	32	4.1	2.73	6.57	9/3/2012	99	116
2013	23,499	7,484	762	69	857	862	27	0.6	2.36	6.64	8/25/2013	89	100
2014	22,880	7,518	667	60	757	775	30	2.3	2.12	5.50	7/23/2014	80	93
2015	22,741	7,537	682	64	782	809	37	3.2	2.22	5.23	7/16/2015	82	97
Avg. 2010-2015	23,161	7,478	747	67	842	873	28	3.5	2.39	5.86	N/A	88	103

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) Ecova	Residential (Apts)	7,069,000	0.90%	Unknown
2) City of Brooklyn Park	Public	5,850,000	0.75%	Unknown
3) Champlin Dr Apts	Residential (Apts)	5,190,000	0.66%	Unknown
4) Elm Creek Apts	Residential (Apts)	5,175,000	0.66%	Unknown
5) Coler Farms HOA	Residential (Townhouse)	5,056,000	0.65%	Unknown
6) Lifetime Fitness	Commercial	4,271,000	0.54%	Unknown
7) Bungalows of Champlin	Residential	3,520,000	0.45%	Unknown
8) Anoka Hennepin School	Public	2,891,000	0.37%	Unknown
9) Holiday	Commercial	2,864,000	0.37%	Unknown
10) Kastner Companies	Commercial	2,153,000	0.27%	Unknown

*2016-2017 water usage data

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	Treatment Method	Treatment Type	Annual Volume of Residuals	Disposal Process for Residuals	Do You Reclaim Filter Backwash Water?
Water Treatment Plant No. 1 (Wells 4, 5, 6, 7, 9)	1998	8.6 MGD	Gravity filtration	Fe/Mn removal, radium removal, chlorination, fluoridation	N/A	N/A	Yes

Treatment Site ID (Plant Name or Well ID)	Year Constructed	Treatment Capacity	Treatment Method	Treatment Type	Annual Volume of Residuals	Disposal Process for Residuals	Do You Reclaim Filter Backwash Water?
Water Treatment Plant No. 2 (Well 1)	2011	1.44 MGD	Pressure filtration	Fe/Mn removal, radium removal, chlorination, fluoridation	N/A	N/A	Yes
Total	NA	10.04	NA	NA		NA	

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

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

Structure Name	Type of Storage Structure	Year Constructed	Primary Material	Storage Capacity (Gallons)
Tower 1	Elevated storage	1983	Steel	1,000,000
Tower 2	Elevated Storage	1988	Steel	1,000,000
Clearwell	Ground storage	1998	Concrete	1,300,000
Total	NA	NA	NA	3,300,000

Treatment and storage capacity versus demand

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

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

The City of Champlin currently has 3.3 million gallons (MG) of storage between two elevated storage tanks and one ground storage reservoir. Ten State Standards recommends that a city's storage capacity be equal to or greater than the average day demand. It is anticipated that over the next ten years, the City's average day water demand will plateau at approximately 2.5 million gallons per day (MGD) by 2040; the City's current storage capacity exceeds the projected average day demand by 0.8 MG. Thus, the City's existing storage capacity is sufficient, and will not require additional storage over the course of this plan

It is generally recommended that a city's treatment or production capacity be equal to the maximum day demand with the largest production well out of service (firm capacity). In 2011, the City constructed a second water treatment plant which expanded the City's total treatment capacity to 10.04 MGD. The City's maximum day demands is projected to be 6.86 by 2040. Therefore, the City has sufficient treatment capacity and will not require additional treatment capacity over the course of this plan.

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)	City Well No.	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	3	Franconia-Mt. Simon	160019	1978	n/a	602	inactive	n/a
Groundwater	1	Franconia-Mt. Simon	202754	1974	1200	700	active	Yes
Groundwater	2	Franconia-Mt. Simon	228438	1974	1000	526	active	Yes
Groundwater	4	Tunnel City-Wonewoc	409523	1983	800	291	active	Yes
Groundwater	5	Mt. Simon	409524	1984	1000	550	active	Yes
Groundwater	6	Tunnel City-Wonewoc	416092	1987	1300	310	active	Yes
Groundwater	7	Mt. Simon	416093	1987	750	513	active	Yes
Groundwater	8	Mt. Simon	559414	1996	1750	480	active	Yes
Interconnection	n/a	Brooklyn Park (2- 8-inch interconnects and 1- 12-inch interconnect through the High School)	MSAS 193-106-40 and MSAS 193-106-08	1992 and 1994	1,000 gpm each (8-inch), 2,500 gpm (12-inch)	n/a	The supplier must approve the use of the supply system at the time of need.	n/a
Interconnection	n/a	Dayton (8-inch interconnect)		2004	1,000 gpm	n/a	The supplier must approve the use of the supply system at the time of need.	n/a
Interconnection	n/a	Maple Grove (2- 8-inch interconnects)		2005	1,000 gpm each (8-inch)	n/a	The supplier must approve the use of the supply system at the time of need.	n/a

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.

The City has three emergency interconnections with Brooklyn Park, Dayton, and Maple Grove. These suppliers must approve the use of the supply system at the time of the need for an emergency connection.

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 2015, the population of Champlin decreased by less than 6%. Although the population of Champlin has remained generally steady over the course of 10 years, the total per capita demand has decreased by 9%, the average daily demand has decreased by 10%, and the maximum daily demand as decreased by 28%. These significant decreases in daily water use are likely due to maintained fixtures, more water efficient appliances, and overall greater public awareness of water use.

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

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

Table 7. Projected annual water demand

Year	Projected Total Population	Projected Population Served	Projected Total Per Capita Water Demand (GPCD)	Projected Average Daily Demand (MGD)	Projected Maximum Daily Demand (MGD)
2020	24,400	24,400	100	2.44	6.59
2021	24,520	24,520	100	2.45	6.62
2022	24,640	24,640	100	2.46	6.65
2023	24,760	24,760	100	2.48	6.69
2024	24,880	24,880	100	2.49	6.72
2025	25,000	25,000	100	2.50	6.75

2030	25,600	25,600	100	2.56	6.91
2040	25,400	25,400	100	2.54	6.86

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:

Population estimates were linearly extrapolated using Metropolitan Council (MCES) estimates for 2020, 2030, and 2040. The City's per capita demands (daily average and maximum day demands) were determined from the MCES population projections and the City's annual water use data.

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
202754 (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 ☒ spectrophotometer
228438 (Well 2)	☒ 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 ☒ spectrophotometer
409523 (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 ☒ spectrophotometer

MN Unique Well # or Surface Water ID	Type of monitoring point	Monitoring program	Frequency of monitoring	Monitoring Method
409524 (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 ☒ spectrophotometer
416092 (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 ☒ spectrophotometer
416093 (Well 7)	☒ 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 ☒ spectrophotometer
559414 (Well 8)	☐ 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 ☒ spectrophotometer

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
202754 (Well 1)	Franconia-Mt. Simon	Approximately 30	☐ Falling ☒ Stable ☐ Rising	See Appendix 3
228438 (Well 2)	Franconia-Mt. Simon	Approximately 20	☐ Falling ☒ Stable ☐ Rising	See Appendix 3
409523 (Well 4)	Tunnel City-Wonewoc	Approximately 5	☐ Falling ☒ Stable ☐ Rising	See Appendix 3
409524 (Well 5)	Mt. Simon	Approximately 100	☐ Falling ☒ Stable ☐ Rising	See Appendix 3
416092 (Well 6)	Tunnel City-Wonewoc	Approximately 5	☐ Falling ☒ Stable ☐ Rising	See Appendix 3
416093 (Well 7)	Mt. Simon	Approximately 100	☐ Falling ☒ Stable ☐ Rising	See Appendix 3
559414 (Well 8)	Mt. Simon	Approximately 80	☐ Falling ☒ Stable ☐ Rising	See Appendix 3
214489 (MNDHR observation well)	Quaternary Buried Artesian Aquifer	Approximately 3	☐ Falling ☒ Stable ☐ Rising	See Appendix 3

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

Complete Table 10 by listing the types of natural resources that are or could 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	Mississippi River & Elm 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 water levels ☐ Aquifer testing ☐WRAPS or other watershed report ☐Proximity (<1.5 miles) ☐ Other: _____	☒ Not applicable ☐ Additional data is needed to establish ☐ See report: _____ ☐ No data available ☐ Other: _____	☒Not applicable ☐ Change groundwater pumping ☐ Increase conservation ☐ Other: _____	☒Not applicable ☐ Newly collected data will be analyzed ☐ Regular check-in with these partners: _____ ☐ Other: _____
☐ Calcareous fen	n/a	☒ 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: ___n/a___	☒ 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	Lemans Lake	☒ 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 water levels ☐ 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: _____
☐ Wetland	n/a	☒ 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	n/a	☒ 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	Tunnel City-Wonewoc, Franconia, Mt. Simon	☒ 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: _____	☒ 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: _____

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	November 2015	November 2025
SWP	☐ In Process ☐ Completed ☒ Not Applicable	n/a	n/a

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	2017 (well #5) 2018 (well #1) 2020 (well #8) 2021 (well #4 & well #7) 2023	Well rehabilitation: pumps are pulled, inspected, & repaired Re-roof wellhouse #2
Water Storage Facilities	☐ No action planned - adequate ☒ Repair/replacement ☐ Expansion/addition	2018 2021 2023	Tower #1 painting Tower #2 inspection/repair Clearwell inspection and cleaning

System Component	Planned action	Anticipated Construction Year	Notes
Water Treatment Facilities	☐ No action planned - adequate ☒ Repair/replacement ☐ Expansion/addition	2017 2024	Water Treatment Plant #1 – Replace roof and recycle pumps Water Treatment Plant #2 – Replace roof
Distribution Systems (Pipes, valves, etc.)	☐ No action planned - adequate ☒ Repair/replacement ☐ Expansion/addition	2017 2019	Distribution leak detection Meter reading equipment/meters
Pressure Zones	☐ No action planned - adequate ☒ Repair/replacement ☐ Expansion/addition	2018-2021 and 2023-2024	Pull, inspect, & repair high service pump
SCADA	☐ No action planned - adequate ☒ Repair/replacement ☒ Expansion/addition	Each year of duration of CIP, 2017 to 2026	SCADA modifications

Proposed Future Water Sources

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

Table 13. Proposed future installations/sources

Source	Installation Location (approximate)	Resource Name	Proposed Pumping Capacity (gpm)	Planned Installation Year	Planned Partnerships
Groundwater	N/A				
Surface Water	N/A				
Interconnection to another supplier	N/A				

Water Source Alternatives - *Key Metropolitan Council Benchmark*

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

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

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

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

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

Table 14. Alternative water sources

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					
☐ Surface Water	N/A					
☐ Reclaimed stormwater	N/A					
☐ Reclaimed wastewater	N/A					
☐ Interconnection to another supplier	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? March 2016

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	Mike Bramwell	763.923.7190 612.968.2167	mbramwell@ci.champlin.mn.us
Alternate Emergency Response Lead	Bret Heitkamp	763.923.7110	bheitkamp@ci.champlin.mn.us

B. Operational Contingency Plan

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

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

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

C. Emergency Response Procedures

Water suppliers must meet the requirements of MN Rules 4720.5280. Accordingly, the Minnesota Department of Natural Resources (DNR) requires public water suppliers serving more than 1,000 people

to submit Emergency and Conservation Plans. Water emergency and conservation plans that have been approved by the DNR, under provisions of Minnesota Statute 186 and Minnesota Rules, part 6115.0770, will be considered equivalent to an approved WHP contingency plan.

Emergency Telephone List

Prepare and attach a list of emergency contacts, including the MN Duty Officer (1-800-422-0798), as **Appendix 5**. 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
Brooklyn Park (Two 8-inch interconnects and one 12-inch interconnect through the High School)	1,000 gpm each (8-inch) 2,500 gpm (12-inch)	The supplier must approve the use of the supply system at the time of need.	Interconnection
Dayton (8-inch interconnect)	1,000 gpm	The supplier must approve the use of the supply system at the time of need.	Interconnection
Maple Grove (Two 8-inch interconnects)	1,000 gpm each (8-inch)	The supplier must approve the use of the supply system at the time of need.	Interconnection

GPM – Gallons per minute MGD – million gallons per day

Table 17. Utilizing surface water as an alternative source

Surface Water Source Name	Capacity (GPM)	Capacity (MGD)	Treatment Needs	Note Any Limitations On Use
N/A				

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

Champlin would obtain bottled water in the case of a short-term emergency. In the case of a long-term emergency, water would be distributed in bulk from a public facility.

Allocation and Demand Reduction Procedures

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

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

1. Water use for human needs such as cooking, cleaning, drinking, washing and waste disposal; use for on-farm livestock watering; and use for power production that meets contingency requirements.
2. Water use involving consumption of less than 10,000 gallons per day (usually from private wells or surface water intakes)

3. Water use for agricultural irrigation and processing of agricultural products involving consumption of more than 10,000 gallons per day (usually from private high-capacity wells or surface water intakes)
4. Water use for power production above the use provided for in the contingency plan.
5. All other water use involving consumption of more than 10,000 gallons per day.
6. Nonessential uses – car washes, golf courses, etc.

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

Table 18. Water use priorities

Customer Category	Allocation Priority	Average Daily Demand (GPD)	Short-Term Emergency Demand Reduction Potential (GPD)
Residential	1	1,867,397	*
Commercial	2	173,425	*
Industrial	3	1,090	*
Water Supplier Services	4	101,773	101,773
TOTAL	NA	2,143,685	1,351,400

GPD – Gallons per Day

*The short-term emergency demand reductions for residential, commercial, and industrial users include non-essential water uses and are combined in the total GPD reduction

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 interconnection ☒ 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 emergency action by the city council, city administration, or utility superintendent ☐ Meet with large water users to discuss their contingency plan. ☒ Voluntary reduction measures encouraged by public service announcements, i.e. bill stuffers, fliers, and notices in local newspaper	☒ Supply augmentation through interconnection ☒ 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 emergency action by the city council, city administration, or utility superintendent ☒ Meet with large water users to discuss their contingency plan.

Notification Procedures

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

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

Notification Trigger(s)	Methods (select all that apply)	Update Frequency	Partners
☒ Short-term demand reduction declared (< 1 year)	☒ Website ☐ Email list serve ☒ Social media (e.g. Twitter, Facebook) ☒ Direct customer mailing, ☒ Press release (TV, radio, newspaper), ☐ Meeting with large water users (> 10% of total city use) ☐ Other: _____	☐ Daily ☐ Weekly ☒ Monthly ☐ Annually	• City Staff • Neighboring communities • Local news outlets
☒ Long-term Ongoing demand reduction declared	☒ Website ☐ Email list serve ☒ Social media (e.g. Twitter, Facebook) ☒ Direct customer mailing, ☒ Press release (TV, radio, newspaper),	☐ Daily ☐ Weekly ☐ Monthly ☒ Annually	• City Staff • Neighboring communities • Local news outlets

Notification Trigger(s)	Methods (select all that apply)	Update Frequency	Partners
	☐ Meeting with large water users (> 10% of total city use) ☐ Other: _____		
☒ Governor's critical water deficiency declared	☒ Website ☐ Email list serve ☒ Social media (e.g. Twitter, Facebook) ☒ Direct customer mailing, ☒ Press release (TV, radio, newspaper), ☐ Meeting with large water users (> 10% of total city use) ☐ Other: _____	☐ Daily ☐ Weekly ☐ Monthly ☐ Annually ☒ As needed	• City Staff • Neighboring communities • Local news outlets

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 ☐

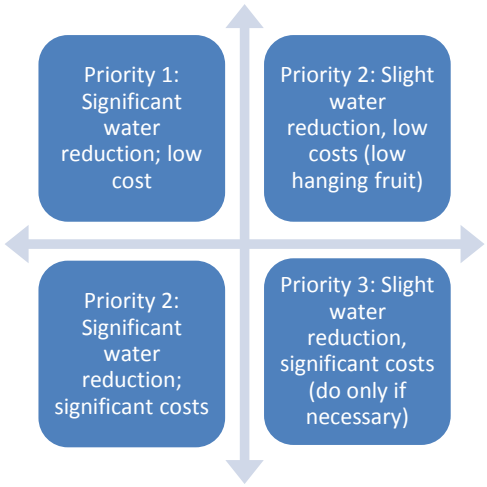
If yes, cite the regulatory authority reference: Sec. 58-168. - Emergency restrictions, Code 1977, § 15-1102

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.

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

Table 21. Implementation of previous ten-year Conservation Plan

2006 Plan Commitments	Action Taken?
Change water rates structure to provide conservation pricing: Tiered pricing by customer category is presented in Appendix 9.	☒ Yes ☐ No
Water supply system improvements (e.g. leak repairs, valve replacements, etc.): To accommodate the growing demand for water, the City installed a new water treatment plant in 2011, and continues to regularly improve water supply system infrastructure.	☒ Yes ☐ No
Educational efforts: Summary of educational efforts can be seen in Table 31.	☒ Yes ☐ No
New water conservation ordinances: New water conservation ordinances implemented by the City are summarized in Appendix 10.	☒ 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: Water-related policy enforcement is summarized in Appendix 10.	☒ Yes ☐ No

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

Since the previous Water Supply Plan completed by the City of Champlin in 2006, the following ordinances were enacted in the City:

In 2009, the '*Sec. 58-50, Discontinuance of Service*' ordinance was added. This ordinance specifies several situations in which the City would have the jurisdiction to shut off water service at a connection. For example, situation a.2. permits the City to shut off water if the resident "refuses or fails to allow city employees access to the premises for the purposes of reading or inspecting a water meter." One way of measuring the results of this specific ordinance situation is to analyze the percent of unmetered/unaccounted water each year, and see if this ordinance has led to a reduction of this percentage. Using the percent of unmetered/unaccounted water summarized in Table 2, the average percent of unmetered/unaccounted water after 2009 is lower than the average before 2009. This ordinance could have potentially contributed to this percent reduction.

In 2007, the '*Sec. 58-169, Irrigation and sprinkling restrictions*' ordinance and the '*Sec. 58-167, Violation and penalty*' ordinance were added. These ordinances establish specific prohibitions on wasting water and an accompanying method of enforcing these prohibitions. This simultaneous passage of a restrictive law and associated enforcement law served as an effective way to reduce the City's annual water usage.

The success of these ordinances can be observed in the total water pumped (MG) trends in Table 2. For example, from 2005 to 2015, the greatest total water pumped, a total of 1,071,000,000 gallons, was in 2007. Following the passage of these ordinances in 2007, the total water pumped during each consecutive year has remained below the 2007 pumping total.

These above ordinances implemented by the City are summarized formally in Appendix 10.

A. Triggers for Allocation and Demand Reduction Actions

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

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

Objective	Triggers	Actions
Protect surface water flows	☐ Low stream flow conditions ☒ Reports of declining wetland and lake levels ☐ Other: _____	☒ Increase promotion of conservation measures ☐ Other: consider water reuse/stormwater irrigation projects
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 interconnection ☒ Water allocation through interconnection ☐ 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 _____ ☒ Emergency declared	☐ 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	☒ Declaration as needed	☒ Follow actions per governor's direction

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)

Leak detection surveys are scheduled on an as-needed and budgeted basis. The upcoming leak detection survey is budgeted to occur in 2019.

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? 2014

Frequency of water audits: ☐ **yearly** ☒ **as needed**
Leak detection and survey: ☐ **every year** ☐ **every other year** ☒ **periodic as needed**
Year last leak detection survey completed: 2011. Another leak detection survey is budgeted for 2019.

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

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	7,377	7,377	7,377	As needed	2002/2019
Commercial	191	191	191	As needed	2002/2019
Industrial	3	3	3	As needed	2002/2019
Water Supplier Services	50	50	50	As needed	2002/2019
TOTALS	7,621	7,621	7,621	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.

All water meters are connected to the City's automated reading system.

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)	7	As needed	7	2012/2019
Treatment plant	2	As needed	2	2012/2019

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?
88 gallons/person/day

Describe the water use trend over that timeframe:

Between 2010 and 2015, the City's average annual residential per capita water demand has consistently been higher than 75 GPCD. The residential per capita demand has seen fluctuations throughout the last five years, but has been generally decreasing, with a residential per capita demand remaining below 90 GPCD each year after

2013. It is anticipated that, with continued and newly implemented water conservation strategies described in this plan, the City's residential per capita water demand will continue to decrease.

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.	Ongoing
☒ 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	Annually
☒ Revise ordinances to limit irrigation. Describe the restricted irrigation plan:	3-6 years following adoption of this plan
☐ Revise outdoor irrigation installations codes to require high efficiency systems (e.g. those with soil moisture sensors or programmable watering areas) in new installations or system replacements.	
☒ Make water system infrastructure improvements	Ongoing
☐ Offer free or reduced cost water use audits for residential customers.	
☐ Implement a notification system to inform customers when water availability conditions change.	
☒ Provide rebates or incentives for installing water efficient appliances and/or fixtures indoors (e.g., low flow toilets, high efficiency dish washers and washing machines, showerhead and faucet aerators, water softeners, etc.)	1-3 years following adoption of this plan
☒ 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.)	1-3 years following adoption of this plan
☐ Identify supplemental Water Resources	
☒ Conduct audience-appropriate water conservation education and outreach.	Ongoing
☐ 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	Annually
☒ Install enhanced meters capable of automated readings to detect spikes in consumption	Ongoing
☐ 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	Ongoing
☒ Repair leaking system components (e.g., pipes, valves)	Ongoing
☒ Investigate the reuse of reclaimed water (e.g., stormwater, wastewater effluent, process wastewater, etc.)	Annually
☒ Reduce outdoor water use (e.g., turf replacement/reduction, rain gardens, rain barrels, smart irrigation, outdoor water use meters, etc.)	Ongoing
☒ Train employees how to conserve water	Ongoing
☐ 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.

Since 2005, the per capita demand trend for commercial, industrial and water supplier services has remained generally constant. This is likely due to these customer categories remaining generally the same size since 2005.

Since 2005, the per capita residential demand trend has seen some fluctuations from year to year, but has seen a general decrease. This is likely due to installation of low flow fixtures/appliances that result in reduced water waste, and for growing public awareness of water conservation initiatives. It is anticipated that the per capita residential demand in the future will continue to be less than 90 GPCD.

