

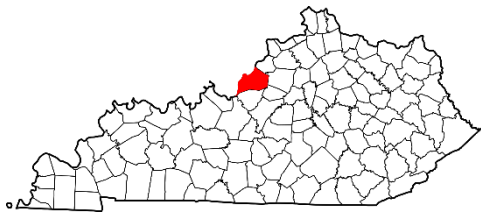


# **Louisville and Jefferson County Metropolitan Sewer District ("MSD")**

**LABOR AND ECONOMIC DEVELOPMENT COMMITTEE**

**OCTOBER 2, 2014**

- Created on November 16, 1946, established as a public body corporate and subdivision of the Commonwealth of Kentucky
  - Assumed jurisdiction over and administration of the City's then existing sewer and drainage system, pursuant to Ordinance No. 90, Series 1946



- Complete control possession and supervision of the sewer and drainage systems within the majority of Louisville Metro, comprised all of Jefferson County
- MSD took over Louisville's Flood Protection program in 1987



*The Southwestern Outfall was completed in the early 1930s. Courtesy of the University of Louisville Photo Archives*

During 2013, MSD's board and senior management developed the following key initiatives:

Develop MSD's Strategic Business Plan 2014-2018

- Announced to employees on January 27, 2014

Design a new MSD organization structure – aligned around wastewater treatment, collections, drainage/flood protection and business support services

- Announced to employees on January 27, 2014

Prepare a Due Diligence Report and Recommendation for consolidating services with the Louisville Water Company

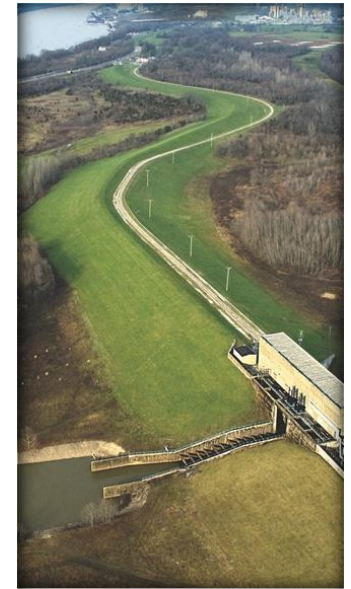
- Presented to Mayor Greg Fisher and the boards of MSD and the Louisville Water Company on February 7, 2014

# Achieving Clean, Safe Waterways for a Healthy and Vibrant Community



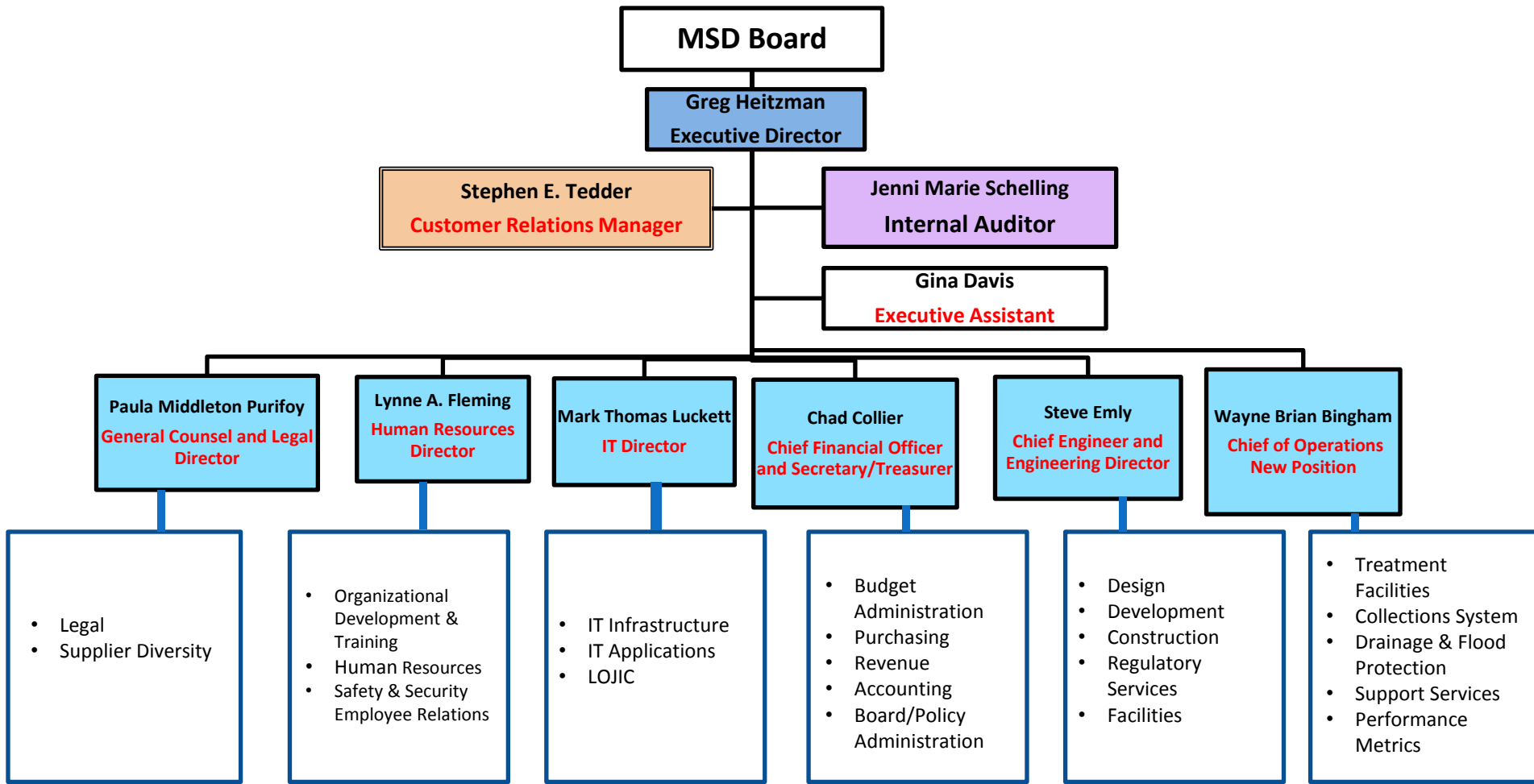


Providing Exceptional  
Wastewater, Drainage and  
Flood Protection Services  
for our Community



Strategy 1	Strategy 2	Strategy 3	Strategy 4
Build MSD's Brand Promise	Provide Premium Customer Care and Service	Improve Information Technology Systems	Invest in Infrastructure and Ensure Compliance with Amended Consent Decree
Strategy 5	Strategy 6	Strategy 7	Strategy 8
Develop Disaster Response and Business Continuity Plan	Develop and Invest in Employees	Implement Partnerships	Ensure Financial Viability

# MSD's Management Structure



**Goal of One Water:** create coordinated teams of employees from both companies with the capability of delivering superior customer service at lower costs than the existing two corporate entities combined



*“(One Water) will lead to leaner, more efficient agencies and that will help both agencies reduce the size of future rate increases– ultimately saving customers money” - Mayor Greg Fischer*



OFFICE OF THE MAYOR  
LOUISVILLE, KENTUCKY

GREG FISCHER  
MAYOR

**FOR IMMEDIATE RELEASE**  
February 7, 2014

**Media Contacts:**

Chris Poynter, Mayor's Office, 502-396-2015  
Kelley D. Smith, Louisville Water, 502-533-5052  
Steve Tedder, MSD, 502-744-9753

## **Louisville Water, Metropolitan Sewer District To Start Sharing Employees, Resources**

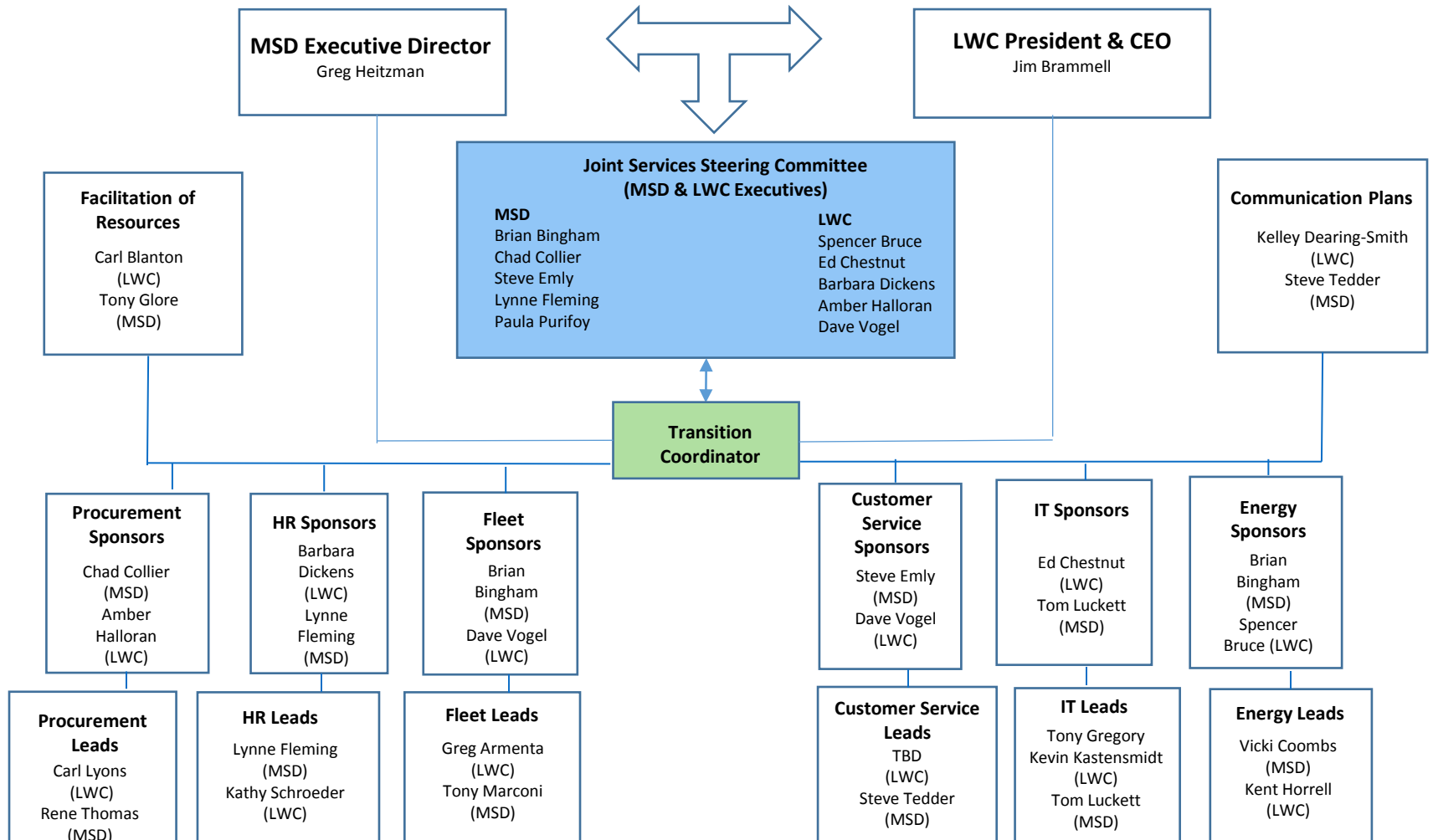
*Mayor Fischer cites cost savings as agencies move toward One Water concept*

**LOUISVILLE, KY (Feb. 7, 2014)** – Louisville Water Company and the Metropolitan Sewer District will immediately begin to share some services and employees to produce cost savings for customers, Mayor Greg Fischer announced today.

