

City of Madison 2020 Capital Improvement Plan
 Agency Request Summary

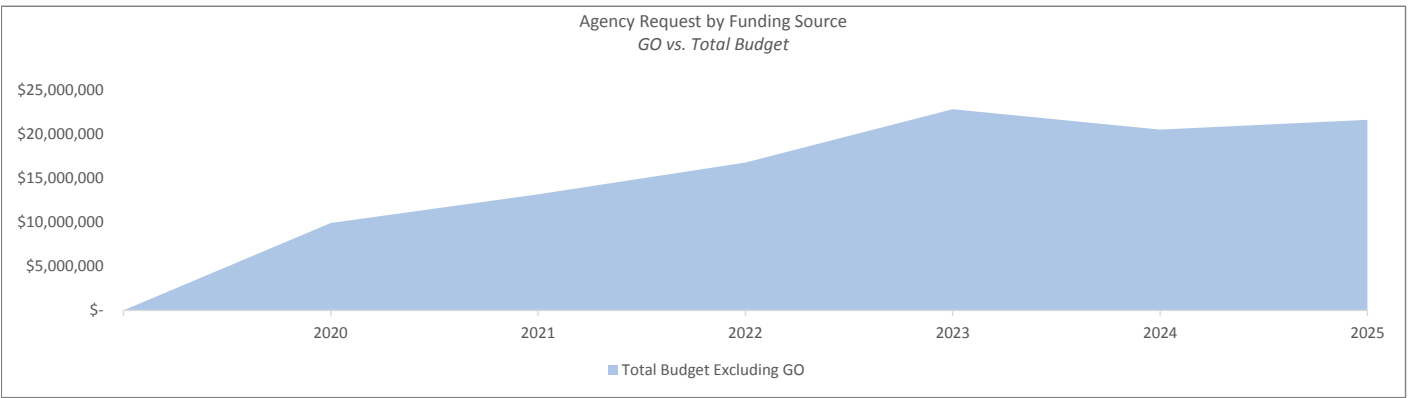
Agency : Water Utility

Agency Request by Item (All Funds)

	2020	2021	2022	2023	2024	2025
Water Utility Facility Improvements	592,000	492,000	884,000	522,000	539,000	555,000
Well 19 Iron and Manganese Filter	-	891,000	81,000	6,691,000	-	-
Unit Well 12 Conversion to a Two Zone Well	-	-	-	318,000	3,754,000	-
Water Mains Replace Rehab Improve - Pipe Lining	200,000	709,000	2,042,000	2,401,000	2,301,000	2,184,000
Water Mains Replace Rehab Improve - Reconstruct Streets	1,933,000	4,643,000	2,568,000	1,543,000	4,121,000	1,583,000
Water Mains Replace Rehab Improve - Pavement Manageme	785,000	3,869,000	4,745,000	3,561,000	2,962,000	1,995,000
Well 14 Mitigation	-	-	82,000	16,000	16,000	16,000
Water Utility Vehicles & Equipment	767,000	731,000	655,000	669,000	690,000	705,000
Water Meter and Fixed Network Program	650,000	666,000	683,000	700,000	718,000	736,000
Unit Well Rehab Program	320,000	240,000	255,000	270,000	270,000	285,000
Water Hydrants Program	550,000	567,000	583,000	601,000	619,000	637,000
Chlorinators & Florinators Program	31,000	32,000	33,000	34,000	35,000	36,000
Water Valve Cut-In Program	15,000	16,000	16,000	17,000	17,000	18,000
Westside Water Supply	-	153,000	2,370,000	1,127,000	971,000	7,531,000
Unit Well #8 Reconstruction	-	-	-	-	-	87,000
Booster Pump Station #213 Lakeview Reconstruction	-	-	-	-	-	238,000
Booster Pump Station #128 Upgrade	-	-	-	92,000	440,000	-
Unit Well #15	-	82,000	16,000	16,000	16,000	16,000
Water Mains - New	4,082,000	96,000	1,780,000	4,276,000	3,081,000	5,019,000
Total	\$ 9,925,000	\$ 13,187,000	\$ 16,793,000	\$ 22,854,000	\$ 20,550,000	\$ 21,641,000

Agency Request by Funding Source

Project	2020	2021	2022	2023	2024	2025
Reserves Applied - Water	2,333,000	2,252,000	2,225,000	2,291,000	2,349,000	2,417,000
Revenue Bonds-Water	7,592,000	10,935,000	14,568,000	20,563,000	18,201,000	19,224,000
Total	\$ 9,925,000	\$ 13,187,000	\$ 16,793,000	\$ 22,854,000	\$ 20,550,000	\$ 21,641,000





**Madison
Water Utility**

119 East Olin Ave, Madison, WI 53713
608.266.4651 • madisonwater.org

Date: May 17, 2019

To: David Schmiedicke, Finance Department

From: Tom Heikkinen, Madison Water Utility

Subject: Madison Water Utility 2020 Capital Budget Requests

The Madison Water Utility 2020 capital budget reflects careful consideration of the Utility's revenue, cash reserve and debt ratio goals, and city growth in the face of an aging water distribution system. It results from a periodically updated long term Master Plan and Infrastructure Management Plan, as well as a continuing reassessment of our needs in light of changing conditions. The primary goal of our 2020 proposal is to replace failing infrastructure so as to continue to meet levels of service for water quality and reliability established by the Water Utility Board, while maintaining water rate affordability and management of our long term debt. Using the techniques of asset management, we are placing emphasis on our most critical infrastructure assets and prioritizing work based on business case evaluations.

A change in budgeting practice in 2019 resulted in moving some expenses from the operating budget to the capital budget. These include the Utility's vehicle and equipment fleet and labor associated with our hydrant, meter, and well rehabilitation programs. With this in mind, our total capital funding request for 2020 is lower than we projected for 2020 in the 2019 capital budget submission.

The list below reflects how we believe that we can best meet this goal in accordance with the budget targets.

1. Water Mains – New, Replacements, Rehab
2. Meter and Hydrant Programs
3. Vehicles and Equipment
4. Well Rehabilitation

I look forward to further discussing our proposal in the coming weeks.

Sincerely,

Tom Heikkinen General Manager Madison Water Utility

Submitted

2020 Capital Improvement Plan Program Budget Proposal

Identifying Information

Agency **Project Name**

Project Number 10440 **Project Type** Program

Project Category Utility **Priority**

2020 Munis Project Number

Description

This program funds repairs and security upgrades at Water Utility facilities. The goal of the program is to maintain facilities for reliable services while reducing the need for emergency repairs. Progress is measured by tracking the number of emergency calls, facility outages, and accidents each year. Funding in 2019 is for upgrades to the meter network.

Budget Information

Prior Appropriation* **Prior Year Actual***

*Based on Fiscal Years 2015-2018

Budget by Funding Source

Funding Source	2020	2021	2022	2023	2024	2025
Revenue Bonds-Water	592,000	492,000	884,000	522,000	539,000	555,000
Total	\$592,000	\$492,000	\$884,000	\$522,000	\$539,000	\$555,000

Insert Funding Source

Budget by Expenditure Type

Expense Type	2020	2021	2022	2023	2024	2025
Building	429,000	439,000	830,000	467,000	482,000	497,000
Machinery and Equipment	163,000	53,000	54,000	55,000	57,000	58,000
Total	\$592,000	\$492,000	\$884,000	\$522,000	\$539,000	\$555,000

Insert Expense Type

Performance

Metric Rating based on established levels of service targets/goals for sustainable and responsible asset lifecycle costs and acceptable levels of risk (Consequence of Failure (COF) an...

Data Source

Baseline Data

2017 Actual	2018 Actual	2019 Projected	Target
1 - 5	1 - 5	1 - 3	1 - 3

Priority

Citywide Element

Strategy

Describe how this project advances the Citywide Element:

Project Schedule & Location

2020 Projects

<i>Project name</i>	<i>Est Cost</i>	<i>Location</i>
SCADA System Upgrade and Expansion	\$23,000	Various Unit Wells and Booster Pump Stations
Backwash Control Upgrade	\$34,000	Unit Well #29
Chemical Feed Automation	\$14,000	Various Unit Wells and Booster Pump Stations
Booster Upgrade	\$69,000	Unit Well #9
Fiber Optic System Installation & Upgrade	\$22,000	Various Water Utility Sites
Flow Meter Installation	\$12,000	Unit Wells #11 and #13
Reservoir Pit Upgrade	\$20,000	Unit Well #20
Deep Well VFD Installations	\$103,000	Various Unit Wells and Booster Pump Stations
Miscellaneous Site Improvements	\$60,000	Various Water Utility Sites
Unexpected Unit Well and Booster Station Mechanical Failures	\$180,000	Various Unit Wells and Booster Pump Stations
Miscellaneous Facility Upgrades	\$55,000	Various Water Utility Sites

Insert item

Explain the justification for selecting projects planned for 2020:

Projects are decided by applying MWU's Asset Management program to the list of potential projects.

2021 Projects

<i>Project Name</i>	<i>Est Cost</i>	<i>Location</i>
SCADA System Upgrade and Expansion	\$24,000	Various Unit Wells and Booster Pump Stations
Chemical Feed Automation	\$15,000	Various Unit Wells and Booster Pump Stations
Fiber Optic System Installation & Upgrade	\$23,000	Various Water Utility Sites
Deep Well VFD Installations	\$38,000	Various Unit Wells and Booster Pump Stations
Miscellaneous Site Improvements	\$25,000	Various Water Utility Sites
Unexpected Unit Well and Booster Station Mechanical Failures	\$260,000	Various Unit Wells and Booster Pump Stations
Facility Safety & Security Upgrades	\$50,000	Various Water Utility Sites
Miscellaneous Facility Upgrades	\$57,000	Various Water Utility Sites

Insert item

Explain the justification for selecting projects planned for 2021:

Projects are decided by applying MWU's Asset Management program to the list of potential projects.

2022 Projects

<i>Project Name</i>	<i>Est Cost</i>	<i>Location</i>
SCADA System Upgrade and Expansion	\$24,000	Various Unit Wells and Booster Pump Stations
Chemical Feed Automation	\$15,000	Various Unit Wells and Booster Pump Stations
Fiber Optic System Installation & Upgrade	\$23,000	Various Water Utility Sites
Deep Well VFD Installations	\$39,000	Various Unit Wells and Booster Pump Stations
Miscellaneous Site Improvements	\$26,000	Various Water Utility Sites
Unexpected Unit Well and Booster Station Mechanical Failures	\$268,000	Various Unit Wells and Booster Pump Stations
Facility Safety & Security Upgrade s	\$52,000	Various Water Utility Sites
Miscellaneous Facility Upgrades	\$60,000	Various Water Utility Sites
Replace Roof	\$377,000	119 E Olin Ave - Heim Bldg.

Insert item

Explain the justification for selecting projects planned for 2022:

Projects are decided by applying MWU's Asset Management program to the list of potential projects.