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: 2.5

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

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

Objective 6: Implement 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: ___1-1-17_____

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 ☒ 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	☐ Service charge based on water volume ☐ Declining block ☐ Flat ☐ Other (describe)
☐ Other			

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

- **Monthly billing:** is encouraged to help people see their water usage so they can consider changing behavior.
- **Increasing block rates (also known as a tiered residential rate structure):** Typically, these have at least three tiers: should have at least three tiers.
    - The first tier is for the winter average water use.
    - The second tier is the year-round average use, which is lower than typical summer use. This rate should be set to cover the full cost of service.
    - The third tier should be above the average annual use and should be priced high enough to encourage conservation, as should any higher tiers. For this to be effective, the difference in block rates should be significant.
- **Seasonal rate:** higher rates in summer to reduce peak demands
- **Time of Use rates:** lower rates for off peak water use

- **Bill water use in gallons:** this allows customers to compare their use to average rates
- **Individualized goal rates:** typically used for industry, business or other large water users to promote water conservation if they keep within agreed upon goals. **Excess Use rates**: if water use goes above an agreed upon amount this higher rate is charged
- **Drought surcharge:** an extra fee is charged for guaranteed water use during drought
- **Use water bill to provide comparisons**: simple graphics comparing individual use over time or compare individual use to others.
- **Service charge or base fee that does not include a water volume** – a base charge or fee to cover universal city expenses that are not customer dependent and/or to provide minimal water at a lower rate (e.g., an amount less than the average residential per capita demand for the water supplier for the last 5 years)
- **Emergency rates** -A community may have a separate conservation rate that only goes into effect when the community or governor declares a drought emergency. These higher rates can help to protect the city budgets during times of significantly less water usage.

****Conservation Neutral****

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

*** Non-Conserving ***

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

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

The City has implemented an odd/even watering restriction to reduce peak day demands during months of high water usage.

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 <u>least two</u> 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?

The City will continue to collect data on customer category water usage (residential, commercial, industrial, agricultural, & WSS), to track the effectiveness of these conservation initiatives. Also, the City will continue to regularly record water levels in production wells, to monitor groundwater resource stability.

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

Regulations Utilized	When is it applied (in effect)?
☒ 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 ☒ Grant program through Metro Blooms	☐ Gas company ☐ Electric company ☐ Watershed organization ☒ Champlin Environmental Resources Commission

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

In 2016, the Champlin Environmental Resources Commission distributed $2,100 to five community members to fund in the development and maintenance of rain gardens throughout Champlin.

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			☐ Ongoing ☐ Seasonal ☐ Only during declared emergencies
Consumer Confidence Reports	Champlin Water Quality Report, published on City website	1/year	☒ Ongoing ☐ Seasonal ☐ Only during declared emergencies

Education Methods	General summary of topics	#/Year	Frequency
Press releases to traditional local news outlets (e.g., newspapers, radio and TV)			☐ Ongoing ☐ Seasonal ☐ Only during declared emergencies
Social media distribution (e.g., emails, Facebook, Twitter)			☐ Ongoing ☐ Seasonal ☐ Only during declared emergencies
Paid advertisements (e.g., billboards, print media, TV, radio, web sites, etc.)			☐ Ongoing ☐ Seasonal ☐ Only during declared emergencies
Presentations to community groups			☐ Ongoing ☐ Seasonal ☐ Only during declared emergencies
Staff training	General awareness among staff about the City's goals for conservation	Continuous	☒ Ongoing ☐ Seasonal ☐ Only during declared emergencies
Facility tours	As requested	Continuous	☒ Ongoing ☐ Seasonal ☐ Only during declared emergencies
Displays and exhibits			☐ Ongoing ☐ Seasonal ☐ Only during declared emergencies
Marketing rebate programs (e.g., indoor fixtures & appliances and outdoor practices)			☐ Ongoing ☐ Seasonal ☐ Only during declared emergencies
Community news letters	Champlin Chronicle	5/year	☒ 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			☐ Ongoing ☐ Seasonal ☐ Only during declared emergencies

Education Methods	General summary of topics	#/Year	Frequency
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)	The City's Environmental Resource Commission (ERC) helps promote natural resource conservation by providing volunteering & educational opportunities for the city residents. The ERC has focused heavily on water quality protection education by organizing activities and providing documents on water conservation strategies through the City of Champlin website.	Several (varies) times per year	☒ Ongoing ☐ Seasonal ☐ Only during declared emergencies
Community education classes			☐ Ongoing ☐ Seasonal ☐ Only during declared emergencies
Water week promotions			☐ Ongoing ☐ Seasonal ☐ Only during declared emergencies
City website : http://ci.champlin.mn.us/	Includes ordinances, consumer confidence reports, projects, events, and tips regarding water usage	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

Education Methods	General summary of topics	#/Year	Frequency
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 will continue the education methods listed above, and plans to launch educational programs that incorporate water-efficient fixture & appliance rebates.

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.

The information provided in Table 32 below is directly from the City of Champlin's 2015 Wellhead Protection Plan.

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

Local Control	Schedule to Implement	Potential Partners
☒ Comprehensive planning that guides development in vulnerable drinking water supply management areas The Drinking Water Supply Management Area (DWSMA) delineated in the Wellhead Protection (WHP) Plan Part 1 (Part 1) area delineation study extends into the City of Dayton and into the Mississippi River in Coon Rapids. The City will continue to work with neighboring communities to ensure proper management of the portion of the DWSMA that extends into their respective municipality.	It is anticipated that most local issues may be adequately addressed through these existing processes and adopting of best management practices.	City of Dayton and Coon Rapids.

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 maintenance summaries

Minnesota Unique Well Number

160019

County Hennepin
Quad Anoka
Quad ID 120B

MINNESOTA DEPARTMENT OF HEALTH

WELL AND BORING REPORT

Minnesota Statutes Chapter 1031

Entry Date 08/24/1991
Update Date 08/18/2014
Received Date

Well Name	Township	Range	Dir	Section	Subsection
CHAMPLIN 3	120	21	W	31	CBCCCB

Elevation 905 ft. **Elev. Method** 7.5 minute topographic map (+/- 5 feet)

Address

Contact 11955 CHAMPLIN DR CHAMPLIN MN 55316
Well CHAMPLIN MN 55316

Stratigraphy Information

Geological Material	From	To (ft.)	Color	Hardness
CLAY	0	14	BROWN	
SAND & GRAVEL	14	125	VARIED	
SHALE & SANDSTONE	125	135		
SHALE & SANDSTONE	135	155		
SHALE & SANDSTONE	155	160		
SHALE & SANDSTONE	160	190		
SHALE & SANDSTONE	190	275		
SHALE & SANDSTONE	275	280	VARIED	
SHALE & SANDSTONE	280	352	VARIED	
SHALE & SANDSTONE	352	405	VARIED	
SHALE & SANDSTONE	405	415	VARIED	
SHALE & SANDSTONE	415	470	BLU/GRN	
SHALE	470	479	RED	
SHALE	479	485	RED	
SHALE & SANDSTONE	485	602	WHT/GRN	

Remarks

CHAMPLIN NO.3 NO MP.
GAMMA LOGGED 2-18-1998. M.G.S. NO. 1360 SAMPLES ARE POOR.

Well Depth 602 ft. **Depth Completed** 602 ft. **Date Well Completed** 07/18/1978

Drill Method Non-specified Rotary **Drill Fluid**

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

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

Casing Type Single casing **Joint** Welded
Drive Shoe? Yes ☒ No ☐ **Above/Below** 1 ft.

Casing Diameter	Weight	Hole Diameter
12 in. To 201. ft.	53.6 lbs./ft.	12 in. To 602 ft.

Open Hole From 201 ft. To 602 ft.

Screen? ☐ **Type** **Make**

Static Water Level
36 ft. land surface Measure 05/08/1987

Pumping Level (below land surface)
64 ft. 10 hrs. Pumping at 350 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		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 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 Jordan Sandstone Aquifer multiple
Last Strat Mt.Simon Sandstone Depth to Bedrock 135 ft
Located by Minnesota Department of Health
Locate Method GPS Differentially Corrected
System UTM - NAD83, Zone 15, Meters X 468452 Y 5000347
Unique Number Verification Information from Input Date 08/31/1995

Angled Drill Hole

Well Contractor
Renner E.H. & Sons 02015
Licensee Business Lic. or Reg. No. Name of Driller

Minnesota Unique Well Number

202754

County Hennepin
Quad Anoka
Quad ID 120B

MINNESOTA DEPARTMENT OF HEALTH

WELL AND BORING REPORT

Minnesota Statutes Chapter 1031

Entry Date 08/24/1991
Update Date 08/18/2014
Received Date

Well Name	Township	Range	Dir	Section	Subsection
CHAMPLIN 1	120	22	W	13	CCDAAC

Elevation 858 ft. **Elev. Method** 7.5 minute topographic map (+/- 5 feet)

Address

Contact 11955 CHAMPLING DR CHAMPLIN MN 55316
Well CHAMPLIN MN 55316

Stratigraphy Information

Geological Material	From	To (ft.)	Color	Hardness
SILT	0	105	BLUE	
SILT & FINE SAND	105	115	BLUE	
FINE SAND & GRAVEL	115	125	BROWN	
FINE SAND	125	145	BROWN	
SAND & ROCKS	145	151	BROWN	
SAND & GRAVEL	151	157	BROWN	
CLAY & GRAVEL	157	170	BROWN	
SAND & GRAVEL	170	190	BROWN	
SHALE	190	191	LT. BLU	
SANDSTONE & SHALE	191	211	PINK	
SHALE	211	216	RED	
SHALE	216	223	BLUE	HARD
SHALE	223	225	GREEN	HARD
SHALE	225	255	GREEN	
FRANCONIA	255	288	LIGHT	SOFT
SHALE	288	325	GRAY	
SHALE	325	362	GREEN	
SHALE	362	365	RED	
SHALE	365	383	DK. GRN	
SANDSTONE	383	393	LIGHT	SOFT
SHALE	393	395	RED	SOFT
DRESBACH	395	428	LIGHT	
DRESBACH	428	440	LIGHT	
SHALE & SANDSTONE	440	448	LIGHT	
SHALE	448	468		
SHALE	468	510		
SANDSTONE	510	625		
SANDSTONE & SHALE	625	635		
HINKLEY SANDSTONE	635	700		

Remarks

CHAMPLIN MUNI #1 NO MP
M.G.S. NO.935

Well Depth 700 ft. **Depth Completed** 700 ft. **Date Well Completed** 03/29/1974

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** 1 ft.

Casing Diameter	Weight	Hole Diameter
24 in. To 177 ft.	lbs./ft.	16 in. To 700 ft.
16 in. To 225 ft.	lbs./ft.	
20 in. To 63 ft.	lbs./ft.	

Open Hole From 225 ft. To 700 ft.

Screen? ☐ **Type** **Make**

Static Water Level
13.5 ft. land surface Measure 03/29/1974

Pumping Level (below land surface)
90.7 ft. 40 hrs. Pumping at 2400 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 Volt
Length of drop pipe ft Capacity g.p. Typ

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

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

Miscellaneous
First Bedrock St.Lawrence Formation Aquifer Tunnel City-Mt.
Last Strat Mid.Prot. sed. undivided Depth to Bedrock 190 ft
Located by Minnesota Department of Health
Locate Method GPS SA On (averaged)
System UTM - NAD83, Zone 15, Meters X 467202 Y 5004878
Unique Number Verification Information from Input Date 06/16/1999

Angled Drill Hole

Well Contractor
Renner E.H. & Sons 02015 LEDBETTER, B.
Licensee Business Lic. or Reg. No. Name of Driller

Minnesota Well Index Report | **202754** | Printed on 08/11/2017 HE-01205-15

Minnesota Unique Well Number

214489

County Hennepin
Quad Coon
Quad ID 120A

MINNESOTA DEPARTMENT OF HEALTH

WELL AND BORING REPORT

Minnesota Statutes Chapter 1031

Entry Date 08/24/1991
Update Date 09/10/2015
Received Date

Well Name	Township	Range	Dir	Section	Subsection
TESSMAN,	119	21	W	4	BBBAAA

Elevation 876 ft. **Elev. Method** 7.5 minute topographic map (+/- 5 feet)

Address

C/W 109TH AV N BROOKLYN PARK MN

Stratigraphy Information

Geological Material	From	To (ft.)	Color	Hardness
BLACK DIRT	0	3		
SAND	3	15		
WATER SAND	15	27		
SAND & GRAVEL CLAY	27	58		
WATER SAND &	58	80		

Remarks

SAME AS UNIQUE NO.462967. NOW WEST WELL FOR CHAMPLIN PARK H.S.

Well Depth 80 ft. **Depth Completed** 80 ft. **Date Well Completed** 12/17/1965

Drill Method **Drill Fluid**

Use irrigation **Status** Active

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

Casing Type Single casing **Joint**

Drive Shoe? Yes ☐ No ☐ **Above/Below**

Casing Diameter	Weight
12 in. To 62 ft.	lbs./ft.

Open Hole From ft. To ft.

Screen? ☒ **Type** **Make**

Diameter	Slot/Gauze	Length	Set	
12 in.	35	18 ft.	62 ft.	80 ft.

Static Water Level

15 ft. land surface Measure 12/17/1965

Pumping Level (below land surface)

35 ft. 4 hrs. Pumping at 500 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 00/00/1965

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 Aquifer Quat. buried

Last Strat sand +larger Depth to Bedrock ft

Located by Minnesota Geological Survey

Locate Method Digitized - scale 1:24,000 or larger (Digitizing Table)

System UTM - NAD83, Zone 15, Meters X 471838 Y 4999855

Unique Number Verification Other, note in Input Date 01/01/1990

Angled Drill Hole

Well Contractor

Mc Alpine Brothers 86270

Licensee Business Lic. or Reg. No. Name of Driller

Minnesota Unique Well Number

228438

County Hennepin
Quad Coon
Quad ID 120A

MINNESOTA DEPARTMENT OF HEALTH
WELL AND BORING REPORT
Minnesota Statutes Chapter 1031

Entry Date 08/24/1991
Update Date 09/01/2015
Received Date

Well Name	Township	Range	Dir	Section	Subsection
CHAMPLIN 2	120	21	W	28	DBDBBD

Elevation 849 ft. **Elev. Method** 7.5 minute topographic map (+/- 5 feet)

Address

Contact 11955 CHAMPLIN DR CHAMPLIN MN 55316
Well CHAMPLIN MN 55316

Stratigraphy Information

Geological Material	From	To (ft.)	Color	Hardness
GLACIAL DRIFT	0	99		
SOFT SANDSTONE	99	145		
GREEN SHALE &	145	198		
SANDSTONE (FINE)	198	265		
SHALE WITH SOME	265	330	RED/GRN	
SANDSTONE	330	385		
SHALE-STICKY & SOME	385	500	GRN/RED	
SANDSTONE	500	620		HARD

Remarks
CHAMPLIN MUNI #2 NO MP.

Well Depth 620 ft. **Depth Completed** 620 ft. **Date Well Completed** 04/15/1974

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** 0 ft.

Casing Diameter	Weight
16 in. To 195 ft.	lbs./ft.
24 in. To 160 ft.	lbs./ft.

Open Hole From 195 ft. To 620 ft.

Screen? ☐ **Type** **Make**

Static Water Level
11 ft. land surface Measure 03/11/1974

Pumping Level (below land surface)
0 ft. hrs. Pumping at 1000 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 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 Jordan Sandstone Aquifer Tunnel City-Mt.
Last Strat Mt.Simon Sandstone Depth to Bedrock 99 ft
Located by Minnesota Department of Health
Locate Method GPS SA On (averaged)
System UTM - NAD83, Zone 15, Meters X 472091 Y 5001785
Unique Number Verification Information from Input Date 06/16/1999

Angled Drill Hole

Well Contractor
Tri-state Well Co. 27118 BERTHIAUME, F
Licensee Business Lic. or Reg. No. Name of Driller

Minnesota Unique Well Number

409523

County Hennepin
Quad Anoka
Quad ID 120B

MINNESOTA DEPARTMENT OF HEALTH

WELL AND BORING REPORT

Minnesota Statutes Chapter 1031

Entry Date 08/24/1991
Update Date 08/18/2014
Received Date

Well Name	Township	Range	Dir	Section	Subsection
CHAMPLIN 4	120	21	W	30	CABCCB

Elevation 885 ft. **Elev. Method** 7.5 minute topographic map (+/- 5 feet)

Address

Contact 11955 CHAMPLIN DR CHAMPLIN MN 55316
Well CHAMPLIN MN 55316

Stratigraphy Information

Geological Material	From	To (ft.)	Color	Hardness
CLAY	0	5	BROWN	
SAND	5	35	BROWN	
GRAVEL	35	90	BROWN	
SANDSTONE	90	95	YELLOW	
SANDSTONE	95	110	YELLOW	
SHALE & SANDSTONE	110	120	GREEN	
SHALE & SANDSTONE	120	170	TAN	
SHALE & SANDSTONE	170	220	GREEN	
SHALE	220	225	RED	
SHALE & SANDSTONE	225	235	GREEN	
SANDSTONE & SHALE	235	244	LT. BLU	
SANDSTONE & SHALE	244	270	LT. BLU	
SANDSTONE & SHALE	270	291	GRAY	
SANDSTONE & SHALE	291	315	GRAY	
SHALE	315	335	TAN	
SHALE	335	337	RED	
SANDSTONE & SHALE	337	374	TAN	
SANDSTONE & SHALE	374	415	TAN	
SANDSTONE	415	490	TAN	
SANDSTONE	490	495	RED	
SANDSTONE	495	505	TAN	

Remarks

WELL RECONSTRUCTED BY KEYS WELL CO. IN 1997.
LINED WITH 16 IN. CASING TO 185 FT. AND NOW 291 FT. DEEP.
AQUIFERS ARE FRANCONIA AND IRNTON-GALESVILL FORMATIONS.
GAMMA LOGGED 8-5-1983. M.G.S. NO. 2064.

Well Depth 505 ft. **Depth Completed** 291 ft. **Date Well Completed** 08/28/1983

Drill Method Multiple methods used **Drill Fluid**

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

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

Casing Type Single casing **Joint**
Drive Shoe? Yes ☐ No ☐ **Above/Below** 2 ft.

Casing Diameter			Weight		Hole Diameter		
16	in. To	185 ft.	62.5	lbs./ft.	29 in. To	170 ft.	
30	in. To	153 ft.	118.	lbs./ft.	24 in. To	185 ft.	
					20 in. To	505 ft.	

Open Hole From 185 ft. To 291 ft.

Screen? ☐ **Type** **Make**

Static Water Level
39 ft. land surface Measure 06/23/1987

Pumping Level (below land surface)
77.3 ft. hrs. Pumping at 500 g.p.m.

Wellhead Completion
Pitless adapter manufacturer MONITOR Model 16
☐ Casing Protection ☒ 12 in. above grade
☐ At-grade (Environmental Wells and Borings ONLY)

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

Material	Amount		From	To
neat cement	7.7	Cubic yards	0 ft.	185 ft.

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

Pump ☐ Not Installed Date Installed 04/00/1998
Manufacturer's name LAYNE
Model Number 10RKALT HP 40 Volt 460
Length of drop pipe 102 ft Capacity 500 g.p. Typ Submersible

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 Tunnel City Group Aquifer Tunnel City-
Last Strat Fond du Lac Formation Depth to Bedrock 95 ft
Located by Minnesota Department of Health
Locate Method GPS SA On (averaged)
System UTM - NAD83, Zone 15, Meters X 468858 Y 5002172
Unique Number Verification Information from Input Date 06/16/1999

Angled Drill Hole

Well Contractor
Renner E.H. & Sons 02015 LEDBETER, B.
Licensee Business Lic. or Reg. No. Name of Driller

Minnesota Well Index Report | **409523** | Printed on 08/11/2017
HE-01205-15

Minnesota Unique Well Number

409524

County Hennepin
Quad Anoka
Quad ID 120B

MINNESOTA DEPARTMENT OF HEALTH

WELL AND BORING REPORT

Minnesota Statutes Chapter 1031

Entry Date 08/24/1991
Update Date 08/18/2014
Received Date

Well Name	Township	Range	Dir	Section	Subsection
CHAMPLIN 5	120	21	W	30	CABCBD

Elevation 883 ft. **Elev. Method** 7.5 minute topographic map (+/- 5 feet)

Address

Well 12001 169 HY CHAMPLIN MN 55316
Contact 11955 CHAMPLIN DR CHAMPLIN MN 55316

Stratigraphy Information

Geological Material	From	To (ft.)	Color	Hardness
CLAY	0	23	YELLOW	
FINE SAND	23	28	LIGHT	
SAND & GRAVEL	28	42	BROWN	
SANDY CLAY &	42	92	BROWN	
MUDDY SAND &	92	102	BROWN	
SAND & GRAVEL	102	110	BROWN	
SANDSTONE	110	112	GREEN	
SANDSTONE &	112	117	TAN	
SANDSTONE & SAND	117	122	TAN	
SANDSTONE & SHALE	122	220	GREEN	
SANDSTONE & SHALE	220	244	RED/GRN	
SANDSTONE & SHALE	244	290	RED/GRN	
SANDSTONE & SHALE	290	360	RED/GRN	
SHALE & SOME	360	365	LT. BLU	
SANDSTONE & SOME	365	512	GRAY	
SANDSTONE	512	522	RED	
FOND DU LAC	522	550	RED/BRN	

Remarks

CHAMPLIN MUNI #5 NO MP.
M.G.S. NO.2066. GAMMA & ELECTRIC LOGGED 10-5-1983.

Well Depth 550 ft. **Depth Completed** 550 ft. **Date Well Completed** 01/06/1984

Drill Method Multiple methods used **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** 1 ft.

Casing Diameter			Weight	
14	in. To	381 ft.	63.6	lbs./ft.
20	in. To	122 ft.	78	lbs./ft.

Open Hole From 381 ft. To 550 ft.

Screen? ☐ **Type** **Make**

Static Water Level
54 ft. land surface Measure 11/20/1987

Pumping Level (below land surface)
80 ft. 21 hrs. Pumping at 1100 g.p.m.