He accepted a recommendation from a team of Louisville Water and MSD leadership to bring together back-office services including procurement, fleet, human resources, customer service and information technology.

“Having two of everything just doesn’t make common or financial sense — our community learned that when we decided to merge the city and county,” Fischer said today during a joint meeting between the two boards. “This will lead to leaner, more efficient agencies and that will help both agencies reduce the size of future rate increases — ultimately saving customers money.”





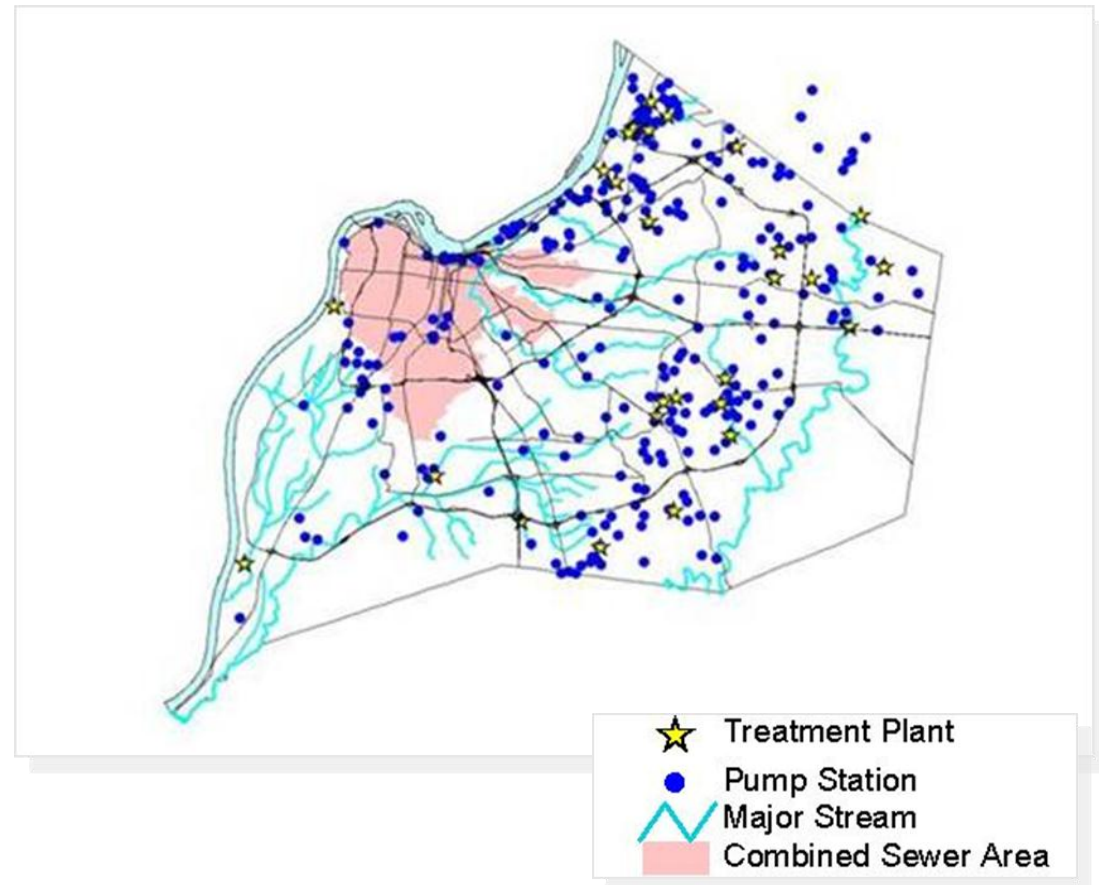
## Deliverables

- Develop Charter
- Develop Proposed Org Structure/Resource Planning
- Document Projected Savings Opportunities (hard & soft) over 5 yr. period
- Document Projected Service Level Improvements Over 5 yr. Period
- Develop Implementation Plan
- Develop Implementation Schedule
- ID resources needed to achieve results

# Overview of Operations

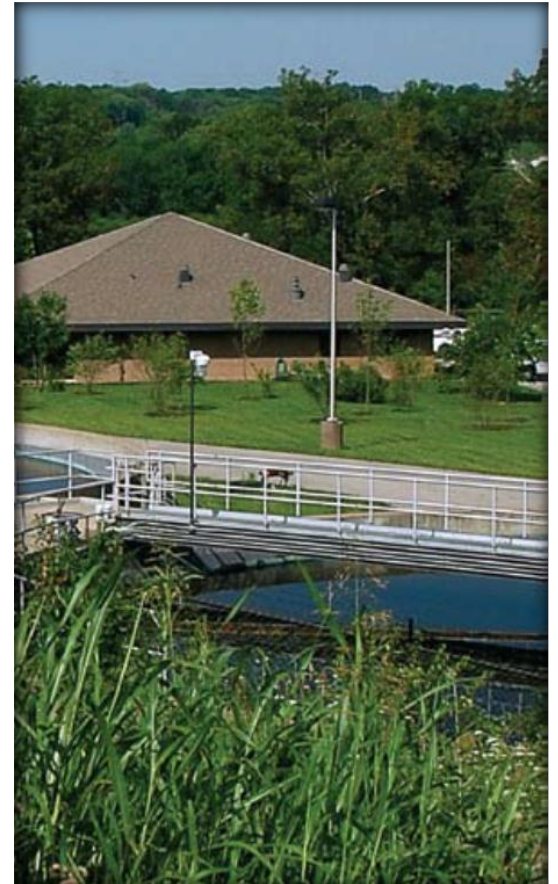
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- Wastewater Collections and Treatments
- Stormwater Management
- Flood Protection



*MSD operates and maintains more than 3,200 miles of wastewater collection sewer lines – about the distance from Jacksonville, Florida to Los Angeles*

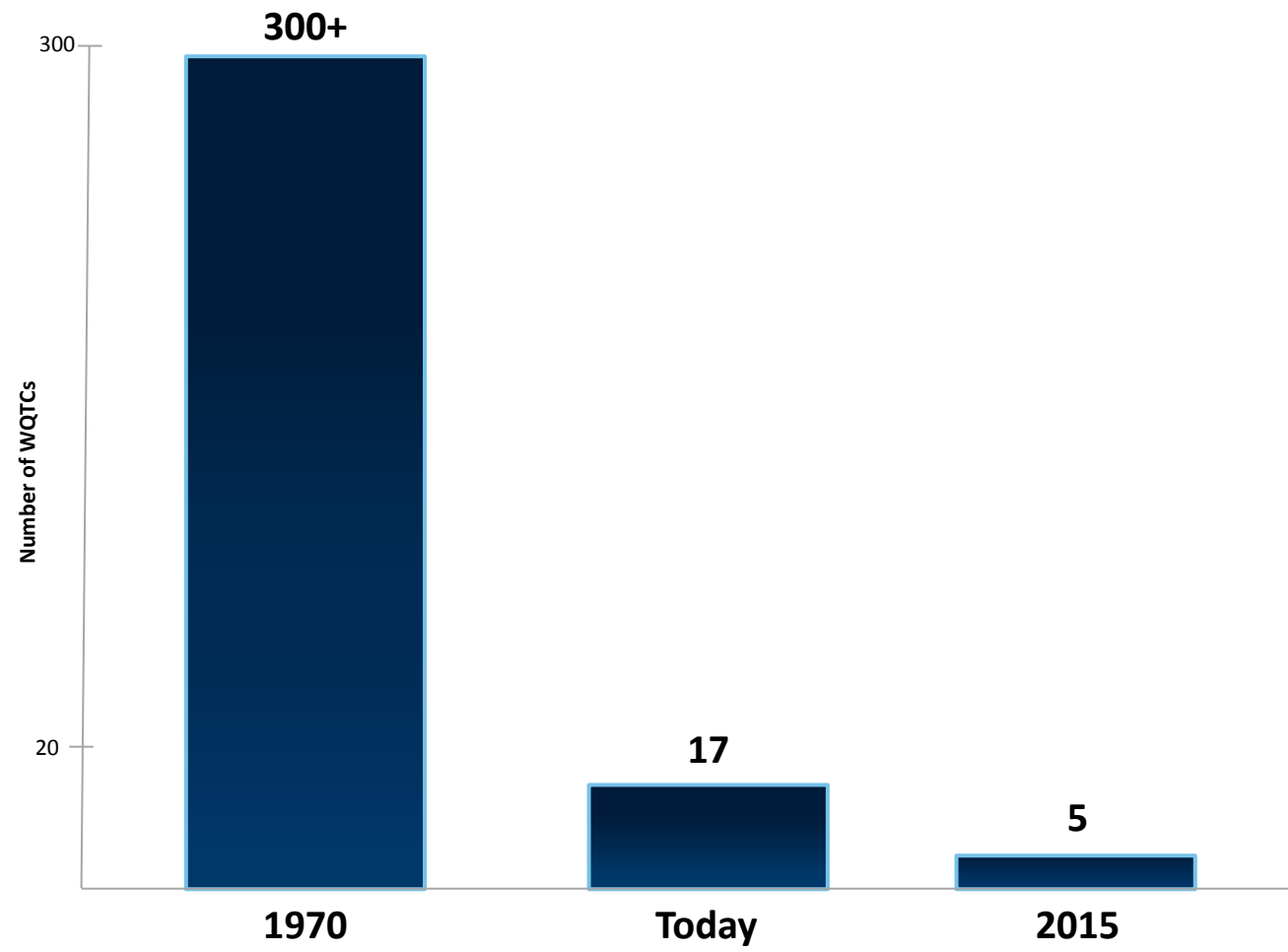
- Wastewater lines collect wastewater from more than 230,000 homes, businesses and industries throughout Louisville Metro
- Wastewater flows to MSD's six regional water quality treatment centers (WQTCs)
- MSD operates 10 smaller WQTCs and more than 270 sanitary sewer pumping stations
- In 2008, MSD began proactively inspecting its entire 3,200-mile sewer system – with lines ranging in size from 6 inches to 27 feet in diameter – every 10 years



*The Floyds Fork WQTC, one of six regional treatment centers, is located in eastern Jefferson County.*

# Wastewater Quality Treatment Centers (“WQTCs”)

*Decreasing number of WQTCs*





*MSD maintains the 376-square-mile stormwater drainage system for the Louisville Metro area*

- MSD's goal is to move, store or infiltrate stormwater as quickly and efficiently as possible from local neighborhoods and business districts both during and after rainstorms
- Responsibilities include the construction, repair and maintenance of drainage swales, storm sewers, ditches, catch basins and drainage channels throughout Louisville Metro
- MSD crews conduct routine and preventive maintenance for Louisville Metro's drainage infrastructure
- MSD has invested more than \$168 million to eliminate neighborhood drainage problems during the past ten years
  - Over \$20 million in crew work performed annually has significantly improved Metro's drainage system

*Louisville Metro's Ohio River Flood Protection System exists to keep the river at bay and out of the city*

- The Flood Protection System consists of 29 miles of concrete wall and earthen levee, nearly 150 floodgates, and 80 movable sandbag street closures
- Locate along the system are 16 flood pumping stations, which move inland water to the river when the floodwalls and levees are sealed
- Since 1998, MSD has developed a system of retention basins – which can store over 1 billion gallons of stormwater until it can be released gradually
- In 2004, MSD began a systematic plan to upgrade the aging Flood Protection System. Recent improvements include the renewal of two flood pump stations and the replacement of numerous gates and closures
- MSD passed a challenging test in 2011 – the wettest year on record for Louisville Metro, with 68.02 inches of rainfall



*Pumps used to protect against Ohio River flooding.*

- MSD awarded the First Annual EPA Region 4 Rain Catcher Award (August 2014)
  - This award recognizes excellence in the implementation of stormwater green infrastructure practices
- MSD's Nine Minimum Control 3 Overflow Abatement Program won the Outstanding Overflow Abatement Project Award for the state of Kentucky
  - This award recognizes projects that improved water quality by controlling wet weather overflows
- 2014 National Association of Clean Water Agencies ("NACWA") Awards
  - 3 Platinum Awards
  - 10 Gold Awards
  - 4 Silver Awards



Newsroom

## News Releases By Date

The Louisville and Jefferson County Metropolitan Sewer District awarded a First Annual EPA Region 4 Rain Catcher Award

Release Date: 08/19/2014

Contact Information: Dawn Harris Young, EPA, (404) 562-8421 (Direct), (404) 562-8400 (Main), harris-young.dawn@epa.gov

ATLANTA - Today, the Environmental Protection Agency (EPA) awarded the Louisville and Jefferson County Metropolitan Sewer District (MSD) with the regional 2014 EPA Rain Catcher Award in the Municipal Category. The award was given at an award ceremony during the Environmental Protection Agency, Region 4/International Erosion Control Association Municipal Wet Weather Stormwater Conference, in Charlotte, North Carolina.

