

Stormwater Utility

Capital Improvement Plan

	2020 Adopted	2021 Request	Change
2021 Capital Budget	8,271,000	10,266,000	1,995,000
2021 Capital Improvement Plan	25,868,000	24,888,000	(980,000)

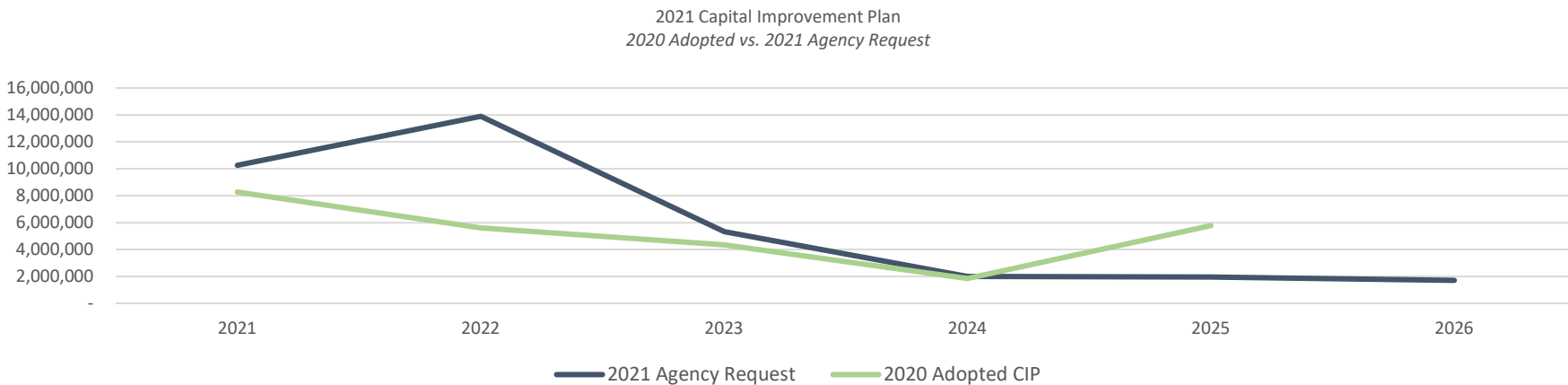
2020 Adopted
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2021 Request
4

Project Summary: Agency Request

	2021	2022	2023	2024	2025	2026
Street Cleaning Equipment - Streets	455,000	465,000	300,000	470,000	470,000	493,000
Citywide Flood Mitigation	6,525,000	9,537,000	3,248,000	1,120,000	1,130,000	190,000
Storm Sewer System Improvements	461,000	247,000	240,000	167,000	203,000	183,000
Stormwater Quality System Improvements	2,825,000	3,650,000	1,550,000	235,000	150,000	840,000
Total	\$ 10,266,000	\$ 13,899,000	\$ 5,338,000	\$ 1,992,000	\$ 1,953,000	\$ 1,706,000

Changes from 2020 CIP



Major Changes/Decision Points

- **Citywide Flood Mitigation**
Project budget increased by \$8.8m based on inclusion of additional projects such as Hawks Landing North Flood mitigation, Spring Harbor Relief Storm sewer, and additional regional stormwater improvements

Funding source changed to include Impact Fees and TIF Proceeds; Use TID 41 increment for Old Middleton Road/Craig Avenue and Spring Harbor Relief Box-Phase 1 in 2021, and TID 37 increment Winnebago/Eastwood/Amoth/Atwood in 2022

- Stormwater Quality System Improvements
Project budget decreased by \$558k based on anticipated carryover from 2020 project



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To: Dave Schmiedicke, Finance Director

From: Robert F Phillips, P.E., City Engineer

Date: June 12, 2020

Subject: Stormwater Utility 2021 Capital Budget Request

Goals of Engineering-Stormwater Utility Capital Budget

The Engineering Division’s proposed budget emphasizes projects that are in keeping with the City’s flood mitigation and stormwater quality goals. The major emphasis of this budget is flood mitigation, which can also be coupled with goals for stormwater quality. Place holders were put in for large flood mitigation projects in the out years while the City’s aggressive watershed study program continues. Priorities will be placed on repairs that can be done in conjunction with other public works improvements, such as major street resurfacing or reconstruction project, which will save the future expense of repairing the streets at a later date.

There is an underlying need from the community to know that the flood mitigation efforts are moving forward. When they start seeing projects come to fruition that will help to reassure the public. Prioritizing and funding future flood efforts will be a challenge given the number of projects and the available funds. One way to make projects less expensive for the Stormwater Utility is to coupling them with other projects. Combining the work with other projects moves these projects forward in a most cost effective and timely manner.

Summary of Changes from 2020 Capital Improvement Plan

For the 2021 Capital Budget we have basically kept programs to existing levels of funding. One exception is the increased amount of TIF funding that is being requested and the increased amount of impact fee funds that are being requested. These are both to supplement flood mitigation efforts.

There are 4 major programs under the Stormwater Utility Budget: Citywide Flood Mitigation, Stormwater Quality System Improvements, Storm Sewer System Improvements, and Street Cleaning Equipment – Streets. There have been no significant changes to these programs with the next budget cycle, however some minor projects have shifted slightly to align the funding needs better. Minor projects within these Major programs do need to align with the Pavement Management and Reconstruction Streets programs in the Engineering Major Streets Budget as some projects will receive additional funding to supplement the improvements over and above what the typical street costs would have been.

