

Budget by Fund

	2018 Actual	2019 Adopted	2020 C2C	2020 Request	\$ Change
General	-	-	-	-	-
Other-Expenditures	40,391,460	40,684,110	40,684,110	45,968,310	5,284,200
TOTAL	\$ 40,391,460	\$ 40,684,110	\$ 40,684,110	\$ 45,968,310	\$ 5,284,200

Budget by Service

	2018 Actual	2019 Adopted	2020 C2C	2020 Request	\$ Change
SEWER ENGINEERING AND ADMIN	12,112,616	12,428,824	12,389,299	14,590,851	2,162,027
SEWER OPERATIONS	28,278,844	28,255,286	28,294,811	31,377,459	3,122,173
TOTAL	\$ 40,391,460	\$ 40,684,110	\$ 40,684,110	\$ 45,968,310	\$ 5,284,200

Budget by Major

	2018 Actual	2019 Adopted	2020 C2C	2020 Request	\$ Change
Personnel	3,957,876	4,604,665	4,678,350	4,767,191	162,526
Non-Personnel	33,802,715	32,981,575	32,947,992	38,139,978	5,158,403
Agency Billings	2,630,869	3,097,870	3,057,768	3,061,141	(36,729)
TOTAL	\$ 40,391,460	\$ 40,684,110	\$ 40,684,110	\$ 45,968,310	\$ 5,284,200



Department of Public Works

Engineering Division

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

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Assistant City Engineer

Gregory T. Fries, P.E.
Kathleen M. Cryan

Principal Engineer 2

Christopher J. Petykowski, P.E.
John S. Fahrney, P.E.

Principal Engineer 1

Christina M. Bachmann, P.E.
Mark D. Moder, P.E.
Janet Schmidt, P.E.

Facilities & Sustainability

Jeanne E. Hoffman, Manager
Bryan Cooper, Principal Architect

Mapping Section Manager

Eric T. Pederson, P.S.

Financial Manager

Steven B. Danner-Rivers

July 10, 2019

To: Dave Schmiedicke, Finance Director

From: Robert F. Phillips, City Engineer

Subject: Engineering Division's 2020 Sewer Utility Budget

The Engineering Division is pleased to submit our 2020 Operating Budget for the Sewer Utility, a utility funded entirely through user fees.

The primary objective of the City of Madison's Sewer Utility is to safely convey wastewater to the Nine Springs Wastewater Treatment Plant. This requires a combination of design, construction and maintenance of our system of sewers and lift stations. Through our activities, infiltration is reduced, pipes in poor condition are repaired or replaced, pipes are cleaned on a regular schedule and problematic sections of pipes are maintained more frequently. The result has been a reliable system with a record low number of sewer backups.

In addition to the routine activities associated with running the Sewer Utility, specific 2020 initiatives include; infiltration studies for sewer drainage areas that have a history of excessive clear water in the system during severe rain events, televising and rating sewers on a 10 year cycle in accordance with our Capacity, Management, Operation, and Maintenance (CMOM) plan, and the continuation of our sewer lining program as a cost effective rehabilitation method for sanitary sewer.

The Sewer Utility Budget includes the following supplemental requests in order of preference:

1. Add CAD/GIS Consulting Funding for Mapping (\$34,002 Sewer Utility operating budget; additional funding included in Engineering – Engineering and Admin and Storm Water Utility operating budgets) – Provide funds to contract for outside expertise to maximize automation of conversion from CAD to GIS. This would eliminate redundant manual work while making records available more quickly as needed for asset and work order management.
2. Add 1.0 FTE Utility Design/Field Engineer (0.28 FTE - \$20,994 Sewer Utility operating budget; 0.72 FTE - \$53,986 Sewer Utility capital budget) - Provide additional engineer who would split their time between design and field inspection work. This would enable the Division to generate plans and specifications to better meet project schedules and balance project schedules out over the entire construction season. By supplementing existing construction inspection staff during the peak construction season these engineers would lower the number of projects each employee is responsible for, reducing windshield time and increasing time actually spent on-the-job inspecting. This will result in better quality control and long-term savings to our taxpayers.
3. Add 1.0 FTE Utility/Trenchless Engineer (0.15 FTE - \$11,247 Sewer Utility operating budget; 0.45 FTE – \$33,741 Sewer Utility capital budget; 0.4 FTE included in Engineering – Engineering and Admin operating budget and offset by increased permit fee revenue) – This position would focus on trenchless rehabilitation of aging infrastructure and enable the utility to continue working towards eliminating our infrastructure deficit.

