

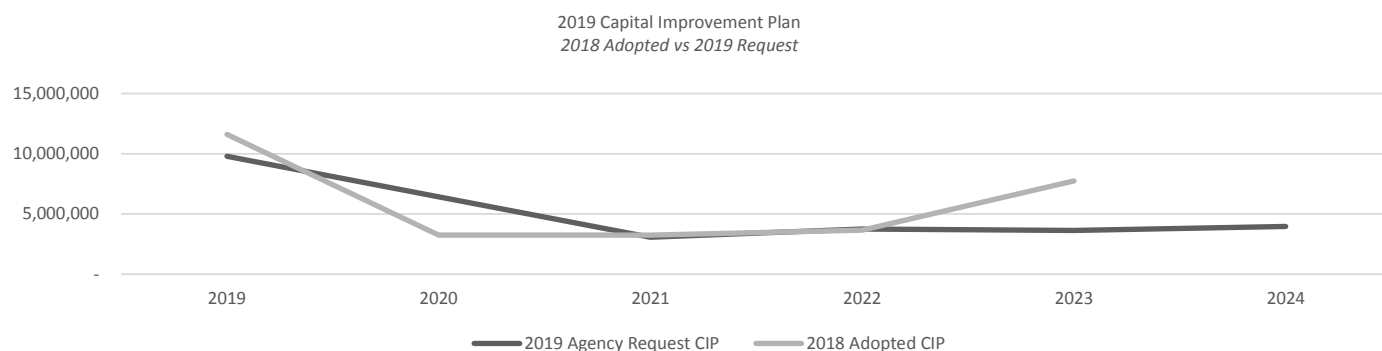
Stormwater Utility

Capital Improvement Plan

Project Summary

	Agency Priority	2019	2020	2021	2022	2023	2024
Citywide Flood Mitigation	5	900,000	2,800,000	525,000	530,000	675,000	650,000
Starkweather Coagulant Treatment	2	2,700,000	100,000	75,000	-	-	-
Storm Sewer System Improvements	4	675,000	475,000	375,000	375,000	400,000	387,500
Stormwater Quality System Improvements	1	5,073,000	2,600,000	1,640,000	2,380,000	2,250,000	2,450,000
Street Cleaning Equipment - Streets	3	440,000	455,000	455,000	465,000	300,000	470,000
Total		\$ 9,788,000	\$ 6,430,000	\$ 3,070,000	\$ 3,750,000	\$ 3,625,000	\$ 3,957,500

Changes from 2018 CIP



Project Adjustments

- Starkweather Coagulant Treatment: Project budget reduced (\$2.2m)

Program Adjustments

- Citywide Flood Mitigation: Program budget decreased in out-years (\$1.8m)
- Stormwater Quality System Improvements: Program budget increased in out-years (\$1.0m)
- Street Cleaning Equipment: Program budget increased in out-years (\$0.3m)



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Date: Wednesday, May 9, 2018

To: David Schmiedicke, Finance Director

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

**Re: 2019 Capital Budget Proposal
Stormwater Utility**

Introduction

The “Stormwater Utility” budget provides the infrastructure needed to construct and maintain the storm drainage system comprised of pipes, ponds and greenways and to construct and maintain various water quality projects that reduce pollutants entering the receiving waters. The 2019 Budget includes five (5) major programs: Storm Water Quality Improvements, Storm Sewer System Improvements, Street Cleaning Equipment-Streets, Starkweather Coagulant Treatment, and Citywide Flood Mitigation.

Funding for storm sewer replacement related to street resurfacing and reconstruction projects are placed in the “Engineering – Major Streets” section.