2023 Projects

<i>Project name</i>	<i>Est Cost</i>	<i>Location</i>
SCADA System Upgrade and Expansion	\$25,000	Various Unit Wells and Booster Pump Stations
Chemical Feed Automation	\$15,000	Various Unit Wells and Booster Pump Stations
Fiber Optic System Installation & Upgrade	\$24,000	Various Water Utility Sites
Deep Well VFD Installations	\$40,000	Various Unit Wells and Booster Pump Stations
Miscellaneous Site Improvements	\$27,000	Various Water Utility Sites
Unexpected Unit Well and Booster Station Mechanical Failures	\$276,000	Various Unit Wells and Booster Pump Stations
Facility Safety & Security Upgrades	\$53,000	Various Water Utility Sites
Miscellaneous Facility Upgrades	\$62,000	Various Water Utility Sites

Insert item

Explain the justification for selecting projects planned for 2023:

Projects are decided by applying MWU's Asset Management program to the list of potential projects.

2024 Projects

<i>Project name</i>	<i>Est Cost</i>	<i>Location</i>
SCADA System Upgrade and Expansion	\$26,000	Various Unit Wells and Booster Pump Stations
Chemical Feed Automation	\$16,000	Various Unit Wells and Booster Pump Stations
Fiber Optic System Installation & Upgrade	\$25,000	Various Water Utility Sites
Deep Well VFD Installations	\$41,000	Various Unit Wells and Booster Pump Stations
Miscellaneous Site Improvements	\$27,000	Various Water Utility Sites
Unexpected Unit Well and Booster Station Mechanical Failures	\$284,000	Various Unit Wells and Booster Pump Stations
Facility Safety & Security Upgrades	\$55,000	Various Water Utility Sites
Miscellaneous Facility Up grades	\$65,000	Various Water Utility Sites

Insert item

Explain the justification for selecting projects planned for 2024:

Projects are decided by applying MWU's Asset Management program to the list of potential projects.

2025 Projects

<i>Project name</i>	<i>Est Cost</i>	<i>Location</i>
SCADA System Upgrade and Expansion	\$27,000	Various Unit Wells and Booster Pump Stations
Chemical Feed Automation	\$16,000	Various Unit Wells and Booster Pump Stations
Fiber Optic System Installation & Upgrade	\$25,000	Various Water Utility Sites
Deep Well VFD Installations	\$42,000	Various Unit Wells and Booster Pump Stations
Miscellaneous Site Improvements	\$28,000	Various Water Utility Sites
Unexpected Unit Well and Booster Station Mechanical Failures	\$293,000	Various Unit Wells and Booster Pump Stations
Facility Safety & Security Upgrades	\$56,000	Various Water Utility Sites
Miscellaneous Facility Upgrades	\$68,000	Various Water Utility Sites

Insert item

Explain the justification for selecting projects planned for 2025:

Projects are decided by applying MWU's Asset Management program to the list of potential projects.

Operating Costs

What are the estimated annual operating costs associated with the projects planned within this program?

Personnel

# of FTEs	Annual Cost	Description
<input type="text"/>	<input type="text"/>	<input type="text"/>

Non-Personnel

Major	Amount	Description
<input type="text"/>	<input type="text"/>	<input type="text"/>

Insert item

Notes

Notes:

v. 5-22-2019

Submitted

2020 Capital Improvement Plan Project Budget Proposal

Identifying Information

Agency	Water Utility ▼	Project Name	Well 19 Iron and Manganese Filter ▼
Project Number	10448	Project Type	Project
Project Category	Utility	Priority	12 ▼

Description

This project funds a new iron, manganese, and radium treatment system at Well 19 at Lake Mendota Drive on the City's west side. The goal of this project is to address existing water quality issues 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 2024 is for construction.

Is this project currently included in the 2019 CIP? Yes ▼

Budget Information

Total Project Budget **Prior Appropriation**

Budget by Funding Source

Funding Source	2020	2021	2022	2023	2024	2025
Revenue Bonds-Water ▼	0	891,000	81,000	6,691,000	0	0
Total	\$0	\$891,000	\$81,000	\$6,691,000	\$0	\$0

Insert Funding Source

Budget by Expenditure Type

Expense Type	2020	2021	2022	2023	2024	2025
Building ▼	0	891,000	81,000	6,691,000	0	0
Total	\$0	\$891,000	\$81,000	\$6,691,000	\$0	\$0

Insert Expense Type

Performance

Metric	Water quality sampling and testing.
Data Source	Routine Water Utility sampling and testing.
Baseline	Iron: 0.22 mg/l; Ma...
Target	Iron: <0.1 mg/l; Man...

Priority

Citywide Element	Green and Resilient ▼
Strategy	Protect Madison's water supply and infrastructure to provide safe clean drinking water. ▼
Describe how this project advances the Citywide Element:	
Meeting established water quality regulations and goals is essential to renewing and maintaining critical infrastructure.	

What is the justification for this project?

Water quality exceeds established standards.

Project Schedule & Location

What is the total time frame for this project?

Start Date: 1/1/2014

End Date: 12/31/2024

	2020	2021	2022	2023	2024	2025
Project Status	Planning	Schematic Design	Design Completion	Construction	Construction Comple	

Can this project be mapped?

Yes No

What is the location of the project?

2526 Lake Mendota Drive

Is this project on the Project's Portal?

Yes No

Operating Costs

What are the estimated annual operating costs associated with the project?

\$40,200

Personnel

# of FTEs	Annual Cost	Description
.083	8,700	Facility is operated by existing personnel.

Non-Personnel

Major	Amount	Description
54	6,500	Electrical power for chemical treatment.
53	25,000	Water treatment chemicals.

Insert item

Save

Submit

Notes

Notes:

Save and Close

Submitted

2020 Capital Improvement Plan Project Budget Proposal

Identifying Information

Agency	<input type="text" value="Water Utility"/>	Project Name	<input type="text" value="Unit Well 12 Conversion to a Two Zone Well"/>
Project Number	10452	Project Type	Project
Project Category	Utility	Priority	<input type="text" value="14"/>

Description

This project funds 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 2021 is for design; funding in 2022 and 2023 is for construction.

Is this project currently included in the 2019 CIP?

Budget Information

Total Project Budget **Prior Appropriation**

Budget by Funding Source

Funding Source	2020	2021	2022	2023	2024	2025
Revenue Bonds-Water	0	0	0	318,000	3,754,000	0
Total	\$0	\$0	\$0	\$318,000	\$3,754,000	\$0

Insert Funding Source

Budget by Expenditure Type

Expense Type	2020	2021	2022	2023	2024	2025
Building	0	0	0	318,000	3,754,000	0
Total	\$0	\$0	\$0	\$318,000	\$3,754,000	\$0

Insert Expense Type

Performance

Metric

Data Source

Baseline	Target
<input type="text" value="2017 run time - 6,9..."/>	<input type="text" value="Run time - 5,600 hrs; ..."/>

Priority

Citywide Element

Strategy

Describe how this project advances the Citywide Element:

Operational flexibility and efficiency is essential to renewing and maintaining critical infrastructure.

What is the justification for this project?

Currently there is no transfer pumping capacity between Zones 7 and 8. This puts the water supply at risk in Zone 8. Current pumping equipment has reached the end of its service life.

Project Schedule & Location

What is the total time frame for this project?

Start Date: 1/1/2023

End Date: 12/31/2025

	2020	2021	2022	2023	2024	2025
Project Status				Planning	Construction	Construction Completi

Can this project be mapped? Yes No

What is the location of the project?

801 S Whitney Way

Is this project on the Project's Portal? Yes No

If so, enter the URL:

https://www.cityofmadison.com/water/projects/well-12-reconstruction-and-whitney-way-water-main-upgrades

Operating Costs

What are the estimated annual operating costs associated with the project?

\$21,000

Personnel

# of FTEs	Annual Cost	Description
0	0	

Non-Personnel

Major	Amount	Description
54	21,000	Electrical power needed for pumping.

Insert item

Save

Submit

Notes

Notes:

Save and Close

Submitted

2020 Capital Improvement Plan Program Budget Proposal

Identifying Information

Agency **Project Name**

Project Number 11892 **Project Type** Program

Project Category Utility **Priority**

2020 Munis Project Number

Description

This program provides 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.

Budget Information

Prior Appropriation* **Prior Year Actual***

*Based on Fiscal Years 2015-2018

Budget by Funding Source

Funding Source	2020	2021	2022	2023	2024	2025
Revenue Bonds-Water	200,000	709,000	2,042,000	2,401,000	2,301,000	2,184,000
Total	\$200,000	\$709,000	\$2,042,000	\$2,401,000	\$2,301,000	\$2,184,000

Insert Funding Source

Budget by Expenditure Type

Expense Type	2020	2021	2022	2023	2024	2025
Water Network	200,000	709,000	2,042,000	2,401,000	2,301,000	2,184,000
Total	\$200,000	\$709,000	\$2,042,000	\$2,401,000	\$2,301,000	\$2,184,000

Insert Expense Type

Performance

Metric

Data Source

Baseline Data

2017 Actual	2018 Actual	2019 Projected	Target
72%	64%	N/A	75% or <

Priority

Citywide Element

Strategy

Describe how this project advances the Citywide Element:

Project Schedule & Location

2020 Projects

Project name	Est Cost	Location
MWU Bypass Service System - Phase 1	\$200,000	Trailer/Storage Racking and Bypass piping/Fittings

Insert item

Explain the justification for selecting projects planned for 2020:

The proposed 2020 'Water Main Rehabilitation' project includes funding for temporary water service system components and associated storage equipment.

2021 Projects

Project Name	Est Cost	Location
CIPP Rehabilitation of Water Mains 2021	\$526,000	Undistributed/Citywide - Locations under development
MWU Bypass Service System - Phase 2	\$200,000	Trailer/Storage Racking and Bypass piping/Fittings

Insert item

Explain the justification for selecting projects planned for 2021:

The proposed 2021 'Water Main Rehabilitation' projects include rehabilitating approximately 3,100-FT of existing deteriorated water mains (specific project locations are currently under development), and funding for temporary water service system components and associated storage equipment.

2022 Projects

Project Name	Est Cost	Location
Mineral Point Rd, S Owen Dr, Keating Ter, Caromar Dr	\$441,000	Glenway-474'S of Owen, Mineral Point Rd-Keating Ter to Owen-Caromar,Keating-Tokay
CIPP Rehabilitation of Water Mains 2022	\$1,401,000	Undistributed/Citywide - Locations under development
MWU Bypass Service System - Phase 3	\$200,000	Trailer/Storage Racking and Bypass piping/Fittings

Insert item

Explain the justification for selecting projects planned for 2022:

The proposed 2022 'Water Main Rehabilitation' projects include rehabilitating approximately 10,400-FT of existing deteriorated water mains (specific project locations are currently under development), and funding for temporary water service system components and associated storage equipment.

2023 Projects

Project name	Est Cost	Location
CIPP Rehabilitation of Water Mains 2023	\$2,201,000	Undistributed/Citywide - Locations under development
MWU Bypass Service System - Phase 4	\$200,000	Trailer/Storage Racking and Bypass piping/Fittings

Insert item

Explain the justification for selecting projects planned for 2023:

The proposed 2023 'Water Main Rehabilitation' projects include rehabilitating approximately 12,000-FT of existing deteriorated water mains (specific project locations are currently under development), and funding for temporary water service system components and associated storage equipment.

2024 Projects

Project name	Est Cost	Location
CIPP Rehabilitation of Water Mains 2024	\$2,101,000	Undistributed/Citywide - Locations under development
MWU Bypass Service System - Phase 5	\$200,000	Trailer/Storage Racking and Bypass piping/Fittings

Insert item

Explain the justification for selecting projects planned for 2024:

The proposed 2024 'Water Main Rehabilitation' projects include rehabilitating approximately 11,000-FT of existing deteriorated water mains (specific project locations are currently under development), and funding for temporary water service system components and associated storage equipment.

