

# Water Utility

## Capital Improvement Plan

	2020 Adopted	2021 Request	Change
2021 Capital Budget	13,187,000	6,508,000	(6,679,000)
2021 Capital Improvement Plan	95,025,000	49,878,000	(45,147,000)

2020 Adopted  
**19**

2021 Request  
**18**

### Project Summary: Agency Request

	2021	2022	2023	2024	2025	2026
Water Utility Facility Improvements	417,000	1,167,000	1,152,000	1,119,000	1,153,000	1,187,000
Well 19 Iron and Manganese Filter	-	891,000	6,691,000	81,000	-	-
Unit Well 12 Conversion to a Two Zone Well	-	-	263,000	3,754,000	41,000	-
Water Mains Replace Rehab Improve - Pipe Lining	1,110,000	983,000	1,111,000	1,036,000	1,077,000	1,419,000
Water Mains Replace Rehab Improve - Reconstruct Streets	1,848,000	392,000	593,000	1,662,000	1,169,000	2,917,000
Water Mains Replace Rehab Improve - Pavement Managemen	1,208,000	1,586,000	1,286,000	335,000	362,000	378,000
Well 14 Mitigation	-	82,000	-	-	-	-
Water Utility Vehicles & Equipment	344,000	521,000	246,000	539,000	256,000	557,000
Water Meter and Fixed Network Program	500,000	513,000	526,000	539,000	552,000	566,000
Unit Well Rehab Program	240,000	330,000	247,000	340,000	254,000	350,000
Water Hydrants Program	350,000	350,000	350,000	350,000	350,000	350,000
Chlorinators & Florinators Program	31,000	35,000	35,000	40,000	40,000	41,000
Water Valve Cut-In Program	16,000	16,000	17,000	18,000	19,000	20,000
Unit Well #8 Reconstruction	120,000	-	-	88,000	1,778,000	2,292,000
Booster Pump Station #213 Lakeview Reconstruction	-	-	-	188,000	1,161,000	-
Unit Well #15	122,000	-	-	-	-	-
Water Mains - New	152,000	159,000	166,000	1,429,000	178,000	185,000
UW#23 Abandonment	50,000	-	-	-	-	-
<b>Total</b>	<b>\$ 6,508,000</b>	<b>\$ 7,025,000</b>	<b>\$ 12,683,000</b>	<b>\$ 11,518,000</b>	<b>\$ 8,390,000</b>	<b>\$ 10,262,000</b>

# Water Utility

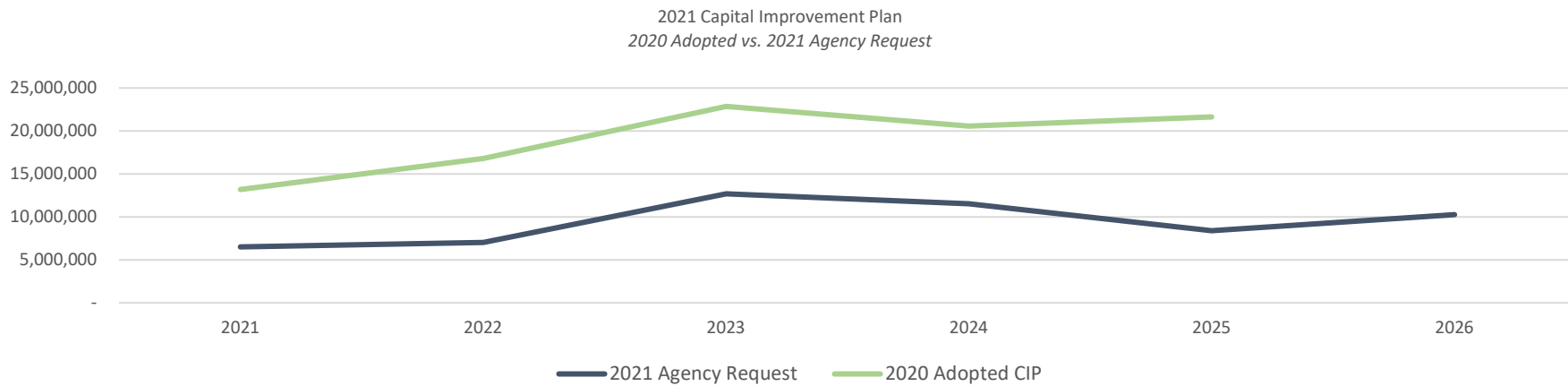
## Capital Improvement Plan

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2020 Adopted  
**19**

2021 Request  
**18**

## Changes from 2020 CIP



## Major Changes/Decision Points

- **Booster Pump Station #213 Lakeview Reconstruction**  
Project moved from 2025/26 to 2024/25
- **Unit Well #15**  
Project moved from 2021-2025 to 2021
- **Unit Well #8 Reconstruction**  
Project budget increased by \$1.0m based inclusion of full project scope in the CIP  
Project moved from 2025 to 2021 and 2023-2026
- **UW#23 Abandonment**  
Project added to CIP in 2021
- **Water Utility Facility Improvements**  
Program budget increased by \$2.0m based on additional required building and site maintenance projects in 2022-2025

# Water Utility

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**19**

2021 Request  
**18**

- Well 19 Iron and Manganese Filter  
Project moved from 2021-2023 to 2022-2024
- Program Budget Reductions  
Various program budgets reduced across CIP based on goals outlined in financial plan submitted to Public Service Commission  
Program budgets reduced include: Water Hydrants, New Water Main, Water Main Replacements, Water Main Pipe Lining, Fixed Network, and Vehicle & Equipment Purchases

TO: Dave Schmiedicke

FROM: Tom Heikkinen, Madison Water Utility

DATE: June 12, 2020

SUBJECT: Madison Water Utility 2021 Capital Budget Requests

### Goals of Agency's Capital Budget

The primary goal of our 2021 capital budget 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.

### Summary of Changes from 2020 Capital Improvement Plan

The Utility has always been committed to sound fiscal planning and is committed to building up financial reserves that will one day fund our infrastructure replacement program and reduce our reliance on debt financing. To allow this to happen, the Utility is making significant short-term changes in our CIP. The single largest change in our 2021 CIP as compared to our 2020 CIP is a reduction of \$6.8 million for our 2021 CIP. The majority of this decrease comes from a reduction in our Water Main programs. We reduced our Water Main programs by \$5 million in our 2021 CIP as compared to our 2020 CIP. Additionally, we reduced our other major programs by \$800,000. These programs include our Hydrant Program, Meter Program, UW Rehab Program, Water Utility Facility Improvement Program and our Vehicles and Equipment Program.

A filter for iron and manganese was scheduled to start construction at UW 19 at a cost of \$900,000 in 2021 in our 2020 CIP. This has been moved to start in 2022 in our 2021 CIP due to our current financial goals.

Development of a new well on the Westside of Madison was scheduled to start at a cost of \$100,000 in 2021 in our 2020 CIP. This has been removed from our 2021 CIP. This will be possible due to improvements at UW 12.

We added one new project to our 2021 CIP, UW 23 Abandonment. Abandonment of UW 23 has been made possible with the improvements to UW 9 implemented in 2020. UW 23 has had water quality issues and the additional surplus water available from UW 9 makes it possible for us to abandon this well in 2021.

## Criteria Used to Prioritized Requests

Using the techniques of asset management, we are placing emphasis on our most critical infrastructure assets and prioritizing work based on business case evaluations. Madison Water Utility's infrastructure renewal and replacement programs stem from a data-driven Asset Management program and a comprehensive Utility Master Plan. These programs define and assess core risk metrics for all existing infrastructure in the system, as well as identify and evaluate the projected needs of Madison's water system. These programs allow the Utility to objectively identify and evaluate critical water infrastructure needs for the present and the future. The Utility further prioritizes these infrastructure investments using a triple bottom line framework based on the economic, environmental and social impacts of the proposed projects.

## Prioritized List of Capital Requests

<b>PROGRAM/PROJECT</b>	<b>MUNIS PROJECT</b>	<b>2021 PRIORITY</b>
WATER MAINS RECONSTRUCT	13054	1
WATER MAINS PAVEMENT MANAGEMENT	13055	2
WATER MAINS PIPE LINING	13059	3
WATER MAINS NEW	13053	4
METER & FIXED NETWORK PROGRAM	13052	5
VEHICLES & EQUIPMENT PROGRAM	13049	6
HYDRANT PROGRAM	13057	7
UW REHAB PROGRAM	13056	8
CHLORINATOR & FLORIDATOR PROGRAM	13050	9
UW #19 WATER QUALITY MITIGATION	10448	10
UW #15 PFAS MITIGATION	12443	11
UW #14 WATER QUALITY MITIGATION	11900	12
BPS #213 LAKE VIEW RECONSTRUCT	12441	13
WATER UTILITY FACILITY IMPROVEMENTS	13048	14
NEW VALVE CUT-IN PROGRAM	13051	15
UW #8 RECONSTRUCTION	12440	16
UW #12 CONVERSION TO A TWO ZONE WELL	10452	17
UW #23 ABANDONMENT	13063	18

## Potential for Scaling Capital Requests

In an effort to reduce our dependency on long-term debt, meet certain key financial metrics, and build up our cash reserves, we have scaled back on all of our capital programs and projects for 2021 and all the out years. We have reduced our 2021 – 2025 CIP by almost \$50 million as compared to those years in our 2020 CIP while still ensuring the level of service required for a Utility of our size.

## Impact of COVID-19 on Capital Funding

MWU has seen a decrease in revenue due to Covid-19. While the residential, multifamily and duplex usage is up, the commercial, industrial, governmental usage is down. MWU stopped assessing late fees on unpaid account balances in mid-March in an effort to help our rate payors during this crisis.

MWU has a current rate increase application before the PSC. We had a commission hearing on this case on May 15, 2020 and are waiting to receive our decision. We anticipate an 8% revenue increase.