Prioritized List

1. Stormwater Quality System Improvements
2. Starkweather Coagulant Treatment
3. Street Cleaning Equipment
4. Storm Sewer System Improvements
5. Citywide Flood Mitigation

Discussion of Criteria

The first priority is the Stormwater Quality System Improvements program, which funds treatment and removal of storm water pollution that reaches the receiving waters, and which also meets DNR/EPA regulatory requirements. The next priority is Starkweather Coagulant Treatment. This along with Street Cleaning Equipment are also needed to reduce pollution entering the receiving waters, which is mandated by the DNR/EPA. The Storm Sewer System Improvements program funds basic infrastructure repairs that is necessary to keep the system operational, including preventative maintenance such as pipe lining and repairs. The Citywide Flood Mitigation program funds improvements and studies that identify and reduce flooding in areas that are known to be problematic during large rainfall events.

Capital Budget Proposals

Section 1: Identifying Information

Agency

Stormwater Utility

Proposal Name

Citywide Flood Mitigation

Project Category

Utility

Project Number

11513

Proposal Description

This program improves stormwater network performance in City locations that flood during large rain events. The goal of the program is to eliminate flooding and protect property from damage. Projects planned for 2018 include: backyard drainage problems, Hidden Hill at Hawk's Landing, and Celia Court on the City's southwest side.

Proposal Type

Program

Priority

5

Section 2: Program Budget

Prior Authorization

	<i>Budget</i>	<i>Actual</i>	<i>Difference</i>
2015	260,000	37,794	222,206
2016	43,318	83,944	-40,626
2017	1,239,103	999,288	239,815
2018	338,000	62,696	275,304
Total	1,880,421	1,183,721	696,699

Budget by Year

<i>Funding Source</i>	2019	2020	2021	2022	2023	2024
Reserves Applied - Stormwater	300,000	250,000	275,000	225,000	350,000	275,000
Non-GF GO Borrowing - Stormwater	600,000	350,000	250,000	305,000	325,000	375,000
TIF Proceeds		2,200,000				
Total	\$900,000	\$2,800,000	\$525,000	\$530,000	\$675,000	\$650,000
<i>Expense Type</i>	2019	2020	2021	2022	2023	2024
Stormwater Network	900,000	2,800,000	525,000	530,000	675,000	650,000
Total	\$900,000	\$2,800,000	\$525,000	\$530,000	\$675,000	\$650,000

Does this program have matching funds?

☐ Yes ☒ No

Section 3: Minor Projects

2019

Planned Projects

<i>Project</i>	<i>Estimated Cost</i>	<i>Street Address</i>
Backyard Drainage Problems	\$50,000	Various
Local Flood Mitigation	\$200,000	Various
Regional Flood Mitigation: McKenna Blvd and various	\$650,000	1260 McKenna Blvd

Service Level

What are the end products (asset or infrastructure type) provided by this program?

<i>Asset Type</i>	<i>Quantity</i>	<i>Description</i>
Stormwater Network	0.5	Miles of storm sewer, structure or surface drainage improvements installed.

2020

Planned Projects

Project	Estimated Cost	Street Address
Backyard Drainage Problems	\$30,000	Various Locations
Local Flood Mitigation	\$180,000	Various Locations
Regional Flood Mitigation	\$2,200,000	Winnebago/Eastwood/Amoth/Atwood
Regional Flood Mitigation	\$390,000	Various Locations

Service Level

What are the end products (asset or infrastructure type) provided by this program?

Asset Type	Quantity	Description
Stormwater Network	0.5	Miles of storm sewer, structure or surface drainage improvements installed.

2021

Planned Projects

Project	Estimated Cost	Street Address
Backyard Drainage Problems	\$25,000	Various Locations
Local Flood Mitigation	\$160,000	Various Locations
Regional Flood Mitigation	\$340,000	Various Locations

Service Level

What are the end products (asset or infrastructure type) provided by this program?

Asset Type	Quantity	Description
Stormwater Network	0.5	Miles of storm sewer, structure or surface drainage improvements installed.

2022

Planned Projects

Project	Estimated Cost	Street Address
Backyard Drainage Problems	\$25,000	Various Locations
Local Flood Mitigation	\$170,000	Various Locations
Regional Flood Mitigation	\$335,000	Various Locations

Service Level

What are the end products (asset or infrastructure type) provided by this program?

