

Louisville and Jefferson County Metropolitan Sewer District

Green Bond Framework

Sewer and Drainage System Revenue Bonds, Series 2022A



December 2021

MSD Background

Louisville and Jefferson County Metropolitan Sewer District (“MSD”) was created in 1946 as a public body corporate and subdivision of the Commonwealth of Kentucky. Louisville is located in the north-central portion of Kentucky on the south bank of the Ohio River. Louisville is the largest city in Kentucky and is the core of the Louisville Metropolitan Statistical Area which includes the counties of Bullitt, Oldham and Shelby, in Kentucky, and Clark, Floyd, and Harrison, in Indiana.

MSD provides wastewater collection, treatment, and disposal services in Jefferson County. Through inter-local agreements, MSD also provides wastewater collection, treatment, and disposal services to portions of Oldham County and Bullitt County. MSD’s sewer system extends throughout much of the developed portions of Jefferson County and includes approximately 600 miles of combined sewers (which carry sanitary wastewater during dry weather and a combination of stormwater and sanitary wastewater during wet periods), 3,000 miles of sanitary sewers, more than 260 pumping stations, 5 Water Quality Treatment Centers, and 15 regional treatment plants.

MSD is also responsible for the operation, maintenance, replacement, improvements and additions to existing flood control facilities and public stormwater drainage facilities in Jefferson County. The stormwater drainage system is comprised of various types of facilities to collect, convey, retain, and discharge stormwater runoff into the sewers, rivers, streams, and creeks eventually draining into the Ohio River. These facilities include open channels, ditches, streams, ponds, pipes, culverts, conduits, bridge structures, detention basins, retention basins, pump stations, and other facilities.

The MSD operating budget supports the day to day operation and maintenance of all infrastructure, while the capital budget supports the infrastructure investments through its Capital Improvement Program (“CIP”). MSD continues to complete important projects; comply with Consent Decree and regulatory requirements; and repair/replace critical assets.

MSD intends to issue its inaugural series of green bonds in January 2022 and will pursue a Climate Bonds designation through engagement with an Approved Verifier, Kestrel Verifiers, and the Climate Bonds Initiative. MSD’s first green issuance is the Sewer and Drainage System Revenue Bonds, Series 2022A. The purpose of the green bonds and/or Climate Bonds designation is to communicate the environmental benefits of MSD’s bond-financed capital projects and the positive impacts on local and regional waterways. This framework provides a summary of MSD’s programs and associated capital improvement projects eligible to be financed with green bonds.

MSD Programs

All of MSD’s projects and activities to be financed with green bonds will increase the efficiency, sustainability, and resiliency of MSD’s three service areas: wastewater, drainage (stormwater), and flood protection.

WASTEWATER

Consent Decree and Integrated Overflow Abatement Plan (“IOAP”)

The IOAP is a major part of MSD’s Consent Decree compliance program. The IOAP is a long-term plan to control combined sewer overflows (“CSOs”) and eliminate sanitary sewer overflows (“SSOs”) and other unauthorized discharges from MSD’s sewerage system. The IOAP is expected to improve water quality in both Beargrass Creek and the Ohio River through and downstream of Jefferson County. The expected water quality benefits of the IOAP include reductions in the peak levels of bacteria in the Ohio River and Beargrass Creek and in the amount of time that average bacteria levels exceed water quality standards. In

addition, the IOAP program will enhance public health and safety by reducing the potential for the public to come in contact with untreated SSOs in the basements of their homes or in the streets and ground surfaces where SSOs currently discharge.

MSD's Final CSO Long-Term Control Plan will result in approximately 98 percent capture and treatment of wet-weather combined sewage during an average year. This benefit represents an 89 percent reduction in CSO volume compared with conditions in 2008. As a point of reference, the presumptive approach for compliance with water quality standards in EPA's CSO Control Policy (EPA, 1994) is based on a minimum of 85 percent capture and treatment of wet-weather combined sewage.

The suite of projects selected for the Final Sanitary Sewer Discharge Plan ("SSDP") part of the IOAP will eliminate capacity-related SSOs up to the site-specific level of protection. The SSO projects are anticipated to eliminate an average of 145 SSO events per year (290 million gallons of overflow volume), based on 2005 to 2007 data normalized for rainfall. In terms of water quality, SSO projects will eliminate 100 tons of 5-day biochemical oxygen demand and approximately 200 tons of total suspended solids annually.