Submitted

## 2021 Capital Improvement Plan Capital Budget Proposal

### Identifying Information

<b>Agency</b>	Water Utility ▼	<b>Proposal Name</b>	Booster Pump Station #213 Lakeview Reconstruction ▼
<b>Project Number</b>	12441	<b>Project Type</b>	Project
<b>Project Category</b>	Utility	<b>Priority:</b>	13 ▼

### 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.

### Budget Information

**Total Project Budget**  **Prior Appropriation**

### Budget by Funding Source

Funding Source	2021	2022	2023	2024	2025	2026
Revenue Bonds-Water ▼				188,000	1,161,000	
<b>Total</b>	\$0	\$0	\$0	\$188,000	\$1,161,000	\$0

Insert Funding Source

### Budget by Expenditure Type

Expense Type	2021	2022	2023	2024	2025	2026
Building ▼				188,000	86,000	
Machinery and Equipment ▼					1,075,000	
<b>Total</b>	\$0	\$0	\$0	\$188,000	\$1,161,000	\$0

Insert Expense Type

### Explain any changes from the 2020 CIP in the proposed funding for this project.

This project was moved up one year to start in 2024 to meet the Utility level of service requirements for fire protection and system reliability.

### 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:**

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

### What is the justification for this project?

Fire protection capacity does not meet Utility standards. Pumping capacity is inadequate to allow expansion of service area.

### Project Schedule & Location

**Can this project be mapped?**  Yes  No

**What is the location of the project?**

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

2021 Status	Status/Phase	Est Cost	Description
	2021 Capital Budget		Agency Requests 480

Status/Phase	Est Cost	Description
<input type="checkbox"/> Insert item		
<b>2022</b> <i>Status</i>		
Status/Phase	Est Cost	Description
<input type="checkbox"/> Insert item		
<b>2023</b> <i>Status</i>		
Status/Phase	Est Cost	Description
<input type="checkbox"/> Insert item		
<b>2024</b> <i>Status</i>		
Status/Phase	Est Cost	Description
<input type="checkbox"/> Insert item	188000	Public Engagement & Engineering Services
<b>2025</b> <i>Status</i>		
Status/Phase	Est Cost	Description
<input type="checkbox"/> Insert item	5000	Public Engagement
<input type="checkbox"/> Insert item	541000	Upgrade Pumps
<input type="checkbox"/> Insert item	615000	Generator
<b>2026</b> <i>Status</i>		
Status/Phase	Est Cost	Description
<input type="checkbox"/> Insert item		

Operating Costs

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

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

## 2021 Capital Improvement Plan Capital Budget Proposal

### Identifying Information

<b>Agency</b>	Water Utility <input type="text"/>	<b>Proposal Name</b>	Chlorinators & Florinators Program <input type="text"/>
<b>Project Number</b>	12386	<b>Project Type</b>	Program
<b>Project Category</b>	Utility	<b>Priority:</b>	9 <input type="text"/>
<b>2021 Project Number</b>	13050 <input type="text"/>		

### 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.

### Budget Information

**Prior Appropriation\***  **Prior Year Actual\***

\*Based on Fiscal Years 2015-2019

### Budget by Funding Source

Funding Source	2021	2022	2023	2024	2025	2026
Reserves Applied - Water <input type="text"/>	31,000	35,000	35,000	40,000	40,000	41,000
<b>Total</b>	<b>\$31,000</b>	<b>\$35,000</b>	<b>\$35,000</b>	<b>\$40,000</b>	<b>\$40,000</b>	<b>\$41,000</b>

Insert Funding Source

### Budget by Expenditure Type

Expense Type	2021	2022	2023	2024	2025	2026
Machinery and Equipment <input type="text"/>	31,000	35,000	35,000	40,000	40,000	41,000
<b>Total</b>	<b>\$31,000</b>	<b>\$35,000</b>	<b>\$35,000</b>	<b>\$40,000</b>	<b>\$40,000</b>	<b>\$41,000</b>

Insert Expense Type

### Explain any changes from the 2020 CIP in the proposed funding for this program.

No significant change.

### Priority

**Citywide Element**

**Strategy**

**Describe how this project advances the Citywide Element:**

Meeting established water quality regulations and goals is essential to renewing and maintaining critical infrastructure.

### Project Schedule & Location

#### 2021 Projects

Project name	Est Cost	Location
2021 Chlorinators and Floridators	\$31,000	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

2021 Capital Budget Agency Requests 482

Project Name	Est Cost	Location
2022 Chlorinators and Floridators	\$35,000	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**

Project Name	Est Cost	Location
2023 Chlorinators and Floridators	\$35,000	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**

Project name	Est Cost	Location
2024 Chlorinators and Floridators	\$40,000	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**

Project name	Est Cost	Location
2025 Chlorinators and Floridators	\$40,000	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.

**2026 Projects**

Project name	Est Cost	Location
2026 Chlorinators and Floridators	\$41,000	MWU Unit Wells and Booster Pump Stations

Insert item

**Explain the justification for selecting projects planned for 2026:**

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**

# 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

## 2021 Capital Improvement Plan Capital Budget Proposal

### Identifying Information

<b>Agency</b>	Water Utility <input type="text"/>	<b>Proposal Name</b>	Unit Well #8 Reconstruction <input type="text"/>
<b>Project Number</b>	12440	<b>Project Type</b>	Project
<b>Project Category</b>	Utility	<b>Priority:</b>	16 <input type="text"/>

### 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.

### Budget Information

**Total Project Budget**  **Prior Appropriation**

### Budget by Funding Source

Funding Source	2021	2022	2023	2024	2025	2026
Revenue Bonds-Water <input type="text"/>	120,000			88,000	1,778,000	2,292,000
<b>Total</b>	\$120,000	\$0	\$0	\$88,000	\$1,778,000	\$2,292,000

Insert Funding Source

### Budget by Expenditure Type

Expense Type	2021	2022	2023	2024	2025	2026
Building <input type="text"/>	120,000			88,000	1,578,000	
Land <input type="text"/>					200,000	
Water Network <input type="text"/>						2,292,000
<b>Total</b>	\$120,000	\$0	\$0	\$88,000	\$1,778,000	\$2,292,000

Insert Expense Type

### Explain any changes from the 2020 CIP in the proposed funding for this project.

This project has been moved to start in 2021 due to the uncertainty on the long term viability of UW 15.

### Priority

**Citywide Element**

**Strategy**

#### 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

**Can this project be mapped?**  Yes  No

**What is the location of the project?**

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

2021 Status

2021 Capital Budget

Agency Requests

484

Status/Phase	Est Cost	Description
<input type="checkbox"/> Insert item <b>2022 Status</b>	120000	Sentinel Well
<input type="checkbox"/> Insert item <b>2023 Status</b>		
<input type="checkbox"/> Insert item <b>2024 Status</b>	88000	Public Engagement and Engineering Services
<input type="checkbox"/> Insert item <b>2025 Status</b>	1558000	Public Engagement, Engineering Services & Building Rehab
	200000	Property Acquisition and Permitting
<input type="checkbox"/> Insert item <b>2026 Status</b>	2292000	Pipeline Improvements

**Operating Costs**

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

**Personnel**

# of FTEs	Annual Cost	Description
<input type="text" value=".83"/>	<input type="text" value="8,700"/>	Facility is operated by existing personnel.

**Non-Personnel**

Major	Amount	Description
<input type="text" value="54"/>	<input type="text" value="6,500"/>	Electric power for treatment.
<input type="text" value="53"/>	<input type="text" value="5,000"/>	Water treatment chemicals.

Insert item

**Notes**

Notes:

v 05/04/2020

Submitted

## 2021 Capital Improvement Plan Capital Budget Proposal

### Identifying Information

<b>Agency</b>	Water Utility	<b>Proposal Name</b>	Unit Well #15
<b>Project Number</b>	12443	<b>Project Type</b>	Project
<b>Project Category</b>	Utility	<b>Priority:</b>	11

### Description

This project is for studying options to treat the perfluorinated compounds (PFOS) at Unit Well #15. USEPA and WiDNR have not established a regulatory level for PFOS at this time, however the current health advisory level is 70 parts per trillion.

### Budget Information

**Total Project Budget**  **Prior Appropriation**

### Budget by Funding Source

Funding Source	2021	2022	2023	2024	2025	2026
Revenue Bonds-Water	122,000					
<b>Total</b>	\$122,000	\$0	\$0	\$0	\$0	\$0

### Budget by Expenditure Type

Expense Type	2021	2022	2023	2024	2025	2026
Building	122,000					
<b>Total</b>	\$122,000	\$0	\$0	\$0	\$0	\$0

### Explain any changes from the 2020 CIP in the proposed funding for this project.

No significant change to this project.

### Priority

**Citywide Element**

**Strategy**

**Describe how this project advances the Citywide Element:**

**What is the justification for this project?**

### Project Schedule & Location

**Can this project be mapped?**  Yes  No

**What is the location of the project?**

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

### 2021 Status

Status/Phase	Est Cost	Description
2021 Capital Budget	82000	Public Engagement & Engineering Services to determine best way to mitigate PFAS contamination at Agency Requests

	Status/Phase	Est Cost	Description
		40000	Mitigation
<b>2022</b>	<b>Status</b>		
	Status/Phase	Est Cost	Description
<b>2023</b>	<b>Status</b>		
	Status/Phase	Est Cost	Description
<b>2024</b>	<b>Status</b>		
	Status/Phase	Est Cost	Description
<b>2025</b>	<b>Status</b>		
	Status/Phase	Est Cost	Description
<b>2026</b>	<b>Status</b>		
	Status/Phase	Est Cost	Description

**Operating Costs**

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

**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

**Notes**

Notes:

Submitted

## 2021 Capital Improvement Plan Capital Budget Proposal

### Identifying Information

<b>Agency</b>	Water Utility ▼	<b>Proposal Name</b>	Unit Well 12 Conversion to a Two Zone Well ▼
<b>Project Number</b>	10452	<b>Project Type</b>	Project
<b>Project Category</b>	Utility	<b>Priority:</b>	17 ▼

### 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.

### Budget Information

**Total Project Budget**  **Prior Appropriation**

### Budget by Funding Source

Funding Source	2021	2022	2023	2024	2025	2026
Revenue Bonds-Water ▼			263,000	3,754,000	41,000	
<b>Total</b>	\$0	\$0	\$263,000	\$3,754,000	\$41,000	\$0

Insert Funding Source

### Budget by Expenditure Type

Expense Type	2021	2022	2023	2024	2025	2026
Building ▼			263,000	3,754,000	41,000	
<b>Total</b>	\$0	\$0	\$263,000	\$3,754,000	\$41,000	\$0

Insert Expense Type

### Explain any changes from the 2020 CIP in the proposed funding for this project.

No substantial change in this project from our 2020 CIP.

