

# Partnering to Protect Public Health and Safety – Metro Council Budget Committee Hearing

*June 19, 2017*

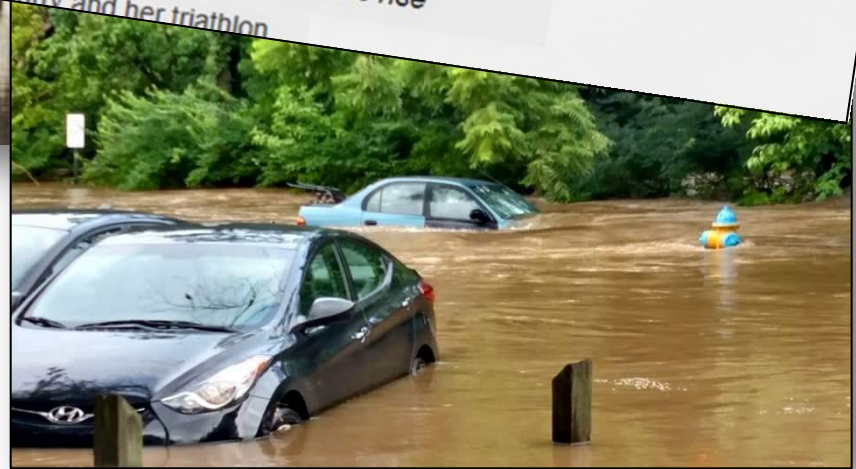


# Today's Reality



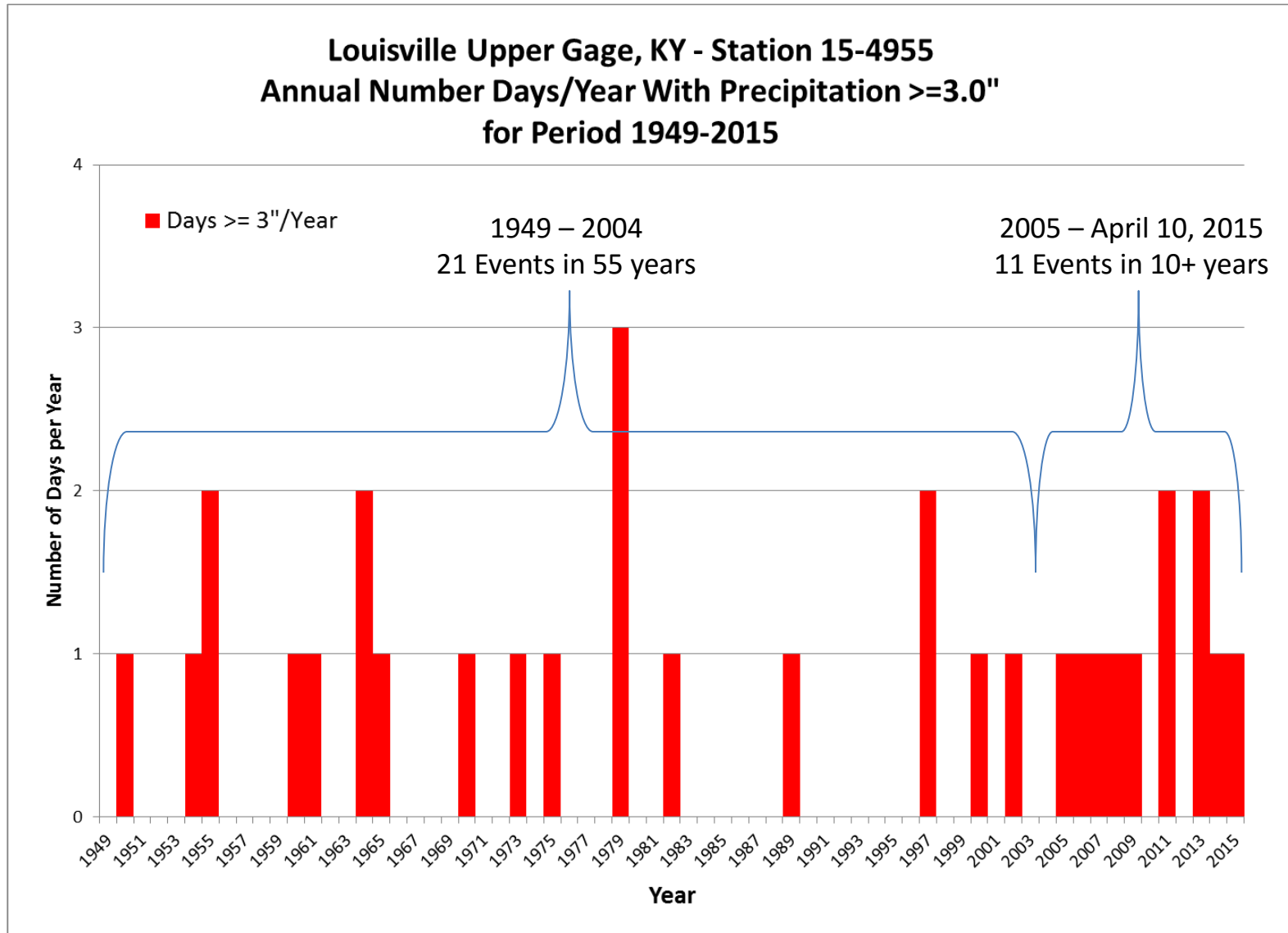
**Yuck! Louisville still has \$934M sewer problem**  
James Bruggers, @jbruggers 6:17 a.m. EDT October 25, 2016  
As MSD enters the home stretch on a 19-year sewer system cleanup, there's progress but spills continue and costs rise  
With no hesitation Rhonda Curry and her triathlon

**Torrential rain triggers flash flooding across metro Louisville**  
Posted: Jul 12, 2015 8:41 AM EDT Updated: Jul 19, 2015 8:52 AM EDT  
By Julian Glover  
LOUISVILLE, KY (WAVE) - Cars were stranded, homes flooded, and streets impassable thanks to flash flooding triggered by a round of torrential rain Sunday morning.



**Sewer leak dumps up to 50,000 gallons of sewage into Beargrass Creek**  
UPDATED 8:09 PM EST Jan 01, 2016  
LOUISVILLE, Ky. —A sewer leak dumped up to 50,000 gallons of sewage into Beargrass Creek. The Metropolitan Sewer District said it had to shut down the Nightingale pump station to work on a sewer main collapse off Phillips Lane.

# Increased Frequency of Extreme Storms




# Critical Repair and Reinvestment Plan Background

**Draft for Public Review –  
20-Year Comprehensive Facility Plan  
MSD's Critical Repair and Reinvestment Initiative  
Volume 1 - Programmatic and Integrating Information**




**ch2m** **HDR**  **SA STRAND ASSOCIATES**



In Association with:  
NAC | K.S. Ware & Associates | RKX | Powers Engineering




December 2016



**CRITICAL REPAIR & REINVESTMENT PLAN**

Community Conversation

Status Update  
June 1, 2017





# MSD's Critical Repair & Reinvestment Plan

## Addresses Public Health and Safety Risks



Upgrade Ohio River Flood Protection



Reduce Neighborhood Flooding



Minimize Viaduct Flooding



Upgrade Wastewater Treatment Facilities

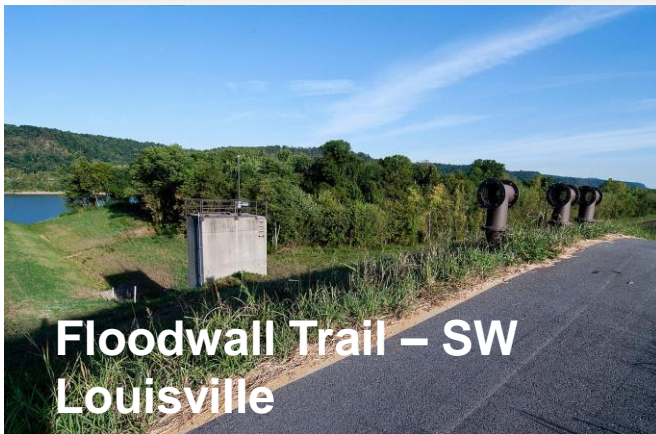
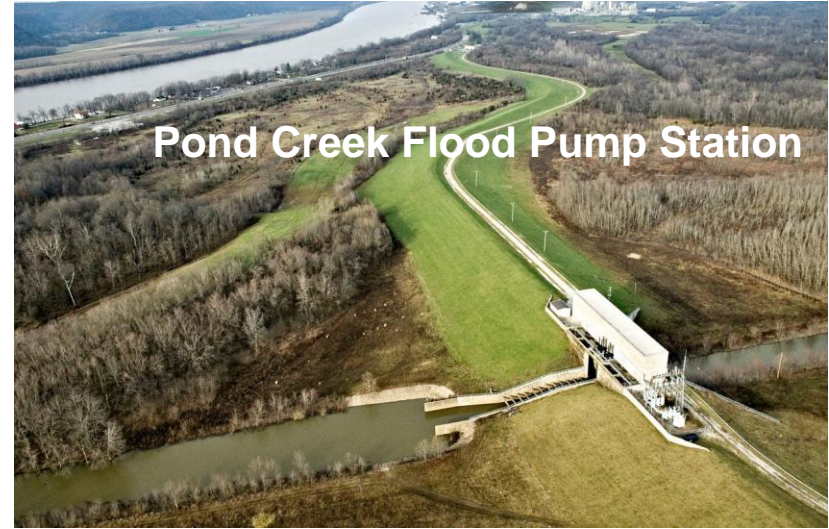