Asset Type	Quantity	Description
Stormwater Network	0.5	Miles of storm sewer, structure or surface drainage improvements installed.

2023

Planned Projects

Project	Estimated Cost	Street Address
Backyard Drainage Problems	\$35,000	Various Locations
Local Flood Mitigation	\$225,000	Various Locations
Regional Flood Mitigation	\$415,000	Various Locations

Service Level

What are the end products (asset or infrastructure type) provided by this program?

Asset Type	Quantity	Description
Stormwater Network	0.5	Miles of storm sewer, structure or surface drainage improvements installed.

2024

Planned Projects

Project	Estimated Cost	Street Address
Backyard Drainage Problems	\$35,000	Various Locations
Local Flood Mitigation	\$195,000	Various Locations

<i>Project</i>	<i>Estimated Cost</i>	<i>Street Address</i>
Regional Flood Mitigation	\$420,000	Various Locations

[Service Level](#)

What are the end products (asset or infrastructure type) provided by this program?

<i>Asset Type</i>	<i>Quantity</i>	<i>Description</i>
Stormwater Network	0.5	Miles of storm sewer, structure or surface drainage improvements installed.

Section 4: Program Justification

What is the program's desired outcome for the customer?

Provide solutions to storm water flooding during large rain events to prevent street flooding and private property damage.

How is the outcome currently being measured?

Documentation by Engineering with no measurement.

Notes

Notes:

Capital Budget Proposals

Section 1: Identifying Information

Agency

Stormwater Utility

Proposal Name

Stormwater Quality System I

Project Category

Utility

Project Number

11665

Proposal Description

This program is for stormwater quality improvement projects including those associated with the City's WDNR/EPA stormwater discharge permit. The goal of this program is to improve the quality of the stormwater and to comply with environmental guidelines and initiatives. Potential projects included in this program are: greenway reconstructions, storm water pond improvements, shoreline restoration, urban water quality projects, and the City's participation in the Adaptive Management Program with the Madison Metropolitan Sewerage District. Smaller projects include rain gardens with street reconstruction and maintenance dredging.

Proposal Type

Program

Priority

1

Section 2: Program Budget

Prior Authorization

	<i>Budget</i>	<i>Actual</i>	<i>Difference</i>
2015	8,862,339	2,797,606	6,064,733
2016	4,607,337	1,565,234	3,042,104
2017	3,202,492	3,051,836	150,656
2018	1,679,500	1,456,077	223,423
Total	18,351,669	8,870,752	9,480,917

Budget by Year

<i>Funding Source</i>	2019	2020	2021	2022	2023	2024
Non-GF GO Borrowing - Stormwater	2,742,000	2,300,000	1,423,000	2,175,000	2,025,000	2,250,000
Reserves Applied - Stormwater	425,000	300,000	217,000	205,000	225,000	200,000
Impact Fees	1,756,000					
County Sources	150,000					
Total	\$5,073,000	\$2,600,000	\$1,640,000	\$2,380,000	\$2,250,000	\$2,450,000
<i>Expense Type</i>	2019	2020	2021	2022	2023	2024
Stormwater Network	5,073,000	2,600,000	1,640,000	2,380,000	2,250,000	2,450,000
Total	\$5,073,000	\$2,600,000	\$1,640,000	\$2,380,000	\$2,250,000	\$2,450,000

Does this program have matching funds?

☒ Yes ☐ No

1. Funder Name?

WDNR

2. Grant Name?

WDNR USC-USC13251Y17 grant for Rimrock Road Ponds

3. Are these funds formally secured?

Yes

Section 3: Minor Projects

2019

Planned Projects

<i>Project</i>	<i>Estimated Cost</i>	<i>Street Address</i>
Greenways - Starkweather Creek/Daley Drive Section	\$350,000	channel located west of Daley Dr
Greenways - Excelsior Greenway	\$750,000	1013 Fourier Dr

