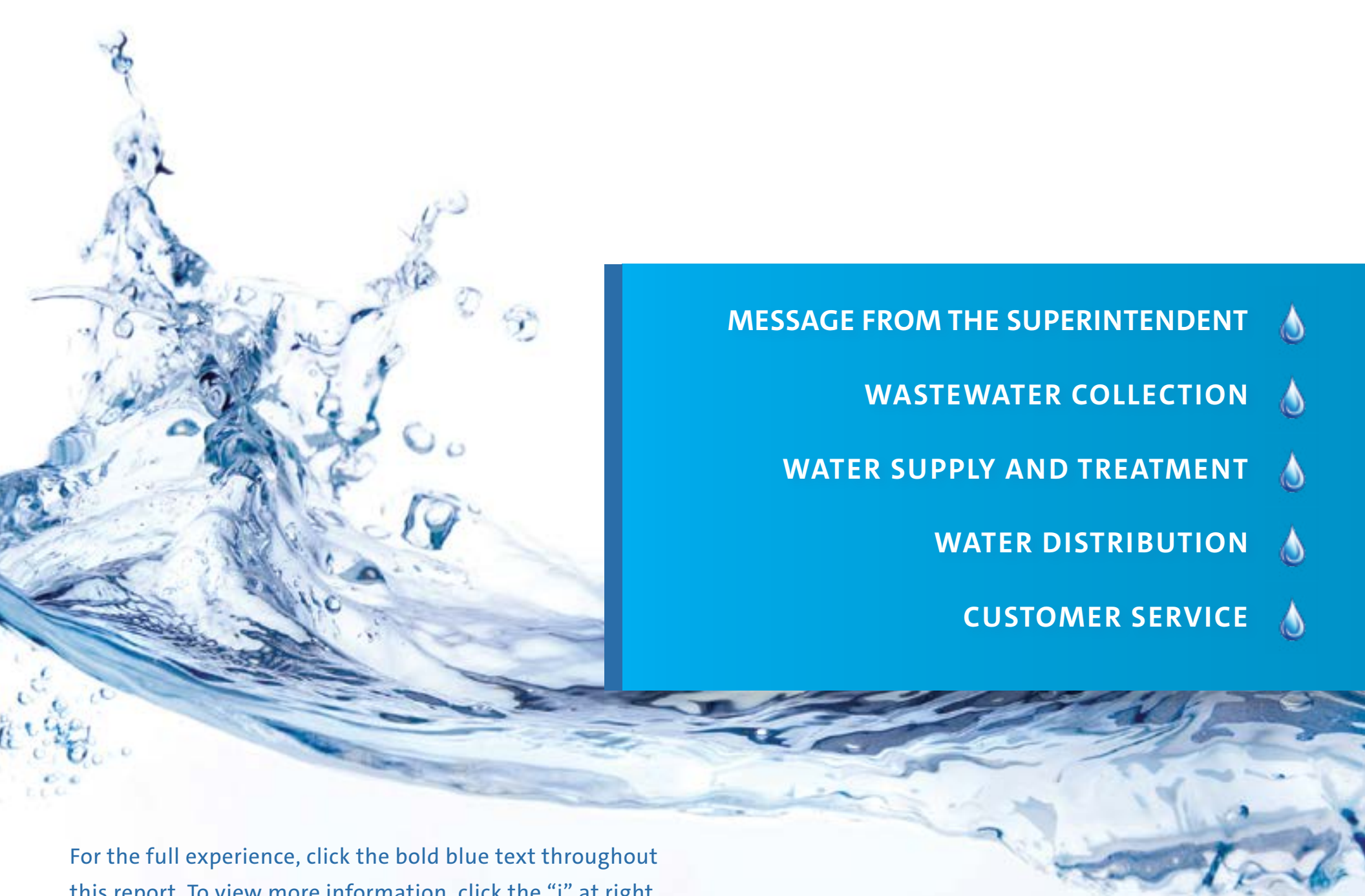




BLOOMINGTON.
tomorrow. together.

utilities annual report

for Bloomington, Minnesota 2022 year end



MESSAGE FROM THE SUPERINTENDENT



WASTEWATER COLLECTION



WATER SUPPLY AND TREATMENT



WATER DISTRIBUTION



CUSTOMER SERVICE



For the full experience, click the bold blue text throughout this report. To view more information, click the “i” at right for details.