Prevent Collapsing Sewers



Comply with Consent Decree

# RISK: Ohio River flood protection



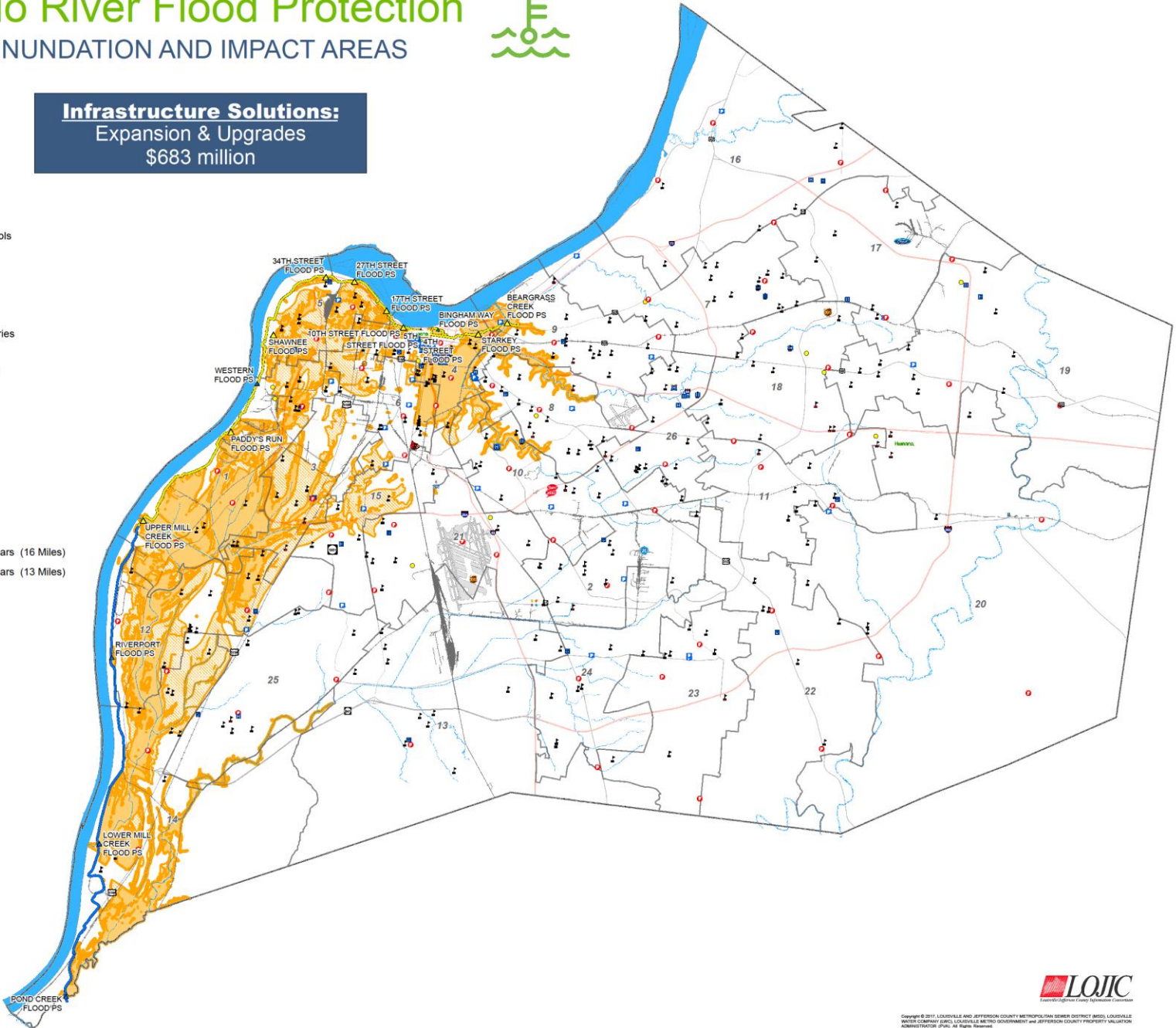




**Infrastructure Solutions:**  
Expansion & Upgrades  
\$683 million

**Legend**

- Hospitals
- ⌘ Primary & Secondary Schools
- ⌘ Colleges & Universities
- Fire Stations
- Police Stations
- Metro Government Offices
- Louisville Free Public Libraries
- Major Employer (>1000)
- Jefferson County Boundary
- Metro Council Districts
- Interstate
- Major Arterial
- Minor Arterial
- Railroads
- Abandoned Railroads
- Railroad Bridges
- Major Streams
- Levee/Floodwall: 50 - 75 Years (16 Miles)
- Levee/Floodwall: 25 - 50 Years (13 Miles)
- Flood Pump Stations (16)**
- ▲ 0 - 25 Years (1)
- ▲ 25 - 50 Years (5)
- ▲ 50 - 75 Years (10)
- Inundation Areas
- Impacted Area



# Paddy's Run Flood Pumping Station



- Constructed in 1953
- Protects 35,000 of our Friends and Neighbors

Part of the larger system that protects **\$23.8 billion** in property



# RISK: Stormwater drainage and inland flooding





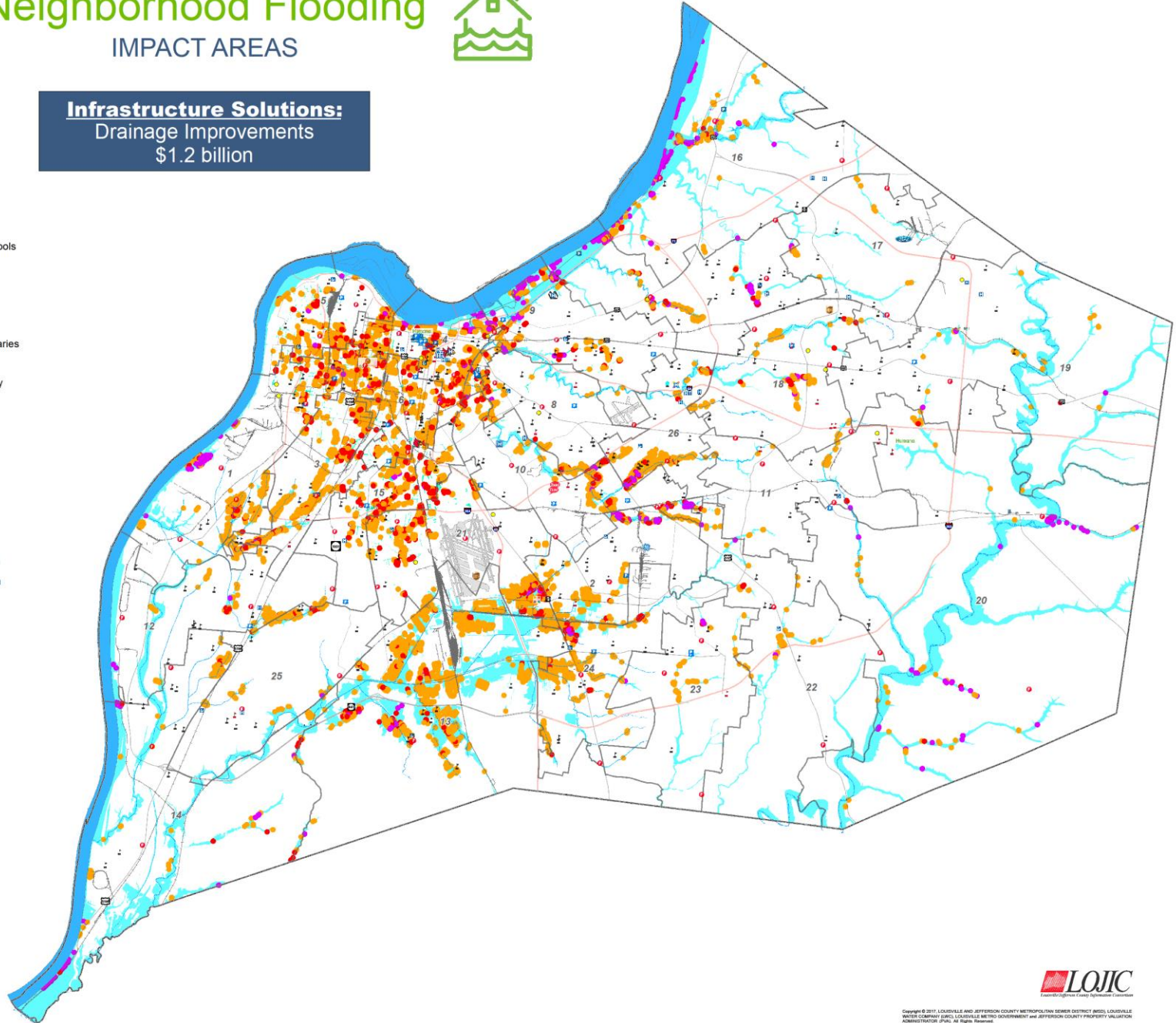
**Infrastructure Solutions:**  
Drainage Improvements  
\$1.2 billion

**Legend**

- Hospitals
- ⌘ Primary & Secondary Schools
- ⌘ Colleges & Universities
- Fire Stations
- Police Stations
- Metro Government Offices
- Louisville Free Public Libraries
- Major Employer (>1000)
- Jefferson County Boundary
- Metro Council Districts
- Interstate
- Major Arterial
- Minor Arterial
- Railroads
- Abandoned Railroads
- Railroad Bridges
- ~ Major Streams
- ~ CSSA 100-Year Floodplain
- ~ FEMA 100-Year Floodplain
- Flood Risk Categories**
- ~ Substantial
- ~ Moderate
- ~ Minor



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# RISK: Viaduct drainage challenges