Nine Minimum Controls

The EPA Nine Minimum Controls ("NMC") were initially developed as part of the Clean Water Act CSO Policy to address combined sewer system ("CSS") best management practices that do not require significant construction. In a continued focus on protection of public health and safety, the best management practices required by the NMC will be integrated into MSD's KPDES permits to ensure protection of public health, safety, and the environment. Maximizing storage in the conveyance system, maintaining WQTC capacity, and ensuring effective public notification of sewer overflows are examples of the management practices that will remain in place in perpetuity as conditions of the Morris Forman WQTC KPDES permit.

Capacity, Management, Operations, and Maintenance ("CMOM")

The next largest program within the wastewater service area is the CMOM program. MSD's Consent Decree specifically requires developing and implementing a CMOM program. The intent of the CMOM program is to ensure that best management practices are implemented across all aspects of the utility, thereby increasing the ability of the utility to meet its obligations under the Clean Water Act. CMOM activities represent best management practices for wastewater utilities and will be sustained for the entire 20-year planning period.

Drainage

Stormwater management is a vital component of MSD's system, because it directly impacts the health and safety of all Louisville and Jefferson County residents. MSD assumed responsibility for stormwater management, including both drainage and interior floodplain management for most of Jefferson County in 1987. The drainage system at that time had a backlog of thousands of drainage complaints that MSD was expected to correct. While MSD has invested millions of dollars in drainage infrastructure since 1987, drainage problems still are found across the entire county. In addition, the increased frequency of extreme storms that have been observed in Louisville Metro have raised customer concerns about the adequacy of our drainage and interior floodplain management systems.

MSD will update the existing comprehensive stormwater master plan as part of ongoing long-range planning. Early action projects have been identified for immediate implementation while updates to the comprehensive plan are completed.

Project Drainage Response Initiative (“DRI”)

Beginning in 2003, MSD initiated an aggressive program to address a wide variety of drainage issues that were pointed out by customers. This Drainage Response Initiative program, dubbed Project DRI, assigned experienced project managers, contractors, and inspectors to address drainage problems on a "grade-to-drain" basis. Efforts under this program address problems ranging from structural flooding to alleviating minor standing water problems. Since 2003, most funds available through drainage fees have been allocated to Project DRI, with more than \$125 million in capital drainage improvements completed through this program. While MSD originally thought that Project DRI would be phased out as the backlog of customer drainage issues were resolved, customer drainage requests continue to be among the most common communication received by MSD's Customer Relations Department. These requests are likely due to drainage impacts of land use changes, the increase in the amount of impervious surfaces across Jefferson County, the increased frequency of extreme storm events, and the degradation of drainage facilities due to aging. MSD's experience has proven that having the ability to respond quickly to individual property owner's drainage concerns is a vital part of providing quality service and building customer satisfaction.

Municipal Separate Storm Sewer System (“MS4”) Program

The MS4 Program is a drainage-related program to improve the quality of surface waters through controls on stormwater runoff quality in Jefferson County and to protect the public health, safety, and welfare by reducing the introduction of harmful materials into the MS4s that discharge into community streams. The MS4 Program permit outlines the regulatory requirements for discharging municipal stormwater into local water bodies.

The MS4 Program establishes the maximum extent practicable effort for MS4 programs to maintain MSD compliance with the Clean Water Act. MSD uses green infrastructure techniques—such as infiltration, rain gardens, and basin retrofits—to offset the need and costs on conventional facilities such as storage basins. Green infrastructure has proven to effectively reduce volume in the CSS, and for water quality improvements for treatment of runoff in MS4 areas. Requirements for new construction include these types of practices to control the 80th percentile event (0.6 inch of rain) in Louisville Metro. MSD funding is available for construction cost offsets in the CSS area and potential stormwater fee credits in the MS4 areas. Funding commitments for this program were defined in the IOAP and have been retained in the Facility Plan recommended CIP.

Green Infrastructure

Green infrastructure works by capturing stormwater flows in natural systems before they can enter the underground pipe network and thus creates additional capacity within the sewer system. Additionally, these systems remove pollutants through natural filtration systems so that any flows that must pass through them carry a reduced pollutant load. MSD is committed to integrating green infrastructure as part of its overflow control strategy and has implemented an innovative system of cost-sharing with other public agencies and private developers to leverage MSD's investment in green infrastructure to the extent it furthers MSD's service offerings.

