5:30 p.m.  Tour of Public Works Building – meet in Public Works Building Lobby

6:30 p.m.  Dinner – Powers Lake Conference Room

**Workshop Agenda**
*Meeting to be held in the Public Works Building Lunch Room*

7:15 p.m.  1.  Woodbury’s Comprehensive Water System Update 20-42

8:15 p.m.  2.  Water Emergency Contingency Plan 20-43

9:15 p.m.  3.  Administrator Comments and Updates

9:20 p.m.  4.  Mayor and City Council Comments and Commission Liaison Updates

9:25 p.m.  5.  Adjournment

1 Items under comments and updates are intended to be informational or of brief inquiry. More substantial discussion of matters under comments and updates should be scheduled for a future agenda.

The City of Woodbury is subject to Title II of the Americans with Disabilities Act which prohibits discrimination on the basis of disability by public entities. The City is committed to full implementation of the Act to our services, programs, and activities. Information regarding the provision of the Americans with Disabilities Act is available from the City Administrator’s office at (651) 714-3523. Auxiliary aids for disabled persons are available upon request at least 72 hours in advance of an event. Please call the ADA Coordinator, Clinton P. Gridley, at (651) 714-3523 (TDD (651) 714-3568)) to make arrangements.
Council Workshop Letter 20-42

February 19, 2020

To: The Honorable Mayor and Members of the City Council

From: Clinton P. Gridley, City Administrator

Subject: Woodbury’s Comprehensive Water System Update

Summary

On February 20, 2018, the state of Minnesota settled its lawsuit against the 3M Company in return for a grant of $850 million. Minnesota’s attorney general sued 3M in 2010 alleging that the company’s production of chemicals known as Per- and Polyfluoroalkyl Substances (PFAS) had damaged drinking water and natural resources in the southeast Twin Cities metro area. After legal and other expenses are paid, about $720 million is to be invested in drinking water and natural resources projects in the Twin Cities east metropolitan region.

As a result of the settlement, and to provide the City of Woodbury necessary engineering and consulting services, staff completed a request for qualification process inviting multiple consulting and engineering firms to interview and submit qualification proposals. Through this process, the City of Woodbury entered into a master services agreement with Advanced Engineering and Environmental Services, Inc. (AE2S).

In addition to assisting the City of Woodbury in the settlement process, AE2S was contracted to develop an independent evaluation of the City’s potential water supply and treatment options. Staff and AE2S have been guided by the attached Council resolution passed on October 9, 2019.

AE2S is close to concluding the Water System Study regarding potential water supply and treatment options and will provide Council with an update of some of the study’s conclusions. This presentation is intended to be educational, preparing Council for future discussions regarding the State of Minnesota’s treatment and funding recommendations.

Governance Mode

Generative (identifying key questions, anticipating future challenges, framing of issues, development of options).

Recommendation

Staff recommends Council review the attached materials and consider the information provided by AE2S. No action is needed at this time.
Fiscal Implications

The total estimated costs for the development of the comprehensive water system master plan is $249,106. The project is funded from Fund No. 901 – Trunk Water and Sanitary Sewer Fund. All costs are being tracked for future potential reimbursement by funds from the settlement agreement.

Policy


Public Process

- May 22, 2019 Council authorization of the letter of engagement for AE2S to complete the Comprehensive Water System Master Plan
- October 9, 2019 Council Resolution on the Development of the State of Minnesota 3M PFC Settlement Conceptual Drinking Water Supply Plan

Background

The City of Woodbury owns and operates a water system which draws ground water from the Prairie du Chien/Jordan aquifer. Water supply comes from 19 production wells with a total pumping capacity of about 24,500 gallons per minute with a firm capacity of 32.5 million gallons per day. To handle peak water demand, Woodbury has six water storage facilities totaling 10.5 million gallons. The water is treated with chlorine and fluoride to meet Department of Health standards. Some Woodbury properties obtain their water through private wells and are not served by the municipal water systems.

