

**CM Ackerson: Likes the lower threshold for local labor. Doesn't like how prevailing wage "savings" were presented.**

Tony P: The Prevailing Wage program was eliminated by State law. MSD was asked previously what if any impact this would have on the cost to complete the CRRP. MSD requested an evaluation of the cost difference before and after the prevailing wage change by a third party. Through this evaluation, it was estimated that elimination of the Prevailing Wage law would reduce cost impacts to rate payers by approximately \$300M, reducing the CRRP costs from \$4.3B to \$4.0B. To offset this impact, the MSD Board lowered the Local Labor on contracts required threshold from being applicable to projects \$10M and above to \$5M - cut in half. The result will be that even more projects will be incentivized for using local labor.

**CM Parker: Explain the bond payoff schedule?**

Chad C: Bonds are typically on a 30 year note, and so the request is about keeping a AA rating, and we will not pay off work for this until probably 30 years after the last work is completed.

**ACTION: Send debt service and bond schedule – see Attachment 1- Debt Service Table**

**CM Parker: How much did we get in FEMA grants last year?**

Tony P: We will deliver the exact amount, but those funding sources are limited, take a long time and competition to acquire, and have to be front-loaded by the utility/city. We continue to pursue these funding opportunities, as well as WRDA funding through the USACOE.

**ACTION: Send details of the FEMA grants utilized to date/comprehensive report like we provide to the Board – Attachment 2 – FEMA Grant Status Table**

**CM Woolridge: How do small cities contribute to the funding? Do they get the benefit of the plan without having to invest?**

Tony P/Brian: The cities of Anchorage, Jeffersontown, St. Matthews, and Shively opted out of the drainage system in the 1980s when Louisville delegated authority for drainage and flood protection. They do not pay drainage fees, but they do not get drainage services and maintenance. There are NO plans to perform projects in these areas under the CRRP, but since this is a community issue, there will be collateral benefits to the entire county.

**ACTION: Provide the names of the cities not included in the drainage service area – Answer: Anchorage, Jeffersontown, St. Matthews, and Shively. Since these cities do not pay a drainage fee to MSD, drainage and inland flooding components of the Plan will not be implemented in these areas. The MSD drainage fee, and any future increases to the fee, will be utilized to address those portions of the plan. Customers in those areas will not be paying for services or infrastructure related to drainage in other parts of Louisville Metro. Other parts of Louisville Metro will not be paying for drainage and inland flooding projects in those small cities.**

**MSD Response to Comments from MC Budget Committee Meeting March 1, 2018**

**CM Reed: Does MSD have reserves?**

Chad C.: We do not have reserves per se, but we do have budgeted amounts to deal with emergencies, as well as contingencies on contracts. There is approximately \$2 Million budgeted to respond to emergency events. With the collapse on Main Street, and response to flooding, those funds have been utilized, and other projects will have to be delayed into next fiscal year depending on urgency and prioritization.

The table below shows the emergency repair work that was procured or performed in the first half of FY18. As shown, the contingency budget for these responses to emergencies has been exhausted halfway through the fiscal year.

Repair Location	Date Began	Status (As of 2/16/18)	Contractor	Amount	Procurement Type
29 <sup>th</sup> and Broadway	7/15/17	Complete	TSI Construction	\$5,924.25	Single Bid
1531 W Broadway Sink Hold Repair Project	8/15/17	Complete	K. Weihe Construction, Inc	\$16,700.00	Single Bid
Sunlight PS Force Main Repair Project	8/15/17	Complete	K. Weihe Construction, Inc	\$65,000.00	3 Bids Lump Sum
490 E Witherspoon Street Heavy Cleaning	8/21/17	Active	Robinson Pipe Cleaning	\$201,450.00	Single Bid
Main and Handcock Emergency Repair	8/30/17	Complete	Basham Construction	\$1,172,024.28	Single Bid
CSO 151 Emergency Point Repair	9/20/17	Active	Garney Construction	\$76,218.00	6 Bids Lump Sum
1101 Bickle Avenue	10/14/17	Complete	TSI Construction	\$7,324.51	Single Bid
CCTV Camera Retrieval	10/19/17	Complete	Marine Solutions, Inc.	\$13,827.13	Single Bid
Mill Creek Bank Repair Project	11/17/17	Complete	K. Weihe Construction, Inc	\$30,000.00	3 Bids Lump Sum
3226 Trail Ridge Drive Sink Hole Repair	12/13/17	Complete	K. Weihe Construction, Inc	\$27,800.00	Single Bid
Nightingale PS Odor Control	12/15/17	Active	Pace Contracting	\$317,000.00	3 Bids Lump Sum
			Totals	\$1,933,268.17	
			FY17 Budget	\$2,000,000.00	
			<b>Remaining</b>	<b>\$66,731.83</b>	



**CM Reed: Can you provide MSD salary information?**

Chad C: Salary information, financial transactions, and management documentation is available to the public through the Open MSD website: <http://msdrecords.louisvillemisd.org/openmsd/>

**CM Kramer: Though the Ohio River flooding is astounding, what in the plan would prevent this kind of event from happening?**

Tony P: While the CRRP won't stop Ohio River flooding, the plan does address the needs of the aging Flood Protection System, which keeps the rising waters out of the city. Significant parts of the plan are written to address these aging systems and upgrade them.

**Ohio River Flood Protection - \$685 million** - MSD has 16 major flood pump stations and 27 miles of floodwall/levee and more than 40 flood closures and 300 flood gates along the Ohio River in the downtown business district, West End and Southwestern Jefferson County. This system is approaching 70 years old and in need of repairs/replacement to improve reliability of the aging outdated equipment new construction to increase the pump station capacities to enhance community resiliency restoring protection back to the original levels.

**CM Kramer: After the 1997 flood, the federal government provided assistance for cleanup and support. Can these funds be utilized?**

Tony P: There are funding mechanisms available through FEMA for buy-outs – and MSD is pursuing those, but these must be fronted by the utility. Also WRDA funding through the Army Corps of Engineers is being pursued, but this is a low interest loan – not a grant. Many of the federal funding mechanisms have been retired.

**CM Kramer: Can the CD or CRRP projects be prioritized? Can you show funding options vs. what can be done?**

Tony P: The CRRP itself is a 20 year prioritization of critical infrastructure needs for our community as defined by the nationally recognized industry experts that analyzed the system and prepared the recommendations. It provides a prioritized spending timeline necessary to continue funding the federally-required Consent Decree compliance commitments, along with addressing the other five public health and safety risk areas as identified within the CRRP. The CRRP prioritizes and phases in work necessary to achieve the City's commitment to becoming a Resilient City by avoiding continued 'Band-Aid' type repairs and maintenance. Projects such as those to mitigate viaduct flooding could be removed altogether or pushed to later in the plan if that is the will of the council.

**ACTION: See Attachment 3a – Next 3 years of projects included in the 9.9% scenario. See Attachment 3b – Spreadsheet of various funding (rate increase options) going forward, with specific rates and capital generated. Based on available capital, Ohio River Flood Protection upgrades and repair of aging sewers would be the priority, and other work would be delayed until funding is available.**

**CM Butler (for Welch): Does it make more sense to buy-out flooded homes or invest in infrastructure?**

Tony P: As mentioned, MSD is seeking out FEMA funding for buy-outs, but those funds have to be fronted by MSD, and many times take years to receive the match and the buy-outs are voluntary.

**CM Blackwell: I remember the discussion with the Consent Decree and that we were proud that it was one of the cheapest in the country, but we did not include other elements. Can we prioritize to make the increase as painless as possible instead of doing everything at once?**

Tony P: Other cities have negotiated larger Consent Decrees that include their facility needs. This is a 20-year plan, prioritized by most immediate needs to address systematically over the course of 20 years.

**CM Hamilton: What West Louisville projects will impact drainage?**

Tony P: The flood pump stations and FPS in West Louisville would be a high priority. Paddy's Run pump station would be first followed by then the Shawnee Pump Station.

**CM Hamilton: You mentioned Morris Forman work being further out. Why is that?**

Brian B: Overhauling or moving Morris Forman would depend on regulatory changes, and would need to be addressed at that time. Meetings are ongoing to work with residents around Morris Forman regarding odor issues.

**CM Hamilton: Can we get a list of projects?**

**ACTION: Provide project lists. See Attachment 3c – The list of projects under the original ordinance amendment request.**

**CM Hamilton: Will residential customers be bearing the weight of the increase?**

Tony P: All customers will have the same increase regardless of type.

**CM Leet: If Morris Forman could be moving, why spend any money on the Ohio River Interceptor?**

Brian B: Any change to Morris Forman, whether it is expansion or moving the facility would be years down the road. Meanwhile, the interceptor rehabilitation work needs to be performed in the short term for public safety.

**CM Leet: Flood Pump Stations have redundancy, correct?**

Tony P: We had pumps at stations fail during the flood event, and therefore lost redundancy. However, if we had more rain it would have caused a capacity issue at those stations – the water would have backed up behind the station.



**CM Leet: How does the PMP come into play?**

Brian B: The Plumbing Modification Program is where homes that experienced a sewer backup had backflow valves installed. There have been almost 18,000 installations, and one could assume that during the recent flooding, many of those homes would have experienced an issue. PMP is one of our most successful programs. It is also a program where funds have been cut annually and is in danger of being discontinued altogether.

**CM Leet: Will the CD line item eventually go off of the bill?**

Chad C: Once bonds are retired (2044) this line could go off of the bill. Right now this is a \$10/month portion of the bill.

**CM Parker: Did the Critical Repair Plan come about because of an increase in rainfall in 2016? Why did we just find this out?**

Brian B: Previous leadership knew that there could be issues, but rates were kept as low as possible. The detailed plan was finalized one year ago, and thus we knew the extent of the impact. Many cities have compiled this type of work into their Consent Decrees.

**CM James: How do we compare to Pre-Katrina New Orleans, in terms of risk?**

Brian B: New Orleans has a different management/ownership model in terms of flood protection. In Katrina they sustained \$150 Billion worth of damage, and during the fall of 2017, they had flooding in which several of their pump stations failed – resulting in more flooding, and removal of the New Orleans utility leadership.

**Action: See Attachment 4: Presentation with New Orleans Damages.**

**CM Woolridge: What will you do for low income residents?**

Chad C: We have an existing affordability program, which focuses on income and age. We would consider an expansion of that program to mimic the LIHEAP model if the rate increase was to occur.

**CM Sexton-Smith: How long will increases be in place? Can we expect the increases to go down at some point?**

Tony P: The proposal is to give the MSD Board additional authority for four years. Rate modeling shows a decline in rate increases below the allowed threshold within the next 10 years.

**CM Kramer: How could rate increases go down if there is significant work to be done at Morris Forman?**

Tony P: If there are unexpected events or if regulations create a need for major facility changes, there would need to be adjustment to rate projections at that time. Right now we are working with the information and environment that we are working in today.

## MSD Response to Comments from MC Budget Committee Meeting March 1, 2018

**CM Kramer: Why do we keep doing DRI work? It seems like you would do those projects and the problem would be fixed. Why do we keep going back to this?**

Tony P: There are still areas with drainage issues and requests to increase the level of service/size event that must be managed. Also, we are experiencing larger rain events more often, have more people, and have more hard surface in the county. This continues to degrade the system over time along with the system continuing to age.

**CM Sexton Smith: Will we expect more cave-ins?**

Brian B: Yes. Also with flooding we can expect an even higher rate of pipe collapses and cave-ins.

### Post Meeting:

- Can you clarify what small cities, like JTown, will be getting out of this plan? They have to pay for the increase, but will not have drainage work performed in those areas. Answer provided above.
- Please provide salary information and take home vehicle information. The current and previous 5 years of salaries are provided on the MSD Transparency Site: <http://msdrecords.louisvillemsd.org/openmsd/> . MSD staff is compiling the list of employees with take home vehicles through an open records request. See **Attachment 5 – MSD Financial Annual Report** for more details on financial accountability.

### List of Attachments:

Attachment 1- Debt Service Table (7A)

Attachment 2 – FEMA Grant Status Table

Attachment 3a – Next 3 years of projects included in the 9.9% scenario

Attachment 3b – Spreadsheet of various funding (rate increase options) going forward, with specific rates and capital generated

Attachment 3c – The list of projects under the original ordinance amendment request.

