

# SEWER MAINTENANCE FUND

RESEARCH AND ANALYSIS SECTION – LEGISLATIVE REFERENCE BUREAU

Executive Summary: 2011 City of Milwaukee Proposed Budget

Hearing Date: October 22, 2010

1. **Total Expenditures and Personnel Charges:** The 2011 Proposed Budget for the Sewer Maintenance Fund provides \$48,486,500 for total expenditures, a decrease of \$1,387,334 (-2.78%) from the 2010 Budget. **(Pages 2 and 3)**

The 2011 Proposed Budget includes 164 authorized positions in the Sewer Maintenance Fund, the same as in the 2010 Budget. One position of Engineering Drafting Technician V is proposed for reclassification to an Engineering Drafting Technician IV. **(Pages 2 and 3)**

2. **Equipment Purchases:** The 2011 Proposed Budget provides \$97,400 for equipment purchases for the Sewer Maintenance Fund, a decrease of \$62,600 (-39.12%) from the 2010 Budget allocation of \$160,000. **(Page 3)**

3. **Special Funds:** The 2011 Proposed Budget provides \$34,866,500 for various special funds within the Sewer Maintenance Fund, a decrease of \$1,532,500 (-4.21%) from the 2010 Budget allocation of \$36,399,000. **(Pages 3 to 4)**

4. **Revenues:** Estimated revenue in the 2011 Proposed Budget is \$51,187,000, a decrease of \$1,264,500 (-2.41%) from the 2010 Budget. The estimated deposit to retained earnings for 2011 is \$579. The **sewer**

**maintenance fee** proposed for 2011 is \$1.16 per one hundred cubic feet of water (CCF). The **stormwater management fee** per quarter per Equivalent Residential Unit (ERU) proposed for 2011 is \$14. Both fees are the same as in the 2010 Budget.

**(Page 5)**

5. **Capital Projects:** The 2011 Proposed Budget includes \$39,833,000 in capital funding for the Sewer Maintenance Fund. An increase of \$15,896,000 (66.4%) from the 2010 Budget. Actual expenditures in 2009 were \$36,236,229. Projects include: Sewer Relay Program (\$24,000,000), Pump Facilities Projects (\$1,000,000), Infiltration/Inflow Projects (\$14,333,000), and Best Management Practices for Total Suspended Solids Reductions (\$500,000).

**(Pages 5 to 8)**

6. **Sewer Maintenance Fund Rate Study:** Springsted Inc. was hired to perform a user rate analysis for the Sewer Maintenance Fund. The final report was transmitted to the City on October 12, 2010. The study reviews past performance, determines the adequacy of revenues and makes recommendations for future sewer and stormwater rates. In addition, the report makes recommendations for potential process and budget changes. **(Page 2)**

Expense	2009 Actual	2010 Budget	% Change	2011 Proposed	% Change
Personnel Costs	\$7,810,528	\$7,643,755	-2.13%	\$7,634,521	-0.12%
Operating Expend.	\$6,221,095	\$5,671,000	-8.84%	\$5,888,000	3.82%
Equipment Purch.	\$30,077	\$160,000	4.31%	\$97,400	-39.12%
Special Funds	\$29,402,321	\$36,399,000	23.79%	\$34,866,500	-4.21%
<b>TOTAL</b>	<b>\$43,464,021</b>	<b>\$49,873,755</b>	<b>14.74%</b>	<b>\$48,486,421</b>	<b>-2.78%</b>
Positions	172	164	-8	164	0

The 2011 Proposed Budget includes 164 authorized positions in the Sewer Maintenance Fund, the same as in the 2010 Budget. One position of Engineering Drafting Technician V is proposed for reclassification to an Engineering Drafting Technician IV. The duties of both positions are essentially the same and the reclassification will result in personnel costs savings to the City.

The 2011 Proposed Budget provides \$5,888,000 for operating expenditures, an increase of \$ 217,000 (3.82%) from the 2010 Budget. Operating expenditure increases include the following Sewer Maintenance Fund line items: Vehicle Rental, Information Technology Services and Infrastructure Services. Sewer Maintenance Fund operating expenditure decreases include the following line items: Other Operating Supplies and Professional Services.

Estimated revenue in the 2011 Proposed Budget is \$51,187,000, a decrease of \$1,264,500 (-2.41%) from the 2010 Budget. The estimated deposit to retained earnings for 2011 is \$579; in the 2010 Budget deposit to retained earnings was \$0. In 2009 the deposit to retained earnings was \$2,312,799.