<i>Project</i>	<i>Estimated Cost</i>	<i>Street Address</i>
Ponds - Rimrock Road Ponds	\$400,000	402 Moorland Rd
Ponds - Regional East Retention Pond (East Town Pond)	\$1,100,000	2005 East Springs Dr
Ponds - Lower Badger Mill Creek Ponds	\$2,000,000	1251 Meadow Rd
Shorelines - Warner Beach Water Quality Exlosure	\$350,000	1101 Woodward Dr
Raingardens	\$63,000	Various (TBD)
Other - Water Quality BMP - Yahara River Parkway Screen ...	\$30,000	1804 E Main St
Other - Water Quality BMP	\$30,000	Various (TBD)

Service Level

What are the end products (asset or infrastructure type) provided by this program?

<i>Asset Type</i>	<i>Quantity</i>	<i>Description</i>
Stormwater Network	10	Projects completed

2020

Planned Projects

<i>Project</i>	<i>Estimated Cost</i>	<i>Street Address</i>
Greenways - Sauk Creek Ph 3 & 4	\$1,450,000	7713 Old Sauk Road
Greenways - Mendota Spring Harbor - Regent Street Section	\$225,000	5348 Regent Street
Greenways - Mendota Spring Harbor - South Hill Section	\$360,000	5399 Regent Street
Greenways - Mendota Spring Harbor Island Drive Section	\$270,000	101 Nautilus Drive
Greenways - Arbor Hill Greenway	\$270,000	2710 Post Road
Ponds		No ponds scheduled for 2020
Shorelines		No shorelines scheduled for 2020
Raingardens	\$25,000	Various (TBD)
Other - Water Quality BMP		Various (TBD)

Service Level

What are the end products (asset or infrastructure type) provided by this program?

<i>Asset Type</i>	<i>Quantity</i>	<i>Description</i>
Stormwater Network	8	Projects completed

2021

Planned Projects

<i>Project</i>	<i>Estimated Cost</i>	<i>Street Address</i>
Greenways - North Penito Greenway - Buckeye Road	\$775,000	5509 E Buckeye Road
Ponds	\$125,000	Various (TBD); General Maintenance Dredging
Ponds - Pilgrim Park Pond	\$450,000	2034 Westbrook Lane
Shorelines	\$200,000	Various (TBD)
Raingardens	\$25,000	Various (TBD)
Other - Water Quality BMP	\$65,000	Various (TBD)

Service Level

What are the end products (asset or infrastructure type) provided by this program?

<i>Asset Type</i>	<i>Quantity</i>	<i>Description</i>
Stormwater Network	8	Projects completed

2022

Planned Projects

<i>Project</i>	<i>Estimated Cost</i>	<i>Street Address</i>
Greenways - Starkweather - Olbrich - Cottage Grove Rd	\$300,000	4828 Ferris Ave
Greenways - East Mendota - Pheasant Branch - Whitacre Rd	\$290,000	7410 Whitacre Road
Greenways - Sauk Creek Phase 5	\$350,000	7598 Tree Lane
Ponds	\$400,000	Various (TBD); General Maintenance Dredging

<i>Project</i>	<i>Estimated Cost</i>	<i>Street Address</i>
Ponds	\$595,000	Various (TBD); General Pond Construction
Shorelines	\$200,000	Various (TBD)
Raingardens	\$45,000	Various (TBD)
Other - Water Quality BMP	\$200,000	Various (TBD)

Service Level

What are the end products (asset or infrastructure type) provided by this program?

<i>Asset Type</i>	<i>Quantity</i>	<i>Description</i>
Stormwater Network	10	Projects completed

2023

Planned Projects

<i>Project</i>	<i>Estimated Cost</i>	<i>Street Address</i>
Greenways - East Starkweather - East Towne - Parkside Dr	\$300,000	no address for greenway; closest parcel is 1313 Parkside Drive
Ponds - Old Sauk Trails Pond System	\$1,000,000	8308 Excelsior Drive
Ponds -Wexford Pond System	\$400,000	1005 N High Point Road
Ponds	\$400,000	Various (TBD); General Maintenance Dredging
Shorelines	\$65,000	Various (TBD)
Raingardens	\$35,000	Various (TBD)
Other - Water Quality BMP	\$50,000	Various (TBD)

Service Level

What are the end products (asset or infrastructure type) provided by this program?