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

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

Material	Amount	From	To
neat cement		0 ft.	381 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 Tunnel City Group Aquifer Mt.Simon
Last Strat Fond du Lac Formation Depth to Bedrock 110 ft
Located by Minnesota Department of Health
Locate Method GPS SA On (averaged)
System UTM - NAD83, Zone 15, Meters X 468858 Y 5002159
Unique Number Verification Information from Input Date 06/16/1999

Angled Drill Hole

Well Contractor
Renner E.H. & Sons 02015 LEDBETTER, B.
Licensee Business Lic. or Reg. No. Name of Driller

Minnesota Unique Well Number

416092

County Hennepin
Quad Anoka
Quad ID 120B

MINNESOTA DEPARTMENT OF HEALTH

WELL AND BORING REPORT

Minnesota Statutes Chapter 1031

Entry Date 08/24/1991
Update Date 02/19/2016
Received Date

Well Name	Township	Range	Dir	Section	Subsection
CHAMPLIN 6	120	21	W	30	CADBDD

Elevation 878 ft. **Elev. Method** 7.5 minute topographic map (+/- 5 feet)

Address

Well 12000 CAVEL AV CHAMPLIN MN 55316
Contact 11955 CHAMPLIN DR CHAMPLIN MN 55316

Stratigraphy Information

Geological Material	From	To (ft.)	Color	Hardness
CLAY	0	20	BROWN	
SAND CLAY	20	40	BROWN	
SANDSTONE	40	60	BROWN	
SAND FINE & STONES	60	120	BROWN	
GRAVEL	120	122	GRAY	
SHALE	122	123	GREEN	
SANDSTONE	123	135	BROWN	
SANDSTONE	135	160	GREEN	
SANDSTONE	160	180	LIGHT	
SANDSTONE	180	200	BROWN	
SHALEY SANDSTONE	200	210	LIGHT	
SANDSTONE	210	220	TAN	
SANDSTONE	220	281	GREEN	
SANDSTONE	281	282	GREEN	
SHALEY SANDSTONE	282	297	LIGHT	
SHALE	297	301	GRAY	

Remarks

CHAMPLIN MUNI #6 NO MP
M.G.S. NO. 2616. GAMMA LOGGED 1-12-1987.

Well Depth 301 ft. **Depth Completed** 301 ft. **Date Well Completed** 03/09/1987

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 ft.

Casing Diameter **Weight**
14 in. To 189. ft. 54.5 lbs./ft.
20 in. To 131. ft. 78.6 lbs./ft.

Open Hole From 189 ft. To 301 ft.

Screen? ☐ **Type** **Make**

Static Water Level
25 ft. land surface Measure 03/09/1987

Pumping Level (below land surface)
74 ft. 3.5 hrs. Pumping at 500 g.p.m.

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

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

Material	Amount	From	To
neat cement	235. Sacks	0 ft.	189.3 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 Submersible

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 Tunnel City Group Aquifer Tunnel City-
Last Strat Wonewoc Sandstone Depth to Bedrock 122 ft
Located by Minnesota Department of Health
Locate Method GPS SA On (averaged)
System UTM - NAD83, Zone 15, Meters X 469139 Y 5002021
Unique Number Verification Information from Input Date 06/16/1999

Angled Drill Hole

Well Contractor
Renner E.H. Well 71015 SIGAFOOS, G.
Licensee Business Lic. or Reg. No. Name of Driller

Minnesota Unique Well Number

416093

County Hennepin
Quad Anoka
Quad ID 120B

MINNESOTA DEPARTMENT OF HEALTH

WELL AND BORING REPORT

Minnesota Statutes Chapter 1031

Entry Date 08/24/1991
Update Date 08/18/2014
Received Date

Well Name	Township	Range	Dir	Section	Subsection
CHAMPLIN 7	120	21	W	30	CADBDD

Elevation 876 ft. **Elev. Method** 7.5 minute topographic map (+/- 5 feet)

Address

Well 12001 CAVELL AV N CHAMPLIN MN 55316

Contact 11955 CHAMPLIN DR CHAMPLIN MN 55316

Stratigraphy Information

Geological Material	From	To (ft.)	Color	Hardness
CLAY	0	20	YELLOW	
SAND	20	60	BROWN	
MUDDY SAND &	60	80	BROWN	
SAND & GRAVEL	80	114	BROWN	
SANDSTONE	114	250	GREEN	
SHALE WITH TAN	250	269	GREEN	
SHALE WITH TAN	269	280	GREEN	
GRAY SHALE &	280	295	GRAY	
SANDSTONE	295	300	WHITE	
SHALE & SANDSTONE	300	308	GRAY	
SHALE & SANDSTONE	308	391	GRAY	
SHALE & SANDSTONE	391	450	GRAY	
SANDSTONE	450	513	GRAY	

Remarks

CHAMPLIN MUNI #7 NO MP

M.G.S. NO. 2591. GAMMA & ELECTRIC LOGGED 12-1-1986.

Well Depth 513 ft. **Depth Completed** 513 ft. **Date Well Completed** 04/09/1987

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** 1 ft.

Casing Diameter		Weight	
14 in. To	428. ft.	54.5	lbs./ft.
20 in. To	120. ft.	78.6	lbs./ft.

Open Hole From 429 ft. To 513 ft.

Screen? ☐ **Type** **Make**

Static Water Level

27 ft. land surface Measure 10/09/1987

Pumping Level (below land surface)

88 ft. 3 hrs. Pumping at 830 g.p.m.

Wellhead Completion

Pitless adapter manufacturer Model

☐ Casing Protection ☒ 12 in. above grade

☐ At-grade (Environmental Wells and Borings ONLY)

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

Material	Amount	From	To
neat cement	529 Sacks	0 ft.	428 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 Submersible

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 Tunnel City Group Aquifer Mt.Simon

Last Strat Mt.Simon Sandstone Depth to Bedrock 114 ft

Located by Minnesota Department of Health

Locate Method GPS SA On (averaged)

System UTM - NAD83, Zone 15, Meters X 469120 Y 5002021

Unique Number Verification Information from Input Date 06/16/1999

Angled Drill Hole

Well Contractor

Renner E.H. Well 71015 SIGAFOOS, G.

Licensee Business Lic. or Reg. No. Name of Driller

Minnesota Unique Well Number

559414

County Hennepin
Quad Anoka
Quad ID 120B

MINNESOTA DEPARTMENT OF HEALTH

WELL AND BORING REPORT

Minnesota Statutes Chapter 1031

Entry Date 05/08/1997
Update Date 08/18/2014
Received Date

Well Name	Township	Range	Dir	Section	Subsection
CHAMPLIN 8	120	21	W	30	BDACCB

Elevation 869 ft. **Elev. Method** 7.5 minute topographic map (+/- 5 feet)

Address

Contact 11955 CHAMPLIN DR CHAMPLIN MN 55316
Well 12255 CHAMPLIN DR CHAMPLIN MN 55316

Stratigraphy Information

Geological Material	From	To (ft.)	Color	Hardness
SAND	0	10	BROWN	SOFT
SAND & GRAVEL	10	65	GRAY	MEDIUM
SAND/GRAVEL/ROCK	65	144	BROWN	MEDIUM
FRANCONIA	144	148	GREEN	HARD
FRANCONIA	148	150	GREEN	HARD
FRANCONIA-BROKERN	150	153	VARIED	HARD
FRANCONIA	153	224	GRN/BRN	MEDIUM
IRONTON/GALESVILLE	224	273	WHITE	MEDIUM
EAU CLAIRE SHALE	273	352	GRN/BRN	MEDIUM
MT. SIMON	352	480	TAN/WHT	SOFT

Remarks

M.G.S. NO. 3751. GAMMA LOGGED 7-29-1996.

Well Depth	Depth Completed	Date Well Completed
480 ft.	480 ft.	11/01/1996

Drill Method Cable Tool **Drill Fluid** Bentonite

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

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

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

Casing Diameter	Weight	Hole Diameter
18 in. To 370. ft.	70.5 lbs./ft.	24 in. To 412 ft.
24 in. To 168. ft.	94.6 lbs./ft.	18 in. To 480 ft.

Open Hole From 370 ft. To 480 ft.

Screen? ☐ **Type** **Make**

Static Water Level

41 ft. land surface Measure 10/28/1996

Pumping Level (below land surface)

125. ft. 8 hrs. Pumping at 2340 g.p.m.

Wellhead Completion

Pitless adapter manufacturer Model

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

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

Material	Amount	From	To
neat cement	20 Cubic yards	0 ft.	370 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 Tunnel City Group Aquifer Mt.Simon
Last Strat Mt.Simon Sandstone Depth to Bedrock 148 ft
Located by Minnesota Department of Health
Locate Method GPS SA On (averaged)
System UTM - NAD83, Zone 15, Meters X 469042 Y 5002538
Unique Number Verification Information from Input Date 06/16/1999

Angled Drill Hole

Well Contractor

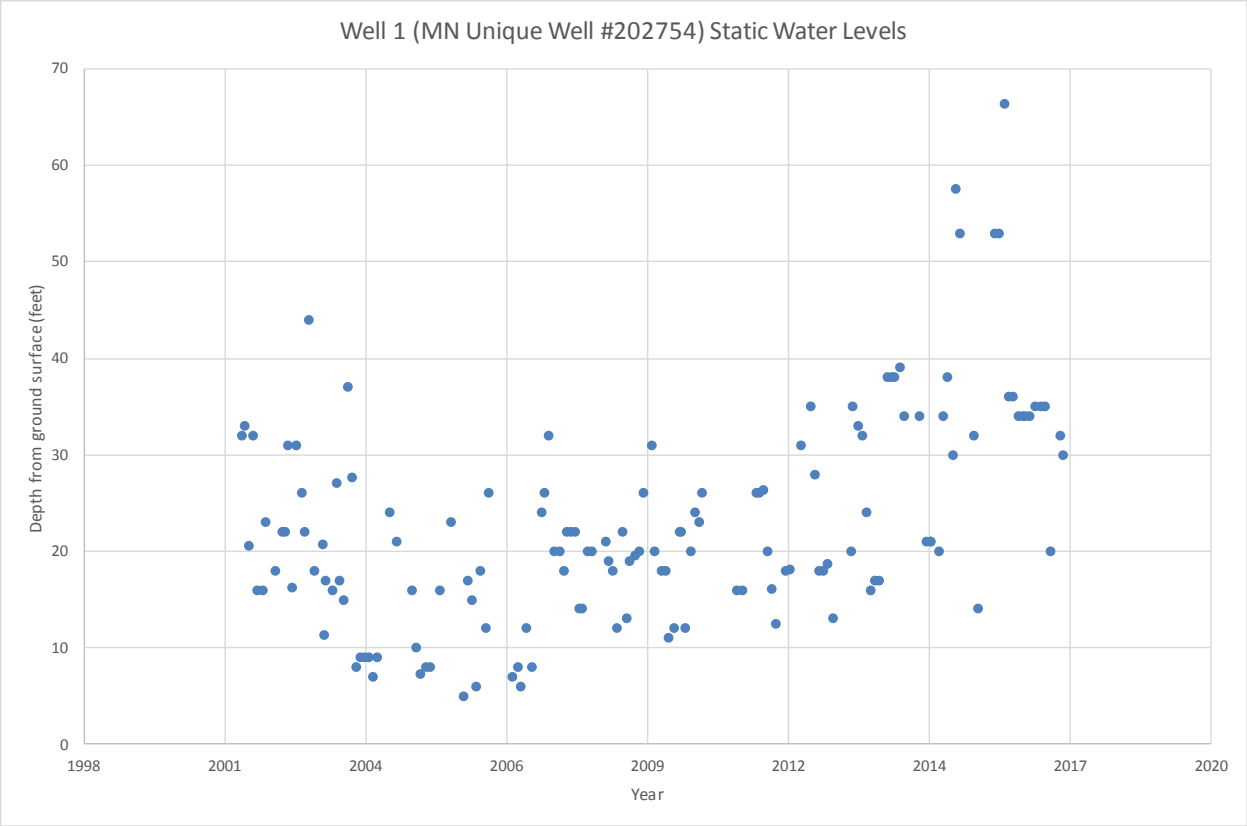
Renner E.H. Well 71015 SIGAFOOS, R.
Licensee Business Lic. or Reg. No. Name of Driller

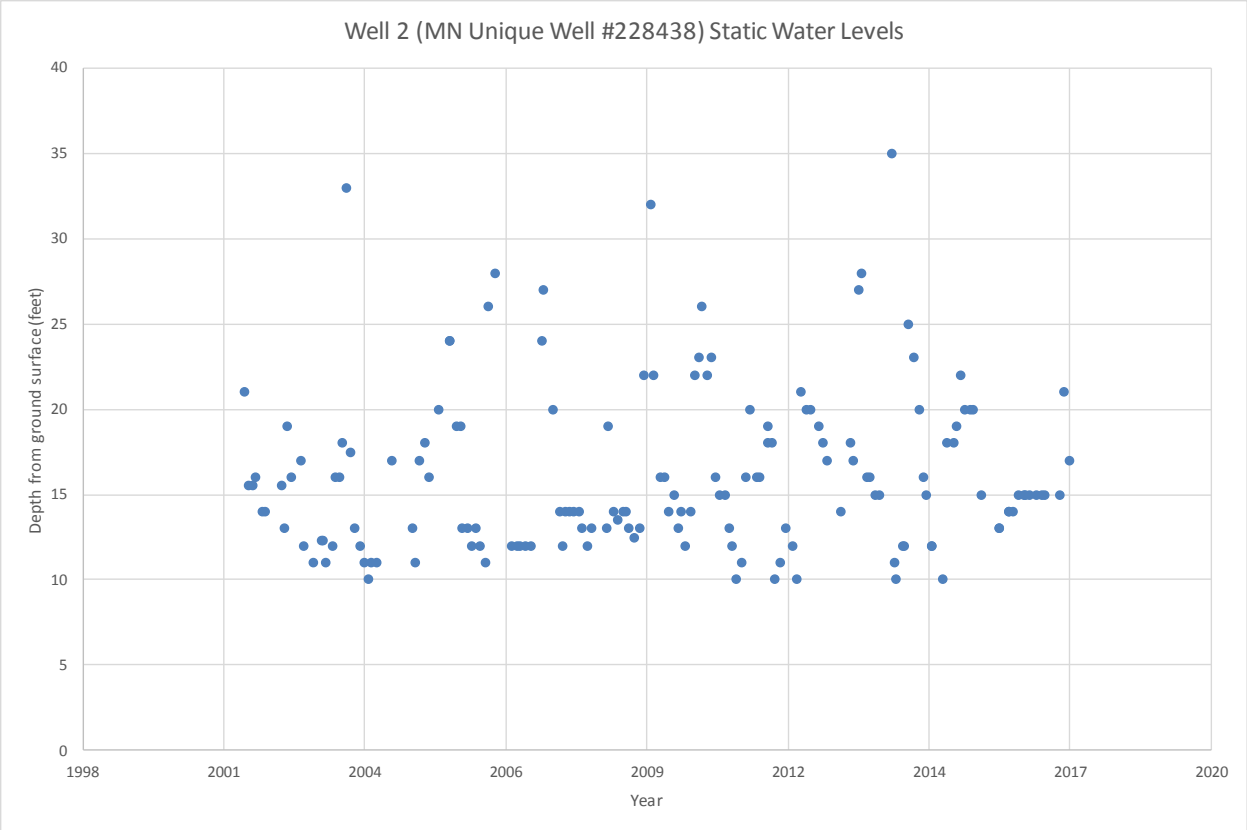
Appendix 2:
Water level monitoring plan

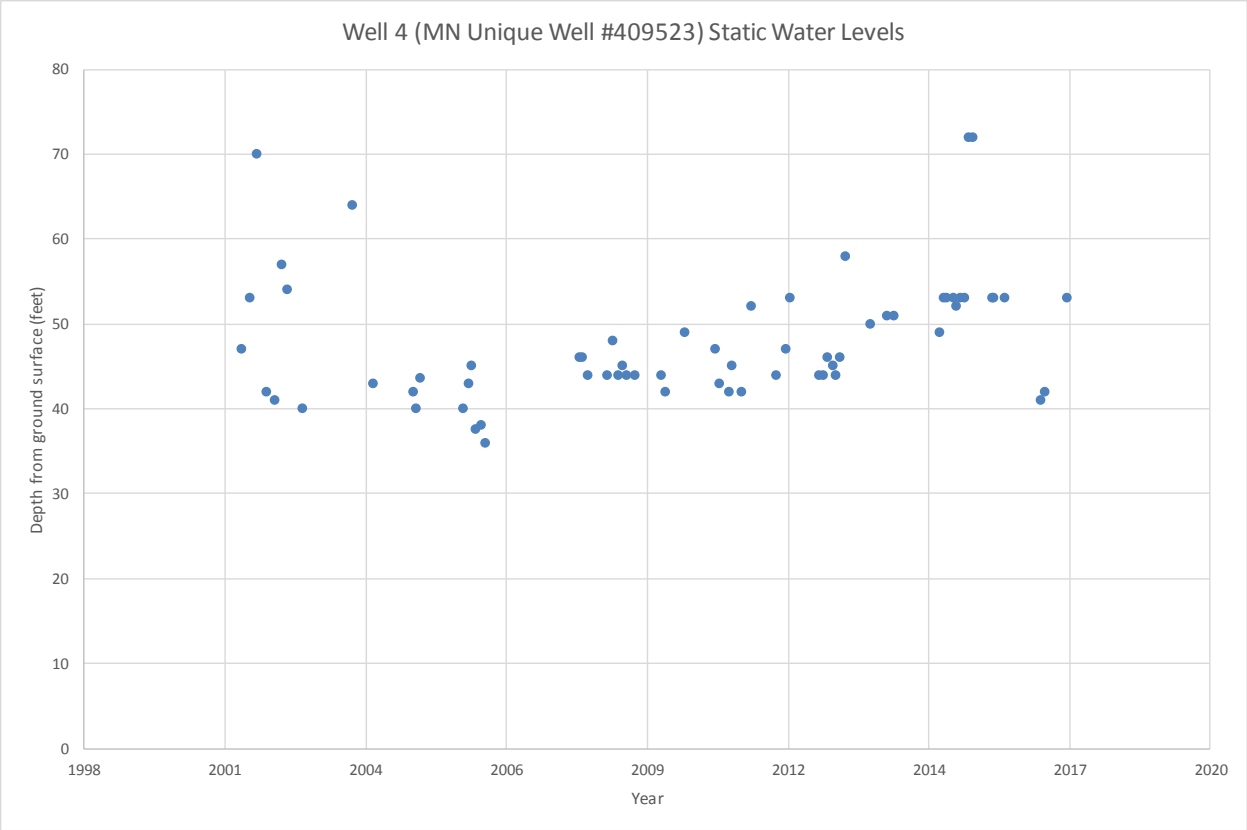
City of Champlin Water Level Monitoring Plan

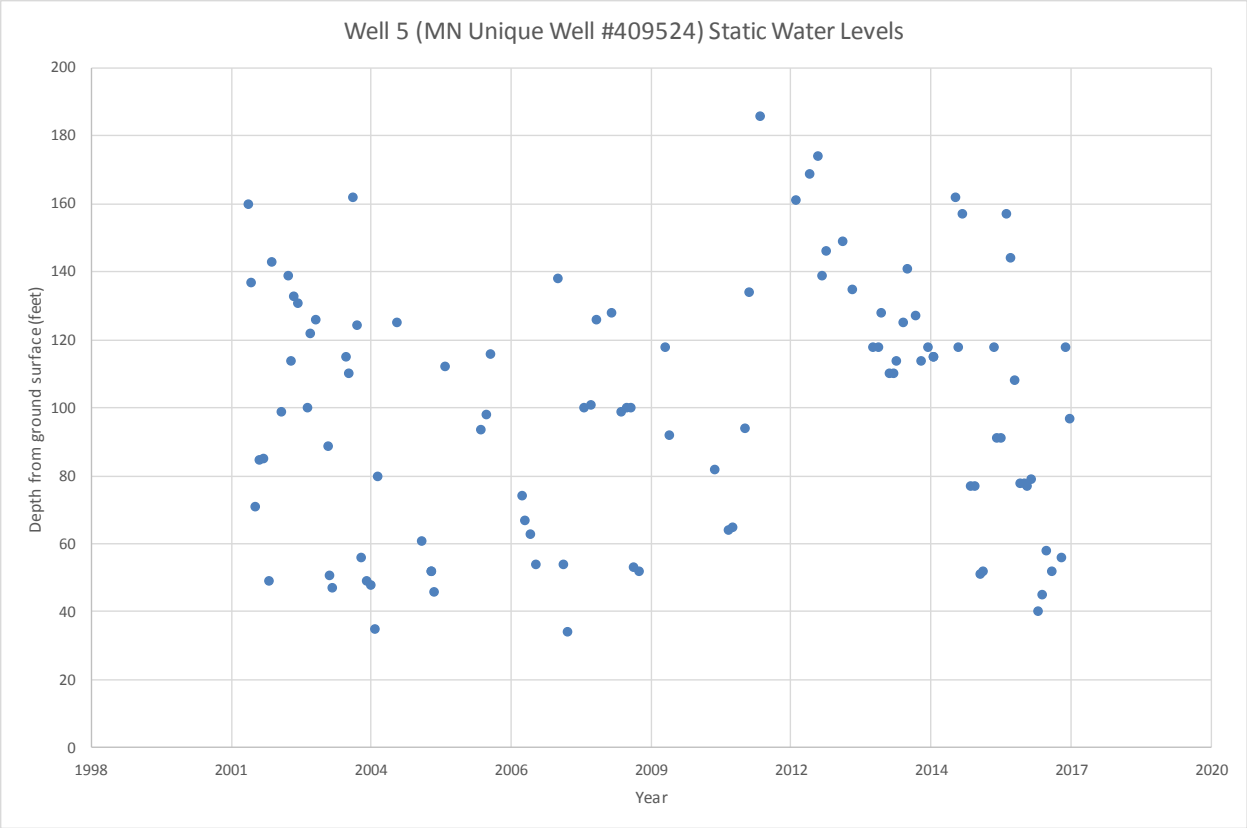
Source	Monitor Type	Frequency
Well 1	SCADA & Spectrophotometer	Monthly
Well 2	SCADA & Spectrophotometer	Monthly
Well 4	SCADA & Spectrophotometer	Monthly
Well 5	SCADA & Spectrophotometer	Monthly
Well 6	SCADA & Spectrophotometer	Monthly
Well 7	SCADA & Spectrophotometer	Monthly
Well 8	SCADA & Spectrophotometer	Monthly

