

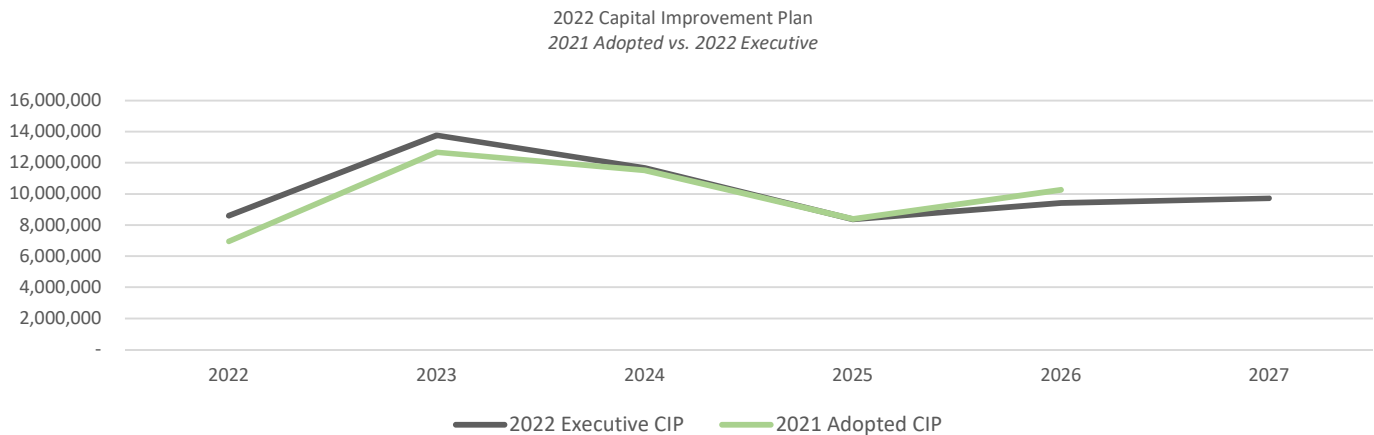
Water Utility

Capital Improvement Plan

Project Summary: Executive

	2022	2023	2024	2025	2026	2027
Atwood Avenue	24,000	1,922,000	-	-	-	-
Blair Street, S.	24,000	-	-	-	-	-
Blair/John Nolen Intersection	24,000	-	-	-	-	-
Booster Pump Station #213 Lakeview Reconstru	-	-	188,000	1,161,000	-	-
Chlorinators & Florinators Program	35,000	35,000	40,000	40,000	41,000	42,000
Outer Capitol Loop Southeast	-	27,000	-	-	-	-
Park Street, South (Olin to RR)	-	25,000	-	437,000	-	-
Pleasant View Road - Phase 1	24,000	805,000	-	-	-	-
Unit Well #8 Reconstruction	-	-	-	88,000	1,778,000	2,292,000
Unit Well 12 Conversion to a Two Zone Well	-	263,000	3,754,000	41,000	-	-
Unit Well Rehab Program	330,000	247,000	340,000	254,000	350,000	262,000
University Ave (Shorewood to University Bay)	1,339,000	-	-	-	-	-
Water Hydrants Program	350,000	350,000	350,000	350,000	350,000	359,000
Water Mains - New	30,000	30,000	734,000	108,000	228,000	454,000
Water Mains Replace Rehab Improve - Pavemer	2,042,000	481,000	402,000	1,377,000	656,000	1,359,000
Water Mains Replace Rehab Improve - Pipe Linir	617,000	900,000	1,036,000	1,172,000	1,458,000	1,458,000
Water Mains Replace Rehab Improve - Reconstr	936,000	345,000	2,316,000	1,672,000	2,557,000	1,718,000
Water Meter and Fixed Network Program	513,000	526,000	539,000	552,000	566,000	580,000
Water Utility Facility Improvements	847,000	844,700	1,175,000	825,000	865,000	891,000
Water Utility Vehicles & Equipment	554,000	261,000	542,000	271,000	560,000	282,000
Water Valve Cut-In Program	16,000	17,000	18,000	19,000	20,000	21,000
Well 19 Iron and Manganese Filter	891,000	6,691,000	81,000	-	-	-
Wilson St (MLK to King)	-	-	157,000	-	-	-
	\$ 8,596,000	\$ 13,769,700	\$ 11,672,000	\$ 8,367,000	\$ 9,429,000	\$ 9,718,000