Attachment 4: Presentation with New Orleans Damages

Attachment 5 – MSD Financial Annual Report



ATTACHMENT 1 - DEBT SERVICE SCHEDULE - 7A

Revenue Bonds	Original Issue Amount	Interest Rates	Final Payment In	Outstanding as of:	
				2017	2016
2007 Sewer and Drainage System Revenue Bonds Series 2007A	61,125	4.00% - 5.00%	2025	42,965	44,425
2008 Sewer and Drainage System Revenue Bonds Series 2008A	105,000	4.00% - 5.00%	2038	65,520	97,860
2009A Sewer and Drainage System Revenue Bonds Series 2009A	76,275	5.00%	2022	13,040	41,485
2009B Sewer and Drainage System Revenue Bonds Series 2009B	225,770	2.00% - 5.00%	2023	69,725	136,115
2009C Sewer and Drainage System Revenue Bonds Series 2009C	180,000	5.98%	2040	180,000	180,000
2010A Sewer and Drainage System Revenue Bonds Series 2010A	330,000	6.25%	2043	330,000	330,000
2011A Sewer and Drainage System Revenue Bonds Series 2011A	263,360	3.00% - 5.00%	2034	252,610	254,590
2013A Sewer and Drainage System Revenue Bonds Series 2013A	115,790	4.00%	2036	115,790	115,790
2013B Sewer and Drainage System Revenue Bonds Series 2013B	119,515	4.00% - 5.00%	2038	116,940	118,255
2013C Sewer and Drainage System Revenue Bonds Series 2013C	100,000	3.00% - 5.00%	2044	99,625	99,750
2014A Sewer and Drainage System Revenue Bonds Series 2014A	80,000	4.00% - 5.00%	2045	79,900	79,950
2015A Sewer and Drainage System Revenue Bonds Series 2015A	175,000	3.125% - 5.00%	2046	174,280	175,000
2015B Sewer and Drainage System Revenue Bonds Series 2015B	81,750	2.625% - 5.00%	2038	79,085	81,350
2016A Sewer and Drainage System Revenue Bonds Series 2016A	150,000	3.00% - 5.00%	2047	150,000	-
2016B Sewer and Drainage System Revenue Bonds Series 2016B	28,315	2.00% - 5.00%	2036	28,095	-
2016C Sewer and Drainage System Revenue Bonds Series 2016C	67,685	5.00%	2023	67,685	-
Total long-term debt				1,865,260	1,754,570
Less: current maturities				(33,655)	(31,825)
Add : unamortized premium/discount				74,328	67,462
Total long-term debt, net				<u>\$ 1,905,933</u>	<u>\$ 1,790,207</u>

\$ 110,690 agrees to cash flow  
 \$ (1,830) agrees to B/S  
 \$ 6,866 agrees to B/S  
 \$ 115,726 agrees to B/S





Attachment 2 - FEMA GRANT STATUS TABLE

Projects approved by FEMA 2012-2015

Project Name	FEMA Program	Cost Share (Fed./State/Local)	# of Properties	Project Cost	Council Person	MSD Share	Closing Date
Seatonville	HMGP	75%/12%/13%	1	\$450,000	Stuart Benson	\$58,500	7/20/2018
Maple Street (I-IV)	HMGP	75%/12%/13%	128	\$9,905,000	Dawid James	\$1,287,650	Ph 1 - closed, Ph 2 - closed, Ph 3 - 1/4/18, Ph 4 - 12/5/17
<b>Totals</b>			<b>129</b>	<b>\$10,355,000</b>		<b>\$1,346,150</b>	

Projects Approved by FEMA in 2015

Project Name	FEMA Program	Cost Share (Fed./State/Local)	# of Properties	Project Cost	Council Person	MSD Share	Closing Date
Algonquin Acquisition (26-DR1841-035)	HMGP	75%/12%/13%	26	\$1,979,816	Jessica Green	\$257,376	9/27/2018
Belquin Acquisition (43) DR1912-034	HMGP	75%/12%/13%	43	\$3,180,882	Jessica Green	\$413,515	9/15/2018
Linwood Acquisition Phase 3 (48) DR1976-020	HMGP	75%/12%/13%	48	\$3,354,503	Jessica Green	\$436,085	8/18/2018
Wewoka-West Park Acquisition (48) PDM2012-001	PDM	75%/0%/25%	48	\$3,586,621	Cheri Hamilton	\$896,655	9/30/2018
Elba Drive SRL Acquisition (1)	FMA	100%/0%/0%	1	\$175,374	Pat Mulvihill	\$0	1/9/2017
Bartley Dr SRL (1)	FMA	100%/0%/0%	1	\$189,757	Robin Engel	\$0	9/30/2017
Transylvania Beach SRL (7) FMA2014-009	FMA	100%/0%/0%	7	\$2,581,526	Scott Reed	\$0	9/30/2018
<b>Totals</b>			<b>174</b>	<b>\$15,048,479</b>		<b>\$2,003,631</b>	

Projects Approved by FEMA in 2016

Project Name	FEMA Program	Cost Share (Fed./State/Local)	# of Properties	Project Cost	Council Person	MSD Share	Closing Date
2015 West Indian Trail (RL) FMA2015-007	FMA	86%/0%/14%	4	\$548,434	Vitalis Lanshina	\$75,410	10/30/2018
2015 Medford Lane (RL) FMA2015-015	FMA	90%/0%/10%	4	\$608,612	Brent Ackerson	\$60,861	10/30/2018
2015 Riverside Dr -FMA2015-008	FMA	100%/0%/0%	6	\$1,693,714	Angela Leet	\$0	10/30/2018
2015 Transylvania Beach Rd (RL North) FMA2015-017	FMA	90%/0%/10%	3	\$832,561	Scott Reed	\$83,256	10/30/2018
<b>Totals</b>			<b>17</b>	<b>\$3,683,321</b>		<b>\$219,527</b>	

Projects Approved by FEMA in 2017

Project Name	FEMA Program	Cost Share (Fed./State/Local)	# of Properties	Project Cost	Council Person	MSD Share	Closing Date
2016 Hayfield Dundee Area 1	FMA	90%/0%/10%	4	\$922,162	Brandon Coan	\$87,647	3/30/2020
2016 Hayfield Dundee Area 2	FMA	95%/0%/5%	4	\$898,028	Brandon Coan	\$47,116	3/30/2020
2016 Transylvania Beach South	FMA	75%/0%/25%	2	\$566,361	Scott Reed	\$139,090	8/30/2019
2016 Indian Trail SRL	FMA	100%/0%/0%	1	\$148,305	Vitalis Lanshina	\$0	3/30/2020
2016 Riverside Drive	FMA	78%/0%/22%	4	\$981,748	Angela Leet	\$215,985	3/30/2020
<b>Totals</b>			<b>15</b>	<b>\$2,534,856</b>		<b>\$273,853</b>	
<b>Overall Total</b>			<b>335</b>	<b>\$31,621,655</b>		<b>\$3,843,161</b>	





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**Report to  
Tony Parrott**



# **Attachment 3A - Preliminary Draft FY18 Capital Budget Tables**

## **9.9% Budget Scenario**



# Engineering CIP - Alternative Scenario

ENG CIP - ~\$5/mo in FY18	FY18	FY19	FY20	FY21	FY22	FY18-FY22
<b>Wastewater</b>	<b>\$170.9-M</b>	<b>\$181.3-M</b>	<b>\$174.1-M</b>	<b>\$172.0-M</b>	<b>\$144.2-M</b>	<b>\$842.5-M</b>
CMOM	\$21.7-M	\$21.4-M	\$56.8-M	\$105.6-M	\$118.1-M	\$323.7-M
Consent Decree (IOAP)	\$128.9-M	\$153.6-M	\$96.5-M	\$32.9-M	\$8.0-M	\$419.9-M
Development	\$1.1-M	\$2.1-M	\$5.1-M	\$8.0-M	\$5.7-M	\$22.0-M
NMC	\$19.2-M	\$4.2-M	\$15.6-M	\$25.5-M	\$12.4-M	\$76.9-M
<b>Stormwater</b>	<b>\$11.7-M</b>	<b>\$8.6-M</b>	<b>\$26.9-M</b>	<b>\$68.4-M</b>	<b>\$104.3-M</b>	<b>\$219.9-M</b>
Drainage	\$2.8-M	\$2.8-M	\$10.1-M	\$30.8-M	\$50.4-M	\$96.9-M
Floodplain Management	\$1.4-M	\$1.0-M	\$2.0-M	\$2.0-M	\$2.0-M	\$8.4-M
Ohio River Flood Protection	\$5.3-M	\$3.5-M	\$13.0-M	\$33.9-M	\$49.2-M	\$104.8-M
Stormwater Quality (MS4)	\$2.3-M	\$1.3-M	\$1.8-M	\$1.7-M	\$2.7-M	\$9.7-M
<b>Support Systems</b>	<b>\$17.4-M</b>	<b>\$5.1-M</b>	<b>\$9.1-M</b>	<b>\$9.6-M</b>	<b>\$6.5-M</b>	<b>\$47.7-M</b>
Capital Equipment	\$2.8-M	\$1.8-M	\$3.3-M	\$3.3-M	\$3.3-M	\$14.3-M
Facilities	\$13.6-M	\$2.9-M	\$5.1-M	\$5.9-M	\$2.2-M	\$29.7-M
IT	\$0.7-M	\$0.3-M	\$0.3-M	\$0.3-M	\$0.6-M	\$2.1-M
LOJIC	\$0.4-M	\$0.1-M	\$0.5-M	\$0.3-M	\$0.4-M	\$1.6-M
<b>Grand Total</b>	<b>\$200.0-M</b>	<b>\$195.0-M</b>	<b>\$210.0-M</b>	<b>\$250.0-M</b>	<b>\$255.0-M</b>	<b>\$1.11-B</b>

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FY18-FY20 Reduction in CRRP Wastewater Projects		ENG CIP Baseline	ENG CIP ~\$5/mo in FY18	Baseline vs. ~\$5/mo in FY18
<b>CMOM</b>				
CCWQTC SAND FILTER REPLACEMENT	\$4,500,000	\$2,000,000	-\$2,500,000	
COLLECTION SYSTEM SPARE PUMP INVENTORY	\$3,000,000	\$2,500,000	-\$500,000	
FY18-FY22 OPERATIONS RENEWAL & REPLACEMENT	\$18,300,000	\$15,300,000	-\$3,000,000	
FY19 CMOM PM ASSIST	\$225,000	\$187,500	-\$37,500	
FY19 PMP	\$2,000,000	\$1,500,000	-\$500,000	
HCWQTC SOLIDS EXPANSION	\$6,800,000	\$800,000	-\$6,000,000	
HITE CREEK WQTC EXPANSION	\$19,553,703	\$3,623,703	-\$15,930,000	
MF COLLECTION SYSTEM BAFFLES	\$624,000	\$400,000	-\$224,000	
NIGHTINGALE REHAB	\$4,200,000	\$3,500,000	-\$700,000	
<b>Development</b>				
FLOYDS FORK ZONE B SEWERS	\$7,900,000	\$4,000,000	-\$3,900,000	
FLOYDS FORK ZONE C SEWERS	\$4,000,000	\$1,000,000	-\$3,000,000	
<b>NMC</b>				
MFWQTC DIGESTER LIDS & MIXERS	\$4,500,000	\$500,000	-\$4,000,000	
MFWQTC EQUIPMENT RENEWAL AND REPLACEMENT IN YEAR 5	\$25,500,000	\$7,000,000	-\$18,500,000	
MFWQTC SEC CLARIFIERS & RAS/WAS PUMPING	\$6,500,000	\$5,000,000	-\$1,500,000	
MFWQTC SEDIMENTATION BASIN REHAB INCLUDI	\$12,500,000	\$2,500,000	-\$10,000,000	