3<sup>rd</sup> Street and Eastern Parkway



Eastern Parkway and Brook





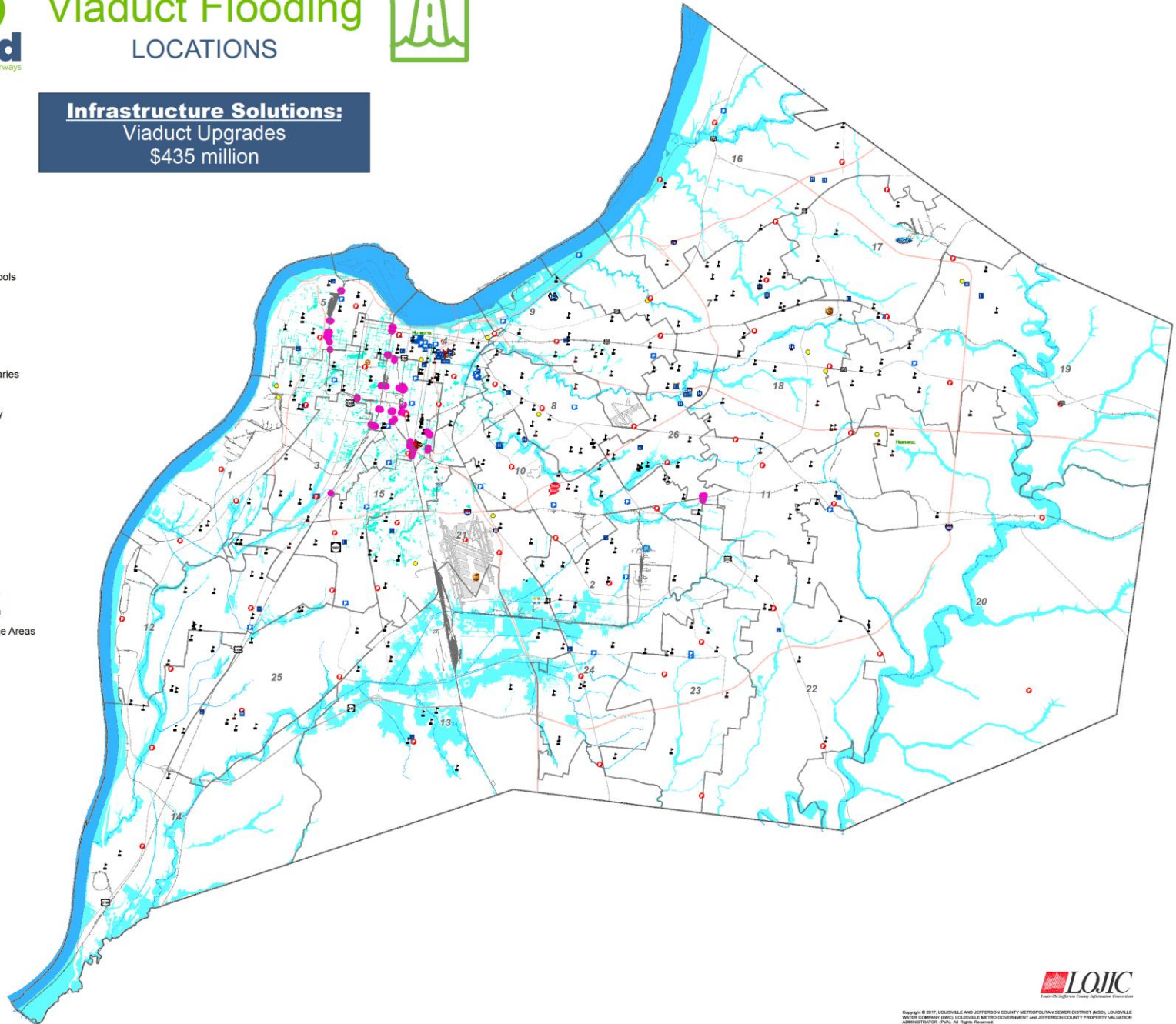
**Infrastructure Solutions:**  
Viaduct Upgrades  
\$435 million

**Legend**

- Hospitals
- ⌵ Primary & Secondary Schools
- ⌵ Colleges & Universities
- Fire Stations
- Police Stations
- Metro Government Offices
- Louisville Free Public Libraries
- Major Employer (>1000)
- Jefferson County Boundary
- ⊕ Metro Council Districts
- Interstate
- Major Arterial
- Minor Arterial
- Railroads
- Abandoned Railroads
- Railroad Bridges
- Major Streams
- CSSA 100-Year Floodplain
- FEMA 100-Year Floodplain
- Viaduct-Related Floodprone Areas



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# RISK: Crumbling sewer infrastructure



**Trolley gets stuck in sinkhole downtown**

Friday, November 7th 2014, 9:58 pm EST  
Several passengers were on board a trolley as it drove through downtown Louisville, KY, when it fell into a small sinkhole that gave way, creating a large crater according to MetroSafe.



Broadway sewer - originally built in 1867





**Infrastructure Solutions:**  
Sewers & Facilities  
\$496 million

**Legend**

- Hospitals
- Primary & Secondary Schools
- Colleges & Universities
- Fire Stations
- Police Stations
- Metro Government Offices
- Louisville Free Public Libraries
- Major Employer (>1000)

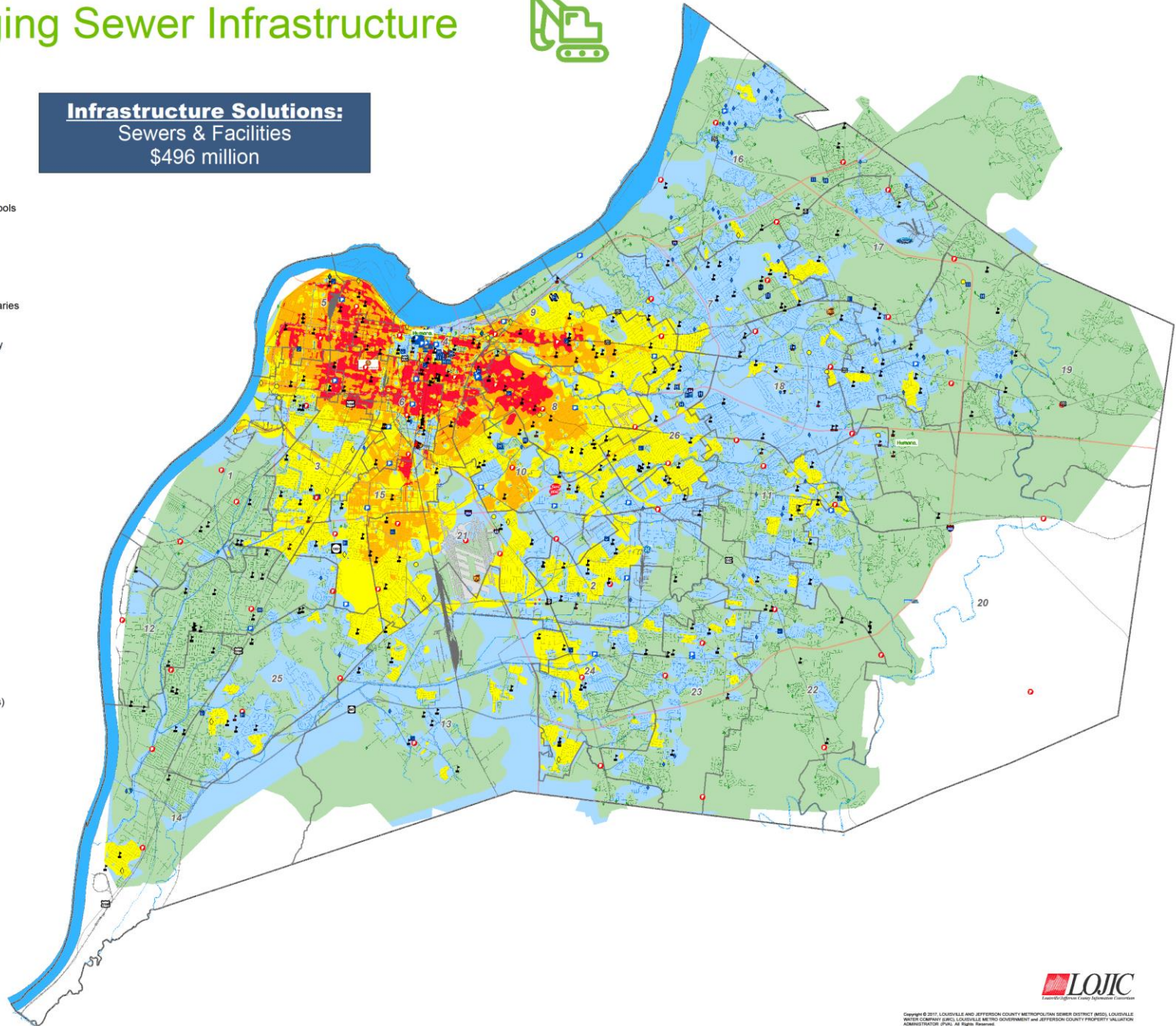
- Jefferson County Boundary
- Metro Council Districts
- Interstate
- Major Arterial
- Minor Arterial
- Railroads
- Abandoned Railroads
- Railroad Bridges
- Major Streams

- Sanitary Pump Stations**
- 0 - 25 Years (154)
  - 25 - 50 Years (85)
  - 50 - 75 Years (31)

- Sewer Age**
- 0 - 25 Years (1261 Miles)
  - 26 - 50 Years (876 Miles)
  - 51 - 75 Years (664 Miles)
  - 76 - 100 Years (307 Miles)
  - 110 - 150 Years (186 Miles)



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# RISK: Wastewater treatment facilities



Morris Forman Water Quality Treatment Center



# Wastewater Treatment



## SERVICE AREAS

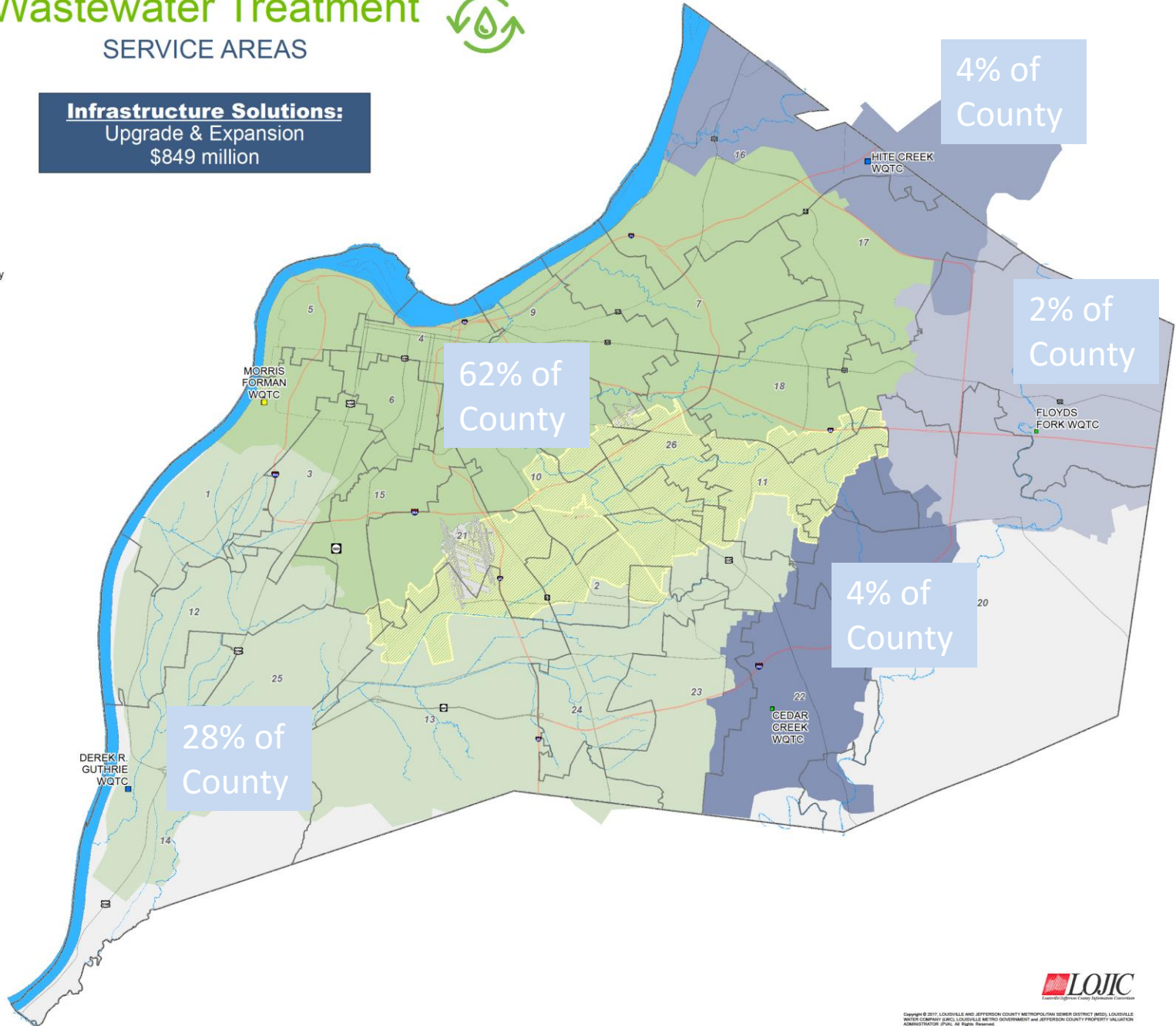
**Infrastructure Solutions:**  
Upgrade & Expansion  
\$849 million

