

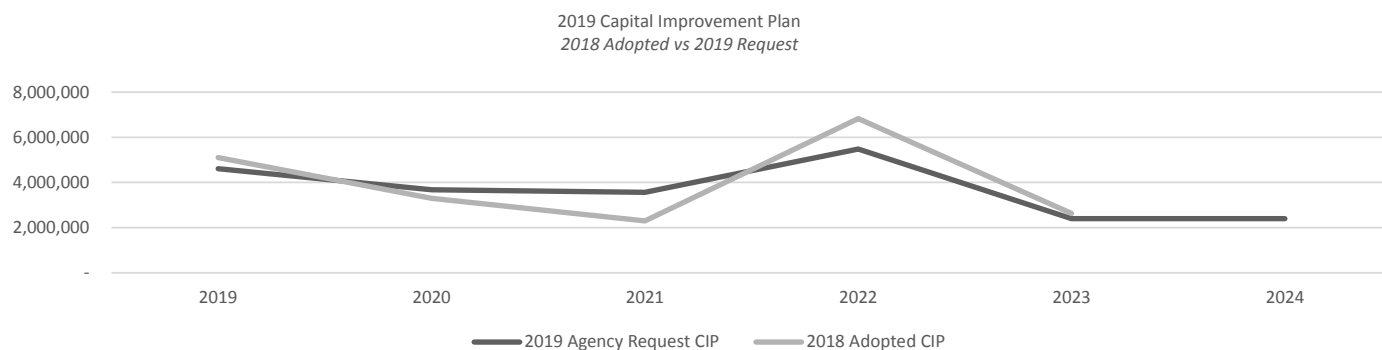
Sewer Utility

Capital Improvement Plan

Project Summary

	Agency Priority	2019	2020	2021	2022	2023	2024
Citywide Pumping Stations-Emergency Powe	2	57,500	57,500	57,500	57,500	57,500	57,500
Lift Station Rehabilitations	3	450,100	550,000	150,000	150,000	150,000	150,000
Sewer Access Improvements	4	123,000	130,000	220,000	130,000	130,000	130,000
Sewer Impact Fee Districts	6	2,200,000	1,000,000	1,200,000	3,082,000	-	-
Sewer Reconstruction	5	250,000	350,000	350,000	400,000	400,000	400,000
Trenchless Sewer Rehabilitation	1	1,523,300	1,590,000	1,590,000	1,660,000	1,660,000	1,660,000
Total		\$ 4,603,900	\$ 3,677,500	\$ 3,567,500	\$ 5,479,500	\$ 2,397,500	\$ 2,397,500

Changes from 2018 CIP



Program Adjustments

- Lift Station Rehabilitations: Program budget increased annually in out-years (\$1.1m)
- Sewer Access Improvements: Program budget increased annually in out-years (\$0.1m)
- Sewer Impact Fee Districts: Program budget decreased annually in out-years (\$0.7m)
- Sewer Reconstruction: Program budget decreased annually in out-years (\$0.3m)
- Sewer Reconstruction: Program budget decreased annually in out-years (\$0.7m)



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Date: May 9, 2018

To: David Schmiedicke, Finance Director

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

**Re: 2018 Capital Budget Proposal
Sewer Utility**

Introduction

The primary objective of the Sewer Utility Budget is to undertake projects which provide for the safe, reliable, efficient, and cost effective collection and conveyance of wastewater to the Nine Springs Wastewater Treatment Plant. An emphasis is placed on projects that reduce the potential for sewer backups and sanitary sewer overflows.

Funds for sewer replacement associated with specific street reconstruction projects are not shown in the Sewer Utility budget but rather in the “Engineering – Major Streets Budget”. This was done to provide a full view of funding for City street projects.

Prioritized List

1. Trenchless Sewer Rehabilitation
2. Citywide Pumping Stations – Emergency Power Stationary Generators
3. Lift Station Rehabilitations
4. Sewer Access Improvements
5. Sewer Reconstructions
6. Sewer Impact Fee Districts

Discussion of Criteria

The top priority is Trenchless Sewer Rehabilitation because it is the most cost effective maintenance option we have for the repair of sanitary sewer. It should be noted however that trenchless technology is not able to address all deficiencies in Sanitary Sewers and in some instances sewer replacement is necessary. As stated in the introduction above, funds for sewer reconstruction can be found in the individual street projects that exist within the Major Streets Budget and these projects are a high priority for the sewer utility. The next priority is Citywide Pumping Stations Emergency Power Generators. This project installs generators at lift stations to provide temporary power during a power outage in the timeframe necessary to avoid sewer backups into basements or Sanitary Sewer Overflows (SSOs) into the City’s Lakes. Several of the City’s lift stations cannot be accessed with a portable generator in a timely manner in the event of power loss. Sewer Access improvements is the fourth priority because the City is not able to access certain sewers for routine maintenance or emergency repairs. Sewer reconstruction is the fifth priority. Sewer Impact Fee Districts is the last priority, however these projects are necessary to facilitate new development.

