

An aerial photograph of a city skyline, likely Pittsburgh, featuring a river, a bridge, and various buildings. The image is partially obscured by a green overlay on the left and bottom. The skyline includes several skyscrapers and a large stadium. A yellow bridge spans the river in the foreground. In the background, there are mountains under a blue sky with light clouds. A green overlay covers the left side and bottom of the image, containing text.

# Five Cities Director Report

September 27, 2023



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RESILIENT LOUISVILLE

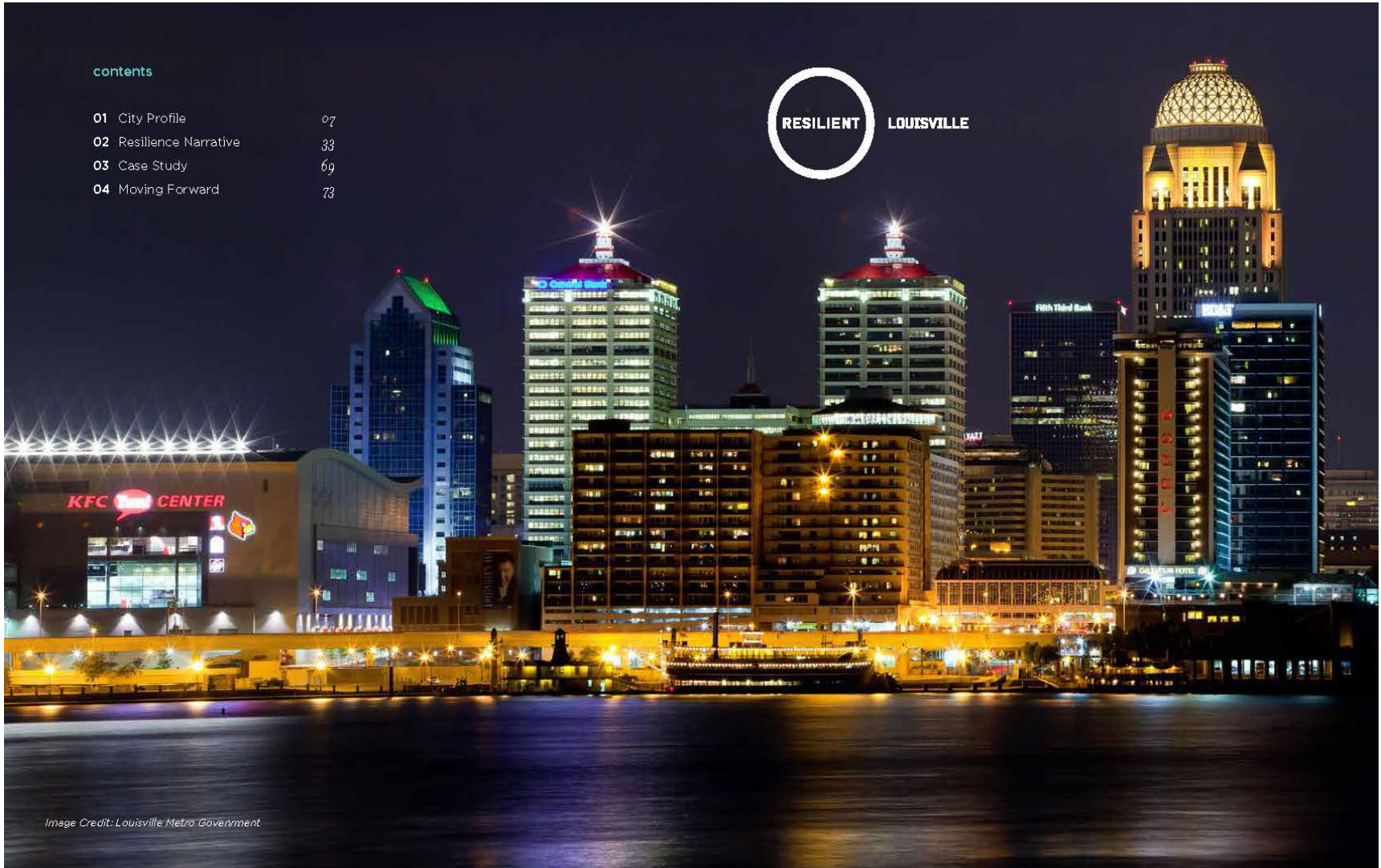


Image Credit: Louisville Metro Government



**Wastewater  
Treatment**



**Stormwater/  
Drainage**



**Flood  
Protection**



**155** million gallons  
treated daily

**5** water quality  
treatment centers

**376** square-mile  
drainage area

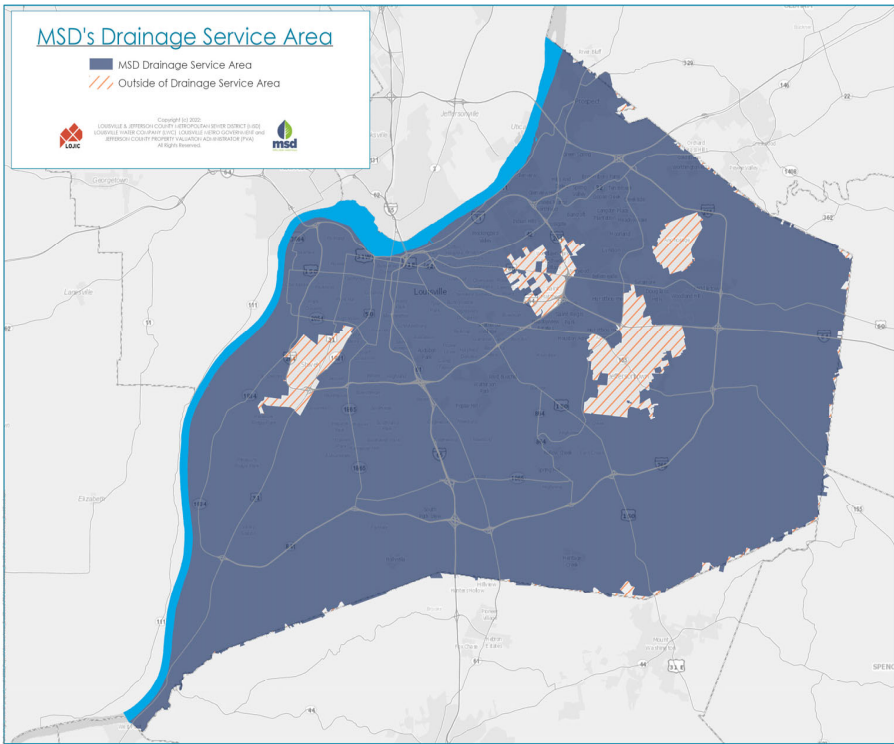
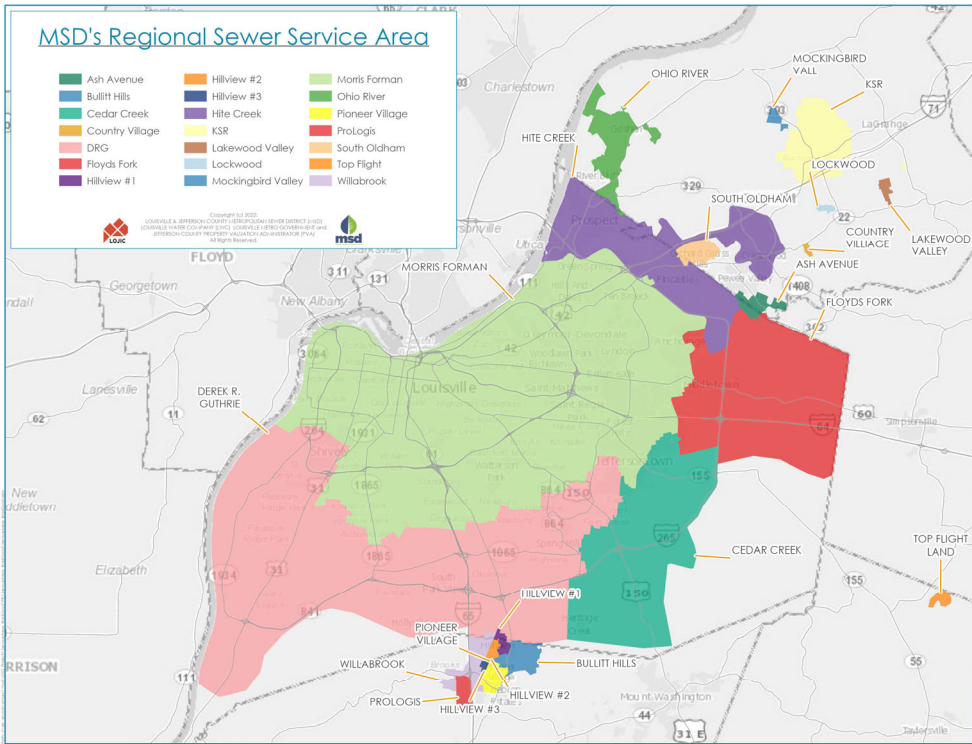
**1,100+** miles  
of pipe

**26** miles of floodwall  
and earthen levee

**\$34B** in property  
protected

**#3UtilitiesInOne**

# Service Area Operations



# The Water Sector Supports \$524 Billion In Economic Activity

## The Water Sector Supports \$524 Billion in Economic Activity

Water, wastewater, and stormwater utilities will contribute \$524 billion to the economy over the next decade, supporting 289,000 permanent jobs.



Wastewater Treatment Facility



Agricultural Irrigation System

Over the next decade, the 30 water utilities participating in this study plan to spend an aggregate total of \$23 billion per year for operations and capital expenditures. These plans represent the utilities' ongoing commitment to provide safe, clean, and affordable services to their clients and to the public. Approximately 60 percent of projected spending is attributable to the ongoing operation of the utilities and 40 percent is for capital infrastructure investments to maintain systems in a state of good repair.

As the \$23 billion of direct spending on operations and maintenance is released into the larger economy, it is re-spent by workers and suppliers, generating additional positive economic output. *Output* refers to the market value of goods and services produced directly by the utilities in this study and indirectly by their expenditures and employee wages. In other words, the utilities' initial expenditures for materials, services, and labor (their *direct effects*) are transferred to other businesses and their employees. These businesses and their employees then engage in additional spending for materials and services (their *indirect and induced effects*).

Thus, from 2014 to 2023, the operating and capital expenditures of the participating utilities will generate \$52 billion per year in total annual economic output across the United States. This results in a national economic contribution of \$524 billion over the next decade supporting approximately 289,000 permanent jobs. These jobs encompass employment that will be provided by the utilities (their *direct effects*) and within other industries that are supported by utility expenditures and employee wages (their *indirect and induced effects*).

TABLE 1: Economic Impact of Utilities

	Employment	Labor Income	Output
Aggregate Impact over 10 years	2.9 million job-years	\$189 billion	\$524 billion
Annual Impact	289,000 jobs	\$19 billion/year	\$52 billion/year

Impacts are expressed in real 2014 dollars, values may not total due to rounding.