FLOOD PROTECTION

The Ohio River Flood Protection System (“ORFPS”) was developed in response to the flood of 1937. This system of levees, floodwalls, and flood pumping stations has protected Louisville since it became operational in the 1950s. While the system has an outstanding record of reliability, much of the system is more than 60 years old and includes antiquated equipment that cannot be repaired with standard parts available today. In addition, the same changing precipitation and land use patterns that affect drainage and inland floodplain management also impact the flood pumping stations and related appurtenances. Louisville's ORFPS was evaluated in a Levee Safety Evaluation by the U.S. Army Corps of Engineers in 2015 and found to be compliant with the level of protection required by FEMA. The level of Ohio River flood

protection required by FEMA incorporates a “coincident frequency analysis” that statistically determines the probability of a rain event happening at the same time as high Ohio River levels. The coincident frequency analysis found the MSD ORFPS is adequately sized to handle a 1-percent probability (100-year storm) event.

To assure the reliability and adequacy of the flood pumping station system, all pump stations were subject to a facility condition assessment and hydraulic and hydrologic modeling using storm intensity duration frequency curves projected for 2035. The recommended 20-year CIP includes rehabilitating and/or expanding 15 of the 16 flood pumping stations in MSD’s system. MSD also maintains a proactive maintenance program to assure the integrity of the levee and floodwall system. In addition, the U.S. Army Corps of Engineers biannually inspects the levee and floodwall, resulting in a report on any deficiencies noted. The recommended 20-year CIP includes continuing a proactive preventive maintenance program, in addition to the corrective actions recommended by the Levee Safety Evaluation study. These efforts are critical to protect the Louisville community from flooding.

Use of Proceeds

The activities and projects financed by MSD’s bond proceeds are critical to the programs and priorities outlined in the MSD Programs section of this Framework. Sustainable and integrated wastewater and stormwater management protect waterways and the Ohio River. MSD’s activities will protect aquatic and terrestrial biological resources and habitats as well as public health and safety of the community. A full list of projects to be financed by MSD’s first green bond issuance is included in Appendix A.

Project Selection and Evaluation

MSD’s 20-year Comprehensive Facility Plan published in June 2017 (“Facility Plan”) represents MSD’s most ambitious planning effort in a decade. Previous work on the IOAP was consolidated into the Facility Plan. Working with the Wet Weather Team Stakeholder Group and District staff, the Facility Plan Team reviewed the challenges our community faces now and in the future and developed a roadmap to protect the area’s health, economic vitality, and environment. The recommendations in this plan are the result of well-vetted analyses from some of the most experienced engineers in Louisville Metro. The recommendations are essential to maintaining reliable and properly sized facilities that will allow MSD to fulfill its responsibility for safe, clean waterways and to help preserve and promote our competitiveness as a city. MSD’s activities financed with green bonds are required to advance objectives in the three service areas.

Wastewater

- Fulfill the obligation of the Consent Decree, including completing all the projects contained in the IOAP on schedule
- Provide facilities that comply with the other environmental regulations MSD is governed by and provide a plan to remain in compliance with future regulations currently under development
- Renew and replace aging wastewater infrastructure to provide reliable service and the lowest overall cost using a best-practice asset management approach
- Position MSD to support the community’s ability to grow responsibly as economic development opportunities become available

Drainage

- Improve the level of protection against public health and property risks caused by inadequate stormwater drainage systems
- Continue support for the Project DRI neighborhood drainage solutions

- Expand the efforts of the MS4 program to reduce stormwater contamination of our waterways, primarily through BMPs and continued proactive support of green infrastructure solutions to both quantity and quality concerns
- Recognize and respond to the impact of changing weather patterns including the increased frequency of extreme storms

Flood Protection

- Maintain protection from Ohio River floods entering Louisville by proactive preventive and predictive maintenance activities related to the levee, floodwall, and all gates and other penetration closures that keep floodwaters at bay
- Modernize the flood pumping stations with current mechanical and electrical equipment that can provide continued reliability and a predictable cost because parts will be more readily available at a more reasonable cost
- Expand the capacity of those flood pumping stations to enhance community protection in response to changing precipitation and land use patterns

Management of Proceeds

The proceeds of the Series 2022A Bonds will be used: (i) together with other available funds of MSD, to pay at maturity, redeem, and refund Program Notes issued and outstanding as Senior Subordinated Debt under the Resolution and under MSD's Program Note Resolution (as defined in MSD's Official Statement with respect to the Series 2022A Bonds), the proceeds of which were used for the purpose of financing the cost of capital improvements and additions to MSD's sewer and drainage system and refinancing other Program Notes previously issued under the Program Note Resolution, and (ii) to pay the costs of issuance of the Series 2022A Bonds.