Capital Budget Proposals

Section 1: Identifying Information

Agency

Sewer Utility

Proposal Name

Citywide Pumping Stations-E

Project Category

Utility

Project Number

11510

Proposal Description

This program funds the installation of emergency power stationary generators at the City's pumping stations. The goal of the program is to ensure continuous sanitary service in the event of power loss.

Proposal Type

Program

Priority

2

Section 2: Program Budget

Prior Authorization

	<i>Budget</i>	<i>Actual</i>	<i>Difference</i>
2015	0	0	0
2016	0	0	0
2017	100,000	81,366	18,634
2018	57,500	177	57,323
Total	157,500	81,543	75,957

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>
Reserves Applied - Sewer	57,500	57,500	57,500	57,500	57,500	57,500
Total	\$57,500	\$57,500	\$57,500	\$57,500	\$57,500	\$57,500
<i>Expense Type</i>	<i>2019</i>	<i>2020</i>	<i>2021</i>	<i>2022</i>	<i>2023</i>	<i>2024</i>
Sanitary Sewer	57,500	57,500	57,500	57,500	57,500	57,500
Total	\$57,500	\$57,500	\$57,500	\$57,500	\$57,500	\$57,500

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>
Cherokee #2 Pumping Station Backup Generator	\$28,750	1550 Comanche Glen
Commodore Pumping Station- Backup Generator	\$28,750	3102 Lake Mendota Drive

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>
Sanitary Sewer	2	Install backup generator to supply continuous power to sanitary sewer pumping station in the event of a loss of power.

2020

Planned Projects

<i>Project</i>	<i>Estimated Cost</i>	<i>Street Address</i>
Arbor Hills Lift Station L.S. #1 Backup Generator	\$57,500	2714 W. Beltline Highway

Service Level

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

Asset Type	Quantity	Description
Sanitary Sewer	1	Install backup generator to supply continuous power to sanitary sewer pumping station in the event of a loss of power.

2021

Planned Projects

Project	Estimated Cost	Street Address
Veith Avenue Pumping Station	\$57,500	4101 Veith Avenue

Service Level

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

Asset Type	Quantity	Description
Sanitary Sewer	1	Install backup generator to supply continuous power to sanitary sewer pumping station in the event of a loss of power.

2022

Planned Projects

Project	Estimated Cost	Street Address
American family Lift Station	\$28,750	4747 Eastpark Blvd.
Cherokee No. 1 Pumping Station	\$28,750	5119 Commanche Way

Service Level

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

Asset Type	Quantity	Description
Sanitary Sewer	2	Install backup generator to supply continuous power to sanitary sewer pumping station in the event of a loss of power.

2023

Planned Projects

Project	Estimated Cost	Street Address
Hermiona Pumping Station	\$28,750	201 Clyde Gallagher Street
Waunona No. 2 Pumping Station	\$28,750	5201 Fayette Ave.

Service Level

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

Asset Type	Quantity	Description
Sanitary Sewer	2	Install backup generator to supply continuous power to sanitary sewer pumping station in the event of a loss of power.

2024

Planned Projects

Project	Estimated Cost	Street Address
Atlas Pumping Station	\$28,750	702 Atlas Ave.
Debs Rd Pumping Station	\$28,750	407 Debs Rd.

Service Level

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

Asset Type	Quantity	Description
Sanitary Sewer	2	Install backup generator to supply continuous power to sanitary sewer pumping station in the event of a loss of power.

Section 4: Program Justification

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

The goal of the program is to supply continuous power service to City pumping stations during emergency events. Continuous power service will prevent sewer backups causing damage to private property or environmental contamination from sanitary sewer overflows(SSO).

How is the outcome currently being measured?

The City keeps track of the frequency of sanitary sewer backups and sanitary sewer overflows(SSOs) due to power failure.