The South Fork Beargrass Creek was the waterway targeted for this project. The project goals included: reducing stormwater to the combined sewer overflow (CSO) basin; demonstrating viability to the Louisville/Jefferson County municipal separate storm sewer community and providing an example of an incentive program. The resultant CSO 130 Green Infrastructure Project provided a higher level of control using green infrastructure and low impact development practices at a significant lower cost than traditional control measures. Monitoring efforts are set to demonstrate a marked reduction in overflow events resulting in approximately 6.5 million gallons of combined sewage removed from Beargrass Creek per year. Green infrastructure practices also resulted in the elimination of a proposed 80,000 gallon storage basin.

The EPA Region 4 Rain Catcher Award recognizes excellence in the implementation of stormwater green infrastructure practices. Green infrastructure uses natural systems and/or engineered systems designed to mimic natural processes to more effectively manage urban stormwater and reduce receiving water impacts. EPA and its partner organizations have promoted the use of green infrastructure for many years as part of a comprehensive approach to achieving healthier waters. Green infrastructure reduces the volume of stormwater discharges by managing rainwater close to where it falls and removes many of the pollutants present in runoff, making it an effective strategy for addressing wet weather pollution and improving water quality.

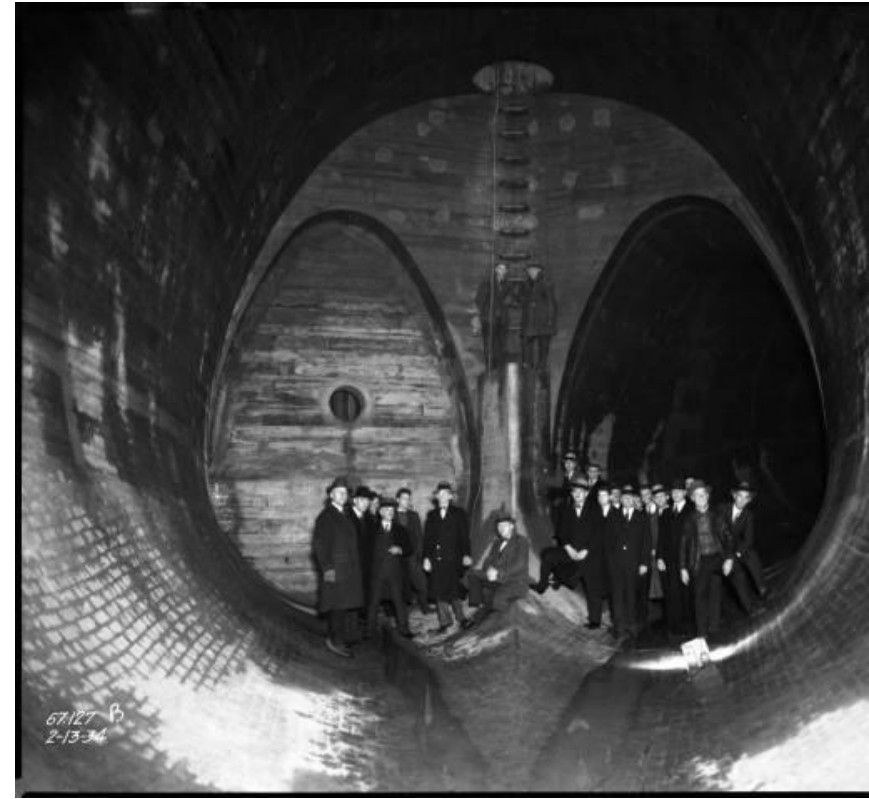
# **Regulatory Overview (Consent Decree)**

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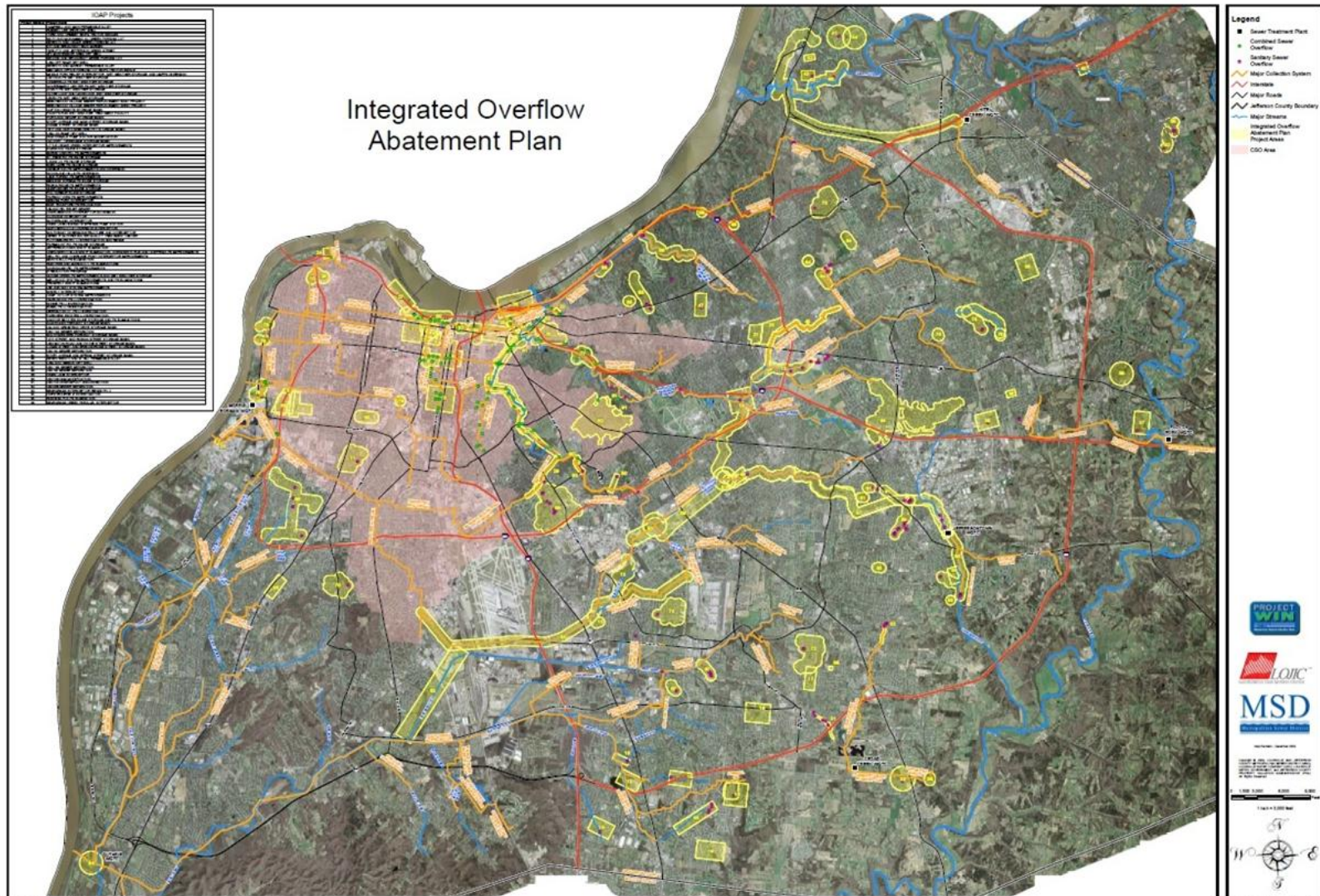
## *MSD delivers on commitment to our customers by reducing overflows and improving water quality*

- MSD entered into a Consent Decree in 2005, an Amended Consent Decree in 2009 and in May 2014 with the Kentucky Division of Water, U.S. Environmental Protection Agency – Region IV (EPA) and U.S. Department of Justice to meet Clean Water Act requirements
- Louisville MSD's Integrated Overflow Abatement Plan (IOAP) consists of an estimated \$850 million investment, and requires that MSD complete 123 projects with targeted deadlines to achieve MSD's water quality goals by 2020 in the Combined Sewer System and by 2024 in the Separate Sewer System
- Nine years into a (19) year program, MSD has met each required deadline and certified more than 100 projects and deliverables, including certification of project completions, quarterly and annual reports and various other required deliverables
- Implementation of Green Infrastructure practices is a key element of Louisville MSD's Consent Decree, and MSD is recognized as a national leader in utilizing Green Infrastructure to achieve cost effect regulatory compliance
- MSD continues to make large annual investments in the rehabilitation of our sewer systems, including substantial efforts and outreach in storm water source control
- Louisville MSD has either completed or has awarded and is currently constructing many of the largest and most difficult Consent Decree projects





A primary factor in Louisville MSD's favorable Consent Decree lies in the utilization of a large conveyance system constructed by our predecessors, The Commissioners of Sewerage between 1906 – 1942, for wet-weather storage



- Municipal Separate Storm Sewer System (MS4) – MSD is Permittee for the storm water quality program in Jefferson County, Ky., and manages and coordinates the activities of several co-permittees
- Kentucky Division of Water regulates all permits for all MSD wastewater treatment plants
- Most MSD Capital projects require coordination and permitting through Kentucky Division of Water, U.S. Army Corps of Engineers (USACOE), Federal and Kentucky Fish & Wildlife as well as historic and cultural studies and mitigation
- Flood Protection System Certification – routine inspections and system certification by USACOE
- As the Local Storm Water Utility, MSD is required to stay informed of changes to the National Flood Insurance Program and it's impact on insurance premiums for our customers
- MSD is keenly aware of the potential for future changes in nutrient removal at our wastewater treatment facilities – potential increased nutrient removal as a part of the Gulf Hypoxia solution



## *MSD is heavily regulated, but also serves as a local regulator*

- MSD enforces strict compliance with our Wastewater and Storm water Discharge Regulations
- Through local ordinance, Metro Louisville has delegated the responsibility administering the local Erosion Protection and Sediment Control Ordinance to MSD, including the review, inspection and enforcement of all earth disturbing activities in Jefferson County
- Through local ordinance, Metro Louisville has delegated the responsibility administering the local Floodplain Ordinance to MSD, including the review, inspection and enforcement of all activities in the floodplains of Jefferson County



## ***Metro Louisville, through the work of MSD, participates as a Class IV Community in the CRS Program***

- The Community Rating System is a voluntary program offered through FEMA which allows local communities to regulate above the minimum requirements of the National Flood Insurance Program, resulting in the reduction of flood insurance premiums for residents of that community
- Communities are rated from 1-10 (1 being the best), and each increase in class results in an additional 5% reduction in Federal insurance premiums for all residents of that community
- Of the over 1,230 communities participating nationwide, only six have a higher rating than Louisville
- As a Class IV Community, our residents enjoy a 30% discount on Flood Insurance