In 2010, Minnesota’s attorney general sued 3M Company alleging that the company’s production of chemicals known as PFAS had damaged drinking water and natural resources in the southeast Twin Cities metro area, including Woodbury. PFAS were made by 3M in Cottage Grove and by other companies around the world for use in household and industrial products. PFAS wastes were disposed of at several sites in Washington County including Lake Elmo, Oakdale and in southeast Woodbury. The source of the PFAS in the Woodbury groundwater has been identified as these disposal sites.

On Feb. 20, 2018, the State of Minnesota and 3M reached a settlement agreement, with the state receiving a grant from 3M for $850 million. The court directed the Minnesota Pollution Control Agency (MPCA) and the Department of Natural Resources (DNR) to set-up working groups to guide the use of the funds. After legal expenses are paid, about $720 million will be invested in drinking water and natural resource projects in the Twin Cities east metropolitan area. The court-approved agreement specifically outlines providing a clean, sustainable supply of drinking water as a top priority. It also indicates that improvements will be primarily focused on the Cities of Woodbury, Afton, Cottage Grove, Lake Elmo, Newport, Oakdale, St. Paul Park and the townships of Grey Cloud Island and West Lakeland with the possibility of adding additional communities as needed. Projects could include treating drinking water from existing wells, providing alternative sources of drinking water for cities or private well owners, or connecting homes served by private wells to municipal drinking water systems.
While the City's water is safe to drink today, there have been significant operational changes made due to the presence of PFAS in the aquifer. Six of the City’s 19 wells have levels of PFAS above the Health Based Value (HBV), Health Advisory Values (HA), or the Hazard Index (HI) that require Woodbury to significantly reduce their use and other wells are near these values. In the next five years, there is general concern that the other wells may experience increased levels of PFAS that may exceed established values. In addition, the regulatory values continue to change as more research is being done and the health impacts are becoming more understood.

Written By: Mary Hurliman, Director of Public Works
Approved Through: Clint Gridley, City Administrator
Attachment: 1. Master Plan Executive Summary
Should the City Provide Softening?

Providing softened water to customers can improve the taste to customers and reduce the need for home water softening equipment, reducing the salt load to the City’s wastewater system. Finished water pH, alkalinity, and other water quality parameters can be more closely controlled to meet distribution water quality targets. However, including softening does increase the capital costs (see back page). For larger scale systems, greater than approximately 10 MGD, chemical precipitation with lime is the most common method, and the recommended approach for Woodbury.

NOTE: Only Alternative 3 (treatment in the South Wellfield) is feasible for a full treatment facility due to site restrictions at the other locations.

What’s Next?

- Make key decision regarding treatment locations.
- Develop implementation schedule and wrap-up Master Plan based on feedback.
- Work with the State of Minnesota as they wrap-up their planning process.
- Move into implementation process.

Prepared by:

Res2

Jacobs

What is PFAS?

Perfluorooalkyl and polyfluoroalkyl substances, commonly referred to as PFAS, are manufactured chemicals used in many consumer goods with properties that include oil, water, temperature, chemical and fire resistance, and electrical insulating properties (nonstick cookware, stain-resistant carpets and fabrics, coatings on food packaging, components of fire-fighting foams, and other industrial applications).

How Did PFAS Get in the Drinking Water?

The 3M Company made PFAS at its Cottage Grove facility from the late 1940s until 2002. PFAS wastes were disposed of at multiple sites in Washington County and the waste made its way into the groundwater.

Why is it an Issue in Drinking Water?

According to the MDH, PFAS compounds from chemical wastes found in groundwater systems can, with long-term consumption, lead to negative health impacts.

In addition to expedited treatment at some of the worst contaminated wells, the City of Woodbury is developing a long-term Master Plan to address the PFAS contamination within their groundwater supply. The Master Planning process has the following goals:

- Develop a Woodbury specific PFAS mitigation strategy for water supply (to be developed in tandem with State’s larger 3M settlement process).
- Determine long-term groundwater supply and treatment strategies through 2050 with considerations for water softening.

How much water do we need in the future and how do we get there?

Population and water demand projections indicate that the City of Woodbury will need nearly 32 million gallons per day (MGD) of peak water supply to serve the estimated 2050 final build-out population of 98,760 as shown in the following figure. These projections take into consideration future conservation efforts.