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2022 saw the Utilities Division move a little closer to business as usual after the challenges associated with COVID and the drought of 2021. As it turned out, despite a wet spring, 2022 continued to contribute to drought conditions across the state and in Bloomington adding challenges to the water production operations. Despite challenges associated with sustained high demand and increasing costs for supplies, materials, and services, Bloomington water and wastewater services are still one of the best values around.

As demonstrated in this report, costs for softened water and wastewater services remain low when compared to similar metro utilities. Rate comparisons for softened water and wastewater collection services are provided in this report. Despite these favorable rates, the Utilities Division is continually working to ensure services are affordable and equitable for all residents, businesses, and visitors.

Bloomington Utilities staff work hard to ensure residents, businesses, and visitors have access to an uninterrupted supply of high-quality drinking water meeting or exceeding all State and Federal drinking water requirements as well as providing wastewater services including continual collection and conveyance of domestic wastewater.

Going forward in 2023, Utilities will continue to provide these services in a manner that supports and advances the City's strategic objectives and core values. We are committed to being an organization that is efficient, collaborative, equitable and accountable for employees and for the community.

The Utilities Division employed more than
50 people, with a budget of more than **\$31 million.**

ALSO IN 2022

- The Utilities Division employed more than 50 people. Professionalism is a highly touted value within the Division. All operations staff are encouraged to continue to ascend their [STATE LICENSES](#).
- Utilities continued its [TOTAL ASSET MANAGEMENT](#) plan with the goal of institutionalizing the program to make the right investments at the right time to maximize asset performance in a sustainable manner.

The Administrative Section of Utilities is committed to providing a comprehensive water and wastewater utility services package at a rate that is less than the average cost of other cities providing a similar level of service. Each year, the Utilities Division is benchmarked in our

[ANNUAL RATE SURVEY](#) [WATER RATES](#) [WASTEWATER RATES](#)

against similar utilities. Rates are ultimately driven by the

[WATER AND WASTEWATER FUNDS' EXPENSES](#).

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ANOTHER MET COUNCIL WASTEWATER I/I GRANT

Since 2010, Bloomington has received over \$620,000 in reimbursement funds for participating in several Met Council wastewater I/I reduction grant programs. I/I stands for Inflow and Infiltration of rainfall and ground water into the wastewater collection system via cracked pipes, unsealed manholes or illegal pipe connections. This I/I uses up the capacity of the Met Council's wastewater treatment plants, requiring costly plant expansions. Since 1993, Bloomington's annual wastewater flows have dropped by about 33%, or over 1.3 billion gallons per year. This drop in flow saves the City over \$3.5 million a year in reduced treatment costs paid to the Met Council. The flow reduction can be attributed to more efficient plumbing fixtures, customer conservation, and the City's concerted maintenance and rehabilitation work efforts to reduce I/I getting into the wastewater collection system. In 2021, the Met Council approved Bloomington's participation in another I/I program and has allocated reimbursement of around \$80,000 for City MH rehabilitation work completed in 2021 and 2022. It's estimated that the completed work may reduce annual sewer flows by as much as another 30 million gallons per year, for an additional annual treatment cost savings of about \$85,000. The ongoing work efforts have resulted in a decrease of peak wastewater flow rates during heavy rain events, which is a strong indicator that I/I entering the sewers is being reduced. City staff will continue to implement needed upgrades as the system ages to keep flows and costs at appropriate levels



Example of an Unsealed MH During a Rain Event

Almost **8 million** gallons of wastewater flow out of the City each day. The City's **26** pumping stations are used to move more than **2 million** gallons of that flow.

Wastewater Collection strives to provide the continuous conveyance of wastewater into the regional treatment system. One benchmark used to evaluate Utilities' performance is the number of **POSITIVE SEWER STOPPAGES** in 2022 – Our goal continues to be zero stoppages. The Division used routine operational and maintenance activities, such as **SEWER JETTING AND RODDING**, and **CLOSED CIRCUIT TELEVISIONING** to keep the sewage flowing in 2022.

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WHO REGULATES MY WATER QUALITY?

Though each of us understands that the community we live in sends us water to our faucets on a daily basis, some may not know the extent to which water flowing from our taps gets scrutinized for quality.