# Capital Program

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- Total of 41 construction contracts awarded, with a total value of \$100,341,382
- 88 professional services agreements totaling \$17,300,295
- 137 easements acquired, 8 parcels acquired in fee simple







- Progress at the expansion at the Derek R. Guthrie Water Quality Treatment Center



- In 2015, the Regional Jeffersontown Water Quality Treatment Center will be eliminated, in compliance with the Consent Decree
- In 2015, the (5) remaining package wastewater treatment plants in the Prospect area will be eliminated, in compliance with the Consent Decree
- Although not a regulatory mandate, by the end of 2015, MSD will remove from service the remaining (10) publicly owned package treatment plants
- Bells Lane High-Rate Treatment (HRT) continues construction
- Buechel Basin construction will be complete



# FY 2015 Capital Milestones – 20-Year Facilities Plan

- In September 2014, the MSD Board authorized a \$4.3 million 20-year facilities plan by CH2M-Hill
- This plan will, for the first time in MSD’s history, compile all available information regarding MSD’s key area of focus (wastewater, storm water, flood protection and property management) into a single comprehensive plan that will guide MSD’s capital program post-Consent Decree
- The plan will include a detailed rate study and level of service evaluation for each of MSD’s service offerings, and suggest modifications to our existing rate structure



- This effort will allow MSD to have a meaningful discussion with ratepayers and elected officials in the future regarding increasing or decreasing service levels/levels of protection that are impacted by future rates
- MSD has been operating as a storm water utility for 25 years, and the function of this utility has changed dramatically over that period. This study will assist in a detailed evaluation of whether this program subsidizes or is subsidized by fees collected through other areas



	Amount
IOAP/ Consent Decree Expenditures	\$67.3 million
Jeffersontown WTP Elimination	
Prospect WTP Eliminations	
Bells Lane West Weather Treatment	
Logan Street CSO Basin	
Drainage/Flood Protection	6.7 million
Levee Certification	
Project DRI	
Flood Pump Station Upgrades	
Engineering non-Consent Decree	6.1 million
Regulatory Services non-Consent Decree	10.8 million
Equipment/Fleet	2.5 million
Miscellaneous Operations Upgrades	9.9 million
Investment in Information Technology	3.4 million
20-year Facilities Plan	1.7 million



# Capital Cashflow Summary for FY 2015-2019

Louisville & Jefferson County Metropolitan Sewer District Proposed Capital Cashflow Summary FY15-FY19					
	FY2015	FY2016	FY2017	FY2018	FY2019
<b>Division</b>					
<b>Operations</b>					
Collection/Treatment	\$5,703,250	\$4,704,375	\$82,500		\$4,800,000
Drainage & Flood Protection	1,708,125	1,668,750	1,780,000	2,225,000	2,225,000
Fleet	2,500,000	2,500,000	2,500,000	2,500,000	3,000,000
<b>Engineering</b>					
Sanitary	63,589,976	63,156,130	80,425,000	81,650,000	44,549,250
Drainage	4,388,660	13,820,756	9,485,168	2,800,000	4,500,000
Regulatory Services	20,662,428	20,315,073	10,785,775	11,453,250	12,000,000
General Miscellaneous	240,625	100,000	100,000	100,000	100,000
<b>Information Technology</b>					
LOJIC	100,000	100,000	100,000	100,000	100,000
IT					
<b>Subtotal</b>	98,893,064	106,365,084	105,258,443	100,828,250	71,274,250
New Projects	15,411,250	22,401,250	4,570,000	3,600,000	37,275,000
<b>Subtotal</b>	114,304,314	128,766,334	109,828,443	104,428,250	108,549,250
One Water/Strategic Initiatives	3,555,000	-	-	-	-
<b>Total</b>	<b>\$117,859,314</b>	<b>\$128,766,334</b>	<b>\$109,828,443</b>	<b>\$104,428,250</b>	<b>\$108,549,250</b>

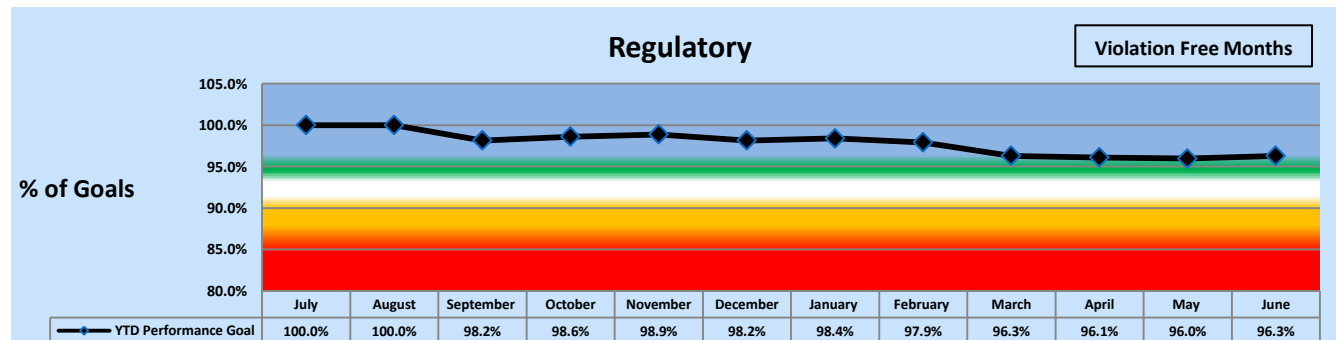
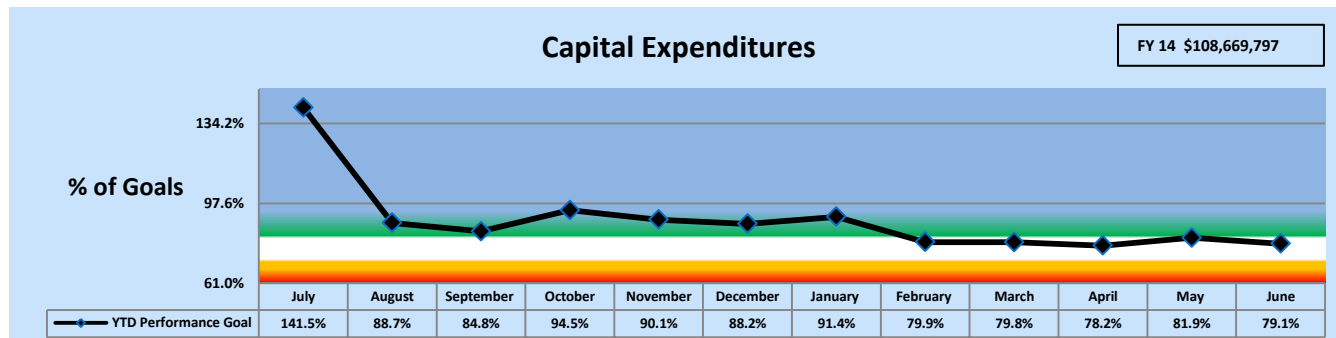
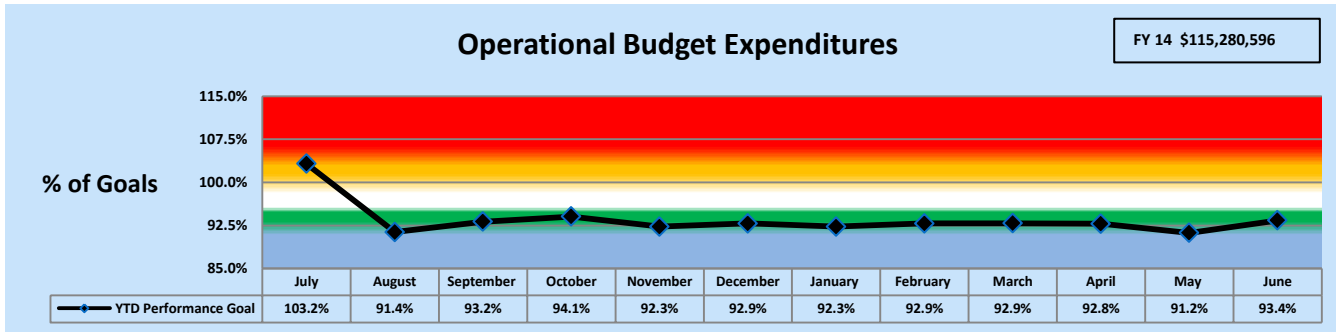
# Financial Update

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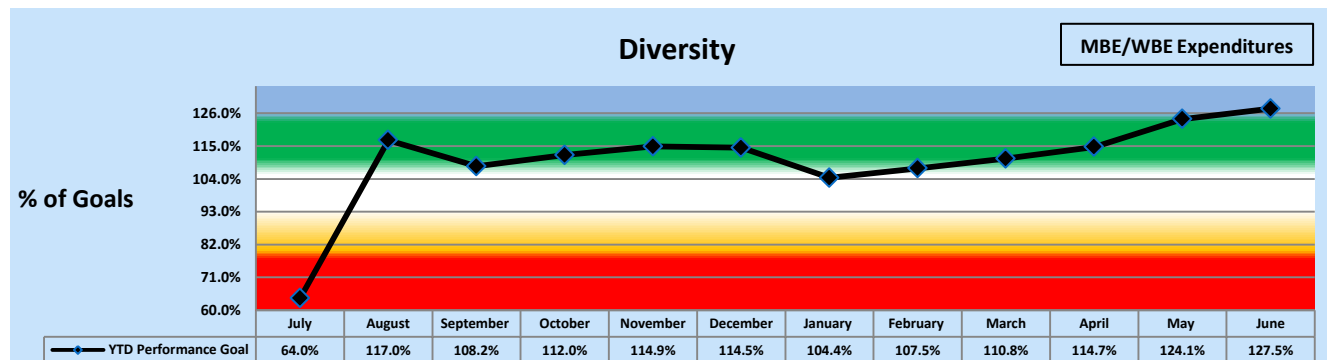
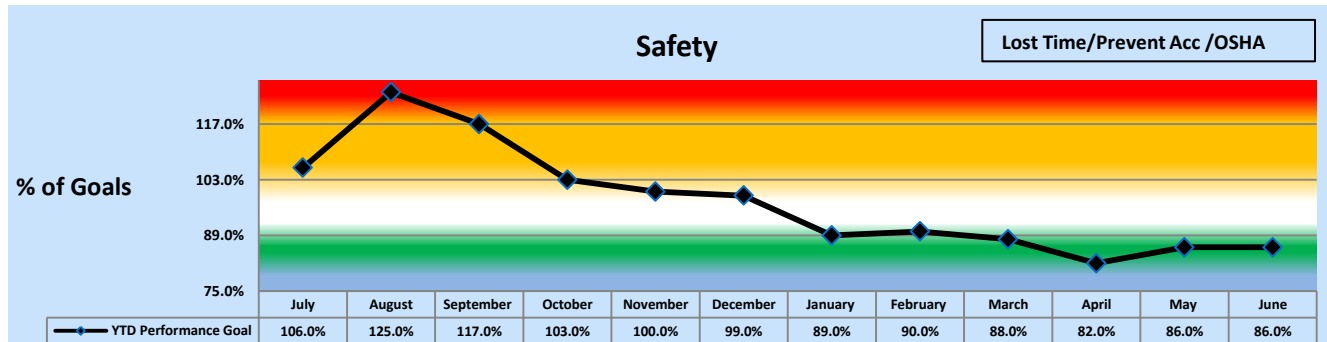