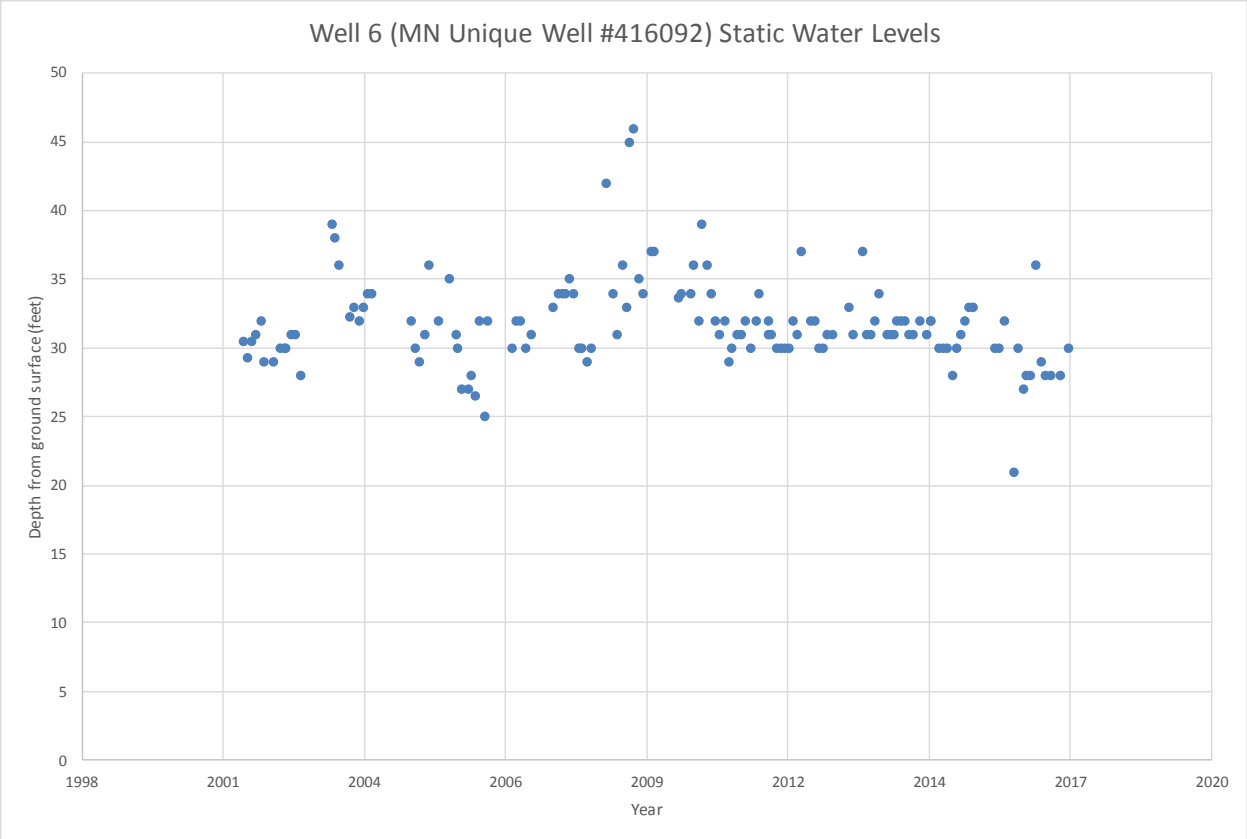
Appendix 3:
Water level graphs for each water supply well

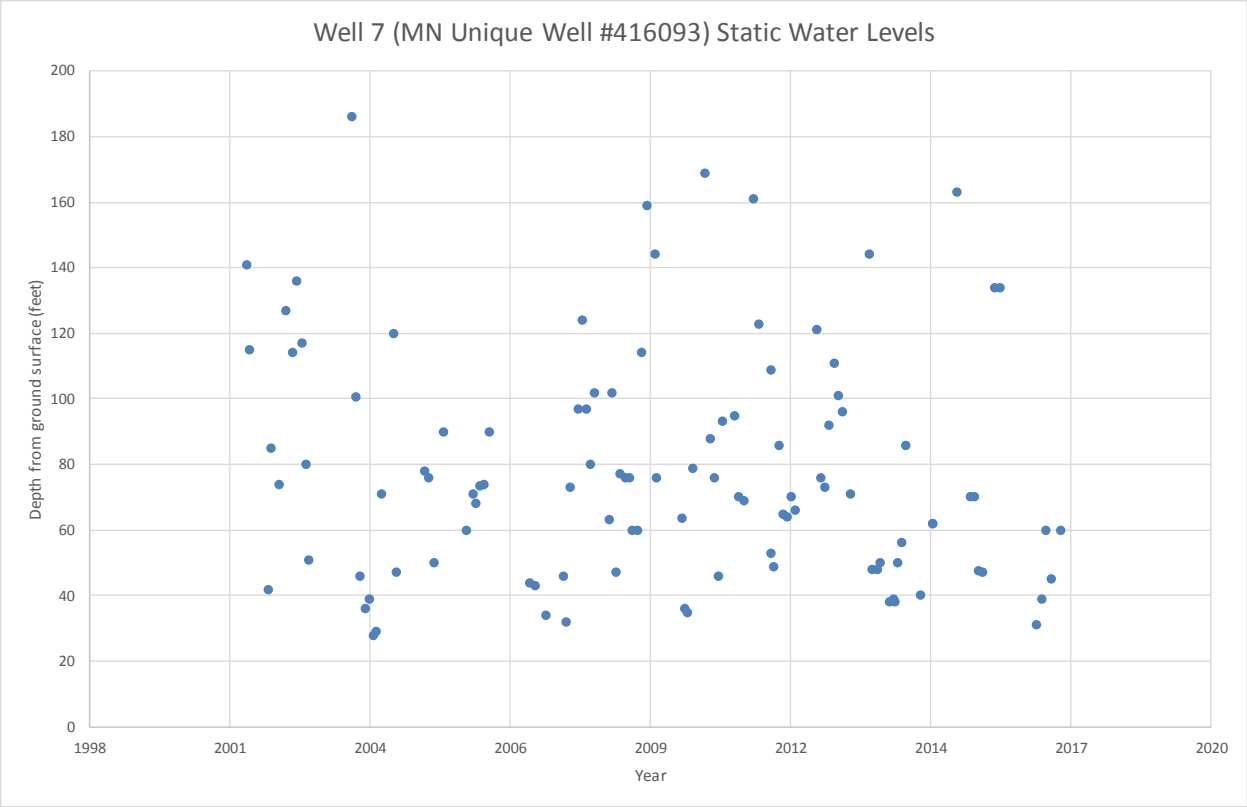

Well 1 (MN Unique Well #202754) Static Water Levels
Depth from ground surface (feet)
70
60
50
40
30
20
10
0
1998
2001
2004
2006
2009
2012
2014
2017
2020
Year

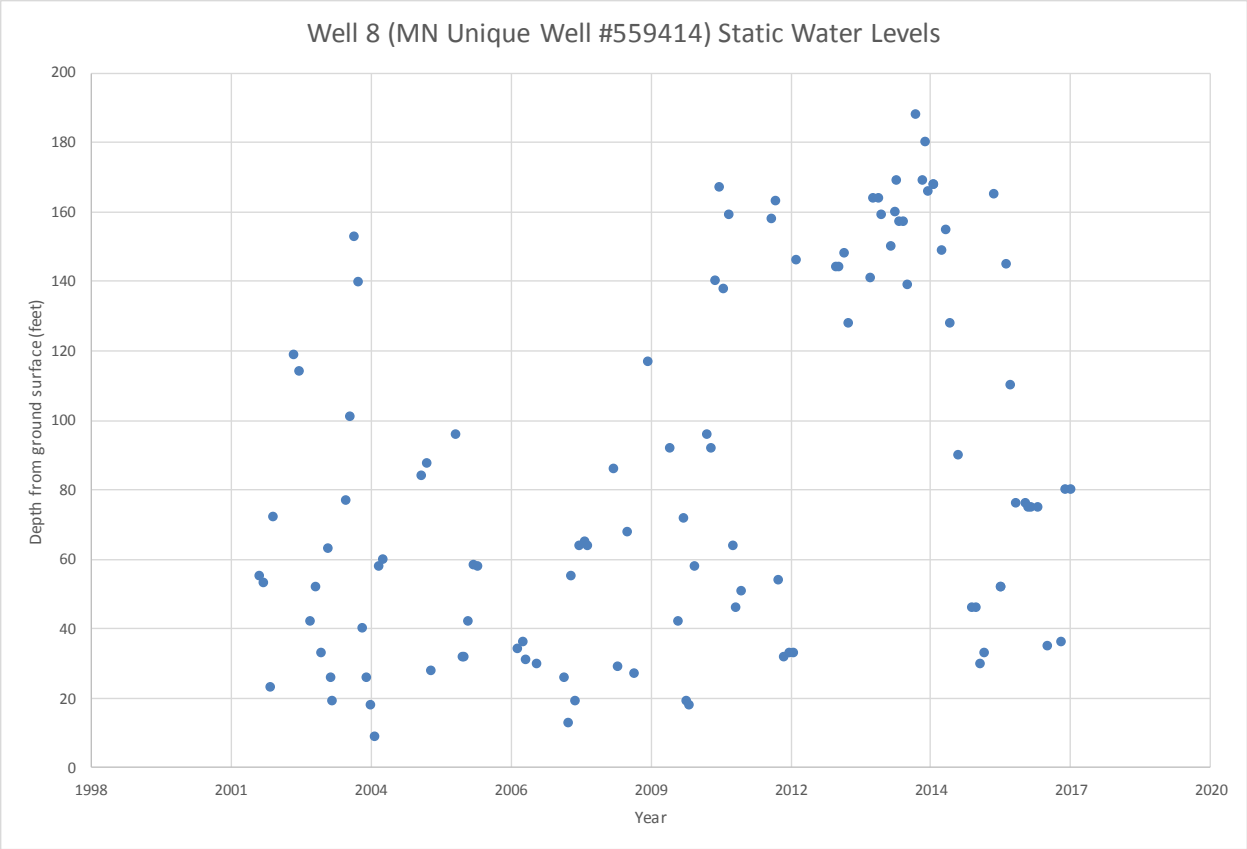

Well 2 (MN Unique Well #228438) Static Water Levels
Depth from ground surface (feet)
0
5
10
15
20
25
30
35
40
1998
2001
2004
2006
2009
2012
2014
2017
2020
Year

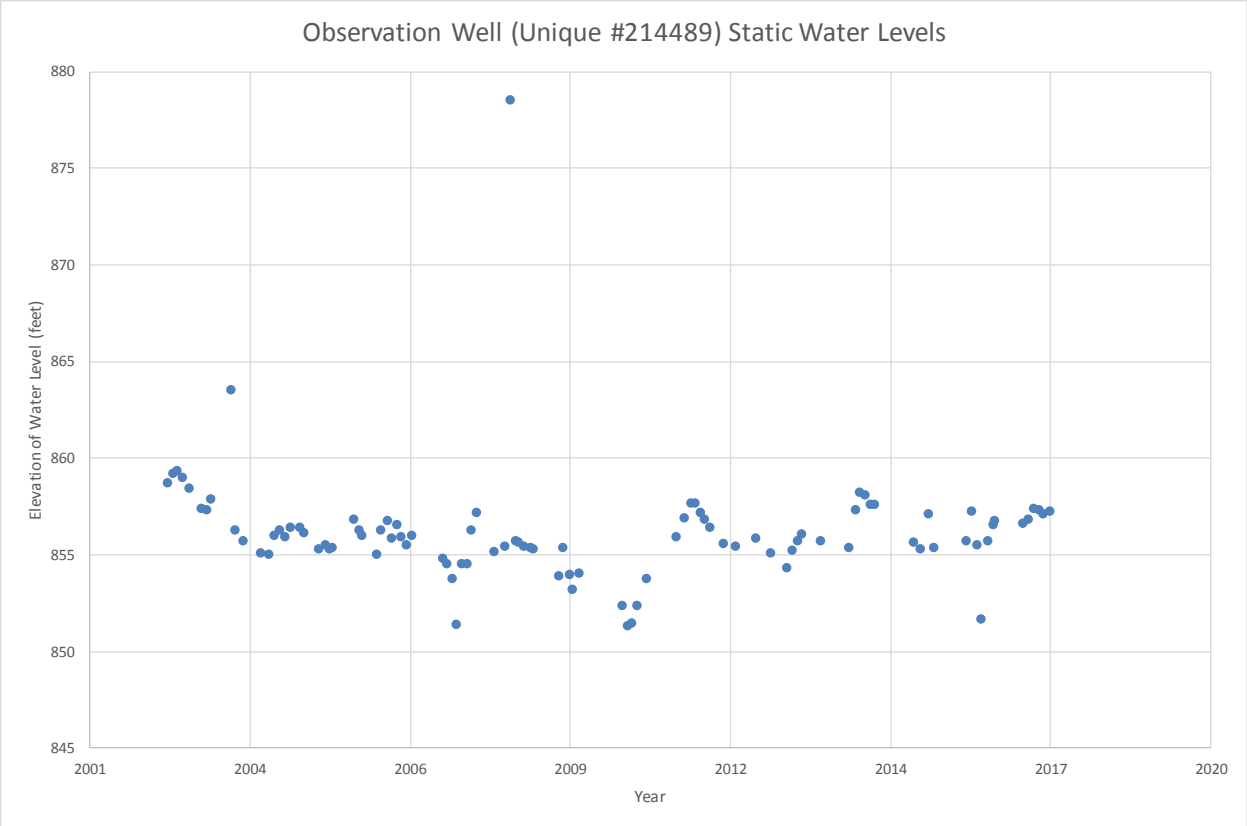

Well 4 (MN Unique Well #409523) Static Water Levels
Depth from ground surface (feet)
0
10
20
30
40
50
60
70
80
1998
2001
2004
2006
2009
2012
2014
2017
2020
Year


Well 5 (MN Unique Well #409524) Static Water Levels
Depth from ground surface (feet)
200
180
160
140
120
100
80
60
40
20
0
1998
2001
2004
2006
2009
2012
2014
2017
2020
Year


Well 6 (MN Unique Well #416092) Static Water Levels
Depth from ground surface (feet)
50
45
40
35
30
25
20
15
10
5
0
1998
2001
2004
2006
2009
2012
2014
2017
2020
Year


Well 7 (MN Unique Well #416093) Static Water Levels
Depth from ground surface (feet)
Year
0
20
40
60
80
100
120
140
160
180
200
1998
2001
2004
2006
2009
2012
2014
2017
2020


Well 8 (MN Unique Well #559414) Static Water Levels
Depth from ground surface (feet)
0
20
40
60
80
100
120
140
160
180
200
1998
2001
2004
2006
2009
2012
2014
2017
2020
Year


Observation Well (Unique #214489) Static Water Levels
Elevation of Water Level (feet)
880
875
870
865
860
855
850
845
2001
2004
2006
2009
2012
2014
2017
2020
Year

Appendix 4:
Capital Improvement Plan

Department	#	Priority	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	To
VACTOR/JETTER	SEW-007	n/a			350,000								350,000
EMERGENCY PUMP AND PANEL REPAIRS	SEW-010	3	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	150,000
SANITARY SEWER REHABILITATION	SEW-023	n/a	420,000		440,000		460,000		480,000		500,000		2,300,000
PUMP SERVICE PROGRAM	SEW-024	n/a	10,000		10,000		10,000	10,000		10,000			50,000
LIFT STATION CONTROL & MONITORING UPGRADE	SEW-042	n/a	45,000	45,000									90,000
SANITARY MANHOLE REPLACEMENT	SEW-043	n/a	25,000	25,000	25,000	25,000							100,000
LIFT STATION VFD R & R	SEW-044	n/a					8,000	8,000					16,000
SEWER Total			**795,000**	**115,000**	**870,000**	**70,000**	**523,000**	**63,000**	**525,000**	**55,000**	**545,000**	**45,000**	**3,606,000**
STREET LIGHTS													
REPLACE STREET LIGHT POLES	STR LTS-001	3	50,000	50,000					50,000				150,000
TRAFFIC SIGNAL POLE PAINTING	STR LTS-004	n/a		32,000			32,000	33,000			34,000		131,000
CAMPUS PARKING LOT LIGHTS	STR LTS-007	n/a		37,000									37,000
STREET LIGHTS Total			**50,000**	**119,000**			**32,000**	**33,000**	**50,000**		**34,000**		**318,000**
WATER													
TOWER 2 INSPECTION/REPAIR	WAT-001	3					1,200,000						1,200,000
RE-ROOF WATER TREATMENT PLANT #2	WAT-002	n/a								65,000			65,000
RE-ROOF WELL #8	WAT-003	3							40,000				40,000
PICK-UP TRUCK (304)	WAT-005	n/a		40,000									40,000
METER READING EQUIPMENT/METERS	WAT-007	3			1,500,000								1,500,000
WELL 4 & 5	WAT-009	n/a	7,500										7,500
WELL 2 RE-ROOF	WAT-011	n/a							40,000				40,000
WTP#1 POLYMER PUMP	WAT-012	n/a	15,000										15,000
SCADA MODIFICATIONS	WAT-013	3	15,000	20,000	20,000	20,000	20,000	25,000	25,000	25,000	25,000	25,000	220,000
WELL #2 PULL AND INSPECT	WAT-016	n/a			35,000								35,000
EMERGENCYREPAIRS	WAT-017	3	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	500,000
WELL # 2	WAT-020	3		7,500									7,500
TRUCK #306 (2012 FORD F-350)	WAT-021	n/a						50,000					50,000
SCADA COMPUTER HARDWARE/SOFTWARE	WAT-022	n/a			30,000					30,000			60,000
WELL 1 PULL & INSPECT	WAT-024	3		35,000									35,000
WELL 4 PULL & INSPECT & REPAIR	WAT-025	n/a					35,000						35,000
WELL 5 PULL & INSPECT & REPAIR	WAT-026	n/a	35,000										35,000
WELL 8	WAT-027	n/a				35,000							35,000

Department	#	Priority	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	Total
CLEARWELL INSPECTION AND CLEANING	WAT-032	n/a							10,000				10,000
TRUCK #310 (98-1 TON DHEV.)	WAT-033	n/a	32,000										32,000
REPLACE RECYCLE PUMPS WTP#1	WAT-034	n/a	35,000										35,000
AIR CONDITIONING UNIT-WTP1 REAR OFFICE	WAT-037	n/a	7,500										7,500
ACCESS SECURITY	WAT-041	3	10,000										10,000
WATER TREATMENT #1 PLANT ROOF	WAT-047	n/a	100,000										100,000
HIGH SERVICE PUMP (PULL, INSPECT, REPAIR)	WAT-054	n/a		12,000	12,000	12,000	12,000		12,000	12,000			72,000
ADD MEDIA TO FILTER	WAT-059	n/a			30,000								30,000
REPLACE/REPAIR SIDEWALK E OF WTP 1	WAT-060	n/a	40,000										40,000
WELL 7 PULL AND INSPECT	WAT-068	n/a					35,000						35,000
HVAC UNIT REPLACEMENT	WAT-074	n/a	150,000										150,000
LARGE METER TESTING & REPAIR (DIST)	WAT-075	n/a	5,000	5,000									10,000
GPS	WAT-077	n/a					7,500						7,500
DISTRIBUTION LEAK DETECTION	WAT-080	n/a	8,500										8,500
SECURITY	WAT-088	n/a	40,000										40,000
BACKFLOW MONITORING PROGRAM	WAT-089	n/a	15,000										15,000
UTILITY VEHICLE 311	WAT-092	n/a						30,000					30,000
REPLACE ACCESS HATCHES	WAT-094	n/a	40,000										40,000
ANDREWS PARK IRRIGATION	WAT-095	n/a		20,000									20,000
TOWER 1 - PAINTING	WAT-098	n/a		1,200,000									1,200,000
WASH DOWN & FILL STATION	WAT-104	n/a	75,000										75,000
WATER Total			**680,500**	**1,389,500**	**1,677,000**	**117,000**	**1,359,500**	**155,000**	**177,000**	**182,000**	**75,000**	**75,000**	***5,887,500***
GRAND TOTAL			**17,484,492**	**29,283,086**	**15,243,250**	**10,991,630**	**6,554,130**	**5,739,000**	**7,942,400**	**7,560,185**	**7,525,530**	**3,108,800**	***111,432,503***

Appendix 5:
Emergency Telephone List

Emergency Telephone List

Emergency Response Team	Name	Work Telephone	Alternate Telephone
Emergency Response Lead	Mike Bramwell	763.923.7190	612.968.2167
Alternate Emergency Response Lead	Bret Heitkamp	763.923.7110	
Water Operator			
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			
Fire Chief	Charlie Thompson	763.576.2861	763.286.7354
Sheriff			
Police Chief	Ty Schmidt	763.923.7179	
Ambulance			
Hospital			
Doctor or Medical Facility			

State and Local Agencies	Name	Work Telephone	Alternate Telephone
MDH District Engineer	Robert Dehler	651-201-3710	
MDH	Drinking Water Protection	651-201-4700	
State Testing Laboratory	Minnesota Duty Officer	800/422-0798 Out State	651-649-5451 Metro
MPCA	MPCA St. Paul Office	651-296-6300	800-657-3864
DNR Area Hydrologist	Jason Speigel	651-259-5822	jason.spiegel@state.mn.us
County Water Planner	Joel Settles	612-348-6157	joel.settles@co.hennepin.mn.us

Utilities	Name	Work Telephone	Alternate Telephone
Electric Company	Xcel	800.895.1999	
Gas Company	Centerpoint	612.372.5050	
Telephone Company			
Gopher State One Call	Utility Locations	800-252-1166	651-454-0002
Highway Department			

Mutual Aid Agreements	Name	Work Telephone	Alternate Telephone
Neighboring Water System	Brooklyn Park / Maple Grove	7634938008/7634946370	
Emergency Water Connection	Brooklyn Park / Maple Grove	7634938008/7634946370	
Materials			

Technical/Contracted Services/Supplies	Name	Work Telephone	Alternate Telephone
MRWA Technical Services	MN Rural Water Association	800-367-6792	
Well Driller/Repair	Bergerson Caswell	763.479.3121	
Pump Repair	Bergerson Caswell	763.479.3121	
Electrician			
Plumber			
Backhoe			
Chemical Feed			
Meter Repair			

Generator			
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

C PH 8

COOPERATIVE JOINT POWERS AGREEMENT
109TH AVENUE IMPROVEMENTS
BROOKLYN PARK AND CHAMPLIN

AGREEMENT, made and entered into this 9th day of September, 199[illegible], by and between the City of Brooklyn Park, hereinafter referred to as "Brooklyn Park;" and the City of Champlin, hereinafter referred to as "Champlin."