The 2011 Proposed Budget includes \$39,833,000 in capital funding for the Sewer Maintenance Fund. An increase of \$15,896,000 (66.4%) from the 2010 Budget. Actual expenditures in 2009 were \$36,236,229.

### SMF Rate Study

Springsted Inc. was hired to perform a user rate analysis for the Sewer Maintenance Fund. The final report was transmitted to the city on October 12, 2010. The study reviews past performance, determines the adequacy of revenues and makes recommendations for future sewer and stormwater rates. In addition, the report makes recommendations for potential process and budget changes. Springsted will be making a formal presentation to the Finance & Personnel Committee on October 22, 2010 to report its conclusions.

Key findings include:

- Cash flow is insufficient to cover cash expenditures.
- Sewer and stormwater rates should be increased annually by 4.7% from 2011 through 2015.
- The use of revenue bonds carries some additional costs which could adversely affect future rates.
- User rates should be established for a 3-year period and reviewed on an annual basis concurrent with the development of the following year's budget.

### 2011 Proposed Budget

#### Total Expenditures

2010 Budget	2011 Proposed	% Change
\$49,873,755	\$48,486,421	-2.78%

The 2011 Proposed Budget provides \$48,486,500 for total expenditures, a decrease of \$1,387,334 (-2.78%) from the 2010 Budget.

## Personnel

The 2011 Proposed Budget provides \$7,634,521 for personnel cost, a decrease of \$9,234 (-0.12%) from the 2010 Budget. One position of Engineering Drafting Technician V (SR 606) is proposed for reclassification to an Engineering Drafting Technician IV (SR 604). The duties of both positions are essentially the same, and the reclassification will result in personnel costs savings to the City.

## Operating Expenditures

2010 Budget	2011 Proposed	% Change
\$5,671,000	\$5,888,000	3.82%

The 2011 Proposed Budget provides \$5,888,000 for operating expenditures, an increase of \$217,000 (3.82%) from the 2010 Budget. Notable operating expenditure increases include the following Sewer Maintenance Fund line items: Vehicle Rental, Information Technology Services, and Infrastructure Services.

Vehicle Rental is budgeted at \$2,100,000, an increase of \$100,000 from the 2010 Budget; this increase is due to an anticipated rise in fuel costs. Information Technology Services is budgeted at \$32,000, an increase of \$12,000 from the 2010 Budget; this increase is due to a required upgrade for the Microsoft Office Suite from version 2002 to 2007. Infrastructure Services is budgeted at \$1,070,000, an increase of \$150,000 from the 2010 Budget; this increase is due to an expected increase in the cost of asphalt and concrete pavement restoration in 2011.

Notable Sewer Maintenance Fund operating expenditure decreases include the following line items: Other Operating Supplies and Professional Services. Other Operating Supplies is budgeted at \$70,000, a decrease of \$30,000 from the 2010 Budget; this decrease is based on prior years' experience. Professional Services is budgeted at \$143,000, a decrease of \$15,000 from the 2010 Budget; this reduction is due to a reduction in employee training (-\$10,000) based on prior years' experience. SCADA Maintenance Services (-\$5,000) work will be performed under the pump rehabilitation capital account.

## Equipment Purchases

The 2011 Proposed Budget provides \$97,400 for equipment purchases for the Sewer Maintenance Fund, a decrease of \$62,600 (-39.12%) from the 2010 Budget allocation of \$160,000. In 2010, a \$95,000 4-yard dump truck was budgeted, this type of truck is not required to be purchased in 2011. Also in 2010, equipment funds in the amount of \$32,400 were budgeted to purchase a CADD plotter and flow-monitoring devices. The difference in these 2 line item amounts results in a budget decrease of \$62,600.

## Special Funds

The 2011 Proposed Budget provides \$34,866,500 for various special funds within the Sewer Maintenance Fund, a decrease of \$1,532,500 (-4.21%) from the 2010 Budget allocation of \$36,399,000.