<i>Asset Type</i>	<i>Quantity</i>	<i>Description</i>
Stormwater Network	10	Projects completed

2024

Planned Projects

<i>Project</i>	<i>Estimated Cost</i>	<i>Street Address</i>
Greenways	\$700,000	Various (TBD)
Ponds	\$600,000	Various (TBD)
Shorelines	\$550,000	Various (TBD)
Raingardens	\$100,000	Various (TBD)
Other - Water Quality BMP	\$500,000	Various (TBD)

Service Level

What are the end products (asset or infrastructure type) provided by this program?

<i>Asset Type</i>	<i>Quantity</i>	<i>Description</i>
Stormwater Network	10	Projects completed

Section 4: Program Justification

What is the program's desired outcome for the customer?

Higher stormwater and lake water quality.

How is the outcome currently being measured?

Greenway ratings, pond depth functional ratings, total suspended solid (TSS) and total phosphorus (TP) reductions, in compliance with City Engineer memo to MMSD on Adaptive Management and biannual updates on TMDL reductions submitted to WDNR & MMSD.

Notes

Notes:

Capital Budget Proposals

Section 1: Identifying Information

Agency

Proposal Name

Project Category

Project Number

Proposal Description

This project will divert stormwater runoff from the East Branch of Starkweather Creek to an existing reconfigured pond on land north of Milwaukee Street and east of the Starkweather Creek in the Town of Blooming Grove. Coagulant will be added to diverted runoff allowing it to dissolve phosphorous preventing it from settling in the pond itself. This goal of this project is to remove approximately 85% of available phosphorous from the water as well as remove total suspended solids and bacteria. After completion, the system is expected to remove approximately 1600 LBS of phosphorous which is 12% of the City's required regulatory reduction of 13,000 LBS. Project construction is planned in 2019.

Proposal Type

Priority

Section 2: Project Budget

Total Project Budget

Prior Appropriation

Budget by Year

<i>Funding Source</i>	<i>2019</i>	<i>2020</i>	<i>2021</i>	<i>2022</i>	<i>2023</i>	<i>2024</i>
Non-GF GO Borrowing - Stormwater	2,450,000		75,000			
Reserves Applied - Stormwater	250,000	100,000				
Total	\$2,700,000	\$100,000	\$75,000	\$0	\$0	\$0
<i>Expense Type</i>	<i>2019</i>	<i>2020</i>	<i>2021</i>	<i>2022</i>	<i>2023</i>	<i>2024</i>
Stormwater Network	2,700,000	100,000	75,000			
Total	\$2,700,000	\$100,000	\$75,000	\$0	\$0	\$0

What is the methodology used to determine the budget for this project?

An RFP was completed and a consultant was hired to design and estimate the project schedule and cost. Land acquisition was delayed in 2017-2018 but is anticipated in the fall of 2018. Construction of the improvements will begin in 2019 and continue through 2020. Minor start up costs associated with the new facility are anticipated in 2021.

Are any fleet equipment or vehicles being purchased within this project budget?

☐ Yes ☒ No

Have matching funds been secured for any projects within the program?

☒ Yes ☐ No

1. Funder Name

2. Are these funds formally secured?

Section 3: Project Justification

Is this project called for in an approved master plan?

☐ Yes ☒ No

What is the desired outcome of the proposed project?

To improve water quality within the Starkweather Creek watershed and citywide by removing total suspended solids (TSS) and materials mandated by the Rock River TMDL.

How will this outcome be measured?

Documentation by Engineering. Upon completion, TSS and other materials will be measured during the operation of the facility.

Section 4: Project Scope & Status

What is the scope of project?