WITNESSETH:

WHEREAS, Brooklyn Park and Champlin are desirous of bringing about the improvement of that portion of 109th Avenue approved as a Municipal State Aid Street (MSAS) and designated as Brooklyn Park MSAS 110-113-040 and Champlin MSAS 193-106-40 from Douglas Drive, east approximately 3300 feet, to be shown on the construction plans, which improvement contemplates concrete curb and gutter; concrete sidewalk/trails; aggregate base; utilities; bituminous base and wearing courses; street lighting; traffic signals; landscaping; storm sewer system and other related improvements herein referred to as the Project; and

WHEREAS, the City of Champlin has in place municipal sanitary sewer facilities and a municipal water system near the Brooklyn Park north boundary and the City of Brooklyn Park does not anticipate extending its municipal sewer and water systems to this area of the City until it is consistent with its growth control plan, and

WHEREAS, it is in the best interest of the general taxpayer supporting municipal and school governing units to extend to the new high school in the area municipal services, this will save the

school district from constructing private sewer and water systems and will benefit the health, safety and general welfare of students at the new school, and

WHEREAS, it is the intent of this agreement to allow but limit Champlin municipal services to the Brooklyn Park boundary where such services shall be constructed with the idea that this water service will act as a municipal water interconnection to benefit both communities in the future and that Champlin and Brooklyn Park agree that there will not be any additional lands in Brooklyn Park served by Champlin public utilities unless and until consistent with future planning in both cities this agreement shall be specifically limited to the new high school being built by Independent School District No. 11, and

WHEREAS, Minnesota Statutes Section 471.59 allows the cities of Brooklyn Park and Champlin to enter into a Joint Powers Agreement to plan and construct the proposed road and public utilities on the common boundary between the two cities; and

WHEREAS, the above mentioned construction along 109th Avenue shall be hereinafter identified as BP Projects S-1018, S-1019, SS-1020, ST-1034 and M-1051, Improvement 91-08/CH 91-2; and, the entire length of the Project lies on the mutual corporate limits of Brooklyn Park and Champlin; and

WHEREAS, Brooklyn Park and Champlin have the authority to special assess to benefitted properties the costs of public improvement projects to governmental units pursuant to State Statutes Chapter 429 and Chapter 435.19; and,

WHEREAS, pursuant to Minnesota Statutes Chapter 429 and 435 the Independent School District #11 petitioned the cities of Brooklyn Park and Champlin to construct certain improvements, and

WHEREAS, the Brooklyn Park City staff prepared the required feasibility reports, and the City Councils ordered the improvements; and

WHEREAS, plans and specifications must be prepared for the improvements, bids must be solicited and approved, and contracts awarding the work must be executed and construction management exercised throughout the improvement process; all in accordance with approved Municipal State Aid Standards (MSA); and

WHEREAS, Brooklyn Park and Champlin mutually agree that Brooklyn Park will be the lead agency to perform the Project management and design work in accordance with MSA Rules and Regulations and obtain MnDOT approvals as required; and

WHEREAS, Brooklyn Park, as the lead agency, will maintain records of all expenditures and charges associated with the Project and provide a breakdown of those costs for the benefit of each City; and

WHEREAS, the parties hereto have reviewed the plans and specifications and have approved said plans and specifications and agree to participate in the cost of Project items both eligible and ineligible for MSA funding; and

WHEREAS, it is contemplated that this public improvement Project be carried out by the parties hereto under the provisions, terms and conditions set forth.

NOW THEREFORE, IT IS HEREBY AGREED:

I

The cities of Brooklyn Park and Champlin, by executing this agreement, mutually approve the City of Brooklyn Park as the Lead Agency and agree to review and approve the plans and specifications for said Project. Champlin shall provide Brooklyn Park with all the available data and materials pertinent to the work program as required to complete the Projects. The City's data and material may consist of, but will not be limited to; contour maps, utility and street plans, aerial photos and previous environmental study material. Progress meetings will be scheduled for the City staffs and other concerned public agencies to discuss issues during the study/report, design and construction phases.

II

Brooklyn Park shall prepare on behalf of the cities' as parties hereto, the necessary feasibility report(s) for usage by each individual city for subsequent public improvement and assessment hearings. Each City shall prepare an addendum to the feasibility report indicating their assessment program, a list of the affected properties and pertinent information unique to each City's special assessment program. Champlin shall be responsible for calling all necessary hearing and compliance with Minnesota Law to levy special assessments in their City and Brooklyn Park shall be responsible for said procedures for Brooklyn Park properties.

III

Brooklyn Park shall prepare the plans and specifications,

which shall be reviewed and approved by Champlin, Brooklyn Park shall then advertise for and receive bids; enter into a contract for said Project with the successful bidder at the unit prices specified in the bid of the lowest responsible bidder, in accordance with Minnesota Statues.

The contract documents will include the plans and specifications prepared by Brooklyn Park or its agents and approved by Champlin and MnDOT as an MSA Project. The plans and specifications shall be in compliance with all State Aid standards and shall be approved for State Aid funding.

IV

Brooklyn Park shall administer the contract and inspect the construction of the contract work contemplated herewith. All work on the Project shall be completed in compliance with the plans and specifications. Champlin's City Engineer or staff shall have the right, as the work progresses, to enter upon the premises to make any inspections deemed necessary, but will have no responsibility for the supervision of the work.

V

Brooklyn Park shall be responsible for receiving final approval of the Project by the State Aid Engineer and obtaining the necessary agency approvals. Champlin and Brooklyn Park, at their own expense, shall acquire all rights-of-way and/or easements required in accordance with State law and MnDOT rules and regulations and the approved right-of-way plans, for the construction of said project within their respective corporate

limits. Brooklyn Park or its agent will provide a description and individual drawing of each parcel involved in the right-of-way program according to the approved right-of-way plan. The individual drawing will show the permanent and temporary right-of-way taking with appropriate dimensions. The right-of-way costs incurred shall include all acquisition costs including, but not limited to, any and all damages occurring to any person or persons, including private utilities, relocation assistance, removing or adjusting main conduits or other structures located in or upon the land taken and within the present right-of-way; or damage in procuring such right-of-way in the performance of this contract with respect to the Project in accordance with the plans and specifications. The right-of-way costs expended by each City shall be included as part of the eligible MSA funding program.

VI

The proposed schedule to complete the improvement project described herein is as follows:

1. Complete the Cooperative Agreement.....August 26, 1991
2. Complete Feasibility/Engineering Report.....July 22, 1991
3. Award Contract.....September 9, 1991
4. Complete Construction.....June 12, 1992
5. Hold Special Assessment Hearings.....September, 1992

VII

Brooklyn Park and Champlin shall share in the incurred Project costs, including construction, engineering and administrative costs. All costs incurred by Brooklyn Park as the lead agency; to

manage, provide reports and studies, preliminary work, design, construction and project administration, shall be part of the Project costs in accordance with MSA rules and regulations. All project costs shall be apportioned to each City in accordance with the percentage of the total construction items completed in each City. The Brooklyn Park project engineering and administrative/management costs shall not exceed eighteen (18%) percent (unless approved by the parties hereto) of the construction cost exclusive of the cost associated with each City's special assessment and public hearing requirements, and, exclusive of the cost to provide right-of-way parcel descriptions and individual parcel drawings and to acquire said rights-of-way. The aforestated sharing shall be exclusive of trails and sidewalks not funded by MSA funds, which trails and sidewalks shall be paid for, in their entirety, by the City in which they are constructed.

VIII

All direct payments for project design and administration and to the Contractor for work performed on said Project will be made by Brooklyn Park. Brooklyn Park shall be responsible for and pay all the construction costs of the contract work for said Project as identified herein and delineated in the contract documents. Ninety percent (90%) of the estimated project cost will be due to Brooklyn Park by the City of Champlin 90 days after the City of Champlin approves the contract and the final ten percent (10%) is due to Brooklyn Park 30 days after notification by Brooklyn Park that the assessment roll has been approved. All change orders, which

effects Champlin's assessment, are to be approved by the City of Champlin.

IX

Brooklyn Park and Champlin shall each be responsible for reporting of State Aid contracts to MnDOT for their respective segments of the Project and the collecting of State Aid funds.

Brooklyn Park shall provide to Champlin all pertinent information for the reporting of the State Aid contract.

X

All records kept by Brooklyn Park and Champlin with respect to this Project, shall be subject to examination by the representatives of each party hereto.

XI

As part of the Project, a signage plan for 109th Avenue North shall be prepared by Brooklyn Park and approved by the City of Champlin. Future modification of that plan by either Brooklyn Park or Champlin shall be mutually approved by the parties hereto.

It is understood and agreed that upon completion of the improvement proposed herein, all Project elements shall be part of the as built plans prepared by Brooklyn Park and shall become the property of the City in which those improvements are located and all maintenance, restoration, repair or replacement required thereafter shall be performed by each City at its own expense. A subsequent agreement between Champlin and Brooklyn Park will establish the maintenance program for the roadway as it relates to the street surface and snow removal.

XII

It is further agreed that each party to this agreement shall not be responsible or liable to the other or to any other person whomsoever for any claims, damages, actions, or causes of actions of any kind or character arising out of or by reason of the performance of any work or part hereof by the other as provided herein; and each party further agrees to defend at its sole cost and expense any action or proceeding commenced for the purpose of asserting any claim of whatsoever character arising in connection with or by virtue of performance of its own work as provided herein.

Brooklyn Park also agrees that any contract let by the City or its agents for the performance of the work on 109th Avenue as provided for herein shall include clauses that will: 1) Require the Contractor to defend, indemnify, and save harmless Brooklyn Park and Champlin, their officers, agents and employees from claims, suits, demands, damages, judgements, costs, interest, expenses (including, without limitation, reasonable attorney's fees, witness fees, and disbursements incurred in the defense thereof) arising out of or by reason of the negligence of the said Contractor, its officers, employees, agents or subcontractors; and 2) Require the Contractor to provide and maintain sufficient insurance so as to ensure the performance of its hold harmless obligations.

XIII

* The City of Brooklyn Park agrees to pay the City of Champlin for water metered at the cross connection at a rate equal to that set by the City of Champlin for other similar usages. The City of Brooklyn Park will bill Champlin Park High School for their specific water usage. At a future time when the City of Brooklyn Park connects to this system, the City of Champlin and the City of Brooklyn Park agree to pay to the other city any monies due for water consumed by properties in the other city at the rates charged by Brooklyn Park or Champlin for similar utilization. This interconnection of the two municipal systems shall be maintained in the future to protect the health, safety and general welfare of persons residing in both cities. The City of Champlin shall construct an extension of their municipal water system to the Brooklyn Park City boundary at no cost to the City of Brooklyn Park.

XIV

The projects shall include construction of a connection to the CAB sewer line in Champlin upstream of its meter with the Metropolitan sewer system. The City of Brooklyn Park agrees to pay the City of Champlin for sanitary sewage based on the water billings at the Champlin Park High School during said time that the sewage flows through a meter located in the Metropolitan Waste Control Commission system that meters Champlin sewage only.

XV

The City of Brooklyn Park agrees to pay for all the electric power/maintenance associated with the street lighting of this project and will bill the City of Champlin on a 50/50 basis. The City of Champlin agrees to pay for electric power/maintenance

associated with the street lighting necessary to light their portion of 109th Avenue.

IN TESTIMONY WHEREOF, the parties hereto have caused this agreement to be executed by their respective duly authorized officers as of the day and year first above written.

CITY OF BROOKLYN PARK

BY: _____
Mayor

DATE: 9-26-91

AND: _____
Manager (Acting)

DATE: 9-26-91

(Seal)

CITY OF CHAMPLIN

BY: _____
Mayor

DATE: 9/23/91

AND: _____
Manager

DATE: 9/24/91

(Seal)

COOPERATIVE JOINT POWERS AGREEMENT
109TH AVENUE IMPROVEMENTS
(NOBLE TO CHAMPLIN PARK HIGH SCHOOL)
CHAMPLIN AND BROOKLYN PARK

AGREEMENT, made and entered into this 27th day of June, 1994, by and between the City of Champlin, hereinafter referred to as "Champlin;" and the City of Brooklyn Park, hereinafter referred to as "Brooklyn Park."

WITNESSETH:

WHEREAS, Champlin and Brooklyn Park are desirous of bringing about the improvement of that portion of 109th Avenue approved as a Municipal State Aid Street (MSAS) and designated as Champlin MSAS 193-106-08 and Brooklyn Park MSAS 110-113-10 from the easterly side of Noble Avenue westerly to 2554 feet, to be shown on the construction plans, which improvement contemplates concrete curb and gutter; concrete sidewalk/trails; aggregate base; utilities; bituminous base and wearing courses; street lighting; landscaping; storm sewer; and culvert; and other related improvements herein referred to as the Project; and

WHEREAS, the City of Champlin has made this Project part of their southeast area streets and utilities improvement, and

WHEREAS, it is in the best interest of the general taxpayer supporting Champlin and Brooklyn Park to jointly construct 109th Avenue using Municipal State Aid funds, and

WHEREAS, Champlin and Brooklyn Park have, in the past, cooperated in street improvement projects on 109th Avenue between Jefferson Highway and Douglas Drive, Douglas Drive to the eastern limits of the Champlin Park School, and between Noble and County Road 12, as well as recent

improvements to Brooklyn Park's Marvella Subdivision whereby Champlin provided utility connections for water and sewer, and

WHEREAS, Minnesota Statutes Section 471.59 allows the cities of Champlin and Brooklyn Park to enter into a Joint Powers Agreement to plan and construct the proposed road and public utilities on the common boundary between the two cities; and

WHEREAS, the above mentioned construction along 109th Avenue shall be hereinafter identified as Champlin's Southeast Area Improvements Project 92-2 and BP Improvement 94-04, Project ST-1095, SS-1096, S-1097 and W-1098, and

WHEREAS, the Champlin City staff prepared the feasibility reports and the City Councils ordered the improvements, and

WHEREAS, plans and specifications have been prepared for the improvements, and bids have been solicited and approved, and contracts awarding the work have been executed, and construction management will be exercised through the improvement process; all in accordance with approved Municipal State Aid Standards (MSA); and

WHEREAS, Champlin and Brooklyn Park mutually agree that Champlin will be the lead agency to perform the Project management and design work in accordance with MSA Rules and Regulations and obtain MnDOT approvals as required; and

WHEREAS, Champlin, as lead agency, will maintain records of all expenditures and charges associated with the Project and provide a breakdown of those costs for the benefit of each City; and

WHEREAS, the parties hereto have reviewed the plans and specifications and have approved said plans and specifications and agree

to participate in the cost of Project items both eligible and ineligible for MSA funding; and

WHEREAS, it is contemplated that this public improvement Project be carried out by the parties hereto under the provisions, terms and conditions set forth.

NOW, THEREFORE, IT IS HEREBY AGREED:

I

The cities of Champlin and Brooklyn Park, by executing this agreement, mutually approve the City of Champlin as the Lead Agency and agree to review and approve the plans and specifications for said Project. Brooklyn Park shall provide Champlin with all the available data and materials pertinent to the work program as required to complete the Projects. The City's data and material may consist of, but will not be limited to; contour maps, utility and street plans, aerial photos and previous environmental study material. Progress meetings will be scheduled for the City staffs and other concerned public agencies to discuss issues during the study/report, design and construction phases.

II

Champlin shall prepare on behalf of the cities' as parties hereto, the necessary feasibility report(s) for usage by each individual city for subsequent public improvement and assessment hearings. Each City shall prepare an addendum to the feasibility report indicating their assessment program, a list of the affected properties and pertinent information unique to each City's special assessment program. Brooklyn Park shall be responsible for calling all necessary hearings in

compliance with Minnesota Law to levy special assessments in their City and Champlin shall be responsible for said procedures for Champlin properties.

III

Champlin shall prepare the plans and specifications, which shall be reviewed and approved by Brooklyn Park, Champlin shall then advertise for and receive bids; enter into a contract for said Project with the successful bidder at the unit prices specified in the bid of the lowest responsible bidder, in accordance with Minnesota Statutes.

The contract documents will include the plans and specifications prepared by Champlin or its agents and approved by Brooklyn Park and MnDOT as a MSA Project. The plans and specifications shall be in compliance with all State Aid Standards and shall be approved for State Aid funding.

IV

Champlin shall administer the contract and inspect the construction of the contract work contemplated herewith. All work on the Project shall be completed in compliance with the plans and specifications. Brooklyn Park 's City Engineer or staff shall have the right, as the work progresses, to enter upon the premises to make any inspections deemed necessary, but will have no responsibility for the supervision of the work.

V

Champlin shall be responsible for receiving final approval of the Project by the State Aid Engineer and obtaining the necessary agency

approvals. Brooklyn Park and Champlin, at their own expense, shall acquire all rights-of-way and/or easements required in accordance with State law and MnDOT rules and regulations and the approved right-of-way plans, for the construction of said project within their respective corporate limits. Champlin or its agent will provide a description and individual drawing of each parcel involved in the right-of-way program according to the approved right-of-way plan. The individual drawing will show the permanent and temporary right-of-way taking with appropriate dimensions. The right-of-way costs incurred shall include all acquisition costs including, but not limited to, any and all damages occurring to any person or persons, including private utilities, relocation assistance, removing or adjusting main conduits or other structures located in or upon the land taken and within the present right-of-way; or damage in procuring such right-of-way in the performance of this contract with respect to the Project in accordance with the plans and specifications. The right-of-way costs expended by each City shall be included as part of the eligible MSA funding program.

VI

Champlin and Brooklyn Park shall share in the incurred Project costs, including construction, engineering and administrative costs. All costs incurred by Champlin as the lead agency; to manage, provide reports and studies, preliminary work, design, construction and project administration, shall be part of the Project costs in accordance with MSA rules and regulations. All Project costs shall be apportioned to each City in accordance with the percentage of the total construction items completed in each City as defined below.

- Right turn lane and bypass lane at Indiana Avenue and West River Road. The City of Champlin will pay for the right turn lane and bypass lane on West River Road at Indiana Avenue. Brooklyn Park will not participate in this cost.
- Utility and streets on 109th Avenue to the west of Noble Avenue.

The City of Brooklyn Park will pay for one-half of the construction cost of the watermain lateral (up to 8 inch diameter based on contractors bid) and all of the costs of the services from the east side of Noble Avenue to the east side of Champlin Park High School at station 30+00. Brooklyn Park will pay for the watermain lead extension and hydrant south of the centerline of 109th Avenue at Noble Avenue.

The City of Brooklyn Park will pay for one-half of the construction cost for the sanitary sewer line plus all of the costs of the services to Brooklyn Park from Noble Avenue to Oxbow Park. Brooklyn Park will be responsible for the entire construction cost of the sanitary sewer to the west of Oxbow Park from manhole #3 at station 38+60.

The City of Brooklyn Park and Champlin will each pay one-half of the construction cost for the MSA street and storm sewer on 109th Avenue from Noble Avenue to the west with the exception of the storm sewer culvert at station 29+75. The cost to install this storm sewer culvert will be the responsibility of Brooklyn Park.

- Utility and streets on 109th Avenue 660 feet east of Noble

The City of Brooklyn Park will pay for one-half of the construction cost of watermain lateral (up to 8 inches in diameter

based on contractors bid) and all costs for the four services easterly of Noble to Lee Avenue. These costs will include all cost associated with placing the water service under 109th Avenue.

The City of Brooklyn Park will pay for one-half of the construction cost of the sanitary sewer line plus the cost to jack 3 sanitary sewer services under 109th Avenue to the properties lying within Brooklyn Park.

Brooklyn Park will reimburse the City of Champlin for actual engineering cost to its consultant for the above mentioned construction costs. Documentation is to be provided by the consultant. The engineering overhead cost is estimated to be 19 percent.

Brooklyn Park will be responsible for any easements needed on the south side of 109th Avenue. Champlin will be responsible for any easements on the north side of 109th Avenue.

The City of Brooklyn Park will pay watermain trunk, source and storage fee for each home, based on the same rate as charged to the Marvella Addition. This is $1,050.00 per home.

The aforestated sharing shall be exclusive of trails and sidewalks not funded by MSA funds, which trails and sidewalks shall be paid for, in their entirety, by the City in which they are constructed.

VII

All direct payments for Project design and administration and to the Contractor for work performed on said Project will be made by

Champlin. Champlin shall be responsible for and pay all the construction costs of the contract work for said Project as identified herein and delineated in the contract documents. Ninety percent (90%) of the estimated project cost will be due to Champlin by the City of Brooklyn Park 90 days after the City of Brooklyn Park approves the contract and the final ten percent (10%) is due to Champlin 30 days after final acceptance of the project by Champlin and Brooklyn Park. All change orders, which affect Brooklyn Park's cost, are to be approved by the City of Brooklyn Park.

VIII

Champlin and Brooklyn Park shall each be responsible for reporting of State Aid contracts to MnDOT for their respective segments of the Project and the collecting of State Aid funds.

Champlin shall provide Brooklyn Park all pertinent information for the reporting of the State Aid contract.

IX

All records kept by Champlin and Brooklyn Park with respect to this Project, shall be subject to examination by the representatives of each party hereto.

X

It is understood and agreed that upon completion of the improvement proposed herein, all Project elements shall be part of the as built plans prepared by Champlin and shall become the property of the City in which those improvements are located and all maintenance, restoration, repair or replacement required thereafter shall be

performed by each City at its own expense. A subsequent agreement between Brooklyn Park and Champlin will establish the maintenance program for the roadway as it relates to the street surface and snow removal, water, sanitary sewer and storm sewer.

XI

It is further agreed that each party to this agreement shall not be responsible or liable to the other or to any other person whomsoever for any claims, damages, actions, or causes of actions of any kind or character arising out of or by reason of the performance of any work or part hereof by the other as provided herein; and each party further agrees to defend at its sole cost and expense any action or proceeding commenced for the purpose of asserting any claim of whatsoever character arising in connection with or by virtue of performance of its own work as provided herein.

Champlin also agrees that any contract let by the City or its agents for the performance of the work on 109th Avenue as provided for herein shall include clauses that will: 1) Require the Contractor to defend, indemnify, and save harmless Champlin and Brooklyn Park, their officers, agents and employees from claims, suits, demands, damages, judgements, costs, interest, expenses (including, without limitation, reasonable attorney's fees, witness fees, and disbursements incurred in the defense thereof) arising out of or by reason of the negligence of the said Contractor, its officers, employees, agents or subcontractors; and 2) Require the Contractor to provide and maintain sufficient insurance so as to ensure the performance of its hold harmless obligations.

XII

✳ The City of Brooklyn Park will be responsible for the installation and reading of water meters to each home in Brooklyn Park. The readings will be taken at the time other meters are read in the area. Brooklyn Park agrees to pay quarterly to the City of Champlin for the total gallons used by Brooklyn Park citizens, based on Champlin's current industrial/commercial rate for water and sewer. The quarterly readings will be submitted with the payment.

Brooklyn Park will be responsible for the maintenance, including turning on and turning off, and the collection of unpaid bills for Brooklyn Park residents. Champlin will have the right to review Brooklyn Park meter readings and billings. Brooklyn Park agrees to pay the same fees for water and sewer as charged any other industrial user within the City of Champlin, including the possibility of increased cost for water treatment.