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FY18-FY20 Reduction in CRRP Stormwater Projects	ENG CIP Baseline	ENG CIP ~\$5/mo in FY18	Baseline vs. ~\$5/mo in FY18
<b>Drainage</b>			
AUBURNDALE EARLY ACTION PROJECT	\$12,600,000	\$1,800,000	-\$10,800,000
PROSPECT EARLY ACTION PROJECT	\$6,000,000	\$1,500,000	-\$4,500,000
STORMWATER MASTER PLAN	\$4,000,000	\$2,000,000	-\$2,000,000
VIA11 E BRANDEIS AVE & BROOK VIADUCT FLOOD RELIEF	\$28,043,000	\$2,000,000	-\$26,043,000
<b>Floodplain Management</b>			
FLOOD RESPONSE-BUYOUTS MITIGATION&GRANTS	\$12,000,000	\$4,000,000	-\$8,000,000
<b>Ohio River Flood Protection</b>			
ALLOCATION - ANNUAL FLOOD PUMPING STATIONS EQUIPMENT RENEWAL AND REPLACEMENT	\$3,000,000	\$2,500,000	-\$500,000
LEVEE & FLOODWALL REPAIR & RENEWAL LIGHT PADDYS RUN FPS FULL REHAB	\$1,875,000	\$1,500,000	-\$375,000
WESTERN PARKWAY FLOOD PUMPING STATION TO LOS 5 - IMPROVEMENTS	\$31,575,000	\$2,000,000	-\$29,575,000
WESTERN PARKWAY FLOOD PUMPING STATION TO LOS 5 - IMPROVEMENTS	\$11,648,000	\$4,648,000	-\$7,000,000
WESTERN PARKWAY FPS - RELIABILITY IMPROVEMENTS (EVALUATION REPAIRS)	\$3,334,000	\$2,000,000	-\$1,334,000

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**FY18-FY20 Reduction in CRRP Support Systems Projects**

**ENG CIP Baseline**

**ENG CIP ~\$5/mo in FY18**

**Baseline vs. ~\$5/mo in FY18**

	ENG CIP Baseline	ENG CIP ~\$5/mo in FY18	Baseline vs. ~\$5/mo in FY18
<b>Capital Equipment</b>			
FY18 VEHICLES & EQUIPMENT	\$3,500,000	\$2,500,000	-\$1,000,000
FY19 VEHICLES & EQUIPMENT	\$3,500,000	\$1,500,000	-\$2,000,000
FY20 VEHICLES & EQUIPMENT	\$3,500,000	\$3,000,000	-\$500,000
SYSTEMS AUTOMATION	\$1,200,000	\$750,000	-\$450,000
<b>Facilities</b>			
LOUISVILLE GREEN MAJOR MAINTENANCE	\$3,000,000	\$2,000,000	-\$1,000,000
OTHER FACILITIES REPAIRS	\$2,500,000	\$2,000,000	-\$500,000
ROOF REPLACEMENTS	\$3,230,458	\$3,204,950	-\$25,508

**FY18-FY20 Reduction in CRRP Projects**

**Baseline vs. ~\$5/mo in FY18**

Wastewater	-\$68.3-M
Stormwater	-\$148.3-M
Support Systems	-\$5.5-M
<b>Grand Total</b>	<b>-\$222.1-M</b>

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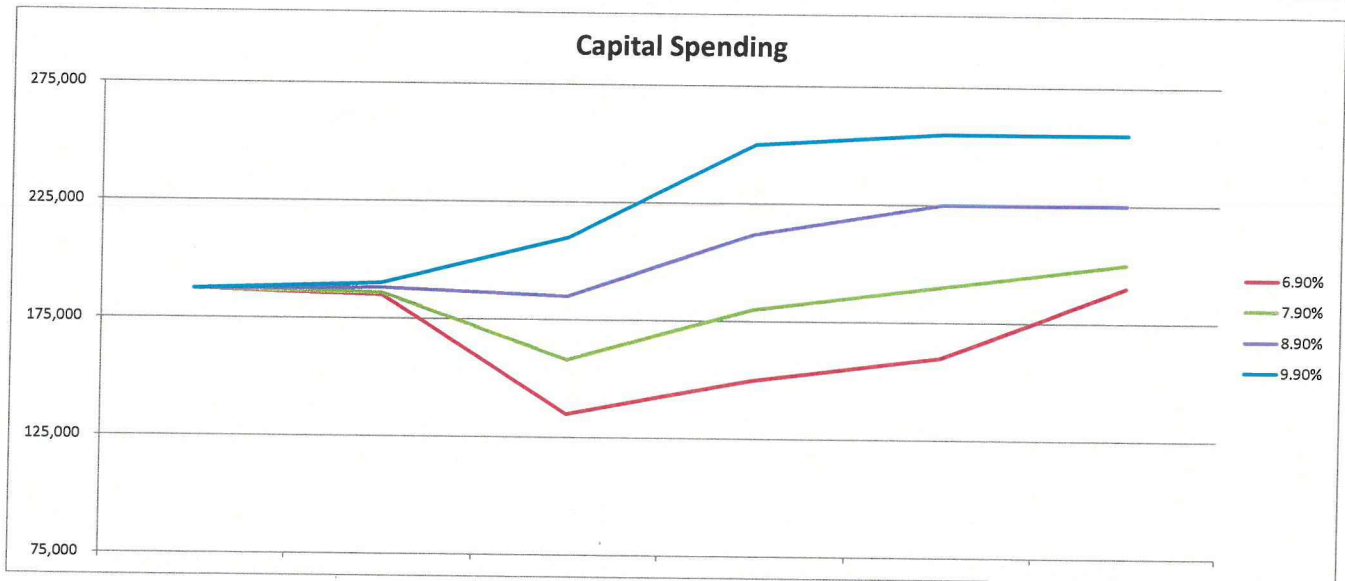
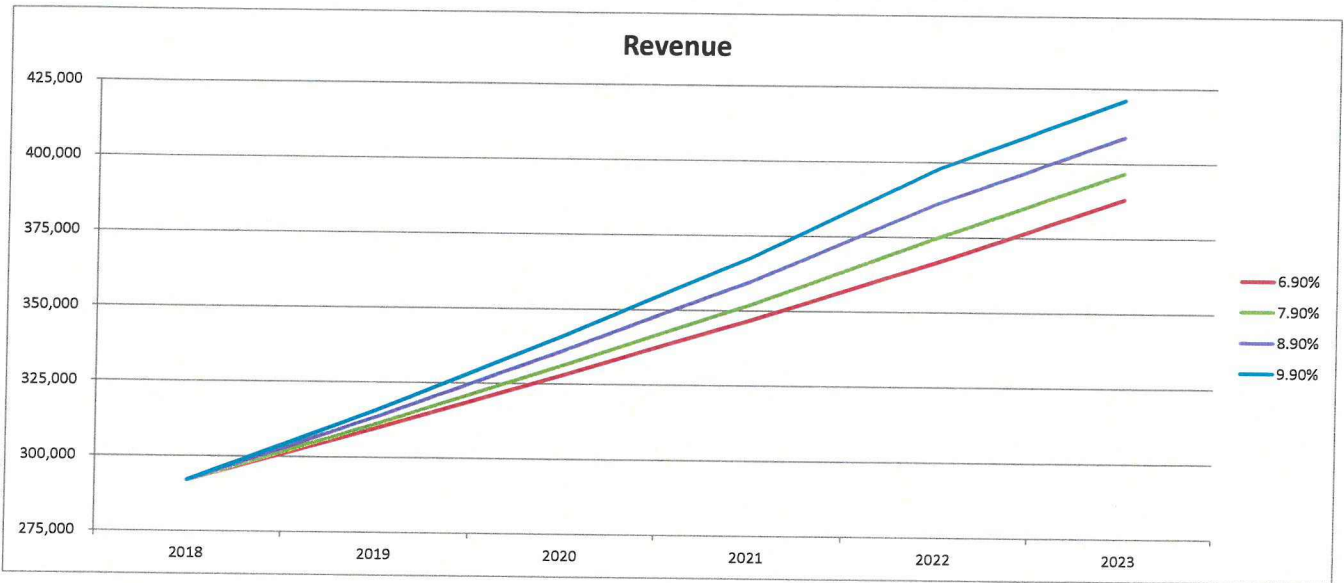


**Attachment 3B- Budget Options with various Rate Scenarios**

REVENUE	2018	2019	2020	2021	2022	2023		
6.90%	292,007	309,578	328,040	346,834	366,777	387,940		
7.90%	292,007	311,064	331,205	351,890	375,050	396,730		
8.90%	292,007	313,328	336,056	359,686	386,362	408,739		
9.90%	292,007	315,590	340,941	367,599	397,942	421,032		

CAPITAL	2018	2019	2020	2021	2022	2023	SUM	DELTA
6.90%	187,368	185,000	135,000	150,000	160,000	190,000	1,007,368	340,000
7.90%	187,368	186,000	158,000	180,000	190,000	200,000	1,101,368	246,000
8.90%	187,368	188,000	185,000	212,000	225,000	225,000	1,222,368	125,000
9.90%	187,368	190,000	210,000	250,000	255,000	255,000	1,347,368	-







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**Report to  
Tony Parrott**

**Attachment 3C -  
Preliminary Draft  
FY18 Capital Budget  
\*\*Tables & Charts\*\***

**Original Ordinance Amendment  
Shown w/ 9.9% alternative**





# Engineering CIP - Alternative Scenario

ENG CIP - ~\$5/mo in FY18	FY18	FY19	FY20	FY21	FY22	FY18-FY22
<b>Wastewater</b>	<b>\$170.9-M</b>	<b>\$181.3-M</b>	<b>\$174.1-M</b>	<b>\$172.0-M</b>	<b>\$144.2-M</b>	<b>\$842.5-M</b>
CMOM	\$21.7-M	\$21.4-M	\$56.8-M	\$105.6-M	\$118.1-M	\$323.7-M
Consent Decree (IOAP)	\$128.9-M	\$153.6-M	\$96.5-M	\$32.9-M	\$8.0-M	\$419.9-M
Development	\$1.1-M	\$2.1-M	\$5.1-M	\$8.0-M	\$5.7-M	\$22.0-M
NMC	\$19.2-M	\$4.2-M	\$15.6-M	\$25.5-M	\$12.4-M	\$76.9-M
<b>Stormwater</b>	<b>\$11.7-M</b>	<b>\$8.6-M</b>	<b>\$26.9-M</b>	<b>\$68.4-M</b>	<b>\$104.3-M</b>	<b>\$219.9-M</b>
Drainage	\$2.8-M	\$2.8-M	\$10.1-M	\$30.8-M	\$50.4-M	\$96.9-M
Floodplain Management	\$1.4-M	\$1.0-M	\$2.0-M	\$2.0-M	\$2.0-M	\$8.4-M
Ohio River Flood Protection	\$5.3-M	\$3.5-M	\$13.0-M	\$33.9-M	\$49.2-M	\$104.8-M
Stormwater Quality (MS4)	\$2.3-M	\$1.3-M	\$1.8-M	\$1.7-M	\$2.7-M	\$9.7-M
<b>Support Systems</b>	<b>\$17.4-M</b>	<b>\$5.1-M</b>	<b>\$9.1-M</b>	<b>\$9.6-M</b>	<b>\$6.5-M</b>	<b>\$47.7-M</b>
Capital Equipment	\$2.8-M	\$1.8-M	\$3.3-M	\$3.3-M	\$3.3-M	\$14.3-M
Facilities	\$13.6-M	\$2.9-M	\$5.1-M	\$5.9-M	\$2.2-M	\$29.7-M
IT	\$0.7-M	\$0.3-M	\$0.3-M	\$0.3-M	\$0.6-M	\$2.1-M
LOJIC	\$0.4-M	\$0.1-M	\$0.5-M	\$0.3-M	\$0.4-M	\$1.6-M
<b>Grand Total</b>	<b>\$200.0-M</b>	<b>\$195.0-M</b>	<b>\$210.0-M</b>	<b>\$250.0-M</b>	<b>\$255.0-M</b>	<b>\$1.11-B</b>