Acquire lands and build improvements for a coagulant treatment facility to treat stormwater to meet the total phosphorus (TP) and total suspended solid (TSS) load reductions as part of the City's MS4 Permit. This project will divert stormwater runoff from the East Branch of Starkweather Creek to an existing reconfigured pond on land north of Milwaukee Street and east of the Starkweather Creek in the Town of Blooming Grove. Coagulant will be added to diverted runoff allowing it to dissolve phosphorous preventing it from settling in the pond itself. This goal of this project is to remove approximately 85% of available phosphorous from the water as well as remove total suspended solids and bacteria. After completion, the system is expected to remove approximately 1600 LBS of phosphorous which is 12% of the City's required regulatory reduction of 13,000 LBS. Project construction is planned in 2019.

Can this project be mapped?
☒ Yes ☐ No
What is the street address of the project?

Voigt property directly adjacent to Starkweather Creek (Fair Oaks Ave and Milwaukee St)

Is this project on the Project's Portal?
☒ Yes ☐ No
Project Portal Link:

<http://www.cityofmadison.com/engineering/projects/starkweather-treatment>

What is the total project timespan (all years for all phases)?

Start Year: 2016

End Year: 2021

What is the current status of the project?

Planning

Planned Schedule

	2019	2020	2021	2022	2023	2024
Project Status	Schematic Design	Construction	Construction Completion			

Section 5: Operating Costs

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

Personnel

# of FTEs	Annual Cost	Description
0	0	There are no additional employees anticipated to manage the facility.

Non-Personnel

Major	Amount	Description
	300,000	This project creates a new treatment system for the removal of phosphorous and total suspended solids from Starkweather Creek. Like all treatment systems, such as ponds, catchbasins, street sweeping and raingardens, the process of removal and collection increases rather than reduces operations options. A modern catchbasin design captures approximately 4lbs of TP. This project creates a new treatment system for the removal of total phosphorous (TP) and total suspended solids (TSS) from Starkweather Creek. Like all treatment systems, such as ponds, catchbasins, street sweeping, and raingardens, the process of removal and collection increases rather than reduces operations options. To put this into perspective, a modern catchbasin design captures approximately 4lbs of TP annually and has a capital cost of approximately \$35,000 with an annual maintenance cost of approximately \$1,000. The maintenance per pound of TP removed is approximately \$250/lbs/year. A traditional pond system has a capital cost of approximately \$1,000,000 (not including the cost of land) and could be expected to capture approximately 200lbs of TP per year. Dredging is required every 15 years (on average) and costs approximately \$300,000, giving an average cost for TP removal of \$100/lbs/year. This does not take into account the additional operational costs for mowing and managing the pond. This treatment system proposed to capture approximately 1600 lbs of TP with an annual maintenance cost of \$300,000, which is approximately \$187.50/lbs/year. We believe the operational and maintenance cost for this project is conservative and this estimate is reasonable.

Notes**Notes:**

Capital Budget Proposals

Section 1: Identifying Information

Agency

Stormwater Utility

Proposal Name

Storm Sewer System Improve

Project Category

Utility

Project Number

11664

Proposal Description

This program improves storm sewer performance by providing repairs, rehabilitation and expansion to the network throughout the City. The goal of this program is to ensure a reliable storm sewer system to City residents. The program includes minor projects for storm sewer cured-in-place-pipe lining (CIPP), storm improvements in developing areas, and storm water conveyance improvements.

Proposal Type

Program

Priority

4

Section 2: Program Budget

Prior Authorization

	<i>Budget</i>	<i>Actual</i>	<i>Difference</i>
2015	562,500	224,304	338,196
2016	492,526	109,888	382,638
2017	145,905	417,037	-271,132
2018	5,000	255,683	-250,683
Total	1,205,930	1,006,913	199,017

Budget by Year

<i>Funding Source</i>	2019	2020	2021	2022	2023	2024
Non-GF GO Borrowing - Stormwater	475,000	275,000	190,000	175,000	200,000	237,500
Reserves Applied - Stormwater	200,000	200,000	185,000	200,000	200,000	150,000
Total	\$675,000	\$475,000	\$375,000	\$375,000	\$400,000	\$387,500
<i>Expense Type</i>	2019	2020	2021	2022	2023	2024
Stormwater Network	675,000	475,000	375,000	375,000	400,000	387,500
Total	\$675,000	\$475,000	\$375,000	\$375,000	\$400,000	\$387,500

Does this program have matching funds?