Prioritized List of Capital Requests

The top priority for the Stormwater Utility Budget is the Citywide Flood Mitigation program. This has been a top priority since the historic flooding in 2018 when major steps were taken to set up a solid system for a comprehensive review of the City’s infrastructure, ordinances and policies. All of this is needed to find holistic approaches to flooding that are equitable, effective, and take into account the growing concerns of climate change. The planning of the system improvements to address flood mitigation are in the operating budget while the costs associated with implementation of flood mitigation improvements are in the capital budget.

The second priority is Stormwater Quality System Improvements. This program is directly related to the Citywide Flood Mitigation program as a means for construction of facilities such as greenways and ponds that help treat the water for pollutant removal as well as help with flood mitigation efforts. Our Green Infrastructure initiatives are housed under this program as well. In addition to the flood mitigation benefits that come from projects under the Stormwater Quality System Improvements, this program is instrumental in meeting our TMDL goals for total suspended solids and total phosphorus reductions, as mandated under the EPA Clean Water Act and in our MS4 Permit through WDNR.

The third priority is Storm Sewer System Improvements. This program is used to fund smaller storm sewer projects that are not necessarily part of a street project, flood project or water quality project. This program also includes our preventative maintenance work such as storm sewer lining.

The fourth priority is our Street Cleaning Equipment program. This program funds the purchase of street sweepers for debris removal. This work is also related to our TMDL requirements and goals that are mandated under our MS4 Permit.

Prioritized List of Projects

1. Citywide Flood Mitigation
2. Stormwater Quality System Improvements
3. Storm Sewer System Improvements
4. Street Cleaning Equipment – Streets

Potential for Scaling Capital Requests

In the Stormwater Utility Budget, individual projects are difficult to downscale. Rather than downscale, delays are more appropriate. Some of the minor projects are dependent on the timing of the street or utility work or are needed to be in a certain order to phase multiple improvements over a series of years in order to complete the full scope of overarching project. For example, multiple phase greenway system and pond repairs need to be completed in a certain order to have them perform the way they are designed. Construction out of order may create a situation where the improvements could fail or make the problem worse for others downstream. Some of the projects in which major flood mitigation improvements are being coupled with street projects could potentially be downscaled, however it should be noted that there are opportunity costs associated with this, such as having a new street surface that would have to be destroyed before the end of its useful life in order to add flood mitigation improvements later. Delay of certain projects will undoubtedly put pressure on future budgets to provide funding to maintain the City's goals of flood mitigation and stormwater quality, as mandated by the EPA and WDNR.

Impact of COVID-19 on Capital Funding

The Stormwater Utility budget has barely been impacted by COVID-19. Most projects proposed for 2020 are on track to be completed as planned in the budget, while a few have been slowed due to some lost efficiencies and reduced staffing. There are no major projects that are not anticipated to move forward in 2020 or 2021, though some have been delayed a few months as we regrouped to work remotely.

c.c. Christy Baumel, Deputy City Mayor

2021 Capital Improvement Plan Capital Budget Proposal

Identifying Information

Agency	<input type="text" value="Stormwater Utility"/>	Proposal Name	<input type="text" value="Citywide Flood Mitigation"/>
Project Number	<input type="text" value="11513"/>	Project Type	<input type="text" value="Program"/>
Project Category	<input type="text" value="Utility"/>	Priority:	<input type="text" value="1"/>
2021 Project Number	<input type="text" value="13155"/>		

Description

This program is for stormwater network improvements where flooding occurs during large rain events. The goal of the program is to eliminate flooding and protect property from damage. Projects planned in 2021 include: the Hawks Landing North subdivision improvements, design of pond improvements, flood mitigation on South Street, land acquisition, and flood mitigation installations that are scheduled with street reconstruction projects.

Budget Information

Prior Appropriation* **Prior Year Actual***

*Based on Fiscal Years 2015-2019

Budget by Funding Source

<i>Funding Source</i>	2021	2022	2023	2024	2025	2026
Non-GF GO Borrowing - Stormwater	1,985,250	5,502,750	2,308,500	800,000	847,500	142,500
Reserves Applied - Stormwater	661,750	1,834,250	939,500		282,500	47,500
TIF Proceeds	3,000,000	2,200,000				
Impact Fees	878,000			320,000		
Total	\$6,525,000	\$9,537,000	\$3,248,000	\$1,120,000	\$1,130,000	\$190,000

Budget by Expenditure Type

<i>Expense Type</i>	2021	2022	2023	2024	2025	2026
Stormwater Network	6,525,000	9,537,000	3,248,000	1,120,000	1,130,000	190,000
Total	\$6,525,000	\$9,537,000	\$3,248,000	\$1,120,000	\$1,130,000	\$190,000

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

The major changes that appear in this submittal compared to last year include the inclusion of TIFF funds to pay for regional flood mitigation improvements. Additional funds were also added with impact fees to fund improvements in existing impact fee districts. Minor projects such as Hawks Landing North Flood Mitigation were not included in last year's budget as the flood modeling was not yet completed. Additional lands for regional stormwater improvements were not included in last year's budget either as the lands were not yet ready for development, however the developer of those properties are currently working on their land use entitlements. The Spring Harbor Relief Storm sewer was not specifically identified, however funds for large regional flood mitigation efforts were shown as unallocated knowing there would be an opportunity to install the relief system concurrently with the street improvement project.