Changes from 2021 CIP



Major Changes

- Atwood Avenue
 - \$1.9m project added to CIP from Horizon List
- Blair Street, S.
 - \$24k added to Water Utility CIP in 2022 to support work on the Engineering-Major Streets project
- Blair/John Nolen Intersection
 - \$24k added to Water Utility CIP in 2022 to support work on the Engineering-Major Streets project
- Outer Capitol Loop Southeast
 - \$27k added to Water Utility CIP in 2023 to support work on the Engineering-Major Streets project
- Park Street, South (Olin to RR)
 - \$462k added to Water Utility CIP in 2023 and 2025 to support work on the Engineering-Major Streets project

- Pleasant View Road - Phase 1
 - \$829k added to Water Utility CIP in 2022 and 2023 to support work on the Engineering-Major Streets project
- Unit Well #8 Reconstruction
 - Project delayed one year to start in 2025
- University Ave (Shorewood to University Bay)
 - \$1.3m added to Water Utility CIP in 2022 to support work on the Engineering-Major Streets project
- Water Mains - New
 - Program budget decreased \$987k from 2022-2026
- Water Mains Replace Rehab Improve - Pavement Management
 - Program budget increased \$1.0m from 2022-2026
- Water Mains Replace Rehab Improve - Pipe Lining
 - Program budget decreased \$443k from 2022-2026
- Water Mains Replace Rehab Improve - Reconstruct Streets
 - Program budget increased \$841k from 2022-2026
- Water Utility Facility Improvements
 - Program budget decreased \$1.2m from 2022-2026
- Water Utility Vehicles & Equipment
 - Program budget increased \$69k from 2022-2026
- Wilson Street (MLK to King)
 - \$157k added to Water Utility CIP in 2024 to support work on the Engineering-Major Streets project

Water Utility

Budget Overview

2022 CIP by Expenditure Type

	2022	2023	2024	2025	2026	2027
Building	1,335,000	7,410,000	4,869,000	697,000	2,075,000	511,000
Land	-	-	-	-	200,000	-
Machinery and Equipment	1,835,000	1,457,700	1,790,000	2,535,000	1,885,000	1,546,000
Water Network	5,426,000	4,902,000	5,013,000	5,135,000	5,269,000	7,661,000
Total	\$ 8,596,000	\$ 13,769,700	\$ 11,672,000	\$ 8,367,000	\$ 9,429,000	\$ 9,718,000