### 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:

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

Can this project be mapped?  Yes  No

What is the location of the project?

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

**2021 Status**

Status/Phase	Est Cost	Description
2021 Capital Budget ▼		Agency Requests 488

Insert item

**2022 Status**

Status/Phase	Est Cost	Description
<input type="text"/>	<input type="text"/>	<input type="text"/>

Insert item

**2023 Status**

Status/Phase	Est Cost	Description
<input type="text"/>	263000	Engineering Services

Insert item

**2024 Status**

Status/Phase	Est Cost	Description
<input type="text"/>	3754000	Well Reconstruction and Upgrade

Insert item

**2025 Status**

Status/Phase	Est Cost	Description
<input type="text"/>	41000	Water Utility Labor

Insert item

**2026 Status**

Status/Phase	Est Cost	Description
<input type="text"/>	<input type="text"/>	<input type="text"/>

Insert item

### Operating Costs

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

### Personnel

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

### Non-Personnel

Major	Amount	Description
54	21000	Electrical power needed for pumping.

Insert item

### Notes

Notes:

v 05/04/2020



Submitted

## 2021 Capital Improvement Plan Capital Budget Proposal

### Identifying Information

<b>Agency</b>	Water Utility <input type="text"/>	<b>Proposal Name</b>	Unit Well Rehab Program <input type="text"/>
<b>Project Number</b>	12341	<b>Project Type</b>	Program
<b>Project Category</b>	Utility	<b>Priority:</b>	8 <input type="text"/>
<b>2021 Project Number</b>	13056 <input type="text"/>		

### Description

This program is for the 10 year unit well upgrade projects as recommended by WiDNR. The goal of this program is to ensure that all unit wells are functioning at an efficient level and to reduce annual maintenance costs. Progress will be measured by reduction of maintenance costs, fewer unit well failures, and compliance with the 10 year schedule.

### Budget Information

**Prior Appropriation\***  **Prior Year Actual\***

\*Based on Fiscal Years 2015-2019

### Budget by Funding Source

Funding Source	2021	2022	2023	2024	2025	2026
Reserves Applied - Water <input type="text"/>	240,000	330,000	247,000	340,000	254,000	350,000
<b>Total</b>	\$240,000	\$330,000	\$247,000	\$340,000	\$254,000	\$350,000

Insert Funding Source

### Budget by Expenditure Type

Expense Type	2021	2022	2023	2024	2025	2026
Machinery and Equipment <input type="text"/>	240,000	330,000	247,000	340,000	254,000	350,000
<b>Total</b>	\$240,000	\$330,000	\$247,000	\$340,000	\$254,000	\$350,000

Insert Expense Type

### Explain any changes from the 2020 CIP in the proposed funding for this program.

We have reduced the size of this program in an effort to improve our key performance metrics and increase cash reserves.

### Priority

**Citywide Element**

**Strategy**

**Describe how this project advances the Citywide Element:**

This program keeps our water supply capacities at peak levels which is important for fire protection and safe clean drinking water.

### Project Schedule & Location

#### 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 #28	\$82,500	8210 Old Sauk Road
UW #6	\$82,500	2757 University Avenue
UW #13	\$82,500	1201 Wheeler Road
UW #7	\$82,500	1709 N Sherman Avenue

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 #16	\$82,500	6706 Mineral Point Road
UW #19	\$82,500	2526 Lake Mendota Drive
UW #25	\$82,000	5415 Queensbridge Road

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 #14	\$85,000	5130 University Avenue
UW #9	\$85,000	4724 Spaanem Avenue
UW #26	\$85,000	910 High Point Road
UW #27	\$85,000	18 N Randall Avenue

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 #31	\$85,000	4901 Tradewinds Parkway
UW #12	\$85,000	801 S Whitney Way
UW #29	\$84,000	829 N Thompson Drive

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.

**2026 Projects**

Project name	Est Cost	Location
UW #8	\$87,500	3206 Lakeland Avenue
UW #17	\$87,500	201 S Hancock Street
UW #11	\$87,500	102 Dempsey Road
UW #30	\$87,500	1133 Moorland Road

Insert item

**Explain the justification for selecting projects planned for 2026:**

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	Annual Cost	Description	Agency Requests
2021	Capital Budget		491

FTEs		
<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 05/04/2020

Submitted

## 2021 Capital Improvement Plan Capital Budget Proposal

### Identifying Information

<b>Agency</b>	Water Utility <input type="text"/>	<b>Proposal Name</b>	UW#23 Abandonment <input type="text"/>
<b>Project Number</b>	13063	<b>Project Type</b>	Project
<b>Project Category</b>	Utility	<b>Priority:</b>	18 <input type="text"/>

### Description

UW#23 has been out of service since 2017. This well has high levels of iron and manganese and leads to a high volume of calls for discolored water when used. It has recently tested high for PFAS.

### Budget Information

**Total Project Budget**  **Prior Appropriation**

### Budget by Funding Source

Funding Source	2021	2022	2023	2024	2025	2026
Reserves Applied - Water <input type="text"/>	50,000					
<b>Total</b>	\$50,000	\$0	\$0	\$0	\$0	\$0

Insert Funding Source

### Budget by Expenditure Type

Expense Type	2021	2022	2023	2024	2025	2026
Water Network <input type="text"/>	50,000					
<b>Total</b>	\$50,000	\$0	\$0	\$0	\$0	\$0

Insert Expense Type

### Explain any changes from the 2020 CIP in the proposed funding for this project.

Munis Project #13063 Abandonment of UW 23 is a new project for the 2021 Capital Program. This will be paid for with Water Reserves.

### 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:

Madison Well 23 has reached end of life with poor water quality (iron, manganese, chloride, sodium, hexavalent chromium and PFAS). Annual start-up required continuous pumping to waste for up to 15 days resulting in high electricity usage and significant carbon emissions. Delivered water caused customer complaints and additional water main flushing. Well rehabilitation is not practical due to site constraints and limited well capacity.

#### What is the justification for this project?

The well has sat idle since July 2017 due to poor water quality and reduced water demands. The Well 9 Booster Upgrade Project, scheduled for later this year, will facilitate the transfer of excess water capacity from an adjoining pressure zone, thereby diminishing the importance of this supply point. Overall, water quality will improve and the resiliency of our distribution system will be enhanced.

### Project Schedule & Location

**Can this project be mapped?**  Yes  No

**What is the location of the project?**

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

#### 2021 Status

Status/Phase	Est Cost	Description
2021 Capital Budget <input type="text"/>	50000	Costs to abandon the well. Agency Requests
		493

<input checked="" type="checkbox"/> Insert item
<b>2022 Status</b>
<i>Status/Phase</i> <i>Est Cost</i> <i>Description</i>
<input type="text"/> <input type="text"/> <input type="text"/>
<input checked="" type="checkbox"/> Insert item
<b>2023 Status</b>
<i>Status/Phase</i> <i>Est Cost</i> <i>Description</i>
<input type="text"/> <input type="text"/> <input type="text"/>
<input checked="" type="checkbox"/> Insert item
<b>2024 Status</b>
<i>Status/Phase</i> <i>Est Cost</i> <i>Description</i>
<input type="text"/> <input type="text"/> <input type="text"/>
<input checked="" type="checkbox"/> Insert item
<b>2025 Status</b>
<i>Status/Phase</i> <i>Est Cost</i> <i>Description</i>
<input type="text"/> <input type="text"/> <input type="text"/>
<input checked="" type="checkbox"/> Insert item
<b>2026 Status</b>
<i>Status/Phase</i> <i>Est Cost</i> <i>Description</i>
<input type="text"/> <input type="text"/> <input type="text"/>
<input checked="" type="checkbox"/> Insert item

### Operating Costs

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

#### 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 05/04/2020

Submitted

## 2021 Capital Improvement Plan Capital Budget Proposal

### Identifying Information

<b>Agency</b>	Water Utility <input type="text"/>	<b>Proposal Name</b>	Water Hydrants Program <input type="text"/>
<b>Project Number</b>	12385	<b>Project Type</b>	Program
<b>Project Category</b>	Utility	<b>Priority:</b>	7 <input type="text"/>
<b>2021 Project Number</b>	13057 <input type="text"/>		

### 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 2015-2019

### Budget by Funding Source

Funding Source	2021	2022	2023	2024	2025	2026
Reserves Applied - Water <input type="text"/>	350,000	350,000	350,000	350,000	350,000	350,000
<b>Total</b>	<b>\$350,000</b>	<b>\$350,000</b>	<b>\$350,000</b>	<b>\$350,000</b>	<b>\$350,000</b>	<b>\$350,000</b>

Insert Funding Source

### Budget by Expenditure Type

Expense Type	2021	2022	2023	2024	2025	2026
Water Network <input type="text"/>	350,000	350,000	350,000	350,000	350,000	350,000
<b>Total</b>	<b>\$350,000</b>	<b>\$350,000</b>	<b>\$350,000</b>	<b>\$350,000</b>	<b>\$350,000</b>	<b>\$350,000</b>

Insert Expense Type

### Explain any changes from the 2020 CIP in the proposed funding for this program.

We have reduced the size of this program in an effort to improve our key performance metrics and increase cash reserves.

