



STAFF REPORT

DATE: 08/10/2022

DISCUSSION

TO: City Council
FROM: Molly Just, Planning Director
Ben Hetzel, City Planner
AGENDA ITEM: **Stormwater Reuse for Irrigation**

BACKGROUND:

City Council directed the Planning Department to research the possibility of stormwater reuse for irrigation purposes and report back with findings at the August 10, 2022 City Council Workshop.

Stormwater reuse for irrigation could benefit the City by reducing overall demand for potable water in Lake Elmo.

ISSUE BEFORE CITY COUNCIL:

Should the City adopt code requirements for stormwater reuse for irrigation?

PROPOSAL DETAILS/ANALYSIS:

Staff researched surrounding communities to see how stormwater reuse for irrigation is incorporated. Staff found that as of yet no metro communities have adopted code requirements for stormwater reuse for irrigation purposes. However, there are a couple of metro communities that are engaging in stormwater reuse for irrigation purposes. Examples of communities that incorporate stormwater reuse for irrigation are the cities of Hugo and Waconia.

Waconia

The City of Waconia has a stormwater reuse code (Chapter 415). The code does not have a requirement to construct these systems, but rather focuses on the standards and requirements residents must abide by shall they decide to voluntarily connect to the City's system.

Hugo

In order to implement stormwater reuse, the City of Hugo partnered with the Rice Creek Watershed District and adopted a Stormwater Capital Improvement Plan (CIP). This approach identified approximately 20 potential projects that could effectively reduce the City's groundwater dependence. Three examples are provided in your packet.

The City of Hugo does not have a stormwater reuse for irrigation code. Hugo adopted Comprehensive Plan policy language to encourage stormwater reuse practices. Many new developments have incorporated stormwater reuse for irrigation. The City does not provide developers incentives for implementing stormwater reuse systems. Hugo planned for stormwater reuse city-wide and regionally allowing developers to meet some stormwater requirements offsite. Example would be meeting water quality standards offsite and only having to meet rate control onsite. This is a benefit to developers, as there is a possibility of a reduction in stormwater construction costs. Hugo has a combination of both City and HOA owned

systems. City owned systems and HOA owned system each provide residents with a lower irrigation cost than regular city water rates.

CATEGORIES TO CONSIDER

Stormwater reuse for irrigation in newly platted development residential development with Homeowner Associations. The City does not want to manage or own the development-based part of the irrigation system and so needs the responsible party (HOA) to make it work.

POTENTIAL OPTIONS:

1. Add a requirement in City Code for ALL such newly platted developments to incorporate stormwater reuse for irrigation.
2. Amend the 2040 Comprehensive Plan to add policy language encouraging stormwater reuse for irrigation.

Incorporate education opportunities to educate businesses and homeowners on appropriate techniques for stormwater reuse.

POTENTIAL OPTIONS

1. Use of City's website
2. Water bill mailings and other recurring mailings
3. The Fresh
4. Facebook
5. The Source

Provide incentives for incorporating stormwater reuse for irrigation.

POTENTIAL OPTIONS

Add an amenity category for advanced stormwater reuse in Planned Unit Development (PUD) Code. This could be for certain types of projects only or a way to reduce use of potable water for irrigation in commercial projects that wouldn't be required to incorporate it. Council direction is requested.

VALLEY BRANCH WATERSHED COMMENTS

The Valley Branch Watershed District relies on the Minnesota Stormwater Manual for guidance in stormwater reuse projects. Developers still need to prove that rate and volume control is met at all points where water leaves a site.

EXAMPLES OF STORMWATER REUSE SYSTEMS

Hugo

Most of these examples were provided in the City of Hugo's Capital Improvement Plan for Stormwater Projects. These projects have reduced groundwater demand by approximately 80 million gallons per year.

Water's Edge Water Reuse - The City working with Homeowners Association to pump water from selected stormwater ponds within Waters Edge development for irrigation purposes in place of city water.

Beaver Pond Park – Pumping stormwater from a nearby pond to irrigate the park. The park used to use thousands of gallons on potable water.

Oneka Ridge Golf Course- Stormwater pond created along the 18th tee and now collects runoff from 915 acres of land. The water is pumped and used for golf course irrigation. Excess water beyond what is needed is sent to an infiltration system.

Carver County

Carver County Club West Development – The developer worked with Carver County Watershed Management Organization to harvest and utilize stormwater draining from the new development for irrigation of common areas of the 60-unit development.

ATTACHMENTS:

- 1) City of Hugo Comprehensive Plan
- 2) Reuse Examples
- 3) City of Waconia Chapter 415
- 4) LEC 105.12.1160 Density (PUD)



Guiding Principles

The goals and policies outlined in the WRMP are grouped by their relationship to the key issues listed below:

- Section 5.2 – Volume Management
- Section 5.3 – Water Quality
- Section 5.4 – Runoff Management and Flood Control
- Section 5.5 – Wetlands
- Section 5.6 – Erosion and Sediment Control
- Section 5.7 – Groundwater
- Section 5.8 – Recreation, Habitat and Shoreland Management
- Section 5.9 – Education and Public Involvement
- Section 5.10 – Public Ditch System

A general goal of the City is to cooperate, collaborate, and partner with other entities, such as the Watershed Districts and the MPCA. Cooperation, collaboration, and partnering results in projects that are less likely to conflict with the goals of the affected entities, are better able to meet long-term goals, and are generally more cost-effective.