Priority

Citywide Element

Strategy

Describe how this project advances the Citywide Element:

The goal of this program is to reduce flooding on a local and regional scale. Improvements listed will protect property and will provide flood mitigation on roadways for vehicles, bicycles and pedestrians while also improving street and roadway access for emergency vehicles during large rain events.

Project Schedule & Location

<i>Project name</i>	<i>Est Cost</i>	<i>Location</i>
Local Flood Mitigation - Davies/Major/Maher	\$100,000	Davies/Major/Maher neighborhood
Local Flood Mitigation - South St	\$125,000	South Street from Midland to Wingra Parkway
Regional Flood Mitigation - Spring Harbor Relief Storm Sewer - Phase 1	\$4,300,000	Old Middleton Road and Craig Avenue
Regional Flood Mitigation - Hawks Landing North (land acquisition)	\$1,000,000	3394 Sugar Maple Lane
Regional Flood Mitigation - Herling property (land acquisition)	\$1,000,000	10250 Mineral Point Rd

Explain the justification for selecting projects planned for 2021:

Backyard Drainage and Local Flood Mitigation funds are used for projects that come up during the year that can address smaller scale flood mitigation efforts. There is no funding for Backyard Drainage in 2021.

It is anticipated that several large flood mitigation projects will be identified in the 11 Watershed Studies that Engineering will be conducting in 2019-2020. Flood relief projects that were previously in design or which are incorporated into a street project have been identified and programmed in 2021.

2022 Projects

<i>Project Name</i>	<i>Est Cost</i>	<i>Location</i>
Local Flood Mitigation - Davies/Major/Drexel/Monona	\$875,000	Davies/Major/Drexel/Monona Neighborhood
Regional Flood Mitigation - Winnebago/Eastwood/Amoth/Atwood	\$2,200,000	Winnebago/Eastwood/Amoth/Atwood Neighborhood
Regional Flood Mitigation - Spring Harbor Relief Storm Sewer - Phase 2	\$3,150,000	Univeristy Ave to Lake Mendota Drive; Lake Mendota Drive to Norman Way
Regional Flood Mitigation - Norman Way/Wood Circle	\$900,000	Norman Way from Wood Circle to Lake Mendota
Regional Flood Mitigation - Hawks Landing North (construction)	\$1,680,000	3394 Sugar Maple Lane
Regional Flood Mitigation - Old Sauk Trails Business Park Pond (construction)	\$732,000	8308 Excelsior Dr

Explain the justification for selecting projects planned for 2022:

Regional flood mitigation efforts on Winnebago/Eastwood/Amoth/Atwood have been previously identified in the 2019 budget for 2022.

Backyard Drainage and Local Flood Mitigation funds are used for projects that come up during the year that can address smaller scale flood mitigation efforts. There is no funding for Backyard Drainage in 2022.

It is anticipated that several large flood mitigation projects will be identified in the 11 Watershed Studies that Engineering will be conducting in 2019-2020. Flood relief projects that were previously in design or which are incorporated into a street project have been identified and programmed in 2022. Other regional flood mitigation projects that are included coincide with a previously programmed street project.

2023 Projects

<i>Project Name</i>	<i>Est Cost</i>	<i>Location</i>
Local Flood Mitigation - Richard/Silver	\$900,000	Richard St From Schenk Avenue to Silver Rd
Regional Flood Mitigation - Lake Mendota Drive - East	\$1,448,000	Lake Mendota Drive from East end to Spring Harbor Drive
Unallocated Regional Flood Mitigation	\$900,000	Locations TBD

Explain the justification for selecting projects planned for 2023:

Backyard Drainage and Local Flood Mitigation funds are used for projects that come up during the year that can address smaller scale flood mitigation efforts. There is no funding for Backyard Drainage budgeted in 2023.

It is anticipated that several large flood mitigation projects will be identified in the Watershed Studies that Engineering will be conducting. Unallocated funds are being set aside for design, permitting and construction of those projects. Other regional flood mitigation projects that are included coincide with a previously programmed street project programmed in 2023.

2024 Projects

<i>Project name</i>	<i>Est Cost</i>	<i>Location</i>
Regional Flood Mitigation - Marty Farm (land acquisition)	\$1,120,000	Marty Rd at Raymond Rd

Explain the justification for selecting projects planned for 2024:

The Marty Farm property has long been identified as a regional stormwater location and for park purposes, as noted in the neighborhood development plan. The property has been looked at for development in the last year and the City will be to the point where purchase of the lands will be necessary to meet the regional needs. Construction of the facilities is programmed tentatively for 2027.

2025 Projects

<i>Project name</i>	<i>Est Cost</i>	<i>Location</i>
Local Flood Mitigation - Dawes/Lansing/Leon	\$380,000	Dawes/Lansing/Leon Neighborhood
Unallocated Regional Flood Mitigation	\$750,000	Locations TBD

Explain the justification for selecting projects planned for 2025:

Backyard Drainage and Local Flood Mitigation funds are used for projects that come up during the year that can address smaller scale flood mitigation efforts. There is no funding for Backyard Drainage in 2025.