### Priority

**Citywide Element**

**Strategy**

**Describe how this project advances the Citywide Element:**

We will allow safer access and operations by replacing, raising, or relocating our aging fire hydrants. We will ensure that the citizens of Madison receive fair premiums for homeowner and commercial fire insurance by maintaining or improving our current ISO class 1 rating.

### Project Schedule & Location

#### 2021 Projects

Project name	Est Cost	Location
2021 Water Utility Hydrant Program	\$350,000	Citywide

Insert item

#### Explain the justification for selecting projects planned for 2021:

Improving fire protection for homeowners and commercial property owners.

#### 2022 Projects

2021 Capital Budget	Agency Requests	495
---------------------	-----------------	-----

Project Name	Est Cost	Location
2022 Water Utility Hydrant Program	\$350,000	Citywide

Insert item

**Explain the justification for selecting projects planned for 2022:**

Improving fire protection for homeowners and commercial property owners.

**2023 Projects**

Project Name	Est Cost	Location
2023 Water Utility Hydrant Program	\$350,000	Citywide

Insert item

**Explain the justification for selecting projects planned for 2023:**

Improving fire protection for homeowners and commercial property owners.

**2024 Projects**

Project name	Est Cost	Location
2024 Water Utility Hydrant Program	\$350,000	Citywide

Insert item

**Explain the justification for selecting projects planned for 2024:**

Improving fire protection for homeowners and commercial property owners.

**2025 Projects**

Project name	Est Cost	Location
2025 Water Utility Hydrant Program	\$350,000	Citywide

Insert item

**Explain the justification for selecting projects planned for 2025:**

Improving fire protection for homeowners and commercial property owners.

**2026 Projects**

Project name	Est Cost	Location
2026 Water Utility Hydrant Program	\$350,000	Citywide

Insert item

**Explain the justification for selecting projects planned for 2026:**

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

# 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

## 2021 Capital Improvement Plan Capital Budget Proposal

### Identifying Information

<b>Agency</b>	Water Utility ▼	<b>Proposal Name</b>	Water Mains - New ▼
<b>Project Number</b>	12507	<b>Project Type</b>	Program
<b>Project Category</b>	Utility	<b>Priority:</b>	4 ▼
<b>2021 Project Number</b>	13053		

### 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 2021 include Hydraulic Improvements.

### Budget Information

<b>Prior Appropriation*</b>	\$2,665,948	<b>Prior Year Actual*</b>	\$2,128,142
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\*Based on Fiscal Years 2015-2019

### Budget by Funding Source

Funding Source	2021	2022	2023	2024	2025	2026
Revenue Bonds-Water ▼	152,000	159,000	166,000	1,429,000	178,000	185,000
<b>Total</b>	\$152,000	\$159,000	\$166,000	\$1,429,000	\$178,000	\$185,000

Insert Funding Source

### Budget by Expenditure Type

Expense Type	2021	2022	2023	2024	2025	2026
Water Network ▼	152,000	159,000	166,000	1,429,000	178,000	185,000
<b>Total</b>	\$152,000	\$159,000	\$166,000	\$1,429,000	\$178,000	\$185,000

Insert Expense Type

### Explain any changes from the 2020 CIP in the proposed funding for this program.

This program has been significantly reduced from our 2020 CIP in an effort to reduce our overall 2021 CIP and work towards our financial goals.

### Priority

<b>Citywide Element</b>	Green and Resilient ▼
<b>Strategy</b>	Protect Madison's water supply and infrastructure to provide safe clean drinking water. ▼
<b>Describe how this project advances the Citywide Element:</b>	
This program repairs and/or replaces existing undersized or deteriorated water mains to meet established Utility Level-of-Service for water main infrastructure.	

### Project Schedule & Location

#### 2021 Projects

Project name	Est Cost	Location
2021 Hydraulic Improvements	\$49,000	Facility Pipeline Improvements
2021 Hydraulic Improvements	\$103,000	Unallocated System Improvements/MWU Crew Projects (City-wide)

Insert item

#### Explain the justification for selecting projects planned for 2021:

2021 Capital Budget	Agency Requests	497
---------------------	-----------------	-----



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**

Project Name	Est Cost	Location
2022 Hydraulic Improvements	\$52,000	Facility Pipeline Improvements
2022 Hydraulic Improvements	\$107,000	Unallocated System Improvements/MWU Crew Projects (City-wide)

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**

Project Name	Est Cost	Location
2023 Hydraulic Improvements	\$54,000	Facility Pipeline Improvements
2023 Hydraulic Improvements	\$112,000	Unallocated System Improvements/MWU Crew Projects (City-wide)

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**

Project name	Est Cost	Location
Lien Rd Water Main Extension	\$1,257,000	Interstate 90/94 - Felland Rd.
2024 Hydraulic Improvements	\$56,000	Facility Pipeline Improvements
2024 Hydraulic Improvements	\$116,000	Unallocated System Improvements/MWU Crew Projects (City-wide)

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**

Project name	Est Cost	Location
2025 Hydraulic Improvem ents	\$58,000	Facility Pipeline Improvements
2025 Hydraulic Improvem ents	\$120,000	Unallocated System Improvements/MWU Crew Projects (City-wide)

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.

**2026 Projects**

Project name	Est Cost	Location
2026 Hydraulic Improvements	\$61,000	Facility Pipeline Improvement s
2026 Hydraulic Improvements	\$124,000	Unallocated System Improvements/MWU Crew Projects (City-wide)

Insert item

**Explain the justification for selecting projects planned for 2026:**

The proposed 2026 '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**

# of FTEs	Annual Cost	Description

**Non-Personnel**

Major	Amount	Description

<i>Major</i>	<i>Amount</i>	<i>Description</i>

Insert item

Save

Submit

### Notes

Notes:

Save and Close

v 05/04/2020

Submitted

## 2021 Capital Improvement Plan Capital Budget Proposal

### Identifying Information

<b>Agency</b>	<input type="text" value="Water Utility"/>	<b>Proposal Name</b>	<input type="text" value="Water Mains Replace Rehab Improve - Pavement Management"/>
<b>Project Number</b>	<input type="text" value="11894"/>	<b>Project Type</b>	<input type="text" value="Program"/>
<b>Project Category</b>	<input type="text" value="Utility"/>	<b>Priority:</b>	<input type="text" value="2"/>
<b>2021 Project Number</b>	<input type="text" value="13055"/>		

### 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 2021 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.

### Budget Information

**Prior Appropriation\***  **Prior Year Actual\***

\*Based on Fiscal Years 2015-2019

### Budget by Funding Source

Funding Source	2021	2022	2023	2024	2025	2026
Revenue Bonds-Water	1,208,000	1,586,000	1,286,000	335,000	362,000	378,000
<b>Total</b>	<b>\$1,208,000</b>	<b>\$1,586,000</b>	<b>\$1,286,000</b>	<b>\$335,000</b>	<b>\$362,000</b>	<b>\$378,000</b>

Insert Funding Source

### Budget by Expenditure Type

Expense Type	2021	2022	2023	2024	2025	2026
Water Network	1,208,000	1,586,000	1,286,000	335,000	362,000	378,000
<b>Total</b>	<b>\$1,208,000</b>	<b>\$1,586,000</b>	<b>\$1,286,000</b>	<b>\$335,000</b>	<b>\$362,000</b>	<b>\$378,000</b>

Insert Expense Type

### Explain any changes from the 2020 CIP in the proposed funding for this program.

This program has been significantly reduced from our 2020 CIP in an effort to reduce our overall 2021 CIP and work towards our financial goals.

### Priority

**Citywide Element**

**Strategy**

**Describe how this project advances the Citywide Element:**

### Project Schedule & Location

#### 2021 Projects

Project name	Est Cost	Location
Old Middleton Rd/ Craig Ave	\$306,000	Old Middleton Rd EB Ramp-Capital Ave to University Ave-S End
W Washington Ave	\$496,000	S Broom St - S Bedford St
Kroncke Dr/Lanett Cir/Tanager Trl	\$102,000	S Whitney Way - N End; Kroncke Dr - N End; Mayhill Dr - Meadowood Dr
<b>2021 Capital Budget</b>		<b>Agency Requests</b>
		<b>500</b>

Project name	Est Cost	Location
N Brooks St/Fahrenbrook Ct/College Ct	\$56,000	Regent St - Spring St; N Park St - N Mills St
2021 Hydraulic Improvements-Replace Water Mains	\$248,000	Unallocated System Improvements/MWU Crew Projects(City-wide)

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**

Project Name	Est Cost	Location
Commercial Ave	\$101,000	200 Ft East of Superior St - Packers Ave Service Rd
Hammersley Rd	\$646,000	Reetz Rd - Brookwood Rd
N Sherman Ave	\$96,000	Sherman Ave - RR Xing
Mineral Point/S Owen/Keating/Caromar	\$291,000	Glenway St - S Owen Dr
N Segoe/Sheboygan	\$291,000	Regent St - University Ave; Segoe Rd - N Whitney Way
2022 Hydraulic Improvements-Replace Water Mains	\$161,000	Unallocated System Improvements/MWU Crew Projects(City-wide)

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
N Franklin Ave	\$167,000	Regent St - University Ave
Starker Ave	\$167,000	Woodvale Dr - Droster Rd
Edward St./Hillview Ter	\$35,000	Hillview Ter - Tokay Blvd
Hammersley Rd/Heritage Cir/Jewel Ct	\$76,000	Jewel Ct - Heritage Cir
Gilbert Rd	\$135,000	Raymond Rd - Kroncke Dr
Silverton Trl	\$35,000	Mur Field Rd - Mckee Rd
Mohawk Dr	\$67,000	Seminole Hwy - Doncaster Dr
Price Pl/Vernon Blvd.	\$201,000	Regent St - N End; N Midvale Blvd - N Segoe Rd
Buffalo Trl/Barron Ct/Green Lake Pass	\$67,000	Eau Claire Ave - Green Lake Pass
2023 Hydraulic Improvements-Replace Water Mains	\$336,000	Unallocated System Improvements/MWU Crew Projects(City-wide)

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	\$349,000	Unallocated System Improvements/MWU Crew Projects(City-wide)

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	\$362,000	Unallocated System Improvements/MWU Crew Projects(City-wide)

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.