A Sewer Utility rate increase of approximately 7% is expected. If you have any questions, please feel free to contact Steve Danner-Rivers or myself.

Sincerely,

A handwritten signature in black ink, appearing to read "Robert Phillips". The signature is written in a cursive style with large, rounded letters.

Robert F. Phillips, P.E.
City Engineer

RFP:

cc: Travis Martin

2020 Operating Budget

Service Budget Proposal

IDENTIFYING INFORMATION

SELECT YOUR AGENCY:

Sewer Utility

SELECT YOUR AGENCY'S SERVICE:

Sewer Engineering and Administration

SERVICE NUMBER:

831

SERVICE DESCRIPTION:

This service is responsible for: (1) the inspection, design, evaluation, and construction of the City's sewer collection system, (2) reviewing and inspecting permits related to sanitary sewer system excavation and plugging (3) collection of sewer area connection fees as well as impact fees related municipal sewer improvements. The goal of this service is to centrally plan and monitor the City's sewer system.

Part 1: Base Budget Proposal

BUDGET INFORMATION

	2017 Actual	2018 Adopted	2018 Actual	2019 Adopted	2020 C2C	2020 Request
<i>Budget by Fund</i>						
General-Net	\$0	\$0	\$0	\$0	\$0	\$0
Other-Expenditures	\$11,896,551	\$11,541,647	\$12,269,680	\$12,428,824	\$12,423,967	\$14,590,851
<i>Total</i>	<i>\$11,896,551</i>	<i>\$11,541,647</i>	<i>\$12,269,680</i>	<i>\$12,428,824</i>	<i>\$12,423,967</i>	<i>\$14,590,851</i>
<i>Budget by Major</i>						
Revenue						
Personnel	\$1,635,270	\$1,911,265	\$1,433,132	\$1,874,949	\$1,909,109	\$1,900,004
Non-Personnel	\$8,002,846	\$7,252,652	\$8,444,925	\$8,010,218	\$8,011,303	\$9,921,836
Agency Billings	\$2,258,435	\$2,377,730	\$2,391,624	\$2,543,657	\$2,503,555	\$2,769,011
<i>Total</i>	<i>\$11,896,551</i>	<i>\$11,541,647</i>	<i>\$12,269,681</i>	<i>\$12,428,824</i>	<i>\$12,423,967</i>	<i>\$14,590,851</i>
FTEs		14.18		13.57	13.66	13.66

PRIORITY

Citywide Element

Describe how this service advances the Citywide Element:

Effective Government - The Sewer Utility provides efficient and reliable service that supports all residents and business. We collaborate with the Wisconsin Department of Natural Resources, Madison Metro Sewerage District, private developers and other stakeholders to improve efficiency and achieve our shared goals.

Green & Resilient - The Sanitary Utility is a leader in stewardship of our water resources. We are committed to eliminating preventable sewer backs and overflows to protect the public health and our environment.

ACTIVITIES PERFORMED BY THIS SERVICE

Activity	% of Effort	Description
Utility Management and Administration	30	Plan, direct and implement stormwater infrastructure design, construction, operations and maintenance. Provide technical engineering advice and recommendations to City officials. Oversee Utility personnel, budgeting, financial management, asset management, permitting, public information and community engagement, interdepartmental planning and coordination, Board and Commission support and related administrative and technical activities.
Design	20	Planning, design and project management for new and replacement or rehabilitation of aging sanitary sewer infrastructure.

Construction Inspection	45	Manage sanitary sewer construction of Public Works projects to assure construction complies with plans and specifications. Oversee day-to-day construction activities from pre-bid meeting to warranty closeout. Review and respond to RFIs and change order requests. Track quantities and authorize partial and final payments. Prepare as-builts. Perform preliminary surveys, construction staking, and as-built surveys.
GIS	5	Create and maintain sanitary sewer infrastructure assets (e.g. pipes, structures, laterals, lift stations, etc.) in GIS for asset and work order management.