Reporting

Monitoring and transparent disclosure on MSD's expenditures and project priorities is important to MSD. Annual budgets are prepared and posted on MSD's financial page: <https://louisvillemsd.org/financial-information-louisville-msd>. Progress reports on various capital projects across the service area are provided on MSD's Current Project's page: <https://louisvillemsd.org/current-projects>. So long as the Series 2022A Bonds are outstanding, MSD expects to provide voluntary annual update reports on EMMA and MSD's BondLink website. The content of these reports may include use of proceeds and impact reporting metrics. MSD also has many other ongoing reporting requirements related to CSO compliance, water quality parameters and its NPDES permits.

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This report is regarding the capital projects financed or refinanced with proceeds of the Louisville and Jefferson County Metropolitan Sewer District's outstanding Sewer and Drainage System Revenue Bonds, Series 2022A (Green Bonds — Climate Bond Certified) (the "Bonds"). This report relates exclusively to the climate attributes of the use of the proceeds of the Bonds. It does not address the creditworthiness of the District or the Bonds nor constitute a recommendation to hold, buy, or sell any of the Bonds.

Appendix A

<u>Budget ID</u>	<u>Project Name</u>	<u>Program Type</u>	<u>Total</u>
H09133	OHIO RIVER TUNNEL	CD - IOAP LTCP	39,550,166.94
D20285	MFWQTC LG DRYER REPLACEMENTS FY21	Regulatory - Non CD	26,240,758.11
A19208	BROADWAY INT INFRASTRUCTURE REHAB	CD - Critical Sewer	24,824,282.69
D20284	DRGWQTC DEWATERING EMERGENCY CONTRACT	Regulatory - Non CD	20,975,492.73
D21106	DRGWQTC DEWATERING EMERGENCY PHASE 2	Regulatory - Non CD	6,931,835.72
H18503	I-64 & GRINSTEAD INFRASTRUCTURE REHAB	CD - Critical Sewer	6,804,431.18
D20291	DRGWQTC DEWATERING EMERGENCY PHASE 1	Regulatory - Non CD	5,529,990.43
G21001	FY21 RENEWAL & REPLACEMENT	CD - \$25M AM	5,280,195.88
H09141	LEXINGTON & PAYNE CSO INTERCEPTOR	CD - IOAP LTCP	4,982,314.99
H19247	I-64 & GRINSTEAD CSO INTERCEPTOR	CD - IOAP LTCP	3,995,186.16
A20244	LARGE DIAMETER SEWER REHAB STAGE 1	CD - Critical Sewer	3,438,505.66
H09127	ROWAN PS & DOWNTOWN CSO INTERCEPTOR	CD - IOAP LTCP	3,373,821.77
H19142	UPPER FLOYDS FORK INTERCEPTOR	Regulatory - Non CD	3,118,507.19
D17042	MFWQTC SEDIMENTATION BASIN R&R	Regulatory - Non CD	2,373,115.56
C19099	FY21 DRI	Drainage	2,070,194.89
D18292	DRG CLARIFIER GROUT REPAIR & RAS GATE REPLACE	CD - \$25M AM	1,785,425.34
D18285	ORFM ODOR AND CORROSION CONTROL	CD - \$25M AM	1,535,355.52
D15020	MFWQTC CAKE PUMP PHASE II	CD - \$25M AM	1,431,342.56
D19039	CCWQTC EFFLUENT PARSHALL FLUME UPGRADE	CD - \$25M AM	1,416,493.94
H18483	FY21 ENG PLAN & REGULATORY COMPLIANCE SUPPT	CD Support	1,245,106.62
A21241	26TH STREET SEWER REPAIR EMERGENCY	CD - \$25M AM	1,218,674.15
H20041	FY21 CIP TASK ASSISTANCE	CD Support	1,118,089.16
D20017	CCWQTC SODIUM ALUMINATE BUILDING	CD - \$25M AM	979,059.06
A20280	HARRODS CREEK FORCE MAIN REPAIR	CD - Critical Sewer	963,037.93
K18265	FY21 FPS EQUIPMENT R&R	Ohio River Flood Protection	917,409.12
A19098	FY21 CONSTRUCTION INSPECTION	CMOM	849,121.01
D20033	FY21 REGIONAL WQTC EQUIPMENT R&R	CD - \$25M AM	750,648.85
D20351	FLOYDS FORK INTERCEPTOR - DESIGN	CD - \$25M AM	710,089.74
E18468	FY21 CMOM COLLECTION SYSTEM PS R&R	CD - \$25M AM	696,173.51
D21059	ASSET MANAGEMENT PLAN DEVELOPMENT	CD - \$25M AM	671,868.49
D20228	MFWQTC CENTRIFUGE REPLACEMENT	Regulatory - Non CD	585,564.26
D20016	DRG ADMIN & RAS BUILDINGS HVAC	CD - \$25M AM	570,677.29
D16272	CCWQTC INFLUENT PS MCC UPGRADES	CD - \$25M AM	544,517.86
D18453	FY21 MFWQTC EQUIPMENT R&R	CD - \$25M AM	514,836.41
W21007	OC SCADA SYSTEM, RAIN GAUGE EXPANSION	CMOM	495,182.84
D21129	DRGWQTC ELEVATOR REPAIRS	CD - \$25M AM	481,947.29
F19267	POND CREEK EMERGENCY PUMP REPAIRS	Ohio River Flood Protection	477,184.94
H18358	BELQUIN RE-SCOPE/CATHEEN WAY	Floodplain Management	474,844.96
H20040	FY20 CIP TASK ASSISTANCE	CD Support	473,224.74
F20342	MILL CREEK FPS EMERGENCY	Ohio River Flood Protection	468,869.90