**2026 Projects**

<i>Project name</i>	<i>Est Cost</i>	<i>Location</i>
2026 Hydraulic Improvements-Replace Water Mains	\$378,000	Unallocated System Improvements/MWU Crew Projects(City-wide)

Insert item

**Explain the justification for selecting projects planned for 2026:**

The 2026 '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**

<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:

v 05/04/2020

Submitted

## 2021 Capital Improvement Plan Capital Budget Proposal

### Identifying Information

<b>Agency</b>	Water Utility <span style="float: right;">▼</span>	<b>Proposal Name</b>	Water Mains Replace Rehab Improve - Pipe Lining <span style="float: right;">▼</span>
<b>Project Number</b>	11892	<b>Project Type</b>	Program
<b>Project Category</b>	Utility	<b>Priority:</b>	3 <span style="float: right;">▼</span>
<b>2021 Project Number</b>	13059		

### 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.

### Budget Information

<b>Prior Appropriation*</b>	\$990,000	<b>Prior Year Actual*</b>	\$459,717
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\*Based on Fiscal Years 2015-2019

### Budget by Funding Source

Funding Source	2021	2022	2023	2024	2025	2026
Revenue Bonds-Water <span style="float: right;">▼</span>	1,110,000	983,000	1,111,000	1,036,000	1,077,000	1,419,000
<b>Total</b>	<b>\$1,110,000</b>	<b>\$983,000</b>	<b>\$1,111,000</b>	<b>\$1,036,000</b>	<b>\$1,077,000</b>	<b>\$1,419,000</b>

Insert Funding Source

### Budget by Expenditure Type

Expense Type	2021	2022	2023	2024	2025	2026
Water Network <span style="float: right;">▼</span>	1,110,000	983,000	1,111,000	1,036,000	1,077,000	1,419,000
<b>Total</b>	<b>\$1,110,000</b>	<b>\$983,000</b>	<b>\$1,111,000</b>	<b>\$1,036,000</b>	<b>\$1,077,000</b>	<b>\$1,419,000</b>

Insert Expense Type

### Explain any changes from the 2020 CIP in the proposed funding for this program.

Water main lining is financially efficient and effective in addressing problems. This program will be accelerated in our 2021 CIP for all years.

### Priority

<b>Citywide Element</b>	Green and Resilient <span style="float: right;">▼</span>
<b>Strategy</b>	Protect Madison's water supply and infrastructure to provide safe clean drinking water. <span style="float: right;">▼</span>
<b>Describe how this project advances the Citywide Element:</b>	
This program rehabilitates existing deteriorated water mains to meet established Utility Level-of-Service for water main infrastructure.	

### Project Schedule & Location

#### 2021 Projects

Project name	Est Cost	Location
CIPP Rehabilitation of Water Mains 2021	\$490,000	Undistributed/Citywide - Locations under development
CIPP Rehab - Pontiac Trl./Rosewood Cir.	\$490,000	Hammersley Rd - Mohican Pass; Pontiac Trl - South End
MWU Bypass Service System - Phase 2	\$130,000	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
MWU Bypass Service System- Phase 3	\$135,000	Trailer/Storage Racking and Bypass Piping/Fittings
CIPP Rehabilitation of Water Mains 2022	\$848,000	Undistributed/Citywide - Locations under development

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	\$970,000	Undistributed/Citywide - Locations under development
MWU Bypass Service System - Phase 4	\$141,000	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	\$1,009,000	Undistributed/Citywide - Locations under development
MWU Bypass Service System - Phase 5	\$27,000	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	\$1,049,000	Undistributed/Citywide - Locations under development
MWU Bypass Service System - Phase 6	\$28,000	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.

**2026 Projects**

Project name	Est Cost	Location
CIPP Rehabilitation of Water Mains 2026	\$1,389,000	Undistributed/Citywide - Locations under development
MWU Bypass Service System - Phase 7	\$30,000	Trailer/Storage Racking and Bypass Piping/Fittings

Insert item

**Explain the justification for selecting projects planned for 2026:**

The proposed 2026 '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

Submitted

## 2021 Capital Improvement Plan Capital Budget Proposal

### Identifying Information

<b>Agency</b>	Water Utility <input type="text"/>	<b>Proposal Name</b>	Water Mains Replace Rehab Improve - Reconstruct Streets <input type="text"/>
<b>Project Number</b>	11893	<b>Project Type</b>	Program
<b>Project Category</b>	Utility	<b>Priority:</b>	1 <input type="text"/>
<b>2021 Project Number</b>	13054 <input type="text"/>		

### 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 2021 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.

### Budget Information

<b>Prior Appropriation*</b>	\$245,610	<b>Prior Year Actual*</b>	\$88,615
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\*Based on Fiscal Years 2015-2019

### Budget by Funding Source

Funding Source	2021	2022	2023	2024	2025	2026
Revenue Bonds-Water <input type="text"/>	1,848,000	392,000	593,000	1,662,000	1,169,000	2,917,000
<b>Total</b>	\$1,848,000	\$392,000	\$593,000	\$1,662,000	\$1,169,000	\$2,917,000

Insert Funding Source

### Budget by Expenditure Type

Expense Type	2021	2022	2023	2024	2025	2026
Water Network <input type="text"/>	1,848,000	392,000	593,000	1,662,000	1,169,000	2,917,000
<b>Total</b>	\$1,848,000	\$392,000	\$593,000	\$1,662,000	\$1,169,000	\$2,917,000

Insert Expense Type

### Explain any changes from the 2020 CIP in the proposed funding for this program.

This program has been significantly reduced from our 2020 CIP in an effort to reduce our overall 2021 CIP and work towards our financial goals.

### Priority

<b>Citywide Element</b>	Green and Resilient <input type="text"/>
<b>Strategy</b>	Protect Madison's water supply and infrastructure to provide safe clean drinking water. <input type="text"/>
<b>Describe how this project advances the Citywide Element:</b>	
This program repairs and/or replaces existing undersized or deteriorated water mains to meet established Utility Level-of-Service for water main infrastructure. <input type="text"/>	

### Project Schedule & Location

#### 2021 Projects

Project name	Est Cost	Location
Helena St/Russell St/Jenifer St	\$46,000	Walton Pl - 450' SW of Division St; Eastwood Dr. - Jenifer St; Walton Pl - Division
Starkweather Dr	\$93,000	Dawes St - Hargrove St



Project name	Est Cost	Location
Hillcrest Dr/Standish Ct/Alden Dr	\$839,000	Westmorland Blvd - Larkin St; Hammersley Ave - Hillcrest Dr
Davies St/Major Ave/Dempsey Rd/Maher Ave	\$745,000	Buckeye Rd - Maher Ave; Davies St - 500' S of Davies St; 150' N of Davidson St - Maher Ave; Lake...
Pontiac Tr/Nokomis Ct/Rosewood Cir/Boston Ct	\$93,000	Hammersley Rd - Mohican Pass; Pontiac Tr - North End; Pontiac Tr - South End
2021 Hydraulic Improvements	\$32,000	Unallocated System Improvements/MWU Crew Projects (City-wide)

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**

Project Name	Est Cost	Location
Lafollette Ave/Ohio Ave/Talmadge St/St. Paul Ave/Jackson St	\$33,000	Ohio Ave - Waubesa St; C & NW RR - Atwood Ave; C & NW RR - St. Paul Ave; S End - Ohio Ave; St...
Cedar St	\$33,000	Gilson St - S Park St
Elmside Blvd/Sommers Ave/Center Ave	\$33,000	Atwood Ave - Oakridge Ave; Miller Ave - Elmside Blvd
Russell St	\$33,000	Winnebago St - Eastwood Dr
Felland Rd	\$33,000	Along developments in the vicinity of Cth T
Davidson St/Park Ct/Maher Ave/Major Ave/Drexel Ave/Monona Ct	\$161,000	Maher Ave - Dempsey Rd; Cottage Grove Rd - Lake Edge Blvd; Lake Edge Blvd - Davies St; Major ...
Norman Way/Wood Cir	\$33,000	University Ave - Lake Mendota Dr; Norman Way - North End
2022 Hydraulic Improvements	\$33,000	Unallocated System Improvements/MWU Crew Projects (City-wide)

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**

Project Name	Est Cost	Location
Sommers Ave/Center Ave/Willard Ave/Hudson Ave/Miller Ave	\$67,000	Hudson Ave - Miller Ave; Ohio Ave - Elmside Blvd; Atwood Ave - Oakridge Ave; Atwood Ave - Wil...
Rutledge St	\$67,000	Riverside Dr - Division St
Richard St/Silver Rd	\$67,000	Schenk St - Silver Rd; N End - Hynek Rd
Maher Ave	\$35,000	Buckeye Rd - Davies St
Gary St	\$35,000	Dempsey Rd - Elinor St
Doncaster Dr/Belverly Rd/Danbury St	\$35,000	Danbury St - Seminole Hwy; Whenona Dr - Seminole Hwy; Mohawk Dr - Doncaster Dr
Lake Mendota Dr	\$252,000	1226' E of Merrill Springs Rd - 143' W of Spring Ct
2023 Hydraulic Improvements	\$35,000	Unallocated System Improvements/MWU Crew Projects (City-wide)