Capital Budget Proposals

Section 1: Identifying Information

Agency

Sewer Utility

Proposal Name

Lift Station Rehabilitations

Project Category

Utility

Project Number

10268

Proposal Description

This program funds repairs and rehabilitation of the Sewer Utility's 29 wastewater lift stations and force mains. This program also provides for unanticipated repairs and equipment replacement for the Sewer Utility. The goal of this program is to maintain reliable lift stations to reduce the number of back-ups and emergency incidents.

Proposal Type

Program

Priority

3

Section 2: Program Budget

Prior Authorization

	<i>Budget</i>	<i>Actual</i>	<i>Difference</i>
2015	70,000	33,480	36,520
2016	56,000	0	56,000
2017	429,000	60,164	368,836
2018	62,000	210	61,790
Total	617,000	93,854	523,146

Budget by Year

<i>Funding Source</i>	2019	2020	2021	2022	2023	2024
Reserves Applied - Sewer	450,100	550,000	150,000	150,000	150,000	150,000
Total	\$450,100	\$550,000	\$150,000	\$150,000	\$150,000	\$150,000
<i>Expense Type</i>	2019	2020	2021	2022	2023	2024
Sanitary Sewer	450,100	550,000	150,000	150,000	150,000	150,000
Total	\$450,100	\$550,000	\$150,000	\$150,000	\$150,000	\$150,000

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>
James Street Lift Station Replacement	\$300,000	3135 James Street
Cherokee#1 Controls Replacement	\$16,000	5121 Comanche Way
Commodore Pumping Station- Controls Replacement	\$22,000	3102 Lake Mendota Drive
Debs Telemetry & Controls	\$34,700	407 Debs Road
Regent Street L.S. Telemetry & Controls	\$29,400	3929 Regent Street
Lakeview Tower Telemetry (14 Stations)	\$28,000	Various
Miscellaneous Repair as Recommended by MMSD	\$20,000	Various

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>
Sanitary Sewer	7	

Asset Type	Quantity	Description
		These electrical upgrades (control systems and telemetry) are required to improve upon the reliability of the pumping stations. Lift station pumps and electrical controls have a life cycle of 25 years before requiring full replacement.

2020

Planned Projects

Project	Estimated Cost	Street Address
Truax Lift Station L.S. #16 Replacement	\$452,945	2701 Anderson Street
Arbor Hills Lift Station L.S. #1 Bubbler System Replacement	\$25,880	2714 W. Beltline Highway
Atlas Lift Station L.S. #2 Bubbler System Replacement	\$25,880	702 Atlas Ave.
Carroll Pump L.S. #4 Station Bubbler System Replacement	\$25,880	622 N. Carroll Street
Hermina Lift Station L.S. #13 Bubbler System Replacement	\$19,415	201 Clyde Gallagher Ave.

Service Level

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

Asset Type	Quantity	Description
Sanitary Sewer	5	These electrical upgrades (control systems and telemetry) are required to improve upon the reliability of the pumping stations. Lift station pumps and electrical controls have a life cycle of 25 years before requiring full replacement.

2021

Planned Projects

Project	Estimated Cost	Street Address
Miscellaneous repair work as needed	\$150,000	

Service Level

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

Asset Type	Quantity	Description
Sanitary Sewer		Perform repair work as necessary to maintain the City's pumping station for continuous operation without outages.

2022

Planned Projects

Project	Estimated Cost	Street Address
Miscellaneous repair work as needed	\$150,000	

Service Level

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

Asset Type	Quantity	Description
Sanitary Sewer		Perform repair work as necessary to maintain the City's pumping station for continuous operation without outages.

2023

Planned Projects

Project	Estimated Cost	Street Address
Miscellaneous repair work as needed	\$150,000	

Service Level

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

Asset Type	Quantity	Description
Sanitary Sewer		Perform repair work as necessary to maintain the City's pumping station for continuous operation without outages.

2024

Planned Projects

Project	Estimated Cost	Street Address
Miscellaneous repair work as needed	\$150,000	

Service Level

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

Asset Type	Quantity	Description
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<i>Asset Type</i>	<i>Quantity</i>	<i>Description</i>
Sanitary Sewer		Perform repair work as necessary to maintain the City's pumping station for continuous operatiion without outages.

Section 4: Program Justification

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

The goal of this program is to maintain reliable lift stations without failures to reduce the number of back-ups and emergency incidents.