### Legend

- Jefferson County Boundary
- Metro Council Districts
- Interstate
- Major Arterial
- Minor Arterial
- Major Streams
- Water Quality Treatment Center (WQTC)**
- 0 - 25 Years (2)
- 25 - 50 Years (2)
- 50 - 75 Years (1)
- Water Quality Treatment Center Service Areas**
- Morris Forman
- Derek R. Guthrie
- Cedar Creek
- Floyds Fork
- Hite Creek
- Wet Weather Diversion

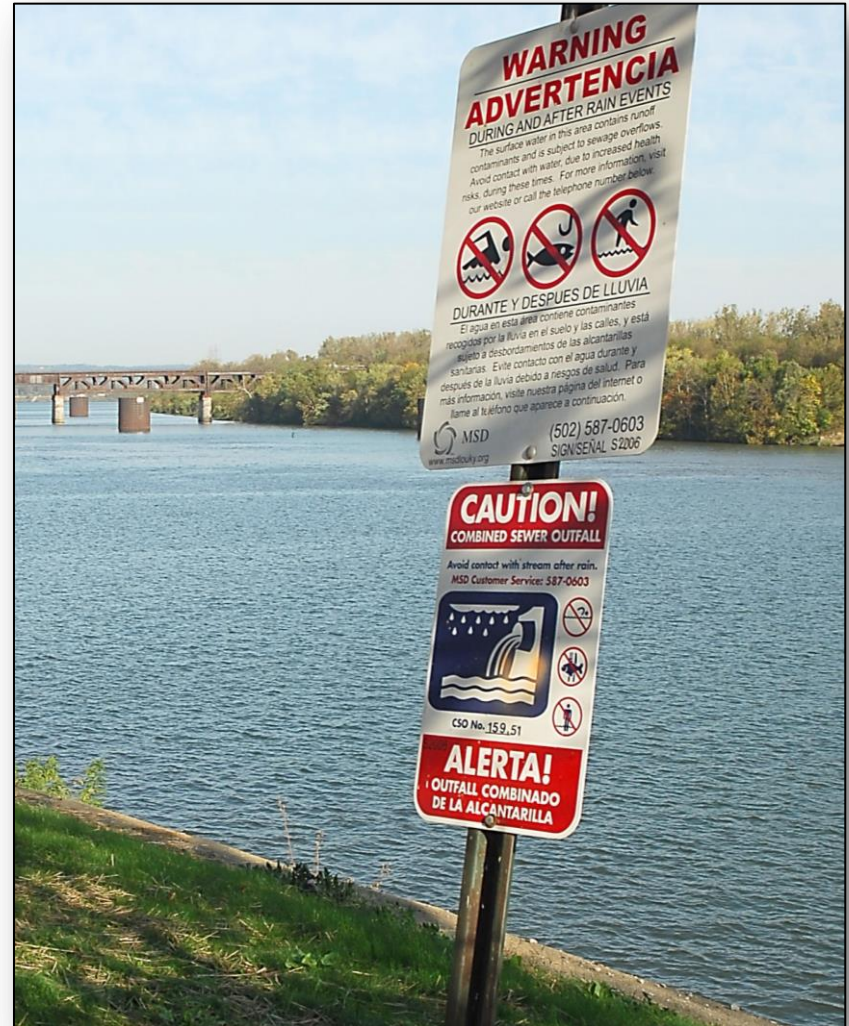


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# RISK: Consent Decree Obligations





**More than \$400 million invested over the past decade**



17 *Typical CSOs along Beargrass Creek*

*Logan St Basin Construction*



**~\$500 million more necessary to reach completion by 2024**

# MSD infrastructure solutions

More than two years of analysis and careful planning

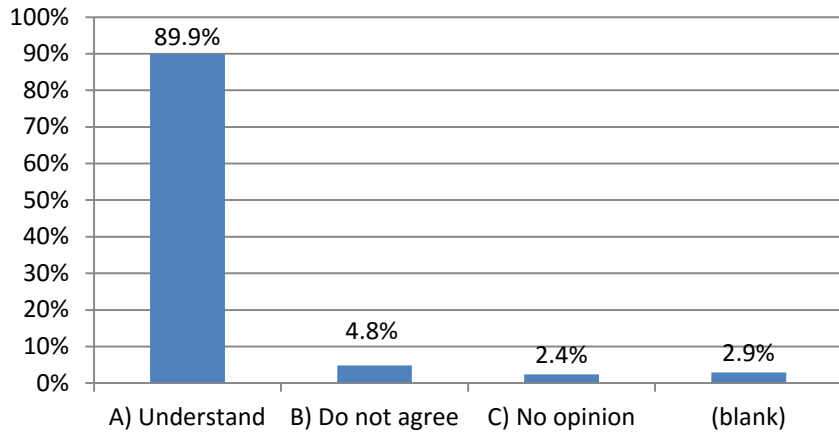


**\$4.3 billion**

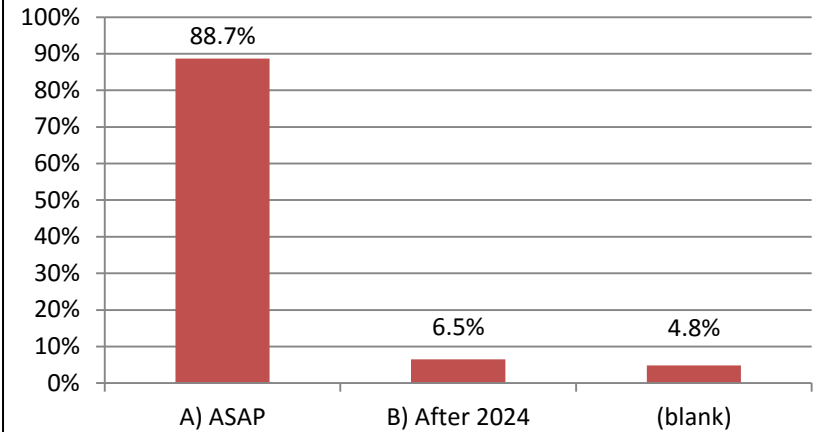


# Community Input Form Results

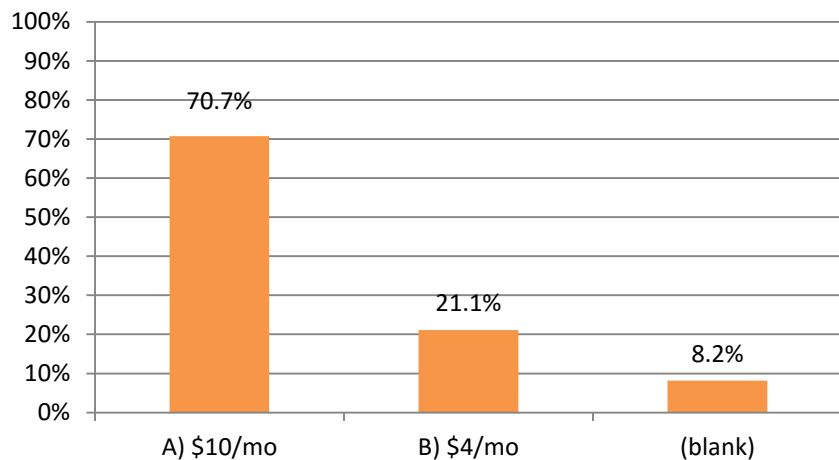
## Understanding of Risks



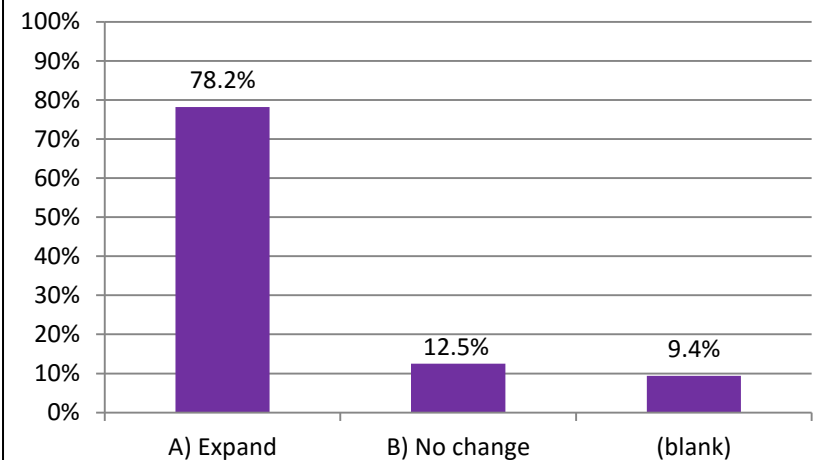
## Schedule for Addressing Risks



## Rate Increase



## Expansion of Rate Relief





# FINANCIAL ASSUMPTIONS

## FY 2018 BUDGET

- Capital Expenses

Capital Budget \$220 million

- Operating Expenses

Operating Budget \$125.6 million

- Financial Projections

Rate increase proposed @ 20%; Revenue increase = 16.3%

- Lower Water Consumption
- Free Wastewater and Drainage Services to Metro Government
- Implementation of WRAP

New bond issue of \$175 million in August 2017

# METRO ORDINANCE DEBT SERVICE RATIO

## Section 50.24 Debt Service Adjustments

(A) Whenever the Metropolitan Sewer District's (MSD's) net revenues are less than 1.10 times the debt service on MSD's outstanding revenue bonds for any consecutive six-month period, by order of the Board of MSD, the schedule of wastewater and stormwater service charges shall be amended in order to maintain a 1.10 debt service coverage required by MSD's 1971 bond authorizing resolution provided that the aggregate of such adjustments for any 12-month period shall not generate additional revenue from wastewater service charges in excess of 7%.