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**

Project name	Est Cost	Location
Evergreen Ave/Center Ave/Willard Ave/Ohio Ave	\$105,000	Center Ave - Oakridge Ave; Dunning St - Hudson Ave; Evergreen Ave - Ohio Ave; Center Ave - Wi...
Farwell St/South Ct/North Ct	\$105,000	Milwaukee St - C & NW RR; Farwell St - Corry St; Center Ave - Willard Ave
Dawes St/Lansing St/Leon St/Richard St	\$105,000	Starkweather Dr - Leon St; Dawes St - Richard St; Dawes St - Starkweather Dr; Starkweather Dr - ...
Valley View Rd	\$1,206,000	South Point Rd - Boyer
Maher Ave/Douglas Tr	\$105,000	Tompkins Dr - Pflaum Rd; Joylynn Dr - Camden Rd
2024 Hydraulic Improvements	\$36,000	Unallocated System Improvements/MWU Crew Projects (City-wide)

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**

Project name	Est Cost	Location
Birge Ter	\$37,000	University Ave - Birge Ter

Project name	Est Cost	Location
Evergreen Ave/Ohio Ave/Sommers Ave	\$37,000	Atwood Ave - Center Ave; Dunning St - Hudson Ave
Sherman Ave/McGuire St	\$37,000	McGuire St - N Sherman Ave; Sherman Ave - Fordem Ave
Hermina St/Union St	\$37,000	N Marquette St - Clyde Gallagher Ave
Shawnee Pass	\$37,000	Nakoma Rd - Cherokee Dr
Dawes St/Lansing St/Leon St	\$37,000	Leon St - Walter St; Milwaukee St - Dawes St
Valley View Rd	\$910,000	Pioneer Rd - South Point Rd
Crestview Dr/Groveland Ter/Dixie Ln/Herro Ln	\$37,000	Groveland Ter - Herro Ln; Tompkins Dr - Herro Ln; Crestview Dr - Glenview Dr; Tompkins Dr - Crestview Dr

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.

**2026 Projects**

Project name	Est Cost	Location
Jefferson St/Oakland Ave/Grant St	\$189,000	Oakland Ave - Grant St; Madison St - Adams St; Madison St - Jefferson St
Yahara Pl/Walton Pl/Russell St	\$189,000	Walton Pl - Dunning St; Rutledge St - Yahara Pl
Reiner Rd	\$1,783,000	Reiner Rd Along Woods Farm Subdivision
Lake View Ave/Hanover St/West Ln/East Ln	\$189,000	West End - Sherman Ave; Lake View Ave - Drewry Ln; Lake View Ave - North End
MacArthur Rd/Larson Ct/Sycamore Ave/MacArthur Ct	\$189,000	E Wash Ave - South End; MacArthur Rd - West End; MacArthur Rd - 500' East; MacArthur Rd - North End
Ridgeway Ave/Graceland Ave/ Rowland Ave/Schmedeman Ave/Reindahl Ave	\$189,000	Reindahl Ave - Rowland Ave; Graceland Ave - E Wash Ave
2026 Hydraulic Improvements	\$189,000	Unallocated System Improvements/MWU Crew Projects (City-wide)

Insert item

**Explain the justification for selecting projects planned for 2026:**

The proposed 2026 '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**

# 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

## 2021 Capital Improvement Plan Capital Budget Proposal

### Identifying Information

<b>Agency</b>	Water Utility ▼	<b>Proposal Name</b>	Water Meter and Fixed Network Program ▼
<b>Project Number</b>	12340	<b>Project Type</b>	Program
<b>Project Category</b>	Utility	<b>Priority:</b>	5 ▼
<b>2021 Project Number</b>	13052		

### 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.

### Budget Information

**Prior Appropriation\***  **Prior Year Actual\***   
\*Based on Fiscal Years 2015-2019

### Budget by Funding Source

Funding Source	2021	2022	2023	2024	2025	2026
Reserves Applied - Water ▼	500,000	513,000	526,000	539,000	552,000	566,000
<b>Total</b>	<b>\$500,000</b>	<b>\$513,000</b>	<b>\$526,000</b>	<b>\$539,000</b>	<b>\$552,000</b>	<b>\$566,000</b>

Insert Funding Source

### Budget by Expenditure Type

Expense Type	2021	2022	2023	2024	2025	2026
Machinery and Equipment ▼	500,000	513,000	526,000	539,000	552,000	566,000
<b>Total</b>	<b>\$500,000</b>	<b>\$513,000</b>	<b>\$526,000</b>	<b>\$539,000</b>	<b>\$552,000</b>	<b>\$566,000</b>

Insert Expense Type

### Explain any changes from the 2020 CIP in the proposed funding for this program.

We have reduced the size of this program in an effort to improve our key performance metrics and increase cash reserves.

### Priority

**Citywide Element**

**Strategy**

#### Describe how this project advances the Citywide Element:

The Meter and Fixed Network Program allows for responsible stewardship of our local water resource by facilitating conservation of water pumped, consumed and lost to leaks. Acquiring real time and accurate water consumption data ensures accurate municipal services statements are issued to all customers and allows customers to monitor their water consumption practices to make educated decisions on their water use habits.

### Project Schedule & Location

#### 2021 Projects

Project name	Est Cost	Location
5/8", 3/4" & 1" Meter Purchase/Set/Change	\$300,000	Meters to be installed citywide
1.5" & 2" Meter Purchase/Set/Change	\$150,000	Meters to be installed citywide
3" and larger Meter Purchase/Set/Change	\$50,000	Meters to be installed citywide

**2021 Capital Budget**

**Agency Requests**

**508**

Project name	Est Cost	Location

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	\$307,000	Meters to be installed citywide
1.5" & 2" Meter Purchase/Set/Change	\$154,000	Meters to be installed citywide
3" and larger Meter Purchase/Set/Change	\$52,000	Meters to be installed 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	\$316,000	Meters to be installed citywide
1.5" & 2" Meter Purchase/Set/Change	\$158,000	Meters to be installed citywide
3" and larger Meter Purchase/Set/Change	\$52,000	Meters to be installed 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	\$323,000	Meters to be installed citywide
1.5" & 2" Meter Purchase/Set/Change	\$162,000	Meters to be installed citywide
3" and larger Meter Purchase/Set/Change	\$54,000	Meters to be installed 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**

Project name	Est Cost	Location
5/8", 3/4" & 1" Meter Purchase/Set/Change	\$331,000	Meters to be installed citywide
1.5" & 2" Meter Purchase/Set/Change	\$166,000	Meters to be installed citywide
3" and larger Meter Purchase/Set/Change	\$55,000	Meters to be installed 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.

**2026 Projects**

Project name	Est Cost	Location
5/8", 3/4" & 1" Meter Purchase/Set/Change	\$340,000	Meters to be installed citywide
1.5" & 2" Meter Purchase/Set/Change	\$170,000	Meters to be installed citywide
3" and larger Meter Purchase/Set/Change	\$56,000	Meters to be installed citywide

Insert item

**Explain the justification for selecting projects planned for 2026:**

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:**

v 05/04/2020

Submitted

## 2021 Capital Improvement Plan Capital Budget Proposal

### Identifying Information

<b>Agency</b>	Water Utility ▼	<b>Proposal Name</b>	Water Utility Facility Improvements ▼
<b>Project Number</b>	10440	<b>Project Type</b>	Program
<b>Project Category</b>	Utility	<b>Priority:</b>	14 ▼
<b>2021 Project Number</b>	13048		

### 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 2021 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.

### Budget Information

**Prior Appropriation\***  **Prior Year Actual\***

\*Based on Fiscal Years 2015-2019

### Budget by Funding Source

Funding Source	2021	2022	2023	2024	2025	2026
Reserves Applied ▼	417,000	1,167,000	1,152,000	1,119,000	1,153,000	1,187,000
<b>Total</b>	<b>\$417,000</b>	<b>\$1,167,000</b>	<b>\$1,152,000</b>	<b>\$1,119,000</b>	<b>\$1,153,000</b>	<b>\$1,187,000</b>

Insert Funding Source

### Budget by Expenditure Type

Expense Type	2021	2022	2023	2024	2025	2026
Machinery and Equipment ▼	317,000	370,000	331,000	274,000	282,000	290,000
Building ▼	100,000	797,000	821,000	845,000	871,000	897,000
<b>Total</b>	<b>\$417,000</b>	<b>\$1,167,000</b>	<b>\$1,152,000</b>	<b>\$1,119,000</b>	<b>\$1,153,000</b>	<b>\$1,187,000</b>

Insert Expense Type

Explain any changes from the 2020 CIP in the proposed funding for this program.