The City of Woodbury has elevated levels of PFAS in six water supply wells with concentrations exceeding the Minnesota Department of Health (MDH) health-based water quality values. Additional water supply wells have PFAS contamination detected but do not exceed the guidance values.
MEETING FUTURE NEEDS

To meet these future needs, the City will need to continue to rely on, and likely expand, the use of the groundwater system. Key long-term treatment issues that need to be addressed are as follows:

- Meet all MDH and U.S. Environmental Protection Agency (EPA) treatment regulations. (The City does this today and will continue to with treatment.)
- Treat PFAS (given the groundwater contamination issue, long-term PFAS treatment will need to be implemented).

Where Does this Study Fit within the State and 3M Settlement Process?
The State of Minnesota is working with their consultant, Wood, to draft the Conceptual Drinking Water Supply Plan to develop long-term alternatives for addressing PFAS contamination in drinking water throughout Washington County. The Woodbury Water System and PFAS Treatment Study is being developed in parallel with the focus of developing groundwater treatment solutions to address PFAS contamination for just the community of Woodbury. The results will be used to compare the outcomes of the State’s plan and ensure the best long-term solution for Woodbury is being pursued.

How do we treat for PFAS?
There are currently three treatment options for PFAS and only one is currently approved by the MDH; however Ion Exchange (by itself or in combination with GAC), may be viable if approved for use by the MDH. Both GAC and Ion Exchange effectiveness will be analyzed through a pilot studies of impaired water in the region. Final recommendation for treatment type will be based on the results of the pilot studies.

If PFAS was not an issue, Woodbury would still need to expand their groundwater system with the following infrastructure to meet 2050 needs:

- Two new groundwater wells
- New watermains in growth areas
- Strategic watermain improvements
- New ground storage reservoir (4.0 million gallons) and pump station
- New water tower(s) (2.0 million gallons)

Treatment at Each Wellfield
3 PFAS (and Fe/Mn) Treatment Facilities
Raw water piping to connect wells

- **Pros**
  - Minimum pipeline construction
  - Smaller treatment facilities

- **Cons**
  - Added operating costs and complexity to manage three facilities
  - CANNOT add softening later

Tamarack and South Wellfields
2 PFAS (and Fe/Mn) Treatment Facilities
Raw water piping to connect wells

- **Pros**
  - Less operating and maintenance complexity with only two facilities

- **Cons**
  - Additional pipeline construction
  - CANNOT add softening later

South Wellfield
1 PFAS (and Fe/Mn) Treatment Facility
Raw water piping to connect wells

- **Pros**
  - Only one treatment facility to manage
  - CAN add softening later

- **Cons**
  - More pipeline construction

Granular Activated Carbon (GAC)
State Approved

- **Pros**
  - Good and well understood PFAS removal performance. Less expensive operating cost.

- **Cons**
  - Larger footprint than IX and less effective on certain long-chain PFAS species.

Ion Exchange (IX)
State Approval Pending

- **Pros**
  - Good PFAS removal performance and can target certain PFAS species. Less capital cost.

- **Cons**
  - Newer less proven technologies and limited current suppliers. Not currently approved by the State (pilot program ongoing in Cottage Grove.)

Membranes (NF/RO)
Not Under Consideration by State

- **Pros**
  - Best PFAS removal performance and provides softening.

- **Cons**
  - Significantly higher capital costs. Managing waste stream is difficult.