☐ Yes ☒ No

Section 3: Minor Projects

2019

Planned Projects

<i>Project</i>	<i>Estimated Cost</i>	<i>Street Address</i>
CIPP Lining Storm Sewer	\$40,000	Various (citywide)
Citywide Stormwater Improvements - includes waterways ...	\$360,000	Various (citywide)
Stormwater Only Projects - Glenwood Children's Park	\$75,000	3502 Gregory St
Stormwater Only Projects	\$200,000	Various (TBD)

Service Level

What are the end products (asset or infrastructure type) provided by this program?

<i>Asset Type</i>	<i>Quantity</i>	<i>Description</i>
Stormwater Network	0.5	Miles of storm sewer, structure or surface drainage improvements installed.

2020**Planned Projects**

<i>Project</i>	<i>Estimated Cost</i>	<i>Street Address</i>
CIPP Lining Storm Sewer	\$26,000	Various (citywide)
Citywide Stormwater Improvements - includes waterways and UL...	\$236,000	Various (citywide)
Stormwater Only Projects	\$213,000	Various (TBD)

Service Level**What are the end products (asset or infrastructure type) provided by this program?**

<i>Asset Type</i>	<i>Quantity</i>	<i>Description</i>
Stormwater Network	0.5	Miles of storm sewer, structure or surface drainage improvements installed.

2021**Planned Projects**

<i>Project</i>	<i>Estimated Cost</i>	<i>Street Address</i>
CIPP Lining Storm Sewer	\$21,000	Various (citywide)
Citywide Stormwater Improvements - includes waterways and UL...	\$186,000	Various (citywide)
Stormwater Only Projects	\$168,000	Various (TBD)

Service Level**What are the end products (asset or infrastructure type) provided by this program?**

<i>Asset Type</i>	<i>Quantity</i>	<i>Description</i>
Stormwater Network	0.5	Miles of storm sewer, structure or surface drainage improvements installed.

2022**Planned Projects**

<i>Project</i>	<i>Estimated Cost</i>	<i>Street Address</i>
CIPP Lining Storm Sewer	\$22,000	Various (citywide)
Citywide Stormwater Improvements - includes waterways and UL...	\$200,000	Various (citywide)
Stormwater Only Projects	\$153,000	Various (TBD)

Service Level**What are the end products (asset or infrastructure type) provided by this program?**

<i>Asset Type</i>	<i>Quantity</i>	<i>Description</i>
Stormwater Network	0.5	Miles of storm sewer, structure or surface drainage improvements installed.

2023**Planned Projects**

<i>Project</i>	<i>Estimated Cost</i>	<i>Street Address</i>
CIPP Lining Storm Sewer	\$20,000	Various (citywide)
Citywide Stormwater Improvements - includes waterways and UL...	\$200,000	Various (citywide)
Stormwater Only Projects	\$180,000	Various (TBD)

Service Level**What are the end products (asset or infrastructure type) provided by this program?**

<i>Asset Type</i>	<i>Quantity</i>	<i>Description</i>
Stormwater Network	0.5	Miles of storm sewer, structure or surface drainage improvements installed.

2024**Planned Projects**

<i>Project</i>	<i>Estimated Cost</i>	<i>Street Address</i>
CIPP Lining Storm Sewer	\$18,000	Various (citywide)
Citywide Stormwater Improvements - includes waterways and UL...	\$162,000	Various (citywide)
Stormwater Only Projects	\$207,500	Various (TBD)

Service Level

What are the end products (asset or infrastructure type) provided by this program?

<i>Asset Type</i>	<i>Quantity</i>	<i>Description</i>
Stormwater Network	0.5	Miles of storm sewer, structure or surface drainage improvements installed.