# Ripple Effect of Water Investment

*(every \$1 million in direct spending by water utilities supports 16 jobs nationwide)*

$$\begin{array}{cccc} \$1\text{M} & = & 5 \text{ Jobs} & + & 11 \text{ Jobs} & = & 16 \text{ Jobs} \\ \text{Investment} & & \text{Direct Impact} & & \text{Indirect \& Induced Impact} & & \text{Total} \end{array}$$



# Capital Program Highlights



## 5-Year CIP by Service Area

Service Area	FY23	FY24	FY25	FY26	FY27	5-Year
Jefferson County 96%	\$ 183,247,000	\$ 207,722,000	\$ 199,200,000	\$ 221,700,000	\$ 199,692,000	\$1,011,562,000
Bullitt County 2%	\$ 2,868,000	\$ 6,317,000	\$ 4,249,000	\$ 2,320,000	\$ 2,446,000	\$ 18,200,000
Oldham County 1%	\$ 4,191,000	\$ 5,056,000	\$ 1,651,000	\$ 2,175,000	\$ 245,000	\$ 13,317,000
Management Reserve 0.5%	\$ 5,000,000	\$ -	\$ -	\$ -	\$ -	\$ 5,000,000
<b>Total</b>	<b>\$ 195,306,000</b>	<b>\$ 219,095,000</b>	<b>\$ 205,100,000</b>	<b>\$ 226,195,000</b>	<b>\$ 202,383,000</b>	<b>\$1,048,079,000</b>





# Regulatory Compliance Remains Primary Driver for Capital Improvement Program

70%  
FY23 Forecast

Regulatory Program	5-Year CIP	FY23
Consent Decree	\$ 759,366,000	\$ 96,710,000
State Agreed Orders	\$ 50,582,000	\$ 26,200,000
CMOM Program	\$ 50,506,000	\$ 9,541,000
NMC Program	\$ 1,790,000	\$ 510,000
MS4 Program	\$ 10,212,000	\$ 1,963,000
<b>Total</b>	<b>\$ 872,456,000</b>	<b>\$ 134,924,000</b>

83%  
5-Year Forecast



# What has MSD accomplished so far with the Consent Decree?



Comprehensive Performance Evaluations, Composite Correction Plans, and Sewer Overflow Response Protocol



Supplemental Environmental Projects Early Action Plan complete



Interim SSDP, LTCP, and SCAP Programs complete



24 LTCP projects complete and reduced CSOs by 5 billion gallons per year



42 SSDP projects complete and reduced 82% of modeled SSO volume for 2-year storm (16 remaining)

# Second Amendment to MSD's Consent Decree



# MSD's "Ask" of the Regulators



1

Delay final completion for the Waterway Protection Tunnel due to construction challenges (December 2022)

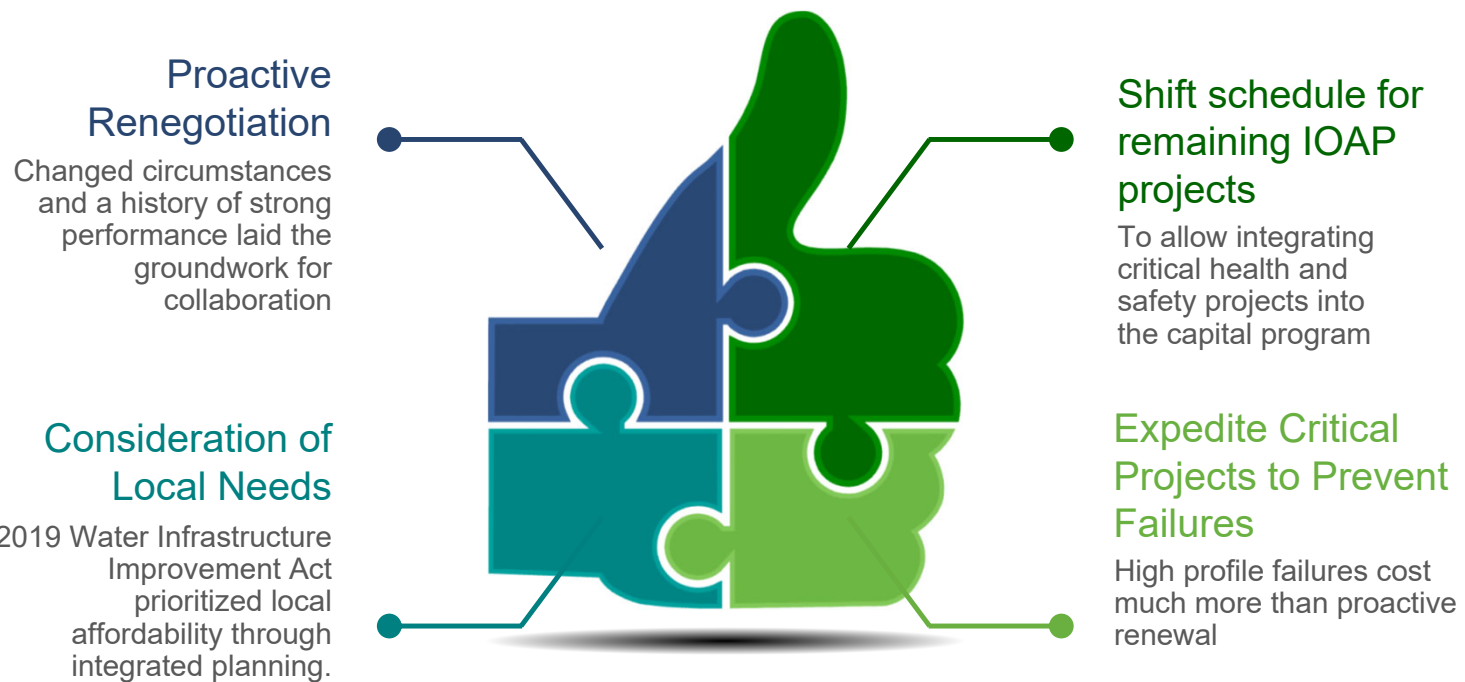
2

Stagger final completion for the 16 remaining SSDP projects through 2035 to allow MSD to address other infrastructure priorities