<u>Budget ID</u>	<u>Project Name</u>	<u>Program Type</u>	<u>Total</u>
H19067	GRANT ELBA SRL ACQUISITION	Floodplain Management	433,723.41
C20303	CEDAR CREEK GARDENS DRIVE DIP	Drainage	427,514.53
F21087	FY21 FLOOD STRUCTURES R&R	Ohio River Flood Protection	427,203.87
H19060	FY21 GREEN INFRASTRUCTURE	CD - IOAP GI	408,904.93
H18482	FY20 MODELING	CD Support	402,680.18
H17023	FY21 USGS STREAM MONITORING	Stormwater Quality (MS4)	397,912.50
D19307	MFWQTC FEPS VFD REPLACEMENT	Regulatory - Non CD	391,901.95
H20061	FY20 CMOM GRAVITY LINE CLEAN & INSPECT	CD - \$25M AM	375,134.21
F19276	FPS AUTO GREASE SYSTEMS UPGRADES	Ohio River Flood Protection	368,119.02
H18443	FY21 NMC RTC	CD - \$25M AM	365,686.49
F20321	BLUEGRASS FIELDS PS RENOVATION	CD - \$25M AM	364,982.40
H16049	FY20 ENV'L DATA COLLECTION-MS4 & IOAP	Stormwater Quality (MS4)	356,592.61
D20304	MFWQTC HEADWORKS & DUMPSTER BLDG STRUCTURAL & PRIMARY BLOWER BLDG STAIR RPR	CD - \$25M AM	355,414.68
H20164	346 S PETERSON AVE STREAM RESTORATION	Drainage	340,057.92
E19212	FY21 OPERATIONS RENEWAL & REPLACEMENT	CD - \$25M AM	338,699.00
W21006	OC ASH AVENUE INTERCEPTOR	Regulatory - Non CD	336,473.69
H21211	QUICK BUY FOR 6504 OAK VALLEY DRIVE	Floodplain Management	332,124.40
H20158	ORVILLE DRIVE GRANT	Floodplain Management	316,296.89
D18128	DRGWQTC PAVING	CD - \$25M AM	315,741.70
H17016	FY21 MS4 PROGRAM	Stormwater Quality (MS4)	312,015.73
E19211	FY20 OPERATIONS R&R	CD - \$25M AM	304,625.35
E21070	ROSA TERRACE PS ELIMINATION	CD - \$25M AM	301,777.52
H18172	FY20 INFORMATION GOVERNANCE PROGRAM	CMOM	296,836.71
D19045	MFWQTC SODIUM HYPOCHLORITE BLDG RELOCATION DESIGN	Regulatory - Non CD	290,567.11
H16053	FY20 IOAP POST CONST COMPLIANCE ASSMT	CD - IOAP	279,450.00
F21123	10TH ST FPS MCC REPLACEMENT	CD - \$25M AM	275,446.61
F19092	FY20 EMERGENCY PREPAREDNESS PLAN	Floodplain Management	264,557.66
H17018	FY21 ENV'L DATA COLLECTION – MS4 & IOAP	Stormwater Quality (MS4)	263,173.44
G20028	MFWQTC ELEVATOR REPAIRS	CD - \$25M AM	262,284.86
D18489	FAIRMOUNT RD PS FM EXT PHASE 1	CD - \$25M AM	257,465.57
D15024	MFWQTC CHILLER REPLACEMENT	CD - \$25M AM	256,410.35
H21169	QUICK BUY FOR OAK VALLEY RESIDENCE	Floodplain Management	255,053.30
G18444	FY21 PLUMBING MODIFICATION PROGRAM	CMOM	251,701.95
H18097	FY21 CMOM SCAP, AAM & FOG	CD - \$25M AM	247,789.80
D21063	ODOR MANAGEMENT PLAN	Regulatory - Non CD	236,133.71
A20320	BROADFERN PS ELIMINATION	CD - \$25M AM	236,012.09
F19277	BEARGRASS CREEK FPS WETWELL RELIEF GATE	Ohio River Flood Protection	227,075.64
A14129	GORHAM WAY PUMP STATION ELIMINATION	CD - \$25M AM	226,036.15