It is anticipated that several large flood mitigation projects will be identified in the Watershed Studies that Engineering will be conducting. Unallocated funds are being set aside for design, permitting and construction of those projects.

2026 Projects

<i>Project name</i>	<i>Est Cost</i>	<i>Location</i>
Backyard Drainage	\$50,000	Locations TBD
Local Flood Mitigation - Ridgeway/Reindahl/Schedeman, Rowley	\$140,000	Ridgeway/Reindahl/Schedeman, Rowley Neighborhood

Explain the justification for selecting projects planned for 2026:

Backyard Drainage and Local Flood Mitigation funds are used for projects that come up during the year that can address smaller scale flood mitigation efforts. It is anticipated that several large flood mitigation projects will be identified in the Watershed Studies that Engineering will be conducting. Unallocated funds are being set aside for design, permitting and construction of those projects.

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"/>	Operational costs for improvements to the storm sewer system should not increase or add the need for full time staff with this budget, however it should be noted that as the overall system expands with new development additional employees may be necessary to maintain the system. Many of the anticipated improvements will be upgrades to the existing stormwater network or improvements or additions to existing detention, retention, greenway or other flood control systems.

Non-Personnel

<i>Major</i>	<i>Amount</i>	<i>Description</i>
<input type="text"/>	<input type="text"/>	Maintenance of existing storm sewer and existing flood control systems such as ponds and greenways are already covered under the existing operating budget. Upgrading existing storm sewer pipes should not add any significant operating costs. If any additional green infrastructure such as ponds or greenways are added, those costs for mowing and general maintenance of the facilities will be absorbed into the existing operating budget.

Notes

Notes:

2021 Capital Improvement Plan Capital Budget Proposal

Identifying Information

Agency	Stormwater Utility	Proposal Name	Storm Sewer System Imp
Project Number	11664	Project Type	Program
Project Category	Utility	Priority:	3
2021 Project Number	13156		

Description

This program is for improvements to the storm sewer network. The goal of this program is to ensure a reliable storm sewer system for City residents. Projects planned in 2021 include cured in place piping (CIPP), waterway improvements consisting of various low cost improvements to the stormwater network, system improvements at South Street and storm sewer repairs at Spring Trail.

Budget Information

Prior Appropriation* \$646,188 **Prior Year Actual*** \$410,085

*Based on Fiscal Years 2015-2019

Budget by Funding Source

Funding Source	2021	2022	2023	2024	2025	2026
Non-GF GO Borrowing - Stormwater	276,600	148,200	144,000	100,200	121,800	109,800
Reserves Applied - Stormwater	184,400	98,800	96,000	66,800	81,200	73,200
Total	\$461,000	\$247,000	\$240,000	\$167,000	\$203,000	\$183,000

Budget by Expenditure Type

Expense Type	2021	2022	2023	2024	2025	2026
Stormwater Network	461,000	247,000	240,000	167,000	203,000	183,000
Total	\$461,000	\$247,000	\$240,000	\$167,000	\$203,000	\$183,000

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

There were no significant changes in this program from the 2020 budget submittal.

Priority

Citywide Element Green and Resilient

Strategy Does not meet a strategy.

Describe how this project advances the Citywide Element:

The goal is to continue to improve and replace components of the aging and failing storm sewer system. This can be done with a full replacement or repairs and preventative maintenance of the system.

Project Schedule & Location

2021 Projects

Project name	Est Cost	Location
Cured In Place Pipe (CIPP)	\$20,000	various locations

<i>Project name</i>	<i>Est Cost</i>	<i>Location</i>
Citywide Stormwater Improvements (ULO and Waterways)	\$200,000	various locations
Stormwater Only Project - Spring Trail Drain	\$80,000	Spring Trail at the UW Arboretum
Stormwater Only - South Street	\$161,000	South Street from Midland to Wingra Parkway

Explain the justification for selecting projects planned for 2021:

CIPP projects are on-going preventative maintenance practices; the ULO contract is used on a yearly basis to help identify utility conflicts prior to construction of public works contracts to save time and money with costly delays and redesigns; Waterways is a yearly group of smaller projects that is performed by City Operations to complete repairs in-house vs hiring contractors to perform repairs to the storm sewer system.

The South Street project is a project to upgrade the storm sewer system in a flood prone area. These funds are supplementing funding in the Citywide Flood Mitigation program to upsize storm sewers for a 100 year event.

The Spring Trail Drain repair is in conjunction with UW Arboretum to collaborate on a failing section of pipe that discharges onto Arboretum lands.

2022 Projects

<i>Project Name</i>	<i>Est Cost</i>	<i>Location</i>
Cured In Place Pipe (CIPP)	\$22,000	various locations
Citywide Stormwater Improvements (ULO and Waterways)	\$225,000	various locations

Explain the justification for selecting projects planned for 2022:

CIPP projects are on-going preventative maintenance practices; the ULO contract is used on a yearly basis to help identify utility conflicts prior to construction of public works contracts to save time and money with costly delays and redesigns; Waterways is a yearly group of smaller projects that is performed by City Operations to complete repairs in-house vs hiring contractors to perform repairs to the storm sewer system.