Strategies

Hugo pursues a reduce, reuse, and replenish philosophy through its stormwater management policies. Hugo's policies are designed to:

- Reduce stormwater runoff to prevent the damage that occurs to lakes, streams, and wetlands from urbanization.
- Reduce reliance on groundwater by encouraging projects that reuse stormwater for irrigation.
- Favor a regional approach to preserve and replenish underground drinking water supplies. This regional approach substitutes surface water for groundwater where possible and seeks to replenish groundwater supplies by active regional management of existing appropriations and by consideration of an aquifer recharge and storage program.

5. GOALS AND POLICIES

5.1. General

The goals and policies in the City of Hugo's Water Resource Management Plan are consistent with the goals of the Rice Creek Watershed District (RCWD), Brown's Creek Watershed District (BCWD), Carnelian-Marine-St. Croix Watershed District (CMSCWD), and Washington County Groundwater Plan, while meeting the more specific and changing needs of the City. The goals of this plan were established in accordance with the guidelines contained in Minnesota Statutes 103B and Minnesota Rules 8410. Furthermore, each goal has several corresponding policies. These goals and policies provide for future development and redevelopment while minimizing surface water problems and enhancing the environment. These goals and policies are subject to conformance with current Watershed District policies and standards as well as Washington County groundwater management policies.

The City currently has permitting authority over RCWD Rules C, D, E, and F for areas of the City within the RCWD boundaries. The City adopts and enforces the most recent [RCWD Rules](#) for which the City has permitting authority as listed previously. The City does not have permitting authority in BCWD or CMSCWD as such, any permit review or approval required within these jurisdictions must be applied to and approved by the respective watershed district. In accordance with Minnesota Statutes section 103B.211, subd. 1(a)(3)(iii), the City of Hugo defers exercise of regulatory authority over the activities subject to the [BCWD's rules](#) and [CMSCWD's rules](#) to each watershed district. Additional goals and policies of the City are contained throughout this section.

A general goal of the City is to cooperate, collaborate, and partner with other entities, such as the watershed districts and the MPCA as much as possible as the City implements this plan. Cooperation, collaboration, and partnering results in projects that are less likely to conflict with the goals of the affected entities, are better able to meet long-term goals, and are generally more cost-effective.

In addition to the goals and policies outlined below, the City will annually review and update its Storm Water Pollution Prevention Plan (SWPPP) to effectively manage its stormwater system and be in conformance with the NPDES MS4 Program. The following are components of the SWPPP:

- Public information and education plan relating to water resources and stormwater
- An inspection and maintenance schedule
- City housekeeping practices (e.g., street sweeping priorities)
- BMPs used by the City to control and/or reduce pollutants
- Methods used to control and manage post-construction stormwater
- Illicit Discharge Detection and Elimination

Hugo implements a reduce, reuse, and replenish philosophy through its stormwater management policies. Hugo's policies reduce stormwater runoff to prevent the damage that occurs to lakes, streams, and wetlands from urbanization. Hugo's policies reduce reliance on groundwater by encouraging projects that reuse stormwater for irrigation. Hugo's policies favor a regional approach to preserve and replenish underground drinking water supplies. This regional approach substitutes surface water for groundwater where possible and seeks to replenish groundwater supplies by active regional management of existing appropriations and by consideration of an aquifer recharge and storage program. The City will work with the appropriate watershed district when developing regional programs and obtain necessary approvals by those districts prior to implementation.

