HUGO

LOCAL PLANNING HANDBOOK

USING STORMWATER TO REDUCE, REUSE AND REPLENISH WATER

The City of Hugo has been at the forefront of stormwater reuse in the region. Located in the Northeast Metro, Hugo is a diverse landscape made up of many wetlands and other natural resources. Good water stewardship practices have been important to the City in protecting this landscape as it develops into a sustainable community. In recent years, Hugo has implemented a number of stormwater reuse projects, which has provided the City opportunities to meet its stormwater reuse potential. Through new best practices in water conservation and reuse, and strong support within City Leadership, the City and its community strives to meet its "triple-R" goal: to reduce groundwater pumping, reuse stormwater, and consequently replenish the aquifer.

WHAT MAY HELP OTHER COMMUNITIES?

Having Strong Support and Prioritizing Water

Hugo's success in stormwater management would not be possible without the strong support of its City Council and dedicated City staff. These leaders in the community have made water conservation a top priority while planning and developing new projects throughout the City. Hugo's integrated approach to water management and conservation is imbedded in everything the City does. From its comprehensive plan, to negotiations within new developments, water plays a key role in every project.

It all began when the City partnered with the Rice Creek Watershed District and adopted a Stormwater Capital Improvement Plan (CIP). This holistic approach identified upwards of 20 potential projects that could most effectively reduce the City's ground water dependence. By using stormwater instead of drinkable groundwater, Hugo identified it could replenish its aquifer, reduce the City's contribution of pollutants to compromised larger water bodies downstream, and control flooding. The benefits of stormwater reuse span across economic, environmental and public realms. The City has cut back on water demand and costs, improved its water quality, and reduced its potential for downstream flooding. As a result, water conservation and reuse have helped the City function more independently within its regional water system and has delayed the need for additional wells and other costly capital expenses.

Strong Start

In addition to the CIP, the City assessed its water usage and directed efforts towards reducing the amount of water used for irrigation. Approximately half of the water the City uses is for irrigation, and of that, about 25% goes to irrigation accounts. These are typically

COMMUNITY HIGHLIGHT

COUNTY: Washington
POPULATION: 14,605

Hugo:

- was originally Dakota land.
- presents lots of opportunities for outdoor recreation activities, such as cross country skiing, golfing, snowmobiling, etc.
- has two special passive parks that provide a great opportunity to connect with nature.
- is a regional leader in stormwater reuse in the Twin Cities area.

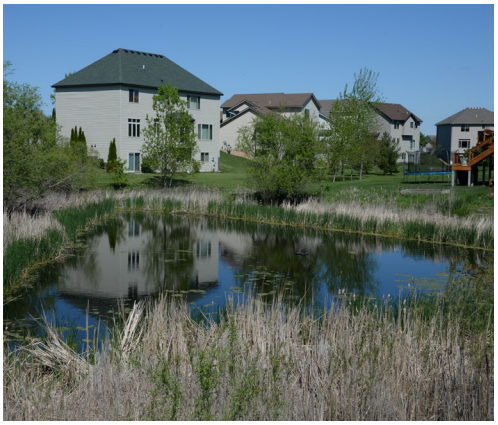
CONTACT THE CITY:

Bryan Bear
City of Hugo
Administrator
651-762-6320
bbear@ci.hugo.mn.us

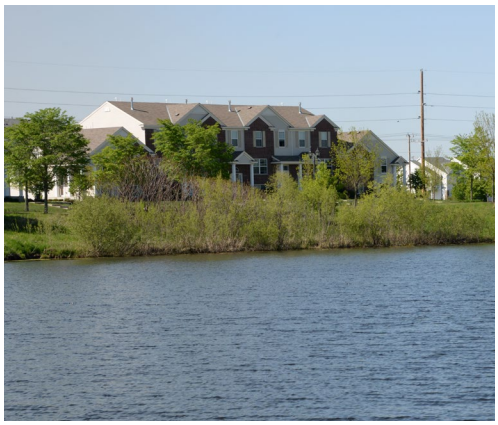
OTHER RESOURCES:

- Rice Creek Watershed District
- Collaboration with developers in new projects
- City Council support

Stormwater from the Oneka Ridge Golf Course drains through 1,000 acres into a system of ditches leading to a retention pond.