Special Fund	2009 Actual	2010 Budget	Change	2011 Proposed	Change
Water Administration	\$350,000	\$350,000	0%	\$385,000	10%
Debt Service-Sewer Maintenance	\$8,783,930	\$11,000,000	25.22%	10,000,000	-9.09%
Pmt. to General Fund	\$10,097,930	\$12,190,000	20.71%	\$12,390,000	1.64%
Pmt. To Capital Fund for Emerald Ash Borer and Tree Planting and Production	-	\$2,678,000	-	\$2,177,500	-18.6%
Pmt to G.O. Debt	\$9,300,000	\$8,321,000	-10.52%	\$8,678,000	4.29%
Lease Pmt. for Tower Facility	\$843,546	\$844,000	0.05%	\$844,000	0%
Pension Contribution for Normal Cost	-	\$436,000	-	\$182,000	58.25%
Channel Maintenance	-	\$80,000	-	\$80,000	0%
PCB Removal	-	\$500,000	-	\$130,000	-74%
<b>TOTAL</b>	<b>\$29,402,321</b>	<b>\$36,399,000</b>	<b>23.79%</b>	<b>\$34,866,500</b>	<b>-4.21%</b>

**1. Water Administration Special Fund:** For the 2011 Proposed Budget funding for the Water Administration special fund is budgeted at \$385,000. The fund is used to reimburse the Milwaukee Water Works for the cost of administering and collecting the sewer maintenance and storm water management fees as part of the municipal services bills.

**2. Debt Service-Sewer Maintenance Special Fund:** For the 2011 Proposed Budget, funding for the Debt Service-Sewer Maintenance special fund is budgeted at \$10,000,000. This fund pays for the debt service on capital sewer work incurred since the Sewer Maintenance Fund was created. It includes repayments of revenue bonds and loans through the Clean Water Fund.

**3. Payment to General Fund Special Fund:** For the 2011 Proposed Budget, funding for the Payment to General Fund special fund is budgeted at \$12,390,000. This fund finances street sweeping (\$2,900,000), leaf collection (\$1,600,000) and brush services (\$230,000), provided by DPW-Operations Division. This includes all levy-supported tree-care costs and pension payments associated with street sweeping, leaf collection, brush collection and pruning (\$7,660,000).

**4. Payment to Capital Fund for Emerald Ash Borer and Tree Planting and Production Special Fund:** For the 2011 Proposed Budget, funding for the Payment to Capital Fund for Emerald Ash Borer and Tree Planting and Production special fund is budgeted at \$2,177,500. The planned expenditure for 2011 is \$1,347,500 for tree production and \$830,000 for the Emerald Ash Borer.

**5. Payment to Debt Fund on Prior G.O. Debt Special Fund:** For the 2011 Proposed Budget, funding for the Payment to Debt Fund on Prior G.O. Debt special fund is budgeted at \$8,678,000. This fund pays for debt on capital sewer work incurred before the Sewer Maintenance Fund was established.

**6. Lease Payment for Tower Facility Special Fund:** The 2011 Proposed Budget funding for the Lease Payment for Tower Facility special fund is budgeted at \$844,000.

**7. Pension Contribution for Normal Cost Special Fund:** For the 2011 Proposed Budget, funding for the Pension Contribution for Normal Cost special fund is budgeted at \$182,000. This fund pays for the pension contribution for employees of the Sewer Maintenance Fund.

8. **Channel Maintenance Special Fund:** For the 2011 Proposed Budget, funding for the Channel Maintenance special fund is budgeted at \$80,000. The major item within this fund is the cost of leasing special equipment for the removal and cutting of heavy vegetation in channels.

9. **PCB Removal Special Fund:** For the 2011 Proposed Budget, funding for the Enterprise Resource Management PCB Removal special fund is budgeted at \$130,000. Funds in this account will be used to pay for the removal of PCBs from a City sanitary sewer near E. Capitol Dr. and N. Humboldt Ave. This work will be part of an MMSD project in the area that will address PCBs found in their collection sewer. The project is currently awaiting approval of the work plan by the US EPA.

1. **Sewer Maintenance Fee:** The sewer maintenance fee proposed for 2011 is \$1.16 per one hundred cubic feet of water (CCF). This is the same rate as in the 2010 Budget. The sewer maintenance fee peaked in 2006 at \$1.27 per CCF prior to implementation of the stormwater management fee.

2. **Stormwater Management Fee:** The stormwater management fee per quarter per Equivalent Residential Unit (ERU) proposed for 2011 is \$14, the same as in the 2010 Budget. All one to 4 unit properties are charged one ERU per quarter. Commercial properties are charged based on actual estimated impervious surface (one ERU is equivalent to 1,610 sq. ft. of impervious surface). Regular fee increases will be necessary in the future, particularly if the City increases its investment to work on private property.