How is the outcome currently being measured?

The City keeps track of the number of sanitary sewer backups and sanitary sewer overflows (SSOs) due to lift station failures on an annual basis.

Notes

Notes:

Capital Budget Proposals

Section 1: Identifying Information

Agency

Sewer Utility

Proposal Name

Sewer Access Improvements

Project Category

Utility

Project Number

10437

Proposal Description

This program will establish permanent sewer maintenance access roads, trails, or paths in areas where access is not well established. The goal of this program is to create safe access by providing for surveys, neighborhood coordination, tree removal, gravel road base, and restoration that is associated with the improvements to these Sewer access routes. These improvements will allow quicker response time to maintenance and repair work for the City's sewer system. This is an ongoing program with specified project areas that will be assessed and prioritized on an ongoing basis.

Proposal Type

Program

Priority

4

Section 2: Program Budget

Prior Authorization

	<i>Budget</i>	<i>Actual</i>	<i>Difference</i>
2015	100,000	14,150	85,850
2016	105,000	2,669	102,331
2017	45,000	2,547	42,453
2018	120,000	293	119,707
Total	370,000	19,658	350,342

Budget by Year

<i>Funding Source</i>	2019	2020	2021	2022	2023	2024
Reserves Applied - Sewer	123,000	130,000	220,000	130,000	130,000	130,000
Total	\$123,000	\$130,000	\$220,000	\$130,000	\$130,000	\$130,000
<i>Expense Type</i>	2019	2020	2021	2022	2023	2024
Land Improvements	123,000	130,000	220,000	130,000	130,000	130,000
Total	\$123,000	\$130,000	\$220,000	\$130,000	\$130,000	\$130,000

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>
World Dairy Access Path	\$100,000	Tax# 0710-232-0103-2, 2798 Interstate Highway 90-94-39
Miscellaneous projects as needed	\$23,000	

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>
Land Improvements		Install access path within the sanitary sewer easement beginning on the south end of Wagon Trail through a wet area that is not otherwise accessible unless during the Winter months. This project will allow Engineering Operations crews to maintain the City Sewer.

2020

Planned Projects

<i>Project</i>	<i>Estimated Cost</i>	<i>Street Address</i>
City of Madison	2019 Capital Improvement Plan	395

Project	Estimated Cost	Street Address
Dovetail Sanitary Access Path Phase 1	\$100,000	TAX #0810-191-9552-0
Miscellaneous projects as needed	\$30,000	

[Service Level](#)

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

Asset Type	Quantity	Description
Land Improvements		Install access path within MMSD sanitary sewer easement off of County Highway 'CV' up the City sewer which is located along the east lot line of the Dovetail subdivision. This project will allow Engineering Operations crews to maintain the City Sewer which is currently very difficult to do because of the wet soil conditions of the area.

2021

[Planned Projects](#)

Project	Estimated Cost	Street Address
Dovetail Access Path Phase 2	\$220,000	TAX #0810-194-9000-2

[Service Level](#)

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

Asset Type	Quantity	Description
Land Improvements		Install access path within City Sewer easement south of the Dovetail subdivision. This project will allow Engineering Operations crews to maintain the City Sewer which is currently very difficult to do because of the wet soil conditions of the area.

2022

[Planned Projects](#)

Project	Estimated Cost	Street Address
Miscellaneous projects as needed	\$130,000	

[Service Level](#)

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

Asset Type	Quantity	Description
Land Improvements		Install access path within City Sewer easements to allow access to Engineering Operations crews to maintain the City Sewer which is currently very difficult to do because of the wet soil conditions of the area.

2023

[Planned Projects](#)

Project	Estimated Cost	Street Address
Miscellaneous projects as needed	\$130,000	

[Service Level](#)

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

Asset Type	Quantity	Description
Land Improvements		Install access path within City Sewer easements to allow access to Engineering Operations crews to maintain the City Sewer which is currently very difficult to do because of the wet soil conditions of the area.

2024

[Planned Projects](#)

Project	Estimated Cost	Street Address
Miscellaneous projects as needed	\$130,000	

[Service Level](#)

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

Asset Type	Quantity	Description
Land Improvements		Install access path within City Sewer easements to allow access to Engineering Operations crews to maintain the City Sewer which is currently very difficult to do because of the wet soil conditions of the area.