The City of Champlin agrees to give 60 day notice of any rate change.

IN TESTIMONY WHEREOF, the parties hereto have caused this agreement to be executed by their respective duly authorized officers as of the day and year first above written.

CITY OF CHAMPLIN

BY: _____
Mayor

DATE: 7/11/94

AND: _____
Administrator

DATE: 6/27/94

(Seal)

CITY OF BROOKLYN PARK

BY: _____
Mayor

DATE: 6/27/94

AND: _____
Manager

DATE: 6/27/94

(Seal)

6/14/3-4

AGREEMENT

CITY OF DAYTON AND CITY OF CHAMPLIN

THIS AGREEMENT is made and entered into between the City of Dayton, a Minnesota municipal corporation (hereinafter referred to as "Dayton"), and the City of Champlin, a Minnesota municipal corporation (hereinafter referred to as "Champlin").

RECITALS:

WHEREAS, Champlin currently owns and operates a municipal wastewater system (hereinafter referred to as "sewer") and a municipal water system (hereinafter referred to as "water") (hereinafter sewer and water are collectively referred to as "Champlin's Utilities"); and

WHEREAS, both the Champlin and Dayton comprehensive plans anticipate that there will be single family residential units in the southeast area of Dayton, including the Nature's Crossing Subdivision area.

WHEREAS, the Southeast Area requires access to Champlin's Utilities to develop urban densities; and

WHEREAS, the City of Dayton would like to extend Champlin's Utilities to the Southeast Area of Dayton, shown on attached **Exhibit A** (hereinafter referred to as "Southeast Area").

WHEREAS, Champlin and Dayton desire to enter into this Agreement allowing Champlin's Utilities to serve the Southeast Area pursuant to Minn. Stat. §471.59.

NOW, THEREFORE, it is hereby agreed by and between the parties as follows:

1. Use Allowed. For the term of this Agreement, and any renewals thereof, Champlin grants to Dayton a right and license to connect to and dispose of sanitary sewage from the Southeast Area via its municipal wastewater system. Further, Champlin grants to Dayton a right and license to connect to and draw water to serve the Southeast Area from Champlin's municipal water system. Level of services to be provided by Champlin to the Southeast Area properties pursuant to this Agreement shall be the same as provided by Champlin to similar developments in Champlin. Dayton shall adopt the provisions of Champlin's ordinances governing use of water and sewer, as attached in **Exhibit C**; Dayton may adopt additional ordinances regarding municipal utilities for the area to be served by Champlin, provided any such ordinance or ordinances shall be approved by Champlin, such approval shall not be

unreasonably withheld and the provisions shall not be substantially different from Champlin ordinances.

2. Construction, Ownership and Maintenance. Champlin represents that stub connections for sewer and water are located at the intersection of Goose Lake Road and Goose Lake Parkway that may be used, at Dayton's option, for connection of the Southeast Area to Champlin's Utilities.

Dayton shall pay for all lateral fees for use of sanitary sewer and/or water lateral on Goose Lake Road that benefit Dayton.

Dayton shall pay for and construct all sewer and water lines and associated structures within its boundaries. Champlin shall have the right to review and approve plans for any private/public improvement projects in Dayton's Southeast Area that will utilize Champlin's sewer and water system. Dayton shall pay Champlin for its staff's review time. Champlin shall submit a bill to Dayton upon completion of its review. Dayton shall collect from the private/public project said fee, which is to be based on an hourly charge for Champlin's staff review time. The fee is to be based on an hourly charge with a 2% markup rate to cover staff time and overhead. Dayton shall pay for, own and maintain all sewer and water lines and associated structures constructed within its boundaries. Dayton shall regularly maintain said lines and associated structures so as to keep them in good operating order per specifications detailed in **Exhibit B.** Dayton shall regularly inspect the lines and associated structures and immediately correct any problem which could adversely affect Champlin's Utilities, or which could result in inaccurate readings of flow through said lines. Maintenance shall occur as detailed in **Exhibit B.** All residential properties within the jurisdiction of Dayton served with water and sewer pursuant to this Agreement shall use water meters supplied and maintained by Champlin.

Champlin shall pay for, own and maintain the sewer and water lines and associated structures constructed within its boundaries. Champlin shall regularly maintain said lines and associated structures so as to keep them in good operating order. Maintenance shall occur as detailed in **Exhibit B.** Champlin shall regularly inspect the lines and associated structures and immediately correct any problem which would adversely affect or interfere with delivery of service to Dayton. Champlin shall provide the same level of continuous and uninterrupted service as provided to similar developments in Champlin and as provided in this Agreement, to the Southeast Area.

3. Champlin/Dayton shall share equally [50-50] the ownership and maintenance of public utilities in Goose Lake Road. In accordance with other agreements when Goose Lake Road is turned back to Champlin/Dayton by Hennepin County, Champlin/Dayton shall share equally [50-50] the ownership and maintenance of Goose Lake Road. Maintenance of and capital improvements

for Goose Lake Road shall be subject to consent by both parties. Maintenance shall be done in accordance with **Exhibit D.**

4. Ongoing Services. Champlin agrees that it currently has and will maintain, through the term of this Agreement, the capacity required for both sewer from and water to the Southeast Area pursuant to the land use element of the Comprehensive Plans of both parties in effect on the approval date of this agreement. Further, Champlin agrees it will provide for continuous and uninterrupted sanitary sewer service and city water service to the Southeast Area to the same extent that it provides such services to similar developments in Champlin, except for periods of necessary or emergency maintenance, or catastrophic events, including, but not limited to, flood, storm, war, or any other natural or man made catastrophes or events outside of its control. Except in cases of emergencies, in the event service needs to be interrupted for necessary maintenance, Champlin shall give Dayton fourteen (14) days notice. Said notice shall include a plan for said maintenance and alternative service to be provided, if any, and time period service will be interrupted, which plan and time period of interruption of service shall be reasonable. In the event service needs to be interrupted for emergency maintenance, Champlin shall give Dayton immediate notice. Said notice shall include, or shall as soon as practicable, be followed by a plan for said maintenance and time period service will be interrupted, which plan and time period of interruption of service shall be reasonable. The Cities of Dayton and Champlin shall cooperate in the construction of necessary utility services to serve the Faulds property, located at 11240 109th Ave. Any costs associated with extending sewer and water to the Fauld's property shall be paid by the property owner. As a part of the looping of the watermain on Goose Lake Road by Champlin, Dayton agrees to allow the extension of water trunk pipe into Dayton's municipal boundaries from 109th Avenue to a point approximately one-eighth mile north of 109th Avenue.

5. Fee Formula.

Connection/Billing, Rates, Fees and Changes.

a. Dayton Responsibilities.

Dayton shall be responsible for collection of all fees for connection to water and sewer, including trunk area fees and SAC Fees once a building permit is granted by Dayton. Dayton shall charge each residential unit within the Southeast Area the current rate charged by Champlin, pursuant to Champlin Ordinance and Resolution 2004-09 as shown in **Exhibit E**.

Dayton shall collect from each single family residential (SFR) connection in the Southeast Area and remit to Champlin the following fees:

Water Trunk, Source and Storage Fee	$2,200 per SFR connection
Sewer building fee	25 per SFR connection
Water building fee	25 per SFR connection
Water Meter fee	213 per SFR connection

Dayton shall pay directly to the Metropolitan Council Environmental Service (MCES) a Service Availability Connection (SAC) fee for each connection, which for 2004 amounts to $1,350 per single family connection.

Champlin's current Trunk Sewer Fee shall be paid by the Developer to the City of Dayton, at the time of final plat approval, prior to release of the Final Plat. Dayton shall submit said fees to the City of Champlin within thirty (30) days of Dayton's release of a Final Plat within the Southeast Area.

b. Champlin's Responsibilities. Champlin shall collect the service fees for sewer and water. Dayton shall develop a fair cost to be passed on to Dayton residents which would be a part of Champlin's rate, with that amount being reimbursed to the City of Dayton upon collection by Champlin. The rate of these costs are to be set by Dayton, by resolution, and may be updated by Dayton from time to time. When such an update occurs, Dayton shall notify Champlin ninety (90) days prior to effective date of such rate change, and Champlin shall adjust the amount collected from Dayton residents and subsequently the amount reimbursed to Dayton.

Champlin shall charge Dayton residents for only those services which benefit Dayton residents.

In the event Champlin amends its ordinance or resolution regarding fees, Champlin shall give Dayton written notice. Written notice shall be given 90 days prior to the effective date of such rate change.

Dayton residents have the same right to challenge bills received from Champlin that any other Champlin resident has.

Water meters will be dispersed to Dayton for pick-up and purchase by Dayton residents at the time of the sewer connection permit issuance. The SAC Fee and Water Trunk, Source and Storage Fee shall be collected and sewer and water permits shall be obtained at the time of the water meter purchase. The water meter fees, the Water Trunk, Source and Storage fees and the sewer and water permit fee collected by Dayton, will be submitted to Champlin on a quarterly basis.

c. Service to the Southeast Area. Flow determination for water to and sewer from the Southeast Area shall be determined by water meter readings of each individual residential unit. Champlin will have the sole responsibility of reading water meters and billing residential units within the Southeast Area for use.

d. Champlin shall bill Dayton residents monthly for sewer and water user fees and all applicable penalties. Payments by Dayton residents to Champlin shall be in accordance with Champlin City Ordinance.

Champlin shall notify Dayton of delinquent payments. Dayton shall be responsible for collecting delinquent payments in accordance with the laws of the State of Minnesota. Champlin shall cooperate to the extent necessary to assist Dayton in the collection of delinquent payments and penalties in accordance with Dayton City Ordinances and in accordance with procedures established in either MN Stat. Chapter 429 or MN Stat. 444.075. Within sixty (60) days of the 31st of August of each year of this agreement, Dayton shall pay to Champlin a sum equal to the total amount of delinquent fees as of August 31st. Dayton shall retain the right to assess the applicable properties, or to take any action available to it under law to recover the amount of the delinquent funds it so paid to Champlin.

6. Default and Remedies.

a. Champlin Remedies. In the event Dayton breaches any of its obligations under this agreement, Champlin shall have the right to bring an action of law or, if required by this agreement, arbitration, for its available remedies only after giving thirty (30) days written notice of the breach to Dayton and opportunity to cure the breach. If Dayton does not cure the breach, or reach a mutually agreed upon plan for the cure of the breach within that thirty (30) days notice period, Champlin may commence action or arbitration proceedings after giving ten (10) days written notice to Dayton that it intends to bring such action or arbitration proceeding. Nothing herein shall limit the causes of action or equitable rights that Champlin may assert pursuant to this agreement.

b. Dayton Remedies. In the event Champlin breaches any of its obligations under this agreement, Dayton shall have the right to bring an action at law or, if required by this agreement, arbitration, for its available remedies only after giving thirty (30) days written notice of the breach and opportunity to cure the breach. If Champlin does not cure the breach or reach a mutually agreeable plan for the cure of the breach within that thirty (30) days notice period Dayton may commence action or arbitration proceedings after giving ten (10) days written notice to Champlin that it intends to bring such action or arbitration proceeding. Provided, however, that if a default by Champlin results in sewer and water service to the Southeast Area below the level required by this Agreement, Champlin must take immediate action to correct the problem upon receipt of written notice from Dayton. Nothing herein shall limit the causes of action or equitable rights that Dayton may assert pursuant to this agreement.

7. Notice and Termination. Dayton shall reserve the right to service this area by another means in the future if some other means is provided and in such case, Dayton shall have the right to terminate this Agreement, by giving one hundred eighty (180) days written notice of its intention to terminate this Agreement. In the event of termination, all obligations of Dayton to make payment to Champlin shall cease upon the effective date of the termination.

8 Term. This agreement shall be perpetual and may only be terminated by Dayton pursuant to Section 7 of this Agreement.

9. Indemnity. Dayton shall defend, indemnify and hold Champlin harmless for any claims arising from Dayton's use or maintenance of sewer and water lines, and any associated structures, within the boundaries of Dayton. Champlin shall defend, indemnify and hold Dayton harmless for any claims arising from its operation of water and sewer lines, and any associated structures, located within the boundaries of Champlin.

10. Modification. This Agreement may be modified only by written agreement of both parties.

11 Notice. All notices required by this Agreement shall be in written form and shall be deemed delivered upon its receipt by the City Clerk of either party. Notice may be made by personal delivery, mail or facsimile.

12. Governing Law. This Agreement shall be construed by the laws of the State of Minnesota.

13. Severability. In case any one or more of the provisions contained in this Agreement shall be invalid, illegal or unenforceable in any respect, the validity, legality and enforceability of the remaining provisions contained herein and any other application thereof shall not in any way be affected or impaired thereby.

14. Time is of the Essence. Time is of the essence in the performance of all obligations, undertakings and covenants under this Agreement.

15. Entire Agreement. This Agreement, any attached exhibits and any addenda or amendments signed by the parties shall constitute the entire agreement between Dayton and Champlin, and supersedes any other written or oral agreements between Dayton and Champlin on matters covered hereby.

16. Counterparts. This Agreement may be simultaneously executed in any number of counterparts, all of which shall constitute one and the same instrument.

17. Effective Date. The effective date of this Agreement shall be the last date on which it is executed by any party to this Agreement. This Agreement shall not become effective until it has been executed by all parties to the Agreement.

IN WITNESS, WHEREOF, the parties have agreed to the foregoing terms.

The City of Dayton

By: _____ Dated: 6/21/04
Its: Mayor

By: _____ Dated: 6/21/04
Its: City Clerk

The City of Champlin

By: _____ Dated: 6/14/04
Its: Mayor

By: _____ Dated: 6/14/04
Its: City Clerk

Exhibit A
Champlin-Dayton Joint Powers Agreement

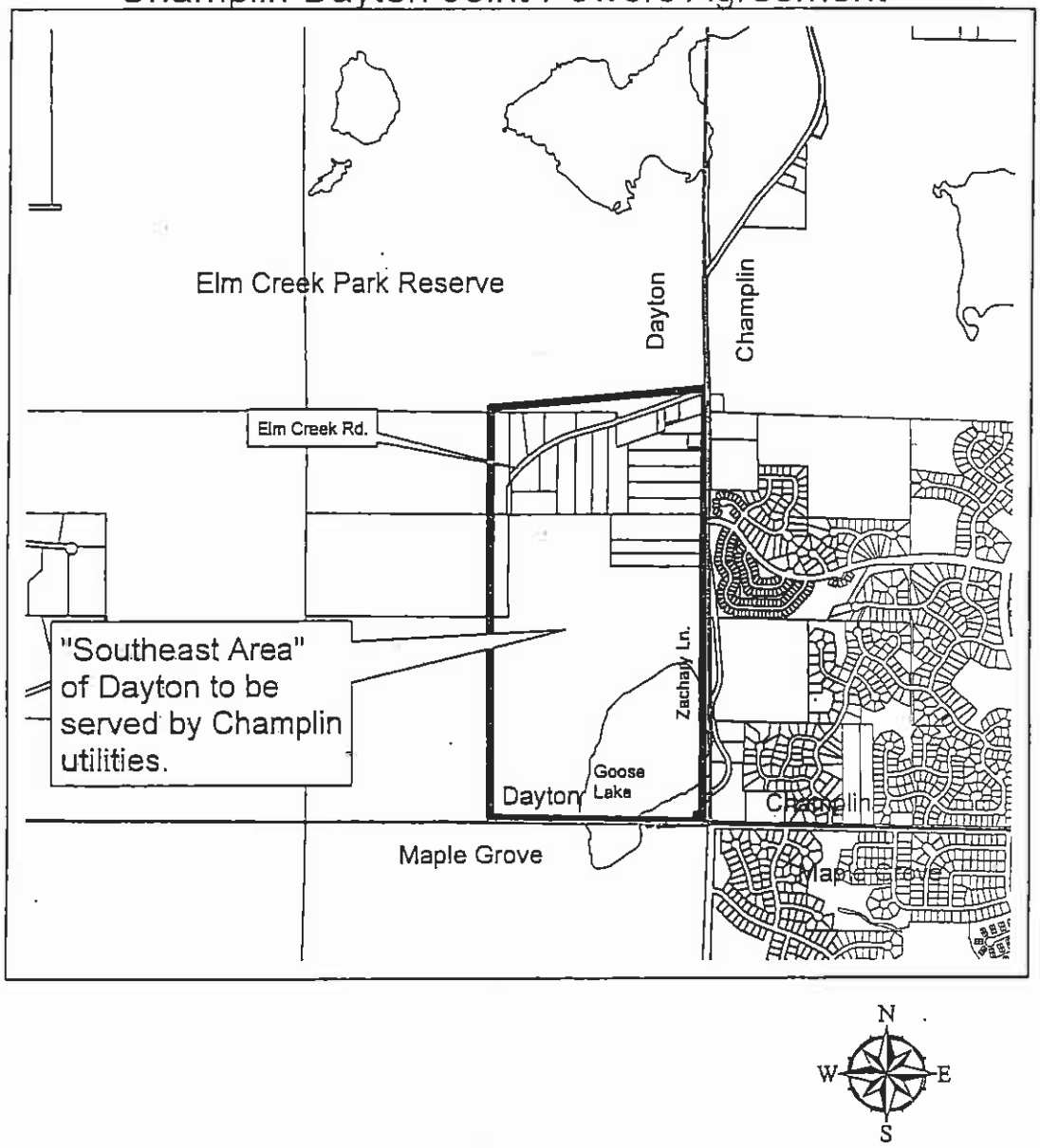


Exhibit B

Scheduled and Emergency Sewer Maintenance, and Scheduled Emergency Water Maintenance.

Scheduled and Emergency Sewer Maintenance

o Sewer Jetting	5 years
o Sewer Televising	As needed
o Sewer Mainline Repairs	As needed based on televising
o Sump Pump Connection Inspection	7 years
o Manhole Casting Maintenance	As needed
o Cone and Ring Inspections	As needed
o Sewer Plugs	As needed
o Locating	As needed
o Lift Station Maintenance	As needed
o Replacement of Infrastructure	As needed
o Excavation Restoration	As needed

Scheduled and Emergency Water Maintenance

o Flush Water Mains	Semi annually
o Exercise Hydrants	Semi annually
o Hydrant Repairs	As needed
o Paint Hydrants	As needed
o Replace Hydrant Flags	As needed
o Gate Valve Maintenance	As needed
o replacement of Infrastructure	As needed
o Locating	As needed
o Meter Reading (by Champlin)	Monthly
o Meter Finals (by Champlin)	As needed
o Meter Repairs (by Champlin)	As needed

Exhibit C

Champlin Ordinances

- An ordinance regulating the operation of the public water system, requiring certain connections to be made to the public water system, providing for the issuance of permits for, and supervision of, all connections to the public water system prescribing certain materials and methods to be used for said connections, prescribing rates and charges for water service, and prescribing for the violation of same. (Champlin 15-201 - 15-236)

- An ordinance regulating the operation of the public sanitary sewer system, requiring connections to be made to the public sanitary sewer system, providing for the issuance of permits for and supervision of all connections to the public sanitary sewer system, prescribing certain materials and methods to be used of said connections, establishing regulations as to types and kinds of wastes that may be disposed of by use of the public sanitary sewer system, prohibiting the discharge of any type or kind of surface waters into the public sanitary sewer system, prescribing rates and charges for disposal services, regulating street excavations, and prescribing penalties for the violation of same. (Champlin 15-401 - 15-414)

- Ordinance establishing an industrial user strength charge in addition to the charge based upon the volume of discharge by an industrial user and establishing an industrial user strength charge formula for the computation thereof to recover operation and maintenance costs or waste treatment services attributable to the strength of the discharge of industrial waste into the sewer system and establishing tax lien against property served in connection with such strength charge. (Champlin 15-801 - 15-807)

- An ordinance regulating the operation of the public water works system during periods when there may be a shortage of water. (Champlin 15-1100 - 15-1103)

- An ordinance providing for the installation or repair of sanitary sewer and water service lines and the collection of costs of such worth or service when done by the municipality as a special assessment against property benefited; and providing penalties for violations. (Champlin 15-1200 - 15-1205)

- An ordinance providing for public right-of-way management. (Champlin 15-1500 - 15-1535)

Exhibit D

Goose Lake Road Maintenance Responsibility

Champlin and Dayton will agree to maintain Goose Lake Road. The City of Champlin and the City of Dayton agree to maintain the roadway on an every other year basis. Road maintenance will be shared as noted below after the County turns back the road to Champlin and Dayton. Champlin will be responsible for maintenance in the even numbered years and Dayton will be responsible for maintenance in odd numbered years. The change over will begin on July 1st of each year. Therefore, for example, Champlin will be responsible for maintenance from July 1, 2006 – June 30, 2007 and Dayton will be responsible for maintenance from July 1, 2007 – June 30, 2008 and so on. The City responsible for maintenance will address all maintenance, curb to curb, of Goose Lake Road between 109th Ave. and Elm Creek Road. This will include:

- Maintenance of street signs
- Maintenance of traffic control signage
- Maintenance of concrete curb and gutter
- Maintenance of gravel shoulder
- Maintenance of catch basins and storm sewer pipe
- Maintenance of bituminous surface to include:
    - ☐ Pot holes
    - ☐ Crack sealing — See below
    - ☐ Seal coating — See below
    - ☐ Traffic markings — See below
- Street sweeping
- Snow and ice control
- Raising and lowering of any iron (manholes, catch basins, gate valves, etc)

- Maintenance does not include any side walk or trail located in Dayton or Champlin.

- Cracksealing and sealcoating will be done every six years. The cost will be divided by each City 50/50. The City of Champlin is responsible for the coordination of maintenance activities.

- Traffic markings will be done each year. The cost will be divided by each City 50/50. The City of Dayton is responsible for the coordination of this maintenance activity.

- If the road requires any "new" items (i.e. street sign, catch basin, etc.) Champlin and Dayton will share in the cost 50/50 assuming both cities agree.