2023 Projects

<i>Project Name</i>	<i>Est Cost</i>	<i>Location</i>
Cured In Place Pipe (CIPP)	\$20,000	various locations
Citywide Stormwater Improvements (ULO and Waterways)	\$220,000	various locations

Explain the justification for selecting projects planned for 2023:

CIPP projects are on-going preventative maintenance practices; the ULO contract is used on a yearly basis to help identify utility conflicts prior to construction of public works contracts to save time and money with costly delays and redesigns; Waterways is a yearly group of smaller projects that is performed by City Operations to complete repairs in-house vs hiring contractors to perform repairs to the storm sewer system.

2024 Projects

<i>Project name</i>	<i>Est Cost</i>	<i>Location</i>
Cured In Place Pipe (CIPP)	\$17,000	various locations
Citywide Stormwater Improvements (ULO and Waterways)	\$150,000	various locations

Explain the justification for selecting projects planned for 2024:

CIPP projects are on-going preventative maintenance practices; the ULO contract is used on a yearly basis to help identify utility conflicts prior to construction of public works contracts to save time and money with costly delays and redesigns; Waterways is a yearly group of smaller projects that is performed by City Operations to complete repairs in-house vs hiring contractors to perform repairs to the storm sewer system.

2025 Projects

<i>Project name</i>	<i>Est Cost</i>	<i>Location</i>
Cured In Place Pipe (CIPP)	\$20,000	various locations
Citywide Stormwater Improvements (ULO and Waterways)	\$183,000	various locations

Explain the justification for selecting projects planned for 2025:

CIPP projects are on-going preventative maintenance practices; the ULO contract is used on a yearly basis to help identify utility conflicts prior to construction of public works contracts to save time and money with costly delays and redesigns; Waterways is a yearly group of smaller projects that is performed by City Operations to complete repairs in-house vs hiring contractors to perform repairs to the storm sewer system.

2026 Projects

<i>Project name</i>	<i>Est Cost</i>	<i>Location</i>
Cured In Place Pipe (CIPP)	\$20,000	various locations.

<i>Project name</i>	<i>Est Cost</i>	<i>Location</i>
Citywide Stormwater Improvements (ULO and Waterways)	\$163,000	various locations

Explain the justification for selecting projects planned for 2026:

CIPP projects are on-going preventative maintenance practices; the ULO contract is used on a yearly basis to help identify utility conflicts prior to construction of public works contracts to save time and money with costly delays and redesigns; Waterways is a yearly group of smaller projects that is performed by City Operations to complete repairs in-house vs hiring contractors to perform repairs to the storm sewer system.

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"/>	At this time there are no anticipated employee or staffing needs to maintain this program, however it should be noted as the system continues to expand, our needs for staff and non-staff costs will continue to rise. However doing small upgrades as part of the preventative maintenance portion of this program will be beneficial to keeping those needs to a minimum.

Non-Personnel

<i>Major</i>	<i>Amount</i>	<i>Description</i>
<input type="text"/>	<input type="text"/>	Improvements to the storm sewer network will help reduce issues with maintenance and cleaning, which will eventually lead to less staff time or contractor repairs which is normally seen in a system with aging and failing infrastructure. However as stated above, there will be a tipping point where the city and the facilities continues to grow and will outpace the staffing and maintenance costs that we currently have.

Notes

Notes:

2021 Capital Improvement Plan Capital Budget Proposal

Identifying Information

Agency	Stormwater Utility	Proposal Name	Stormwater Quality System
Project Number	11665	Project Type	Program
Project Category	Utility	Priority:	2
2021 Project Number	13157		

Description

This program is for stormwater quality improvement projects associated with the City's WDNR/EPA stormwater discharge permit. The goal of this program is to improve the quality of the stormwater and compliance with environmental guidelines and initiatives. Projects within the program are prioritized annually and include: greenway reconstructions, storm water pond improvements, shoreline restoration, and urban water quality projects. Smaller projects include rain gardens with street reconstruction and dredging.

Budget Information

Prior Appropriation* \$3,816,037 **Prior Year Actual*** \$376,022

*Based on Fiscal Years 2015-2019

Budget by Funding Source

Funding Source	2021	2022	2023	2024	2025	2026
Non-GF GO Borrowing - Stormwater	2,345,000	3,029,500	1,286,500	195,000	124,500	697,200
Reserves Applied - Stormwater	480,000	620,500	263,500	40,000	25,500	142,800
Total	\$2,825,000	\$3,650,000	\$1,550,000	\$235,000	\$150,000	\$840,000

Budget by Expenditure Type

Expense Type	2021	2022	2023	2024	2025	2026
Stormwater Network	2,825,000	3,650,000	1,550,000	235,000	150,000	840,000
Total	\$2,825,000	\$3,650,000	\$1,550,000	\$235,000	\$150,000	\$840,000

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

The changes from this budget submittal versus the 2020 budget submittal is the additional projects are now anticipated to be consulted out for design and permitting in order to keep the aggressive schedules to help meet our flood mitigation and stormwater quality goals. This budget will rely on the carryover amounts from 2020 to have the funding needed to complete the work. We have also added in the dredging at Spring Harbor, which is a maintenance dredging that is typically done every 10-15 years. It was identified that with the heavy rains and runoff in the past 2 years that the bay as begun to silt in and will need to be maintained.