2025 Projects

Project name	Est Cost	Location
CIPP Rehabilitation of Water Mains 2025	\$1,984,000	Undistributed/Citywide - Locations under development
MWU Bypass Service System - Phase 6	\$200,000	Trailer/Storage Racking and Bypass piping/Fittings

Insert item

Explain the justification for selecting projects planned for 2025:

The proposed 2025 'Water Main Rehabilitation' projects include rehabilitating approximately 10,000-FT of existing deteriorated water mains (specific project locations are currently under development), and funding for temporary water service system components and associated storage equipment.

Operating Costs

What are the estimated annual operating costs associated with the projects planned within this program?

Personnel

# of FTEs	Annual Cost	Description
<input type="text"/>	<input type="text"/>	<input type="text"/>

Non-Personnel

Major	Amount	Description
<input type="text"/>	<input type="text"/>	<input type="text"/>

Insert item

Save

Submit

Notes

Notes:

v. 5-22-2019

Save and Close

Submitted

2020 Capital Improvement Plan Program Budget Proposal

Identifying Information

Agency **Project Name**

Project Number 11893 **Project Type** Program

Project Category Utility **Priority**

2020 Munis Project Number

Description

This program funds 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. Funding was added to 2019 for water main replacement in conjunction with reconstruction streets projects for Bassett Street and West Wilson Street by Finance Committee amendment #4.

Budget Information

Prior Appropriation* **Prior Year Actual***

*Based on Fiscal Years 2015-2018

Budget by Funding Source

Funding Source	2020	2021	2022	2023	2024	2025
Revenue Bonds-Water	1,933,000	4,643,000	2,568,000	1,543,000	4,121,000	1,583,000
Total	\$1,933,000	\$4,643,000	\$2,568,000	\$1,543,000	\$4,121,000	\$1,583,000

Insert Funding Source

Budget by Expenditure Type

Expense Type	2020	2021	2022	2023	2024	2025
Water Network	1,933,000	4,643,000	2,568,000	1,543,000	4,121,000	1,583,000
Total	\$1,933,000	\$4,643,000	\$2,568,000	\$1,543,000	\$4,121,000	\$1,583,000

Insert Expense Type

Performance

Metric

Data Source

Baseline Data

2017 Actual	2018 Actual	2019 Projected	Target
371 ft	206 ft	250 ft	400 ft

Priority

Citywide Element

Strategy

Describe how this project advances the Citywide Element:

Project Schedule & Location

2020 Projects

<i>Project name</i>	<i>Est Cost</i>	<i>Location</i>
West Town Path (Gammon Rd, S)	\$147,000	Gammon Underpass to Commerce to Junction Road
Gregory St, Cross St, Copeland St, Western Ave	\$311,000	Gregory St to Monroe St
Dunning St, Jackson St, LaFollete Ave	\$78,000	RR-Atwood, RR-St Paul, Division-Ohio to Division-Ohio
Rethke Ave	\$78,000	E Washington to Commercial Ave
Dean Ave, Allis Ave, Tyler Cir, Seth Cir	\$1,304,000	Monona Dr to Turner Ave
Rockstream Dr & Ditch Culvert	\$15,000	New Roads - Coordination w/ Developer

 Insert item
Explain the justification for selecting projects planned for 2020:

The proposed 2020 'Water Mains Replace/Rehab/Improve – Reconstruct Streets' projects replace existing failed and/or undersized water mains, provide minor valve and hydrant improvements in conjunction with associated roadway construction projects, improve system hydraulics.

2021 Projects

<i>Project Name</i>	<i>Est Cost</i>	<i>Location</i>
Martin Luther King Jr Blvd (w Outer Loop South?)	\$81,000	Main St to Wilson St
Outer Capital Loop South (w MLK JR Blvd?)	\$139,000	Martin Luther King Jr Blvd to S Webster St
University Ave	\$1,420,000	Shorewood Blvd to Campus Dr
Elmside Blvd, Sommers Ave, Center Ave	\$81,000	Atwood Ave-Oakridge Ave, Miller St-Elmside Blvd, to Miller Ave-Maple Ave
Hillcrest Dr, Standish Ct, Alden Dr	\$678,000	Westmorland Blvd-Larkin St to Alden Dr, Standish Ct to dead end
Davies St, Major Ave, Dempsey Rd, Maher Ave	\$1,291,000	Buckeye Rd-Maher Ave to 150 ft N of Davidson-Maher Ave, Lake Edge Blvd-Dempsey Rd
MacArthur Rd, Larson St, Sycamore Ave, MacArthur Ct	\$81,000	E Washington Ave to Ends of all streets
Lake View Ave, Hanover St, West Ln, East Ln	\$872,000	Esch Ln-N Sherman Ave to Drewry Ln-Lakeview Ave

 Insert item
Explain the justification for selecting projects planned for 2021:

The proposed 2021 'Water Mains Replace/Rehab/Improve – Reconstruct Streets' projects replace existing failed and/or undersized water mains, provide minor valve and hydrant improvements in conjunction with associated roadway construction projects, improve system hydraulics.

2022 Projects

<i>Project Name</i>	<i>Est Cost</i>	<i>Location</i>
Blair/John Nolen Intersection	\$84,000	S Franklin St to Blount St
Blair St South	\$84,000	E Washington Ave to Williamson St
Wilson St East	\$268,000	Martin Luther King Jr Blvd to King St
LaFollette Ave, Ohio Ave, Talmadge St	\$135,000	Ohio Ave-Waubesa St to RR-Bashford Ave, RR-St Paul Ave
Sommers Av, Center Av, Willard Av, Hudson Av, Miller Av	\$84,000	Hudson-Miller, H-M, Ohio-Elmside to Atwood-Oakride, Atwood-Willard
Felland Rd	\$1,006,000	Lien Rd to Autumn Lake Pkwy
Davies, Drexel, Monona Ct	\$672,000	Major-Maher, Lake Edge-Davies to Major-Maher
Pontiac Trl, Nakomis Ct, Rosewood Cir, Boston Ct	\$151,000	Boston Ct to Jewel Ct
Crestview, Groveland, Dixie, Herro	\$84,000	Groveland Ter to Herro Ln

 Insert item
Explain the justification for selecting projects planned for 2022:

The proposed 2022 'Water Mains Replace/Rehab/Improve – Reconstruct Streets' projects replace existing failed and/or undersized water mains, provide minor valve and hydrant improvements in conjunction with associated roadway construction projects, improve system hydraulics.

2023 Projects

<i>Project name</i>	<i>Est Cost</i>	<i>Location</i>
Farwell St, South Ct, North Ct	\$349,000	Milwaukee St-RR, Farwell-Corry to Farwell-Corry
Yahara Pl, Walton Pl, Russell St	\$87,000	Walton-Dunning to Rutledge St-Yahara Pl
Evergreen Ave, Center Ave, Willard Ave, Ohio Ave	\$87,000	Center-Oakridge, Dunning-Hudson to Evergreen-Ohio, Center-Willard
Gary St	\$87,000	Dempsey Rd to Elinor St
Doncaster Dr, Beverly Rd, Danbury St	\$94,000	Danbury St-Seminole Hwy, Whenona Dr-Seminole Hwy to Doncaster Dr-Mohawk Dr
Maher Ave	\$839,000	Buckeye Rd to Davies St

Insert item

Explain the justification for selecting projects planned for 2023:

The proposed 2023 'Water Mains Replace/Rehab/Improve – Reconstruct Streets' projects replace existing failed and/or undersized water mains, provide minor valve and hydrant improvements in conjunction with associated roadway construction projects, improve system hydraulics.

2024 Projects

<i>Project name</i>	<i>Est Cost</i>	<i>Location</i>
Atwood Ave	\$816,000	Fair Oaks Ave to Walter St
Atwood Ave	\$816,000	Walter St to Cottage Grove Rd
John Nolen Dr	\$91,000	North Shore Dr to E Olin Ave
Helena St, Russell St, Jenifer St	\$291,000	Walton-450'S of Division to Winnebago-Jenifer, Walton-Division
Evergreen Ave, Ohio Ave, Sommers Ave	\$99,000	Atwood-Center to Dunning-Hudson
Valley View	\$1,917,000	South Point Rd to Boyer (west end)
Maher Ave, Douglas Trl	\$91,000	Tompkins-Pflaum to Joylyne-Camden

Insert item

Explain the justification for selecting projects planned for 2024:

The proposed 2024 'Water Mains Replace/Rehab/Improve – Reconstruct Streets' projects replace existing failed and/or undersized water mains, provide minor valve and hydrant improvements in conjunction with associated roadway construction projects, improve system hydraulics.

2025 Projects

<i>Project name</i>	<i>Est Cost</i>	<i>Location</i>
Birge Ter	\$94,000	University Ave to Birge Ter
Sherman Ave, McGuire St	\$94,000	McGuire St-N Sherman Ave to Sherman Ave-Fordem Ave
Hermina St, Union St	\$94,000	N Marquette St to Clyde-Gallagher Ave
Shawnee Pass	\$55,000	Nakoma Rd to Cherokee Dr
Valley View	\$1,246,000	Pioneer Rd to South Point Rd

Insert item

Explain the justification for selecting projects planned for 2025:

The proposed 2025 'Water Mains Replace/Rehab/Improve – Reconstruct Streets' projects replace existing failed and/or undersized water mains, provide minor valve and hydrant improvements in conjunction with associated roadway construction projects, improve system hydraulics.

Operating Costs

What are the estimated annual operating costs associated with the projects planned within this program?

Personnel

<i># of FTEs</i>	<i>Annual Cost</i>	<i>Description</i>
<input type="text"/>	<input type="text"/>	<input type="text"/>

Non-Personnel

<i>Major</i>	<i>Amount</i>	<i>Description</i>
<input type="text"/>	<input type="text"/>	<input type="text"/>

Insert item

Notes

Notes:

Submitted

2020 Capital Improvement Plan Program Budget Proposal

Identifying Information

Agency **Project Name**

Project Number 11894 **Project Type** Program

Project Category Utility **Priority**

2020 Munis Project Number

Description

This program funds 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.

Budget Information

Prior Appropriation* **Prior Year Actual***

*Based on Fiscal Years 2015-2018

Budget by Funding Source

Funding Source	2020	2021	2022	2023	2024	2025
Revenue Bonds-Water	785,000	3,869,000	4,745,000	3,561,000	2,962,000	1,995,000
Total	\$785,000	\$3,869,000	\$4,745,000	\$3,561,000	\$2,962,000	\$1,995,000

Insert Funding Source

Budget by Expenditure Type

Expense Type	2020	2021	2022	2023	2024	2025
Water Network	785,000	3,869,000	4,745,000	3,561,000	2,962,000	1,995,000
Total	\$785,000	\$3,869,000	\$4,745,000	\$3,561,000	\$2,962,000	\$1,995,000

Insert Expense Type

Performance

Metric

Data Source

Baseline Data

2017 Actual	2018 Actual	2019 Projected	Target
371 ft	206 ft	250 ft	400 ft

Priority

Citywide Element

Strategy

Describe how this project advances the Citywide Element:

Project Schedule & Location

2020 Projects

<i>Project name</i>	<i>Est Cost</i>	<i>Location</i>
S Brooks St	\$62,000	Regent St to Chandler St
Hathaway Dr, Strathmore Ln, Greenwich Dr, Devon Ct, Davenport Dr, Glenbrook Cir	\$109,000	Devon St to Glenbrook Cir
Spaanem Unit Well Zone 6 Integration	\$342,000	Allis Ave to Buckeye Rd
2020 Hydraulic Improvements - Replace Water Mains	\$272,000	Undistributed Citywide - Locations under development

Insert item

Explain the justification for selecting projects planned for 2020:

The proposed 2020 'Water Mains Replace/Rehab/Improve – Pavement Management' projects replace existing failed and/or undersized water mains, provide minor valve and hydrant improvements in conjunction with associated roadway construction projects, improve system hydraulics, provide service redundancy and integrate inter-zone water transfer capabilities between existing pressure zones.