2022 CIP by Funding Source

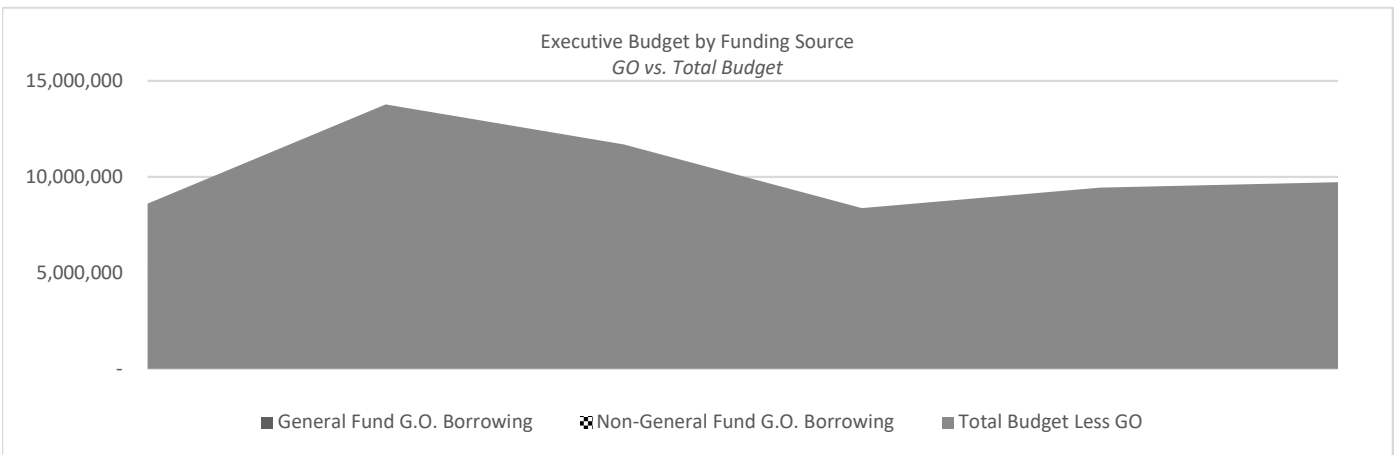
	2022	2023	2024	2025	2026	2027
Reserves Applied	2,645,000	2,280,700	3,004,000	2,311,000	2,752,000	2,437,000
Revenue Bonds	5,951,000	11,489,000	8,668,000	6,056,000	6,677,000	7,281,000
Total	\$ 8,596,000	\$ 13,769,700	\$ 11,672,000	\$ 8,367,000	\$ 9,429,000	\$ 9,718,000

Borrowing Summary

	2022	2023	2024	2025	2026	2027
Borrowing Schedule						
General Fund G.O. Borrowing	-	-	-	-	-	-
Non-General Fund G.O. Borrowing	-	-	-	-	-	-
Total	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Annual Debt Service

General Fund G.O. Borrowing	-	-	-	-	-	-
Non-General Fund G.O. Borrowing	-	-	-	-	-	-



Water Utility

Project Overview

Project	Atwood Avenue	Project #	11127
Citywide Element	Land Use and Transportation	Project Type	Project

Project Description

This project funds the reconstruction of Atwood Avenue from Fair Oaks Avenue to Cottage Grove Road to a three-lane boulevard with multi-use paths. Median and crosswalk enhancements are proposed for safe pedestrian crossing to Olbrich Gardens and Olbrich Park. The multi-use path will be utilized for the Lake Loop route around Lake Monona. A new pedestrian and bicycle bridge over the Starkweather Creek is included in the project. The goal of the project is to improve the facilities for pedestrians, bicyclists, motor vehicles and transit. Funding shown reflects the Water Utility component of the project.

Project Budget by Funding Source

	2022	2023	2024	2025	2026	2027
Revenue Bonds	24,000	1,922,000	-	-	-	-
TOTAL	\$ 24,000	\$ 1,922,000	\$ -	\$ -	\$ -	\$ -

Project	Blair Street, S.	Project #	11128
Citywide Element	Land Use and Transportation	Project Type	Project

Project Description

This project is for reconstructing South Blair Street from East Washington Avenue to Williamson Street and East Washington Avenue from Blair Street to Blount Street. The goal of this project is to improve the pavement quality of the 0.3 mile segment to ensure transportation safety. The current pavement rating of this road is 3 of 10. The project scope includes a new traffic signal for the East Main Street and South Blair Street intersection. Construction is proposed in 2022. Funding shown reflects the Water Utility component of the project.