Priority

Citywide Element Green and Resilient

Strategy Improve lake and stream water quality

Describe how this project advances the Citywide Element:

This program directly correlates to the strategy of improved lake and stream water quality. The removal and reduction of Total Phosphorus (TP) and Total Suspended Solids (TSS) will have a direct impact on water quality and will help meet our goals and mandates of the Rock River TMDL.

Project Schedule & Location

2021 Projects

Project name	Est Cost	Location
2021 Capital Budget	Agency Requests	415

Project name	Est Cost	Location
Greenway - Sauk Creek Phase 3 & 4 (design and construction)	\$1,445,000	Tree Lane to High Point Road
Greenway - Old Sauk Trails Business Park (design and permits)	\$120,000	8308 Excelsior Drive
Greenway - Hickory Hollow (design and permits)	\$120,000	6024 Old Middleton Road
Pond - Curtis /Coyote Pond - agreement with UW-Madison Arboretum	\$500,000	UW Arboretum, Longenecker Dr, Madison, WI 53713
Spring Harbor Dredge	\$165,000	5218 Lake Mendota Drive, Madison, WI
Unallocated Rain Gardens and Green Infrastructure	\$75,000	various locations TBD
Other Water Quality BMP - Hawks Landing Sediment Traps	\$25,000	Hawks Landing Golf Course
Gway- Mendota Spring Harbor - Regent (design/permits)	\$125,000	5348 Regent St, Madison, WI
Gway - Mendota Spring Harbor - South Hill (design/permits)	\$125,000	5399 Regent St, Madison, WI
Gway - Mentoda Spring Harbor - Masthead (design/permits)	\$125,000	101 Nautilus Drive, Madison, WI

Explain the justification for selecting projects planned for 2021:

Planning for the Sauk Creek greenway corridor has occurred over the last 6 years. The historic flood in 2018 put plans on hold until the City's comprehensive watershed studies were completed to help inform flood mitigation measures in addition to greenway restoration. Planning, design and permitting for the pond at Old Sauk Business Park will occur in 2020 while construction will commence in 2021. The greenway at Hickory Hollow has been requested by property owners who have had flooding and drainage issues. The Stricker's/Mendota Watershed Study will be completed in 2020 and will provide alternatives for the Hickory Hollow greenway and channel repairs. In addition to mitigation of flooding, this project will also provide Total Phosphorus (TP) and Total Suspended Solid (TSS) removal prior to discharging to Lake Mendota. The Curtis Pond and Coyote Pond are in conjunction with an Intergovernmental Agreement between the City of Madison, City of Fitchburg, Town of Madison, WDOT and UW Madison-Wisconsin, which addressed joint funding for stormwater management and construction improvements that drain to the UW-Madison Arboretum lands. In 2020 the City will reimburse the UW-Madison Arboretum \$500,000 and in 2021 the City will reimburse the remaining \$500,000, in accordance with the IGA. Design and permitting for sections of the Mendota Spring Harbor greenway system will begin in 2021 while construction is scheduled for 2022 and 2023.

Rain gardens and other Water Quality BMPs will remove and reduce Total Phosphorus and Total Suspended Solids will have a direct correlation to water quality and will help meet our goals and mandates of the Rock River TMDL. Green infrastructure initiatives are included in addition to funding for the 5 year pilot program that incentivizes private property owners to install green infrastructure on their private property.

The City's WDNR/EPA stormwater discharge permit calls for the dredging of stormwater management ponds and is required under Chapter NR 528, Wis. Adm. Code, *Management of Accumulated Sediment from Storm Water Management Structures*.

2022 Projects

Project Name	Est Cost	Location
Greenway - Mendota Spring Harbor - Regent Street	\$325,000	5348 Regent Street, Madison, WI
Greenway - Hickory Hollow	\$1,350,000	6024 Old Middleton Road, Madison, WI
Dredge - Garner Park Pond	\$250,000	333 S. Rosa Road, Madison, WI
Hawks Landing North Pond	\$520,000	3394 Sugar Maple Lane, Madison, WI
Old Sauk Trails Business Park Pond	\$1,000,000	8308 Excelsior Drive, Madison, WI
Unallocated Rain Gardens and Green Infrastructure	\$75,000	various locations TBD
Other Water Quality BMP - Hawks Landing Sediment Traps	\$25,000	Hawks Landing Golf Course

Explain the justification for selecting projects planned for 2022:

The Mendota Spring Harbor and Hickory Hollow greenways are now to the point where they require a major renovation to improve conveyance, reduce flooding, reduce erosion and increase water quality. These sections of greenways are in the Spring Harbor Watershed Study, which will be completed in 2020 and will provide alternatives for the greenway and channel repairs.

In addition to helping with flood mitigation, routine maintenance of greenways, ponds and rain gardens will remove and reduce Total Phosphorus and Total Suspended Solids will have a direct correlation to water quality and will help meet our goals and mandates of the Rock River TMDL.

The pond improvements for Old Sauk Trails Buisness Park are long overdue since this area has silted in and now has many invasive tree species that compromise the functionality of the pond. This pond, in addition to storwater quality will be reviewed with the Pheasant Branch Watershed plan and will incorporate flood mitigation efforts as well. The Hawks Landing pond will be a new construction to help mitigate flooding that has historical occurred in this area.