2021 Projects

<i>Project Name</i>	<i>Est Cost</i>	<i>Location</i>
Old Middleton Rd, Craig Ave	\$96,000	Old Middleton Rd-Capital Ave to University Ave-S End
Commercial Avenue	\$81,000	200" E of Superior to Packers Ave Service Rd
N Franklin Avenue	\$274,000	Regent St to University Ave
Hooker Ave, Sheridan Dr, Steensland Dr	\$161,000	Steensland Dr-Logan St to Hooker Ave-N Sherman Ave
Melvin Ct, Ridgeway Ave	\$81,000	E Washington Ave-N End to 200' W of Melvin-W End
N Brooks St, Fahrenbrook Ct, College Ct	\$81,000	Regent-Spring, Park-Mills
South St, W Wingra Dr	\$81,000	550' S of Midland to Appleton RD
Hammersley Road	\$711,000	Reetz Rd to Brookwood Rd
2021 Hydraulic Improvements - Replace Water Mains	\$2,303,000	Undistributed Citywide - Locations under development

Insert item

Explain the justification for selecting projects planned for 2021:

The proposed 2021 'Water Mains Replace/Rehab/Improve – Pavement Management' projects replace existing failed and/or undersized water mains, provide minor valve and hydrant improvements in conjunction with associated roadway construction projects, improve system hydraulics.

2022 Projects

<i>Project Name</i>	<i>Est Cost</i>	<i>Location</i>
Starker Avenue	\$840,000	Woodvale Dr to Droster Rd
Edward St, Hillview Ter	\$84,000	Hillview Ter-Tokay Blvd to Hilltop Dr-S Segoe Rd
Hammersley Rd, Heritage Cir, Jewel Ct	\$84,000	Jewel Ct-Heritage Cir to Hammersley-N End
Mohawk Cir, Mohawk Dr	\$84,000	Mohawk Dr-S End to Seminole Hwy-Doncaster Dr
Ozark Trl, Antietam Ln, Shenadoah Way, Jetty Dr, Natchez Trace	\$84,000	Ozark Trl to Shenadoah Way
Price Pl, Vernon Blvd	\$84,000	Regent St-N End to N Segoe Rd-N Midvale Blvd
Buffalo Trl, Barron Ct, Green Lake Pass	\$67,000	Barron Ct to Dead End
Gilbert Road	\$655,000	Raymond Rd to Kroncke Dr
Kroncke Dr, Lanett Cir	\$504,000	S Whitney Way-Tanager to Kroncke Dr-N End
N Segoe Rd, Sheboygan Ave	\$486,000	Regent St-University Ave to N Segoe Rd-N Whitney Way
2022 Hydraulic Improvements - Replace Water Mains	\$1,773,000	Undistributed Citywide - Locations under development

Insert item

Explain the justification for selecting projects planned for 2022:

The proposed 2022 'Water Mains Replace/Rehab/Improve – Pavement Management' projects replace existing failed and/or undersized water mains, provide minor valve and hydrant improvements in conjunction with associated roadway construction projects, improve system hydraulics. Additional 2022 hydraulic improvement projects remain under development.

2023 Projects

Project name	Est Cost	Location
2023 Hydraulic Improvements - Replace Water Mains	\$3,561,000	Undistributed Citywide - Locations under development

Insert item

Explain the justification for selecting projects planned for 2023:

The 2023 'Water Mains Replace/Rehab/Improve – Pavement Management' projects replace existing failed and/or undersized water mains, provide minor valve and hydrant improvements in conjunction with associated roadway construction projects, and improve system hydraulics. 2023 hydraulic improvement projects remain under development.

2024 Projects

Project name	Est Cost	Location
2024 Hydraulic Improvements - Replace Water Mains	\$2,962,000	Undistributed Citywide - Locations under development

Insert item

Explain the justification for selecting projects planned for 2024:

The 2024 'Water Mains Replace/Rehab/Improve – Pavement Management' projects replace existing failed and/or undersized water mains, provide minor valve and hydrant improvements in conjunction with associated roadway construction projects, and improve system hydraulics. 2024 hydraulic improvement projects remain under development.

2025 Projects

Project name	Est Cost	Location
2025 Hydraulic Improvements - Replace Water Mains	\$1,995,000	Undistributed Citywide - Locations under development

Insert item

Explain the justification for selecting projects planned for 2025:

The 2025 'Water Mains Replace/Rehab/Improve – Pavement Management' projects replace existing failed and/or undersized water mains, provide minor valve and hydrant improvements in conjunction with associated roadway construction projects, and improve system hydraulics. 2025 hydraulic improvement projects remain under development.

Operating Costs

What are the estimated annual operating costs associated with the projects planned within this program?

Personnel

# of FTEs	Annual Cost	Description
<input type="text"/>	<input type="text"/>	<input type="text"/>

Non-Personnel

Major	Amount	Description
<input type="text"/>	<input type="text"/>	<input type="text"/>

Insert item

Notes

Notes:

Save and Close

2020 Capital Improvement Plan Project Budget Proposal

Identifying Information

Agency	<input type="text" value="Water Utility"/>	Project Name	<input type="text" value="Well 14 Mitigation"/>
Project Number	<input type="text" value="11900"/>	Project Type	<input type="text" value="Project"/>
Project Category	<input type="text" value="Utility"/>	Priority	<input type="text" value="19"/>

Description

This project funds improvements to reduce chloride concentration levels at Well 14 on University Avenue near Spring Harbor. Due to winter road salt operations on University Avenue and the surrounding neighborhoods, chloride levels in the water pumped from Well 14 have been rising for several years. Funding for this project was added to the budget by Finance Committee #15.

Is this project currently included in the 2019 CIP?

Budget Information

Total Project Budget **Prior Appropriation**

Budget by Funding Source

Funding Source	2020	2021	2022	2023	2024	2025
Revenue Bonds-Water	0	0	82,000	16,000	16,000	16,000
Total	\$0	\$0	\$82,000	\$16,000	\$16,000	\$16,000

Insert Funding Source

Budget by Expenditure Type

Expense Type	2020	2021	2022	2023	2024	2025
Machinery and Equipment			82,000	16,000	16,000	16,000
Total	\$0	\$0	\$82,000	\$16,000	\$16,000	\$16,000

Insert Expense Type

Performance

Metric	<input type="text" value="Routine water sampling and testing."/>
Data Source	<input type="text" value="Water sampling results."/>
Baseline	<input type="text" value="Chloride: 150 mg/l;..."/>
Target	<input type="text" value="Chloride: < 250 mg/l;..."/>

Priority

Citywide Element

Strategy

Describe how this project advances the Citywide Element:

What is the justification for this project?

Project Schedule & Location

What is the total time frame for this project?

Start Date: 1/1/2022

End Date: 12/31/2025

	2020	2021	2022	2023	2024	2025
Project Status			Planning	Schematic Design	Schematic Design	Schematic Design

Can this project be mapped?

Yes No

What is the location of the project?

5130 University Avenue

Is this project on the Project's Portal?

Yes No

If so, enter the URL:

https://www.cityofmadison.com/water/projects/road-salt-study-at-well-14

Operating Costs

What are the estimated annual operating costs associated with the project?

\$250,000

Personnel

# of FTEs	Annual Cost	Description
0.5	52,000	Maintaining and cleaning RO membranes.

Non-Personnel

Major	Amount	Description
54	65,000	Additional electrical power needed for pumping.
54	58,000	Water treatment cleaning.
54	75,000	Waste water disposal. Solids disposal in public sewer.

Insert item

Save

Submit

Notes

Notes:

Save and Close

Submitted

2020 Capital Improvement Plan Program Budget Proposal

Identifying Information

Agency **Project Name**

Project Number 12339 **Project Type** Program

Project Category Utility **Priority**

2020 Munis Project Number

Description

This program funds the annual vehicle and equipment replacements as well as new vehicle and equipment purchases. Replacement is based on age and mileage of the vehicles and equipment. The goal of this program is to provide reliable and safe vehicles and equipment for Water Utility's operations. Progress will be measured by the frequency of vehicle breakdowns and actual useful life obtained.

Budget Information

Prior Appropriation* **Prior Year Actual***

*Based on Fiscal Years 2015-2018

Budget by Funding Source

Funding Source	2020	2021	2022	2023	2024	2025
Reserves Applied - Water	767,000	731,000	655,000	669,000	690,000	705,000
Total	\$767,000	\$731,000	\$655,000	\$669,000	\$690,000	\$705,000

Insert Funding Source

Budget by Expenditure Type

Expense Type	2020	2021	2022	2023	2024	2025
Machinery and Equipment	767,000	731,000	655,000	669,000	690,000	705,000
Total	\$767,000	\$731,000	\$655,000	\$669,000	\$690,000	\$705,000

Insert Expense Type

Performance

Metric

Data Source

Baseline Data

2017 Actual	2018 Actual	2019 Projected	Target
N/A	N/A	25	<25

Priority

Citywide Element

Strategy

Describe how this project advances the Citywide Element:

By replacing aging vehicles with new electric or gas powered vehicles in the future, we will help to reduce carbon emissions and improve vehicle gas mileage. It will also reduce maintenance costs, and the length of time vehicles are out of service.

Project Schedule & Location

2020 Projects

<i>Project name</i>	<i>Est Cost</i>	<i>Location</i>
W20B-Dump Truck - replacement	\$157,000	110 Paterson Street
W19B Service Truck - replacement	\$70,000	110 Paterson Street
W44B, W56B and W88A - Replace 3 service vehicles	\$102,000	110 Paterson Street and 119 Olin Avenue
W80B Backhoe - replacement	\$145,000	110 Paterson Street
Meter Bench #2 Upgrade	\$120,000	119 Olin Avenue
Lawn Mower replacement	\$9,000	110 Paterson Street
Various small equipment replacements over the \$5,000 capitalization threshold	\$12,000	110 Paterson Street and 119 Olin Avenue
RP Valve Complete/Parts/Testing/Registration	\$25,000	110 Paterson Street
Speed Shore Replacement Box	\$19,000	110 Paterson Street
Various large tools and equipment	\$80,000	110 Paterson Street
Scissor Lift - new	\$28,000	110 Paterson Street

Insert item

Explain the justification for selecting projects planned for 2020:

MWU maintains a list of all vehicles and equipment. Vehicles are replaced based on the year purchased to maintain safe and reliable vehicles for our employees. Equipment is evaluated yearly and replaced based on the age and condition of the equipment.