Project Budget by Funding Source

	2022	2023	2024	2025	2026	2027
Revenue Bonds	24,000	-	-	-	-	-
TOTAL	\$ 24,000	\$ -	\$ -	\$ -	\$ -	\$ -

Project	Blair/John Nolen Intersection	Project #	11135
Citywide Element	Land Use and Transportation	Project Type	Project

Project Description

This project is for replacing pavement, curb, gutter, and sidewalk at the intersection of Blair Street and John Nolen Drive. The goal of the project is to improve the safety of the intersection for pedestrians, bicyclists and motor vehicles in addition to improve the pavement quality rating of the intersection. The current pavement quality rating is 3 of 10. Construction is planned for 2022. Funding shown reflects the Water Utility component of the project.

Project Budget by Funding Source

	2022	2023	2024	2025	2026	2027
Revenue Bonds	24,000	-	-	-	-	-
TOTAL	\$ 24,000	\$ -	\$ -	\$ -	\$ -	\$ -

Project	Booster Pump Station #213 Lakeview Reconstruction	Project #	12441
Citywide Element	Green and Resilient	Project Type	Project

Project Description

This project is for reconstructing the Lake View Booster Pumping Station. The goal of the project is to meet fire fighting requirements and expansion in Zone 5. A generator will also be added to ensure reliability of the pumping station in the event of a power outage. Pump capacity will be increased to 1200 gallons per minute.

Project Budget by Funding Source

	2022	2023	2024	2025	2026	2027
Revenue Bonds	-	-	188,000	1,161,000	-	-
TOTAL	\$ -	\$ -	\$ 188,000	\$ 1,161,000	\$ -	\$ -

Project	Chlorinators & Florinators Program	Project #	12386
Citywide Element	Green and Resilient	Project Type	Program

Project Description

This program rebuilds and replaces chlorinator and florinator equipment on a 10 year replacement cycle. The goal of this program is to reduce failures and service interruptions for safe and reliable water. Progress will be measured by the frequency of equipment failure.

Project Budget by Funding Source

	2022	2023	2024	2025	2026	2027
Reserves Applied	35,000	35,000	40,000	40,000	41,000	42,000
TOTAL	\$ 35,000	\$ 35,000	\$ 40,000	\$ 40,000	\$ 41,000	\$ 42,000

Project	Outer Capitol Loop Southeast	Project #	10303
Citywide Element	Land Use and Transportation	Project Type	Project

Project Description

This project is for reconstructing the southeast section of the Outer Capitol Loop. The goal of this project is to improve the roadway's pavement quality rating and pedestrian experience. The pavement quality rating for the roadway is currently 4 of 10. The project's scope includes reconstruction of East Doty Street from Martin Luther King Jr. Boulevard to South Webster Street and South Pinckney from East Doty Street to East Wilson Street. Funding in 2023 is for construction. Funding shown reflects the Water Utility component of the project.

Project Budget by Funding Source

	2022	2023	2024	2025	2026	2027
Revenue Bonds	-	27,000	-	-	-	-
TOTAL	\$ -	\$ 27,000	\$ -	\$ -	\$ -	\$ -

Project	Park Street, South (Olin To RR)	Project #	11133
Citywide Element	Land Use and Transportation	Project Type	Project

Project Description

This project is for reconstructing South Park Street. The goal of the project is to improve the pavement quality of the roadway. The current pavement rating is 4 of 10. The project's scope includes South Park Street from the railroad to Olin Avenue. Construction is planned for 2026. Funding shown reflects the Water Utility component of the project.

Project Budget by Funding Source

	2022	2023	2024	2025	2026	2027
Revenue Bonds	-	25,000	-	437,000	-	-
TOTAL	\$ -	\$ 25,000	\$ -	\$ 437,000	\$ -	\$ -

Project	Pleasant View Road - Phase 1	Project #	10284
Citywide Element	Land Use and Transportation	Project Type	Project

Project Description

This project is for reconstructing Pleasant View Road from US-14 to Old Sauk Road. The goal of this project is to expand the existing roadway and improve the pavement quality. The current pavement rating is 4 of 10. The project's scope includes construction of a four-lane roadway with multi-use path and sidewalk to replace the existing two-lane roadway. Construction is planned for 2022 and 2023. Funding shown reflects the Water Utility component of the project.