The Environmental Protection Agency (EPA) is the governing body that sets legal limits on more than 90 contaminants in drinking water. The EPA created the Safe Drinking Water Act that gives stringent guidelines to assist with managing and enforcing. The Minnesota Department of Health's (MDH) drinking water protection section takes it one step further and ensures that public water systems meet all federal parameters. The MDH monitors drinking water quality by collecting weekly, monthly, quarterly and yearly samples, performing on-site inspections and evaluating drinking water contaminants of emerging concern. These regulations require public notification in circumstances such as violations of maximum contaminant levels and provide an annual water quality report to customers, so everyone drinking the water can remain informed. The MDH also conducts in-depth water supply inspections, called sanitary surveys. These investigations are done periodically to review treatment processes, distribution systems and treatment monitoring and management. Water supply systems are also required to demonstrate constant reliability and have plans in place for effective ongoing emergency situations. These rules and regulations also protect drinking water sources like wells, lakes and rivers from pollution by isolating wells, protecting the area around the rivers and preventing run-off contamination from lakes.

In Minnesota, the community water supplies must be under the oversight of certified drinking water operators, which includes education, experience and examinations. Licensed operators are also required to meet continuing education credits to renew their certificates.

So, though we each understand the basics of water to faucets, it is so much more than what meets the eye. Water quality is a critical part of water treatment and delivering safe drinking water to everyone in the community.



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Between October 3-22, 2022, **20,996** tons of Agricultural Liming Material were transported and spread over **2,494** acres of farm fields.

Water Supply and Treatment strives to provide a sustainable supply of water that meets or exceeds all federal and state standards. A benchmark of this endeavor is the results reported in the federally mandated **WATER QUALITY REPORT**. In 2022, water usage fell short of the **PROJECTED DEMAND**.



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“ALL PIPES” WATER MODEL UPDATE: GETTING SMARTER ABOUT OUR SYSTEM

Utilities will soon receive our updated water distribution system model, which expands on the previous “skeletonized” model to include all City-owned pipes. This model is invaluable for understanding how our system performs under various conditions and informs everything from system operation to needed capital improvements. The information provided in this model update will help inform Utilities to make smart decisions and become more proactive in our system ownership.

The water distribution system’s **4,600** hydrants and **6,900** valves require constant vigilance.

Water Distribution strives to provide an uninterrupted flow of high quality potable water for both domestic and firefighting purposes. The largest potential disruption to service occurs as a result of main breaks.

There were 34 **MAIN BREAKS REPAIRED** in 2022.

The **10-YEAR AVERAGE** for main breaks is 25 per year.



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HAPPENINGS IN THE DISTRIBUTION SYSTEM IN 2022

All-in-all, 2022 was a productive year for the Utilities water distribution side. This year, we are fully staffed in the outside Utilities crew. It's been a few years since this has happened. This was a record year for main breaks. We had 34, with an average year being around 24. The uptick in breaks might be due to the Northwest tower being unavailable last summer for rehabilitation. The tower acts like a big pressure relief valve when it is in service. During the rehab process, the Water Treatment Plant had to run pumps to keep normal operating pressure. We did have some main breaks during that time. Normal time to see main breaks is in the fall through spring, not really in the middle of summer. The Northwest tower had a complete blast down to bare metal and was recoated with three coats of paint, one being a primer. The tower was in good condition with only a few spots that needed attention. During the rehab, we put up a new railing, vents, and lights on the top of the tower. Overall, the process went very well. Thanks to the great workers we have in the Utilities Division and WTP, things went smoothly.

AT A CROSSROADS

Bloomington Utilities provides drinking water and wastewater utility services for the City of Bloomington. The Utilities Division operates and maintains about 414 miles of water main, distributing 10.4 million gallons of water per day on average, and serving more than 26,500 customers and 90,000 residents.