2021 Projects

<i>Project Name</i>	<i>Est Cost</i>	<i>Location</i>
W45B-Dump Truck - replacement	\$163,000	110 Paterson Street
W33B Service Truck - replacement	\$72,000	110 Paterson Street
W52C, W89A and W96A - Replace 3 service vehicles	\$105,000	110 Paterson Street and 119 Olin Avenue
W53B Backhoe - replacement	\$149,000	110 Paterson Street
Mapping and Survey Equipment Modernization	\$46,000	119 E Olin Avenue
Various small equipment replacements over the \$5,000 capitalization threshold	\$12,000	110 Paterson Street and 119 Olin Avenue
RP Valve Complete/Parts/Testing/Registration	\$26,000	110 Paterson Street
Speed Shore Replacement Box	\$20,000	110 Paterson Street
Various large tools and equipment	\$80,000	110 Paterson Street
Towable Lift - new	\$58,000	110 Paterson Street

Insert item

Explain the justification for selecting projects planned for 2021:

MWU maintains a list of all vehicles and equipment. Vehicles are replaced based on the year purchased to maintain safe and reliable vehicles for our employees. Equipment is evaluated yearly and replaced based on the age and condition of the equipment.

2022 Projects

<i>Project Name</i>	<i>Est Cost</i>	<i>Location</i>
W4B-Dump Truck - replacement	\$168,000	110 Paterson Street
W10B Service Truck - replacement	\$74,000	110 Paterson Street
W3A, W17A and W29C - Replace 3 service vehicles	\$109,000	110 Paterson Street and 119 Olin Avenue
W77B Backhoe - replacement	\$153,000	110 Paterson Street
Mapping and Survey Equipment Modernization	\$12,000	119 E Olin Avenue
Various small equipment replacements over the \$5,000 capitalization threshold	\$12,000	110 Paterson Street and 119 Olin Avenue
RP Valve Complete/Parts/Testing/Registration	\$27,000	110 Paterson Street
Speed Shore Replacement Box	\$20,000	110 Paterson Street
Various large tools and equipment	\$80,000	110 Paterson Street

Insert item

Explain the justification for selecting projects planned for 2022:

MWU maintains a list of all vehicles and equipment. Vehicles are replaced based on the year purchased to maintain safe and reliable vehicles for our employees. Equipment is evaluated yearly and replaced based on the age and condition of the equipment.

2023 Projects

<i>Project name</i>	<i>Est Cost</i>	<i>Location</i>
W32B-Dump Truck - replacement	\$173,000	110 Paterson Street
W8B Service Truck - replacement	\$76,000	110 Paterson Street
W31B, W49B, W51B, W60A, W63B, W79B and W85A - Replace 7 service vehicles	\$270,000	110 Paterson Street and 119 Olin Avenue

Project name	Est Cost	Location
Various small equipment replacements over the \$5,000 capitalization threshold	\$12,000	110 Paterson Street and 119 Olin Avenue
RP Valve Complete/Parts/Testing/Registration	\$28,000	110 Paterson Street
Speed Shore Replacement Box	\$21,000	110 Paterson Street
Various large tools and equipment	\$80,000	110 Paterson Street

Insert item

Explain the justification for selecting projects planned for 2023:

MWU maintains a list of all vehicles and equipment. Vehicles are replaced based on the year purchased to maintain safe and reliable vehicles for our employees. Equipment is evaluated yearly and replaced based on the age and condition of the equipment.

2024 Projects

Project name	Est Cost	Location
W71B-Dump Truck - replacement	\$179,000	110 Paterson Street
W78B Service Truck - replacement	\$78,000	110 Paterson Street
W91A, W92A and W1B - Replace 3 service vehicles per year	\$116,000	110 Paterson Street and 119 Olin Avenue
W24B Backhoe - replacement	\$162,000	110 Paterson Street
Mapping and Survey Equipment Modernization	\$12,000	119 E Olin Avenue
Various small equipment replacements over the \$5,000 capitalization threshold	\$13,000	110 Paterson Street and 119 Olin Avenue
RP Valve Complete/Parts/Testing/Registration	\$29,000	110 Paterson Street
Speed Shore Replacement Box	\$21,000	110 Paterson Street
Various large tools and equipment	\$80,000	110 Paterson Street

Insert item

Explain the justification for selecting projects planned for 2024:

MWU maintains a list of all vehicles and equipment. Vehicles are replaced based on the year purchased to maintain safe and reliable vehicles for our employees. Equipment is evaluated yearly and replaced based on the age and condition of the equipment.

2025 Projects

Project name	Est Cost	Location
W34B-Dump Truck - replacement	\$184,000	110 Paterson Street
W9B Service Truck - replacement	\$80,000	110 Paterson Street
W6B, W39B and W54B - Replace 3 service vehicles per year	\$120,000	110 Paterson Street and 119 Olin Avenue
W25C Backhoe - replacement	\$167,000	110 Paterson Street
Mapping and Survey Equipment Modernization	\$9,000	119 E Olin Avenue
Various small equipment replacements over the \$5,000 capitalization threshold	\$13,000	110 Paterson Street and 119 Olin Avenue
RP Valve Complete/Parts/Testing/Registration	\$30,000	110 Paterson Street
Speed Shore Replacement Box	\$22,000	110 Paterson Street
Various large tools and equipment	\$80,000	110 Paterson Street

Insert item

Explain the justification for selecting projects planned for 2025:

MWU maintains a list of all vehicles and equipment. Vehicles are replaced based on the year purchased to maintain safe and reliable vehicles for our employees. Equipment is evaluated yearly and replaced based on the age and condition of the equipment.

Operating Costs

What are the estimated annual operating costs associated with the projects planned within this program?

Personnel

# of FTEs	Annual Cost	Description
<input type="text"/>	<input type="text"/>	<input type="text"/>

Non-Personnel

Major	Amount	Description
<input type="text"/>	<input type="text"/>	<input type="text"/>

Insert item

Save

Submit

Notes

Notes:

v. 5-22-2019

Save and Close

Submitted

2020 Capital Improvement Plan Program Budget Proposal

Identifying Information

Agency **Project Name**

Project Number 12340 **Project Type** Program

Project Category Utility **Priority**

2020 Munis Project Number

Description

This program funds 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 testing/replacement and fixed network maintenance against the respective prescribed schedules and monitoring our total non-revenue water volume year to year.

Budget Information

Prior Appropriation* **Prior Year Actual***

*Based on Fiscal Years 2015-2018

Budget by Funding Source

Funding Source	2020	2021	2022	2023	2024	2025
Reserves Applied - Water	650,000	666,000	683,000	700,000	718,000	736,000
Total	\$650,000	\$666,000	\$683,000	\$700,000	\$718,000	\$736,000

Insert Funding Source

Budget by Expenditure Type

Expense Type	2020	2021	2022	2023	2024	2025
Machinery and Equipment	650,000	666,000	683,000	700,000	718,000	736,000
Total	\$650,000	\$666,000	\$683,000	\$700,000	\$718,000	\$736,000

Insert Expense Type

Performance

Metric

Data Source

Baseline Data

2017 Actual	2018 Actual	2019 Projected	Target
4171	3421	3825	4000

Priority

Citywide Element

Strategy

Describe how this project advances the Citywide Element:

Project Schedule & Location

2020 Projects

Project name	Est Cost	Location
5/8", 3/4" & 1" Meter Purchase/Set/Change	\$354,000	Meters to be installed citywide
1.5" & 2" Meter Purchase/Set/Change	\$177,000	Meters to be installed citywide
3" and larger Meter Purchase/Set/Change	\$49,000	Meters to be installed citywide
Fixed Network System	\$70,000	Updates to the fixed network citywide

Insert item

Explain the justification for selecting projects planned for 2020:

PSC Chapter 185.32 requires water utilities to meter and bill all customers. PSC Chapter 185.73 requires water utilities to test and change out all meters on a 20 year schedule. Meters are required to be accurate within PSC stated limits.

2021 Projects

Project Name	Est Cost	Location
5/8", 3/4" & 1" Meter Purchase/Set/Change	\$363,000	Meters to be installed citywide
1.5" & 2" Meter Purchase/Set/Change	\$182,000	Meters to be installed citywide
3" and larger Meter Purchase/Set/Change	\$50,000	Meters to be installed citywide
Fixed Network System	\$71,000	Updates to the fixed network citywide

Insert item

Explain the justification for selecting projects planned for 2021:

PSC Chapter 185.32 requires water utilities to meter and bill all customers. PSC Chapter 185.73 requires water utilities to test and change out all meters on a 20 year schedule. Meters are required to be accurate within PSC stated limits.

2022 Projects

Project Name	Est Cost	Location
5/8", 3/4" & 1" Meter Purchase/Set/Change	\$372,000	Meters to be installed citywide
1.5" & 2" Meter Purchase/Set/Change	\$187,000	Meters to be installed citywide
3" and larger Meter Purchase/Set/Change	\$51,000	Meters to be installed citywide
Fixed Network System	\$73,000	Updates to the fixed network citywide

Insert item

Explain the justification for selecting projects planned for 2022:

PSC Chapter 185.32 requires water utilities to meter and bill all customers. PSC Chapter 185.73 requires water utilities to test and change out all meters on a 20 year schedule. Meters are required to be accurate within PSC stated limits.

2023 Projects

Project name	Est Cost	Location
5/8", 3/4" & 1" Meter Purchase/Set/Change	\$382,000	Meters to be installed citywide
1.5" & 2" Meter Purchase/Set/Change	\$191,000	Meters to be installed citywide
3" and larger Meter Purchase/Set/Change	\$52,000	Meters to be installed citywide
Fixed Network System	\$75,000	Updates to the fixed network citywide

Insert item

Explain the justification for selecting projects planned for 2023:

PSC Chapter 185.32 requires water utilities to meter and bill all customers. PSC Chapter 185.73 requires water utilities to test and change out all meters on a 20 year schedule. Meters are required to be accurate within PSC stated limits.

2024 Projects

Project name	Est Cost	Location
5/8", 3/4" & 1" Meter Purchase/Set/Change	\$390,000	Meters to be installed citywide
1.5" & 2" Meter Purchase/Set/Change	\$196,000	Meters to be installed citywide
3" and larger Meter Purchase/Set/Change	\$54,000	Meters to be installed citywide
Fixed Network System	\$78,000	Updates to the fixed network citywide

Insert item

Explain the justification for selecting projects planned for 2024:

PSC Chapter 185.32 requires water utilities to meter and bill all customers. PSC Chapter 185.73 requires water utilities to test and change out all meters on a 20 year schedule. Meters are required to be accurate within PSC stated limits.

2025 Projects

<i>Project name</i>	<i>Est Cost</i>	<i>Location</i>
5/8", 3/4" & 1" Meter Purchase/Set/Change	\$401,000	Meters to be installed citywide
1.5" & 2" Meter Purchase/Set/Change	\$200,000	Meters to be installed citywide
3" and larger Meter Purchase/Set/Change	\$55,000	Meters to be installed citywide
Fixed Network System	\$80,000	Updates to the fixed network citywide

Insert item

Explain the justification for selecting projects planned for 2025:

PSC Chapter 185.32 requires water utilities to meter and bill all customers. PSC Chapter 185.73 requires water utilities to test and change out all meters on a 20 year schedule. Meters are required to be accurate within PSC stated limits.