Project Budget by Funding Source

	2022	2023	2024	2025	2026	2027
Revenue Bonds	24,000	805,000	-	-	-	-
TOTAL	\$ 24,000	\$ 805,000	\$ -	\$ -	\$ -	\$ -

Project	Unit Well #8 Reconstruction	Project #	12440
Citywide Element	Green and Resilient	Project Type	Project

Project Description

This project is for reconstructing Unit Well #8. The goal of the project is to reduce iron and manganese levels via filtration upgrades and to expand capacity to a three zone well.

Project Budget by Funding Source

	2022	2023	2024	2025	2026	2027
Revenue Bonds	-	-	-	88,000	1,778,000	2,292,000
TOTAL	\$ -	\$ -	\$ -	\$ 88,000	\$ 1,778,000	\$ 2,292,000

Project	Unit Well 12 Conversion to a Two Zone Well	Project #	10452
Citywide Element	Green and Resilient	Project Type	Project

Project Description

This project is for rebuilding and expanding Well #12 located on South Whitney Way. The goal of the project is to provide water supply capacity to five existing pressure zones, which represents the majority of the City's west side. The system flexibility provided by this project will improve service reliability and maximize water supply. Funding in 2023 is for design and funding in 2024 is for construction.

Project Budget by Funding Source

	2022	2023	2024	2025	2026	2027
Revenue Bonds	-	263,000	3,754,000	41,000	-	-
TOTAL	\$ -	\$ 263,000	\$ 3,754,000	\$ 41,000	\$ -	\$ -

Project	Water Mains - New	Project #	12507
Citywide Element	Green and Resilient	Project Type	Program

Project Description

This program is for installing new water mains throughout the City. The goal of the program is to strengthen and expand the existing distribution system, improve water pressure, improve fire protection, allow transfer of water between pressure zones, and to serve the growing areas of the City. Newly installed mains include hydraulic improvements consistent with the Water Utility Master Plan. Planned projects in 2022 include Hydraulic Improvements.

Project Budget by Funding Source

	2022	2023	2024	2025	2026	2027
Revenue Bonds	30,000	30,000	734,000	108,000	228,000	454,000
TOTAL	\$ 30,000	\$ 30,000	\$ 734,000	\$ 108,000	\$ 228,000	\$ 454,000

Project	Water Mains Replace Rehab Improve - Pavement Managen	Project #	11894
Citywide Element	Green and Resilient	Project Type	Program

Project Description

This program is for replacing existing water mains in conjunction with the repaving of roads as part of the City's Engineering-Major Streets Pavement Management program. The goal of the program is to update the water infrastructure, reducing the risk of pipe failure. The program aligns with the Water Utility's goal to replace or rehabilitate over 400 miles of aging pipe within the City over a 40-year period to renew and maintain the system. Planned projects in 2022 include: Old Middleton Road/Craig Avenue, West Washington Avenue, Kroncke Drive/Lanett Circle/Tanager Trail, North Brooks Street/Fahrenbrook Court/College Court, and hydraulic improvements.

Project Budget by Funding Source

	2022	2023	2024	2025	2026	2027
Revenue Bonds	2,042,000	481,000	402,000	1,377,000	656,000	1,359,000
TOTAL	\$ 2,042,000	\$ 481,000	\$ 402,000	\$ 1,377,000	\$ 656,000	\$ 1,359,000

Project	Water Mains Replace Rehab Improve - Pipe Lining	Project #	11892
Citywide Element	Green and Resilient	Project Type	Program

Project Description

This program is for cured-in-place-pipe lining (CIPP) to improve the quality of existing pipes in the water network throughout the City. The goal of the program is to lengthen the useful life of the pipes at a lower cost than replacing the pipe. The program measures the miles of pipe rehabilitated using the lining method. Locations for CIPP lining are evaluated on an annual basis.