Section 4: Program Justification

What is the program's desired outcome for the customer?

The goal of this program is to resolve drainage problems citywide on streets and on other city property and to extend the useful life of the storm sewer network by lining pipes as a preventative maintenance measure.

How is the outcome currently being measured?

Pipe condition ratings could be measured in the future. The Engineering Division lacks the equipment and staff to rate storm sewer pipe at this time.

Notes

Notes:

Capital Budget Proposals

Section 1: Identifying Information

Agency

Stormwater Utility

Proposal Name

Street Cleaning Equipment -

Project Category

Utility

Project Number

11666

Proposal Description

This program is for the replacement of existing street sweeping machines operated by the Streets Department. 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 in with storm water runoff. In 2018, one street cleaning vehicle will be purchased.

Proposal Type

Program

Priority

3

Section 2: Program Budget

Prior Authorization

	<i>Budget</i>	<i>Actual</i>	<i>Difference</i>
2015	593,723	586,266	7,457
2016	405,000	395,932	9,068
2017	440,000	420,000	20,000
2018	270,000	0	270,000
Total	1,708,723	1,402,198	306,525

Budget by Year

<i>Funding Source</i>	2019	2020	2021	2022	2023	2024
Reserves Applied - Stormwater	400,000	410,000	410,000	420,000	275,000	425,000
Trade In Allowance	40,000	45,000	45,000	45,000	25,000	45,000
Total	\$440,000	\$455,000	\$455,000	\$465,000	\$300,000	\$470,000

<i>Expense Type</i>	2019	2020	2021	2022	2023	2024
Machinery and Equipment	440,000	455,000	455,000	465,000	300,000	470,000
Total	\$440,000	\$455,000	\$455,000	\$465,000	\$300,000	\$470,000

Does this program have matching funds?

☐ Yes ☒ No

Section 3: Minor Projects

2019

Planned Projects

<i>Project</i>	<i>Estimated Cost</i>	<i>Street Address</i>
Machinery and Equipment Replacement	\$440,000	

Service Level

What are the end products (asset or infrastructure type) provided by this program?

<i>Asset Type</i>	<i>Quantity</i>	<i>Description</i>
Machinery and Equipment	2	Pieces of Machinery/Equipment (street sweepers)

2020

Planned Projects

<i>Project</i>	<i>Estimated Cost</i>	<i>Street Address</i>
Machinery and Equipment Replacement	\$455,000	

Service Level

What are the end products (asset or infrastructure type) provided by this program?

Asset Type	Quantity	Description
Machinery and Equipment	2	Pieces of Machinery/Equipment (street sweepers)

2021

Planned Projects

Project	Estimated Cost	Street Address
Machinery and Equipment Replacement	\$455,000	

Service Level

What are the end products (asset or infrastructure type) provided by this program?

Asset Type	Quantity	Description
Machinery and Equipment	2	Pieces of Machinery/Equipment (street sweepers)

2022

Planned Projects

Project	Estimated Cost	Street Address
Machinery and Equipment Replacement	\$465,000	

Service Level

What are the end products (asset or infrastructure type) provided by this program?

Asset Type	Quantity	Description
Machinery and Equipment	2	Pieces of Machinery/Equipment (street sweepers)

2023

Planned Projects

Project	Estimated Cost	Street Address
Machinery and Equipment Replacement	\$300,000	

Service Level

What are the end products (asset or infrastructure type) provided by this program?

Asset Type	Quantity	Description
Machinery and Equipment	1	Pieces of Machinery/Equipment (street sweepers)

2024

Planned Projects

Project	Estimated Cost	Street Address
Machinery and Equipment Replacement	\$470,000	

Service Level

What are the end products (asset or infrastructure type) provided by this program?

Asset Type	Quantity	Description
Machinery and Equipment	2	Pieces of Machinery/Equipment (street sweepers)

Section 4: Program Justification

What is the program's desired outcome for the customer?

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.

How is the outcome currently being measured?

Percent TP and TSS reduction citywide and pounds of materials collected from street sweeping operations.