Section 4: Program Justification

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

These improvements provide safe access roads to our sanitary manholes which are often located in wet areas to allow for preventative sewer maintenance. Access roads allow for quicker response time to maintenance and repair work for the City's sewer system. Our ultimate goal is to minimize the number of backups. Access improvements will help minimize the number of backups to our customers.

How is the outcome currently being measured?

The City measures the number of sanitary sewer backups and Sanitary Sewer Overflows(SSOs) on an annual basis.

Notes

Notes:

Capital Budget Proposals

Section 1: Identifying Information

Agency

Sewer Utility

Proposal Name

Sewer Impact Fee Districts

Project Category

Utility

Project Number

11678

Proposal Description

This program extends sanitary sewer service to developing areas of the City that require sewer infrastructure installation. The program is funded entirely by Impact Fees, and review for planned projects is conducted annually as dictated by demand for development.

Proposal Type

Program

Priority

6

Section 2: Program Budget

Prior Authorization

	<i>Budget</i>	<i>Actual</i>	<i>Difference</i>
2015	0	0	0
2016	0	0	0
2017	0	0	0
2018	0	577	-577
Total	0	577	-577

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>
Impact Fees	2,200,000	1,000,000	1,200,000	3,082,000	0	0
Total	\$2,200,000	\$1,000,000	\$1,200,000	\$3,082,000	\$0	\$0
<i>Expense Type</i>	<i>2019</i>	<i>2020</i>	<i>2021</i>	<i>2022</i>	<i>2023</i>	<i>2024</i>
Sanitary Sewer	2,200,000	1,000,000	1,200,000	3,082,000	0	0
Total	\$2,200,000	\$1,000,000	\$1,200,000	\$3,082,000	\$0	\$0

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>
Lower Badger Mill Creek Sewer and Drainage Northern Ar...	\$2,200,000	

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>
Sanitary Sewer	8818	This project extends sanitary sewer service from the Mineral Point Road north to Old Sauk Road, to serve the Elderberry Neighborhood. In 2018, an impact fee district was established to recover project costs.

2020

Planned Projects

<i>Project</i>	<i>Estimated Cost</i>	<i>Street Address</i>
Pumpkin Hollow Impact Fee District	\$1,000,000	

Service Level

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

City of Madison

2019 Capital Improvement Plan

Asset Type	Quantity	Description
Sanitary Sewer	2641	This project will extend sanitary sewer service from the west side of Interstate 39 south of Hoepker Road to the east side of Interstate 39, and then north to Hoepker Road. The goal of this project is to provide the sewer infrastructure that will allow for development of the Pumpkin Hollow Neighborhood. Construction is tentatively planned for 2020, however the anticipated construction year may be revised if development dictates.

2021

Planned Projects

Project	Estimated Cost	Street Address
Felland Area Sewer Impact Fee District	\$1,200,000	

Service Level

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

Asset Type	Quantity	Description
Sanitary Sewer	5325	This project extends sanitary sewer service from the intersection of Burke Road and Felland Road, north to Nelson Road, to serve the Nelson Neighborhood. This project will also relieve the Nelson Road lift station which is nearing capacity. In 2008, an impact fee district was established to recover project costs. Easement acquisitions have been completed.

2022

Planned Projects

Project	Estimated Cost	Street Address
Northeast Neighborhood Sanitary Sewer Impact Fee- Gaston Road...	\$3,082,000	

Service Level

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

Asset Type	Quantity	Description
Sanitary Sewer	6869	This project extends sanitary sewer service from the MMSD sewer located on Gaston Road approximately 1000' south of the intersection of Gaston Road and County Highway 'T' west 4,644 feet towards Reiner Road, to serve 889 acres of pending development within the Northeast Neighborhoods neighborhood development plan. The are with pending development is the northeast corner of the intersection fo County Highway 'T' and Reiner Road. In 2019, an impact fee district will be established to recover project costs

2023

Planned Projects

Project	Estimated Cost	Street Address

Service Level

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

Asset Type	Quantity	Description

2024

Planned Projects

Project	Estimated Cost	Street Address

Service Level

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

Asset Type	Quantity	Description

Section 4: Program Justification

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

Provide sanitary sewer service to area of the City with pending development. Without the sewer, the development would not occur.

How is the outcome currently being measured?

Outcome is based upon need by pending development. No measurement. Sewer Impact fees are integral for the growth of Madison.