Project Budget by Funding Source

	2022	2023	2024	2025	2026	2027
Revenue Bonds	617,000	900,000	1,036,000	1,172,000	1,458,000	1,458,000
TOTAL	\$ 617,000	\$ 900,000	\$ 1,036,000	\$ 1,172,000	\$ 1,458,000	\$ 1,458,000

Project **Water Mains Replace Rehab Improve - Reconstruct Streets** Project # **11893**
 Citywide Element **Green and Resilient** Project Type **Program**

Project Description

This program is for replacing existing water mains in conjunction with the reconstruction of roads as part of the City's Engineering-Major Streets Reconstruct Streets program. The goal of the program is to update the water infrastructure, diminishing the risk of pipe failure. The program aligns with the Water Utility's goal to replace or rehabilitate over 400 miles of aging pipe within the City over a 40-year period to renew and maintain the system. Planned projects in 2022 include: Helena/Russell/Jenifer Streets, Starkweather Drive, Hill Crest Drive/Standish Court/Alden Drive, Davies Street/Major Avenue/Dempsey Road/Maher Avenue, Pontiac Trail/Nokomis Court/Rosewood Circle/Boston Court, and hydraulic improvements.

Project Budget by Funding Source

	2022	2023	2024	2025	2026	2027
Revenue Bonds	936,000	345,000	2,316,000	1,672,000	2,557,000	1,718,000
TOTAL	\$ 936,000	\$ 345,000	\$ 2,316,000	\$ 1,672,000	\$ 2,557,000	\$ 1,718,000

Project **Water Meter and Fixed Network Program** Project # **12340**
 Citywide Element **Green and Resilient** Project Type **Program**

Project Description

This program is for the water meter and fixed network advanced metering infrastructure (AMI) improvements. The program identifies projects via the State Public Service Commission (PSC) requirement for a prescribed schedule of meter replacement and testing. The goal of the program is to maximize the accuracy of the municipal services statements issued to customers. Progress will be measured by comparing the meter maintenance against the respective prescribed schedules as well as monitoring the total non-revenue water volume.

Project Budget by Funding Source

	2022	2023	2024	2025	2026	2027
Reserves Applied	513,000	526,000	539,000	552,000	566,000	580,000
TOTAL	\$ 513,000	\$ 526,000	\$ 539,000	\$ 552,000	\$ 566,000	\$ 580,000

Project **Water Utility Facility Improvements** Project # **10440**
 Citywide Element **Green and Resilient** Project Type **Program**

Project Description

This program is for repairing and upgrading Water Utility facilities. The goal of the program is to maintain the facilities for reliable service and reducing emergency repairs. Progress is measured by tracking the number of emergency calls, facility outages, and accidents each year. Funding in 2022 is for SCADA system upgrades and expansion, fiber optic installation and upgrade, deep well variable frequency drive (VFD) installs, facility safety and security upgrades, and other miscellaneous upgrades.

Project Budget by Funding Source

	2022	2023	2024	2025	2026	2027
Reserves Applied	847,000	844,700	1,175,000	825,000	865,000	891,000
TOTAL	\$ 847,000	\$ 844,700	\$ 1,175,000	\$ 825,000	\$ 865,000	\$ 891,000

Project	Water Utility Vehicles & Equipment	Project #	12339
Citywide Element	Green and Resilient	Project Type	Program

Project Description

This program is for the annual vehicle and equipment replacements and additions. Replacement schedules are based on age and mileage of the vehicles and equipment. The goal of this program is to provide reliable vehicles and equipment for Water Utility's operations. Progress will be measured by the frequency of vehicle breakdowns and actual useful life obtained. In 2022, funds will be used to purchase four new vehicles, a new towable lift, and other various tools and equipment, as well as modernize mapping and service equipment.