(B) The term NET REVENUES is defined as gross revenue for wastewater service charges (and stormwater service charges per section 50.35) less operating expenses and debt payments other than debt service payments on MSD's outstanding revenue bonds.

	November 2015 - April 2016		October 2016 - March 2017	
Revenue	\$	116,200	\$	125,640
Debt Payments		(7,205)		(9,009)
Operating Expenses		(57,960)		(57,807)
<b>Net Revenue</b>	<b>\$</b>	<b>51,035</b>	<b>\$</b>	<b>58,824</b>
Bond Principal Maturities	\$	29,800	\$	32,045
Bond Interest Expense		40,697		45,615
<b>Net Debt Service</b>	<b>\$</b>	<b>70,497</b>	<b>\$</b>	<b>77,660</b>
Debt Service Coverage Ratio		0.72		0.76
<i>Dollar amounts in '000</i>				



# Engineering CIP – Board Approved Scenario

ENG CIP - ~\$10/mo in FY18	FY18	FY19	FY20	FY21	FY22	FY18-FY22
<b>Wastewater</b>	<b>\$185.8-M</b>	<b>\$220.1-M</b>	<b>\$180.3-M</b>	<b>\$123.3-M</b>	<b>\$113.1-M</b>	<b>\$822.6-M</b>
CMOM	\$34.8-M	\$47.5-M	\$52.1-M	\$66.4-M	\$90.5-M	\$291.3-M
Consent Decree (IOAP)	\$128.9-M	\$153.6-M	\$96.5-M	\$32.9-M	\$8.0-M	\$420.0-M
Development	\$2.1-M	\$5.1-M	\$8.0-M	\$3.1-M	\$6.2-M	\$24.5-M
NMC	\$20.0-M	\$13.9-M	\$23.6-M	\$21.0-M	\$8.4-M	\$86.9-M
<b>Stormwater</b>	<b>\$15.8-M</b>	<b>\$26.3-M</b>	<b>\$50.1-M</b>	<b>\$111.6-M</b>	<b>\$109.9-M</b>	<b>\$313.8-M</b>
Drainage	\$3.4-M	\$13.1-M	\$25.8-M	\$54.2-M	\$67.7-M	\$164.2-M
Floodplain Management	\$3.4-M	\$3.0-M	\$4.0-M	\$4.0-M	\$4.0-M	\$18.4-M
Ohio River Flood Protection	\$6.8-M	\$9.0-M	\$18.6-M	\$51.7-M	\$35.5-M	\$121.5-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>\$18.4-M</b>	<b>\$8.6-M</b>	<b>\$9.6-M</b>	<b>\$10.1-M</b>	<b>\$7.0-M</b>	<b>\$53.7-M</b>
Capital Equipment	\$3.8-M	\$3.8-M	\$3.8-M	\$3.8-M	\$3.8-M	\$18.8-M
Facilities	\$13.6-M	\$4.4-M	\$5.1-M	\$5.9-M	\$2.2-M	\$31.2-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>\$220.0-M</b>	<b>\$255.0-M</b>	<b>\$240.0-M</b>	<b>\$245.0-M</b>	<b>\$230.0-M</b>	<b>\$1.19-B</b>

FY18-FY20 Reduction in CRRP Wastewater Projects	ENG CIP Baseline	ENG CIP ~\$10/mo in FY18	Baseline vs. ~\$10/mo in FY18	ENG CIP ~\$4/mo in FY18	Baseline vs. ~\$4/mo in FY18
<b>CMOM</b>					
CCWQTC ASSET MGMT REHAB & REPLACE	\$900,000	\$900,000	N/C	\$500,000	-\$400,000
CCWQTC FORCEMAIN EXTENSION	\$177,000	\$177,000	N/C	\$0	-\$177,000
CCWQTC SAND FILTER REPLACEMENT	\$4,500,000	\$4,500,000	N/C	\$2,000,000	-\$2,500,000
CCWQTC SERVICE AREA INVENTORY FOR CRITICAL PS	\$300,000	\$300,000	N/C	\$0	-\$300,000
COLLECTION SYSTEM SPARE PUMP INVENTORY	\$3,000,000	\$3,000,000	N/C	\$1,300,000	-\$1,700,000
DRGWQTC SERVICE AREA INVENTORY FOR CRITICAL PUMP STATIONS	\$300,000	\$300,000	N/C	\$0	-\$300,000
FFWQTC SERVICE AREA INVENTORY FOR CRITICAL PS	\$300,000	\$300,000	N/C	\$0	-\$300,000
FY18 PMP	\$2,500,000	\$2,500,000	N/C	\$2,250,000	-\$250,000
FY18-FY22 OPERATIONS RENEWAL & REPLACEMENT	\$18,300,000	\$18,300,000	N/C	\$15,300,000	-\$3,000,000
FY19 CMOM PM ASSIST	\$225,000	\$187,500	-\$37,500	\$187,500	-\$37,500
FY19 PMP	\$2,000,000	\$2,000,000	N/C	\$1,000,000	-\$1,000,000
HCWQTC SOLIDS EXPANSION	\$6,800,000	\$6,800,000	N/C	\$1,500,000	-\$5,300,000
HITE CREEK WQTC EXPANSION	\$19,553,703	\$17,553,703	-\$2,000,000	\$3,623,703	-\$15,930,000
LAND ACQUISITION	\$2,400,000	\$2,400,000	N/C	\$1,300,000	-\$1,100,000
LEA ANN WAY PUMP STATION ELIMINATION	\$8,000,000	\$6,000,000	-\$2,000,000	\$0	-\$8,000,000
LEA ANN WY WEST REHAB QUAD 1	\$400,000	\$400,000	N/C	\$500,000	\$100,000
MAJOR INTERCEPTOR REHABILITATION	\$5,500,000	\$5,500,000	N/C	\$3,000,000	-\$2,500,000
MF COLLECTION SYSTEM BAFFLES	\$624,000	\$400,000	-\$224,000	\$0	-\$624,000
MFWQTC SERVICE AREA INVENTORY FOR CRITICAL PS	\$900,000	\$900,000	N/C	\$0	-\$900,000
MFWQTC SERVICE AREA MH AND ARV FLOODPROOFING FOR 100 YR STORM	\$136,000	\$136,000	N/C	\$0	-\$136,000
MFWQTC SERVICE AREA PS FLOODPROOF FOR 100	\$328,000	\$248,000	-\$80,000	\$0	-\$328,000
NIGHTINGALE REHAB	\$4,200,000	\$4,200,000	N/C	\$1,500,000	-\$2,700,000
SLIP LINE JTWQTC	\$1,398,000	\$1,398,000	N/C	\$0	-\$1,398,000
<b>Development</b>					
FLOYDS FORK ZONE B SEWERS	\$7,900,000	\$7,900,000	N/C	\$0	-\$7,900,000
FLOYDS FORK ZONE C SEWERS	\$4,000,000	\$4,000,000	N/C	\$0	-\$4,000,000
KTC GREENWOOD RD ASSESSMENT	\$525,000	\$0	-\$525,000	\$0	-\$525,000
<b>NMC</b>					
MF CENTRAL BUSINESS DISTRICT CSO CAMERAS	\$1,248,000	\$1,248,000	N/C	\$0	-\$1,248,000
MFWQTC DAFT REHAB & TWAS PIPING REPLC	\$1,500,000	\$1,500,000	N/C	\$0	-\$1,500,000
MFWQTC DIGESTER LIDS & MIXERS	\$4,500,000	\$4,500,000	N/C	\$0	-\$4,500,000
MFWQTC EQUIPMENT RENEWAL AND REPLACEMENT	\$25,500,000	\$15,000,000	-\$10,500,000	\$900,000	-\$24,600,000
MFWQTC SEC CLARIFIERS & RAS/WAS PUMPING	\$6,500,000	\$5,500,000	-\$1,000,000	\$0	-\$6,500,000
MFWQTC SEDIMENTATION BASIN REHAB	\$12,500,000	\$8,500,000	-\$4,000,000	\$500,000	-\$12,000,000