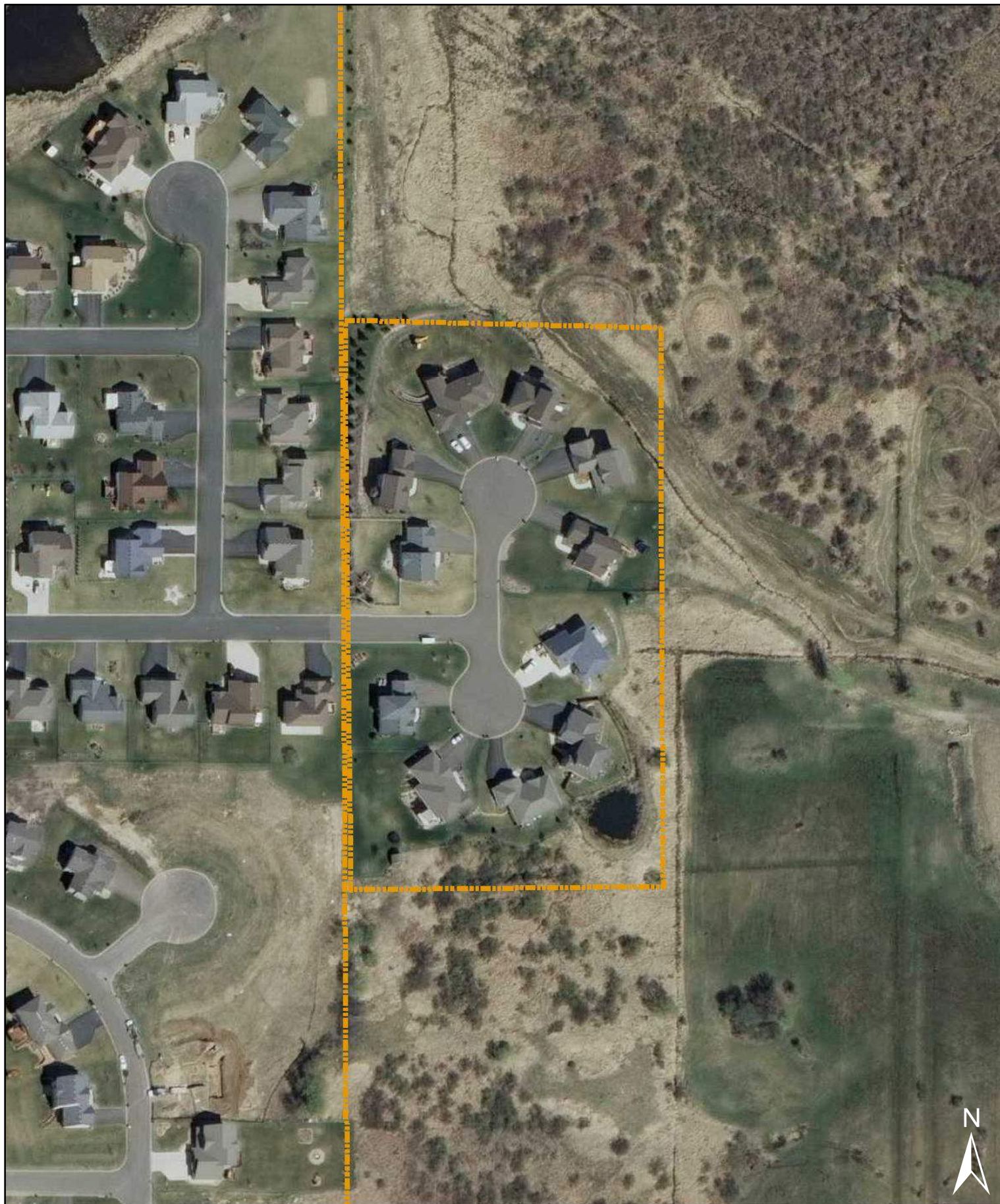
5.2. Volume Management

5.2.1. Goal

Hugo will reduce its annual stormwater discharge of runoff volume by infiltrating and reusing stormwater runoff.

5.2.2. Policies

1. The City of Hugo has adopted a “Reduce, Reuse, Replenish” strategy for the usage of water. This strategy will reduce the impact on aquifer draw down and allow for increased aquifer recharge through strategic direct injection infiltration and stormwater based irrigation practices.
2. The City of Hugo has adopted Atlas 14 rainfall precipitation data and will incorporate this data into future analyses.
3. Any development or redevelopment within the City of Hugo will give first preference to infiltration and stormwater reuse as a means to maintain existing runoff volume in accordance with RCWD Rule C.
4. Reuse projects should function to reduce or eliminate the use of City potable water for irrigation.
5. Development and redevelopment projects shall reestablish turf according to Hugo’s turf establishment design guidance: providing sufficient topsoil and organic matter to sustain turf without excessive irrigation (whether using potable water, reclaimed water).
6. As allowed by RCWD Rule C.5(f), for properties within the RCWD boundary, the City of Hugo will develop Comprehensive Stormwater Management Plans (CSMPs) to manage stormwater at a regional scale within Resource Areas of Concern. These CSMPs must be approved by RCWD’s Board of Managers prior to City implementation. The focus of these CSMPs will help to quantify a system of regional volume reduction projects, mostly stormwater reuse for irrigation, to generate volume reduction credits on select city roadway and redevelopment projects. Hugo will use these credits on land development or linear projects where physical constraints do not allow for cost efficient BMP implementation to address volume reduction. Rate control requirements will still need to be met for any projects within these CSMP areas.
7. The City will work with the BCWD and CMSCWD on permitting and stormwater management as required for possible future development in areas of the City under their jurisdictions.
8. Development that results in the creation of impervious surfaces must explicitly address use of BMPs to first limit the loss of pervious area; and second, to:
 - a. Infiltrate runoff which does occur from impervious areas to the extent feasible considering site-specific conditions, and/or
 - b. Reuse runoff for irrigation and other appropriate uses.



