

## Budget by Fund

	2018 Actual	2019 Adopted	2020 C2C	2020 Request	\$ Change
General	-	-	-	-	-
Other-Expenditures	13,376,023	14,985,183	15,069,945	17,342,331	2,357,148
<b>TOTAL</b>	<b>\$ 13,376,023</b>	<b>\$ 14,985,183</b>	<b>\$ 15,069,945</b>	<b>\$ 17,342,331</b>	<b>\$ 2,357,148</b>

## Budget by Service

	2018 Actual	2019 Adopted	2020 C2C	2020 Request	\$ Change
STORMWATER ENGINEERING AND AD	8,833,709	10,452,446	10,568,937	12,807,128	2,354,682
STORMWATER OPERATIONS	4,542,314	4,532,737	4,501,008	4,535,203	2,466
<b>TOTAL</b>	<b>\$ 13,376,023</b>	<b>\$ 14,985,183</b>	<b>\$ 15,069,945</b>	<b>\$ 17,342,331</b>	<b>\$ 2,357,148</b>

## Budget by Major

	2018 Actual	2019 Adopted	2020 C2C	2020 Request	\$ Change
Personnel	4,671,574	4,881,487	5,039,030	5,082,055	200,568
Non-Personnel	7,996,131	9,100,006	9,109,861	11,289,250	2,189,244
Agency Billings	708,318	1,003,690	921,054	971,026	(32,664)
<b>TOTAL</b>	<b>\$ 13,376,023</b>	<b>\$ 14,985,183</b>	<b>\$ 15,069,945</b>	<b>\$ 17,342,331</b>	<b>\$ 2,357,148</b>



Department of Public Works

## Engineering Division

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

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Phone: (608) 266-4751  
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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.

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Robert F. Phillips, P.E.  
City Engineer

RFP:

cc: Travis Martin

# 2020 Operating Budget Service Budget Proposal

## IDENTIFYING INFORMATION

SELECT YOUR AGENCY:

Stormwater Utility

SELECT YOUR AGENCY'S SERVICE:

Stormwater Engineering and Administration

SERVICE NUMBER:

841

SERVICE DESCRIPTION:

The Stormwater Utility provides services for design, review, construction, and maintenance of a storm system including storm sewer pipe, open channel systems and ponds which are responsible for reducing flooding, improving the water quality of the lakes and waterways, and complying with the Wisconsin Pollutant Discharge Elimination System (WPDES) discharge permit. The goals of the agency include reducing the total suspended solids (TSS) and total phosphorous (TP) within the City's stormwater runoff by working with neighboring municipalities, regulatory agencies, and public watershed organizations.

## 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	\$8,516,838	\$10,960,636	\$8,955,993	\$10,469,575	\$10,559,837	\$12,807,128
<i>Total</i>	<i>\$8,516,838</i>	<i>\$10,960,636</i>	<i>\$8,955,993</i>	<i>\$10,469,575</i>	<i>\$10,559,837</i>	<i>\$12,807,128</i>
<i>Budget by Major</i>						
Revenue						
Personnel	\$1,777,479	\$2,077,284	\$1,744,641	\$2,127,451	\$2,268,328	\$2,244,722
Non-Personnel	\$6,589,169	\$8,708,509	\$7,048,346	\$8,119,387	\$8,103,013	\$10,149,395
Agency Billings	\$150,189	\$174,843	\$163,007	\$222,737	\$188,496	\$413,011
<i>Total</i>	<i>\$8,516,837</i>	<i>\$10,960,636</i>	<i>\$8,955,994</i>	<i>\$10,469,575</i>	<i>\$10,559,837</i>	<i>\$12,807,128</i>
FTEs		17.48		17.64	18.75	18.76

## PRIORITY

Citywide Element

Describe how this service advances the Citywide Element:

Effective Government - The Stormwater Utility provides efficient and reliable service that supports all residents and business. We are a member of the Madison Area Stormwater Partnership (MAMSWaP). This group comprised of 21 central Dane County municipalities, Dane County, and UW-Madison, works together to promote practices that reduce and improve stormwater runoff into Dane County lakes, rivers, and streams.

Green & Resilient - The Stormwater Utility is a leader in stewardship of our water resources. We have adopted a watershed management strategy in which green infrastructure plays an integral role in our flood mitigation and resiliency efforts while improving water quality.

## ACTIVITIES PERFORMED BY THIS SERVICE

Activity	% of Effort	Description
Utility Management and Administration	20	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.

Flood Mitigation & Resiliency	40	Watershed study management including data collection, modeling, development and prioritization of engineering solutions. Green infrastructure research, design and management. Public information and community engagement to develop community resiliency.
Design - Reconstruction	10	Planning, design and project management for replacement or rehabilitation of aging storm sewer infrastructure.
Construction Inspection	20	Manage storm 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	10	Create and maintain stormwater infrastructure assets (e.g. pipes, structures, specialized treatment devices, greenways, ponds, bioretention, rain gardens, pump stations, etc.) in GIS for asset and work order management. Create and maintain impervious layer for billing and modeling.

**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
2120	4xxxx	\$1,954,735	Increase in Customer Revenue

Explain the assumptions behind the change to budgeted revenue.

Based primarily on increased increased debt service and cost of flooding related studies

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
2120	53xxx	\$117,990	Primarily increases to Machinery & Equipment, Work Supplies, Postage & Copy Printing
2120	54xxx	\$885,935	Primarily Special Assessments and Consulting Services
2120	56xxx	\$1,140,857	Debt Principal and Interest
2120	57xxx	\$224,515	Correction of Cost Allocation Plan expenses to Service 841 instead of 842
2120	59xxx	(\$107,500)	Transfer Out to Capital Projects

Explain the assumptions behind the requested funding.