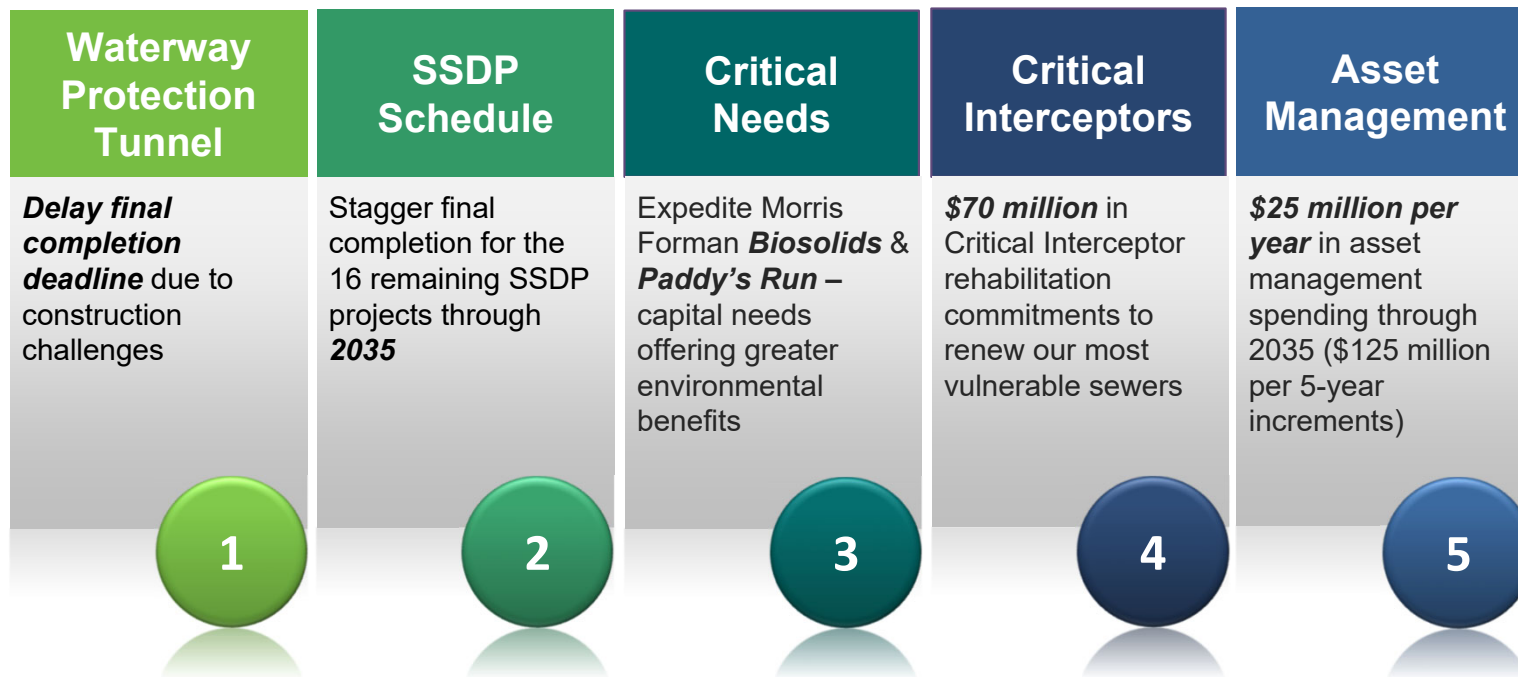
3

Expedite higher priority capital needs offering greater environmental benefit including Morris Forman Biosolids & Paddy's Run Capacity

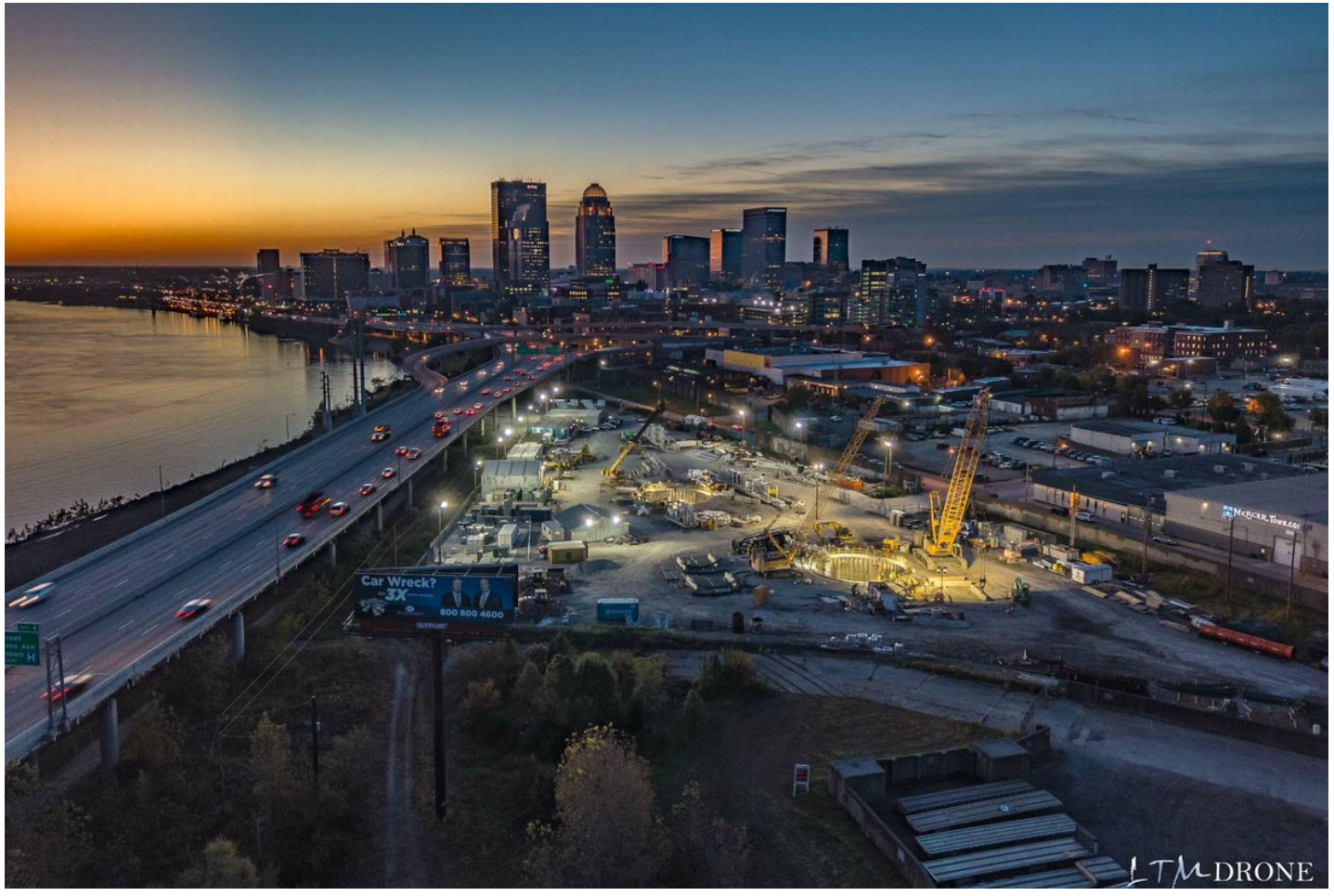
# 2<sup>nd</sup> Amended Consent Decree and 2021 IOAP Modification!