Hugo Stormwater Project #3

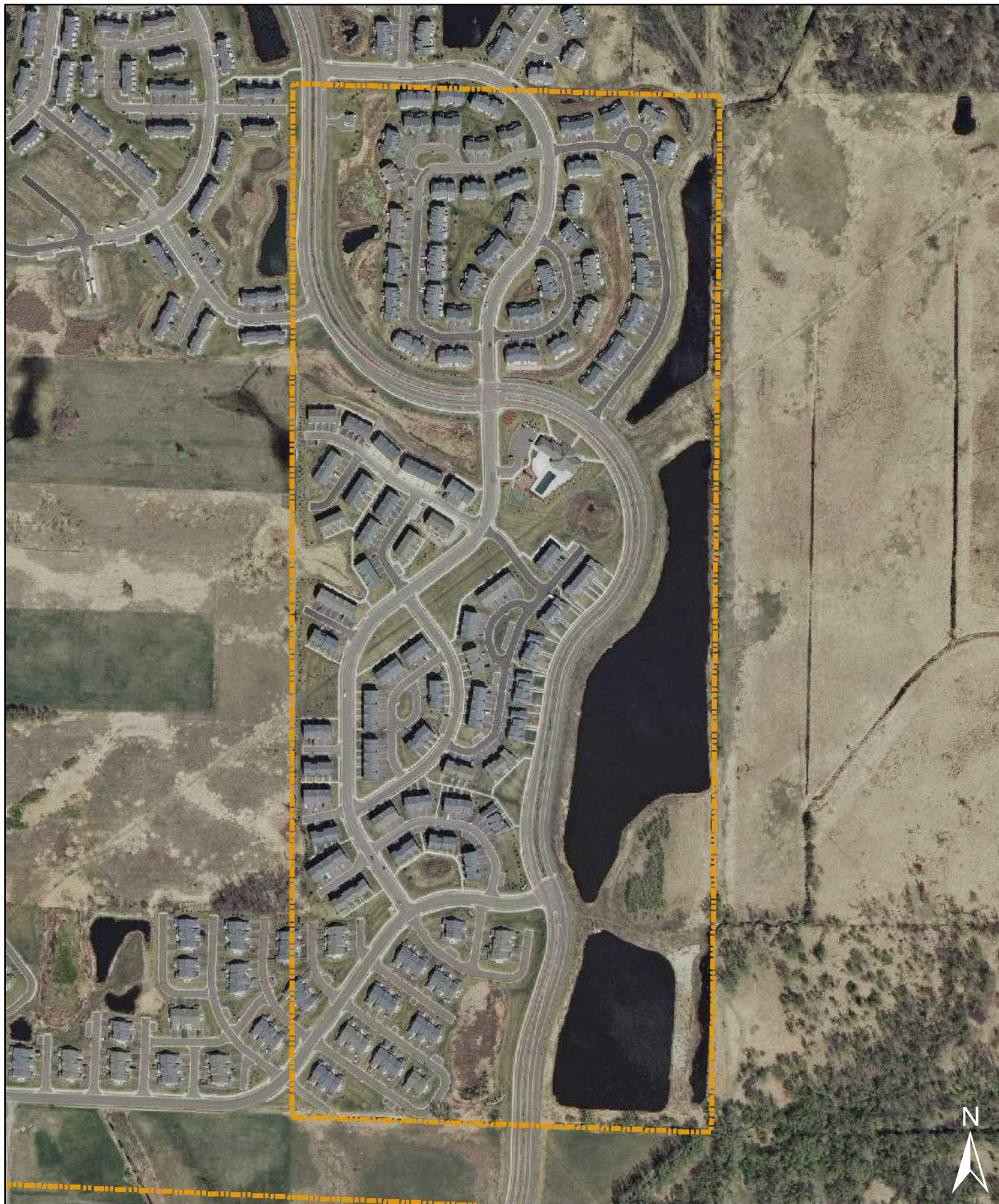
Wilderness View Water Reuse Project

1 inch = 150 feet



Project Number: 4	Project Priority: High
Abbreviated Description of Project/BMP:	Infiltrate/Irrigate Lions Park
Full Description of Project:	This project consists of pumping water from Water's Edge Ponds and using Lions Park for both irrigation and irrigation.
Design Parameters:	<ul style="list-style-type: none"> • Install 1,200 LF of infiltration trench • Install lift station pumps and controls • Install irrigation system over 2 acre area
Project Location:	Section 32, Township 31N, Range 21W (West of TH 61 and immediately north and south of 147th Street)
Estimated Benefits:	<ul style="list-style-type: none"> • Volume reduction up to 112 acre-feet annually • TP reduction up to 112 pounds reduction
Estimated Capital Cost:	\$105,000 – Infiltration System <u>\$37,000 – Irrigation System</u> \$142,000 – Total Project Cost
Estimated Annual Cost:	\$5,500 for operation
Estimated Cost per Pound of Phosphorus Removed:	\$130/per pound
Estimated Cost per Acre-ft. of Volume Removed:	\$130/per acre foot

Project Number: 6	Project Priority: Medium – will require agreement with home owners association
Abbreviated Description of Project/BMP:	Water's Edge Water Reuse/Irrigation
Full Description of Project:	This project consists of pumping water from selected stormwater ponds within the Water's Edge development and using this stormwater for irrigation purposes in place of city water that is currently used for this purpose.
Design Parameters:	Water Reuse/Irrigation
Project Location:	Section 19, Township 31N, Range 21W (south of Frenchman Road and west of Everton Avenue)
Estimated Benefits:	To be determined when listed as high priority.
Estimated Capital Cost:	To be determined when listed as high priority.
Estimated Annual Cost:	To be determined when listed as high priority.
Estimated Cost per Pound of Phosphorus Removed:	To be determined when listed as high priority.
Estimated Cost per Acre-ft. of Volume Removed:	To be determined when listed as high priority.