- Rate increase of 5.8% on August 1, 2013
- Net Income (before swaps) of \$37 million; an increase of \$15 million from FY2013 and \$20 million over budget
  - FEMA contribution of \$4 million for flood mitigation buy outs
- Operating Revenue of \$217 million; \$7 million increase over FY2013 and \$2 million better than budget
- O&M spending of \$107 million; \$1 million under FY2013 and \$8 million under budget
- Total Interest expense of \$95 million; \$13 million less than FY2013 and \$1 million under budget
  - Spring 2013 refunding – reduced debt service by \$112 million over 20 years - \$44 million NPV
  - Termination of 7 swaps – reduced payments by \$13 million over 10 years - \$5 million NPV
- New bond issue of \$100 million @ 4.59%
- Rolled BAN @ 0.38%

- Rate Increase of 5.5% on August 1, 2014
- Operating Revenue of \$228 million – an increase of 5%
- O&M spending of \$116 million – includes \$4.5 million contingency reserve
  - Excluding contingency reserve – less than FY2012 budget
- Capital project spending of \$118 million
- New bond issuance of \$80 million @ estimated 4.5%
- Roll of BAN @ 2.0%





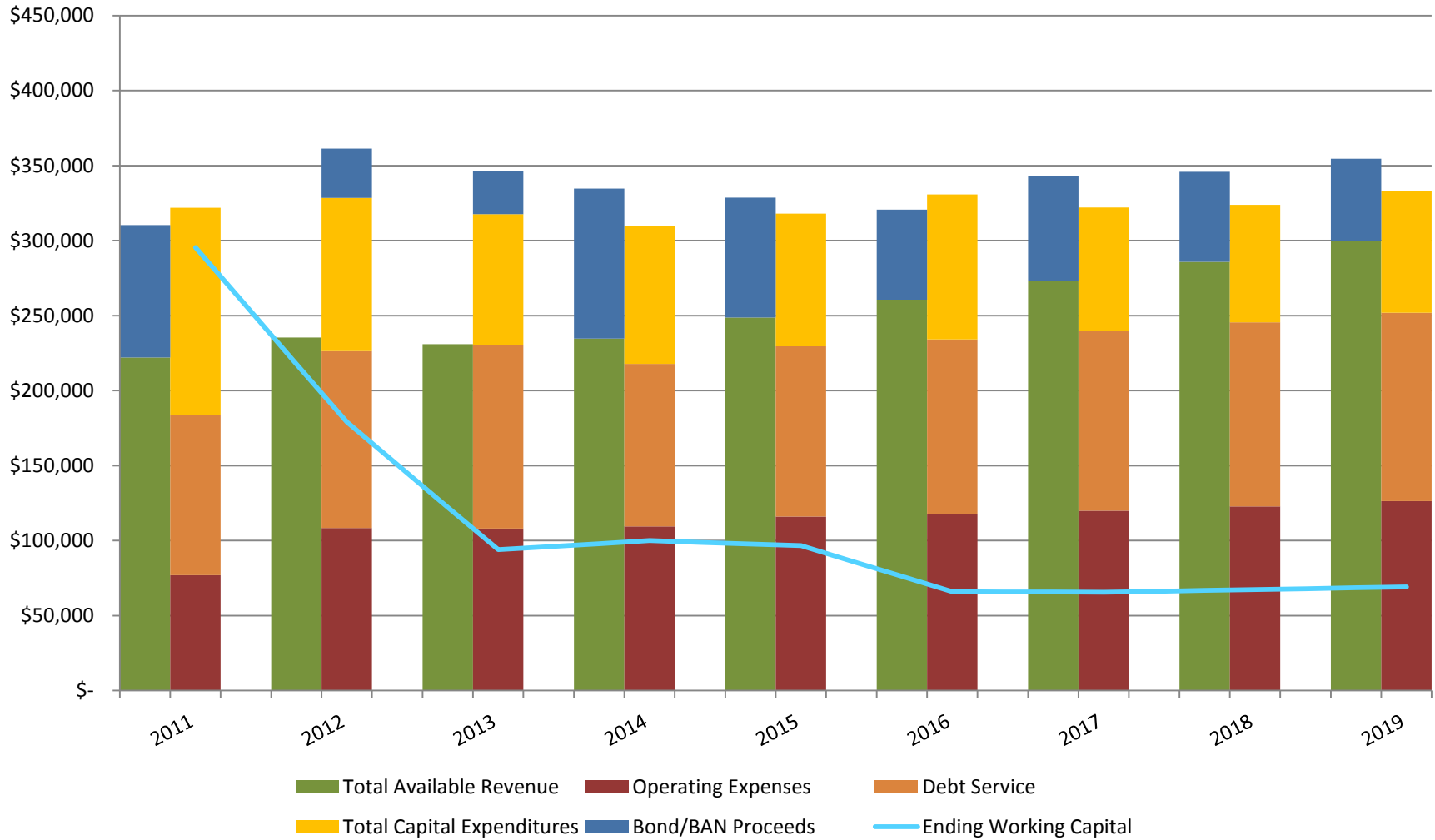


	Actual 2012	Actual 2013	Actual 2014	Budget 2014	Budget Variance		Budget 2015
					\$	%	
<b>Revenue</b>							
Wastewater Fees	\$149,626	\$159,791	\$165,599	\$166,692	(\$1,093)	-0.7%	\$171,144
Stormwater Fees	40,856	45,431	48,457	48,041	416	0.9%	52,295
Other	1,756	4,823	2,576	4,000	(1,424)	-35.6%	4,250
<b>Total Operating Revenue</b>	<b>192,238</b>	<b>210,045</b>	<b>216,632</b>	<b>218,733</b>	<b>(2,101)</b>	<b>-1.0%</b>	<b>\$227,689</b>
<b>Operating Expenses</b>							
Service and Adm. Costs	(75,126)	(74,931)	(73,353)	(81,849)	8,496	-10.4%	(\$81,183)
Depreciation & Amortization	(60,527)	(60,335)	(63,516)	(59,275)	(4,241)	7.2%	(64,000)
<b>Total Operating Expenses</b>	<b>(135,653)</b>	<b>(135,266)</b>	<b>(136,869)</b>	<b>(141,124)</b>	<b>4,255</b>	<b>-3.1%</b>	<b>(\$145,183)</b>
<b>Net Operating Income</b>	<b>56,585</b>	<b>74,779</b>	<b>79,763</b>	<b>77,609</b>	<b>2,154</b>	<b>2.8%</b>	<b>\$82,506</b>
Investment Income	40,667	16,347	20,330	17,986	2,344	13.0%	\$18,986
Interest Expense	(73,657)	(76,217)	(71,129)	(80,364)	9,235	-11.5%	(80,755)
Other	2,095	7,134	8,103	2,000	6,103	305.2%	-
<b>Change in Net Position Before Swaps</b>	<b>25,690</b>	<b>22,043</b>	<b>37,067</b>	<b>17,231</b>	<b>19,836</b>	<b>115.1%</b>	<b>\$20,737</b>
Change in Fair Value of Swaps	(52,896)	36,286	(1,222)	-	(1,222)	n/a	-
<b>Total Net Income</b>	<b>(\$27,206)</b>	<b>\$58,329</b>	<b>\$35,845</b>	<b>\$17,231</b>	<b>\$18,614</b>	<b>108.0%</b>	<b>\$20,737</b>

All figures in 000's

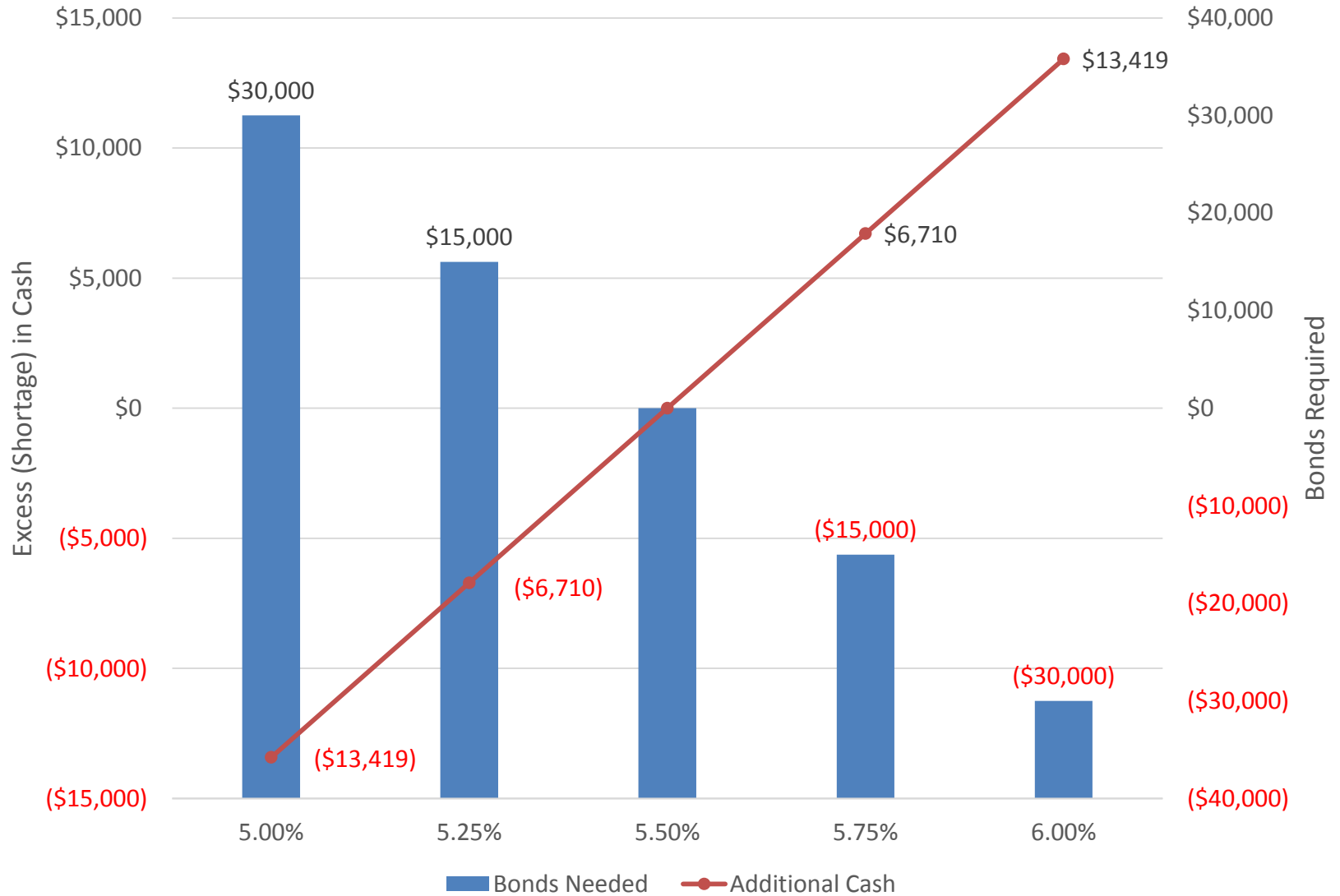
	Actual 2012	Actual 2013	Actual 2014	Budget 2014	Budget 2015
Revenue					
Service Fees	\$190,481	\$205,222	\$214,056	\$214,354	\$223,439
Investment Income	40,687	18,454	20,330	18,000	18,986
Other	3,851	7,215	4,705	6,000	6,250
Total Revenue	\$235,019	\$230,891	\$239,091	\$238,354	\$248,675
Operating Expenses	(\$108,326)	(\$108,041)	(\$106,921)	(\$115,281)	(\$115,975)
Debt Service					
Maturities	(\$24,840)	(\$25,740)	(\$28,525)	(\$27,035)	(\$28,650)
Sr. Debt Interest	(78,954)	(89,244)	(80,613)	(80,075)	(83,403)
BAN Interest	(6,542)	(4,784)	(4,519)	(4,527)	(4,527)
SWAP Payments	(11,235)	(10,200)	(9,733)	(10,976)	(9,506)
Total Debt Service	(\$121,571)	(\$129,968)	(\$123,390)	(\$122,613)	(\$126,086)
Capital Projects	(\$102,108)	(\$87,185)	(\$90,526)	(\$86,936)	(\$94,287)
Bond Proceeds					
New Bonds Issued	\$260,125	\$235,305	\$91,437	\$90,000	\$75,000
Bonds Retired	(293,090)	(264,065)	-	-	-
Misc.	13,511	37,997	(7,277)	(936)	3,425
Total Bond Proceeds	(\$19,454)	\$9,237	\$84,160	\$89,064	\$78,425
Increase/(Decrease) in Working Capital	<u>(\$116,440)</u>	<u>(\$85,066)</u>	<u>\$2,414</u>	<u>\$2,588</u>	<u>(\$9,248)</u>