Operating Costs

What are the estimated annual operating costs associated with the projects planned within this program?

Personnel

<i># of FTEs</i>	<i>Annual Cost</i>	<i>Description</i>
<input type="text"/>	<input type="text"/>	<input type="text"/>

Non-Personnel

<i>Major</i>	<i>Amount</i>	<i>Description</i>
<input type="text"/>	<input type="text"/>	<input type="text"/>

Insert item

Notes

Notes:

Submitted

2020 Capital Improvement Plan Program Budget Proposal

Identifying Information

Agency **Project Name**

Project Number 12341 **Project Type** Program

Project Category Utility **Priority**

2020 Munis Project Number

Description

This program funds the DNR suggested 10 year unit well upgrade projects for Water. The goal of this program is to ensure that all unit wells are functioning at their highest efficiency level and reduce annual maintenance costs. Progress will be measured by reduced well maintenance costs, fewer unit well failures and compliance with the DNR suggested 10 year schedule.

Budget Information

Prior Appropriation* **Prior Year Actual***

*Based on Fiscal Years 2015-2018

Budget by Funding Source

Funding Source	2020	2021	2022	2023	2024	2025
Reserves Applied - Water	320,000	240,000	255,000	270,000	270,000	285,000
Total	\$320,000	\$240,000	\$255,000	\$270,000	\$270,000	\$285,000

Insert Funding Source

Budget by Expenditure Type

Expense Type	2020	2021	2022	2023	2024	2025
Machinery and Equipment	320,000	240,000	255,000	270,000	270,000	285,000
Total	\$320,000	\$240,000	\$255,000	\$270,000	\$270,000	\$285,000

Insert Expense Type

Performance

Metric

Data Source

Baseline Data

2017 Actual	2018 Actual	2019 Projected	Target
0	1	0	0

Priority

Citywide Element

Strategy

Describe how this project advances the Citywide Element:

Project Schedule & Location

2020 Projects

Project name	Est Cost	Location
UW #11	\$80,000	102 Dempsey Road
UW #17	\$80,000	201 S Hancock Street
UW #8	\$80,000	1925 S Park Street
UE #30	\$80,000	1133 Mooreland Road

Insert item

Explain the justification for selecting projects planned for 2020:

Maintaining our unit wells allows us to run our pumps at peak performance for safe and clean drinking water and fire protection. Regular maintenance allows the unit wells to run as efficient as possible and minimizes breakdowns and the need to unexpectedly take a well off-line. The DNR requires all pumps to be pulled and inspected every 10 years. MWU maintains a list of all unit wells and their corresponding maintenance schedule. The unit wells selected for maintenance each year are taken from this list.

2021 Projects

Project Name	Est Cost	Location
UW #20	\$80,000	2829 Prairie Road
UW #24	\$80,000	809 E Dayton Street
UW #15	\$80,000	3900 E Washington Avenue

Insert item

Explain the justification for selecting projects planned for 2021:

Maintaining our unit wells allows us to run our pumps at peak performance for safe and clean drinking water and fire protection. Regular maintenance allows the unit wells to run as efficient as possible and minimizes breakdowns and the need to unexpectedly take a well off-line. The DNR requires all pumps to be pulled and inspected every 10 years. MWU maintains a list of all unit wells and their corresponding maintenance schedule. The unit wells selected for maintenance each year are taken from this list.

2022 Projects

Project Name	Est Cost	Location
UW #29	\$85,000	829 N Thompson Drive
UW #6	\$85,000	2757 University Avenue
UW #13	\$85,000	1201 Wheeler Road

Insert item

Explain the justification for selecting projects planned for 2022:

Maintaining our unit wells allows us to run our pumps at peak performance for safe and clean drinking water and fire protection. Regular maintenance allows the unit wells to run as efficient as possible and minimizes breakdowns and the need to unexpectedly take a well off-line. The DNR requires all pumps to be pulled and inspected every 10 years. MWU maintains a list of all unit wells and their corresponding maintenance schedule. The unit wells selected for maintenance each year are taken from this list.

2023 Projects

Project name	Est Cost	Location
UW #23	\$90,000	4502 Leo Drive
UW #28	\$90,000	8210 Old Sauk Road
UW #7	\$90,000	1709 N Sherman Avenue

Insert item

Explain the justification for selecting projects planned for 2023:

Maintaining our unit wells allows us to run our pumps at peak performance for safe and clean drinking water and fire protection. Regular maintenance allows the unit wells to run as efficient as possible and minimizes breakdowns and the need to unexpectedly take a well off-line. The DNR requires all pumps to be pulled and inspected every 10 years. MWU maintains a list of all unit wells and their corresponding maintenance schedule. The unit wells selected for maintenance each year are taken from this list.

2024 Projects

Project name	Est Cost	Location
UW #16	\$90,000	6706 Mineral Point Road
UW #19	\$90,000	2526 Lake Mendota Drive
UW #25	\$90,000	5415 Queensbridge Road

Insert item

Explain the justification for selecting projects planned for 2024:

Maintaining our unit wells allows us to run our pumps at peak performance for safe and clean drinking water and fire protection. Regular maintenance allows the unit wells to run as efficient as possible and minimizes breakdowns and the need to unexpectedly take a well off-line. The DNR requires all pumps to be pulled and inspected every 10 years. MWU maintains a list of all unit wells and their corresponding maintenance schedule. The unit wells selected for maintenance each year are taken from this list.

2025 Projects

Project name	Est Cost	Location
UW #14	\$95,000	5130 University Avenue
UW #9	\$95,000	4727 Spaanem Avenue
UW #26	\$95,000	910 High Point Road

Insert item

Explain the justification for selecting projects planned for 2025:

Maintaining our unit wells allows us to run our pumps at peak performance for safe and clean drinking water and fire protection. Regular maintenance allows the unit wells to run as efficient as possible and minimizes breakdowns and the need to unexpectedly take a well off-line. The DNR requires all pumps to be pulled and inspected every 10 years. MWU maintains a list of all unit wells and their corresponding maintenance schedule. The unit wells selected for maintenance each year are taken from this list.

Operating Costs

What are the estimated annual operating costs associated with the projects planned within this program?

Personnel

# of FTEs	Annual Cost	Description
<input type="text"/>	<input type="text"/>	<input type="text"/>

Non-Personnel

Major	Amount	Description
<input type="text"/>	<input type="text"/>	<input type="text"/>

Insert item

Notes

Notes:

Submitted

2020 Capital Improvement Plan Program Budget Proposal

Identifying Information

Agency **Project Name**

Project Number 12385 **Project Type** Program

Project Category Utility **Priority**

2020 Munis Project Number

Description

This program is for the annual raising, replacing and moving of water hydrants. The goal of this program is to maintain reliable service for fire suppression.

Budget Information

Prior Appropriation* **Prior Year Actual***

*Based on Fiscal Years 2015-2018

Budget by Funding Source

Funding Source	2020	2021	2022	2023	2024	2025
Reserves Applied - Water	550,000	567,000	583,000	601,000	619,000	637,000
Total	\$550,000	\$567,000	\$583,000	\$601,000	\$619,000	\$637,000

Insert Funding Source

Budget by Expenditure Type

Expense Type	2020	2021	2022	2023	2024	2025
Water Network	550,000	567,000	583,000	601,000	619,000	637,000
Total	\$550,000	\$567,000	\$583,000	\$601,000	\$619,000	\$637,000

Insert Expense Type

Performance

Metric

Data Source

Baseline Data

2017 Actual	2018 Actual	2019 Projected	Target
ISO 1	ISO 1	ISO 1	ISO 1

Priority

Citywide Element

Strategy

Describe how this project advances the Citywide Element:

Project Schedule & Location

2020 Projects

<i>Project name</i>	<i>Est Cost</i>	<i>Location</i>
2020 Water Utility Hydrant Program	\$550,000	Citywide

Insert item

Explain the justification for selecting projects planned for 2020:

Improving fire protection for homeowners and commercial property owners.

2021 Projects

<i>Project Name</i>	<i>Est Cost</i>	<i>Location</i>
2021 Water Utility Hydrant Program	\$567,000	Citywide

Insert item

Explain the justification for selecting projects planned for 2021:

Improving fire protection for homeowners and commercial property owners.

2022 Projects

<i>Project Name</i>	<i>Est Cost</i>	<i>Location</i>
2022 Water Utility Hydrant Program	\$583,000	Citywide

Insert item

Explain the justification for selecting projects planned for 2022:

Improving fire protection for homeowners and commercial property owners.

2023 Projects

<i>Project name</i>	<i>Est Cost</i>	<i>Location</i>
2023 Water Utility Hydrant Program	\$601,000	Citywide

Insert item

Explain the justification for selecting projects planned for 2023:

Improving fire protection for homeowners and commercial property owners.

2024 Projects

<i>Project name</i>	<i>Est Cost</i>	<i>Location</i>
2024 Water Utility Hydrant Program	\$619,000	Citywide

Insert item

Explain the justification for selecting projects planned for 2024:

Improving fire protection for homeowners and commercial property owners.

2025 Projects

<i>Project name</i>	<i>Est Cost</i>	<i>Location</i>
2025 Water Utility Hydrant Program	\$637,000	Citywide

Insert item

Explain the justification for selecting projects planned for 2025:

Improving fire protection for homeowners and commercial property owners.

Operating Costs

What are the estimated annual operating costs associated with the projects planned within this program?

Personnel

<i># of FTEs</i>	<i>Annual Cost</i>	<i>Description</i>
<input type="text"/>	<input type="text"/>	<input type="text"/>

Non-Personnel

<i>Major</i>	<i>Amount</i>	<i>Description</i>
<input type="text"/>	<input type="text"/>	<input type="text"/>

Insert item

Notes

Notes:

Save and Close

Submitted

2020 Capital Improvement Plan Program Budget Proposal

Identifying Information

Agency **Project Name**

Project Number 12386 **Project Type** Program

Project Category Utility **Priority**

2020 Munis Project Number

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 interruptions in service for safe and reliable water. Progress will be measured by the frequency of equipment failure.

Budget Information

Prior Appropriation* **Prior Year Actual***

*Based on Fiscal Years 2015-2018

Budget by Funding Source

Funding Source	2020	2021	2022	2023	2024	2025
Reserves Applied - Water	31,000	32,000	33,000	34,000	35,000	36,000
Total	\$31,000	\$32,000	\$33,000	\$34,000	\$35,000	\$36,000

Insert Funding Source

Budget by Expenditure Type

Expense Type	2020	2021	2022	2023	2024	2025
Machinery and Equipment	31,000	32,000	33,000	34,000	35,000	36,000
Total	\$31,000	\$32,000	\$33,000	\$34,000	\$35,000	\$36,000

Insert Expense Type

Performance

Metric Amount of residual chlorine and floride in the water meets or exceeds DNR requirements. MWU monitors the residuals in real time. We keep chlorine between .1 mg/l and ...

Data Source Routine Water Utility sampling and testing

Baseline Data

2017 Actual	2018 Actual	2019 Projected	Target
Met	Met	Meet	Meet

Priority

Citywide Element

Strategy

Describe how this project advances the Citywide Element:

Project Schedule & Location

2020 Projects

<i>Project name</i>	<i>Est Cost</i>	<i>Location</i>
2020 Chlorinators and Floridators	\$31,000	MWU Unit Wells and Booster Pump Stations.