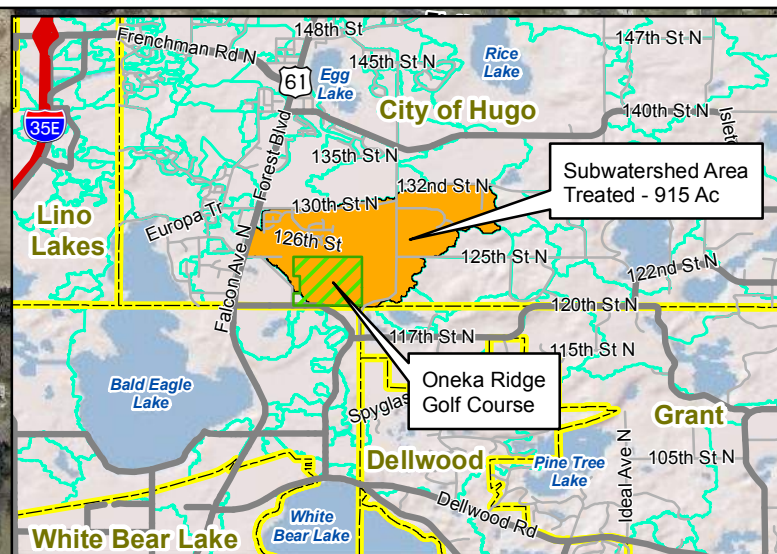
Hugo Stormwater Project #6

Water's Edge Water Re-use/Irrigation

1 inch = 400 feet



Project Number: 1	Project Priority: High
Abbreviated Description of Project/BMP:	Irrigate/Infiltrate stormwater runoff in selected areas of the Oneka Ridge Golf Course
Full Description of Project:	Re-use stormwater runoff generated from 900 acre watershed to irrigate golf course.
Design Parameters:	<ul style="list-style-type: none"> • Irrigate up to 90 acres of property within in the Oneka Ridge Golf Course • Install 1 to 5,000 LF of infiltration trench • Install forcemain to divert stormwater runoff from areas outside the golf course to the site to use for irrigation or to be infiltrated
Project Location:	S1/2 of Section 32 Township 31N Range 21W
Estimated Benefits:	<ul style="list-style-type: none"> • Volume reduction up to 1,000 acre-feet annually • TP reduction up to 1,000 pounds reduction
Estimated Capital Cost:	\$600,000
Estimated Annual Cost:	\$5,000
Estimated Cost per Pound of Phosphorus Removed:	\$100/per pound
Estimated Cost per Acre-ft. of Volume Removed:	\$100/per acre-feet



Legend	
---	Infiltration Trench/Pump System
---	Existing Ditch (Private)
■	Stormwater Collection Pond (For Re-Use)
---	Stop Log Flow Impoundment/Diversion Weir
■	Enhanced Evaporation/Infiltration Pond
■	Area Irrigated by Stormwater Lift Station - 116.2 Ac
---	Oneka Ridge Golf Course Property Boundary

Hugo Stormwater Project #1

Oneka Ridge Golf Course - Stormwater Re-use System - Concept Plan



CHAPTER 415

STORM WATER REUSE

415.01 Findings and Purposes.

The City of Waconia has an extensive storm water drainage system that includes storm pipe, holding ponds, drainage ways, infiltration basins and creeks to serve the needs of the community. The City Council finds that water conservation is a sustainable strategy that allows for population and economic growth while meeting the increased demands for water. Storm water reuse supports conservation and sustainability by reducing impacts on potable water used for irrigation and by supporting efforts for meeting increasingly stringent storm water requirements. As competition for water increases and supply becomes more uncertain, implementing conservation measures will help ensure the City's economic viability in the decades to come while preserving its environment.

Based upon the above findings, the City desires to install and operate storm water reuse systems where it is feasible to do so. Nearby property owners will be allowed to voluntarily connect to these systems to both drain storm water to designated ponds and to reuse collected storm water for irrigation.

To help defray the cost of establishing, constructing, repairing, replacing, maintaining, and improving storm water reuse systems within the City, the City Council finds it is appropriate to establish connection and consumption charges. The City Council further finds it is appropriate to levy such charges against the property owners using such systems.