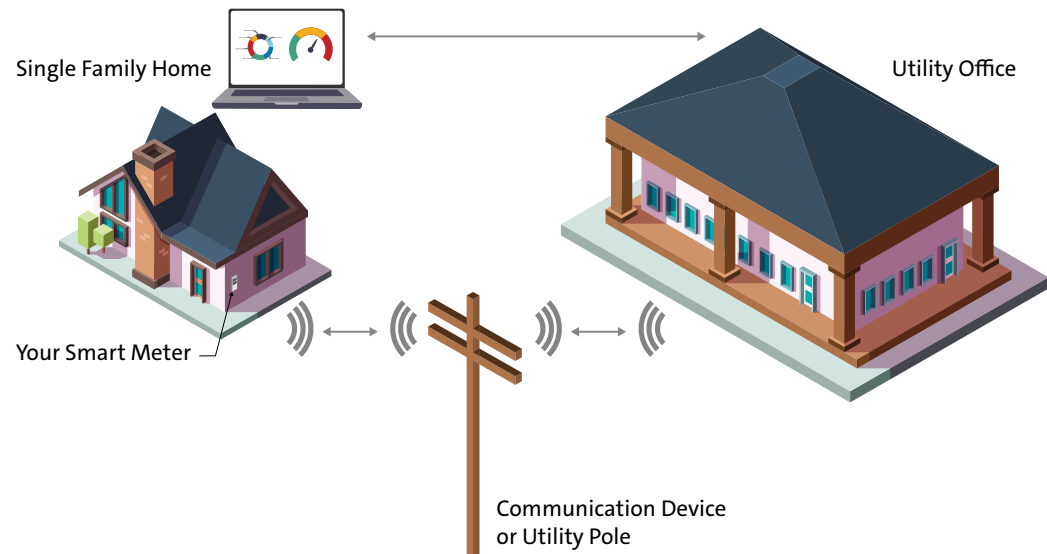
Water utilities around the country, including the City of Bloomington, are faced with many challenges such as aging infrastructure and are at a crossroads with how meters are being read and how that information is being communicated back to the utility. Upgrading aging infrastructure is a priority for the Utilities Division, as we continually strive to deliver high quality water and exceptional customer service, at an affordable price to our customers.

The transition to smart meter technology is a key part of updating the City's aging water meter infrastructure. There are two types of newer meter technologies found not only in the water industry, but also throughout the world in the gas and electricity sectors. They are automated meter reading (AMR) and advanced metering infrastructure (AMI). While both optimize the data collection with the water meter readings, AMI metering technology offers a complete automated network solution for greater efficiency with real time consumption usage.

AMR technology allows the automatic collection of water consumption, diagnostic, and meter status of the data. However, it still requires utility personnel to be in proximity to the water meter by either walking or driving to its physical location and then send that data to the utility company via one-way communication. AMI is an integrated system of equipment, communications, and information management systems for utilities to remotely collect customer water usage data in real time and then send the data directly back to the utility where it is processed and analyzed for customer billing. AMI uses radio-based technology to read water meters, which eliminates the need for manual or drive-by meter reads.

There are numerous benefits to customers and Utilities by going to a fully automated AMI system.

ADVANCED METERING INFRASTRUCTURE SYSTEM (AMI)



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Customer Service processes more than **135,000** meter readings per year and manages approximately **27,000** accounts



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SEWER REPAIR INFORMATION

The sewer services connecting homes to the city sewer main in Bloomington are made of a variety of materials based on the age of the home. Older homes could have cast iron or clay pipe material, while newer homes have pipe made of polyvinyl chloride, better known as PVC. Over time, the cast iron can fail due to corrosion and the clay lines can have problems from root intrusion at the pipe joints.

In the city of Bloomington, the homeowner is responsible for the sewer service from the home to the city sewer main, usually located in the center of the street. There are many ways to repair a failed sewer line based on the severity of the failure; sometimes the problem can be fixed without excavating to access the sewer line. Repairing the sewer line can be costly; it is recommended to get multiple quotes for the work that needs to be done.

There is also a program through the Bloomington Housing and Redevelopment Authority that can be used for the sewer repair costs. The Home Improvement Loan Program is a low-interest option that can be applied for; eligibility requirements must be met for the program. More information on the program can be found at bloomingtonmn.gov/hra/home-improvement-loan-program or by calling Bloomington HRA at 952-563-8937.



Customer Service continually strives to meet or exceed our customers' expectations. In addition to the permitting duties, staff is charged with mandated **ONE-CALL UTILITY LOCATING**. Customer Service also oversees the water meter maintenance program, and read more than 134,480 readings in 2022.