Capital Budget Proposals

Section 1: Identifying Information

Agency

Sewer Utility

Proposal Name

Sewer Reconstruction

Project Category

Utility

Project Number

10267

Proposal Description

This program provides for the replacement of old, problematic sewers in the City. Coordination for the replacement of these sewers is oftentimes completed with the Reconstruct Streets and Pavement Management programs within the Engineering-Major Streets budget. The goal of this program is to alleviate future emergency sewer repairs and back-ups by replacing the sewer infrastructure that is past it's useful life. This is a continuing program that uses a case-by-case basis to evaluate the replacement of the sewers beneath streets being resurfaced.

Proposal Type

Program

Priority

5

Section 2: Program Budget

Prior Authorization

	<i>Budget</i>	<i>Actual</i>	<i>Difference</i>
2015	91,983	18,248	73,735
2016	1,156,700	601,067	555,633
2017	814,855	118,416	696,439
2018	0	4,344	-4,344
Total	2,063,538	742,076	1,321,462

Budget by Year

<i>Funding Source</i>	2019	2020	2021	2022	2023	2024
Revenue Bonds - Sewer	150,000	250,000	250,000	284,850	303,850	320,000
Reserves Applied - Sewer	95,000	95,000	95,000	110,150	91,150	75,000
Special Assessment - Sewer	5,000	5,000	5,000	5,000	5,000	5,000
Total	\$250,000	\$350,000	\$350,000	\$400,000	\$400,000	\$400,000
<i>Expense Type</i>	2019	2020	2021	2022	2023	2024
Sanitary Sewer	250,000	350,000	350,000	400,000	400,000	400,000
Total	\$250,000	\$350,000	\$350,000	\$400,000	\$400,000	\$400,000

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>
Miscellaneous projects as needed	\$250,000	

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>
Sanitary Sewer		Project locations and schedules are typically driven by development across the City and may arise with short notice. The sewer reconstruction minor project funds the replacement of old, problematic or undersized sewers in the City outside sewer work completed with Major Streets program projects.

2020

Planned Projects

Project	Estimated Cost	Street Address
Miscellaneous projects as needed	\$350,000	

Service Level

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

Asset Type	Quantity	Description
Sanitary Sewer		Project locations and schedules are typically driven by development across the City and may arise with short notice. The sewer reconstruction minor project funds the replacement of old, problematic or undersized sewers in the City outside sewer work completed with Major Streets program projects.

2021

Planned Projects

Project	Estimated Cost	Street Address
Miscellaneous projects as needed	\$350,000	

Service Level

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

Asset Type	Quantity	Description
Sanitary Sewer		Project locations and schedules are typically driven by development across the City and may arise with short notice. The sewer reconstruction minor project funds the replacement of old, problematic or undersized sewers in the City outside sewer work completed with Major Streets program projects.

2022

Planned Projects

Project	Estimated Cost	Street Address
Miscellaneous projects as needed	\$400,000	

Service Level

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

Asset Type	Quantity	Description
Sanitary Sewer		Project locations and schedules are typically driven by development across the City and may arise with short notice. The sewer reconstruction minor project funds the replacement of old, problematic or undersized sewers in the City outside sewer work completed with Major Streets program projects.

2023

Planned Projects

Project	Estimated Cost	Street Address
Miscellaneous projects as needed	\$400,000	

Service Level

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

Asset Type	Quantity	Description
Sanitary Sewer		Project locations and schedules are typically driven by development across the City and may arise with short notice. The sewer reconstruction minor project funds the replacement of old, problematic or undersized sewers in the City outside sewer work completed with Major Streets program projects.

2024

Planned Projects

Project	Estimated Cost	Street Address
Miscellaneous projects as needed	\$400,000	

Service Level

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

Asset Type	Quantity	Description
Sanitary Sewer		Project locations and schedules are typically driven by development across the City and may arise with short notice. The sewer reconstruction minor project funds the replacement of old, problematic or undersized sewers in the City outside sewer work completed with Major Streets program projects.

Section 4: Program Justification

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

The goal of this project is to alleviate future emergency sewer repairs and back-ups by replacing the sewer infrastructure that is past its useful life. The program includes minor projects of collection system additions and sewer reconstructions. The collection system additions minor project funds the construction of assessable sewer facilities for new development, including easement acquisition where applicable, by special assessment. The outcome for the customer is a sanitary sewer systems that efficiently carries wastewater with minimal number of backups due to undersized sewer pipes or pipes in disrepair.