## Revenues

Revenue Category	2009 Actual	2010 Budget	Change	2011 Estimated	Change
Sewer Fee	\$27,508,815	\$28,591,500	3.93%	\$26,949,000	-5.74%
Stormwater Fee	\$18,950,771	\$22,316,000	17.75%	\$22,337,000	0.09%
Charges for Services	\$1,739,065	\$1,286,000	-26.05%	\$1,351,000	5.05%
Interest Income	\$173,285	\$258,000	48.88%	\$200,000	-22.48%
Misc. Revenue	\$434,702	\$0	-100%	\$350,000	100%
<b>TOTAL</b>	<b>\$48,806,638</b>	<b>\$52,451,500</b>	<b>7.46%</b>	<b>\$51,187,000</b>	<b>-2.41%</b>

Estimated revenue in the 2011 Proposed Budget is \$51,187,000, a decrease of \$1,264,500 (-2.41%) from the 2010 Budget. The estimated deposit to retained earnings for 2011 is \$579; in the 2010 Budget deposit to retained earnings was \$0. In 2009 the deposit to retained earnings was \$2,312,799.

3. **Charges for Services and Miscellaneous Revenues** include deferred sewer assessments, unused sewer life, certified survey plat review, stormwater management manual sales, sewer maintenance non-City services, sewer maintenance plat and reviews and sewer user penalty for transfers to property tax roll.

## Capital Projects

The 2011 Proposed Budget includes \$39,833,000 in capital funding for the Sewer Maintenance Fund. An increase of \$15,896,000 (66.4%) from the 2010 Budget. Actual expenditures in 2009 were \$36,236,229.

Capital Program Summary					
Program	2009 Actual	2010 Budget	2011 Proposed	Increase (decrease)	% Change 2011-2010
Sewer Relay Program	\$32,174,469	\$15,162,000	\$24,000,000	\$8,838,000	58.2%
Pump Facility Projects	\$549,818	\$500,00	\$1,000,000	\$500,000	100%
I&I Projects	\$2,148,056	\$6,350,000	\$14,333,000	\$7,983,000	125.7
BMP for TSS Reductions	\$1,106,223	\$1,925,000	\$500,000	(\$1,425,000)	-74%
<b>Total</b>	<b>\$36,236,229</b>	<b>\$23,937,000</b>	<b>\$39,833,000</b>	<b>\$15,896,000</b>	<b>66.4%</b>

Capital Request to Proposed Budget Comparison						
Program	2010 Budget	2011 Request	2011 Proposed	Change Request-Proposed	%Change Request-Prop	6 year Request
Sewer Relay Program	\$15,162,000	\$29,000,000	\$24,000,000	(\$5,000,000)	-17%	\$186,000,000
Pump Facility Projects	\$500,00	\$1,000,000	\$1,000,000	0	--	\$4,500,000
I&I Projects	\$6,350,000	\$6,370,000	\$14,333,000	\$7,963,000	125%	25,160,000
BMP for TSS Reductions	\$1,925,000	\$2,000,000	\$500,000	(\$1,500,000)	-50%	\$6,000,000
<b>\$Total</b>	<b>\$23,937,000</b>	<b>\$38,370,000</b>	<b>\$39,833,000</b>	<b>\$1,463,000</b>		<b>\$218,660,000</b>

1. **Sewer Relay Program – \$24,000,000:** The 2011 Proposed Budget reduces requested funding for sewer relay projects by \$5,000,000. This represents 4 miles of sewer replacement which will be postponed. DPW recommends a 90-year replacement cycle for sewers. The Proposed Budget reduces the replacement cycle from its current level of approximately 160 years to approximately 120 years.

2. **Pump Facility Projects - \$1,000,000:** Funding for this program will provide for the inspection, rehabilitation and replacement of sanitary pump facilities. The City owns and maintains 6 sanitary lift stations and 83 sanitary bypass pump stations. These pumps reduce the risk of sewage backing up into homes and businesses. Pumps are located in areas that

historically had sewer backup occurrences during periods of heavy rain.

The City's lift stations pump sanitary flow from low areas into gravity sanitary sewers so the flow can reach the Milwaukee Metropolitan Sewerage District's collection and treatment system.

The sanitary bypass pump stations are covered under the Sanitary Bypass permit issued by the DNR. If the bypass pumps operate during large rain events, DNR has not objected to their use. If the bypass pumps operate during dry weather, or during small rain events, the DNR will work with the City to establish a course of action to prevent these types of operations. The 2005 stipulation with the Department of Justice allows for the DNR to assess a fine for the operation of bypass pumps during small events or dry weather.