SERVICE BUDGET CHANGES

Service Impact

What is the proposed change to the service's budget from cost to continue to agency request?

What are the service level impacts of the proposed funding changes?

No service level impact is expected.

Personnel-Permanent Positions

Are you proposing an allocation change to the FTEs for this service?

Type	Fund	Amount	Description
Perm Wages	<input type="text"/>	<input type="text"/>	<input type="text"/>
Benefits	<input type="text"/>	<input type="text"/>	<input type="text"/>
Total		<input type="text"/>	

Explain the assumptions behind the allocation change.

What is the justification behind the allocation change?

Personnel-Other Personnel Spending

Are you requesting additional personnel spending for non-annualized pay?

Type	Fund	Amount	Description
Overtime	<input type="text"/>	<input type="text"/>	<input type="text"/>
Premium Pay	<input type="text"/>	<input type="text"/>	<input type="text"/>
Hourly	<input type="text"/>	<input type="text"/>	<input type="text"/>
Total		<input type="text" value="\$0"/>	

Explain the assumptions behind the requested funding.

What is the justification behind the increased funding?

Revenue

Are you proposing a change to the service's budgeted revenue?

Are you proposing an increase or a decrease to the budgeted revenue?

Fund	Major	Amount	Description
<input type="text" value="2110"/>	<input type="text" value="4xxxx"/>	<input type="text" value="\$1,810,404"/>	<input type="text" value="Projected 7% Rate Increase"/>

Explain the assumptions behind the change to budgeted revenue.

Based primarily on increased debt service, cash reserves needed for Capital projects and revenue requirements for debt coverage.

What is the justification behind the proposed change?

Proposed revenue is consistent with cash projection for next several years. Bond revenue requirements were not met in 2018 due to additional sewerage treatment costs as a result of flooding and high ground water. Revenues in this budget improve cash reserves and debt coverage which directly impact our bond ratings.

Non-Personnel

Are you requesting additional non-personnel funding for this service?

Yes

Fund	Major	Amount	Description
2110	56xxx	\$1,988,518	\$1.4 million increase Reserves Generated and \$540,000 increase to Debt Principal and Interest
2110	57xxx	\$315,456	Correction of Cost Allocation Plan expenses to Service 831 instead of 832

Explain the assumptions behind the requested funding.

These changes were made due to updated cost estimates and recent experience to arrive at a better budget projection.

What is the justification behind the proposed change?

Reserves Generated is consistent with cash projection for next several years. Bond revenue requirements were not met in 2018 due to additional sewerage treatment costs as a result of flooding and high ground water. Revenues in this budget improve cash reserves and debt coverage which directly impact our bond ratings.

Debt Service reflects the 2018 Revenue Bond issuance.

Part 2: Scaling Service Delivery

What amount is 2.5% of the service expenditure budget?

Increase

Explain how you would change the service activities and the level of service as a result of implementing a 2.5% funding increase to this service:

Add 0.15 FTE Trenchless Rehab Engineer (\$11,247 represents Sewer Utility operating budget impact) - This position would focus on trenchless rehabilitation of aging infrastructure and enable the utility to continue working towards eliminating our infrastructure deficit.

Add 0.28 FTE Utility Design/Field Engineer (\$20,994 represents Sewer Utility operating budget impact) - Provide additional engineers who would split their time between design and field inspection work. This would enable the Division to generate plans and specifications to better meet project schedules and balance project schedules out over the entire construction season. By supplementing existing construction inspection staff during the peak construction season these engineers would lower the number of projects each employee is responsible for, reducing windshield time and increasing time actually spent on-the-job inspecting. This will result in better quality control and long-term savings to our taxpayers.

Add CAD/GIS Consulting Services (\$34,002 Sewer Utility operating budget impact) – Provide funds to contract for outside expertise to maximize automation of conversion from CAD to GIS. This would eliminate redundant manual work along while making records available more quickly as needed for asset and work order management.