Councilmember Whalen introduced the following resolution and moved its adoption:

CITY OF CHAMPLIN
HENNEPIN COUNTY, MINNESOTA
RESOLUTION 2005 - 99

RESOLUTION APPROVING THE BID AND AWARDING THE CONTRACT FOR 109th AVENUE STREET RECONSTRUCTION PROJECT NO. 20405 APPROVING THE CO-OPERATIVE JOINT POWERS AGREEMENT WITH THE CITY OF MAPLE GROVE

WHEREAS, pursuant to an advertisement for bids for the improvement of 109th Avenue Street Reconstruction Project No. 20405, bids were received, opened and tabulated according to law, and the following bids were received complying with the advertisement:

BIDDER	BID AMOUNT
Park Construction	$2,416,688.13
Hardrives, Inc.	$2,443,635.25
Richard Knutson, Inc.	$2,494,372.87
C.S. McCrossan Construction	$2,566,974.15
Palda & Sons	$2,630,134.06

WHEREAS, it appears that Park Construction of Hampton, Minnesota, is the lowest responsible bidder, and

WHEREAS, the improvement would be a benefit to the City, and

WHEREAS, a Co-operative Construction Agreement has been drafted between the Cities of Maple Grove and Champlin.

NOW, THEREFORE, BE IT RESOLVED by the Champlin City Council that the Mayor and Clerk are hereby authorized and directed to enter into the attached Co-operative Joint Powers Agreement with the City of Maple Grove for the improvement of 109th Avenue Reconstruction Project 20405 according to the plans and specifications hereby approved by the City Council and on file in the Office of the City Clerk.

FURTHER BE IT RESOLVED that the City Clerk is hereby authorized and directed to return forthwith to all bidders the deposits made with their bids except that the deposit of the successful bidder and the next lowest bidder shall be retained until the contract has been signed.

The motion for the adoption of the foregoing resolution was duly seconded by Councilmember Uglem, and upon vote being taken thereon, the following voted in favor thereof: Mayor Boynton, Councilmembers Whalen, Uglem, Payer and Swenson, and the following voted against the same: none, whereupon said resolution was passed this 26th day of September 2005.

Steven E. Boynton, Mayor

ATTEST:

Roberta Colotti, City Clerk

COOPERATIVE JOINT POWERS AGREEMENT
109TH AVENUE NORTH CONSTRUCTION
CITIES OF BROOKLYN PARK, MAPLE GROVE, CHAMPLIN

AGREEMENT, made and entered into this _____ day of _____, 20___, by and between the City of Brooklyn Park, hereinafter referred to as "Brooklyn Park," and City of Maple Grove, hereinafter referred to as "Maple Grove;" and the City of Champlin, hereinafter referred to as "Champlin."

WITNESSETH:

WHEREAS, Maple Grove Brooklyn Park and Champlin are desirous of bringing about the improvement of that portion of 109th Avenue North (Maple Grove MSAS _____, Brooklyn Park MSAS _____, Champlin _____ MSAS) between Zachary Lane (County Road 202) and Jefferson Highway (Engineer's Stations _____ to _____) as shown on construction plans prepared by Maple Grove dated _____, for which improvement contemplates concrete curb and gutter; bituminous trail/concrete sidewalk/trails; aggregate base, utilities; bituminous base and wearing courses; landscaping; and other related improvements; and

WHEREAS, the above-mentioned construction of 109th Avenue North shall be hereinafter identified as MG 04-05/BP ST-1418/CH 20405; and

WHEREAS, the above described project between Zachary Lane (County Road 202) and 310 feet east of Lancaster (Engineer's Stations _____ to _____) lying South of centerline is within Maple Grove and lying North of centerline between Zachary Lane and Jefferson Highway is within Champlin, construction items of which are identified in the construction contract documents; and

WHEREAS, the above described project between 310 feet East of Lancaster Lane and Jefferson Highway (Engineer's Stations _____ to _____) lying South of centerline is within Brooklyn Park, construction items of which are identified in the construction contract documents; and

WHEREAS, Brooklyn Park, Maple Grove and Champlin have the authority to special assess to benefited properties the costs of public improvement projects under Statutes Chapter 429.0; and

WHEREAS, Statutes Chapter 429.0 require that certain rules and regulations regarding feasibility reports, City Council actions, improvement and assessment hearings must all be completed; and

WHEREAS, plans and specifications must be prepared for the improvement, bids accepted, a contract awarded and construction management exercised throughout the improvement process; and

WHEREAS, it is contemplated that the public improvement project be carried out by the parties hereto under the provisions, terms and conditions set forth.

NOW THEREFORE, IT IS HERBY AGREED:

I

The cities of Brooklyn Park Maple Grove and Champlin, by executing this agreement, mutually approve the City of Maple Grove as the Lead Agency and agree to approve the plans and specifications for said project. The cities shall provide the Consultants with all the available data and materials pertinent to the work program and as requested by the Consultant. The City's data and material may consist of, but will not be limited to; contour maps, utility and street plans, aerial photos and previous environmental study material.

II

Maple Grove shall prepare on behalf of the cities as parties hereto, the necessary feasibility report(s) for usage by each individual city for subsequent public improvement and assessment hearings. Each City shall prepare an addendum to the feasibility report indicating their assessment program, a list of the affected properties and pertinent information unique to each City's special assessment program.

III

Maple Grove shall prepare the plans and specifications, advertise for and receive bids; enter into a contract for said project with the successful bidder at the unit prices specified in the bid of the

lowest responsible bidder, according to law in such case provided for public improvements under Chapter 429.0.

The contract documents will include the plans and specifications prepared by Maple Grove or its agents and approved by Brooklyn Park and Champlin. The plans and specifications shall be in compliance with all State Aid standards and shall be approved for State Aid funding and Trunk Highway Turnback funding The extent of construction on intersecting streets beyond the 109th Avenue North extended right-of-way limits will be based on acceptable design standards. Additional work beyond these limits may be a funding responsibility for that city(ies).

IV

Maple Grove shall administer the contract and inspect the construction of the contract work contemplated herewith. All work on 109th Avenue North shall be completed in compliance with the plans and specifications. Brooklyn Park and Champlin's City Engineers or their staff shall have the right, as the work progresses, to enter upon the premises to make any inspections deemed necessary, but will have no responsibility for the supervision of the work.

V

Maple Grove shall be responsible for receiving final approval of the project by the State Aid Engineer and obtaining the necessary agency approvals. Maple Grove, Champlin and Brooklyn Park, at (its) their own expense shall acquire all rights-of-way and/or easements required in accordance with State law and requirements and the approved right-of-way plans, for the construction of said project within their respective corporate limits. Maple Grove or its agent will provide a description and individual drawing of each parcel involved in the right-of-way program according to the approved right-of-way plan. The individual drawing will show the permanent and temporary right-of-way taking with appropriate dimensions. The right-of-way costs incurred shall include all acquisition costs including, but not limited to, any and all damages occurring to any person or persons, including private utilities, relocation assistance, removing or adjusting main conduits or other structures located in or upon the land taken and within the present right-of-way; or damage in procuring such right-of-way in the performance of this contract with respect to the improvement of 109th Avenue North in accordance with the plans and specifications. The right-of-

way costs expended by each City shall be included as part of the eligible turnback funding program.

VI

The proposed schedule to complete the improvement project described herein as follows:

1.	Complete the Cooperative Agreement	April 14, 2005
2.	Complete the necessary Consulting Engineer Agreements	April 28, 2005
3.	Preliminary construction and right-of-way plans approval from cities and agencies	May 15, 2005
4.	File condemnation documents	N.A.
5.	Hold Public Hearing	April/May, 2005
6.	Award construction	June 20, 2005
8.	Complete construction	October 1, 2005

VII

Brooklyn Park, Maple Grove and Champlin shall share in the project costs, including construction, engineering and administrative costs, for that portion of the improvement as identified in Appendix A. Engineering and administrative costs associated with the project shall not exceed eighteen percent (18%) (unless approved by the parties hereto) of the construction cost exclusive of the cost to provide the right-of-way parcel descriptions and individual parcel drawings. The cost of providing the right-of-way parcel description and individual parcel drawing can be in excess of the 18% maximum. The aforestated sharing shall be exclusive of trails and sidewalks, which trails and sidewalks shall be paid for, in their entirety, by the City in which they are constructed.

VIII

All direct payments for project design and administration and to the Contractor for work performed on said project will be made by Maple Grove. Maple Grove shall be responsible for and pay all the construction costs of the contract work for said project as identified herein and delineated in the contract documents. The final proportionate project costs attributed to Brooklyn Park and Champlin, including justifiable interest thereon, shall be paid to Maple Grove within 30 days of the plan approval and 30 days of final project construction approval.

IX

Maple Grove, Brooklyn Park and Champlin shall each be responsible for reporting of State Aid contracts to Mn/DOT for their respective segments of the project and the collecting of State Aid funds.

Maple Grove shall provide to Brooklyn Park and Champlin all pertinent information for the reporting of the State Aid contract.

X

All records kept by Maple Grove, Brooklyn Park and Champlin with respect to this project, shall be subject to examination by the representatives of each party hereto.

XI

It is agreed that modifications to existing traffic control signage, as well as additional signage, shall be included in the herein described project. As part of the project, a signage plan shall be prepared by Maple Grove. Future modification of that plan by either Brooklyn Park, Maple Grove or Champlin shall be mutually approved by the parties hereto.

XII

It is understood and agreed that upon completion of the improvement proposed herein, all project elements shall be part of the as-built plans prepared by Maple Grove and shall become the property of the City in which those improvements are located and all maintenance, restoration, repair or replacement required thereafter shall be performed by each City at its own expense. Subsequent agreements between Maple Grove/Brooklyn Park/Champlin will establish the maintenance program for the roadway for each portion of 109th Avenue North located in the aforementioned City.

XIII

It is further agreed that each party to this agreement shall not be responsible or liable to the other or to any other person whomsoever for any claims, damages, actions, or causes of actions of any kind or character arising out of or by reason of the performance of any work or part hereof by the other as provided herein; and each party further agrees to defend at its sole cost and expense any

action or proceeding commenced for the purpose of asserting any claim of whatsoever character arising in connection with or by virtue of performance of its own work as provided herein.

Maple Grove also agrees that any contract let by the City or its agents for the performance of the work on 109th Avenue North as provided for herein shall include clauses that will: 1) Require the Contractor to defend, indemnify, and save harmless Brooklyn Park, Maple Grove, and Champlin, their officers, agents and employees from claims, suits, demands, damages, judgments, costs, interest, expenses (including, without limitation, reasonable attorney's fees, witness fees, and disbursements incurred in the defense thereof) arising out of or by reason of the negligence of the said Contractor, its officers, employees, agents or subcontractors; and 2) Require the Contractor to provide and maintain sufficient insurance so as to ensure the performance of its hold harmless obligations.

IN TESTIMONY WHEREOF, the parties hereto have caused this agreement to be executed by their respective duly authorized officers as of the day and year first above written.

CITY OF BROOKLYN PARK	CITY OF MAPLE GROVE
BY:_____ Mayor	BY:_____ Mayor
DATE:_____	DATE:_____
AND:_____ Manager	AND:_____ Administrator
DATE:_____	DATE:_____
(Seal)	(Seal)

CITY OF CHAMPLIN

BY _____
Mayor

DATE: 10-13-05

AND: _____
Administrator

DATE: 10-14-05

(Seal)

109TH AVENUE NORTH RECONSTRUCTION

ITEM NUMBER	NOTES	ITEM DESCRIPTION	UNIT	TOTAL ESTIMATED QUANTITY	EST. UNIT PRICE	TOTAL COST	CITY OF CHAMPLIN ESTIMATED QUANTITY	CITY OF CHAMPLIN ESTIMATED COST	CITY OF MAPLE GROVE ESTIMATED QUANTITY	CITY OF MAPLE GROVE ESTIMATED COST	CITY OF BROOKLYN PARK ESTIMATED QUANTITY	CITY OF BROOKLYN PARK ESTIMATED COST
GRADING:												
2021.501	(5)	MOBILIZATION	LUMP SUM	1	$100,000.00	$100,000.00	50%	$ 50,000.00	40%	$ 40,000.00	10%	$ 10,000.00
2104.501		REMOVE CULVERT	LIN FT	210.0	$10.00	$2,100.00	210.0	$ 2,100.00	0.0	$ -	0.0	$ -
2104.501		REMOVE CURB AND GUTTER	LIN FT	430.0	$1.50	$645.00	250.0	$ 375.00	90.0	$ 135.00	90.0	$ 135.00
2104.503		REMOVE BITUMINOUS WALK	SQ FT	33270.0	$0.50	$16,635.00	0.0	$ -	22180.0	$ 11,090.00	11090.0	$ 5,545.00
2104.503		REMOVE BITUMINOUS PAVEMENT	SQ YD	25770.0	$2.00	$51,540.00	13410.0	$ 26,820.00	9320.0	$ 18,640.00	3040.0	$ 6,080.00
2105.501		COMMON EXCAVATION (EV)	CU YD	54910.0	$8.00	$439,280.00	27940.0	$ 223,520.00	21830.0	$ 174,640.00	5140.0	$ 41,120.00
2105.507	(3)	SUBGRADE EXCAVATION (EV)	CU YD	510.0	$10.00	$5,100.00	260.0	$ 2,600.00	200.0	$ 2,000.00	50.0	$ 500.00
2105.522	(1)	SELECT GRANULAR BORROW (CV) (12")	CU YD	14660.0	$15.00	$219,900.00	7460.0	$ 111,900.00	5830.0	$ 87,450.00	1370.0	$ 20,550.00
		SUBTOTAL: GRADING				$ 835,200.00		$ 417,315.00		$ 333,955.00		$ 83,930.00
PAVING:												
2211.503	(1)	AGGREGATE BASE (CV) CLASS 5	CU YD	9780.0	$ 25.00	$244,500.00	4970.0	$ 124,250.00	3890.0	$ 97,250.00	920.0	$ 23,000.00
2301.503		CONCRETE PAVEMENT IRREGULAR WIDTH	SQ YD	590.0	$ 25.00	$14,750.00	60.0	$ 1,500.00	530.0	$ 13,250.00	0.0	$ -
2301.511		STRUCTURAL CONCRETE	CU YD	130.0	$ 100.00	$13,000.00	20.0	$ 2,000.00	110.0	$ 11,000.00	0.0	$ -
2350.603	(1)	BITUMINOUS WEARING COURSE 2" THICK	SQ YD	37980.0	$ 4.00	$151,920.00	19430.0	$ 77,720.00	15010.0	$ 60,040.00	3540.0	$ 14,160.00
2350.603	(1)	BITUMINOUS BINDER COURSE 2" THICK	SQ YD	37980.0	$ 4.00	$151,920.00	19430.0	$ 77,720.00	15010.0	$ 60,040.00	3540.0	$ 14,160.00
2350.603	(1)	BITUMINOUS BASE COURSE 3" THICK	SQ YD	37980.0	$ 5.50	$208,890.00	19430.0	$ 106,865.00	15010.0	$ 82,555.00	3540.0	$ 19,470.00
2357.502		BITUMINOUS MATERIAL FOR TACK COAT	GALLON	3820.0	$ 2.00	$7,640.00	1950.0	$ 3,900.00	1510.0	$ 3,020.00	360.0	$ 720.00
2521.501		5" CONCRETE WALK	SQ FT	9500.0	$ 2.50	$23,750.00	9500.0	$ 23,750.00	0.0	$ -	0.0	$ -
2531.503		3" CONCRETE MEDIAN	SQ YD	190.0	$ 15.00	$2,850.00	50.0	$ 750.00	140.0	$ 2,100.00	0.0	$ -
2521.511		2.5" BITUMINOUS WALK	SQ FT	64910.0	$ 1.80	$116,838.00	47160.0	$ 84,888.00	4040.0	$ 7,272.00	13710.0	$ 24,678.00
2531.501		CONCRETE CURB & GUTTER DESIGN B412	LIN FT	660.0	$ 8.00	$5,280.00	140.0	$ 1,120.00	520.0	$ 4,160.00	0.0	$ -
2531.501		CONCRETE CURB & GUTTER DESIGN B424	LIN FT	14500.0	$ 10.00	$145,000.00	7120.0	$ 71,200.00	5980.0	$ 59,800.00	1400.0	$ 14,000.00
2531.501		CONCRETE CURB & GUTTER DESIGN B624	LIN FT	200.0	$ 9.00	$1,800.00	130.0	$ 1,170.00	0.0	$ -	70.0	$ 630.00
2531.501		CONCRETE CURB & GUTTER DESIGN B618	LIN FT	280.0	$ 9.00	$2,520.00	280.0	$ 2,520.00	0.0	$ -	0.0	$ -
2531.602		PEDESTRIAN CURB RAMPS	EACH	31.0	$ 500.00	$15,500.00	15.0	$ 7,500.00	15.0	$ 7,500.00	1.0	$ 500.00
		SUBTOTAL: PAVING				$ 1,106,158.00		$ 586,853.00		$ 407,987.00		$ 111,318.00
STORM SEWER:												
2105.600	(5)	CONSTRUCT WATER QUALITY TREATMENT	EACH	2.0	$ 20,000.00	$40,000.00	50%	$ 20,000.00	40%	$ 16,000.00	10%	$ 4,000.00
2502.541	(5)	4" PERF TP PIPE DRAIN W/ SOCK	LIN FT	600.0	$ 12.00	$7,200.00	50%	$ 3,600.00	40%	$ 2,880.00	10%	$ 720.00
2503.603	(5)	15" PIPE SEWER (STORM)	LIN FT	4920.0	$ 22.00	$108,240.00	50%	$ 54,120.00	40%	$ 43,296.00	10%	$ 10,824.00
2503.603	(5)	18" PIPE SEWER (STORM)	LIN FT	1605.0	$ 26.00	$41,730.00	50%	$ 20,865.00	40%	$ 16,692.00	10%	$ 4,173.00
2503.603	(5)	21" PIPE SEWER (STORM)	LIN FT	1595.0	$ 28.00	$44,660.00	50%	$ 22,330.00	40%	$ 17,864.00	10%	$ 4,466.00
2503.603	(5)	24" PIPE SEWER (STORM)	LIN FT	30.0	$ 32.00	$960.00	50%	$ 480.00	40%	$ 384.00	10%	$ 96.00
2503.603	(5)	27" PIPE SEWER (STORM)	LIN FT	60.0	$ 46.00	$2,760.00	50%	$ 1,380.00	40%	$ 1,104.00	10%	$ 276.00
2506.502	(5)	DRAINAGE STRUCTURES	EACH	44.0	$ 2,000.00	$88,000.00	50%	$ 44,000.00	40%	$ 35,200.00	10%	$ 8,800.00
2506.502	(5)	CATCH BASINS	EACH	26.0	$ 1,100.00	$28,600.00	50%	$ 14,300.00	40%	$ 11,440.00	10%	$ 2,860.00
2506.522	(5)	ADJUST FRAME & RING CASTING	EACH	10.0	$ 200.00	$2,000.00	50%	$ 1,000.00	40%	$ 800.00	10%	$ 200.00
2506.602	(5)	RECONSTRUCT DRAINAGE STRUCTURE	EACH	1.0	$ 750.00	$750.00	50%	$ 375.00	40%	$ 300.00	10%	$ 75.00
		SUBTOTAL: STORM SEWER				$ 324,900.00		$ 162,450.00		$ 129,960.00		$ 32,490.00

APPENDIX A

109TH AVENUE NORTH RECONSTRUCTION

ITEM NUMBER	NOTES	ITEM DESCRIPTION	UNIT	TOTAL ESTIMATED QUANTITY	EST. UNIT PRICE	TOTAL COST	CITY OF CHAMPLIN		CITY OF MAPLE GROVE		CITY OF BROOKLYN PARK	
							ESTIMATED QUANTITY	ESTIMATED COST	ESTIMATED QUANTITY	ESTIMATED COST	ESTIMATED QUANTITY	ESTIMATED COST
SANITARY SEWER:												
2506.602		RECONSTRUCT LIFT STATION STRUCTURE	EACH	1.0	$ 1,000.00	$ 1,000.00	1.0	$ 1,000.00	0.0	$ -	0.0	$ -
2506.522		ADJUST FRAME & RING CASTING	EACH	8.0	$ 200.00	$ 1,600.00	8.0	$ 1,600.00	0.0	$ -	0.0	$ -
		SUBTOTAL: SANITARY SEWER				$ 2,600.00		$ 2,600.00		$ -		$ -
WATERMAIN:												
2504.602		HYDRANT	EACH	1.0	$ 2,000.00	$ 2,000.00	1.0	$ 2,000.00	0.0	$ -	0.0	$ -
2504.602		8" PIPE BEND 45 DEGREE	EACH	2.0	$ 115.00	$ 230.00	2.0	$ 230.00	0.0	$ -	0.0	$ -
2504.602		8" X 6" TEE FITTING	EACH	1.0	$ 345.00	$ 345.00	1.0	$ 345.00	0.0	$ -	0.0	$ -
2504.602		6" GATE VALVE AND BOX	EACH	1.0	$ 600.00	$ 600.00	1.0	$ 600.00	0.0	$ -	0.0	$ -
2504.602		8" GATE VALVE AND BOX	EACH	1.0	$ 700.00	$ 700.00	1.0	$ 700.00	0.0	$ -	0.0	$ -
2504.603		6" WATERMAIN	LIN FT	10.0	$ 17.00	$ 170.00	10.0	$ 170.00	0.0	$ -	0.0	$ -
2504.603		8" WATERMAIN	LIN FT	1260.0	$ 25.00	$ 31,500.00	1260.0	$ 31,500.00	0.0	$ -	0.0	$ -
		SUBTOTAL: WATER MAIN				$ 35,545.00		$ 35,545.00		$ -		$ -
TRAFFIC:												
2563.601	(5)	TRAFFIC CONTROL	LUMP SUM	1	$ 40,000.00	$ 40,000.00	50%	$ 20,000.00	40%	$ 16,000.00	10%	$ 4,000.00
2564.000	(5)	SIGN AND STRIPING	MILE	1.3	$ 25,000.00	$ 31,250.00	50%	$ 15,625.00	40%	$ 12,500.00	10%	$ 3,125.00
		SUBTOTAL: TRAFFIC				$ 71,250.00		$ 35,625.00		$ 28,500.00		$ 7,125.00
TURF ESTABLISHMENT:												
2573.502		SILT FENCE, TYPE PREASSEMBLED	LIN FT	13870.0	$ 2.00	$ 27,740.00	6930.0	$ 13,860.00	5550.0	$ 11,100.00	1390.0	$ 2,780.00
2573.602	(5)	INLET PROTECTION-SEDIMENT CONTROL	EACH	70.0	$ 200.00	$ 14,000.00	50%	$ 7,000.00	40%	$ 5,600.00	10%	$ 1,400.00
2575.600	(4) (5)	SEEDING	ACRE	10.0	$ 1,700.00	$ 17,000.00	50%	$ 8,500.00	40%	$ 6,800.00	10%	$ 1,700.00
2575.505		SODDING TYPE LAWN W/ 4" TOPSOIL	SQ YD	12340.0	$ 3.00	$ 37,020.00	6170.0	$ 18,510.00	4930.0	$ 14,790.00	1240.0	$ 3,720.00
		SUBTOTAL: TURF ESTABLISHMENT				$ 95,760.00		$ 47,870.00		$ 38,290.00		$ 9,600.00
	(2)	SUBTOTAL: CONSTRUCTION COST				$ 2,471,413.00		$ 1,288,258.00		$ 938,692.00		$ 244,463.00
		CONTINGENCIES, ENGINEERING, INSPECTION AND ADMINISTRATION (35%)				$ 864,994.56		$ 450,890.30		$ 328,542.20		$ 85,582.05
		TOTAL ESTIMATED COST				$ 3,336,407.55		$ 1,739,148.30		$ 1,267,234.20		$ 330,025.05

NOTES:
(1) PAVEMENT CONSTRUCTION ASSUMES A SECTION OF 2" WEAR, 2" BINDER, 3" BASE, 6" AGGREGATE BASE & 12" SELECT GRANULAR.
(2) COSTS DO NOT INCLUDE RIGHT OF WAY OR EASEMENT ACQUISITION COSTS.
(3) ASSUMED.
(4) INCLUDES SEED, SEEDING, FERTILIZER, AND MULCH.
(5) PARTICIPATION BY LINEAR FOOTAGE OF ROAD FRONTAGE: CHAMPLIN 50%, MAPLE GROVE 40%, BROOKLYN PARK 10%.