Insert item

Explain the justification for selecting projects planned for 2020:

Continue to exceed established DNR water quality standards and keep Madison's water supply safe.

2021 Projects

<i>Project Name</i>	<i>Est Cost</i>	<i>Location</i>
2021 Chlorinators and Floridators	\$32,000	MWU Unit Wells and Booster Pump Stations.

Insert item

Explain the justification for selecting projects planned for 2021:

Continue to exceed established DNR water quality standards and keep Madison's water supply safe.

2022 Projects

<i>Project Name</i>	<i>Est Cost</i>	<i>Location</i>
2022 Chlorinators and Floridators	\$33,000	MWU Unit Wells and Booster Pump Stations.

Insert item

Explain the justification for selecting projects planned for 2022:

Continue to exceed established DNR water quality standards and keep Madison's water supply safe.

2023 Projects

<i>Project name</i>	<i>Est Cost</i>	<i>Location</i>
2023 Chlorinators and Floridators	\$34,000	MWU Unit Wells and Booster Pump Stations.

Insert item

Explain the justification for selecting projects planned for 2023:

Continue to exceed established DNR water quality standards and keep Madison's water supply safe.

2024 Projects

<i>Project name</i>	<i>Est Cost</i>	<i>Location</i>
2024 Chlorinators and Floridators	\$35,000	MWU Unit Wells and Booster Pump Stations.

Insert item

Explain the justification for selecting projects planned for 2024:

Continue to exceed established DNR water quality standards and keep Madison's water supply safe.

2025 Projects

<i>Project name</i>	<i>Est Cost</i>	<i>Location</i>
2025 Chlorinators and Floridators	\$36,000	MWU Unit Wells and Booster Pump Stations.

Insert item

Explain the justification for selecting projects planned for 2025:

Continue to exceed established DNR water quality standards and keep Madison's water supply safe.

Operating Costs

What are the estimated annual operating costs associated with the projects planned within this program?

Personnel

<i># of FTEs</i>	<i>Annual Cost</i>	<i>Description</i>
<input type="text"/>	<input type="text"/>	<input type="text"/>

Non-Personnel

<i>Major</i>	<i>Amount</i>	<i>Description</i>
<input type="text"/>	<input type="text"/>	<input type="text"/>

Insert item

Notes

Notes:

Save and Close

Submitted

2020 Capital Improvement Plan Program Budget Proposal

Identifying Information

Agency **Project Name**

Project Number 12387 **Project Type** Program

Project Category Utility **Priority**

2020 Munis Project Number

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 availability for customers is impacted during water system maintenance and repair. Success is measured by a reduction in complaints from customers for impacted service.

Budget Information

Prior Appropriation* **Prior Year Actual***

*Based on Fiscal Years 2015-2018

Budget by Funding Source

Funding Source	2020	2021	2022	2023	2024	2025
Reserves Applied - Water	15,000	16,000	16,000	17,000	17,000	18,000
Total	\$15,000	\$16,000	\$16,000	\$17,000	\$17,000	\$18,000

Insert Funding Source

Budget by Expenditure Type

Expense Type	2020	2021	2022	2023	2024	2025
Water Network	15,000	16,000	16,000	17,000	17,000	18,000
Total	\$15,000	\$16,000	\$16,000	\$17,000	\$17,000	\$18,000

Insert Expense Type

Performance

Metric

Data Source

Baseline Data

2017 Actual	2018 Actual	2019 Projected	Target
4	62	25	<100

Priority

Citywide Element

Strategy

Describe how this project advances the Citywide Element:

Project Schedule & Location

2020 Projects

Project name	Est Cost	Location
2020 Cut-in Valves	\$15,000	Citywide

Insert item

Explain the justification for selecting projects planned for 2020:

Additional valves on a main allows for a lower number of customers out of service when MWU is repairing/rehabing a pipe.

2021 Projects

Project Name	Est Cost	Location
2021 Cut-in Valves	\$16,000	Citywide

Insert item

Explain the justification for selecting projects planned for 2021:

Additional valves on a main allows for a lower number of customers out of service when MWU is repairing/rehabing a pipe.

2022 Projects

Project Name	Est Cost	Location
2022 Cut-in Valves	\$16,000	Citywide

Insert item

Explain the justification for selecting projects planned for 2022:

Additional valves on a main allows for a lower number of customers out of service when MWU is repairing/rehabing a pipe.

2023 Projects

Project name	Est Cost	Location
2023 Cut-in Valves	\$17,000	Citywide

Insert item

Explain the justification for selecting projects planned for 2023:

Additional valves on a main allows for a lower number of customers out of service when MWU is repairing/rehabing a pipe.

2024 Projects

Project name	Est Cost	Location
2024 Cut-in Valves	\$17,000	Citywide

Insert item

Explain the justification for selecting projects planned for 2024:

Additional valves on a main allows for a lower number of customers out of service when MWU is repairing/rehabing a pipe.

2025 Projects

Project name	Est Cost	Location
2025 Cut-in Valves	\$18,000	Citywide

Insert item

Explain the justification for selecting projects planned for 2025:

Additional valves on a main allows for a lower number of customers out of service when MWU is repairing/rehabing a pipe.

Operating Costs

What are the estimated annual operating costs associated with the projects planned within this program?

Personnel

# of FTEs	Annual Cost	Description
<input type="text"/>	<input type="text"/>	<input type="text"/>

Non-Personnel

Major	Amount	Description
<input type="text"/>	<input type="text"/>	<input type="text"/>

Insert item

Notes

Notes:

Save and Close

Submitted

2020 Capital Improvement Plan Project Budget Proposal

Identifying Information

Agency	<input type="text" value="Water Utility"/>	Project Name	<input type="text" value="Westside Water Supply"/>
Project Number	<input type="text" value="12439"/>	Project Type	<input type="text" value="Project"/>
Project Category	<input type="text" value="Utility"/>	Priority	<input type="text" value="18"/>

Description

Water demand projections indicate that there will be a supply deficiency on the far west side of the system in the 20's and it will grow as the area develops. This project will develop a new source of supply on the far west side of the system.

Is this project currently included in the 2019 CIP?

Budget Information

Total Project Budget **Prior Appropriation**

Budget by Funding Source

Funding Source	2020	2021	2022	2023	2024	2025
Revenue Bonds-Water	0	153,000	2,370,000	1,127,000	971,000	7,531,000
Total	\$0	\$153,000	\$2,370,000	\$1,127,000	\$971,000	\$7,531,000

Insert Funding Source

Budget by Expenditure Type

Expense Type	2020	2021	2022	2023	2024	2025
Water Network		153,000	2,370,000	1,127,000		
Building					971,000	7,531,000
Total	\$0	\$153,000	\$2,370,000	\$1,127,000	\$971,000	\$7,531,000

Insert Expense Type

Performance

Metric	<input type="text" value="Water supply availability and fire protection capacity."/>
Data Source	<input type="text" value="Water Utility operational records."/>
Baseline	<input type="text" value="Average and maxim..."/>
Target	<input type="text" value="Meet average daily d..."/>

Priority

Citywide Element

Strategy

Describe how this project advances the Citywide Element:

What is the justification for this project?

Project Schedule & Location

What is the total time frame for this project?

Start Date: 1/1/2021

End Date: 12/31/2026

	2020	2021	2022	2023	2024	2025
Project Status		Planning	Design Completion	Construction	Construction	Construction

Can this project be mapped?

Yes No

What is the location of the project?

Western region of the City.

Is this project on the Project's Portal?

Yes No

Operating Costs

What are the estimated annual operating costs associated with the project?

\$160,000

Personnel

# of FTEs	Annual Cost	Description
.125	13,000	Facility will be operated by existing personnel.

Non-Personnel

Major	Amount	Description
54	110,000	Electrical power required for pumping.
53	37,000	Chemicals and wastewater.

Insert item

Save

Submit

Notes

Notes:

Save and Close

Submitted

2020 Capital Improvement Plan Project Budget Proposal

Identifying Information

Agency	Water Utility ▼	Project Name	Unit Well #8 Reconstruction ▼
Project Number	12440	Project Type	Project
Project Category	Utility	Priority	16 ▼

Description

Iron and manganese levels at Well 8 require filtration upgrades. Well 8 also provides the opportunity to be a three zone well making it a valuable facility operationally. Treatment will allow Well 8 to become a year around well.

Is this project currently included in the 2019 CIP? ▼

Budget Information

Total Project Budget **Prior Appropriation**

Budget by Funding Source

Funding Source	2020	2021	2022	2023	2024	2025
Revenue Bonds-Water ▼	0	0	0	0	0	87,000
Total	\$0	\$0	\$0	\$0	\$0	\$87,000

Insert Funding Source

Budget by Expenditure Type

Expense Type	2020	2021	2022	2023	2024	2025
Building ▼						87,000
Total	\$0	\$0	\$0	\$0	\$0	\$87,000

Insert Expense Type

Performance

Metric	Water quality parameters and hours of operation.	
Data Source	Routine Water Utility sampling and testing and operational records.	
	Baseline	Target
	Iron: 0.58 mg/l; Ma...	Iron: < 0.1 mg/l; Man...

Priority

Citywide Element Green and Resilient ▼

Strategy Protect Madison's water supply and infrastructure to provide safe clean drinking water. ▼

Describe how this project advances the Citywide Element:

Meeting established water quality goals is essential to renewing and maintaining critical infrastructure. Providing operational flexibility improves customer service and system reliability.

What is the justification for this project?

Water quality exceeds established standards. Facility is rarely used due to substandard water quality. Improving operational flexibility to efficiently move water around the system.

Project Schedule & Location

What is the total time frame for this project?

Start Date: 1/1/2025

End Date: 12/31/2029

	2020	2021	2022	2023	2024	2025
Project Status						Planning

Can this project be mapped?

Yes No

What is the location of the project?

3206 Lakeland Avenue

Is this project on the Project's Portal?

Yes No

Operating Costs

What are the estimated annual operating costs associated with the project?

Personnel

# of FTEs	Annual Cost	Description
.083	8,700	Facility is operated by existing personnel.

Non-Personnel

Major	Amount	Description
54	6,500	Electric power for treatment.
53	5,000	Water treatment chemicals.

Insert item

Notes

Notes:

Submitted

2020 Capital Improvement Plan Project Budget Proposal

Identifying Information

Agency **Project Name**

Project Number 12441 **Project Type** Project

Project Category Utility **Priority**

Description

The Lake View Booster Pumping Station is necessary to meet fire fighting requirements in Zone 5 and to accommodate the expansion of Zone 5. Pump capacity will be increased to 1000 to 1400 gpm. A generator will be added to ensure reliability of the pumping station.

Is this project currently included in the 2019 CIP?

Budget Information

Total Project Budget **Prior Appropriation**

Budget by Funding Source

Funding Source	2020	2021	2022	2023	2024	2025
Revenue Bonds-Water						238,000
Total	\$0	\$0	\$0	\$0	\$0	\$238,000

Insert Funding Source

Budget by Expenditure Type

Expense Type	2020	2021	2022	2023	2024	2025
Water Network						238,000
Total	\$0	\$0	\$0	\$0	\$0	\$238,000

Insert Expense Type

Performance

Metric

Data Source

Baseline **Target**

Priority

Citywide Element

Strategy

Describe how this project advances the Citywide Element:

What is the justification for this project?