Explain the changes by major expenditure category that your agency would implement as a result of a 2.5 % funding increase to this service:

Trenchless Rehab Engineer: Permanent Salary and Fringe Benefits Increase

Utility Design Engineer: Permanent Salary and Fringe Benefits Increase

CAD?GIS Consulting: Purchase Services Increase

Would the changes include an increase to permanent staffing levels for this service? Yes If yes, FTEs:

What impacts would City residents and visitors experience if this service is provided a 2.5% increase in funding?

Utility/Trenchless Rehab Engineer - Compared to open cut construction, trenchless technologies extend the useful life of existing infrastructure at a lower cost to rate payers, are less disruptive to residents and business and have a smaller carbone footprint.

Utility Design/Field Engineer - Residents and visitors will benefit from staff being able to be more pro-active and addressing issues before they become problems; faster response to questions and concerns; better project coordination with private utilities; better quality control and long-term savings to rate payers.

Add CAD/GIS Consulting Services - GIS is the asset registry that we use to manage our infrastructure assets and the work required to maintain them. The more seamlessly that constructed assets are incorporated into our GIS, the more quickly Public Works Operations teams know of their existence and can proactively perform required maintenance activities such as mowing, tree trimming, snow removal, sewer cleaning, etc.

Decrease

Explain how you would change the service activities and the level of service as a result of implementing a 2.5% funding decrease to this service:

N/A

Explain the changes by major expenditure category that your agency would implement as a result of a 2.5 % funding decrease to this service:

N/A

Would the changes include a decrease to permanent staffing levels for this service? No If yes, FTEs:

What impacts would City residents and visitors experience if this service is provided a 2.5% decrease in funding?

None

2020 Operating Budget

Service Budget Proposal

IDENTIFYING INFORMATION

SELECT YOUR AGENCY:

Sewer Utility

SELECT YOUR AGENCY'S SERVICE:

Sewer Operations

SERVICE NUMBER:

832

SERVICE DESCRIPTION:

This service is responsible for the operation and maintenance of the City's sanitary sewer system which consists of nearly 790 miles of sanitary sewer mains connected by more than 18,000 sanitary access structures. This system is supported by 31 pumping stations and transports 27.8 million gallons of raw sewage per day from Madison homes and businesses to the Nine Springs Wastewater Treatment Plant (WWTP). The goal of this service is to eliminate preventable main backups and overflows and convey wastewater to the WWTP with minimum inflow, infiltration and exfiltration to prevent public health hazards and protect the environment.

Part 1: Base Budget Proposal

BUDGET INFORMATION

	2017 Actual	2018 Adopted	2018 Actual	2019 Adopted	2020 C2C	2020 Request
<i>Budget by Fund</i>						
General-Net	\$0	\$0	\$0	\$0	\$0	\$0
Other-Expenditures	\$25,360,499	\$26,811,450	\$28,278,852	\$28,303,877	\$28,294,811	\$31,377,459
<i>Total</i>	<i>\$25,360,499</i>	<i>\$26,811,450</i>	<i>\$28,278,852</i>	<i>\$28,303,877</i>	<i>\$28,294,811</i>	<i>\$31,377,459</i>
<i>Budget by Major</i>						
Revenue						
Personnel	\$2,487,274	\$2,889,850	\$2,615,016	\$2,729,716	\$2,769,241	\$2,867,187
Non-Personnel	\$22,634,464	\$23,626,900	\$25,372,225	\$25,019,948	\$24,971,357	\$28,218,142
Agency Billings	\$238,762	\$294,700	\$291,611	\$554,213	\$554,213	\$292,130
<i>Total</i>	<i>\$25,360,500</i>	<i>\$26,811,450</i>	<i>\$28,278,852</i>	<i>\$28,303,877</i>	<i>\$28,294,811</i>	<i>\$31,377,459</i>
FTEs		29.08		30.98	31.16	31.16

PRIORITY

Citywide Element Green and Resilient

Describe how this service advances the Citywide Element:

Protect public health and environment by eliminating preventable sewer back ups and overflows.