415.02 Authority.

Connection and reoccurring charges shall be levied and assessed against benefiting properties pursuant to Minn. Stat. Sec. 444.075, Subd. 3, and pursuant to agreements with property owners voluntarily using storm water reuse systems. Further, the City Council finds that, although Minn. Stat. Sec. 444.075, Subd. 3b prohibits setting storm water charges based upon the volume of water used, this prohibition should be interpreted to only prohibit charging storm water rates based upon the volume of potable water supplied to a property through the City's waterworks system. As such, this prohibition does not prohibit charging property owners for recycled water based on volume of recycled water used.

415.03 Definitions.

The following terms, as used in this Chapter, shall have the meanings stated in this section:

"Chapter 415" means this Chapter 415 of the Waconia City Code, as amended.

"Delivery point" means the primary irrigation box for an owner's irrigation system.

"Drainage and reuse agreement" means a written agreement between the City and

an owner that controls, subject to this Chapter 415, the owner's use of the system and grants appropriate easements to facilitate such use.

"Irrigation season" means, regarding each calendar year, the period starting on the day the City first provides reuse water to the delivery point for use on an owner's parcel and ending on the day that the City terminates the delivery of reuse water to the delivery point. Subject to weather conditions, each irrigation season will generally start in early April and end in late October.

"Owner" means the owner of fee simple title to a parcel, whether by sale, assignment, inheritance, operation of law, trustee's sale, foreclosure, or otherwise, but not including the holder of any lien or encumbrance on such parcel unless such holder becomes a fee simple owner thereof.

"Owner's irrigation improvements" means the facilities and apparatus installed, maintained and operated on an owner's parcel to disperse reuse water on such parcel for landscape irrigation uses.

"Parcel" means a parcel of real property.

"Public Services Director" means the person acting as the public services director for the City, however titled, or such person's designee.

"Public Services Department" means the department of the City overseeing waterworks and storm water facilities, however designated.

"Reuse water" means moderately treated storm water. If at any time the City does not have enough moderately treated storm water to meet the City's obligations, then the City may substitute other water of at least equal quality (e.g., potable water) in lieu of moderately treated storm water and all references to reuse water shall be deemed to include the substituted water.

"System" means the pressurized pumps, pumping systems, distribution systems, and water treatment units maintained and operated by the City for the purpose of delivering reuse water from a storm water retention pond to parcels of real property connected to the system for landscape irrigation uses, as the same may be modified, reconstructed, replaced or improved from time to time.

415.04 Systems.

Subd. 1 Establishment of Systems. The City may, from time to time, establish systems and determine the parcels eligible to connect to such systems. The City may add a system by amending this ordinance to list the system and the parcels eligible to connect to such system in Subd. 6 below.

Subd. 2 Public Utility. Each system shall be owned, operated and maintained by the City and operated as a public utility pursuant to Minnesota Statutes Section 444.075 et. seq. and this Chapter 415. Each system shall be under the administrative oversight of the Public Services Director. All revenues shall be derived subject to the provisions of Minnesota Statutes, this Chapter 415 and the agreements between the City and each

owner. All systems will be designed and monitored to meet filtration development requirements as established by agreement between the City and the Carver County Water Management Organization.

Subd. 3 Availability of Systems. Each system shall be generally available during each irrigation season. The City reserves the right to determine when a system is available and when weather dictates the system should be connected and disconnected for the irrigation season. The City shall provide written notice to all owners prior to system start-up and shut-down each year. The City Council may, by resolution, regulate, restrict, or limit the use of reuse water during water shortage periods and shall have the power to enact any necessary regulations, as circumstances may require, to protect the City's water supply.

Subd. 4 Minimum and Maximum Reuse Water Volumes. Each owner connecting a parcel to a system shall be informed, as part of the application process described in Section 416.06 below, of the minimum and maximum reuse water volume amounts applicable to the parcel. During each day of the irrigation season, the parcel will be required to consume not less than the minimum volume, subject to abatement as described in the drainage and reuse agreement for the parcel. Such volume amounts shall be calculated based upon the size of the parcel by the Public Services Director and memorialized in the drainage and reuse agreement for the parcel.

Subd. 5 Owner's Irrigation Improvements. The City will deliver reuse water to a single delivery point on each parcel connected to the system. Owner's irrigation improvements shall be installed at owner's expense and shall have the capacity to meter and disburse not less than the maximum volume of reuse water assigned to the owner's parcel. Each meter shall be approved by the Public Services Director before it is installed. Frost protection of Owner's irrigation improvements must be coordinated with the Public Services Director annually each season prior to winter.

Subd. 6 List of Approved Systems.