# 2<sup>nd</sup> Amended Consent Decree and 2021 IOAP Key Outcomes









# Waterway Protection Tunnel Project





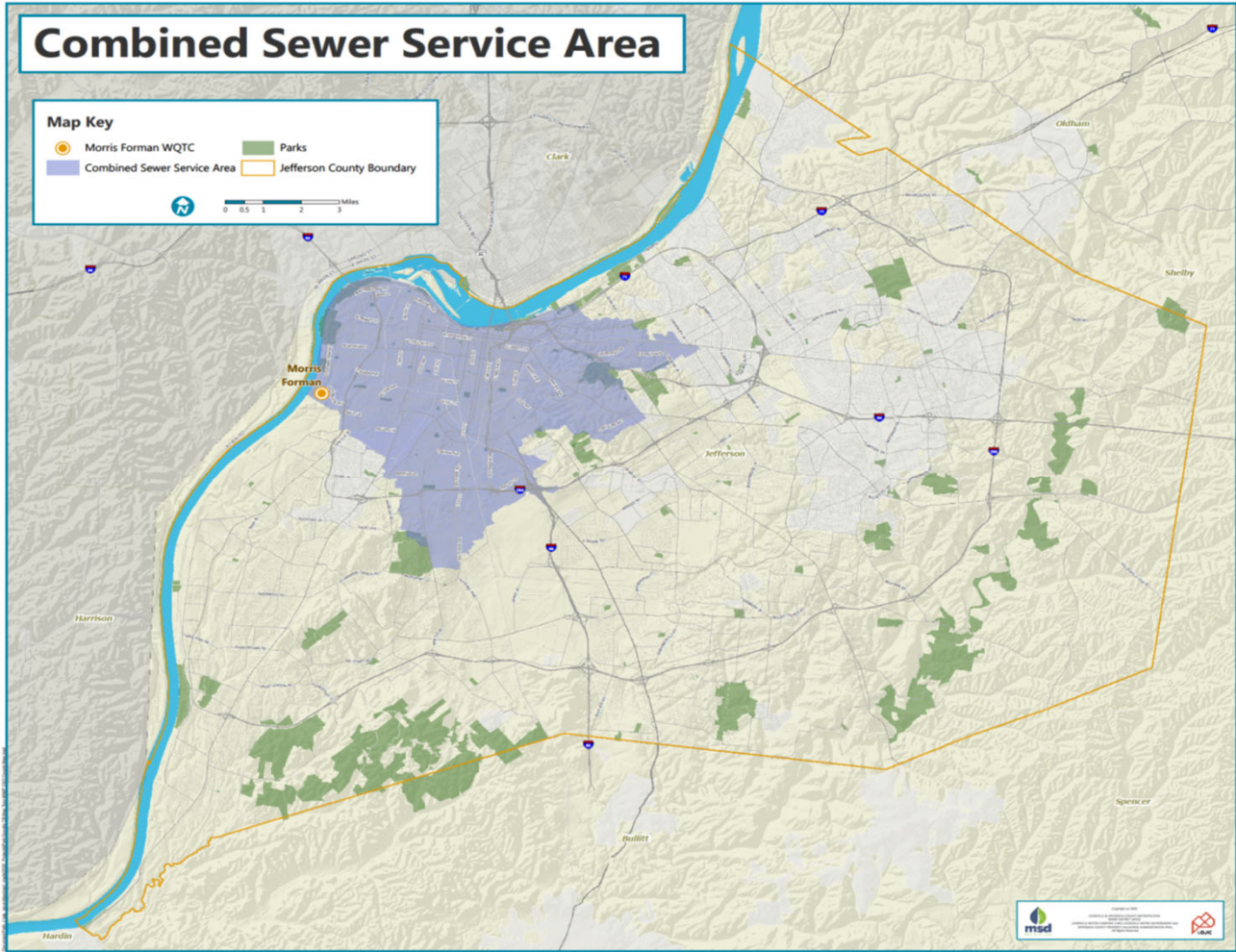


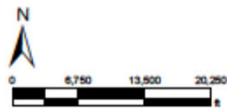
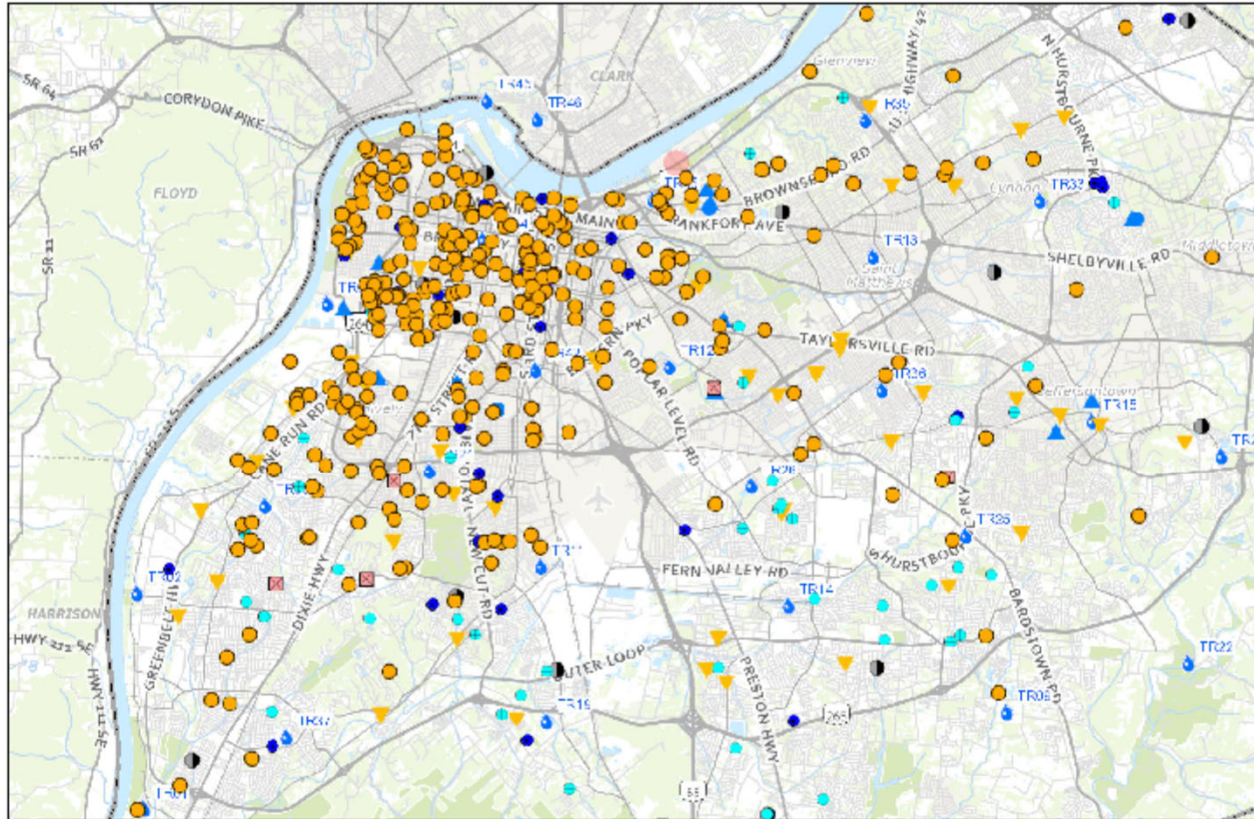
# Combined Sewer Service Area

**Map Key**

- Morris Forman WQTC
- Combined Sewer Service Area
- Parks
- Jefferson County Boundary

0 0.5 1 2 3 Miles





**9-15-23 to 9-21-23**

Thursday, September 21, 2023 | 3:32:09 PM



LOJIC © 2023

This map is not a legal document and should only be used for general reference and identification.



# Agreed Board Order No 21-01

## Notice Of Violation ENF-19-00025

### Phase 1 Deliverables

Technical Memo	Description	Due In
1	Morris Forman WQTC Background Document Review	Completed Q1 2021
2	Collection System Background Document Review	Completed Q1 2021
3	Pump Station Background Document Review	Completed Q2 2021
4	Planned Process Modification Review	Completed Q1 2021
5	Current System Odor Impact Evaluation	Completed Q2 2021
6	Sampling Program Results	Completed Q4 2021
7	Current Odor Technologies Performance Evaluation	Completed Q3 2021
8	New Odor Control Technology Recommendation	Completed Q4 2022
9	Odor Control Conceptual Design	Completed Q4 2022
	Master Plan Phase 1 Final Report	Completed Q4 2022

# Agreed Board Order No 21-01 Notice Of Violation ENF-19-00025 Phase 2

**clAIRity**  
PROGRAM



**Smell something?  
Say something.**

**Report sewer odors here.**

Not a part of the Agreed Order the following work is also be completed at the Treatment Facilities:

- Odor Control Master Plan for DRG (Phase 2)
- Covering Sludge Holding Tanks at CC for Odor Reduction
- Covering Splitter Structure 1 at SWPS