The City's WDNR/EPA stormwater discharge permit calls for the dredging of stormwater management ponds and is required under Chapter NR 528, Wis. Adm. Code, *Management of Accumulated Sediment from Storm Water Management Structures*.

2023 Projects

<i>Project Name</i>	<i>Est Cost</i>	<i>Location</i>
Gway - Mendota Spring Harbor - South Hill	\$450,000	5399 Regent St, Madison, WI
Gway - Mentoda Spring Harbor - Masthead	\$350,000	101 Nautilus Drive, Madison, WI
Greenway - Baker / Camelot	\$350,000	5899 Taychopera Road and 1842 Camelot Drive, Madison, WI
Warner Park Lagoons Improvements	\$300,000	2930 N Sherman Ave, Madison, WI
Unallocated Rain Gardens and Green Infrastructure	\$75,000	various locations TBD
Other Water Quality BMP - Hawks Landing Sediment Traps	\$25,000	Hawks Landing Golf Course

Explain the justification for selecting projects planned for 2023:

The Mendota Spring Harbor and Baker / Camelot greenways are now to the point where they require a major renovation to improve conveyance, reduce flooding, reduce erosion and increase water quality. These sections of greenways are in the Spring Harbor Watershed Study, which will be completed in 2020 and will provide alternatives for the greenway and channel repairs.

The City has been working on a master plan for the Warner Park Lagoons for several years. Recommendations for improvements for access and water quality topped the list. The Engineering Division and Parks Division will be working on implementation of the master plan recommendations, which include better treatment of water before it enters the lagoon and dredging of accumulated sediments to provide better aquatic habitat.

In addition to helping with flood mitigation, routine maintenance of greenways, ponds and rain gardens will remove and reduce Total Phosphorus and Total Suspended Solids will have a direct correlation to water quality and will help meet our goals and mandates of the Rock River TMDL. Shoreline maintenance locations are unknown at this time and unallocated funds will be available to complete routine maintenance to ensure our shoreline integrity.

The City's WDNR/EPA stormwater discharge permit calls for the dredging of stormwater management ponds and is required under Chapter NR 528, Wis. Adm. Code, *Management of Accumulated Sediment from Storm Water Management Structures*.

2024 Projects

<i>Project name</i>	<i>Est Cost</i>	<i>Location</i>
Unallocated Pond	\$135,000	Location TBD
Unallocated Rain Gardens and Green Infrastructure	\$75,000	various locations TBD
Other Water Quality BMP - Hawks Landing Sediment Traps	\$25,000	Hawks Landing Golf Course

Explain the justification for selecting projects planned for 2024:

In addition to helping with flood mitigation, routine maintenance of greenways, ponds and rain gardens will remove and reduce Total Phosphorus and Total Suspended Solids will have a direct correlation to water quality and will help meet our goals and mandates of the Rock River TMDL.

The City's WDNR/EPA stormwater discharge permit calls for the dredging of stormwater management ponds and is required under Chapter NR 528, Wis. Adm. Code, *Management of Accumulated Sediment from Storm Water Management Structures*.

2025 Projects

<i>Project name</i>	<i>Est Cost</i>	<i>Location</i>
Unallocated Dredge	\$75,000	Location TBD
Unallocated Rain Gardens and Green Infrastructure	\$75,000	various locations TBD

Explain the justification for selecting projects planned for 2025:

In addition to helping with flood mitigation, routine maintenance of greenways, ponds and rain gardens will remove and reduce Total Phosphorus and Total Suspended Solids will have a direct correlation to water quality and will help meet our goals and mandates of the Rock River TMDL.

The City's WDNR/EPA stormwater discharge permit calls for the dredging of stormwater management ponds and is required under Chapter NR 528, Wis. Adm. Code, *Management of Accumulated Sediment from Storm Water Management Structures*.

2026 Projects

<i>Project name</i>	<i>Est Cost</i>	<i>Location</i>
Olbrich parking lot Stormwater Quality Improvements	\$14,500	3301 Atwood Avenue, Madison, WI

<i>Project name</i>	<i>Est Cost</i>	<i>Location</i>
Unallocated Rain Gardens and Green Infrastructure	\$75,000	various locations TBD
James Madison Park Shoreline	\$750,000	652 E Gorham Street, Madison, WI

Explain the justification for selecting projects planned for 2026:

The parking lot improvements for Olbrich Park will be completed in conjunction with the Atwood Avenue reconstruction project. The parking lot currently has no stormwater quality controls and drains directly to the lake.

James Madison shoreline has been identified in the Parks Master Plan for replacement. Engineering and Parks Divisions will share the costs of the repairs.

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"/>	At this time there are no anticipated employee or staffing needs to maintain this program, however it should be noted that we are taking a comprehensive look at our programs and with the increase in green infrastructure initiatives, continued expansion of our system of ponds and greenways and better management practices, maintaining the status quo is not sustainable over the long run. The watershed studies are currently housed in the operating budget and as those studies come to a close the construction of the new improvements will ramp up. It is anticipated that the funding freed up from the studies in the next 5-8 years can be used to offset the cost of maintenance and additional staff that may be required.