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FY18-FY20 Reduction in CRRP Wastewater Projects		ENG CIP Baseline	ENG CIP ~\$10/mo in FY18	Baseline vs. ~\$10/mo in FY18	ENG CIP ~\$5/mo in FY18	Baseline vs. ~\$5/mo in FY18
<b>CMOM</b>						
CCWQTC FORCEMAIN EXTENSION	\$177,000	\$177,000	N/A	N/A	\$0	-\$177,000
CCWQTC SAND FILTER REPLACEMENT	\$4,500,000	\$4,500,000	N/A	N/A	\$2,000,000	-\$2,500,000
COLLECTION SYSTEM SPARE PUMP INVENTORY	\$3,000,000	\$3,000,000	N/A	N/A	\$2,500,000	-\$500,000
FY18-FY22 OPERATIONS RENEWAL & REPLACEMENT	\$18,300,000	\$18,300,000	N/A	N/A	\$15,300,000	-\$3,000,000
FY19 CMOM PM ASSIST	\$225,000	\$187,500	-\$37,500	-\$37,500	\$187,500	-\$37,500
FY19 PMP	\$2,000,000	\$2,000,000	N/A	N/A	\$1,500,000	-\$500,000
HCWQTC SOLIDS EXPANSION	\$6,800,000	\$6,800,000	N/A	N/A	\$800,000	-\$6,000,000
HITE CREEK WQTC EXPANSION	\$19,553,703	\$17,553,703	-\$2,000,000	-\$2,000,000	\$3,623,703	-\$15,930,000
LEA ANN WAY PUMP STATION ELIMINATION	\$8,000,000	\$6,000,000	-\$2,000,000	-\$2,000,000	\$0	-\$8,000,000
MF COLLECTION SYSTEM BAFFLES	\$624,000	\$400,000	-\$224,000	-\$224,000	\$400,000	-\$224,000
MFWQTC SERVICE AREA MH AND ARV FLOODPROOFING FOR 100 YR STORM	\$136,000	\$136,000	N/A	N/A	\$0	-\$136,000
MFWQTC SERVICE AREA PS FLOODPROOF FOR 100 YR STORM	\$328,000	\$248,000	-\$80,000	-\$80,000	\$0	-\$328,000
NIGHTINGALE REHAB	\$4,200,000	\$4,200,000	N/A	N/A	\$3,500,000	-\$700,000
<b>Development</b>						
FLOYDS FORK ZONE B SEWERS	\$7,900,000	\$7,900,000	N/A	N/A	\$4,000,000	-\$3,900,000
FLOYDS FORK ZONE C SEWERS	\$4,000,000	\$4,000,000	N/A	N/A	\$1,000,000	-\$3,000,000
KTC GREENWOOD RD ASSESSMENT	\$525,000	\$0	-\$525,000	-\$525,000	\$0	-\$525,000
<b>NMC</b>						
MFWQTC DIGESTER LIDS & MIXERS	\$4,500,000	\$4,500,000	N/A	N/A	\$500,000	-\$4,000,000
MFWQTC EQUIPMENT RENEWAL AND REPLACEMENT IN YEAR 5	\$25,500,000	\$15,000,000	-\$10,500,000	-\$10,500,000	\$7,000,000	-\$18,500,000
MFWQTC SEC CLARIFIERS & RAS/WAS PUMPING	\$6,500,000	\$5,500,000	-\$1,000,000	-\$1,000,000	\$5,000,000	-\$1,500,000
MFWQTC SEDIMENTATION BASIN REHAB INCLUDI	\$12,500,000	\$8,500,000	-\$4,000,000	-\$4,000,000	\$2,500,000	-\$10,000,000

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**FY18-FY20 Reduction in CRRP  
Stormwater Projects**

ENG CIP Baseline	ENG CIP ~\$10/mo in FY18	Baseline vs. ~\$10/mo in FY18	ENG CIP ~\$5/mo in FY18	Baseline vs. ~\$5/mo in FY18
<b>Drainage</b>				
AUBURNDALE EARLY ACTION PROJECT	\$12,600,000	-\$8,400,000	\$1,800,000	-\$10,800,000
CITY OF HURSTBOURNE EARLY ACTION PROJECT	\$6,000,000	-\$3,000,000	\$0	-\$6,000,000
MASTER PLAN IMPLEMENTATION	\$6,000,000	-\$1,000,000	\$0	-\$6,000,000
NEWBURG EARLY ACTION PROJECT	\$10,250,000	-\$7,250,000	\$0	-\$10,250,000
POPE LICK EARLY ACTION PROJECT	\$6,100,000	-\$4,880,000	\$0	-\$6,100,000
PROSPECT EARLY ACTION PROJECT	\$6,000,000	-\$4,500,000	\$1,500,000	-\$4,500,000
SEATONVILLE EARLY ACTION PROJECT	\$3,400,000	N/A	\$0	-\$3,400,000
STORMWATER MASTER PLAN	\$4,000,000	N/A	\$2,000,000	-\$2,000,000
TEN BROECK EARLY ACTION PROJECT	\$1,000,000	-\$1,000,000	\$0	-\$1,000,000
VALLEY CREEK EARLY ACTION PROJECT	\$5,540,000	-\$2,540,000	\$0	-\$5,540,000
VIA11 E BRANDEIS AVE & BROOK VIADUCT FLOOD RELIEF	\$28,043,000	-\$26,043,000	\$2,000,000	-\$26,043,000
VIA16 3RD & EASTERN PKY VIADUCT FLOOD RELIEF	\$5,808,000	-\$5,808,000	\$0	-\$5,808,000
WHISPERING HILLS EARLY ACTION PROJECT	\$2,560,000	N/A	\$0	-\$2,560,000
<b>Floodplain Management</b>				
FLOOD RESPONSE-BUYOUTS MITIGATION&GRANTS	\$12,000,000	-\$2,000,000	\$4,000,000	-\$8,000,000
<b>Ohio River Flood Protection</b>				
10TH STREET FLOOD PUMPING STATION TO LOS 5 - IMPROVEMENTS / GENERATOR	\$1,035,000	-\$1,035,000	\$0	-\$1,035,000
17TH STREET FLOOD PUMPING STATION TO LOS 5 - IMPROVEMENTS / GENERATOR	\$2,525,000	N/A	\$0	-\$2,525,000
34TH STREET FLOOD PUMPING STATION TO LOS 5 - IMPROVEMENTS / GENERATOR	\$2,000,000	-\$2,000,000	\$0	-\$2,000,000
5TH STREET FLOOD PUMPING STATION TO LOS 5 - IMPROVEMENTS / GENERATOR	\$820,000	-\$820,000	\$0	-\$820,000
ALLOCATION - ANNUAL FLOOD PUMPING STATIONS EQUIPMENT RENEWAL AND REPLACEMENT	\$3,000,000	N/A	\$2,500,000	-\$500,000
FLOODWAL & LEVEE RISK ASSESSMENT	\$750,000	-\$750,000	\$0	-\$750,000
LEVEE & FLOODWALL REPAIR & RENEWAL LIGHT	\$1,875,000	-\$375,000	\$1,500,000	-\$375,000
PADDYS RUN FPS FULL REHAB	\$31,575,000	-\$23,575,000	\$8,000,000	-\$29,575,000
ROBERT J. STARKEY FLOOD PUMPING STATION TO LOS 5 - IMPROVEMENTS / GENERATOR	\$4,360,000	-\$2,180,000	\$0	-\$4,360,000
WESTERN PARKWAY FLOOD PUMPING STATION TO LOS 5 - IMPROVEMENTS	\$11,648,000	-\$7,000,000	\$4,648,000	-\$7,000,000
WESTERN PARKWAY FPS - RELIABILITY IMPROVEMENTS (EVALUATION REPAIRS)	\$3,334,000	N/A	\$3,334,000	\$1,334,000

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FY18-FY20 Reduction in CRRP Support Systems Projects	ENG CIP Baseline	ENG CIP ~\$10/mo in FY18	Baseline vs. ~\$10/mo in FY18	ENG CIP ~\$5/mo in FY18	Baseline vs. ~\$5/mo in FY18
<b>Capital Equipment</b>					
FY18 VEHICLES & EQUIPMENT	\$3,500,000	\$3,500,000	N/A	\$2,500,000	-\$1,000,000
FY19 VEHICLES & EQUIPMENT	\$3,500,000	\$3,500,000	N/A	\$1,500,000	-\$2,000,000
FY20 VEHICLES & EQUIPMENT	\$3,500,000	\$3,500,000	N/A	\$3,000,000	-\$500,000
SYSTEMS AUTOMATION	\$1,200,000	\$750,000	-\$450,000	\$750,000	-\$450,000
<b>Facilities</b>					
LOUISVILLE GREEN MAJOR MAINTENANCE	\$3,000,000	\$3,000,000	N/A	\$2,000,000	-\$1,000,000
OTHER FACILITIES REPAIRS	\$2,500,000	\$2,500,000	N/A	\$2,000,000	-\$500,000
ROOF REPLACEMENTS	\$3,230,458	\$3,204,950	-\$25,508	\$3,204,950	-\$25,508

FY18-FY20 Reduction in CRRP Projects	ENG CIP ~\$10/mo in FY18	Baseline vs. ~\$10/mo in FY18	ENG CIP ~\$5/mo in FY18	Baseline vs. ~\$5/mo in FY18
Wastewater	-\$7.5-M	-\$68.3-M	-\$104.2-M	-\$148.3-M
Stormwater	-\$0.5-M	-\$5.5-M	-\$0.5-M	-\$5.5-M
Support Systems	-\$112.1-M	-\$222.1-M	-\$112.1-M	-\$222.1-M
<b>Grand Total</b>				

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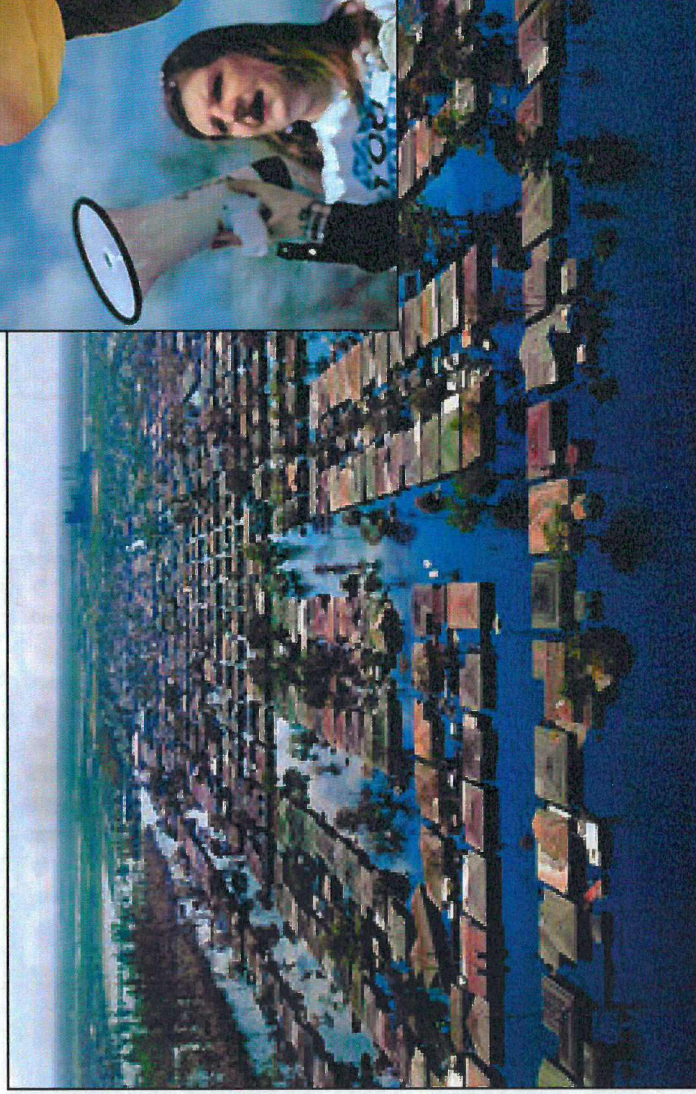


# Attachment 4 – Presentation with New Orleans Damages





# Catastrophic impacts are part of the national dialogue on infrastructure



Hurricane Katrina

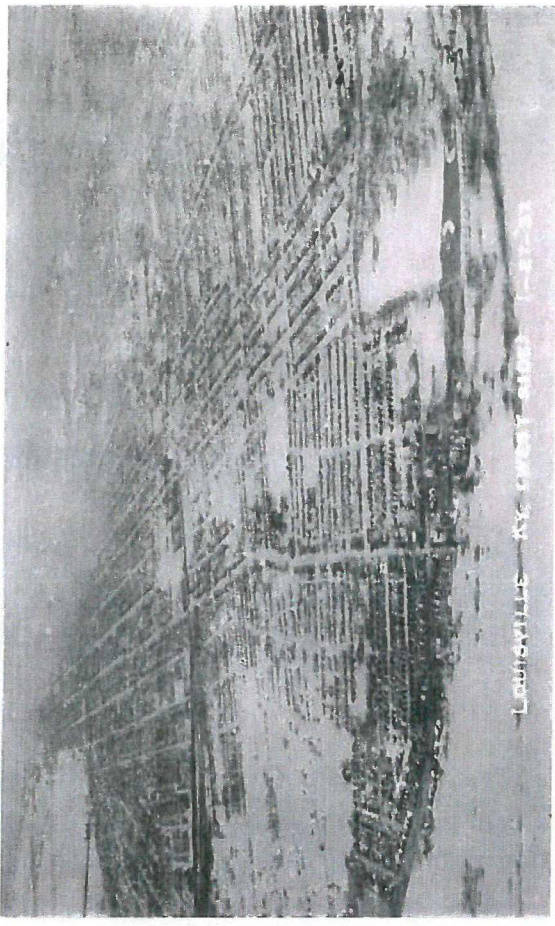


Flint, Michigan



# Levee Failure Devastated New Orleans

- **Direct costs** of damage in New Orleans estimated **\$50 billion**
  - 200,000 homes damaged
  - Commercial and industrial properties
  - Levee and flood pump station repair
  - Water, wastewater, electric, utilities
- **Indirect costs added \$75 – \$100 billion**
  - Lost wages and business income
  - Tax base reduction
  - Tourism
- New Orleans **metro area population decline** 2005 – 2014
  - 800,000 evacuated following levee failure
  - Metro area population still down 134,000 since 2005
  - 75% (100,000) within city limits