Project Budget by Funding Source

	2022	2023	2024	2025	2026	2027
Reserves Applied	554,000	261,000	542,000	271,000	560,000	282,000
TOTAL	\$ 554,000	\$ 261,000	\$ 542,000	\$ 271,000	\$ 560,000	\$ 282,000

Project	Water Valve Cut-In Program	Project #	12387
Citywide Element	Green and Resilient	Project Type	Program

Project Description

This program is for installing new valve cut-ins to the existing water infrastructure. The goal of this program is to eliminate areas of the city where water service is negatively impacted during water system maintenance and repair. Success is measured by a reduction in complaints from customers for impacted service.

Project Budget by Funding Source

	2022	2023	2024	2025	2026	2027
Reserves Applied	16,000	17,000	18,000	19,000	20,000	21,000
TOTAL	\$ 16,000	\$ 17,000	\$ 18,000	\$ 19,000	\$ 20,000	\$ 21,000

Project	Well 19 Iron and Manganese Filter	Project #	10448
Citywide Element	Green and Resilient	Project Type	Project

Project Description

This project is for a new iron, manganese, and radium treatment system at Well 19 located on Lake Mendota Drive on the City's west side. The goal of this project is to improve water quality in the area. Progress will be measured by the change in iron, manganese, and radium concentrations, which currently do not meet Madison Water Utility standards. Funding in 2023 is for construction.

Project Budget by Funding Source

	2022	2023	2024	2025	2026	2027
Revenue Bonds	891,000	6,691,000	81,000	-	-	-
TOTAL	\$ 891,000	\$ 6,691,000	\$ 81,000	\$ -	\$ -	\$ -

Project
Citywide Element

Wilson St (MLK to King)
Land Use and Transportation

Project # **11543**
Project Type **Project**

Project Description

This project is for replacing the pavement on Wilson Street from Martin Luther King Jr Boulevard to King Street. The goal of this project is to improve the pavement rating, which is currently 4 of 10, and enhance the pedestrian and bicycle facilities along the corridor. The project's scope will construct a new cycle track along Wilson Street. Construction is planned for 2024. Funding shown reflects the Water Utility component of the project.

Project Budget by Funding Source

	2022	2023	2024	2025	2026	2027
Revenue Bonds	-	-	157,000	-	-	-
TOTAL	\$ -	\$ -	\$ 157,000	\$ -	\$ -	\$ -

Water Utility

2022 Appropriation Schedule

2022 Appropriation

Executive Budget

	Request	GO Borrowing	Other	Total
Atwood Avenue	24,000	-	24,000	24,000
Blair Street, S.	24,000	-	24,000	24,000
Blair/John Nolen Intersection	24,000	-	24,000	24,000
Chlorinators & Florinators Program	35,000	-	35,000	35,000
Pleasant View Road - Phase 1	24,000	-	24,000	24,000
Unit Well Rehab Program	330,000	-	330,000	330,000
University Ave (Shorewood to University Bay)	1,339,000	-	1,339,000	1,339,000
Water Hydrants Program	350,000	-	350,000	350,000
Water Mains - New	30,000	-	30,000	30,000
Water Mains Replace Rehab Improve - Pavement Management	2,042,000	-	2,042,000	2,042,000
Water Mains Replace Rehab Improve - Pipe Lining	617,000	-	617,000	617,000
Water Mains Replace Rehab Improve - Reconstruct Streets	311,000	-	936,000	936,000
Water Meter and Fixed Network Program	513,000	-	513,000	513,000
Water Utility Facility Improvements	847,000	-	847,000	847,000
Water Utility Vehicles & Equipment	554,000	-	554,000	554,000
Water Valve Cut-In Program	16,000	-	16,000	16,000
Well 19 Iron and Manganese Filter	891,000	-	891,000	891,000
Total 2022 Appropriation	\$ 7,971,000	\$ -	\$ 8,596,000	\$ 8,596,000