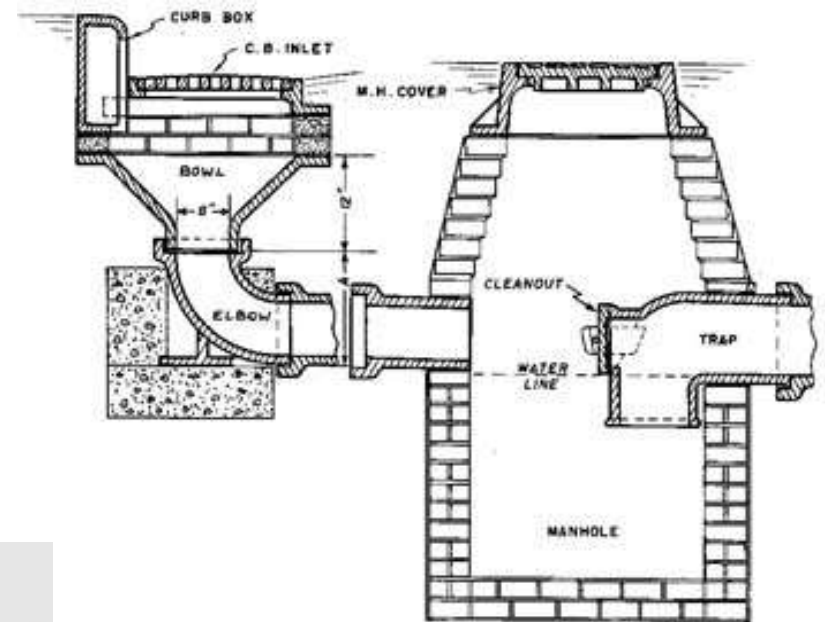
# Catch Basin Repair/Replacement

Park Duvalle	California	Maple Street	Shawnee	Chickasaw
<p><b>September 2022 –</b> 250 total Basins 9 replaced 3 repaired</p> <p><b>Fall 2023 -</b> 27 additional basins 6 replaced 10 manhole modifications Tideflex vale</p>	<p><b>Phase 1 July 2023</b> 951 total basins 12 replacements</p> <p><b>Phase 2 Fall 2023</b> 40 replacements</p>	<p><b>Fall 2023</b> 951 total basins 20 replacements</p> <p><i>Partnering with Heaven Hill – Spirited Neighbor Initiative - \$250,000</i></p>	<p>Inspection Ongoing 1142 total basins 202 replacements 200 repairs</p>	<p>Inspection Ongoing 746 total basins 98 replacements 128 repairs</p>
<p>Estimated Cost \$276,593</p>	<p>Estimated Cost \$116,000</p>	<p>Estimated Cost \$1,062,821</p>	<p>Estimated Cost \$400,000</p>	<p>Estimated Cost \$1,000,000</p>



# Combined Sewer System Catch Basin Update

- Approximately 680 miles of the largest oldest pipes in the sewer system
- More than 24,000 catch basins
- Dry weather results in increased travel times and increased wastewater strength along with traps in catch basins drying out



**clAIRity**  
PROGRAM

# Ensuring Opportunities for Community In our Work



Community Wealth Building

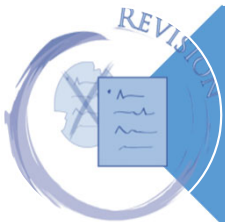


Job Opportunities

# Local Labor Program



In 2010, MSD adopted the Local Labor Preference Program.



In 2017, the bid threshold changed from \$10M to \$5M.



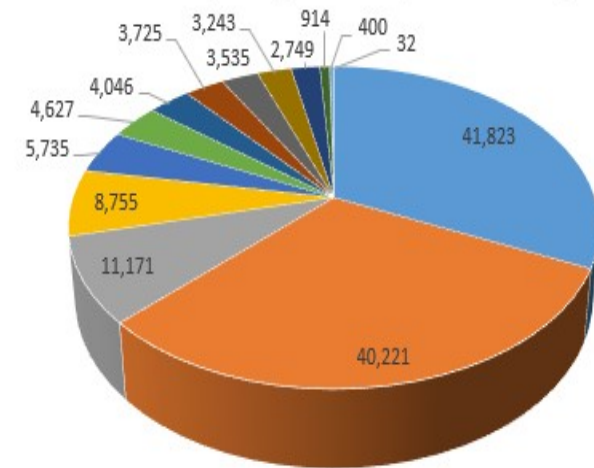
Ensures that more of the infrastructure dollars remain in the community



# Tracking the Data

Project Number	Project Name	Original Award Amount	L L Jobs in Louisville/Jefferson County (MSA)	L L Jobs in Other Ky Counties (MSA)	L L Jobs in Southern Ind Louisville/Jefferson County (MSA)	Total L L Jobs in Louisville/Jefferson County (MSA)	Labor Jobs Outside Louisville/Jefferson County (MSA)	Total Labor Jobs Created To Date
15907	Ohio River Tunnel/Shaft Package	\$ 106,670,000.00	310	70	148	528	307	835
15813	Lexington & Payne Interceptor	\$ 23,287,686.00	111	39	49	199	35	234
15932	Rowan Pump Station and Downtown Interceptor	\$ 25,899,973.00	54	34	30	118	65	183
16105	I-64 & Grinstead CSO Interceptor	\$ 5,859,000.00	71	31	69	171	66	237
15834	Hite Creek WQTC Expansion to 9 MGD	\$ 24,008,224.00	78	37	26	141	117	258
XXXX	Large Diameter Sewer Rehabilitation Project	\$ 49,000,000.00	144	15	175	334	107	441
16460	MFWQTC Primary Sedimentation Rehabilitation Project	\$ 36,138,400.00	31	10	5	46	25	71
16489	Ash Avenue Interceptor	\$ 9,110,000.00	12	12	23	47	31	78
<b>Count</b>	<b>8</b>	<b>\$ 279,973,283.00</b>	<b>811</b>	<b>248</b>	<b>525</b>	<b>1,584</b>	<b>753</b>	<b>2,337</b>
			<b>35%</b>	<b>11%</b>	<b>22%</b>	<b>68%</b>	<b>32%</b>	<b>100%</b>

Prevailing Wage Hours By MSA County



- -NOT IN ZIP LIST-
- Jefferson County KY
- Floyd County IN
- Clark County IN
- Nelson County KY
- Meade County KY
- Oldham County KY
- Spencer County KY
- Washington County IN
- Bullitt County KY
- Shelby County KY
- Harrison County IN
- Scott County IN
- Henry County KY



# Community Benefits



**MSD is committed to the goal of developing an inclusive and comprehensive Program to better serve and foster partnerships within our local communities, build a water workforce pipeline to support MSD core services and ensure all local communities within the MSD service area experience public benefits.**