- A. 10th Street Regional Pond System. The 10th Street Regional Pond System has a pond located on real property legally described as Outlot B, Sudheimer Homestead Addition, Carver County, Minnesota. In addition, there is an associated pump house located on real property legally described as Outlot B, Sudheimer Retail Addition, Carver County, Minnesota. Owners of the following parcels may voluntarily connect to this system:

PARCEL ID NUMBER	WACONIA ADDRESS
750235200	10594 10 th Street West
750235100	10590 10 th Street West
753080010	10610 10 th Street West
753080020	10600 10 th Street West
754630030	(Sudheimer Homestead Addn.)
754630010	10451 10 th Street West
752560040	10550 10 th Street West

The parcels listed above and their owners shall not acquire any rights regarding the 10th Street Regional Pond System until a drainage and reuse agreement is fully executed by the City and the parcel owner. As such, the City may amend this ordinance to remove any parcel from the list of eligible parcels if such an agreement does not exist. Further, the City may amend this ordinance to add any parcel to the eligible list of parcels notwithstanding the existence of drainage and reuse agreements with other parcel owners. If a parcel listed above is subdivided, the provisions of any drainage and reuse agreement for the parcel shall control.

Subd. 7 **Conditions and Prohibitions Regarding Use of Systems.**

- A. No owner or other person shall waste or allow any reuse water to be wasted by improperly maintained facilities (i.e., valves, leaky joints or pipes). Additionally, reuse water shall not be wasted by allowing reuse water to run continuously from faucets, broken pipes or sprinkler heads or other apparatus, or to use the reuse water in such a manner as to cause it to overflow into the neighboring properties, streets, or sidewalks.
- B. No owner or other person shall, after a parcel has been shut off for non-payment of charges or for violation of City Code, turn on or allow reuse water to be turned on or used without authorization from the Public Services Director.
- C. No owner or other person shall destroy, deface, injure, or interfere with the operation of any part of the system.
- D. No owner or other person shall place or introduce into the system (or any source of reuse water utilized as part of the system) any matter, substance, chemical, or compound without express authorization from the Public Services Director.

- E. No owner or other person shall connect any part of the system to any part of any drinking water (potable) system, creating a cross-connection whereby reuse water could be introduced into any system that provides potable drinking water.
- F. No owner or other person shall use reuse water from the system for flood irrigating any parcel unless the Public Services Director has granted prior authorization in writing. Except for incidental watering of shrubs, flowers, and other limited use applications, reuse water from the system used for landscape irrigation must be applied through either a sprinkler or drip irrigation system, including sprinklers attached to garden hoses.
- G. No owner or other person shall permit any person to use or obtain reuse water intended for one parcel for another parcel.
- H. No owner or other person shall terminate a connection to a system without the Public Services Director's consent.
- I. No owner or other person, except under the direction of the Public Services Director, shall be allowed to dig into the street, sidewalk, or other public property or right-of-way for the purpose of laying, removing, or repairing the system service pipe.
- J. No owner or other person shall use reuse water to drive any motor, siphon, turbine, wheel, hydraulic engine, elevator, or other machinery of any kind.
- K. Properties located outside the City limits are not allowed to connect to any system.

415.05 Charges.

Charges for connecting to a system and charges for reuse water consumed shall be determined by resolution of the City Council upon advice of the Public Services Director and other City staff and shall be set forth in Chapter 1100 of the Code. Connection charges shall be payable in full with building permits, unless agreed otherwise by the owner and the City. Charges for reuse water consumed shall be collected in conjunction with other City utility charges. All fees shall be just and equitable and in accordance with Minnesota Statutes Section 444.075, et seq.

415.06 Process.

Subd. 1 Eligibility. If a parcel is listed in Section 415.04, Subd. 6, above, the owner of such parcel may apply to connect the parcel to the applicable system.

Subd. 2 Application and Inspection. Each application must be made at City Hall. After the City confirms that the parcel has access to the applicable system, the applicant must schedule an inspection with the Public Services Department. Upon determination that the subject parcel has owner's irrigation improvements installed and that such improvements are compatible with the system, the applicant must pay the connection charge pursuant to Section 415.05 above.

Subd. 3 Connection. Upon completion of the requirements herein to the City's satisfaction, the Public Services Department shall issue a permit and connect the applicant's parcel to the system. The Public Services Department shall not issue a permit until the required compliance documents and any required fees have been paid as established under Chapter 1100 of the Code.

Subd. 4 Multiple Connections. Eligible owners who desire to connect additional, secondary irrigation improvements to a system shall do the following:

- A. Complete the installation permit form and pay applicable fees;
- B. Schedule an initial inspection with the Public Services Department;
- C. Upon approval from the Public Services Director, enter into an amendment to the applicable drainage and reuse agreement for the parcel documenting the addition of the additional irrigation improvements;
- D. Disconnect the applicable irrigation improvements from the potable line and connect them to the system;
- E. Fill in the old stop and waste access pipe with concrete and ensure the new opening is within the immediate area so that the connection is visible for final inspection; and
- F. Schedule final inspection with the Public Services Department and receive final approval once all requirements have been met.

415.07 Penalties.

Any party who damages or misuses a system, impedes the function of a system or otherwise fails to comply with this Chapter 415 shall be guilty of a petty misdemeanor.

415.08 Appeal.

Any person or entity reporting to be unfairly dealt with, suffering any hardship, or otherwise aggrieved by the provisions of this Chapter 415 shall be entitled to appeal to the City Council, which shall have the power to resolve any hardships or grievances under any of the provisions hereof.