Louisville, Kentucky  
January 27, 1937



95 cents of every revenue dollar is committed to operating and debt service obligations, **leaving only 5 cents** for capital improvements



45 cents - Operating Expenses

50 cents - Debt Service

5 cents -  
Capital  
Improvements





# **MSD has made deep cuts to minimize costs**

Operating cost reductions primarily driven through staffing reductions

- Staffing levels were over 865 positions in the late 90's
- Staffing has averaged 590 for three years; 65 positions below approved level

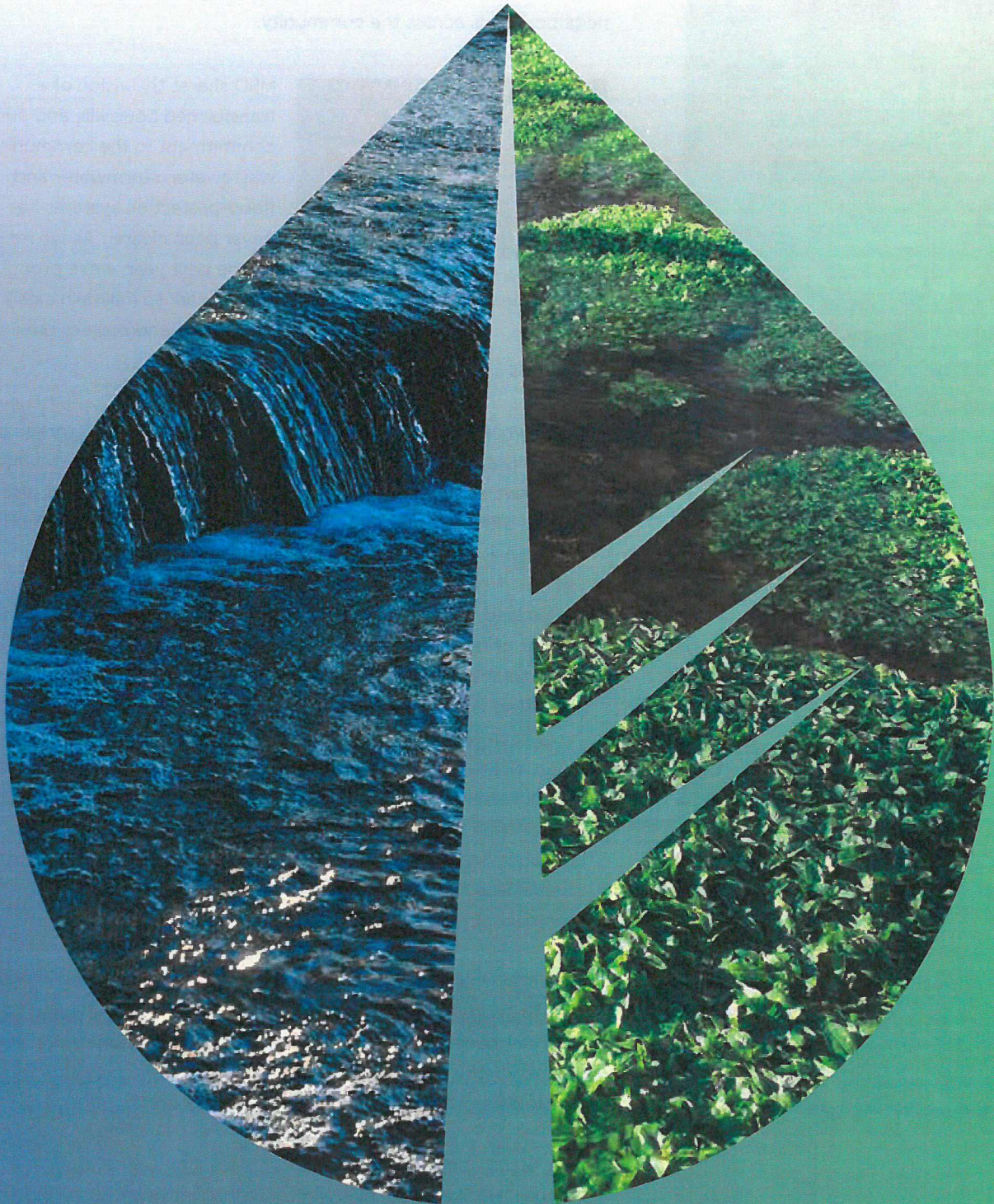
**Completion of new capital projects are requiring increased staffing**







**Annual Report** · Fiscal Year Ended June 30, 2017





**MSD manages wastewater,  
drainage and flood protection  
for Louisville Metro  
—24 hours a day,  
everyday of the year—  
with more than 630  
dedicated employees.**

**Our Vision**

Achieving Safe, Clean Waterways  
for a Healthy and  
Vibrant Community

**Our Mission**

Providing Exceptional  
Wastewater, Drainage and  
Flood Protection Services  
for Our Community

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 **To Our Community**

**A Year of Progress, Yet Challenges Remain**

Louisville is enjoying dramatic transformation, with new bridges, downtown development and continued progress in strengthening neighborhoods across the community.



James A. Parrott  
Executive Director



Cynthia Caudill  
Chair, MSD Board

MSD shares the vision of a transformed Louisville and our commitment to the community's wastewater, stormwater and flood-protection systems has never been clearer. As we reflect on the past year, we're proud of our work to maintain clean waterways and protect public

health and safety. Our efforts are seen across the city.

- In Shawnee Park, we are constructing an underground storage basin that will capture up to 20 million gallons of untreated wastewater and prevent it from flowing into the Ohio River. The project also provides enhanced recreational opportunities for the community to enjoy, as well as 150 local jobs.
- In Portland, green infrastructure will prevent more than 35 million gallons of rainwater from entering the combined sewer system — equal to about 53 Olympic-sized swimming pools — keeping untreated wastewater out of the Ohio River. Trees and vegetation have been planted in 150 locations along 17th Street.
- In Smoketown, the 17-million-gallon Logan Street Basin went into operation in December 2017. We changed our original plan of an above grade basin to build the basin underground to create greenspace for the community while also keeping untreated wastewater out of local waterways.
- Morris Forman Water Quality Treatment Center, Kentucky's oldest and largest wastewater treatment facility, \$33 million in repairs and improvements have been made to increase operational resiliency to the treatment center. This vital component of our system treats wastewater from 67 percent of Jefferson County.
- Our board approved the Waterway Protection Tunnel also known as the Ohio River Tunnel Project — an innovative approach to help



minimize combined sewer overflows into the Ohio River by 2020. This 2.5-mile tunnel will be 200 feet underground and replace three storage basins that would have been built in various neighborhoods. Boring of the tunnel begins in October 2018.

Despite the many improvements we've already made, there is still much to be done. Louisville's aging wastewater, stormwater and flood-protection systems were built to support a community much smaller than our current metropolitan city. Some, in fact, were built in the 1860s, around the time of the Civil War. Louisville residents and businesses are impacted when sometimes century-old sewers inevitably fail — such as the recent roadway cave-in resulting from the collapse of a vital sewer line carrying approximately one-third of the community's wastewater at the busy intersection of East Main and Hancock streets. Fortunately, no one was injured, but this cave-in still resulted in more than six weeks' worth of work, street closures and neighborhood disruption.

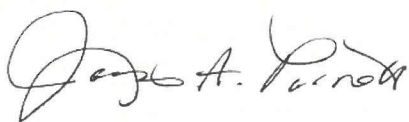
Also, flooding along the Ohio River as well as in inland neighborhoods continues to be an issue — particularly with the increase in significant rain events in the past decade. Floods have caused millions of dollars in property damage and some like we saw in 2015, required emergency water rescues across the community.

As part of MSD's commitment to public health and safety, we launched a campaign this year to educate the public and gather feedback regarding our Critical Repair and Reinvestment Plan. The plan outlines a number of improvements needed across MSD's facilities, based on an extensive analysis of our infrastructure. You can learn more by visiting [LouisvilleMSD.org/CriticalRepairPlan](http://LouisvilleMSD.org/CriticalRepairPlan).

Nearly 1,500 residents attended community meetings to learn more about the plan, with hundreds of thousands more reached through MSD bill inserts and social media. The response was clear — now is the time to address these infrastructure risks.

While a rate increase of 6.9 percent was enacted this year, more funding is still needed to embark on these necessary infrastructure projects. The difficult truth is the solutions will require \$4.3 billion of investment over the next 20 years.

We are at a critical juncture. The challenges are significant and real. But the people of MSD remain committed to our work for safe, clean waterways, and look forward to continuing the conversation with the community about how we can best meet these challenges.



James A. Parrott  
Executive Director



Cynthia Caudill  
Chair, MSD Board







## Enhancing Quality of Life through Our Core Services

MSD employees serve Louisville Metro by providing these vital services:

- **Wastewater Treatment**
- **Stormwater and Drainage Management**
- **Flood Protection**

We work to enhance community health and safety by:

- improving water quality in our streams and river
- nurturing a green environment
- promoting a growing community

### Wastewater Collection and Treatment

The MSD Collection System operates beneath your feet. The system carries wastewater — and in the older sections of our city, it also carries rainwater — to one of our Water Quality Treatment Centers. Our service area, which includes Jefferson County and Crestwood in Oldham County, generates about 153 million gallons of wastewater daily that MSD treats and returns to our waterways. The Wastewater Collection and Treatment Systems consist of more than 3,300 miles of pipe, 259 pumping stations and five Water Quality Treatment Centers.

### Transforming Our Sewer System

MSD continues with work to decrease occurrences of sewage overflows during rain events. We are 12 years into our Consent Decree plan to minimize combined sewer overflows and eliminate sanitary sewer overflows while maintaining our community’s aging sewer system.

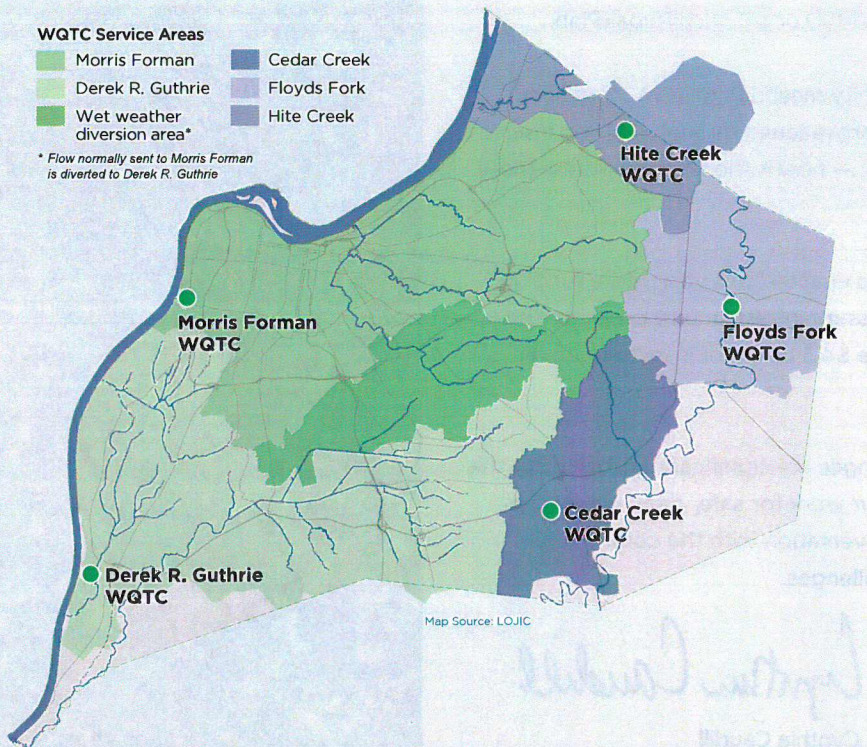
The Clean Water Act — passed in 1972 — established the framework to improve the water quality of waterways across the U.S. In 2005, MSD entered into a Consent Decree with the Kentucky Division of Water, the U.S. Environmental Protection Agency (EPA)-Region 4 and the U.S. Department of Justice to satisfy Clean Water Act requirements. We are on schedule to meet these water quality goals by 2024. However, the original estimate of \$850 million — developed in 2005 — has been revised to \$900 million in capital expenses.