Note: Iron (Fe) and Manganese (Mn) are presented in the groundwater and impart a “metallic” taste. They are easily removed with treatment and will improve the performance of the GAC and/or IX treatment systems for PFAS.
Resolution 19-184

Resolution of the City of Woodbury,
Washington County, Minnesota

The City of Woodbury’s Position on the Development of the State of Minnesota 3M PFC
Settlement Conceptual Drinking Water Supply Plan, Priority 1 Criteria Evaluation
Framework and Subsequent 3M Settlement Grant Distribution

WHEREAS, per- and polyfluoroalkyl substances (PFAS) are synthetic chemicals
that do not occur naturally in the environment; and

WHEREAS, these ubiquitous synthetic chemicals have been used in industry and
consumer products worldwide since the 1950s; and

WHEREAS, the extreme persistence of PFAS in the environment and resistance
to typical degradation processes has created a public health crisis; and

WHEREAS, based on this pervasive threat and the need for protection relating to
PFAS contamination, Minnesota’s Attorney General sued 3M Company (3M) in 2010 alleging
that the company’s production of chemicals known at that time as PFCs had damaged and
continues to damage drinking water and natural resources in the Twin Cities east metropolitan
area; and

WHEREAS, on February 20, 2018, the State of Minnesota settled its lawsuit
against the 3M Company in return for a settlement of $850 million; and

WHEREAS, after legal and other expenses are paid, approximately $720 million
will be available to protect, treat, and make available clean, safe drinking water in the Twin
Cities east metropolitan area; and

WHEREAS, the State of Minnesota’s 2018 Agreement and Order (Agreement)
with 3M establishes a grant for the “3M Water Quality and Sustainability” appropriation in the
Remediation Fund (Settlement Grant); and

WHEREAS, under Priority 1 of this Agreement, the Minnesota Pollution Control
Agency (MPCA) and the Minnesota Department of Natural Resources (DNR) will use the Grant
to enhance the quality, quantity, and sustainability of drinking water in the East Metropolitan
Area to ensure clean drinking water in sufficient supply to residents and businesses to meet
their current and future water needs; and

WHEREAS, the MPCA and DNR as the “Co-Trustees” for the distribution of these
funds established in 2018 four Working Groups and have been holding public meetings toward
development of a Conceptual Drinking Water Supply Plan; and

WHEREAS, this collaborative approach is needed to assess potential hazards,
share data, identify best practices, establish guidance on best water treatment practices, and
leverage the 3M Consent Order and Settlement Grant funding sources; and
WHEREAS, recognizing that PFAS has created a public health crisis, east metro local governmental units identified in the 3M settlement are at a crossroads awaiting distribution of the 3M Settlement Grant proceeds to remediate and protect our water systems; and

WHEREAS, it is imperative that a State of Minnesota commitment is made to allocate all the necessary resources as expeditiously as possible to provide the east metropolitan area’s 157,000 residents and businesses with clean drinking water to meet current and future needs and protect the viability of the aquifer as a source of drinking water; and

WHEREAS, failing to equitably treat all potable water within the affected area would result in untenable disparities among neighborhoods related to health risks; and

WHEREAS, the City of Woodbury at a current population of approximately 73,000 and expected to grow to close to 100,000 residents by 2050 has invested a significant amount of resources to construct a robust and resilient system to distribute municipal drinking water; and

WHEREAS, the City of Woodbury has altered the operations of multiple water production wells that have been idled due to PFAS contamination, which has significantly impacted our water operations and materially damaged the City of Woodbury; and

WHEREAS, the PFAS contamination continues to migrate, and the federal and state health-based standards are subject to modification as more becomes known about PFAS; and

WHEREAS, the City of Woodbury is at risk of having insufficient water to meet demand in the near future with the continued loss of water production wells due to PFAS contamination; and

WHEREAS, based on the 2019 Woodbury Community Survey, consumer water confidence levels are dropping and drinking water quality was the number one concern of our residents.

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Woodbury, Washington County, Minnesota that the City of Woodbury commits to continuing to actively participate in efforts by the 3M Settlement Working Groups to encourage a fair and equitable distribution of the 3M Settlement Grant proceeds.

BE IT FURTHER RESOLVED by the City Council of the City of Woodbury, Washington County, Minnesota that the City of Woodbury believes the State of Minnesota, the Co-Trustees, the Conceptual Drinking Water Supply Plan and the subsequent grant process must:

1. Preserve groundwater as the City of Woodbury’s continued source of water.

2. Protect water quality for all residents in the Twin Cities east metropolitan area irrespective of current PFAS health-based value levels.
3. Establish a water treatment goal of the lowest detectable levels of PFAS feasible in order to protect residents and businesses in the Twin Cities east metropolitan area now and into the future.