Non-Personnel

<i>Major</i>	<i>Amount</i>	<i>Description</i>
<input type="text"/>	<input type="text"/>	Improvements to the storm sewer network will help reduce issues with maintenance and cleaning, which will eventually lead to less staff time or contractor repairs which is normally seen in a system with aging and failing infrastructure. However, as stated above, there will be a tipping point where the city and facilities continues to grow and will outpace the staffing and maintenance costs that we currently have.

Notes

Notes:

2021 Capital Improvement Plan Capital Budget Proposal

Identifying Information

Agency	Stormwater Utility	Proposal Name	Street Cleaning Equipme
Project Number	10554	Project Type	Program
Project Category	Other	Priority:	4
2021 Project Number	13154		

Description

This program is for replacing existing street sweeping machines operated by the Streets Division. The City's street sweeping equipment life cycle is five years with interim maintenance. The goal of this program is to reduce the discharge of pollutants and solids to the lakes by removing material from the streets surface before it is mixed with storm water runoff. Funding in 2021 will be used to replace two mechanical street cleaning vehicles.

Budget Information

Prior Appropriation* \$2,174,561 **Prior Year Actual*** \$2,096,680

*Based on Fiscal Years 2015-2019

Budget by Funding Source

<i>Funding Source</i>	2021	2022	2023	2024	2025	2026
Reserves Applied - Stormwater	410,000	420,000	275,000	425,000	425,000	446,000
Trade In Allowance	45,000	45,000	25,000	45,000	45,000	47,000
Total	\$455,000	\$465,000	\$300,000	\$470,000	\$470,000	\$493,000

Budget by Expenditure Type

<i>Expense Type</i>	2021	2022	2023	2024	2025	2026
Machinery and Equipment	455,000	465,000	300,000	470,000	470,000	493,000
Total	\$455,000	\$465,000	\$300,000	\$470,000	\$470,000	\$493,000

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

There have been no changes to the proposed budget for this program.

Priority

Citywide Element Green and Resilient

Strategy Improve lake and stream water uality

Describe how this project advances the Citywide Element:

The City attempts to sweep all areas of the City on a 24-day cycle and downtown areas weekly during the spring, summer and fall months. Additionally, street sweepers are used to sweep immediately (within 24 hour period) after leaf collection. Sweeping reduces the total suspended solids (TSS) and total phosphorous (TP) that enters the storm sewer system, lakes and other water bodies.

Project Schedule & Location

2021 Projects

<i>Project name</i>	<i>Est Cost</i>	<i>Location</i>
Machinery and Equipment Replacement	\$455,000	NA

Explain the justification for selecting projects planned for 2021:

Replacement of machinery and equipment is on a 5-year cycle. In 2021, 2022, 2024, 2025 and 2026 (2) mechanical sweepers will be replaced per year.

2022 Projects

Project Name	Est Cost	Location
Machinery and Equipment Replacement	\$465,000	NA

Explain the justification for selecting projects planned for 2022:

Replacement of machinery and equipment is on a 5-year cycle. In 2020, 2021, 2022, 2024 and 2025 (2) mechanical sweepers will be replaced per year.

2023 Projects

Project Name	Est Cost	Location
Machinery and Equipment Replacement	\$300,000	NA

Explain the justification for selecting projects planned for 2023:

In 2023 the existing vacuum sweeper will be replaced.

2024 Projects

Project name	Est Cost	Location
Machinery and Equipment Replacement	\$470,000	NA

Explain the justification for selecting projects planned for 2024:

Replacement of machinery and equipment is on a 5-year cycle. In 2021, 2022, 2024, 2025 and 2026 (2) mechanical sweepers will be replaced per year.

2025 Projects

Project name	Est Cost	Location
Machinery and Equipment Replacement	\$470,000	NA

Explain the justification for selecting projects planned for 2025:

Replacement of machinery and equipment is on a 5-year cycle. In 2021, 2022, 2024, 2025 and 2026 (2) mechanical sweepers will be replaced per year.

2026 Projects

Project name	Est Cost	Location
Machinery and Equipment Replacement	\$493,000	NA

Explain the justification for selecting projects planned for 2026:

Replacement of machinery and equipment is on a 5-year cycle. In 2021, 2022, 2024, 2025 and 2026 (2) mechanical sweepers will be replaced per year.

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" value="0"/>	<input type="text" value="0"/>	No additional staffing will be required to continue this program as this is just a replacement of the existing equipment. Last year the Stormwater Utility paid \$2,238,300.79 for the sweeping service. That breaks down to \$1,564,509.23 Salary/Fringe and \$673,791.56 Other Costs.

Non-Personnel

Major	Amount	Description
<input type="text"/>	<input type="text" value="0"/>	It is expected that the costs can be absorbed in the existing operating budget.

Notes

Notes:

City of Madison 2020 Authorized Projects
 Summary Status

Agency : Stormwater Utility

of Projects on Schedule

4

of Projects Delayed

0

Project	2020 Budget	Status	Notes
Street Cleaning Equipment - Streets	455,000	On schedule	
Citywide Flood Mitigation	3,000,000	On schedule	
Storm Sewer System Improvements	475,000	On schedule	South Street has been delayed until 2021 (\$470,000)
Stormwater Quality System Improvements	2,350,000	On schedule	
TOTAL	\$ 6,280,000		