FY18-FY20 Reduction in CRRP Stormwater Projects	ENG CIP Baseline	ENG CIP ~\$10/mo in FY18	Baseline vs. ~\$10/mo in FY18	ENG CIP ~\$4/mo in FY18	Baseline vs. ~\$4/mo in FY18
<b>Drainage</b>					
AUBURNDALE EARLY ACTION PROJECT	\$12,600,000	\$4,200,000	-\$8,400,000	\$0	-\$12,600,000
CITY OF HURSTBOURNE EARLY ACTION PROJECT	\$6,000,000	\$3,000,000	-\$3,000,000	\$0	-\$6,000,000
MASTER PLAN IMPLEMENTATION	\$6,000,000	\$5,000,000	-\$1,000,000	\$0	-\$6,000,000
NEWBURG EARLY ACTION PROJECT	\$10,250,000	\$3,000,000	-\$7,250,000	\$0	-\$10,250,000
POPE LICK EARLY ACTION PROJECT	\$6,100,000	\$1,220,000	-\$4,880,000	\$0	-\$6,100,000
PROSPECT EARLY ACTION PROJECT	\$6,000,000	\$1,500,000	-\$4,500,000	\$0	-\$6,000,000
SEATONVILLE EARLY ACTION PROJECT	\$3,400,000	\$3,400,000	N/C	\$0	-\$3,400,000
STORMWATER MASTER PLAN	\$4,000,000	\$4,000,000	N/C	\$0	-\$4,000,000
VALLEY CREEK EARLY ACTION PROJECT	\$5,540,000	\$3,000,000	-\$2,540,000	\$0	-\$5,540,000
VIA11 E BRANDEIS AVE & BROOK VIADUCT FLOOD RELIEF	\$28,043,000	\$2,000,000	-\$26,043,000	\$0	-\$28,043,000
VIA16 3RD & EASTERN PKY VIADUCT FLOOD RELIEF	\$5,808,000	\$0	-\$5,808,000	\$0	-\$5,808,000
WHISPERING HILLS EARLY ACTION PROJECT	\$2,560,000	\$2,560,000	N/C	\$0	-\$2,560,000
<b>Floodplain Management</b>					
FLOOD RESPONSE-BUYOUTS MITIGATION&GRANTS	\$12,000,000	\$10,000,000	-\$2,000,000	\$0	-\$12,000,000
<b>Ohio River Flood Protection</b>					
10TH STREET FLOOD PUMPING STATION TO LOS 5 - IMPROVEMENTS / GENERATOR	\$1,035,000	\$0	-\$1,035,000	\$0	-\$1,035,000
17TH STREET FLOOD PUMPING STATION TO LOS 5 - IMPROVEMENTS / GENERATOR	\$2,525,000	\$2,525,000	N/C	\$0	-\$2,525,000
34TH STREET FLOOD PUMPING STATION TO LOS 5 - IMPROVEMENTS / GENERATOR	\$2,000,000	\$0	-\$2,000,000	\$0	-\$2,000,000
5TH STREET FLOOD PUMPING STATION TO LOS 5 - IMPROVEMENTS / GENERATOR	\$820,000	\$0	-\$820,000	\$0	-\$820,000
ALLOCATION - ANNUAL FLOOD PUMPING STATIONS EQUIPMENT RENEWAL AND REPLACEMENT	\$3,000,000	\$3,000,000	N/C	\$2,500,000	-\$500,000
FLOODWAL & LEVEE RISK ASSESSMENT	\$750,000	\$0	-\$750,000	\$0	-\$750,000
FLOODWALL/LEVEE RPR & TOE DRAINS	\$2,250,000	\$2,250,000	N/C	\$1,500,000	-\$750,000
LEVEE & FLOODWALL REPAIR & RENEWAL LIGHT	\$1,875,000	\$1,500,000	-\$375,000	\$750,000	-\$1,125,000
PADDYS RUN FPS FULL REHAB	\$31,575,000	\$8,000,000	-\$23,575,000	\$0	-\$31,575,000
ROBERT J. STARKEY FLOOD PUMPING STATION TO LOS 5 - IMPROVEMENTS / GENERATOR	\$4,360,000	\$2,180,000	-\$2,180,000	\$0	-\$4,360,000
WESTERN PARKWAY FLOOD PUMPING STATION TO LOS 5 - IMPROVEMENTS	\$11,648,000	\$4,648,000	-\$7,000,000	\$0	-\$11,648,000
WESTERN PARKWAY FPS - RELIABILITY IMPROVEMENTS (EVALUATION REPAIRS)	\$3,334,000	\$3,334,000	N/C	\$0	-\$3,334,000

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 ~\$4/mo in FY18	Baseline vs. ~\$4/mo in FY18
<b>Capital Equipment</b>					
FY18 VEHICLES & EQUIPMENT	\$3,500,000	\$3,500,000	N/C	\$2,000,000	-\$1,500,000
FY19 VEHICLES & EQUIPMENT	\$3,500,000	\$3,500,000	N/C	\$1,500,000	-\$2,000,000
FY20 VEHICLES & EQUIPMENT	\$3,500,000	\$3,500,000	N/C	\$2,500,000	-\$1,000,000
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/C	\$1,000,000	-\$2,000,000
MFWQTC ELEVATOR REPAIRS	\$400,000	\$400,000	N/C	\$0	-\$400,000
ROOF REPLACEMENTS	\$3,230,458	\$3,204,950	-\$25,508	\$3,200,000	-\$30,458

FY18-FY20 Reduction in CRRP Projects	Baseline vs. ~\$10/mo in FY18	Baseline vs. ~\$4/mo in FY18
Wastewater	-\$7.0-M	-\$128.5-M
Stormwater	-\$103.2-M	-\$169.7-M
Support Systems	-\$0.5-M	-\$7.4-M
<b>Grand Total</b>	<b>-\$110.6-M</b>	<b>-\$305.6-M</b>



92 cents of every revenue dollar is committed to operating and debt service obligations, **leaving only 8 cents** for capital improvements