4. Provide funding for temporary water treatment facilities as expediently as possible to the City of Woodbury in order to bring the idled wells due to PFAS contamination back into full service.

5. Compensate the City of Woodbury for the lost production of the City of Woodbury's idled water production wells and the depreciation of Woodbury's other water wells that have been over-taxed to make up for the loss of impacted water wells and any other damages.

6. Provide funding for the construction and operation of permanent water treatment facilities for public and private water systems necessitated by the PFAS threat.

BE IT FURTHER RESOLVED by the City Council of the City of Woodbury, Washington County, Minnesota that this resolution adopted by the City of Woodbury be forwarded to the “Co-Trustees” Minnesota Pollution Control Agency and Minnesota Department of Natural Resources, Governor Tim Walz, state representatives for local governmental units in the affected area and the Metropolitan Council for their consideration.

This Resolution was declared duly passed and adopted and was signed by the Mayor and attested to by the City Administrator this 9th day of October, 2019.

Anne Burt, Mayor
(SEAL)

Attest: Clinton P. Gridley, City Administrator
City of Woodbury, Minnesota  
Office of City Administrator

Council Workshop Letter 20-43

February 19, 2020

To: The Honorable Mayor and Members of the City Council

From: Clinton P. Gridley, City Administrator

Subject: Water Emergency Contingency Plan

Summary

In May 2017 and again in April 2019, the Minnesota Department of Health (MDH) released updated health-based values related to per- and polyfluoroalkyl substances (PFAS) found in the groundwater in Woodbury. As a result of the MDH revised health-based values and detected levels of PFAS, seven City wells have received health advisories from the MDH since 2017 and have been removed from service substantially impacting the City’s water production capacity and ability to meet water supply demands.

On January 8, 2020, the City Council approved a proclamation of local emergency declaring the need to expedite design, construction, and startup of a temporary water treatment system. The goal is for the temporary water treatment facility to be online during summer of 2020 to allow the City to meet peak water demands until a long-term solution is determined and implemented.

The temporary treatment construction schedule is very tight and not all elements can be controlled which may impact the schedule. Additionally, summer water demand is largely driven by weather, an unpredictable element. Therefore, in the potential case water demands are anticipated to exceed 90 percent of firm capacity, City staff is in the process of preparing for implementation of level 2 or 3 watering restrictions.

Governance Mode

Strategic (goal setting, plan development, resource mobilization).

Recommendation

Review and discuss the attached Lawn Watering Policy Council Directive CD-ENGPW-4.4 adopted October 30, 2018, and direct the following recommendation be brought forward to the February 26, Council meeting:

1. Authorize the City Administrator to implement watering restrictions before the established thresholds of 90 percent of firm capacity and 93 percent of firm capacity, if variables such as infrastructure, weather forecast and others indicate it is in the best interest of the community. Staff recommends the given authority remain until the emergency declaration is lifted – likely, when full treatment solutions are implemented successfully.
Fiscal Implications

If the City has to declare watering restrictions, the fiscal impact could be substantial depending on length of the restrictions and weather. Some negative impacts include loss of quality green spaces, due to inability to irrigate.

That said, the fiscal impact of pressure loss in the system could be significant with possible contamination to City water infrastructure; watering restrictions being implemented would prevent a possible worse situation from occurring that could have health and economic development impacts.

Policy

- Woodbury City Code 23-20, Emergency Water Conservation

Public Process

- February 17, 2016 City Council Workshop on Strategic Initiative: Sustainable Water for the Future of Woodbury.
- August 21, 2019, Council workshop on strategic initiatives.
- August 28, 2019, Council meeting award of expedited project.
- December 11, 2019, Council meeting adoption of Strategic Initiatives for 2020-2021.
- January 8, 2020, Council declared a local emergency declaring need for a temporary water treatment system

Background

The City of Woodbury has historically relied on 19 ground water production wells to meet resident water demand. With MDH updated health-based values related to PFAS, seven production wells have been taken offline. This has left the City unable to confidently meet summer water demands for 2020. Based on these facts the City has been working with its consultant (AE2S), and representatives from MDH and the MPCA on temporary treatment of impacted PFAS wells.