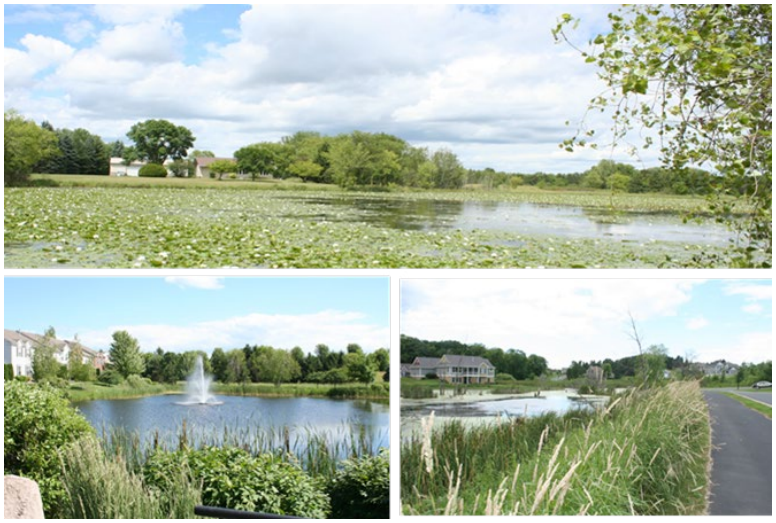
A new system was installed in the Beaver Ponds Park to pump stormwater out of nearby ponds to irrigate the park.



The City is working with the Waters Edge Homeowners Association to connect the irrigation systems to a new one pumping stormwater from a nearby pond.

large spaces, such as parks, golf courses, ball fields, and homeowner associations that use a lot of water. By integrating stormwater retention and infiltration ponds into residential developments and public spaces, the City has dramatically reduced its water consumption.

The City's first large stormwater reuse project began in 2015 with the Oneka Ridge Golf Course. The large golf course has a 1000-acre drainage area and high irrigation needs. The site had been using upwards of 32 million gallons drinking water each year from the Jordan Aquifer. Another issue the City identified was the phosphorous-rich run-off traveling downstream into Bald Eagle Lake. The lake is an important natural resource for the Hugo community and was on Minnesota's 303(d) List of Impaired Waters due to excessive phosphorous levels. The project sought to remedy these issues by retrofitting the Golf Course's groundwater-based irrigation system to one that uses stormwater from on-site infiltration trenches and ponds. As a result, stormwater is stored, treated and reused on-site, saving 32 million gallons of groundwater each year and reducing the amount of polluted run-off affecting Bald Eagle Lake. This stormwater success story has dramatically cut back the Golf Course's irrigation costs, while replenishing the aquifer and combating harmful phosphorous loading.



Hugo has been at the forefront of stormwater reuse projects in recent years. City Council has been very supportive in driving the community in a direction that aims to reduce, reuse and replenish their water supply and usage.

Building off Success

Following the Oneka Ridge project, three additional irrigation-account stormwater reuse projects identified in the City's CIP have been adopted. These projects include the Water's Edge Townhome Association, Beaver Ponds Park, and the CSAH 8 median irrigation plan. Without reuse, these three projects combined were estimated to use approximately 50-60 million gallons of drinking water per year for landscape watering. The three reuse projects provide a variety of reuse opportunities. Parks and open spaces are good locations for storm water reuse projects, thus, Beaver Ponds was an ideal candidate for a stormwater irrigation system. This was Hugo's second project, and was completed in the fall of 2016. Water from the site is collected in a stormwater pond and then pumped back through the irrigation system. This saves hundreds of thousands of gallons of potable water each year.

The Water's Edge Homeowners Association is another reuse project that will see completion in early fall of 2017. The project will hybridize the development's current irrigation system with a new system that will use water pumped from a nearby stormwater pond. Without this project, the Water's Edge Home Owners Association landscape watering costs stacked up to $120,000 annually. The transition to stormwater provides a significant cost savings in addition to its environmental benefits and positive affect on the City's water supply. A similar project is planned for irrigating CSAH 8's landscaped median. The goal is to transition from ground water to stormwater irrigation to conserve drinkable water and reduce water supply demands. In addition to retrofit projects, the City of Hugo is working to maintain good stormwater stewardship as it continues to develop and grow. New residential developments Clearwater Cove and Adelaide Landing are underway and will bring 408 new single family units and two new parks to the City. Clearwater Cove (89 units) is completely platted and nearing completion. Grading for Adelaide Landing (319 units) has begun and initial phases of construction will start this year. Both developments were asked by the City construct stormwater ponds and strictly irrigate with stormwater. As a result, every park and residential lawn in these developments will be 100% groundwater free.

Working with Partnering Agencies

Hugo has been a regional leader in stormwater reuse. By collaborating with agency partners and sharing its findings via tours and presentations across the State, the City is working to reduce the barriers in existing regulation, which make it hard to encourage and implement stormwater reuse. The City remains hopeful and appreciative of changes that have aided the success of stormwater reuse projects. These changes take many forms, such as standards and incentives. An example of this is the watershed's new infiltration credit system, which rewards Cities with infiltration credits for their water reuse projects, and has further encouraged water reuse throughout the state.

Metropolitan Council
390 Robert Street North
Saint Paul, MN 55101

metrocouncil.org

Main: 651.602.1000
TTY: 651.291.0904
Public Information: 651.602.1500
public.info@metc.state.mn.us

METROPOLITAN COUNCIL