### Water Quality Treatment Centers

#### WQTC Service Areas

- Morris Forman
- Derek R. Guthrie
- Wet weather diversion area\*
- Cedar Creek
- Floyds Fork
- Hite Creek

\* Flow normally sent to Morris Forman is diverted to Derek R. Guthrie



From 1985 to 2003, MSD spent nearly \$1 billion on improvements to the wastewater collection and treatment system. The focus during this time was to provide safe, reliable sewer service by eliminating failing treatment facilities and septic tanks that were jeopardizing public health and safety on a daily basis. We built more than 1,000 miles of sewer interceptor and collector lines, which allowed the elimination of more than 300 poorly-performing package treatment plants that had exceeded their useful operation. These package plants were small treatment systems privately built 60 or more years ago as part of the post-WWII building boom. The new collector sewer lines also allowed for the elimination of more than 40,000 failing septic tanks on private property by providing access to the sanitary sewer system.





Above: The 64.9 acre Melco Basin can capture and store nearly 489,000,000 gallons of rainwater, providing flood protection to the surrounding area.

### Stormwater and Drainage Management

MSD crews perform routine and preventive maintenance for the 376-square-mile stormwater drainage system in Louisville\* as quickly and as efficiently as possible from neighborhoods and business districts during and after rainstorms. This work includes the maintenance of 67,668 catch basins; mowing of more than 19 miles of stream banks and flood protection levees; removal of obstructions from drainage channels and pipes; repair of cave-ins over storm facilities; and cleaning of earthen and concrete ditches.

\* The cities of Anchorage, Jeffersontown, St. Matthews and Shively provide drainage services to residents and businesses in their respective municipalities.



Above: Underground pipes at Churchill Downs will capture and infiltrate rainwater from the parking lot preventing this water from overwhelming the combined sewer system in this area. In a typical rainfall year, the pipes will capture 60 million gallons of rainwater.



Above: MSD personnel practice closing the floodgate on Second Street near the KFC YUM! Center.

### Flood Protection

Louisville Metro’s Ohio River Flood Protection System exists to keep the river at bay and out of the city. The system includes 29 miles of floodwall and earthen levee, 150 floodgates, 80 floodwall closures, and 16 flood-pump stations with 163 process gates inside these stations. The flood-pump stations move inland water from creeks and streams to the river when the floodwall and levee are sealed. This system stands ready to safeguard our community every day of the year.

Our staff tests the pump stations monthly to ensure that they function properly. In times of flooding, information collected from our network of rain gauges, customer calls and area monitoring allows resources to be directed to the most severely affected areas.

### Reducing Stormwater Runoff Improves Our Waterways

Green infrastructure focuses on the preservation and restoration of landscape elements — rainwater storage and infiltration — by implementing features that mimic natural conditions. Green infrastructure installations can reduce rain flow to the sewer, thus decreasing sewer overflows.

MSD utilizes green infrastructure when possible to minimize impacts on traditional sewer infrastructure. Green infrastructure solutions include downspout disconnections from the sewer system, infiltration trenches, permeable pavers, rain barrels, rain gardens and vegetative roofs.



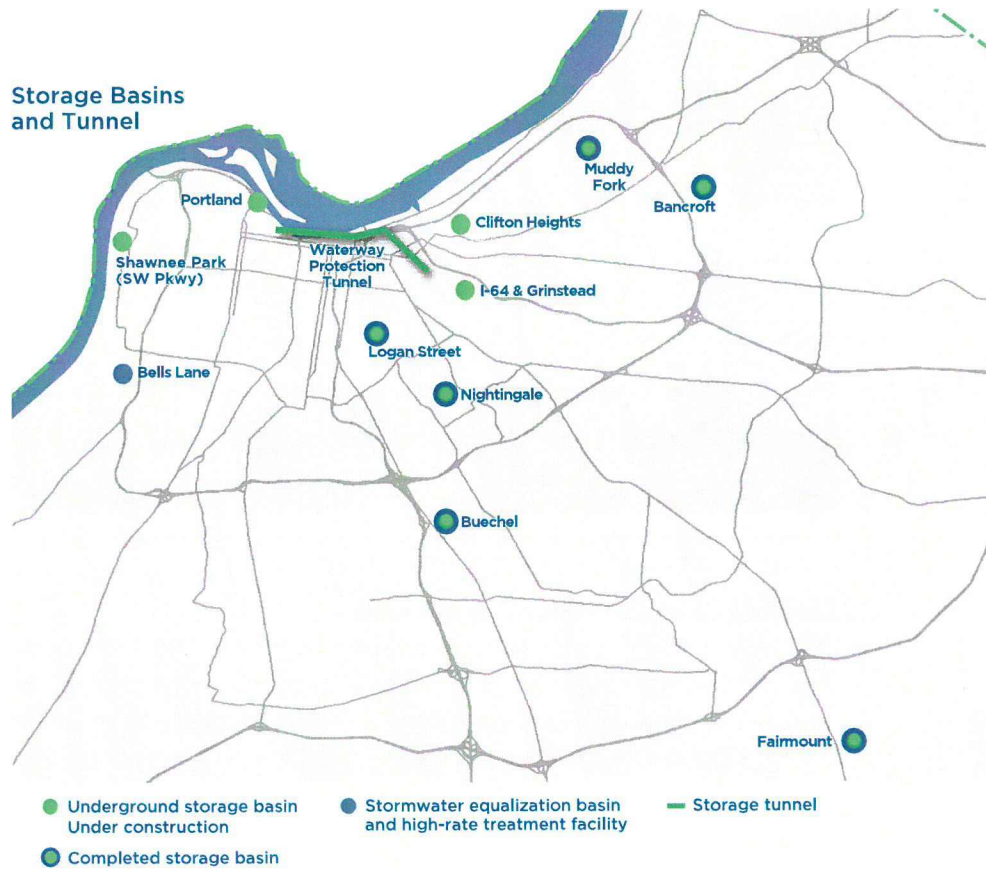
## 2017 Activity

### Continuing Progress on Underground Storage

Underground storage basins and the Waterway Protection Tunnel are part of MSD's larger endeavor to prevent sewage overflows into our waterways. The basins and tunnel are designed to capture rainwater and sewage, which otherwise can overwhelm the sewer system during rain events and flow untreated into local streams and the Ohio River. These underground storage areas retain the mixture of rainwater and sewage until the rain subsides and capacity is available, and then gradually release it back into the sewer system. At that point, the water is conveyed to a water quality treatment center, treated and returned to our local streams or the Ohio River.

By 2020, MSD will capture and treat 98 percent of the combined sewer overflow volume in a typical year of rain. Instead of the 2 billion to nearly 6 billion gallons in combined sewer overflows per year that MSD has reported in recent years, the number would drop to 343 million gallons during a typical year.

### Storage Basins and Tunnel



### Waterway Protection Tunnel to Replace Three Basin Projects

Three basins planned for the areas of Lexington Road and Payne Street; Story Avenue and Main Street; and, 13th and Rowan streets will be replaced with one 2.5-mile tunnel. The Waterway Protection Tunnel — also known as the Ohio River Tunnel — will be 20-feet in diameter and located approximately 200-feet below the surface. That is more than 18 stories below ground.

MSD is replacing these three basins with the tunnel due to advances in technology, and reductions in boring costs that were not available when the plans for these basins were set a decade ago. The tunnel offers the storage capacity of the three proposed basins for approximately the same cost — but construction will be far less disruptive to Louisville's Main Street arts and business district, Butchertown's business district and area traffic during the two-to-three year construction period.

Construction is set to begin in January 2018, and the tunnel will be operational by the end of 2020. Total project completion will wrap up by the end of 2021.







The dirt flies at the MSD Shawnee Park Basin Project groundbreaking event. Shown left to right: Eric Browne (Browne E&C Services), Matthew Ulliman (Ulliman Schutte Construction), Sadiqa Reynolds (Louisville Urban League), Tony Parrott (MSD Executive Director), Joyce Horton Mott (MSD Board), Cheri Bryant Hamilton (Louisville Metro Councilwoman, District 5) and Marty Storch (Metro Parks Deputy Director).

### Breaking Ground for Shawnee Park Basin Project

MSD broke ground on the \$60 million Shawnee Park Basin Project on December 6, 2016. The basin is required by our federal Consent Decree to reduce sewer overflows into the Ohio River. It has also created local job opportunities, including positions for carpenters, ironworkers, electricians, masons, pipefitters, heavy equipment operators and more.

An agreement with Louisville Metro Parks to locate the Basin within the Great Lawn of Shawnee Park, includes monies for use by Metro Parks to preserve and restore the historic nature of Shawnee Park. When the underground basin is complete in 2019, the Great Lawn will be restored for recreational use.



MSD Executive Director Tony Parrott speaks at the dedication of the newly remodeled basketball courts in Shawnee Park.

The project will also feature new park amenities including an open-air pavilion, enhanced green space, premium landscaping, a new paved parking area for the spray pad, a resurfaced loop road, renovation of the lily pond, and restoration of the Ball House.

In June 2017, the 48th annual Dirt Bowl tournament was held on newly remodeled basketball courts in the park. The upgrades — including new backboards, two rubber-coated courts, fresh paint, bleachers, scoreboard and a new sound system — are all part of MSD's agreement with Louisville Metro Parks.

### Collapsed Sewer Halts Traffic — MSD Experiences about Nine Sewer Collapses per Month

Many of the sewers in downtown Louisville are more than 100 years old, and they are vulnerable to erosion caused by groundwater from heavy rains.

On March 10, a portion of Clay Street at Muhammad Ali Boulevard caved-in due to a sewer line collapse. This 30-inch sewer line was built in 1900. The resulting void was 18 to 20 feet deep.



Crews work to repair a sewer collapse at Clay Street and Muhammad Ali Boulevard.



In May 2017, MSD Crews worked to clear debris from a cave-in on 25th Street.



**Morris Forman WQTC Undergoes Upgrades**

Equipment to replace the damaged high-voltage yard at MSD's Morris Forman Water Quality Treatment Center (WQTC) began arriving in February 2017. A new high-yard switch house was set into place by two cranes on February 24, 2017. The building was transported 1,200 miles from South Dakota and weighs 76,000 pounds. Work on the new high-yard will be completed in Spring 2018.

Morris Forman WQTC experienced a power outage due to a surge in the high-voltage yard on April 8, 2015. While the power was out, approximately 40 percent of the treatment processes and equipment were flooded with diluted wastewater. Electrical, mechanical and treatment equipment in various portions of the facility were significantly damaged and relied on generator-supplied power until the high-yard was replaced.

New oxygen generation equipment and a new generator for the effluent pump were also operational in Summer 2017. The new equipment increases resiliency to the overall operation of this facility.

**Protecting Our City's Waterways is Our Mission**

Morris Forman is Kentucky's oldest and largest wastewater treatment facility, beginning operation in 1958. It treats wastewater from 67 percent of Jefferson County and is a vital component in the health and safety of our community.



The new high-yard switch house is lifted from the transport truck bed.



A 115-foot truck delivers the new high-yard switch house from South Dakota.



The new oxygen generation equipment is delivered to the site.



## Green Infrastructure in Portland Beautifies While Decreasing Sewer Overflows

Phase 2 of a green infrastructure project in the Portland area — located along 15th, 16th, 17th and 18th streets between West Market and Bank streets, and Portland Avenue—will capture rainwater runoff from 32.6-acres of hard surfaces. Curb inlets at the intersections and new pipes capture rooftop rainfall and direct the rainwater to planting areas and underground trenches. This allows absorption of the rainwater deep into the ground.