On December 6, 2019, the City of Woodbury received partial approval from the MPCA of the City’s request for treatment of PFAS impacted water production wells 4, 6, and 7. The City is currently working with the State to identify an acceptable solution for also treating Well 17.
Woodbury’s Past Watering Restrictions on Record

- June, 1995 weeklong total ban imposed because of large demand on the City's water system during drought conditions.
- June and July, 2006 the City experienced long periods with no significant rain and issue a telephone notification asking residents to voluntarily reduce water consumption. Within a week of that notice, the City received 1.1 inches of rain and consumption fell by 1,000,000 gallons the day after.

Impact of Loss of Production Wells on Firm Capacity

The temporary loss of seven production wells significantly decreases the City's firm capacity. Firm capacity is calculated daily based on wells that are in service and available to produce drinking water. Firm capacity is defined as, “The capacity with the largest well pump out of service.” When all 19 City wells are in service, the City’s firm capacity is around 32 million gallons per day (mgd); with seven wells out of service due to PFAS the City’s firm capacity is approximately 20 mgd but changes daily based on the above mentioned variables. It is important to note, that while the available wells may be able to pump a certain volume in a 24 hour period as defined in the firm capacity calculation, actual production capacity is further defined by storage capacity and time of demand. Actual production capacity is almost always something less than the calculated firm capacity.

The City of Woodbury has a lawn watering policy to help staff manage the water utility operations and assure the system maintains pressure. To put the lawn watering policy into context with firm capacity and variances in demand from year to year, the attached graphs are examples of historical water demand data; 2019 representing the wettest historical year on record, 2012 representing an average summer precipitation, and 2007 represents a dryer year. A few variables to keep in mind while reviewing the data:

- Since weather is unpredictable year-to-year, it is important to remember that any of these scenarios and all scenarios in-between could represent the 2020 summer.
- The City has added approximately 17,000 residents since 2007, so in a summer with similar weather it is likely that substantially more water would be used.
- The City is only running 12 of our 19 wells, meaning they are being taxed more than in past years. Most years, at least one well is taken out of service for operation and maintenance reasons; the likelihood of this happening is increased by taxing our infrastructure.
- Graphs included as examples demonstrate that peak water usage does not come on gradually but can and does rapidly increase.
- The City has seen in years past early season (May/June) water demands in access of 20mgd.

Water Restriction Implementation Realities

If watering restrictions are implemented due to anticipated peak demand production limits, staff recommends the restrictions stay in place until the City is confidentially past the possibility of additional restrictions; most likely the successful startup of the temporary water treatment plant. Watering restrictions only produce desired results when residents and businesses implement the changes and even with significant communication and increased enforcement, it is possible some will not adhere to the restrictions. If the watering restrictions are put in place, removed and then re-established, the likelihood of compliance decreases.
It is important to note all City facilities that are connected to the City’s main water supply would fall under the City’s lawn water policy if restrictions are put in place (i.e. Athletic Fields and Madison’s Place Playground Splash Pad). HSC Athletic Fields and Eagle Valley Golf Course are exempt from restrictions, as their irrigation water supplies are independent from the City’s.

In order to put the City of Woodbury in the best position for compliance, should watering restrictions be put in place, a communication plan is being developed for implementation. Late this Spring, staff will have a better understanding of the progress of the temporary treatment build and this will determine the level of our proactive communication approach.

**Risks**

If the City demands water beyond the operational firm capacity, the system is at risk of a loss of pressure. The systems pressure pushes water out and prevents backflow. Introducing backflow into the system allows for possible contamination. In this case, the Department of Health would declare a boiling order and Woodbury would be placed on the highest tier of sampling. The boiling order would be in place until the Department of Health is able to verify the water is safe to drink.