# MSD's Ending Working Capital in Relation to 4 Key Variables 2011-2019



All figures in 000's

# Cumulative Cash 2015-2025



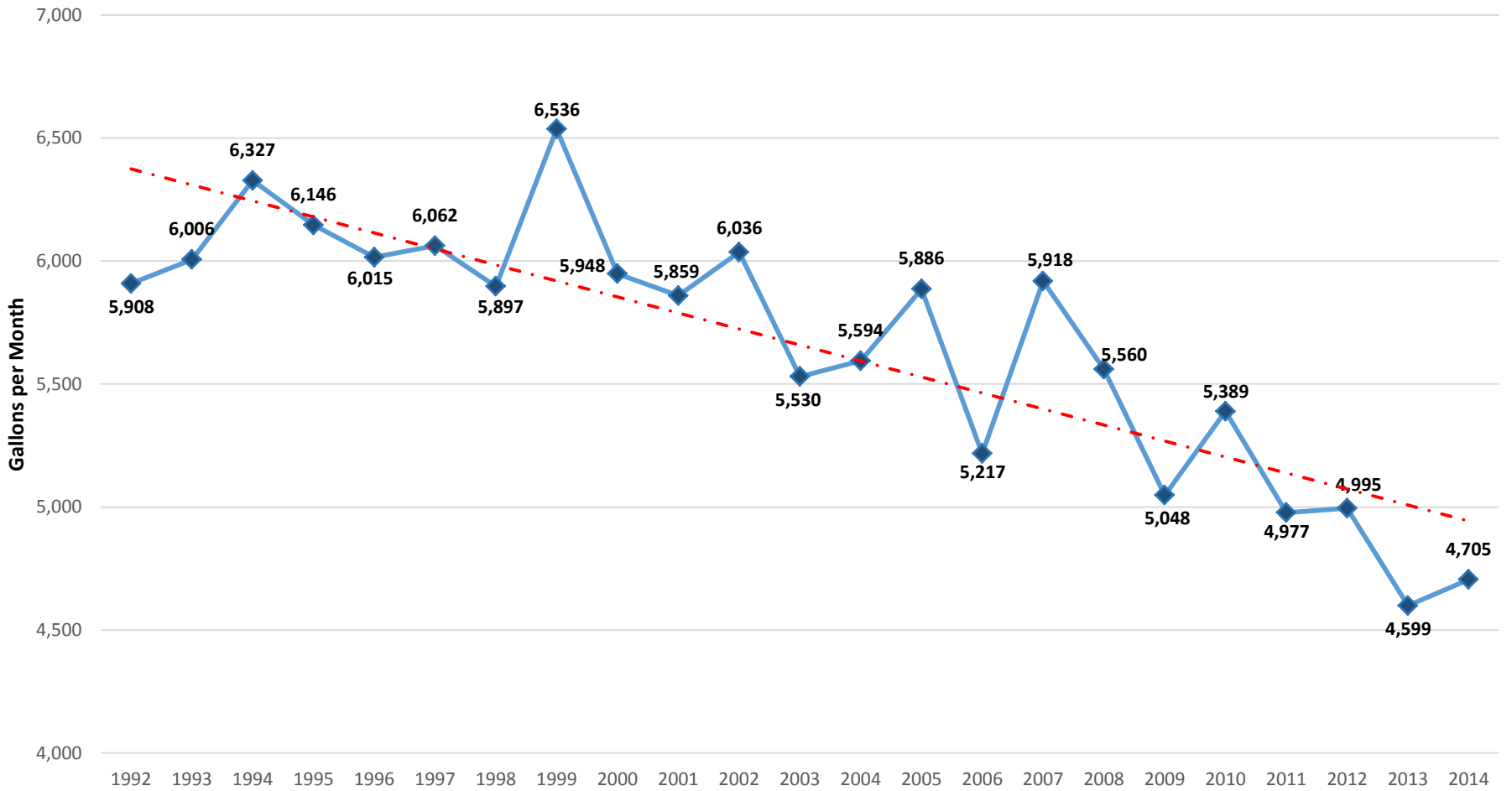
All figures in 000's

Fiscal Year	2014 Budget	2015 Budget
	Par Amount of Senior Revenue Bonds ('000)	Par Amount of Senior Revenue Bonds ('000)
2014	\$100,000	-
2015	60,000	\$80,000
2016	80,000	60,000
2017	70,000	70,000
2018	60,000	60,000
2019	-	55,000
5 Years	\$370,000	\$325,000
Beyond	\$105,000	\$50,000
Add'l Bonds	<u>\$475,000</u>	<u>\$375,000</u>

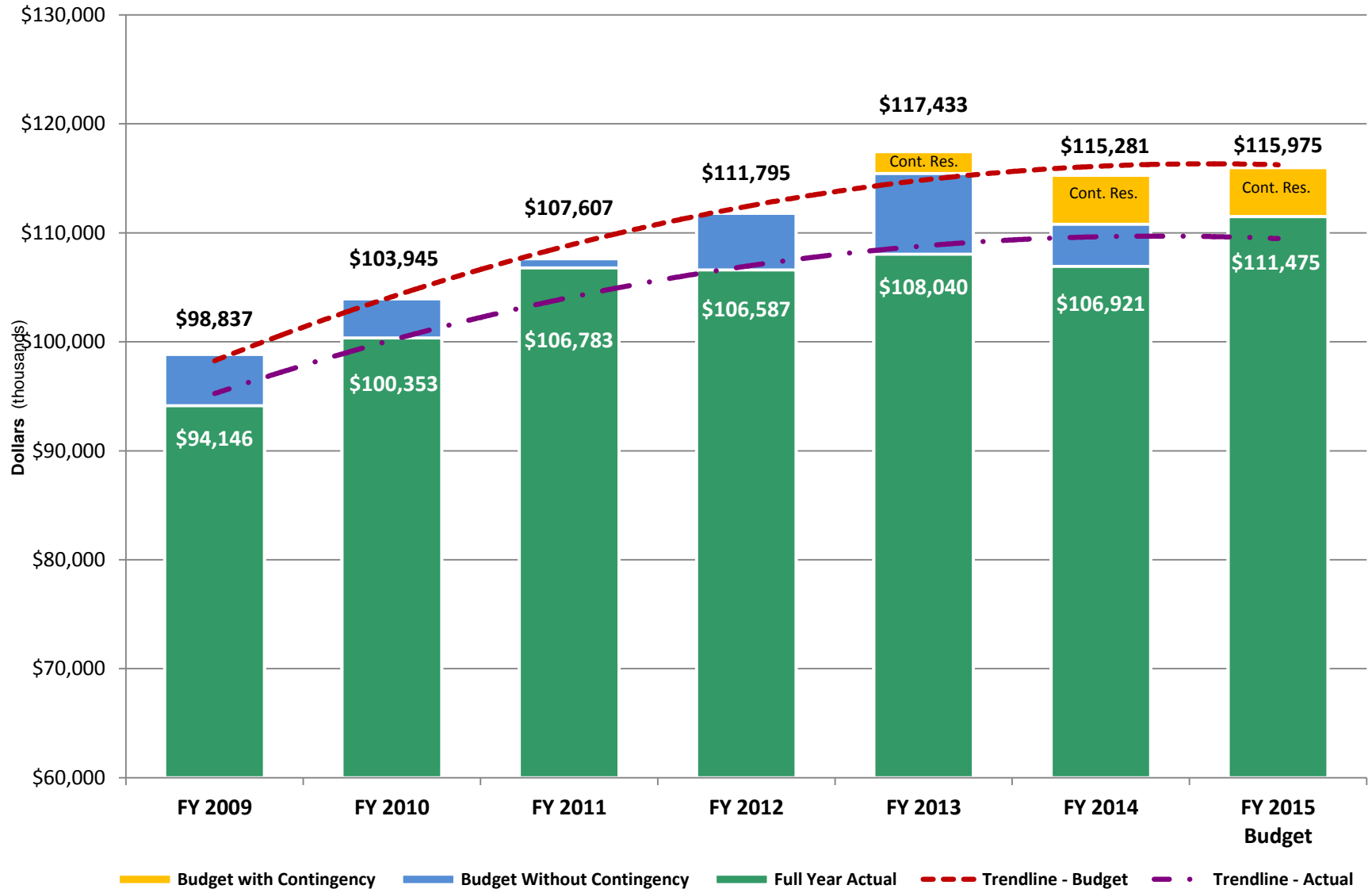
*Approximately 40% of borrowing for Consent Decree*