CITY OF CHAMPLIN

REQUEST FOR COUNCIL ACTION

AGENDA SECTION	ORIGINATING DEPT	MEETING DATE
CONSENT	ENGINEERING	APRIL 27, 1998

ITEM NO:	ITEM DESCRIPTION	PREPARED BY
12	COOPERATIVE AGREEMENT WITH BROOKLYN PARK FOR WATERMAIN INTERCONNECTION ON MISSISSIPPI	T. TUOMINEN J. BITTLE

BACKGROUND

The City of Champlin Water Plan has identified a need for emergency interconnections between the our neighboring cities. One of the potential interconnection locations is on Mississippi Drive at the municipal boundary. The Champlin watermain in this area was constructed as part of the 92-2 Southeast Area utility improvements. It is a condition of the Edgetown Estates Development to construct an emergency watermain connection to the proposed Brooklyn Park watermain system.

REVIEW OF ISSUES

The City of Champlin has proposed that an emergency water interconnection be constructed as part of the Edgetown Estates Development construction. This interconnection will serve as an emergency source of water for either Brooklyn Park or Champlin in the event of a water shortage or a water emergency. The City of Champlin would be financially responsible for the construction of the valve and manhole, while Brooklyn Park would be responsible to extend their watermain to the municipal boundary. The estimated cost of the Champlin share is estimated at $2002.00, including 10% engineering cost. This cost would be paid from the Trunk Source and Storage Fund.

ALTERNATIVES/IMPACTS (UPSIDE/DOWNSIDE)

UPSIDE
The interconnection with Brooklyn Park will benefit and provide protection to both Cities. There are no negative impacts.

DOWNSIDE
The interconnection will cost the City of Champlin $2002.

STAFF RECOMMENDATIONS

It is recommended that the City Council approve the attached Joint Powers Agreement between the Cities of Champlin and Brooklyn Park for the Emergency Watermain Interconnection at Mississippi Drive.

It is further recommended that the City's share, amounting to $2002 be paid from the TS&S Fund.

Attachment: Joint Powers Agreement

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APPROVED
CITY ADMINISTRATOR
DATE 4/23/98
AGENDA DATE 4/27/98

COOPERATIVE JOINT POWERS AGREEMENT FOR EMERGENCY/STANDBY WATER INTERCONNECT BETWEEN THE CITIES OF BROOKLYN PARK AND CHAMPLIN

THIS AGREEMENT, made and entered into this ____ day of _____, 1998, by and between the City of Brooklyn Park, herein referred to as "Brooklyn Park" and the City of Champlin, herein referred to as "Champlin."

WITNESSETH:

WHEREAS, Champlin and Brooklyn Park each operate and maintain separate water production and distribution systems for the health, safety, welfare, and benefit of each City's constituents, and;

WHEREAS, Champlin and Brooklyn Park are desirous of establishing a common water connection between the two systems in the event of a water shortage or water emergency, and;

WHEREAS, Champlin has identified the need for an emergency water connection with Brooklyn Park as part of Champlin's water resource management plan, and;

WHEREAS, Champlin and Brooklyn Park have identified Mississippi Drive at the municipal boundary as an appropriate location to provide an emergency water connection, and;

WHEREAS, Brooklyn Park and Champlin have authorized roadway and utility improvements as part of Edgetown Estates Development, and;

WHEREAS, Champlin and Brooklyn Park have agreed that it is appropriate and feasible to install a water connection as part of this improvement project, and;

WHEREAS, Minnesota statutes 471.59 allows Champlin and Brooklyn Park to enter into a Joint Powers Agreement to plan and construct public utilities on common boundaries between two cities.

NOW, THEREFORE, it is hereby agreed by and between the parties to this agreement as follows:

1. That Champlin and Brooklyn Park by executing this agreement, mutually approve the plans and specifications for said water improvements.

2. Champlin and Brooklyn Park shall independently enter into development agreements with the developers of Edgetown Estates and thereby requiring the developer to provide all necessary plans prepared by the developers engineer.

3. Champlin and Brooklyn Park shall require that the developer construct said water improvements in compliance with the approved plans and specifications. Champlin and Brooklyn Park shall each inspect and test their own respective utilities. The proposed watermain valves/manhole shall be determined as the boundary of municipal ownership. Each respective City shall be responsible to require that the developer or his designer correct any deficiencies found in the respective City.

4. The proposed schedule by the developer is to complete the improvement project prior to May 1, 1998.

5. Champlin shall be responsible for costs incurred for the watermain valve to manhole including construction, plus 10% for engineering. Brooklyn Park shall require the developer to provide connection to said valve.

6. It is understood and agreed that upon completion of these improvements, all project elements shall be part of the record plans prepared by Brooklyn Park and reviewed by Brooklyn Park and shall become the property of the city in which those improvements are located. All maintenance and repair or replacement required thereafter shall be performed by Champlin for the watermain valve/manhole and utilities located north and east of the municipal boundary. Brooklyn Park shall be responsible for maintenance and repair south of the boundary.

7. It is the intent and understanding of both cities that said interconnect shall be utilized for temporary or emergency uses only. It is understood and agreed that upon project completion, opening of the emergency interconnect by either City shall be performed only upon authorization by the City Manager or designee of the other City. Terms of emergency use, such as the length of time of actual water transfer and appropriate compensation shall be negotiated between and by each City's City Manager or designee at the time of emergency. Both Brooklyn Park and Champlin shall have the authority to close the temporary exchange of water at any time, but must provide reasonable notice to the other City prior to doing so.

8. It is further agreed that each party to this agreement shall not be responsible or liable to the other or to other persons whosoever for claims, damages, actions, or causes of actions of any kind or character rising out of or by reason of performance of any work or part hereof by the other as provided herein; and each party agrees to defend at its sole cost and expense, any action or proceeding commenced for the purpose of asserting any claim or whatsoever character arising in connection with or by virtue of performance of its own work as provided herein.

9. Nothing herein shall be deemed a waiver of the limitations or liability provided for in Minnesota Statutes, Chapter 466, and neither party shall have any obligation to indemnify the other in any amount in excess of the limitations on liability set forth therein.

IN TESTIMONY WHEREOF, the parties hereto have caused this agreement to be executed by their respective duly authorized officers as of the day and year first above written.

CITY OF CHAMPLIN

BY_____
Mayor

DATE:_____

AND:_____
City Administrator

DATE:_____

(SEAL)

CITY OF BROOKLYN PARK

BY_____
Mayor

DATE:_____

AND:_____
City Manager

DATE:_____

(SEAL)

Appendix 7:
Municipal Critical Water Deficiency Ordinance

Appendix 7
City of Champlin, Official Critical Water Deficiency Control Ordinance

DIVISION 5. - WATER SHORTAGES

Sec. 58-166. - City to impose water restrictions by resolution.

Whenever the city council shall determine that a shortage of water supply threatens the city, it may limit the times and hours during which water may be used from the municipal water supply system for lawn and garden sprinkling, irrigation, car washing, air conditioning or other uses specified therein. Notice of the limitations shall be given in such a matter as the council may determine including, but not limited to, newspaper articles, radio and television broadcasts, or notice on the city's website.

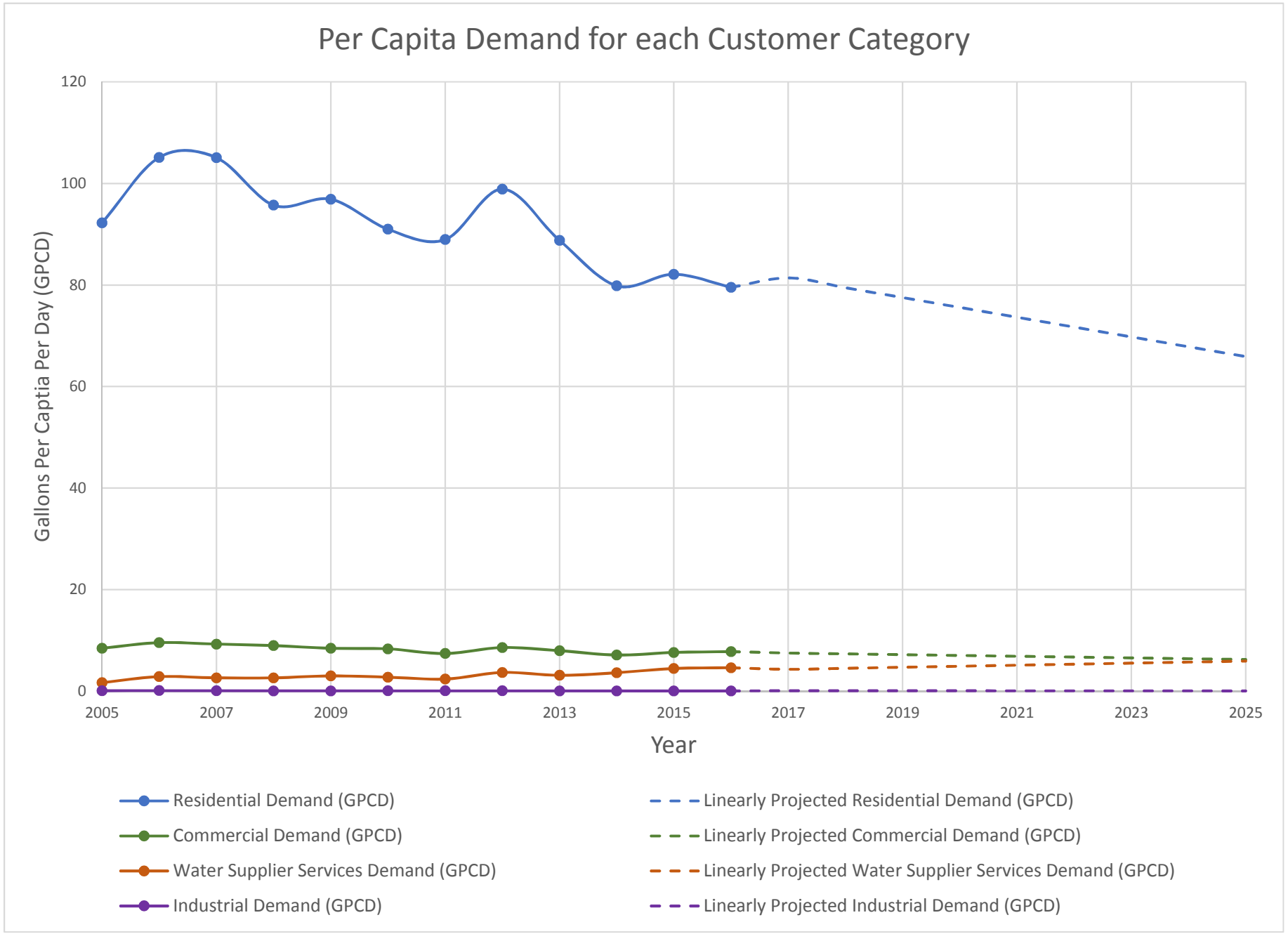
(Code 1977, § 15-1100; Ord. No. 633, § 15-1100, 1-8-2007)

Sec. 58-168. - Emergency restrictions.

In addition, the city council, city administrator, or utility superintendent shall have the right to impose reasonable restrictions on the use of the city water system in emergency situations and any water customer who shall cause or permit water to be used in violation of these restrictions shall be subject to the penalties as set forth in section 58-167.

(Code 1977, § 15-1102)

Appendix 8:
Graph of Ten Years of Annual Per Capita Water Demand for Each Customer Category


Per Capita Demand for each Customer Category
Gallons Per Captia Per Day (GPCD)
120
100
80
60
40
20
0
2005
2007
2009
2011
2013
2015
2017
2019
2021
2023
2025
Year
Residential Demand (GPCD)
Commercial Demand (GPCD)
Water Supplier Services Demand (GPCD)
Industrial Demand (GPCD)
Linearly Projected Residential Demand (GPCD)
Linearly Projected Commercial Demand (GPCD)
Linearly Projected Water Supplier Services Demand (GPCD)
Linearly Projected Industrial Demand (GPCD)

Appendix 9:
Water Rate Structure

Water Rates:		Eff. 1-1-17
58-108(a)	Residential Properties Administrative Charge, per month	$1.47
	Residential Properties Tier 1, 0-16,000 gallons, per 1,000 gallons	$2.37
	Residential Properties Tier 2, over 16,000 gallons, per 1,000 gallons	$2.99
	Irrigation Meters Administrative Charge, per month and Commercial	$2.35
	Irrigation Meters Tier 1, 0-30,000 gallons, per 1,000 gallons	$2.37
	Irrigation Meters Tier 2, over 30,000 gallons, per 1,000 gallons	$3.00
	Large Irrigation Meters Administrative Charge, per month	$2.46
	Large Irrigation Meters Tier 1, 0-125,000 gallons, per 1,000 gallons	$2.37
	Large Irrigation Meters Tier 2, over 125,000 gallons, per 1,000 gallons	$3.00
	Commercial, per 1,000 gallons	$2.37
58-108(g), 58-167, 58-168	Excess usage fee	$86.00
58-110	Water rates, late payment charge	10% of current

Appendix 10:
Ordinances or Regulations Related to Water Use

Appendix 10

City of Champlin, regulations & restrictions to reduce demand and improve water efficiencies

Sec. 58-50. - Discontinuance of service.

(a) Water service may be shut off at any connection whenever:

(1) The owner or occupant of the premises served, or any person working on any pipes or equipment thereon connected with the water system has violated or threatens to violate, any of the provisions of this article;

(2) The owner or occupant of the premises served refuses or fails to allow city employees access to the premises for the purposes of reading or inspecting a water meter, as provided by subsection 58-136(c)(5); or

(3) Fraud or misrepresentation by the owner or occupant of the premises served in connection with an application for service.

(4) The Building official, to protect the public health and safety and in order to the protect the public water supply and/or private property, may order the city water service immediately disconnected to any property upon determining that any of the following conditions exist:

a. The property is vacant;

b. The property is unsecured;

c. The property is determined to be uninhabitable or unsuitable for occupancy;

d. Other utilities to the property providing heat and/or light have been shut off;

e. That running water to the property creates an unsanitary or unsafe condition to anyone who may enter the property.

(b) The city shall notify by mail and addressed to the owner as the owner's name appears in the property records and to the premises postal address, before discontinuation of service.

(c) The water service shall not be reconnected to the property until it has passed an inspection by the building official and, the necessary permits have been issued and fees have been paid. The inspection and reconnection fee are set forth in chapter 22 fees.

(Code 1977, § 15-204; Ord. No. 683, 2-23-2009)

Sec. 58-51. - Deficiency of water, shutting off water and restrictions on use.

In case of a fire, or alarm of fire, or in making repairs or construction of new works, water may be shut off at any time and kept off as long as necessary. In addition, the city council, city administrator, or utilities superintendent shall have the right to impose reasonable restrictions on the use of the city water system in emergency situations.

(Code 1977, § 15-205)

Sec. 58-54. - Repair of leaks.

It shall be the responsibility of the consumer or owner to maintain the service pipe from the curbstop box into the house or building. In case of failure upon the part of any consumer or owner to repair any leak occurring in his service pipe within 24 hours after verbal or written notice thereof, the water may be turned off by the city and shall not be turned on until the leak has been repaired and the appropriate fee as set forth in chapter 22 has been paid to the city.

(Code 1977, § 15-208)

Sec. 58-62. - Use of water for air conditioning.

All air conditioning systems that are connected directly or indirectly with the public water system must be equipped with water conserving and water regulating devices as approved by the city.

(Code 1977, § 15-217)

Sec. 58-63. - Permits required for air conditioning.

Permits shall be required for the installation of all new air conditioning systems to the public water system.

(Code 1977, § 15-218)

Sec. 58-166. - City to impose water restrictions by resolution.

Whenever the city council shall determine that a shortage of water supply threatens the city, it may limit the times and hours during which water may be used from the municipal water supply system for lawn and garden sprinkling, irrigation, car washing, air conditioning or other uses specified therein. Notice of the limitations shall be given in such a matter as the council may determine including, but not limited to, newspaper articles, radio and television broadcasts, or notice on the city's website.

(Code 1977, § 15-1100; Ord. No. 633, § 15-1100, 1-8-2007)

Sec. 58-167. - Violation and penalty.

Any water customer who shall cause or permit water to be used in violation of the limitation shall be charged an excess usage fee as set forth in chapter 22 for each day the customer violates the limitations as set forth in section 58-108(g). Continued violations of the limitations shall be cause for discontinuance of water service.

(Code 1977, § 15-1101; Ord. No. 633, § 15-1101, 1-8-2007)

Sec. 58-168. - Emergency restrictions.

In addition, the city council, city administrator, or utility superintendent shall have the right to impose reasonable restrictions on the use of the city water system in emergency situations and any water customer who shall cause or permit water to be used in violation of these restrictions shall be subject to the penalties as set forth in section 58-167.

(Code 1977, § 15-1102)

Sec. 58-169. - Irrigation and sprinkling restrictions.

(a) *Waste of water prohibited.*

(1) Customers shall maintain taps, faucets, valves and other water facilities so that water waste is eliminated from seeps, dripping faucets, etc.

(2) No person shall waste water deliberately by allowing irrigation or sprinkling water to run off onto the street or into a drain.

(b) *Permission to use hydrant.* No person shall open, close or tamper with any fire hydrant except under the authorization of the utilities department.

(c) *Odd-even sprinkling.* Sprinkling will be curtailed from May 1st—Labor Day. Properties with even numbered post office addresses may use water on even numbered calendar days. Properties with odd numbered post office addresses may use water on odd numbered calendar days. Property owners with private wells are not affected by the watering ban. Owners of properties served by private wells shall register their wells with the city. Unless specifically included in the notice of water use restrictions, new sod and seed are exempt from the ban for a period of four weeks from the effective date of the ban. Trees and shrubs may be watered with a hand-held hose unless specifically stated otherwise in the notice of water use restrictions.

(d) *Prohibited hours.* There will be no watering of lawns, trees or shrubs by use of city supplied water between the hours of 10:00 a.m. and 7:00 p.m.

(e) *Emergency restrictions.* Additional restrictions of water usage in high demand periods shall be by order of the city administrator or his designee. When such additional restrictions have been ordered no person shall discharge water for the purposes of watering lawns, shrubs, trees and washing cars or structures. All unnecessary uses of water are prohibited for the duration of the imposed restriction.

(f) *Excess usage fee.*

(1) First violation of this section will result in a written warning.

(2) The second and each subsequent violation of this section will result in an excess usage fee as set forth in chapter 22.

(3) Owners of private wells must register with the city on an annual basis. Failure to register shall be a misdemeanor. The city may inspect private wells to determine compliance with this section and with other regulations applicable to private wells.

(Ord. No. 633, 1-8-2007)

Appendix 11:
Implementation Checklist

City of Champlin

Implementation Checklist

Action	Description	Timeframe				
		ongoing	annually	1-3 yrs	1-5 yrs	3-6 yrs
Review city ordinances/codes	To encourage or require water efficient landscaping.	✓				
Review city ordinance/codes	To permit water reuse options, especially for non-potable purposes like irrigation, groundwater recharge, and industrial use.		✓			
Revise ordinances to limit irrigation	Review 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	Follow infrastructure improvements detailed in the City's Capital Improvement Plan	✓				
Provide rebates or incentives for installing water efficient appliances and/or fixtures	e.g. low flow toilets, high efficiency dish washers and washing machines, showerhead and faucet aerators, water softeners,			✓		
Provide reabtes or incentives to reduce outdoor water use	e.g. turf replacement/reduction, rain gardens, rain barrels, smart irrigation, outdoor water use meters, etc.	✓				
Conduct audience-appropriate water conservation education and outreach	City of Champlin Environmental Resource Comission (ERC) programs	✓				
Conduct a facility water use audit	For both indoor and outdoor use, including system components			✓		
Install enhanced meters	Capable of automated readings to detect spikes in consumption	✓				
Install water conservation fixtures and appliances or change processes to conserve water	Toilets, faucets, etc.	✓				
Repair leaking system components	(e.g., pipes, valves)	✓				
Investigate the reuse of reclaimed water	(e.g., stormwater, wastewater effluent, process wastewater, etc.)		✓			
Reduce outdoor water use	(e.g., turf replacement/reduction, rain gardens, rain barrels, smart irrigation, outdoor water use meters, etc.)	✓				
Train employees how to conserve water	Include for new employee training	✓				
Increasing block rates billing strategy	Rate structure for Residential, Commercial, Industrial, and Institutional customers	✓				
Consider participating in the GreenStep Cities Program	Voluntary program to aid cities in achieving their sustainability and quality-of-life goals			✓		
Rainfall sensors required on landscape irrigation systems	Conserve water and reduce utility bill when there is a sufficient moisture for landscape area.	✓				
Watering restriction requirements	Odd/Even day watering	✓				
Billing inserts or tips printed on the actual bill	Educational information supplied as billing insert			✓		
Consumer Confidence Reports	Report of City's water quality		✓			
Direct mailings (water audit/retrofit kits, showerheads, brochures)	City is looking into using direct mailings to further educate residents on the benefits of water conservation.	✓				
K-12 Education programs (Project Wet, Drinking Water Institute, presentations)	Making programs to educate school age children on water resources.		✓			