105.12.1160 Density

The PUD may provide for an increase in density of residential development by up to 20 percent of that allowed in the base zoning district. Applicants seeking increased residential density through a Planned Unit Development are required to provide at least one (1) or a combination of site amenities that equal the required amount of amenity points to achieve the desired density bonus.

- (a) *Amenity points and equivalent density increases.* Increases in density will be awarded through a 1:1 ratio with amenity points. For every increase in amenity points for a planned unit development, the applicant will be allowed an equivalent amount of density increase, up to a maximum increase of 20 percent. Table 16-1 outlines the required amount of amenity points to achieve various density increases.

Table 16-1: Amenity Points and Equivalent Density Increases

<i>Amenity Points</i>	<i>Density Increase</i>
5	5 percent
10	10 percent
15	15 percent
20	20 percent

- (b) *Site amenities.* Site amenities that are eligible for amenity points are listed in Table 16-2, including the associated standards of implementation. Some of the amenities may be awarded a range of amenity point based upon the quality and magnitude of the amenity. The City is not requiring the installation or use of any of these amenities.
- (c) *Site amenities not listed.* The City may also consider the allotment of amenity points for site amenities that are not otherwise specified within this article as part of the preliminary plan phase of the planned unit development.

Table 16-2: Site Amenities

<i>Point s</i>	<i>Amenity</i>	<i>Standards</i>
5--10	Underground or structure parking	Proposed underground or structured parking must be integrated into the primary structure. The purpose of this amenity is to better integrate parking into the site, reduce the amount of surface parking stalls, and reduce the amount of impervious surface. Proposed underground or structured parking must reduce the amount of surface parking stalls located outside of the footprint of the principal structure by a minimum of 25 percent. Amenity points will be awarded based upon the amount of surface parking stalls reduced (between 25--50 percent). For every additional five percent of surface parking stalls reduced above 25 percent, the applicant will be awarded one additional amenity point, up to a maximum of ten amenity

		points. The facade of any underground or structure parking areas must match the architectural design of the principal structure.
10	Historic preservation	Preservation, rehabilitation or restoration of designated historic landmarks in a manner that is consistent with the standards for rehabilitation of the Secretary of the Interior as part of the development.
10	Additional open space	A minimum of 50 percent of the site not occupied by buildings shall be landscaped outdoor open space. A minimum of 50 percent of the provided open space shall be contiguous. Open space classifications that qualify may include natural habitat, neighborhood recreation, trail corridors or open space buffers.
10	Public right-of-way dedication	Dedication of land and construction of a public road, trail, pathway, or greenway that is part of an approved city plan, but outside the scope of the immediate project area. Right-of-way improvements should be designed per the specification of the city engineer.
5	Fire sprinkler systems	The installation of fire sprinkler systems, per NFPA 13, 13D or 13R, in structures that are not currently required to install these systems under state code. Amenity points will only be awarded in situations where there are a significant proportion of structures in the development that are not required to be sprinkled under the state building code. In addition, the density bonus calculation shall only be applied to the number of structures that do not require fire sprinkler systems.
5	Leadership in energy and environmental design	The proposed development shall meet the minimum standards for LEED Silver certification. The project does not have to achieve actual LEED certification; however, the developer must submit the LEED checklist and documentation to the City, approved by a LEED Accredited Professional (LEED-AP), which shows that the project will comply with LEED Silver requirements.
5	Adaptive reuse	Significant renovation, rehabilitation and adaptive reuse of an existing buildings, rather than demolition.
5	Plaza	The development shall include some form of plaza or public square that is wholly or partly enclosed by a building or buildings. Plazas are landscaped or paved open areas that shall have a minimum area not less than 1,000 square feet. Plazas for commercial or mixed-use development shall be open to the public during daylight hours.
1-5	Enhanced landscaping	A landscaping plan of exceptional design that has a variety of native tree, shrub and plan types that provide seasonal interest and that exceeds the requirements of the Lake Elmo Design Standards Manual. The landscaped areas should have a resource efficient irrigation system. The landscaping plan shall be prepared by a licensed landscape architect. Amenity points shall be awarded based upon the quality and magnitude of the landscaping plan.
3	Enhanced stormwater management	Provide capacity for infiltrating stormwater generated on-site with artful rain garden design that serves as a visible amenity. Rain garden designs shall be visually compatible with the form and function of the space and shall include long-term maintenance of the design. The design shall conform to the requirements per the Minnesota Stormwater Manual and shall meet the approval of the city engineer.
1-3	Theming	Significant utilization of various elements of theming consistent with the 2013

		Lake Elmo Theming Project, including, but are not limited to, signage, fencing, landscaping, lighting and site furnishings. Amenity points will be awarded based upon the quality and magnitude of theming elements integrated into the project.
3	Natural features	Site planning that preserves significant natural features or restores ecological functions of a previously damaged natural environment above and beyond that required by city ordinance or engineering standards.

HISTORY

Adopted by Ord. [08-253](#) on 11/3/2021