The DNR is currently revising its sanitary sewer overflow rules. However, it is DPW's understanding that these rules would not eliminate the use of sanitary bypass pumps as long as the municipality is maintaining its system and addressing infiltration and inflow problems. The 2011 Proposed Budget increases funding for Pump Facility Projects by \$500,000 (100%) over 2010. It is believed that this level of funding will allow monthly inspections of the pumps and provide funds to repair or replace approximately 10 pumps.

**3. Infiltration/Inflow Projects - \$14,333,000:** Infiltration and Inflow (I/I) is the occurrence of stormwater or groundwater entering into municipal wastewater systems. The extraneous water enters the sanitary sewer system through cracked pipes (mains and laterals), leaking manholes, as well as downspouts, sump pumps and foundation drains that are connected directly to the sanitary sewer system. When too much excess water enters the system, sewage may back up into buildings, overflow from manholes or bypass treatment facilities.

In 2005, Milwaukee County Circuit Court stipulated a variety of actions that Milwaukee must take to eliminate sanitary sewer overflows. These actions included identifying and correcting leaks in selected sewer basins.

To address I/I issues, DPW is proposing a pilot project to repair defective sewer laterals. The proposed project will be located in an area where multiple homes have experienced basement backups and which has been shown to have excessive I/I. The goal of the project is to rehabilitate the sanitary lateral, reduce I/I

and the resulting sewer backups, and gather data regarding the effectiveness of rehabilitation efforts. The number of properties affected will vary depending on the area selected and the amount of work required for each house. DPW is reviewing possible locations and will finalize the location in the near future. Property owner assessment with respect to this work has yet to be determined.

The \$2.3 million grant from MMSD will be available for inspection and repair costs of private laterals, and the disconnection of downspouts and foundation drains. The final guidelines and criteria for the use of the MMSD grant funds are not yet available. The MMSD grant has not been finalized.

Selection criteria for the location will include:

- The number of homes experiencing basement backups.
- Areas required by the Department of Justice stipulation.
- Sewersheds with excess flow (as identified by the MMSD).

Work at each property may include:

- The examination of the sanitary building lateral.
- Rehabilitation of the lateral with a cured in place liner.
- Disconnection of the foundation drain from the lateral.
- Installation of a backwater prevention device.

Funding Sources – I/I Projects				
	2009 Actual	2010 Budget	2011 Proposed	% Change 2010 – 2011
New Borrowing	\$1,698,056	\$5,850,000	\$10,633,000	81.7%
Cash	\$450,000	\$500,000	\$500,000	0
Grant & Aid			\$2,800,000	--
Assessable Private Property Work			\$400,000	--
<b>Total</b>	<b>\$2,148,056</b>	<b>\$6,350,000</b>	<b>\$14,333,000</b>	
Carryover Borrowing		\$6,250,000	\$6,612,095	

4. **BMPs for TSS Reductions - \$500,000:** This program provides funding to construct various Best Management Practices (BMPs) such as green streets, rain gardens, wet detention ponds, bio-infiltration areas, and end of pipe treatments to reduce the amount of Total Suspended Solids (TSS) that enter waterways.

The Wisconsin Department of Natural Resources' regulation in ch. DNR 151, Wis. Adm. Code, requires the City to reduce the amount of TSS in runoff by 40%. This project began in 2009 and will continue until the 40% TSS goal is reached.

The original deadline for compliance was March 10, 2013. However, due to pressure from municipalities, the DNR may extend the compliance date for up to 10 years. In addition, the DNR has given the City credit for the treatment of stormwater in the combined sewer area. As a result, the City is currently nearing the 40% requirement.

## Issues to Consider

- It is the City's current policy to do work only in the public right of way. Performing significant amounts of work on private property requires a change in the City's current policy of performing work almost exclusively in the public right-of-way. Any change in

this policy needs to include discussions regarding affordability, equity, and long term sustainability.

- Several key issues are relevant to the sewer system:
  - Increased regulation of non-point pollution relating to unfunded mandates.
  - An aging sewer system.
  - Policy questions regarding sewer maintenance work done on private property.
  - Climate patterns which appear to be increasing the frequency and severity of storm events.
  - Cost/benefit issues relating to the age and value of buildings.
- Although the overall replacement cycle for sewer mains is still well above the recommended 90 years, increases in other sewer programs especially I/I may provide a broader strategy for addressing sewer issues.
- If revenues generated by the stormwater charge continue to be transferred out of the SMF to fund Forestry activities, rates may have to increase to pay for debt service on the sewer main replacement program.
- To adequately address the cash flow issues of the SMF, changes to current budgeting and bond issue practices would be required.