### Priority

**Citywide Element**

**Strategy**

**Describe how this project advances the Citywide Element:**

### Project Schedule & Location

#### 2021 Projects

Project name	Est Cost	Location
SCADA System Upgrade and Expansion	\$25,000	Various Unit Wells and Booster Pump Stations
Fiber Optic System Installation & Upgrade	\$32,000	Various Unit Wells and Booster Pump Stations
Control & Instrumentation Replacement/Upgrade	\$84,000	Various Unit Wells and Booster Pump Stations

2021 Capital Budget
Agency Requests
511

<i>Project name</i>	<i>Est Cost</i>	<i>Location</i>
MCC Upgrades	\$70,000	Various Unit Wells and Booster Pump Stations
Deep Well VFD Installs	\$106,000	Various Unit Wells and Booster Pump Stations
Facility Safety & Security Upgrades	\$50,000	Various Water Utility Sites
Miscellaneous Facility Upgrades	\$50,000	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	\$26,000	Various Unit Wells and Booster Pump Stations
Fiber Optic System Installation & Upgrade	\$33,000	Various Unit Wells and Booster Pump Stations
Control & Instrumentation Replacement/Upgrade	\$122,000	Various Unit Wells and Booster Pump Stations
MCC Upgrades	\$72,000	Various Unit Wells and Booster Pump Stations
Deep Well VFD Installs	\$117,000	Various Unit Wells and Booster Pump Stations
Various Olin & Paterson Building Site Improvements	\$403,000	119 E Olin Ave - Heim Bldg & 110 S Paterson St - Ops Center
Unexpected UW and BPS Mechanical Failures	\$268,000	Various Unit Wells and Booster Pump Stations
Facility Safety & Security Upgrades	\$52,000	Various Water Utility Sites
Miscellaneous Facility Upgrades	\$74,000	Various Water Utility Sites

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	\$27,000	Various Unit Wells and Booster Pump Stations
Fiber Optic System Installation & Upgrade	\$34,000	Various Unit Wells and Booster Pump Stations
Control & Instrumentation Replacement/Upgrade	\$92,000	Various Unit Wells and Booster Pump Stations
MCC Upgrades	\$74,000	Various Unit Wells and Booster Pump Stations
Deep Well VFD Installs	\$104,000	Various Unit Wells and Booster Pump Stations
Various Olin & Paterson Building Site Improvements	\$415,000	119 E Olin Ave - Heim Bldg & 110 S Paterson St - Ops Center
Unexpected UW and BPS Mechanical Failures	\$276,000	Various Unit Wells and Booster Pump Stations
Facility Safety & Security Upgrades	\$54,000	Various Water Utility Sites
Miscellaneous Facility Upgrades	\$76,000	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	\$28,000	Various Unit Wells and Booster Pump Stations
Fiber Optic System Installation & Upgrade	\$35,000	Various Unit Wells and Booster Pump Stations
Control & Instrumentation Replacement/Upgrade	\$95,000	Various Unit Wells and Booster Pump Stations
MCC Upgrades	\$76,000	Various Unit Wells and Booster Pump Stations
Deep Well VFD Installs	\$40,000	Various Unit Wells and Booster Pump Stations
Various Olin & Paterson Building Site Improvements	\$427,000	119 E Olin Ave - Heim Bldg & 110 S Paterson St - Ops Center
Unexpected UW and BPS Mechanical Failures	\$284,000	Various Unit Wells and Booster Pump Stations
Facility Safety & Security Upgrades	\$56,000	Various Water Utility Sites
Miscellaneous Facility Upgrades	\$78,000	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	\$29,000	Various Unit Wells and Booster Pump Stations
Fiber Optic System Installation & Upgrade	\$36,000	Various Unit Wells and Booster Pump Stations
Control & Instrumentation Replacement/Upgrade	\$98,000	Various Unit Wells and Booster Pump Stations

Project name	Est Cost	Location
MCC Upgrades	\$78,000	Various Unit Wells and Booster Pump Stations
Deep Well VFD Installs	\$41,000	Various Unit Wells and Booster Pump Stations
Various Olin & Paterson Building Site Improvements	\$440,000	119 E Olin Ave - Heim Bldg & 110 S Paterson St - Ops Center
Unexpected UW and BPS Mechanical Failures	\$293,000	Various Unit Wells and Booster Pump Stations
Facility Safety & Security Upgrades	\$58,000	Various Water Utility Sites
Miscellaneous Facility Upgrades	\$80,000	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.

**2026 Projects**

Project name	Est Cost	Location
SCADA System Upgrade and Expansion	\$30,000	Various Unit Wells and Booster Pump Stations
Fiber Optic System Installation & Upgrade	\$37,000	Various Unit Wells and Booster Pump Stations
Control & Instrumentation Replacement/Upgrade	\$101,000	Various Unit Wells and Booster Pump Stations
MCC Upgrades	\$80,000	Various Unit Wells and Booster Pump Stations
Deep Well VFD Installs	\$42,000	Various Unit Wells and Booster Pump Stations
Various Olin & Paterson Building Site Improvements	\$453,000	119 E Olin Ave - Heim Bldg & 110 S Paterson St - Ops Center
Unexpected UW and BPS Mechanical Failures	\$302,000	Various Unit Wells and Booster Pump Stations
Facility Safety & Security Upgrades	\$60,000	Various Water Utility Sites
Miscellaneous Facility Upgrades	\$82,000	Various Water Utility Sites

Insert item

**Explain the justification for selecting projects planned for 2026:**

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:



Submitted

## 2021 Capital Improvement Plan Capital Budget Proposal

### Identifying Information

<b>Agency</b>	Water Utility <input type="text"/>	<b>Proposal Name</b>	Water Utility Vehicles & Equipment <input type="text"/>
<b>Project Number</b>	12339	<b>Project Type</b>	Program
<b>Project Category</b>	Other	<b>Priority:</b>	6 <input type="text"/>
<b>2021 Project Number</b>	13049 <input type="text"/>		

### 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 2021, 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.

### Budget Information

<b>Prior Appropriation*</b>	\$366,000	<b>Prior Year Actual*</b>	\$304,072
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\*Based on Fiscal Years 2015-2019

### Budget by Funding Source

Funding Source	2021	2022	2023	2024	2025	2026
Reserves Applied - Water <input type="text"/>	344,000	521,000	246,000	539,000	256,000	557,000
<b>Total</b>	<b>\$344,000</b>	<b>\$521,000</b>	<b>\$246,000</b>	<b>\$539,000</b>	<b>\$256,000</b>	<b>\$557,000</b>

Insert Funding Source

### Budget by Expenditure Type

Expense Type	2021	2022	2023	2024	2025	2026
Machinery and Equipment <input type="text"/>	344,000	521,000	246,000	539,000	256,000	557,000
<b>Total</b>	<b>\$344,000</b>	<b>\$521,000</b>	<b>\$246,000</b>	<b>\$539,000</b>	<b>\$256,000</b>	<b>\$557,000</b>

Insert Expense Type

### Explain any changes from the 2020 CIP in the proposed funding for this program.

We have reduced the size of this program in an effort to improve our key performance metrics and increase cash reserves.

### Priority

<b>Citywide Element</b>	Green and Resilient <input type="text"/>
<b>Strategy</b>	Increase the use and accessibility of energy efficiency upgrades and renewable energy. <input type="text"/>

#### 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

#### 2021 Projects

Project name	Est Cost	Location
W33 - Electricians Utilimaster - Replacement	\$90,000	110 S Paterson Street
W47 - Meter Shop FSR Van - Replacement	\$35,000	119 E Olin Avenue
F250 Truck for Lawn Crew - New	\$35,000	110 S Paterson Street

<b>2021 Capital Budget</b>	<b>Agency Requests</b>	<b>514</b>
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Project name	Est Cost	Location
Used Bucket Truck	\$30,000	Purchase from Traffic Engineering
Mapping and Survey Equipment Modernization	\$46,000	119 E Olin Avenue
RP Valve Complete/Parts/Testing/Registration	\$26,000	110 S Paterson Street
Speed Shore Replacement Box	\$19,000	110 S Paterson Street
Various large tools and equipment	\$20,000	110 S Paterson Street and 119 E Olin Avenue
Towable Lift - new	\$43,000	110 S 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**

Project Name	Est Cost	Location
W45 Tri-Axel Dump Truck - replacement	\$150,000	110 S Paterson Street
W53 JD 710 Backhoe (Breaker/Tamper)	\$150,000	110 S Paterson Street
W52 Service Body Truck - replacement	\$70,000	110 S Paterson Street
W96 F150 or Transit Connect - replacement	\$30,000	119 E Olin Avenue
W51 Transit Connect - replacement	\$30,000	119 E Olin Avenue
Mapping and Survey Equipment Modernization	\$12,000	119 E Olin Avenue
Various small equipment replacements over the \$5,000 capitalization threshold	\$12,000	110 S Paterson Street and 119 E Olin Avenue
RP Valve Complete/Parts/Testing/Registration	\$27,000	110 S Paterson Street
Speed Shore Replacement Box	\$20,000	110 S Paterson Street
Various large tools and equipment	\$20,000	110 S Paterson Street and 119 E Olin Avenue

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**

Project Name	Est Cost	Location
W89 Utilitmaster - replacement	\$95,000	119 E Olin Avenue
W31 Transit Connect - replacement	\$35,000	119 E Olin Avenue
W76 F150 - replacement	\$35,000	110 S Paterson Street
Mapping and Survey Equipment Modernization	\$13,000	119 E Olin Avenue
RP Valve Complete/Parts/Testing/Registration	\$27,000	110 S Paterson Street
Speed Shore Replacement Box	\$20,000	110 S Paterson Street
Various large tools and equipment	\$21,000	110 S Paterson Street and 119 E Olin Avenue

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
W80 JD 410 Backhoe - replacement	\$130,000	110 S Paterson Street
W71 Tri-Axel Dump Truck - replacement	\$173,000	110 S Paterson Street
W10 Utilitmaster - replacement	\$105,000	110 S Paterson Street
W29 Electric Vehicle - replacement	\$35,000	119 E Olin Avenue
Mapping and Survey Equipment Modernization	\$14,000	119 E Olin Avenue
Various small equipment replacements over the \$5,000 capitalization threshold	\$12,000	110 S Paterson Street and 119 E Olin Avenue
RP Valve Complete/Parts/Testing/Registration	\$28,000	110 S Paterson Street
Speed Shore Replacement Box	\$21,000	110 S Paterson Street
Various large tools and equipment	\$21,000	110 S Paterson Street and 119 E Olin Avenue

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**

<i>Project name</i>	<i>Est Cost</i>	<i>Location</i>
W1 F250 Valve Operating Truck- replacement	\$60,000	110 S Paterson Street
W78 Utilimaster - replacement	\$110,000	110 S Paterson Street
Mapping and Survey Equipment Modernization	\$15,000	119 E Olin Avenue
RP Valve Complete/Parts/Testing/Registration	\$28,000	110 S Paterson Street
Speed Shore Replacement Box	\$21,000	110 S Paterson Street
Various large tools and equipment	\$22,000	110 S Paterson Street and 119 E Olin Avenue

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.