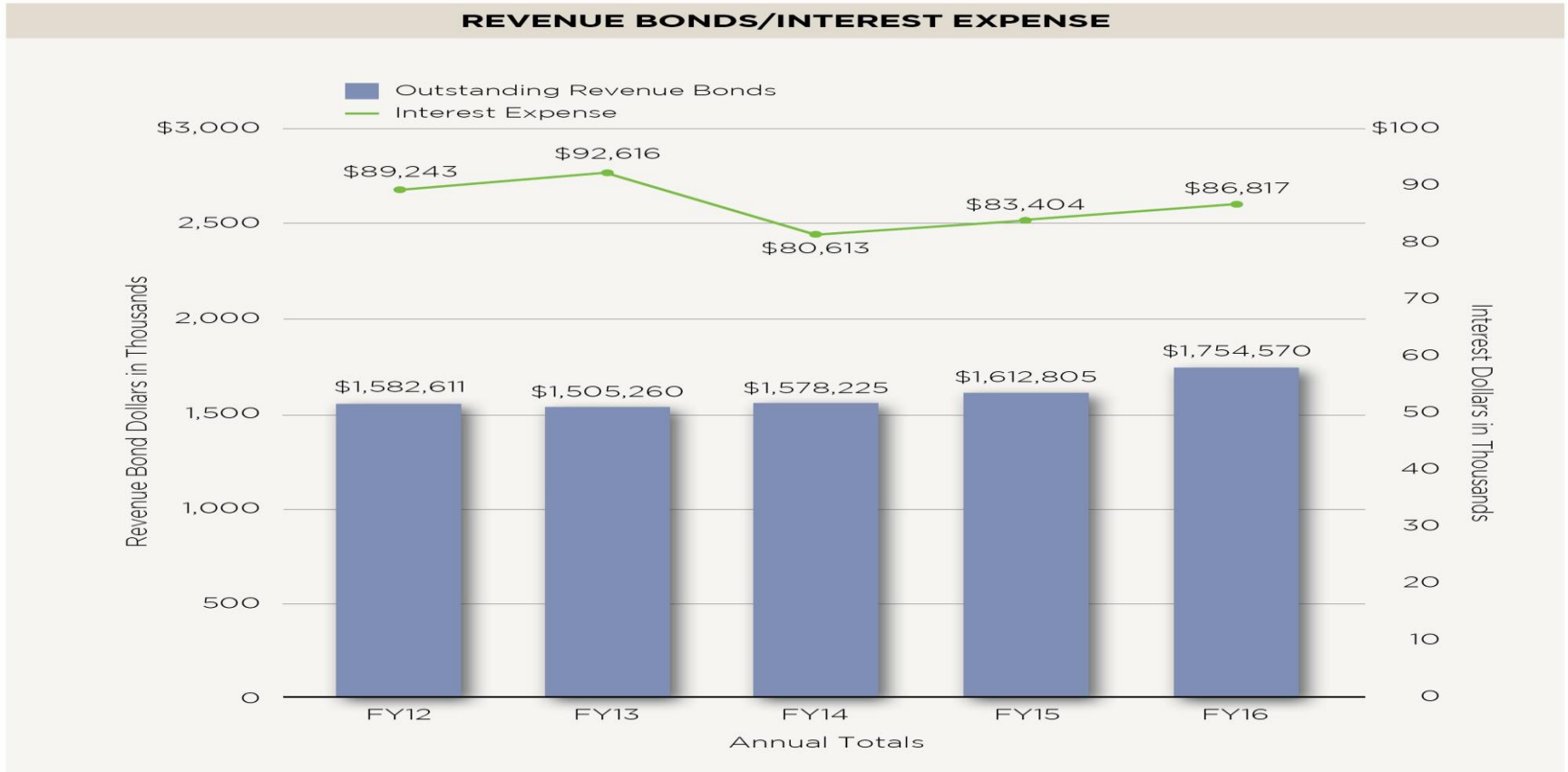
42 cents - Operating Expenses

50 cents – Debt Service

8 cents –  
Capital  
Improvements

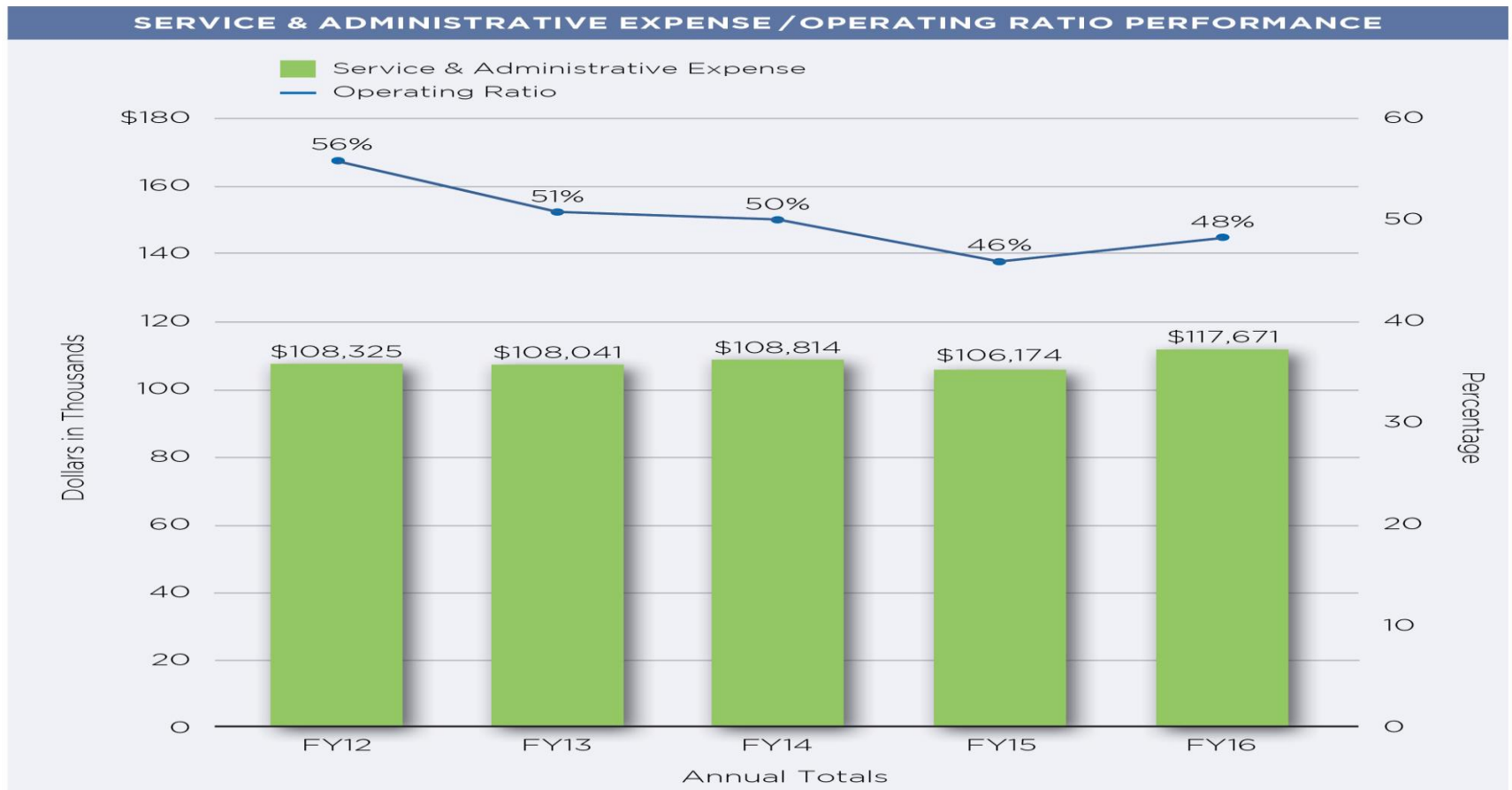


# Interest Expense lower in 2016 than 2012 with \$355M more bonds outstanding





# Administrative Expenses held flat for 5 years



# (WRAP) Wastewater Rate Assistance Program

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To qualify for MSD's Wastewater Rate Assistance Program (WRAP) you must be a Louisville MSD customer with a household income that falls within 130 percent of the Federal Poverty Guidelines, see chart (right).

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Monday through Thursday, 8 AM to 4 PM

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Each Additional Person	Add \$451

A credit for 30 percent will be applied to your wastewater bill upon verification of eligibility by the Department of Community Services for WRAP. Upon approval for WRAP, the discount will become affective on the next billing date from Louisville Water Company, and stay in affect for 24 months. Customers must reapply for another two year period before the initial 24 months expires.



24/7/365  
502.587.0603 · CustomerRelations@LouisvilleMSD.org

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(30.000) 06-2017

## Application Form

### Louisville MSD Wastewater Rate Assistance Program

#### Head of Household Information

Name (Head of Household)  SSN

Street Address  Zip

Phone (area code)

Email

Date of Birth

#### Additional Household Member Information

Name(s)	SSN(s)	Date(s) of Birth	18 Years or Older

#### Louisville MSD Information

Name as printed on your MSD bill

MSD Account Number

#### Income/Household Information

Name	Gross Monthly Income	Income Source	Verified By

#### Signature

Head of Household  Date

Staff  Date

I certify that the information on this application is correct and that I have been notified of my appeal rights. I understand that the receipt of assistance from this program through misrepresentation is punishable by fine or imprisonment. I give permission to allow the agency or its funding source to verify the provided information.



**QUESTIONS?**

# FINANCIAL ASSUMPTIONS

## FY 2018 BUDGET (10%)

- Capital Expenses

Capital Budget \$200 million

- Operating Expenses

Operating Budget \$125.6 million

- Financial Projections

Rate increase proposed @ 9.9%; Revenue increase = 8.1%

- Lower Water Consumption
- Free Wastewater and Drainage Services to Metro Government
- Implementation of WRAP

New bond issue of \$175 million in August 2017

# METRO ORDINANCE DEBT SERVICE RATIO

## Section 50.24 Debt Service Adjustments

(A) Whenever the Metropolitan Sewer District's (MSD's) net revenues are less than 1.10 times the debt service on MSD's outstanding revenue bonds for any consecutive six-month period, by order of the Board of MSD, the schedule of wastewater and stormwater service charges shall be amended in order to maintain a 1.10 debt service coverage required by MSD's 1971 bond authorizing resolution provided that the aggregate of such adjustments for any 12-month period shall not generate additional revenue from wastewater service charges in excess of 7%.

(B) The term NET REVENUES is defined as gross revenue for wastewater service charges (and stormwater service charges per section 50.35) less operating expenses and debt payments other than debt service payments on MSD's outstanding revenue bonds.

	November 2015 - April 2016		October 2016 - March 2017	
Revenue	\$	116,200	\$	125,640
Debt Payments		(7,205)		(9,009)
Operating Expenses		(57,960)		(57,807)
<b>Net Revenue</b>	<b>\$</b>	<b>51,035</b>	<b>\$</b>	<b>58,824</b>
Bond Principal Maturities	\$	29,800	\$	32,045
Bond Interest Expense		40,697		45,615
<b>Net Debt Service</b>	<b>\$</b>	<b>70,497</b>	<b>\$</b>	<b>77,660</b>
Debt Service Coverage Ratio		0.72		0.76
<i>Dollar amounts in '000</i>				



# 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	\$0	-\$177,000
CCWQTC SAND FILTER REPLACEMENT	\$4,500,000	\$4,500,000	N/A	\$2,000,000	-\$2,500,000
COLLECTION SYSTEM SPARE PUMP INVENTORY	\$3,000,000	\$3,000,000	N/A	\$2,500,000	-\$500,000
FY18-FY22 OPERATIONS RENEWAL & REPLACEMENT	\$18,300,000	\$18,300,000	N/A	\$15,300,000	-\$3,000,000
FY19 CMOM PM ASSIST	\$225,000	\$187,500	-\$37,500	\$187,500	-\$37,500
FY19 PMP	\$2,000,000	\$2,000,000	N/A	\$1,500,000	-\$500,000
HCWQTC SOLIDS EXPANSION	\$6,800,000	\$6,800,000	N/A	\$800,000	-\$6,000,000
HITE CREEK WQTC EXPANSION	\$19,553,703	\$17,553,703	-\$2,000,000	\$3,623,703	-\$15,930,000
LEA ANN WAY PUMP STATION ELIMINATION	\$8,000,000	\$6,000,000	-\$2,000,000	\$0	-\$8,000,000
MF COLLECTION SYSTEM BAFFLES	\$624,000	\$400,000	-\$224,000	\$400,000	-\$224,000
MFWQTC SERVICE AREA MH AND ARV FLOODPROOFING FOR 100 YR STORM	\$136,000	\$136,000	N/A	\$0	-\$136,000
MFWQTC SERVICE AREA PS FLOODPROOF FOR 100 YR STORM	\$328,000	\$248,000	-\$80,000	\$0	-\$328,000
NIGHTINGALE REHAB	\$4,200,000	\$4,200,000	N/A	\$3,500,000	-\$700,000
<b>Development</b>					
FLOYDS FORK ZONE B SEWERS	\$7,900,000	\$7,900,000	N/A	\$4,000,000	-\$3,900,000
FLOYDS FORK ZONE C SEWERS	\$4,000,000	\$4,000,000	N/A	\$1,000,000	-\$3,000,000
KTC GREENWOOD RD ASSESSMENT	\$525,000	\$0	-\$525,000	\$0	-\$525,000
<b>NMC</b>					
MFWQTC DIGESTER LIDS & MIXERS	\$4,500,000	\$4,500,000	N/A	\$500,000	-\$4,000,000
MFWQTC EQUIPMENT RENEWAL AND REPLACEMENT IN YEAR 5	\$25,500,000	\$15,000,000	-\$10,500,000	\$7,000,000	-\$18,500,000
MFWQTC SEC CLARIFIERS & RAS/WAS PUMPING	\$6,500,000	\$5,500,000	-\$1,000,000	\$5,000,000	-\$1,500,000
MFWQTC SEDIMENTATION BASIN REHAB INCLUDI	\$12,500,000	\$8,500,000	-\$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	\$4,200,000	-\$8,400,000	\$1,800,000	-\$10,800,000
CITY OF HURSTBOURNE EARLY ACTION PROJECT	\$6,000,000	\$3,000,000	-\$3,000,000	\$0	-\$6,000,000
MASTER PLAN IMPLEMENTATION	\$6,000,000	\$5,000,000	-\$1,000,000	\$0	-\$6,000,000
NEWBURG EARLY ACTION PROJECT	\$10,250,000	\$3,000,000	-\$7,250,000	\$0	-\$10,250,000
POPE LICK EARLY ACTION PROJECT	\$6,100,000	\$1,220,000	-\$4,880,000	\$0	-\$6,100,000
PROSPECT EARLY ACTION PROJECT	\$6,000,000	\$1,500,000	-\$4,500,000	\$1,500,000	-\$4,500,000
SEATONVILLE EARLY ACTION PROJECT	\$3,400,000	\$3,400,000	N/A	\$0	-\$3,400,000
STORMWATER MASTER PLAN	\$4,000,000	\$4,000,000	N/A	\$2,000,000	-\$2,000,000
TEN BROECK EARLY ACTION PROJECT	\$1,000,000	\$0	-\$1,000,000	\$0	-\$1,000,000
VALLEY CREEK EARLY ACTION PROJECT	\$5,540,000	\$3,000,000	-\$2,540,000	\$0	-\$5,540,000
VIA11 E BRANDEIS AVE & BROOK VIADUCT FLOOD RELIEF	\$28,043,000	\$2,000,000	-\$26,043,000	\$2,000,000	-\$26,043,000
VIA16 3RD & EASTERN PKY VIADUCT FLOOD RELIEF	\$5,808,000	\$0	-\$5,808,000	\$0	-\$5,808,000
WHISPERING HILLS EARLY ACTION PROJECT	\$2,560,000	\$2,560,000	N/A	\$0	-\$2,560,000
<b>Floodplain Management</b>					
FLOOD RESPONSE-BUYOUTS MITIGATION&GRANTS	\$12,000,000	\$10,000,000	-\$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	\$0	-\$1,035,000	\$0	-\$1,035,000
17TH STREET FLOOD PUMPING STATION TO LOS 5 - IMPROVEMENTS / GENERATOR	\$2,525,000	\$2,525,000	N/A	\$0	-\$2,525,000
34TH STREET FLOOD PUMPING STATION TO LOS 5 - IMPROVEMENTS / GENERATOR	\$2,000,000	\$0	-\$2,000,000	\$0	-\$2,000,000
5TH STREET FLOOD PUMPING STATION TO LOS 5 - IMPROVEMENTS / GENERATOR	\$820,000	\$0	-\$820,000	\$0	-\$820,000
ALLOCATION - ANNUAL FLOOD PUMPING STATIONS EQUIPMENT RENEWAL AND REPLACEMENT	\$3,000,000	\$3,000,000	N/A	\$2,500,000	-\$500,000
FLOODWAL & LEVEE RISK ASSESSMENT	\$750,000	\$0	-\$750,000	\$0	-\$750,000
LEVEE & FLOODWALL REPAIR & RENEWAL LIGHT	\$1,875,000	\$1,500,000	-\$375,000	\$1,500,000	-\$375,000
PADDYS RUN FPS FULL REHAB	\$31,575,000	\$8,000,000	-\$23,575,000	\$2,000,000	-\$29,575,000
ROBERT J. STARKEY FLOOD PUMPING STATION TO LOS 5 - IMPROVEMENTS / GENERATOR	\$4,360,000	\$2,180,000	-\$2,180,000	\$0	-\$4,360,000
WESTERN PARKWAY FLOOD PUMPING STATION TO LOS 5 - IMPROVEMENTS	\$11,648,000	\$4,648,000	-\$7,000,000	\$4,648,000	-\$7,000,000
WESTERN PARKWAY FPS - RELIABILITY IMPROVEMENTS (EVALUATION REPAIRS)	\$3,334,000	\$3,334,000	N/A	\$2,000,000	-\$1,334,000