Project Schedule & Location

What is the total time frame for this project?

Start Date: 1/1/2025

End Date: 12/31/2027

	2020	2021	2022	2023	2024	2025
Project Status						Planning

Can this project be mapped?

Yes No

What is the location of the project?

1320 Lake View Avenue

Is this project on the Project's Portal?

Yes No

Operating Costs

What are the estimated annual operating costs associated with the project? \$0

Personnel

# of FTEs	Annual Cost	Description
<input type="text"/>	<input type="text"/>	<input type="text"/>

Non-Personnel

Major	Amount	Description
<input type="text"/>	<input type="text"/>	<input type="text"/>

Insert item

Notes

Notes:

Submitted

2020 Capital Improvement Plan Project Budget Proposal

Identifying Information

Agency **Project Name**

Project Number 12442 **Project Type** Project

Project Category Utility **Priority**

Description

BPS 128 pumping capacity requires upgrade to meet anticipated grow on the far west side of the water system. Pumps will be increased in capacity to 2100 gpm.

Is this project currently included in the 2019 CIP?

Budget Information

Total Project Budget **Prior Appropriation**

Budget by Funding Source

Funding Source	2020	2021	2022	2023	2024	2025
Revenue Bonds-Water	0	0	0	92,000	440,000	0
Total	\$0	\$0	\$0	\$92,000	\$440,000	\$0

Insert Funding Source

Budget by Expenditure Type

Expense Type	2020	2021	2022	2023	2024	2025
Machinery and Equipment	0	0	0	92,000	440,000	0
Total	\$0	\$0	\$0	\$92,000	\$440,000	\$0

Insert Expense Type

Performance

Metric

Data Source

Baseline **Target**

Priority

Citywide Element

Strategy

Describe how this project advances the Citywide Element:

Adequate pumping capacity is essential to renewing and maintaining critical infrastructure.

What is the justification for this project?

Pumping capacity is inadequate to support planned development on the far west side of the system.

Project Schedule & Location

What is the total time frame for this project?

Start Date: 1/1/2023

End Date: 12/31/2025

	2020	2021	2022	2023	2024	2025
Project Status				Planning	Construction Comple	

Can this project be mapped?

Yes No

What is the location of the project?

9202 Waterside Street

Is this project on the Project's Portal?

Yes No

Operating Costs

What are the estimated annual operating costs associated with the project? \$0

Personnel

# of FTEs	Annual Cost	Description
<input type="text"/>	<input type="text"/>	<input type="text"/>

Non-Personnel

Major	Amount	Description
<input type="text"/>	<input type="text"/>	<input type="text"/>

Insert item

Save

Submit

Notes

Notes:

Save and Close

Submitted

2020 Capital Improvement Plan Project Budget Proposal

Identifying Information

Agency	Water Utility ▼	Project Name	Unit Well #15 ▼
Project Number	12443	Project Type	Project
Project Category	Utility	Priority	15 ▼

Description

Perfluorinated compounds (PFOS) have been detected in Well 15 producing concerns about the need for treatment at the well. USEPA and WiDNR has not established a regulatory level for PFOS at this time. The current health advisory level is 70 ppt and there is strong public sentiment to lower the level. This project will start the process of investigating options for Well 15.

Is this project currently included in the 2019 CIP? ▼

Budget Information

Total Project Budget **Prior Appropriation**

Budget by Funding Source

Funding Source	2020	2021	2022	2023	2024	2025
Revenue Bonds-Water ▼	0	82,000	16,000	16,000	16,000	16,000
Total	\$0	\$82,000	\$16,000	\$16,000	\$16,000	\$16,000

Insert Funding Source

Budget by Expenditure Type

Expense Type	2020	2021	2022	2023	2024	2025
Building ▼	0	82,000	16,000	16,000	16,000	16,000
Total	\$0	\$82,000	\$16,000	\$16,000	\$16,000	\$16,000

Insert Expense Type

Performance

Metric	Routine water sampling and testing	
Data Source	Water sampling results	
	Baseline	Target
	Current PFOA + PF...	Unknown at this time...

Priority

Citywide Element ▼

Strategy ▼

Describe how this project advances the Citywide Element:

Meeting established water quality goals and providing safe drinking water is essential to a public water supply and to maintaining critical infrastructure.

What is the justification for this project?

PFAS is an emerging water contaminate of public health concern and will most likely be regulated soon.

Project Schedule & Location

What is the total time frame for this project?

Start Date: 1/1/2021

End Date: 12/31/2028

	2020	2021	2022	2023	2024	2025
Project Status	▼	Planning ▼	Planning ▼	Planning ▼	Planning ▼	Planning ▼

Can this project be mapped?

Yes No

What is the location of the project?

3900 E Washington Avenue

Is this project on the Project's Portal?

Yes No

Operating Costs

What are the estimated annual operating costs associated with the project?

(\$22,000)

Personnel

# of FTEs	Annual Cost	Description
.125	13,000	Facility is operated by existing personnel.

Non-Personnel

Major	Amount	Description
54	27,000	Additional electrical power from additional pumping and UV disinfection energy.
53	24,000	GAC replacement (water treatment media).
54	(\$86,000)	Reduction in costs from eliminating need for blowers and acid feed

Insert item

Save

Submit

Notes

Notes:

Save and Close

Submitted

2020 Capital Improvement Plan Program Budget Proposal

Identifying Information

Agency **Project Name**

Project Number 12507 **Project Type** Program

Project Category Utility **Priority**

2020 Munis Project Number

Description

This program funds 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 2019 include: County Highway M at Midtown Road and Raymond Road, Cottage Grove Road at the I90/I94, and Cannonball Path Phase 6 west of Fish Hatchery Road.

Budget Information

Prior Appropriation* **Prior Year Actual***

*Based on Fiscal Years 2015-2018

Budget by Funding Source

Funding Source	2020	2021	2022	2023	2024	2025
Revenue Bonds-Water	4,082,000	96,000	1,780,000	4,276,000	3,081,000	5,019,000
Total	\$4,082,000	\$96,000	\$1,780,000	\$4,276,000	\$3,081,000	\$5,019,000

Insert Funding Source

Budget by Expenditure Type

Expense Type	2020	2021	2022	2023	2024	2025
Water Network	4,082,000	96,000	1,780,000	4,276,000	3,081,000	5,019,000
Total	\$4,082,000	\$96,000	\$1,780,000	\$4,276,000	\$3,081,000	\$5,019,000

Insert Expense Type

Performance

Metric

Data Source

Baseline Data

2017 Actual	2018 Actual	2019 Projected	Target
54%	73%	67%	>=50%

Priority

Citywide Element

Strategy

Describe how this project advances the Citywide Element:

Project Schedule & Location

2020 Projects

<i>Project name</i>	<i>Est Cost</i>	<i>Location</i>
Cottage Grove Road	\$621,000	I-90 to Sprecher Road
Treetops Dr., Feather Edge Dr	\$543,000	Meadow Rd to Soaring Sky Run
Felland Rd, Lien Rd Water Main Extension	\$2,918,000	Felland Rd Reservoir to Lien Zone 3, Interstate Zone 6

Insert item

Explain the justification for selecting projects planned for 2020:

The proposed 2020 'Water Mains New' projects extend new water mains to improve water system hydraulics, pressures, fire protection, and support ongoing development and water supply/facility improvements. These projects occur in conjunction with associated roadway construction projects or as stand-alone water main improvements consistent with infrastructure priorities identified in the Water Utility Master Plan.

2021 Projects

<i>Project Name</i>	<i>Est Cost</i>	<i>Location</i>
2021 Hydraulic Improvements - Water Main Extensions	\$96,000	Undistributed/Citywide - locations under development

Insert item

Explain the justification for selecting projects planned for 2021:

The proposed 2021 'Water Mains New' projects extend new water mains to improve water system hydraulics, pressures, fire protection, and support ongoing development and water supply/facility improvements. These projects occur in conjunction with associated roadway construction projects or as stand-alone water main improvements consistent with infrastructure priorities identified in the Water Utility Master Plan.

2022 Projects

<i>Project Name</i>	<i>Est Cost</i>	<i>Location</i>
Cottage Grove Road Interstate Crossing	\$672,000	S Thompson Dr to 208 Ft W of North Star Dr
2022 Hydraulic Improvements - Water Main Extensions	\$1,108,000	Undistributed/Citywide - locations under development

Insert item

Explain the justification for selecting projects planned for 2022:

The proposed 2022 'Water Mains New' projects extend new water mains to improve water system hydraulics, pressures, fire protection, and support ongoing development and water supply/facility improvements. These projects occur in conjunction with associated roadway construction projects or as stand-alone water main improvements consistent with infrastructure priorities identified in the Water Utility Master Plan.

2023 Projects

<i>Project name</i>	<i>Est Cost</i>	<i>Location</i>
Pleasant View Rd	\$174,000	Old Sauk Rd to US Hwy 14
Cannonball Path	\$87,000	Railroad to Bowman Field
Reiner Rd	\$454,000	Woods Farm Plat to Lien Rd
2023 Hydraulic Improvements - Water Main Extensions	\$3,561,000	Undistributed/Citywide - locations under development

Insert item

Explain the justification for selecting projects planned for 2023:

The proposed 2023 'Water Mains New' projects extend new water mains to improve water system hydraulics, pressures, fire protection, and support ongoing development and water supply/facility improvements. These projects occur in conjunction with associated roadway construction projects or as stand-alone water main improvements consistent with infrastructure priorities identified in the Water Utility Master Plan.

2024 Projects

<i>Project name</i>	<i>Est Cost</i>	<i>Location</i>
2024 Hydraulic Improvements - Water Main Extensions	\$3,081,000	Undistributed/Citywide - locations under development

Insert item

Explain the justification for selecting projects planned for 2024:

The proposed 2024 'Water Mains New' projects extend new water mains to improve water system hydraulics, pressures, fire protection, and support ongoing development and water supply/facility improvements. These projects occur in conjunction with associated roadway construction projects or as stand-alone water main improvements consistent with infrastructure priorities identified in the Water Utility Master Plan.

2025 Projects

<i>Project name</i>	<i>Est Cost</i>	<i>Location</i>
Mineral Point Rd	\$1,512,000	Beltline to High Point Rd
Pleasant View Rd	\$1,512,000	Mineral Point Rd to Old Sauk Rd.
2025 Hydraulic Improvements - Water Main Extensions	\$1,995,000	Undistributed/Citywide - locations under development

Insert item

Explain the justification for selecting projects planned for 2025:

The proposed 2025 'Water Mains New' projects extend new water mains to improve water system hydraulics, pressures, fire protection, and support ongoing development and water supply/facility improvements. These projects occur in conjunction with associated roadway construction projects or as stand-alone water main improvements consistent with infrastructure priorities identified in the Water Utility Master Plan.

Operating Costs

What are the estimated annual operating costs associated with the projects planned within this program?

Personnel

<i># of FTEs</i>	<i>Annual Cost</i>	<i>Description</i>

<input type="text"/>	<input type="text"/>	<input type="text"/>
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Non-Personnel

<i>Major</i>	<i>Amount</i>	<i>Description</i>
<input type="text"/>	<input type="text"/>	<input type="text"/>

Insert item

Notes

Notes:

v. 5-22-2019