**2026 Projects**

<i>Project name</i>	<i>Est Cost</i>	<i>Location</i>
W4 Tri-Axel Dump Truck - replacement	\$174,000	110 S Paterson Street
W84 JD 410 Backhoe - replacement	\$130,000	110 S Paterson Street
W79 Electric Vehicle - replacement	\$38,000	119 E Olin Avenue
W85 Electric Vehicle - replacement	\$38,000	110 S Paterson Street
W17 Electric Vehicle - replacement	\$38,000	119 E Olin Avenue
W75 Electric Vehicle - replacement	\$38,000	110 S Paterson Street
Mapping and Survey Equipment Modernization	\$16,000	119 E Olin Avenue
Various small equipment replacements over the \$5,000 capitalization threshold	\$12,000	110 S Paterson Street and 119 E Olin Avenue
RP Valve Complete/Parts/Testing/Registration	\$29,000	110 S Paterson Street
Speed Shore Replacement Box	\$22,000	110 S Paterson Street
Various large tools and equipment	\$22,000	110 S Paterson Street and 119 E Olin Avenue

Insert item

**Explain the justification for selecting projects planned for 2026:**

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**

<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

## 2021 Capital Improvement Plan Capital Budget Proposal

### Identifying Information

<b>Agency</b>	Water Utility <input type="text"/>	<b>Proposal Name</b>	Water Valve Cut-In Program <input type="text"/>
<b>Project Number</b>	12387	<b>Project Type</b>	Program
<b>Project Category</b>	Utility	<b>Priority:</b>	15 <input type="text"/>
<b>2021 Project Number</b>	13051 <input type="text"/>		

### 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.

### Budget Information

**Prior Appropriation\***  **Prior Year Actual\***

\*Based on Fiscal Years 2015-2019

### Budget by Funding Source

Funding Source	2021	2022	2023	2024	2025	2026
Reserves Applied - Water <input type="text"/>	16,000	16,000	17,000	18,000	19,000	20,000
<b>Total</b>	<b>\$16,000</b>	<b>\$16,000</b>	<b>\$17,000</b>	<b>\$18,000</b>	<b>\$19,000</b>	<b>\$20,000</b>

Insert Funding Source

### Budget by Expenditure Type

Expense Type	2021	2022	2023	2024	2025	2026
Water Network <input type="text"/>	16,000	16,000	17,000	18,000	19,000	20,000
<b>Total</b>	<b>\$16,000</b>	<b>\$16,000</b>	<b>\$17,000</b>	<b>\$18,000</b>	<b>\$19,000</b>	<b>\$20,000</b>

Insert Expense Type

### Explain any changes from the 2020 CIP in the proposed funding for this program.

No significant change.

### 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 supply regulations and goals is essential to renewing and maintaining critical infrastructure. Reducing the number of unplanned water outages will increase the reliability of our system and our customers' confidence in our system.

### Project Schedule & Location

#### 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

2021 Capital Budget Agency Requests 517

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	\$18,000	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	\$19,000	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.

**2026 Projects**

Project name	Est Cost	Location
2026 Cut-in Valves	\$20,000	Citywide

Insert item

**Explain the justification for selecting projects planned for 2026:**

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:

Submitted

## 2021 Capital Improvement Plan Capital Budget Proposal

### Identifying Information

<b>Agency</b>	Water Utility ▼	<b>Proposal Name</b>	Well 14 Mitigation ▼
<b>Project Number</b>	11900	<b>Project Type</b>	Project
<b>Project Category</b>	Utility	<b>Priority:</b>	12 ▼

### Description

This project is for 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.

### Budget Information

**Total Project Budget**  **Prior Appropriation**

### Budget by Funding Source

Funding Source	2021	2022	2023	2024	2025	2026
Revenue Bonds-Water ▼		82,000				
<b>Total</b>	\$0	\$82,000	\$0	\$0	\$0	\$0

Insert Funding Source

### Budget by Expenditure Type

Expense Type	2021	2022	2023	2024	2025	2026
Building ▼		82,000				
<b>Total</b>	\$0	\$82,000	\$0	\$0	\$0	\$0

Insert Expense Type

### Explain any changes from the 2020 CIP in the proposed funding for this project.

This project was scheduled to start in 2021. We have moved it to start in 2022 in an effort to reduce our 2021 CIP.

### Priority

**Citywide Element**

**Strategy**

#### Describe how this project advances the Citywide Element:

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

#### What is the justification for this project?

Road salt has contributed to an increasing sodium and chloride concentration in Well 14 water. This is a concern that requires further study.

### Project Schedule & Location

**Can this project be mapped?**  Yes  No

**What is the location of the project?**

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

**If so, enter the URL:**

2021 Status	Status/Phase	Est Cost	Description	
	2021 Capital Budget		Agency Requests	519

Status/Phase	Est Cost	Description
▼		
<input checked="" type="checkbox"/> Insert item		
<b>2022</b>	<b>Status</b>	
Status/Phase	Est Cost	Description
▼	82000	Public Engagement and Engineering Costs for Study to determine source of road salt
<input checked="" type="checkbox"/> Insert item		
<b>2023</b>	<b>Status</b>	
Status/Phase	Est Cost	Description
▼		
<input checked="" type="checkbox"/> Insert item		
<b>2024</b>	<b>Status</b>	
Status/Phase	Est Cost	Description
▼		
<input checked="" type="checkbox"/> Insert item		
<b>2025</b>	<b>Status</b>	
Status/Phase	Est Cost	Description
▼		
<input checked="" type="checkbox"/> Insert item		
<b>2026</b>	<b>Status</b>	
Status/Phase	Est Cost	Description
▼		
<input checked="" type="checkbox"/> Insert item		

Operating Costs

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

Personnel

# of FTEs	Annual Cost	Description
.5	52,000	Maintaining and cleaning RO membranes.

Non-Personnel

Major	Amount	Description
54	65000	Additional electrical power needed for pumping.
54	58000	Water treatment cleaning.
54	75000	Waste water disposal. Solids disposal in public sewer.

Insert item



Notes

Notes:

v 05/04/2020

Submitted

## 2021 Capital Improvement Plan Capital Budget Proposal

### Identifying Information

<b>Agency</b>	Water Utility ▼	<b>Proposal Name</b>	Well 19 Iron and Manganese Filter ▼
<b>Project Number</b>	10448	<b>Project Type</b>	Project
<b>Project Category</b>	Utility	<b>Priority:</b>	10 ▼

### 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.

### Budget Information

**Total Project Budget**  **Prior Appropriation**

### Budget by Funding Source

Funding Source	2021	2022	2023	2024	2025	2026
Revenue Bonds-Water ▼		891,000	6,691,000	81,000		
<b>Total</b>	\$0	\$891,000	\$6,691,000	\$81,000	\$0	\$0

Insert Funding Source

### Budget by Expenditure Type

Expense Type	2021	2022	2023	2024	2025	2026
Building ▼		891,000	6,691,000	81,000		
<b>Total</b>	\$0	\$891,000	\$6,691,000	\$81,000	\$0	\$0

Insert Expense Type

### Explain any changes from the 2020 CIP in the proposed funding for this project.

This project was scheduled to start in 2021. We have moved it to start in 2022 in an effort to reduce our 2021 CIP.

### 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

Can this project be mapped?  Yes  No

What is the location of the project?

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

#### 2021 Status

Status/Phase	Est Cost	Description
2021 Capital Budget ▼		Agency Requests
		521



Insert item

**2022 Status**

Status/Phase	Est Cost	Description
<input type="text" value=""/>	891000	Public Engagement and Engineering Services

Insert item

**2023 Status**

Status/Phase	Est Cost	Description
<input type="text" value=""/>	6691000	Start Construction on Filter

Insert item

**2024 Status**

Status/Phase	Est Cost	Description
<input type="text" value=""/>	81000	Additional Water Utility Labor

Insert item

**2025 Status**

Status/Phase	Est Cost	Description
<input type="text" value=""/>		

Insert item

**2026 Status**

Status/Phase	Est Cost	Description
<input type="text" value=""/>		

Insert item

### Operating Costs

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

#### Personnel

# of FTEs	Annual Cost	Description
<input type="text" value=".83"/>	<input type="text" value="8,700"/>	Facility is operated by existing personnel

#### Non-Personnel

Major	Amount	Description
<input type="text" value="54"/>	<input type="text" value="6,500"/>	Electrical power for chemical treatment
<input type="text" value="53"/>	<input type="text" value="25,000"/>	Water treatment chemicals

Insert item

### Notes

Notes:

# City of Madison 2020 Authorized Projects

## Summary Status

Agency :

Water Utility

# of Projects on Schedule

**11**

# of Projects Delayed

**0**

Project	2020 Budget	Status	Notes
Water Utility Facility Improvements	592,000	On schedule	Reduced overall size of program
Water Mains Replace Rehab Improve - Pipe Lining	200,000	On schedule	Increased overall size of program
Water Mains Replace Rehab Improve - Reconstruct Streets	1,933,000	On schedule	Reduced overall size of program
Water Mains Replace Rehab Improve - Pavement Management	785,000	On schedule	Reduced overall size of program
Water Utility Vehicles & Equipment	767,000	On schedule	Reduced overall size of program
Water Meter and Fixed Network Program	650,000	On schedule	Reduced overall size of program
Unit Well Rehab Program	320,000	On schedule	Reduced overall size of program
Water Hydrants Program	550,000	On schedule	Reduced overall size of program
Chlorinators & Florinators Program	31,000	On schedule	Reduced overall size of program
Water Valve Cut-In Program	15,000	On schedule	Reduced overall size of program
Water Mains - New	4,082,000	On schedule	Reduced overall size of program
<b>TOTAL</b>	<b>\$ 9,925,000</b>		