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	\$10/mo vs. ~\$5/mo in FY18
Wastewater	-\$60.8-M
Stormwater	-\$44.1-M
Support Systems	-\$5-M
<b>Grand Total</b>	<b>-\$110-M</b>

**DRAFT**

92 cents of every revenue dollar is committed to operating and debt service obligations, **leaving only 8 cents** for capital improvements



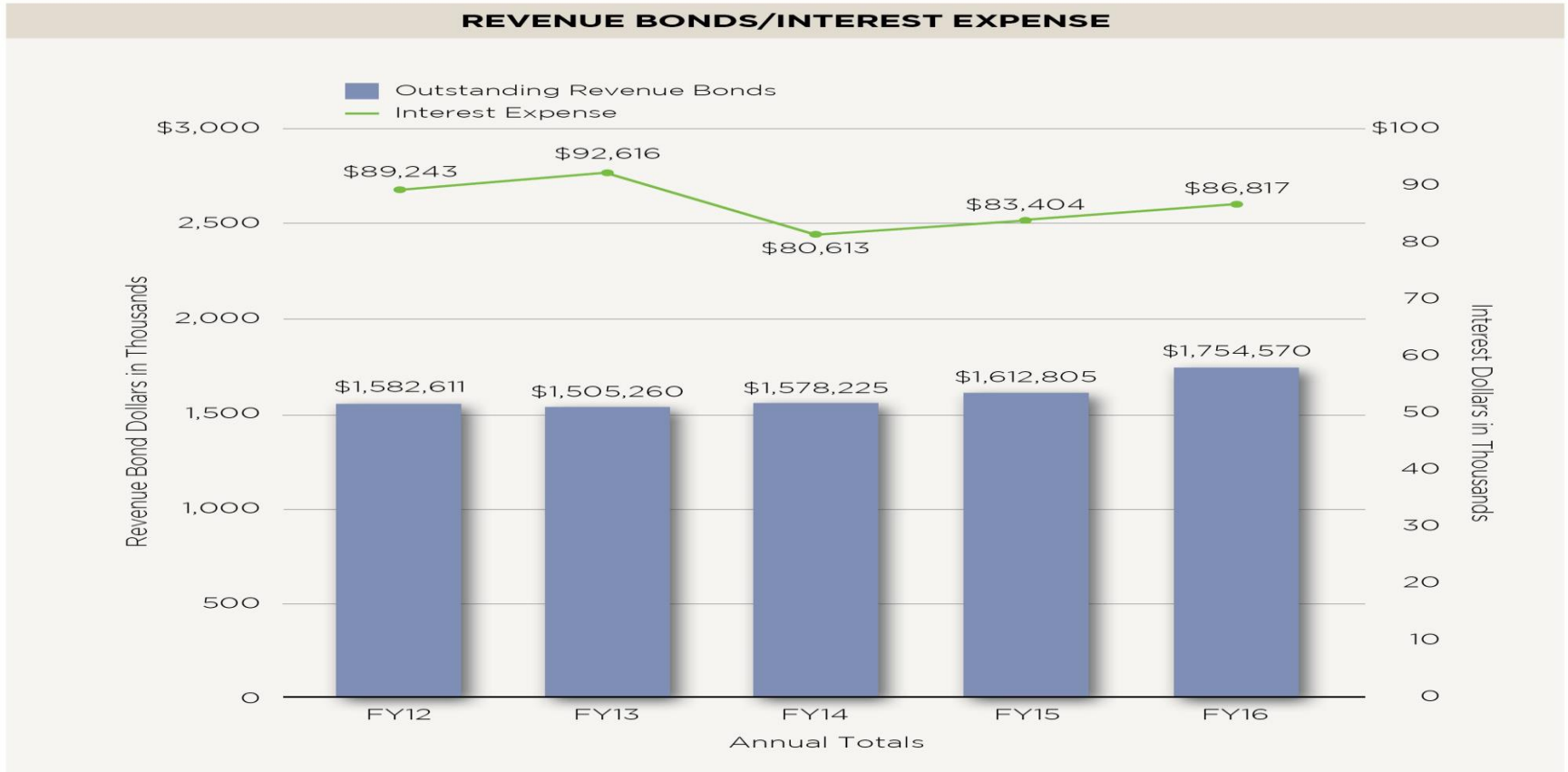
42 cents - Operating Expenses

50 cents – Debt Service

8 cents –  
Capital  
Improvements

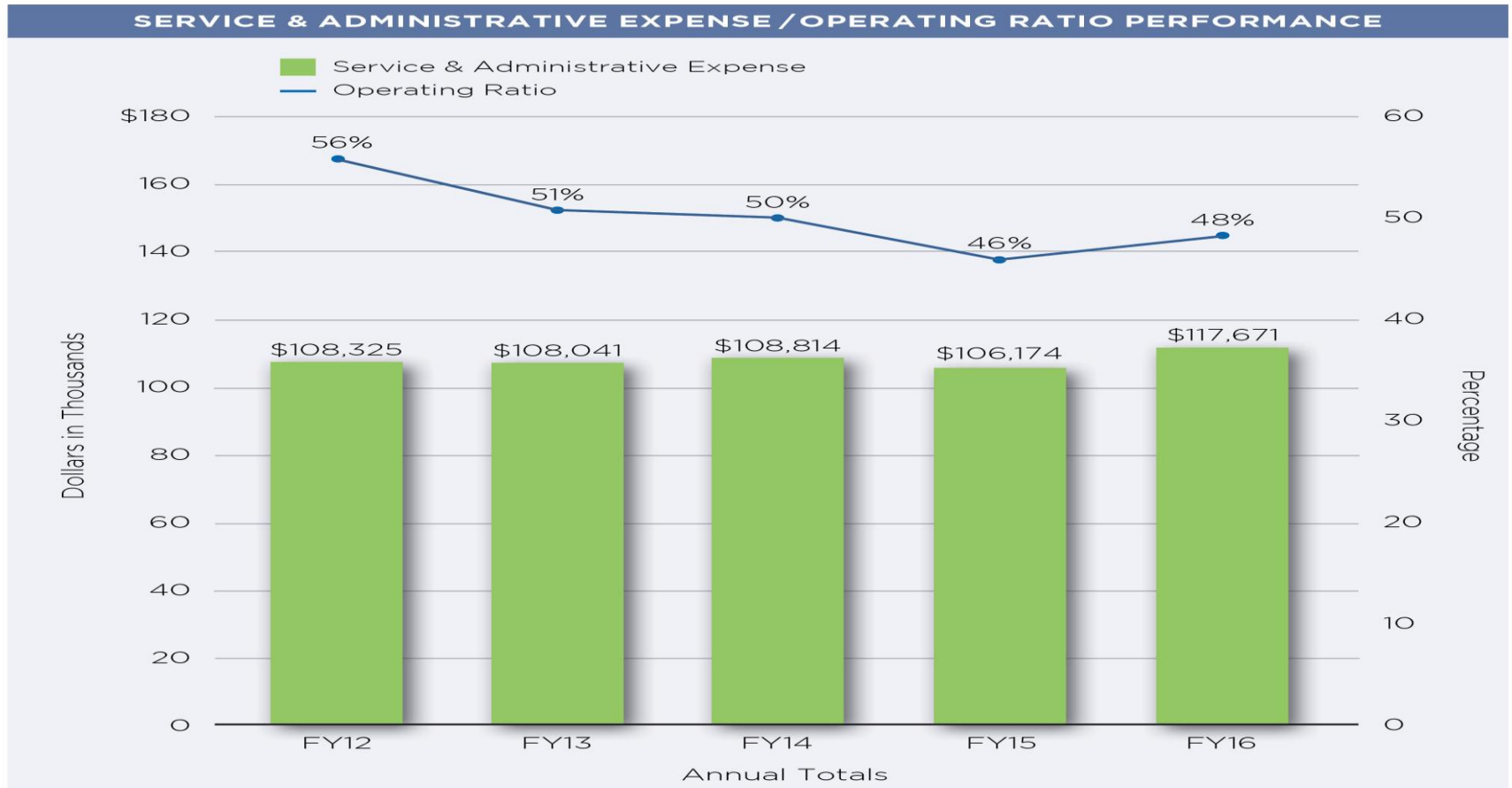


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## Application Form Louisville MSD Wastewater Rate Assistance Program

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Street Address  Zip

Phone (area code)

Email

Date of Birth

### Additional Household Member Information

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