ACTIVITIES PERFORMED BY THIS SERVICE

Activity	% of Effort	Description
Preventive Maintenance	48	Scheduled sewer main cleaning to maintain existing system functionality and eliminate preventable sewer main backups.
Repair	22	Open cut and trenchless pipe and structure repairs to maintain existing system functionality, reduce I&I, and extend useful life.
Inspection and Condition Assessment	10	

		Internal pipeline and structure inspection to assess condition and develop asset condition rating score. Provide onsite inspection of trenchless rehab projects to assure work is done per plans and specifications to protect ratepayers investment. Perform flow monitoring, smoke testing and dye testing to support capacity and I&I studies. Perform Q&Q sampling to determine industrial customer billing rates.
Utility Locating and Marking	9	Respond to Diggers Hotline requests to locate and mark underground sanitary sewer utilities to prevent damage during excavation.
Contracted Services	7	Provide sewer cleaning and CCTV inspection services for other City agencies and external customers (e.g. Air National Guard, Dane County Landfill and Maidson Metro Sewerage District).
Emergency Response	3	Emergency response to reports of sewer back ups, sanitary sewer overflows, sewer gas odors, missing covers, etc.
Other	1	Respond to calls from residents reporting dead animals in the public right-of water, sinkholes, etc. Inspect and oversee maintenance of public waste oil site.

SERVICE BUDGET CHANGES

Service Impact

What is the proposed change to the service's budget from cost to continue to agency request?

What are the service level impacts of the proposed funding changes?

No anticipated service level impacts.

Personnel-Permanent Positions

Are you proposing an allocation change to the FTEs for this service?

Type	Fund	Amount	Description
Perm Wages	<input type="text"/>	<input type="text"/>	<input type="text"/>
Benefits	<input type="text"/>	<input type="text"/>	<input type="text"/>
Total		<input type="text"/>	

Explain the assumptions behind the allocation change.

What is the justification behind the allocation change?

Personnel-Other Personnel Spending

Are you requesting additional personnel spending for non-annualized pay?

Type	Fund	Amount	Description
Overtime	<input type="text"/>	<input type="text"/>	<input type="text"/>
Premium Pay	<input type="text"/>	<input type="text"/>	<input type="text"/>
Hourly	<input type="text"/>	<input type="text"/>	<input type="text"/>
Total		<input type="text" value="\$0"/>	

Explain the assumptions behind the requested funding.

What is the justification behind the increased funding?

Revenue

Are you proposing a change to the service's budgeted revenue?

Yes

Are you proposing an increase or a decrease to the budgeted revenue?

Increase

Fund	Major	Amount	Description
2110	4xxxx	\$3,516,386	Customer Revenue and Permit Revenue

Explain the assumptions behind the change to budgeted revenue.

Increase to customer revenue to cover additional anticipated sewerage treatment costs.
Increased projected revenue for Sewer Discharge permits to reflect current experience.

What is the justification behind the proposed change?

Need to increase revenue to cover projected expenses.

Non-Personnel

Are you requesting additional non-personnel funding for this service?

Yes

Fund	Major	Amount	Description
2110	53xxx	\$47,770	Increase to Work Supplies
2110	54xxx	\$3,199,015	Increase to Treatment Charges
2110	57xxx	(\$262,083)	Correction of Cost Allocation Plan expenses to Service 831 instead of 832

Explain the assumptions behind the requested funding.

Based on current trends and projected level of expenses

What is the justification behind the proposed change?

These changes were made due to updated cost estimates and recent experience to arrive at a better budget projection.

Part 2: Scaling Service Delivery

What amount is 2.5% of the service expenditure budget?

Increase

Explain how you would change the service activities and the level of service as a result of implementing a 2.5% funding increase to this service:

N/A

Explain the changes by major expenditure category that your agency would implement as a result of a 2.5 % funding increase to this service:

N/A

Would the changes include an increase to permanent staffing levels for this service? No If yes, FTEs:

What impacts would City residents and visitors experience if this service is provided a 2.5% increase in funding?

None

Decrease

Explain how you would change the service activities and the level of service as a result of implementing a 2.5% funding decrease to this service:

N/A

Explain the changes by major expenditure category that your agency would implement as a result of a 2.5 % funding decrease to this service:

N/A

Would the changes include a decrease to permanent staffing levels for this service? If yes, FTEs:

What impacts would City residents and visitors experience if this service is provided a 2.5% decrease in funding?

None