When all three phases are complete, this initiative will prevent more than 32 million gallons of rainwater mixed with untreated sewage from flowing into the Ohio River, west of downtown. Additionally, it will aid in reducing surface flooding for the area. This project is substantially complete as of December 29, 2017.

**RIGHT:** Phase 1 of the green infrastructure project in the Portland area was completed in June 2016.



## Removing Homes from the Floodplain

In August 2009, Louisville experienced widespread flash flooding, receiving about 7.5 inches of rain in 75 minutes, resulting in a Presidential declaration of disaster. The worst flooding occurred in West Louisville, particularly the Maple Street area. MSD pursued FEMA grants to provide residents the opportunity to relocate away from areas of highest risk.

After the voluntary acquisition of 114 of the 128 eligible properties, the grant funding terminated in 2017. A planning strategy was implemented to determine a beneficial use for the acquired land, and MSD established the Community of the Future Advisory Committee to assist with the planning. The Advisory Committee provided



A flood-damaged home on West Market Street awaits demolition.

the opportunity to foster public engagement and community partnerships with the ultimate goal of creating a community asset.

The Committee includes property owners, elected officials, and agency

and neighborhood representatives. Recommendations were discerned from public meetings and surveys, resulting in more than 400 responses. Plans are moving forward to engage community partners to utilize and oversee the property.



MSD is committed to providing financial information to the public that is transparent, accurate and reflects management’s pledge to operate in a financially efficient manner. All financial information is completed under the requirements of the Governmental Finance Officers Association (GFOA) rules and regulations. The MSD Comprehensive Annual Financial Report (CAFR) is available on our website — LouisvilleMSD.org — along with detailed monthly Financial Reports. The financial information contained in this Annual Report represents a high-level summary of the income statement and balance sheet data contained in the CAFR.

The accuracy of MSD’s financial information is verified by multiple

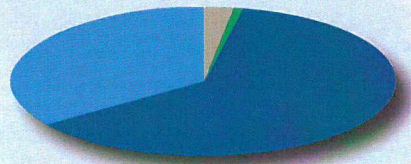
internal and external personnel. Our financial staff operates with the highest levels of ethical responsibility, and all reported results are reviewed and analyzed by various levels of management. MSD employs an independent Internal Audit Department that routinely audits both financial information and processes. The results of these audits are shared with our Board and — whenever issues are identified — are accompanied by management’s plan for improvement. MSD’s CAFR is annually audited by an external CPA firm; for 2017 that firm was Crowe Horwath LLP. This audit was conducted under auditing standards accepted in the U.S. and Crowe’s opinion was that the financial statements presented fairly, in all material respects, the financial position of MSD. This opinion is often referred to as a “clean opinion” since no changes were required.

Maintaining or improving these ratings is critical to sustaining MSD’s ability to fund the \$4.3 billion Critical Repair and Reinvestment Plan (CRRP) during the next 20 years. The higher our credit ratings, the lower the interest expense on future bond issues allowing more funds for the CRRP. Chart 2, on page 10, shows our active debt management practices together with a low-interest rate environment has already resulted in significant interest savings. Another focus is controlling operating expenses, which not only provides additional funding for the CRRP but also positively impacts the financial ratios that drive our credit ratings scores. Our success in controlling operating expenses, reflected in Chart 1, shows an 11 percent improvement in our Operating Ratio from 2012 to 2017.

### CAPITAL SPENDING BY CATEGORY

For FY 2017, MSD’s total capital expenditures were \$193,000,000.

- Consent Decree 66%
- Wastewater 31%
- Drainage 2%
- Flood Protection 1%



The graph above shows the total capital expenditures for FY 2017 of \$193 million divided into four categories. Funding comes from a combination of a new \$150 million bond, \$22 million from operations and \$21 million from retained earnings. During the past four years, MSD has generated more than \$77 million from operations that are now available for our capital program, which lowers the amount of funding needed from new bonds.

The MSD capital program is crucial to maintain, operate and improve Louisville’s aging sewer and flood protection systems to achieve clean, safe waterways for a healthy and vibrant community.

The 2017 CAFR was once again awarded the Certificate of Achievement for Excellence in Financial Reporting from the GFOA. This Certificate is the highest form of recognition in the area of governmental accounting and financial reporting, and its attainment represents a significant accomplishment by MSD and its management. The CAFR was judged by an impartial panel to meet the high standards of the GFOA including demonstrating a constructive “spirit of full disclosure” to communicate its financial story and motivate potential users to read the CAFR. This is the 27th year in a row that MSD has achieved this award.

As a not-for-profit, governmental entity, every revenue dollar received after paying for debt service and operating expenses is directed back to the community through our capital program. The “Capital Spending” chart on this page shows the make-up of this year’s capital program along with a description the funding sources. Since 2013, MSD has produced increasing levels of funding for the capital program from operations. In 2017, 8 cents of every dollar received, or \$22 million, went to the capital program and our budget for 2018 shows an increase to 10 cents, or \$28 million.

Every year that MSD issues a Revenue Bond; our financials are reviewed and analyzed by nationally recognized rating agencies. During 2017, MSD’s bonds received the following ratings:

AGENCY	RATING	OUTLOOK
S&P	AA	Stable
Moody’s	Aa3	Stable
Fitch	AA-	Stable

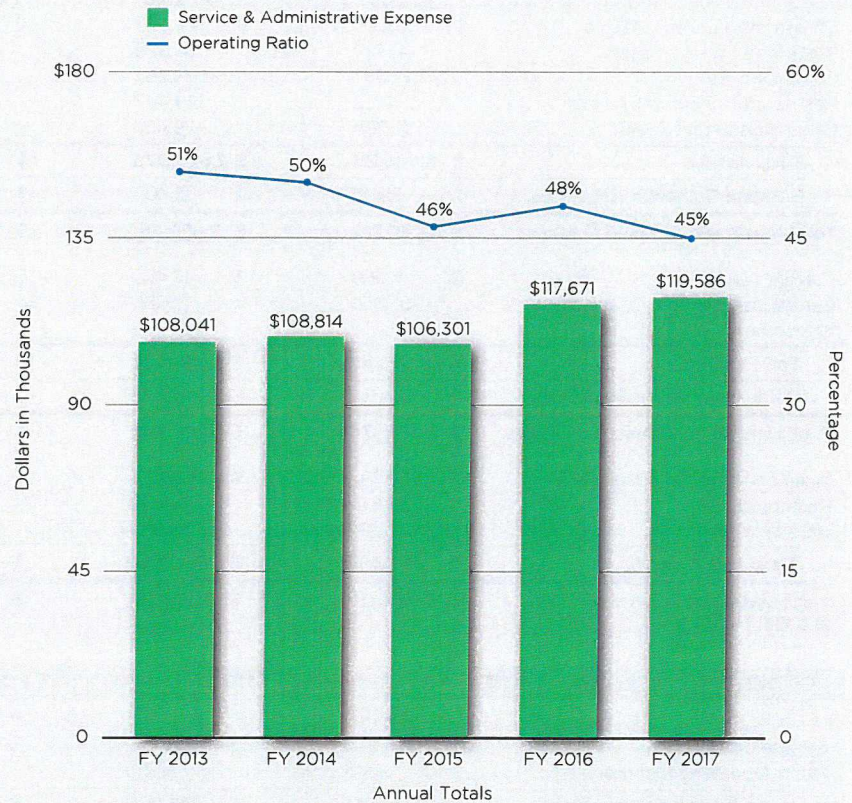
MSD’s ongoing challenge is to maintain an increased level of operating funding available for the CRRP requiring a rigorous focus on improving financial efficiency through continued expense and debt management activities.



## SERVICE & ADMINISTRATIVE EXPENSE / OPERATING RATIO PERFORMANCE (CHART 1)

**Chart 1** illustrates the impact that combining stricter expense management with revenue growth has on the Operating Ratio. A decreasing Operating Ratio is indicative of an efficient operating environment in which operating expenses are increasingly a smaller percentage of operating revenue. In 2012, with an operating ratio of 56 percent, MSD established a more rigorous budgeting process that together with results-oriented goals, held administrative expenses virtually flat for four years. The operating ratio of 45 percent in FY 2017—representing an 11 percent improvement over the past five years—is verification that MSD is becoming more financially efficient.

Since MSD is a not-for-profit public entity, a lower Operating Ratio allows more operating revenue to be invested in the capital program reducing the number of future revenue bonds.



## REVENUE BONDS/INTEREST EXPENSE (CHART 2)

**Chart 2** shows the annual Interest Expense for the past five years along with the amount of Revenue Bonds outstanding at the end of each year. In total, the Interest Expense for FY 2017 is lower than the amount incurred for FY 2013. This decrease is even more impressive considering that MSD has issued four new Revenue Bonds since 2013, increasing the total outstanding amount by \$505 million.

MSD's lower Interest Expense is the result of an active debt management focus and a favorable interest rate environment allowing for refinancing and termination of outstanding debt that was originally issued with rates of more than 5 percent. In total, debt management activity during the past five years will result in interest savings of more than \$170 million throughout the next 20+ years.





**CONDENSED STATEMENT OF NET POSITION (IN THOUSANDS)**

	FY 2017	FY 2016	Variance	Percent Change	FY 2015
Unrestricted Current Assets	\$ 83,085	\$ 103,529	\$ (20,444)	-19.7%	\$ 93,761
Restricted Current Assets	42,129	20,378	21,751	106.7%	16,342
Capital Assets	2,742,037	2,573,262	168,775	6.6%	2,392,466
Restricted Noncurrent Assets	124,192	149,447	(25,255)	-16.9%	138,780
Other Noncurrent Assets	32,768	29,457	3,311	11.2%	30,807
<b>Total Assets</b>	<b>\$ 3,024,211</b>	<b>\$ 2,876,073</b>	<b>\$ 148,138</b>	<b>5.2%</b>	<b>\$ 2,672,156</b>
Deferred Outflow of Resources	\$ 35,911	\$ 23,708	\$ 12,203	51.5%	\$ 20,407
<b>Total Assets and Deferred Outflows</b>	<b>\$ 3,060,122</b>	<b>\$ 2,899,781</b>	<b>\$ 160,341</b>	<b>5.5%</b>	<b>\$ 2,692,563</b>
Current Liabilities	\$ 16,550	\$ 17,420	\$ (870)	-5.0%	\$ 14,936
Current Liabilities from Restricted Assets	82,654	85,186	(2,532)	-3.0%	74,697
Noncurrent Liabilities	2,208,378	2,087,962	120,416	5.8%	1,925,627
<b>Total Liabilities</b>	<b>\$ 2,307,582</b>	<b>\$ 2,190,568</b>	<b>\$ 117,014</b>	<b>5.3%</b>	<b>\$ 2,015,260</b>
Deferred Inflow of Resources	\$ 84,052	\$ 108,633	\$ (24,581)	-22.6%	\$ 92,233
<b>Total Liabilities and Deferred Inflows</b>	<b>\$ 2,391,634</b>	<b>\$ 2,299,201</b>	<b>\$ 92,433</b>	<b>4.0%</b>	<b>\$ 2,107,493</b>
Invested in Capital Assets, Net	\$ 562,784	\$ 501,675	\$ 61,109	12.2%	\$ 506,187
Restricted, Net	83,667	84,639	(972)	-1.1%	80,424
Unrestricted	22,037	14,266	7,771	54.5%	(1,541)
<b>Total Net Position</b>	<b>\$ 668,488</b>	<b>\$ 600,580</b>	<b>\$ 67,908</b>	<b>11.3%</b>	<b>\$ 585,070</b>
<b>Total Liabilities, Deferred Inflows and Net Position</b>	<b>\$ 3,060,122</b>	<b>\$ 2,899,781</b>	<b>\$ 160,341</b>	<b>5.5%</b>	<b>\$ 2,692,563</b>