Supplies: More fixed asset requests than 2019; updated projection for work supplies based on recent experience; increase to Postage & Copy Printing due to flood study postcard mailings

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:

Add 0.88 FTE Engineer positions to be assigned as follows:

- **Watershed/Green Infrastructure Engineer (\$22,494 represents Stormwater Utility operating budget impact)**- As a result of our flood response, associated watershed studies and recent switch to ArcGIS we require a new position to perform GIS/data management duties associated with watershed studies; calibrate and maintain rainfall and flow gauges associated with watershed studies; and create, implement and manage a rain garden advocacy program to encourage residents to create rain gardens on private property. This program would be partially funded by grants provided by the Stormwater Utility.
- **Design Engineer (\$22,494 represents Stormwater Utility operating budget impact)** - We have reassigned existing staff to assist complete flood response projects and manage watershed studies. This has put a strain on our ability to meet design timelines for storm sewer replacement and upgrades associated with street reconstruction and resurfacing projects. This position would be dedicated to the design of storm sewer associated with reconstruction and resurfacing projects.
- **Utility Design/Field Engineers (\$20,994 represents Stormwater 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 (\$68,004 Stormwater 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:

W/GI Engineer: Permanent Salary & Fringe Benefit Increase  
Design Engineer: Permanent Salary & Fringe Benefit Increase  
Utility Design Engineer: Permanent Salary & Fringe Benefit Increase  
CAD/GIS Consulting: Purchased Services Increase

Would the changes include an increase 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% increase in funding?

**Watershed/Green Infrastructure Engineer** - Increased flood mitigation and resiliency. Expansion of green infrastructure. Grant program for installation of rain gardens on private property.  
**Design Engineer** - Timely replacement and rehabilitation of aging infrastructure.  
**Design/Field Engineer** - 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?  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:

Stormwater Utility

SELECT YOUR AGENCY'S SERVICE:

Stormwater Operations

SERVICE NUMBER:

842

SERVICE DESCRIPTION:

This service is responsible for the operation and maintenance of Stormwater Utility system infrastructure of storm sewer system including 500+ miles of pipe, 40,000+ structures and 1,300+ acres of stormwater management lands. The goal of the service is to maintain, repair, rehabilitate, and construct stormwater system infrastructure to reduce flooding while improving the water quality of our lakes and waterways.

### 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	\$5,648,471	\$5,737,349	\$6,528,101	\$6,877,664	\$6,761,173	\$6,828,862
<i>Total</i>	<i>\$5,648,471</i>	<i>\$5,737,349</i>	<i>\$6,528,101</i>	<i>\$6,877,664</i>	<i>\$6,761,173</i>	<i>\$6,828,862</i>
<i>Budget by Major</i>						
Revenue						
Personnel	\$3,828,444	\$4,225,525	\$4,357,445	\$4,517,257	\$4,473,534	\$4,542,809
Non-Personnel	\$989,207	\$547,608	\$1,183,758	\$1,131,718	\$1,131,718	\$1,304,675
Agency Billings	\$830,820	\$964,216	\$986,898	\$1,228,689	\$1,155,921	\$981,378
<i>Total</i>	<i>\$5,648,471</i>	<i>\$5,737,349</i>	<i>\$6,528,101</i>	<i>\$6,877,664</i>	<i>\$6,761,173</i>	<i>\$6,828,862</i>
FTEs		49.35		51.81	51.74	50.30

### PRIORITY

Citywide Element

Describe how this service advances the Citywide Element:

- Reduce total suspended solids (TSS) and phosphorus in the City's stormwater runoff prior to discharge to our surface waters.
- Control growth and proliferation of invasive species and noxious weeds.
- Provide habitat for ground nesting birds and pollinators.

### ACTIVITIES PERFORMED BY THIS SERVICE

Activity	% of Effort	Description
Storm Sewer Cleaning	10	Scheduled pipe and structure cleaning to maintain existing system capacity and prevent sediment from reaching surface waters.
Emergency Response	7	Respond to reports of flooding, spills, missing covers, plugged inlets. Stock sandbag sites.
New Construction, Upgrades and Retrofits	7	Construct new stormwater infrastructure to address local drainage issues. Upgrade and retrofit existing infrastructure with BMPs to improve water quality. Survey - preliminary, construction staking and as-built.



Storm Sewer Repair	7	Pipe and structure repair to maintain existing system functionality and extend useful life.
Utility Locating and Marking	5	Respond to Diggers Hotline requests to locate and mark underground stormwater utilities to prevent damage during excavation.
Greenway & Pond Maintenance and Repair	4	Vegetation maintenance - scheduled and spot mowing, tree removal. Small scale dredging. Cunetee cleaning and repair. Post-storm debris removal. Snow removal.
Inspection and Condition Assessment	3	Internal pipe and structure CCTV inspection and condition assessment. Dry weather inspections to identify illicit discharges. Pond depth surveys to determine sediment level and program dredging.
Street Sweeping & Leaf Collection	56	The Stormwater Utility funds 100% of street sweeping and 50% of leaf collection activities which are performed by the Streets Division.

### 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?

#### 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
2120	4xxxx	\$351,145	Increase to Customer Revenue

Explain the assumptions behind the change to budgeted revenue.

Increase to Customer Revenue to cover anticipated increases in flood mitigation related expenses (USGS Study & modeling software).

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
2120	53xxx	\$10,280	Primarily increase to work supplies
2120	54xxx	\$162,677	Primarily increase for USGS rain monitoring study
2120	57xxx	(\$174,543)	Correction of Cost Allocation Plan expenses to Service 841 instead of 842

Explain the assumptions behind the requested funding.

Recent historical cost trends and existing agreements with USGS

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?