Written By: Mary Hurliman, Public Works Director
Approved Through: Clint Gridley, City Administrator
               2. Firm Capacity Water Usage Graphs
PURPOSE

It is the purpose of this policy to protect groundwater resources, prevent excessive water demand, and encourage water efficiency and conservation by regulating lawn and landscape watering. This policy is authorized under Woodbury City Code 23-20, Emergency Water Conservation. This policy covers all water services, all private wells within the City that do not hold a water appropriations permit from the State of Minnesota, and irrigation systems partly or solely served by a water reuse system.

This policy regulates lawn and landscape watering only; other outdoor water uses including, but not limited to, car washing and filling of swimming pools are not included in this policy. Hand watering from single-family rain barrels, when filled by rainfall, is exempt from this policy.

POLICY

Level 1- Watering Policy

- Level 1 policy is in effect year round.

- Lawn and landscape watering is regulated with an odd/even system according to the last number of the property address. Addresses ending in an odd number may irrigate on odd numbered days and addresses ending in an even number may irrigate on even numbered days.

- The City will assign odd or even days to complexes with multiple units on one irrigation system. Complexes must follow odd/even watering based on their assigned day.

- Watering is not permitted between noon and 5 p.m.

- All irrigation systems must be in compliance with City Code 23-36, Lawn and Landscape Irrigation Systems and any future updates.

- The watering of shrubs, flowers, or other landscaping vegetation when done by hand is permitted at any time.
Law and Landscape Watering Policy

- Watering permits can be obtained for watering new sod, seed, or landscaping for 14 consecutive days. The permit must be visible in a window. Permittees must follow the noon to 5 p.m. watering ban.

- Irrigation systems that have been activated due to a power outage will be excused when the owner provides the City with printed verification of the power outage from the electric company.

- Athletic fields, golf courses, commercial nurseries, and agricultural and horticultural businesses that operate under a State of Minnesota appropriation permit will be exempt from this policy. These users are encouraged to employ water conservation practices to the extent possible.

- Athletic fields connected to the municipal system are exempt from Level 1 and 2 of this policy.

- The watering policy above remains in effect unless stated otherwise.

Level 2 Watering Restrictions

The following restrictions are imposed at 90 percent water production firm capacity.

- The city will restrict lawn and landscape watering to residential and homeowner association watering on the designated garbage day and one weekend day. If garbage pickup is changed due to a holiday, irrigation will remain on the designated day.

- The weekend day is assigned as follows:
  - For garbage day on Monday or Tuesday, the weekend watering day will be Saturday.
  - For garbage day on Wednesday or Thursday, the weekend watering day will be Sunday.

- Complexes with multiple units on one irrigation system are permitted to irrigate based on location within the Garbage and Recycling Zone Map, including one weekend day.

- For non-residential irrigation systems, lawn and landscape watering is permitted on Friday only. Non-residential is defined as places to shop, places to work, schools, and churches.

- Watering permits may be obtained under Level 2 with verification of need by city staff. Previously obtained permits are void unless deemed necessary by city staff. Staff will provide guidance to maximize conservation for any permit granted during Level 2 restrictions.

CD-ENGPW-4.4 Lawn and Landscape Watering Policy
Level 3 Watering Restrictions

Level 3 watering restrictions will occur at 93 percent water production firm capacity.

- A total lawn and landscape watering ban, including hand watering, will be implemented.
- Athletic fields that receive water from the municipal water system must follow Level 3 watering restrictions.
- Watering permits cannot be obtained under Level 3. All previously obtained permits are void under Level 3 watering restrictions.

Resolution Adopting CD-ENGPW-4.4 Lawn Watering Policy:
Resolution No. 07-152
Resolution No. 18-187
Examples of High Pumping from Previous Years Using 2020 Firm Capacity

Example of a wetter than average summer.

Example of an average summer.

Example of a dry summer.
Example of an Early Season High Pumping Event Using 2020 Firm Capacity

2009 with 12 Wells Online

- 100% Firm Capacity
- 93% Firm Capacity
- 90% Firm Capacity
- Gallons Pumped

2009 with 11 Wells Online

- 100% Firm Capacity
- 93% Firm Capacity
- 90% Firm Capacity
- Gallons Pumped