**CONDENSED STATEMENTS OF REVENUES, EXPENSES AND CHANGES IN NET POSITION (IN THOUSANDS)**

	FY 2017	FY 2016	Variance	Percent Change	FY 2015
Service Charges	\$ 253,943	\$ 238,480	\$ 15,463	6.5%	\$ 225,462
Other Operating Income	5,691	4,810	881	18.3%	4,407
<b>Total Operating Revenues</b>	<b>\$ 259,634</b>	<b>\$ 243,290</b>	<b>\$ 16,344</b>	<b>6.7%</b>	<b>\$ 229,869</b>
Investment Income	\$ 14,273	\$ 17,891	\$ (3,618)	-20.2%	\$ 17,623
<b>Total Revenues</b>	<b>\$ 273,907</b>	<b>\$ 261,181</b>	<b>\$ 12,726</b>	<b>4.9%</b>	<b>\$ 247,492</b>
Depreciation and Amortization Expenses	\$ 77,156	\$ 62,820	\$ 14,336	22.8%	\$ 63,321
Service and Administrative Expenses	87,637	87,155	482	0.6%	76,245
GASB 68 Pension Expense	2,512	4,003	(1,491)	-37.2%	(127)
Nonoperating Expenses	77,655	73,779	3,876	5.3%	71,334
Change in Fair Value—Swaps	(26,072)	22,951	(49,023)	-213.6%	5,240
<b>Total Expenses</b>	<b>\$ 218,888</b>	<b>\$ 250,708</b>	<b>\$ (31,820)</b>	<b>-12.7%</b>	<b>\$ 216,013</b>
<b>Net Income (Loss) before Contributions</b>	<b>\$ 55,019</b>	<b>\$ 10,473</b>	<b>\$ 44,546</b>	<b>425.3%</b>	<b>\$ 31,479</b>
Contributions	12,889	5,037	7,852	155.9%	4,605
<b>Change in Net Position</b>	<b>67,908</b>	<b>15,510</b>	<b>52,398</b>	<b>337.8%</b>	<b>36,084</b>
Beginning Net Position	600,580	585,070	15,510	2.7%	548,986
<b>Ending Net Position</b>	<b>\$ 668,488</b>	<b>\$ 600,580</b>	<b>\$ 67,908</b>	<b>11.3%</b>	<b>\$ 585,070</b>

**SERVICE AND ADMINISTRATION COSTS (IN THOUSANDS)**

	FY 2017	FY 2016	Variance	Percent Change	FY 2015
Labor	\$ 59,183	\$ 55,229	\$ 3,954	7.16%	\$ 54,378
Utilities	14,427	18,256	(3,829)	-20.97%	13,817
Materials and Supplies	7,976	4,183	3,793	90.69%	9,706
Contractual Services	25,899	28,376	(2,477)	-8.73%	20,943
Chemicals	5,298	4,372	926	21.18%	3,681
Fuel	1,077	1,326	(249)	-18.78%	1,616
Insurance Premiums and Recovery	791	388	403	103.87%	(960)
Bad Debt	3,495	2,603	892	34.27%	2,068
Other Operating Expenses	1,440	2,939	(1,499)	-51.00%	1,052
<b>Gross Service and Administrative Costs</b>	<b>\$ 119,586</b>	<b>\$ 117,671</b>	<b>\$ 1,915</b>	<b>1.63%</b>	<b>\$ 106,301</b>
<b>Capitalized Overhead</b>	<b>\$ (31,949)</b>	<b>\$ (30,516)</b>	<b>\$ (1,433)</b>	<b>4.70%</b>	<b>\$ (30,056)</b>
<b>Net Service and Administrative Costs</b>	<b>\$ 87,637</b>	<b>\$ 87,155</b>	<b>\$ 482</b>	<b>0.55%</b>	<b>\$ 76,245</b>



MSD issued \$150 million in revenue bonds in FY 2017. These bonds were to fund our mandated Consent Decree requirements and to improve our aging infrastructure.

MSD follows sound financial practices that have allowed us to maintain strong AA credit ratings, which minimizes interest rates on borrowing. In FY 2017, MSD took advantage of lower rates and the opportunity to refinance \$103 million of our Series 2008A, 2009 A and B revenue bonds at lower interest rates.

MSD's increase in operating revenues in FY 2017 were primarily driven by a rate increase of 6.9 percent on wastewater and stormwater service charges effective, August 1, 2016.

We strive to maintain competitive rates with comparable cities in our region, which can be seen in Chart 3.

Service and administrative costs increased \$1.9 million or 1.6 percent in FY 2017. This increase was primarily driven by labor-related expenses, which make up almost 50 percent of our total operating expenses.

### What services do our customers receive for their money?

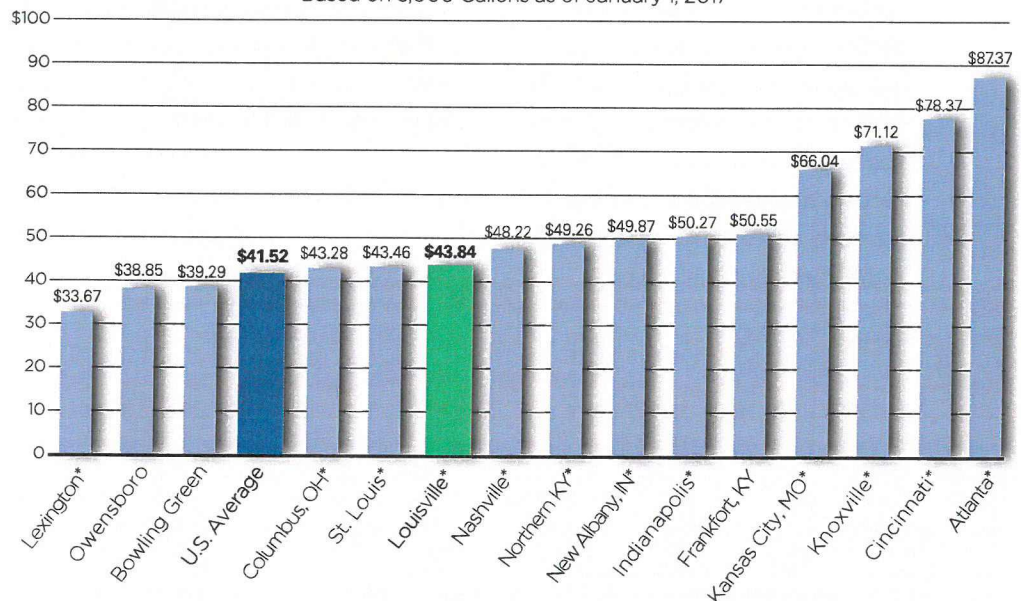
There is a perception that wastewater and flood protection services are inexpensive. Unfortunately, that is not the case as the ongoing costs to cover daily operating and maintenance expenses, and to fund long-term capital investments on these systems either directly or through paying the interest on outstanding Revenue Bonds, is extremely expensive. MSD's ability to cover these costs and to continuously repair and replace our aging infrastructure, outlined in our Critical Repair & Reinvestment Plan, will require a combination of increased funding from operations, issuing new Revenue Bonds and annual rate increases.

The average residential customer uses about 5,000 gallons of water every month. Of that amount, about 140 gallons per day are disposed of as wastewater through a collection system covering more than 3,300 miles within Jefferson County and treated at one of MSD's five Water Quality Treatment Centers before safe water is released back into our community's waterways. For this service, MSD charges our customers about \$1.46 per day.

MSD also provides inland flooding and drainage services throughout the county using our collection system and maintaining hundreds of miles of channels, streams, creeks and ditches. Since 1987, MSD has also been responsible for the maintenance and repair of the Ohio River Flood Protection System that protects Louisville Metro from the Ohio River. The flood protection system includes 29 miles of floodwall and earthen levee, 150 floodgates, 80 floodwall closures, and 16 flood-pump stations with 163 process gates inside these stations. MSD charges each household about 29 cents per day for these services.

**Projected 2017 NACWA Average Monthly Residential Wastewater Bill (CHART 3)**

Based on 5,000 Gallons as of January 1, 2017



Senior citizens who are age 65 or older, have a gross annual household income of \$35,000 or less and are both Louisville Water Company and MSD customers may request an application for a 30 percent discount on wastewater charges and the EPA surcharge through MSD's website, LouisvilleMSD.org, or by calling Customer Relations at 502.587.0603.

\* Cities with consent decrees

Based on information collected as of January 1, 2017, by the National Association of Clean Water Agencies (NACWA); while MSD's wastewater bill of \$43.84 is \$2.32 higher than the national average, it is also \$7.40 lower than the Region 4 average (the southeastern states including Kentucky). Nationally, the average wastewater bill has increased by more than the inflation rate for sixteen years in a row.

The U.S. Environmental Protection Agency (EPA) has established affordability guidelines for the cost of sewer services based on the Medium Household Income (MHI) of the service area. According to the EPA, a wastewater rate of 1 percent of MHI is considered low, while a rate of 2 percent is considered high. Based on the MHI within Jefferson County, MSD's rate of 1.08 percent remains in the low category.

As a percentage of household income, U.S. households pay far less for wastewater services than any other developed country.





## Looking to the Future

As the end is in sight for our Consent Decree, we shift our gaze to a broader focus—of service to our community. Our transformation is far from complete, but we are on the path to reaching a national standard for best practices in offering vital services that benefit the community and the environment.

### A Plan for the Future

MSD revenue—which is tied to the amount of customer water consumption—is not keeping pace with our growing community. Over the past three decades, our customer base has increased by almost 50 percent while total community water consumption has remained flat. As a result of these funding limitations, we have used a band-aid approach to system repairs rather than permanent fixes.

To better address this situation, MSD has developed a data-driven comprehensive “Critical Repair & Reinvestment Plan,” which assesses the condition of our vital infrastructure and the cost to fund necessary repairs. Meeting the critical public health and safety needs identified by the plan is estimated at \$4.3 billion during the next two decades.

### Now is the time to rebuild

An investment must be made in the aging floodwalls and levees that hold back the Ohio River, the wastewater facilities that keep sewage out of local waterways, and the drainage system that controls inland flooding.

In the past year, MSD engaged the community in conversations to balance the risks along with a financially achievable plan to address the needs of these vital services. We continue to press these urgent conversations with elected officials, business and community leaders and the public. As a community, we must decide how important the risks are to the health and safety of our community, and how fast we want to address the problems.

### Our Vision

What began as an agency with a singular focus, on wastewater treatment, is transforming to a broader vision of achieving safe, clean waterways for our community.





 **MSD Board**

An eight-member citizen Board, which is appointed by the Louisville Metro Mayor, governs MSD's budget, rates, policies and initiatives. These members—who serve three-year overlapping terms—are eligible for reappointment. Each member represents a different state senatorial district in Louisville Metro. The Board holds one regular meeting the fourth Monday of each month, and committees meet as necessary.



**Daniel Arbough**  
Vice Chair  
19th Senatorial District  
Independent



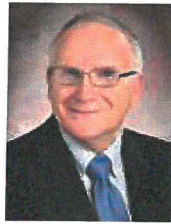
**Andrew Bailey**  
24th Senatorial District  
Democrat



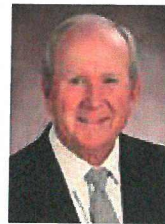
**Cynthia Caudill**  
Chair  
38th Senatorial District  
Democrat



**Joyce Horton Mott**  
33rd Senatorial District  
Democrat



**John Phelps**  
35th Senatorial District  
Democrat



**JT Sims**  
36th Senatorial District  
Republican



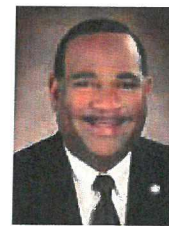
**Jason C. Williams**  
26th Senatorial District  
Democrat



**Yvonne Wells-Hatfield**  
37th Senatorial District  
Republican

 **Executive Leadership Team**

James A. "Tony" Parrott serves as the Executive Director of Louisville MSD providing executive leadership, strategic direction, and management ensuring implementation of MSD's core values and mission—Safe, clean waterways. Leads and manages executive staff to deliver wastewater, stormwater and flood protection services to the community. He provides leadership for One Water Partnership with Louisville Water Company. The Executive Director reports to the Board of the Metropolitan Sewer District and is appointed by the Louisville Metro Mayor, as does the Secretary/Treasurer and the Chief Engineer.



**James A. Parrott**  
Executive Director



**W. Brian Bingham**  
Chief of Operations



**J. Chad Collier**  
Chief Financial Officer and Secretary/Treasurer



**Angela L. Akridge**  
Chief Engineer



**Lynne A. Fleming**  
Human Resources Director



**Paula Middleton Purifoy**  
General Counsel and Legal Director



**Mark Thomas Lockett**  
One Water Chief Information Officer



**Louisville and Jefferson County Metropolitan Sewer District  
Annual Financial Report FY 2017**

Prepared by MSD Finance Department  
J. Chad Collier, Chief Financial Officer and Secretary/Treasurer  
Bradley S. Good, Controller



700 West Liberty Street | Louisville, KY 40203-1911  
LouisvilleMSD.org  
24/7 Customer Relations 502.587.0603



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