## LWC Monthly Consumption per Residential Customer



# Paradigm Shift – Bending the Trend “Budget to Actual”



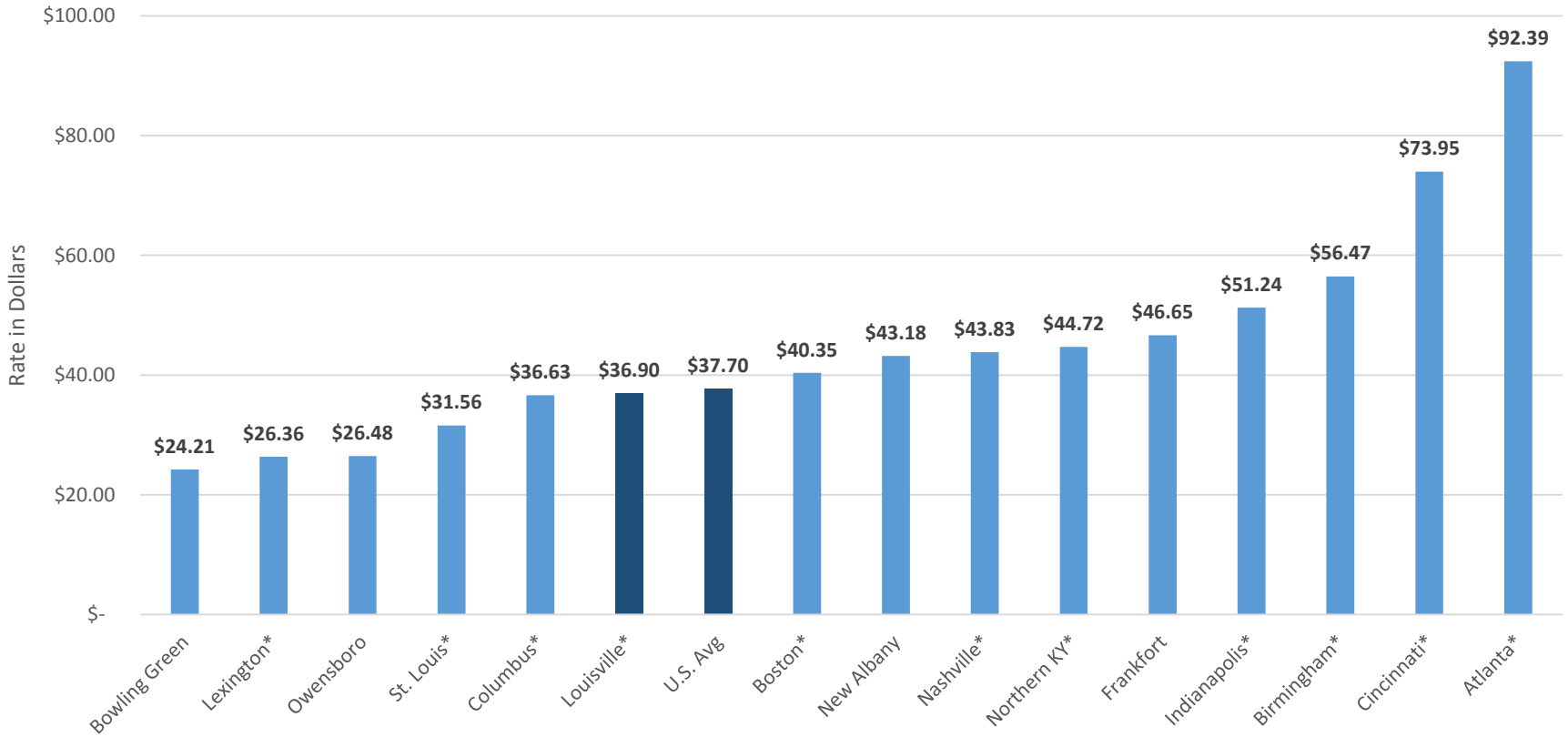
# Cities with Consent Decrees

	Current Ratings (Moody's/S&P)	Wastewater Bill*	Amount of Consent Decree	Year
St. Louis	Aa1/AAA	\$31.56	\$4.7 billion	2012
Louisville	Aa3/AA	\$36.90	\$850 million	2005
Nashville	Aa2/AA-	\$44.83	\$1.5 billion	2007
Northern KY	Aa2	\$44.72	\$880 million	2005
Indianapolis	A2	\$51.24	\$1.7 billion	2006
Knoxville	Aa2/AA+	\$62.00	\$650 million	2004
Cincinnati	Aa2/AA+	\$73.95	\$3.2 billion	2002
Atlanta	Aa3/A+	\$92.39	\$4 billion	1999

←  
50% complete

\* Based on 5,000 gallons

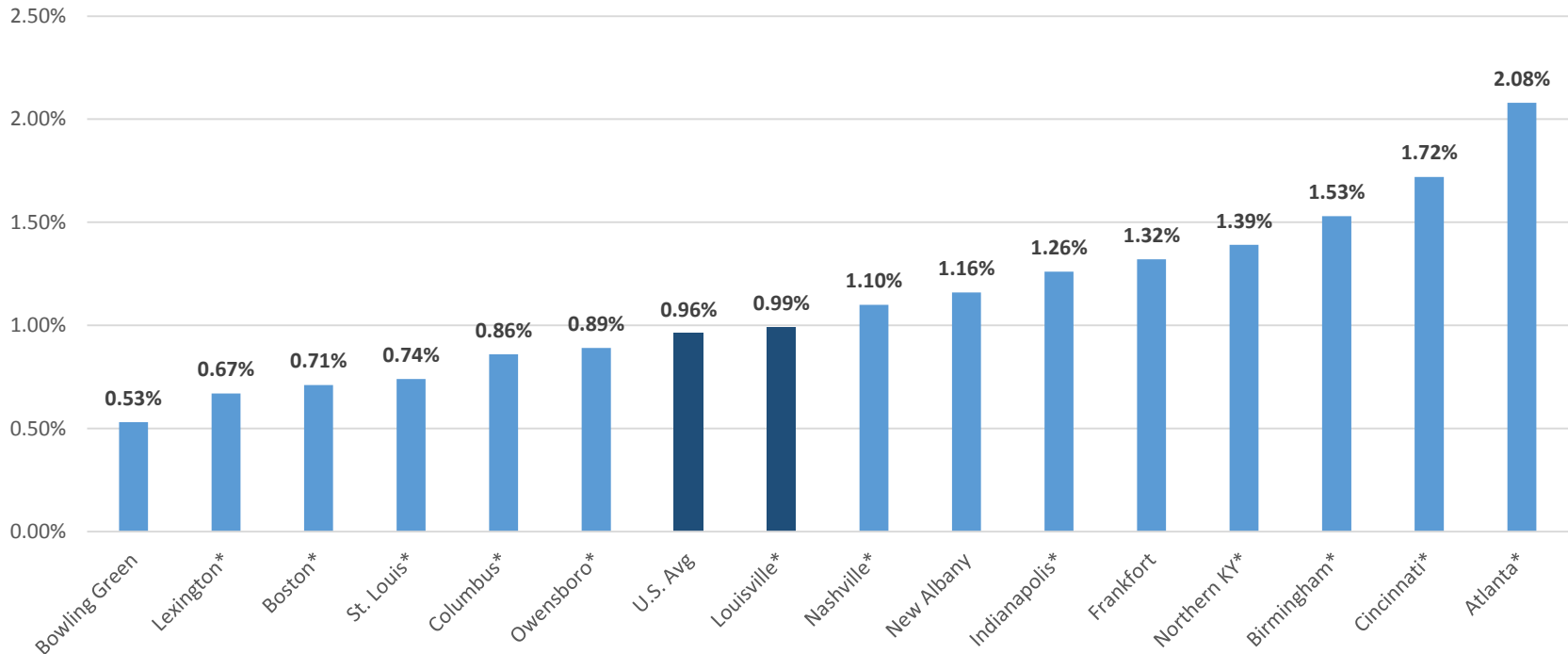
# Average Monthly Residential Wastewater Bill based on 5,000 gallons 2014



\* Cities with Consent Decree  
 Source: 2014 NACWA website

# Average Monthly Residential Wastewater Bill as a % of Median Household Income

- Including Drainage, MSD's % of MHI is 1.2%, which places MSD in the low impact range of the EPA Financial Capability Indicator Score
- This is an improvement from 2009 when MSD's score placed in the medium range
- MHI for Louisville MSA = \$44,678



\* Cities with Consent Decree  
Source: Census Data 2010



Free Sewer to Metro Government	\$5,253,000
Free Drainage to Metro Government	1,087,000
Senior Citizens' Discount	720,000
Community Ministries	100,000
<b>Total Contributions</b>	<b>\$7,160,000</b>

## Characteristics of Competitive Bidding for MSD's Bonds:

- Stable base of bidders
- Aggressive spreads

### Series 2013A

The following bids were submitted using **PARITY**<sup>®</sup> and displayed ranked by lowest TIC. Click on the name of each bidder to see the respective bids.

Bid Award*	Bidder Name	TIC
<input checked="" type="checkbox"/> Reoffering	<a href="#">Citigroup Global Markets Inc.</a>	3.794999
<input type="checkbox"/>	<a href="#">Bank of America Merrill Lynch</a>	3.809562
<input type="checkbox"/>	<a href="#">Wells Fargo Bank, National Association</a>	3.840007
<input type="checkbox"/>	<a href="#">J.P. Morgan Securities LLC</a>	3.903708
<input type="checkbox"/>	<a href="#">Raymond James &amp; Associates, Inc.</a>	3.950131
<input type="checkbox"/>	<a href="#">Barclays Capital Inc.</a>	4.077279

} Spread of 29 bps

### Series 2013B

The following bids were submitted using **PARITY**<sup>®</sup> and displayed ranked by lowest TIC. Click on the name of each bidder to see the respective bids.

Bid Award*	Bidder Name	TIC
<input checked="" type="checkbox"/> Reoffering	<a href="#">Bank of America Merrill Lynch</a>	3.651010
<input type="checkbox"/>	<a href="#">Citigroup Global Markets Inc.</a>	3.657791
<input type="checkbox"/>	<a href="#">Wells Fargo Bank, National Association</a>	3.679973
<input type="checkbox"/>	<a href="#">Robert W. Baird &amp; Co., Inc.</a>	3.706454
<input type="checkbox"/>	<a href="#">J.P. Morgan Securities LLC</a>	3.768416
<input type="checkbox"/>	<a href="#">Morgan Stanley &amp; Co. LLC</a>	3.794230

} Spread of 14 bps

### Series 2013C

The following bids were submitted using **PARITY**<sup>®</sup> and displayed ranked by lowest TIC. Click on the name of each bidder to see the respective bids.

Bid Award*	Bidder Name	TIC
<input checked="" type="checkbox"/> Reoffering	<a href="#">Bank of America Merrill Lynch</a>	4.594323
<input type="checkbox"/>	<a href="#">Citigroup Global Markets Inc.</a>	4.617774
<input type="checkbox"/>	<a href="#">J.P. Morgan Securities LLC</a>	4.652878
<input type="checkbox"/>	<a href="#">Wells Fargo Bank, National Association</a>	4.670008
<input type="checkbox"/>	<a href="#">Robert W. Baird &amp; Co., Inc.</a>	4.687717
<input type="checkbox"/>	<a href="#">Morgan Stanley &amp; Co. LLC</a>	4.719967

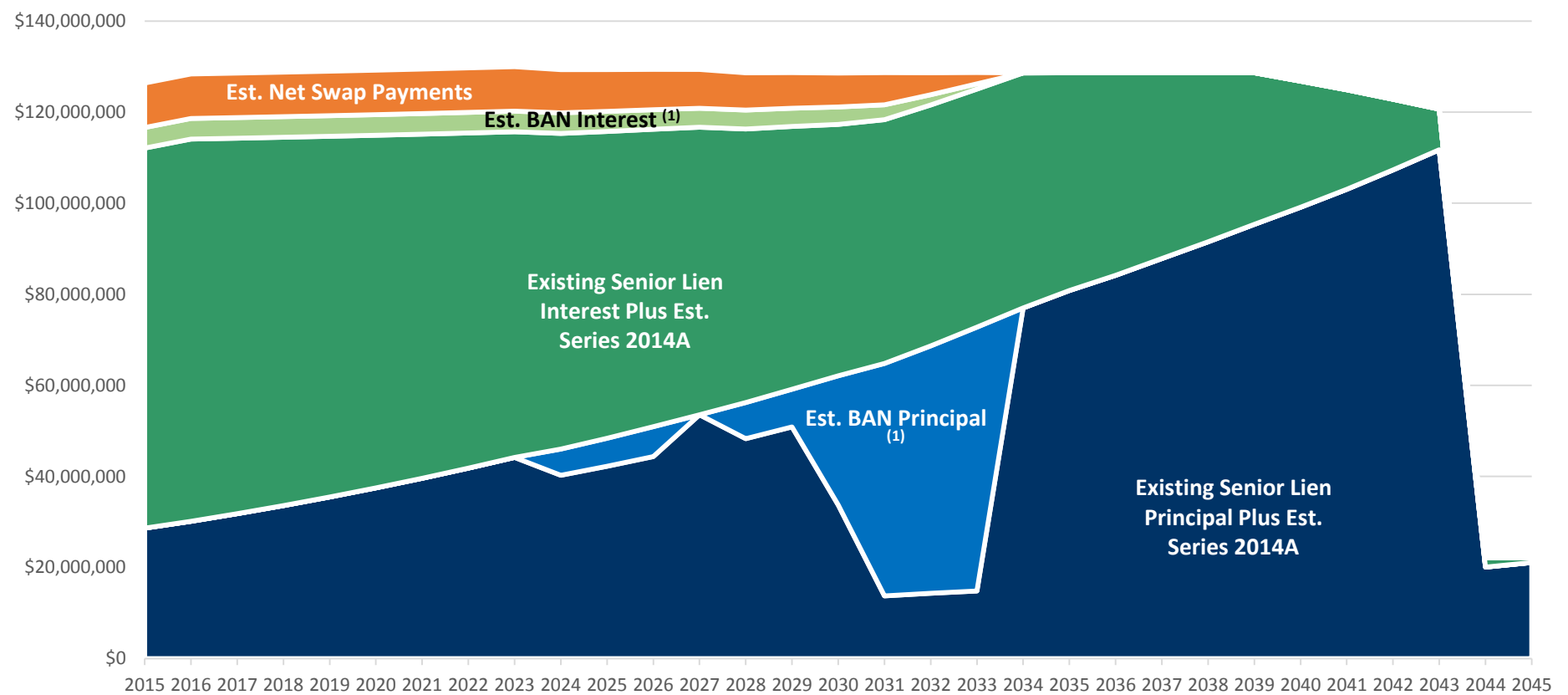
} Spread of 12 bps

# Est. Cost of Issuance for 2014 Financings vs. 2011 Financings

Cost of Issuance	BAN	Bond	Total
Series 2011	\$405,800	\$708,197	\$1,113,997
Series 2014	\$205,567	\$183,675	\$389,242