How is the outcome currently being measured?

The City keeps track of the the number of sanitary sewer backups and sanitary sewer overflows(SSOs) on an annual basis.

Notes

Notes:

Capital Budget Proposals

Section 1: Identifying Information

Agency

Sewer Utility

Proposal Name

Trenchless Sewer Rehabilitat

Project Category

Utility

Project Number

10450

Proposal Description

This program rehabilitates failing sewers that meet certain criteria but do not necessitate the need for a complete replacement by means of open cutting. New technology allows the lining of existing sewer mains using cameras and remote controlled tools. Some are also rehabilitated (or lined) to address inflow and infiltration problems, where clear water flow enters the sewer system, reducing pipe capacity and increasing treatment costs. The goal of this program is to repair seven miles of sewer mains at strategically selected locations based on citywide need, with an emphasis on backyard sewer mains.

Proposal Type

Program

Priority

1

Section 2: Program Budget

Prior Authorization

	<i>Budget</i>	<i>Actual</i>	<i>Difference</i>
2015	1,660,000	1,003,081	656,919
2016	1,120,000	23,513	1,096,487
2017	1,140,881	1,136,883	3,998
2018	1,535,000	190,006	1,344,994
Total	5,455,881	2,353,482	3,102,399

Budget by Year

<i>Funding Source</i>	2019	2020	2021	2022	2023	2024
Revenue Bonds - Sewer	1,193,300	1,250,000	1,250,000	1,280,000	1,280,000	1,280,000
Reserves Applied - Sewer	330,000	340,000	340,000	380,000	380,000	380,000
Total	\$1,523,300	\$1,590,000	\$1,590,000	\$1,660,000	\$1,660,000	\$1,660,000
<i>Expense Type</i>	2019	2020	2021	2022	2023	2024
Sanitary Sewer	1,523,300	1,590,000	1,590,000	1,660,000	1,660,000	1,660,000
Total	\$1,523,300	\$1,590,000	\$1,590,000	\$1,660,000	\$1,660,000	\$1,660,000

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>
Cured in place lining of sanitary sewer main	\$1,523,300	

[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>
Sanitary Sewer	37,000	Install liners inside of City sanitary sewers throughout the City to extend the service life of the sewer main by 50 years. Locations are selected by Engineering Operations.

2020

[Planned Projects](#)

Project	Estimated Cost	Street Address
Cured in place lining of sanitary sewer main	\$1,590,000	

Service Level

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

Asset Type	Quantity	Description
Sanitary Sewer	37,000	Install liners inside of City sanitary sewers throughout the City to extend the service life of the sewer main by 50 years. Locations are selected by Engineering Operations.

2021

Planned Projects

Project	Estimated Cost	Street Address
Cured in place lining of sanitary sewer main	\$1,590,000	

Service Level

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

Asset Type	Quantity	Description
Sanitary Sewer	37,000	Install liners inside of City sanitary sewers throughout the City to extend the service life of the sewer main by 50 years. Locations are selected by Engineering Operations.

2022

Planned Projects

Project	Estimated Cost	Street Address
Cured in place lining of sanitary sewer main	\$1,660,000	

Service Level

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

Asset Type	Quantity	Description
Sanitary Sewer	37,000	Install liners inside of City sanitary sewers throughout the City to extend the service life of the sewer main by 50 years. Locations are selected by Engineering Operations.

2023

Planned Projects

Project	Estimated Cost	Street Address
Cured in place lining of sanitary sewer main	\$1,660,000	

Service Level

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

Asset Type	Quantity	Description
Sanitary Sewer	37,000	Install liners inside of City sanitary sewers throughout the City to extend the service life of the sewer main by 50 years. Locations are selected by Engineering Operations.

2024

Planned Projects

Project	Estimated Cost	Street Address
Cured in place lining of sanitary sewer main	\$1,660,000	

Service Level

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

Asset Type	Quantity	Description
Sanitary Sewer	37,000	Install liners inside of City sanitary sewers throughout the City to extend the service life of the sewer main by 50 years. Locations are selected by Engineering Operations.

Section 4: Program Justification

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

Trenchless Sewer Rehabilitation allows for sewers to be upgraded without needing to excavate and replace the sewer. The goal of the program is to reduce groundwater infiltration and reduce the number of sewer backups from unplanned sewer failures.

How is the outcome currently being measured?

The City measures the number of sanitary sewer backups on an annual basis.