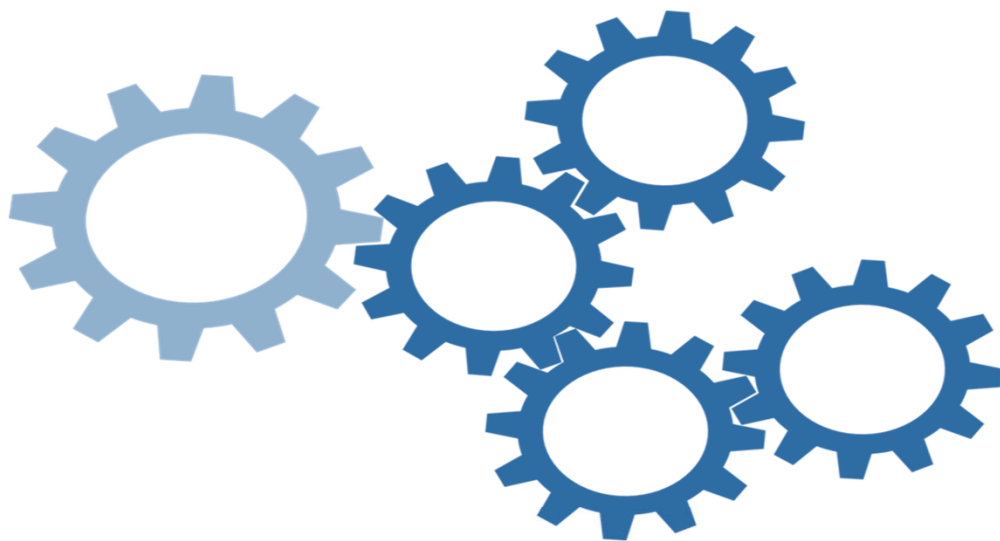
## Program Outcomes

**Create advocates from ratepayers and non-traditional partners**

**Enhance and expand workforce development training programs for careers in water infrastructure**

**Strengthen the local water infrastructure workforce pipeline by offering Curriculum Support Resources**

# Community Benefits in Contracts



## **New & Renewable Construction & Construction-related Services**

**\$2,000,000 or greater**

## **Legal Services**

**\$100,000 or greater**

## **New & Renewable Professional and Engineering Services**

**\$200,000 or greater**

## **Emergency Contracts**

**\$2,000,000 or greater for  
6-months or more term**

\*Applicable to the following legal services: litigation and administrative matters, municipal bonds, commercial paper,  
And public-private partnerships excluding expenses.



# Process Overview



# OVER \$2 MILLION IN BENEFITS GRANTED TO THE COMMUNITY

MSD Community Benefits Program has reached **\$2.9 million** in commitments from nearly **30 firms** on **130 unique projects** in communities we serve.

1



- Virtual career panels
- WDA Cohort sponsorship
- Computers donated

2



- STEM Lab development
- Playground & Fence
- 1,837 hunger free weekends for over 190 students

3



- Pollinator garden project
- Community gardens
- New homes built for community residents

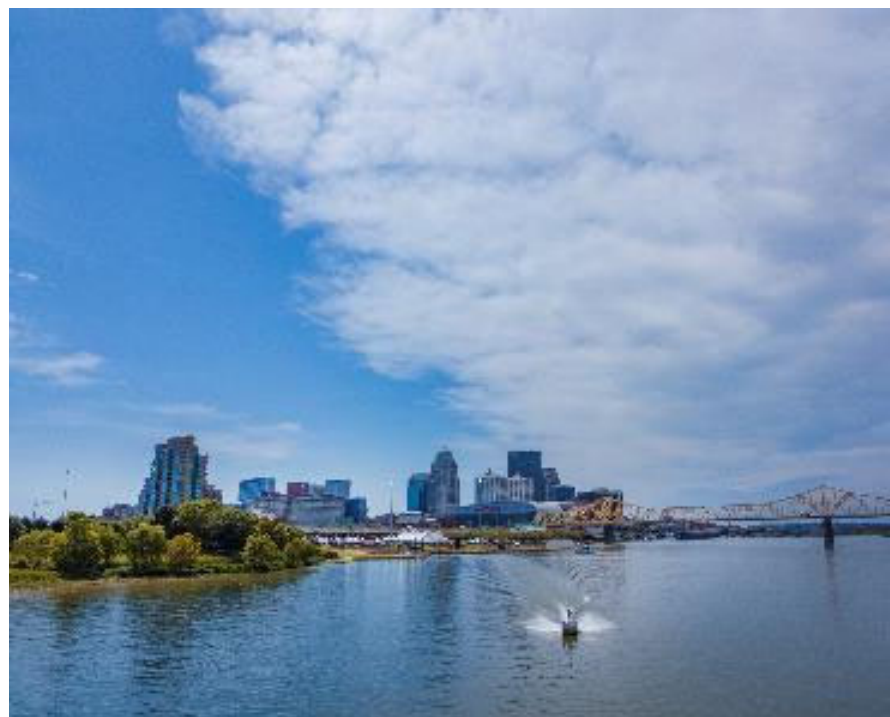


# Economic Value of MSD



# The Value of MSD Services

- Total customer payments for wastewater, stormwater, and flood protection services reflect only the cost of providing these services, not the value of these services.
- Critical infrastructure serves as a fundamental underpinning of local industries, jobs, salaries, and family finances.



# Value of Water Economic Analysis

- Economic value of MSD Services is derived from:



Supporting Local  
Commerce



Protecting  
Properties



Sustaining  
household income

# MSD Supports the Local Economy

**\$144M**

Of daily business output (GDP) occurs with MSD's service boundaries



**Over  
19,000**

Business establishments are supported by MSD's wastewater, stormwater drainage, and flood protection services

Within MSD's Service Area

**550K**

Employees work, earning

**\$95M**

Of compensation each day

MSD serves **800,000** people and protects **\$24B** of property value with its flood protection services



# Economic Value of Wastewater Services

**After 2 weeks of critical infrastructure failure**

- **Loss of \$700 million of GDP**
- **Loss of \$310 million of total compensation**
- **200 thousand jobs lost**



# Economic Value of Stormwater & Flood Protection Services

## *Stormwater & Flood Protection Services Protect*

- **\$24 billion in property value**
- **Upwards of \$115 million in additional property damages per flood event**
- **\$180 million of commerce loss per flood event**

**Thank  
you!**