\*Includes legal fees and expenses, printing costs, rating agency fees, fees and expenses of the Paying Agent, the Escrow Agent and the Financial Advisor, and miscellaneous costs.

# Estimated Gross Debt Structure After 2014 Financings



(1) Amortization of BAN principal assumed to level out overall debt structure assuming a coupon of 2%  
 (2) Net swap payments assumed at current 1-month LIBOR rate (15 basis points)



# Estimated Gross Debt Structure After 2014 Financings

Fiscal Year	2014A			Existing Senior Lien Bond Debt Service	Total Senior Lien Bond Debt Service	Direct Payments <sup>(1)</sup>	Net Senior Lien Bond Debt Service	Est. Total Ban Repayment <sup>(2)</sup>	Est. Net Swap Payments	Total Net Debt Service
	Est. Bond Principal	Est. Bond Interest	Total Debt Service							
2015	-	\$1,851,596	\$1,851,596	\$110,253,400	\$112,104,996	(\$10,195,147)	\$101,909,848	\$4,514,226	\$9,765,460	\$116,189,534
2016	\$50,000	3,744,800	3,794,800	110,288,663	114,083,463	(10,195,147)	103,888,315	4,526,800	9,765,460	118,180,575
2017	50,000	3,743,300	3,793,300	110,482,363	114,275,663	(10,195,147)	104,080,515	4,526,800	9,765,460	118,372,775
2018	50,000	3,741,800	3,791,800	110,690,450	114,482,250	(10,195,147)	104,287,103	4,526,800	9,765,460	118,579,363
2019	50,000	3,740,300	3,790,300	110,905,450	114,695,750	(10,195,147)	104,500,603	4,526,800	9,765,460	118,792,863
2020	50,000	3,738,800	3,788,800	111,130,950	114,919,750	(10,195,147)	104,724,603	4,526,800	9,765,460	119,016,863
2021	50,000	3,736,800	3,786,800	111,378,413	115,165,213	(10,195,147)	104,970,065	4,526,800	9,765,460	119,262,325
2022	50,000	3,734,800	3,784,800	111,640,675	115,425,475	(10,195,147)	105,230,328	4,526,800	9,765,460	119,522,588
2023	50,000	3,732,800	3,782,800	111,904,425	115,687,225	(10,195,147)	105,492,078	4,526,800	9,760,923	119,779,801
2024	2,320,000	3,730,800	6,050,800	103,521,838	109,572,638	(10,986,150)	98,586,488	10,281,800	9,471,416	118,339,703
2025	2,380,000	3,638,000	6,018,000	103,583,713	109,601,713	(10,986,150)	98,615,563	10,561,700	9,168,946	118,346,208
2026	2,490,000	3,542,800	6,032,800	103,644,213	109,677,013	(10,986,150)	98,690,863	10,853,700	8,852,433	118,396,995
2027	1,085,000	3,443,200	4,528,200	112,160,463	116,688,663	(10,986,150)	105,702,513	4,157,400	8,520,796	118,380,708
2028	1,840,000	3,399,800	5,239,800	103,119,775	108,359,575	(10,220,525)	98,139,050	12,092,400	8,173,820	118,405,270
2029	1,935,000	3,326,200	5,261,200	103,322,100	108,583,300	(10,220,525)	98,362,775	12,273,700	7,811,504	118,447,979
2030	1,920,000	3,248,800	5,168,800	83,774,950	88,943,750	(10,220,525)	78,723,225	32,193,200	7,438,602	118,355,027
2031	2,075,000	3,172,000	5,247,000	62,058,950	67,305,950	(10,220,525)	57,085,425	54,306,000	7,051,008	118,442,433
2032	2,140,000	3,089,000	5,229,000	62,022,700	67,251,700	(10,220,525)	57,031,175	56,565,200	4,818,347	118,414,722
2033	2,260,000	3,003,400	5,263,400	61,853,094	67,116,494	(10,220,525)	56,895,969	59,098,800	2,472,044	118,466,813
2034	2,230,000	2,913,000	5,143,000	123,467,244	128,610,244	(10,220,525)	118,389,719	-	-	118,389,719
2035	2,245,000	2,823,800	5,068,800	123,557,994	128,626,794	(10,220,525)	118,406,269	-	-	118,406,269
2036	2,795,000	2,734,000	5,529,000	123,115,569	128,644,569	(10,220,525)	118,424,044	-	-	118,424,044
2037	2,625,000	2,594,250	5,219,250	123,421,419	128,640,669	(10,220,525)	118,420,144	-	-	118,420,144
2038	2,445,000	2,463,000	4,908,000	123,736,113	128,644,113	(10,220,525)	118,423,588	-	-	118,423,588
2039	2,845,000	2,340,750	5,185,750	123,463,350	128,649,100	(10,220,525)	118,428,575	-	-	118,428,575
2040	1,350,000	2,198,500	3,548,500	123,258,505	126,807,005	(8,393,859)	118,413,146	-	-	118,413,146
2041	2,595,000	2,131,000	4,726,000	120,186,750	124,912,750	(6,453,125)	118,459,625	-	-	118,459,625
2042	2,800,000	2,001,250	4,801,250	118,026,063	122,827,313	(4,383,859)	118,443,453	-	-	118,443,453
2043	3,025,000	1,861,250	4,886,250	115,777,000	120,663,250	(2,233,875)	118,429,375	-	-	118,429,375
2044	13,100,000	1,710,000	14,810,000	7,344,750	22,154,750	-	22,154,750	-	-	22,154,750
2045	21,100,000	1,055,000	22,155,000	-	22,155,000	-	22,155,000	-	-	22,155,000
Total	\$80,000,000	\$92,184,796	\$172,184,796	\$3,123,091,337	\$3,295,276,132	(\$279,811,943)	\$3,015,464,189	\$303,112,526	\$161,663,517	\$3,480,240,232

1) Due to sequestration, the federal direct payments on the Louisville and Jefferson County Metropolitan Sewer District Sewer and Drainage System Revenue Bonds, Series 2009C Build America Bonds and Louisville and Jefferson County Metropolitan Sewer District Sewer and Drainage System Revenue Bonds, Series 2010A Build America Bonds were reduced by 7.2% for fiscal years 2015 through 2023. For fiscal years 2024 through 2043, the federal direct payments are assumed at the original rate due on the outstanding Series 2009C BABs and 2010A BABs

2) Includes estimated net swap payments and interest on and projected amortization following future refinancing of the Series 2014 Notes. Does not include the principal of the Series 2014 Notes payable at maturity

<u>Timing</u>	<u>Event</u>	<u>Member Responsibility</u>
Week of September 22 <sup>nd</sup>	<ul style="list-style-type: none"> <li>Regular meeting of MSD at 10:00 AM to authorize BAN and bond documents and bond funds investment proposal (<a href="#">Monday, September 22</a>)</li> <li>Regular meeting of Metro at 6:00 PM EST for first reading of bond ordinance (<a href="#">Thursday, September 25</a>)</li> </ul>	<ul style="list-style-type: none"> <li>MSD, DS, HL</li> <li>MSD, DS, HL</li> </ul>
Week of September 29 <sup>th</sup>	<ul style="list-style-type: none"> <li>Metro Council Committee meeting at 2:00 PM to consider recommendation of second reading of bond ordinance (Thursday, October 2)</li> </ul>	<ul style="list-style-type: none"> <li>MSD, DS, HL</li> </ul>
Week of October 6 <sup>th</sup>	<ul style="list-style-type: none"> <li>Regular meeting of Metro at 6:00 PM ET for second reading of ordinance (<a href="#">Thursday, October 9</a>)</li> </ul>	<ul style="list-style-type: none"> <li>MSD</li> </ul>
Week of October 27 <sup>th</sup>	<ul style="list-style-type: none"> <li>Moody's and S&amp;P release ratings</li> <li>Notice of sale(s) published (Tuesday, October 28)</li> <li>Post Preliminary Official Statement(s) (Tuesday, October 28)</li> </ul>	<ul style="list-style-type: none"> <li>M, SP</li> <li>DS</li> <li>HL</li> </ul>
Week November 3 <sup>rd</sup>	<ul style="list-style-type: none"> <li>Series 2014 BAN sale via <i>i-Deal Parity</i> (<a href="#">Tuesday, November 4</a>)</li> <li>Series 2014 Bond sale via <i>i-Deal Parity</i> (<a href="#">Tuesday, November 4</a>)</li> </ul>	<ul style="list-style-type: none"> <li>HL</li> <li>HL</li> </ul>
Week of November 10 <sup>th</sup>	<ul style="list-style-type: none"> <li>Distribute Final Official Statement(s)</li> </ul>	<ul style="list-style-type: none"> <li>HL</li> </ul>
Week of November 24 <sup>th</sup>	<ul style="list-style-type: none"> <li>Close bond and BAN issues (<a href="#">Tuesday, November 25</a>)</li> <li>Redeem 2013 BANs (<a href="#">Wednesday, November 26</a>)</li> </ul>	<ul style="list-style-type: none"> <li>MSD, BNYM, DS, HL</li> <li>BNYM</li> </ul>

September							October							November						
Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa
	1	2	3	4	5	6				1	2	3	4							1
7	8	9	10	11	12	13	5	6	7	8	9	10	11	2	3	4	5	6	7	8
14	15	16	17	18	19	20	12	13	14	15	16	17	18	9	10	11	12	13	14	15
21	22	23	24	25	26	27	19	20	21	22	23	24	25	16	17	18	19	20	21	22
28	29	30					26	27	28	29	30	31		23	24	25	26	27	28	29
														30						

  Key dates

MSD	Louisville & Jefferson County Metropolitan Sewer District (issuer)
DS	Dinsmore & Shohl (bond counsel)
HL	Hilliard Lyons (financial advisor)
BNYM	Bank of New York Mellon (paying agent)
M	Moody's Investors Service (rating agency)
SP	Standard and Poor's (rating agency)