<u>Budget ID</u>	<u>Project Name</u>	<u>Program Type</u>	<u>Total</u>
H20089	3 FORKS BGC USACE GEN INVESTIGATION	Stormwater Quality (MS4)	223,953.70
D20262	MFWQTC GROUNDWATER WELLS STUDY/REPAIR	CD - \$25M AM	222,946.58
H18176	DOWNTOWN CSO INTERCEPTOR RPR & CA SVCS	CD - IOAP LTCP	220,749.82
H20153	SWPS FLOOD REPAIR	CD - \$25M AM	220,104.77
G18462	FY20 LAND ACQUISITION	CMOM	218,154.35
H19095	FY20 PS RR	CD - \$25M AM	217,971.93
D18116	MFWQTC BIOSOLIDS FACILITY REPLACEMENT FY21	CD - SRP	213,698.75
D20298	DRGWQTC ARTIFICIAL INTELLIGENCE PILOT	Development	206,000.00
H20282	MAPLE STREET GRANT PHASE 2	Floodplain Management	203,512.52
D20012	SGC RTC ENHANCEMENTS	CD - \$25M AM	200,696.94
H16035	FY19 GREEN INFRASTRUCTURE	CD - IOAP GI	199,465.00
C20209	FY20 DRI INSPECTION	Drainage	191,730.00
W21009	OC FY21 PS R&R	CMOM	187,449.66
A18354	RAINTREE CT & MARIAN CT PS ELIM 1A	CD - IOAP SSDP	180,336.41
H16055	FY20 MS4 PROGRAM	Stormwater Quality (MS4)	178,702.53
F21201	CANAL STATION INTAKE TUNNEL DEMO	Ohio River Flood Protection	177,637.00
F20212	FY20 CLOSURE VAULT ROOF REPLACEMENT	Ohio River Flood Protection	174,121.94
D20314	MFWQTC SEWER & MANHOLE CONDITION ASSMT	CD - \$25M AM	173,891.11
E21090	SONNE AVENUE PS ELIMINATION	CD - \$25M AM	169,006.42
H21206	QUICK BUY FOR 5119 GRASTON COURT	Floodplain Management	165,334.20
F21153	SWPS GATE SEAL REPLACEMENT	CD - \$25M AM	163,750.31
F20013	BEARGRASS FPS PUMP 8	Ohio River Flood Protection	162,778.00
D20278	DRGWQTC RAS BLDG ELECTRICAL MODIFICATIONS	CD - \$25M AM	155,895.06
H20297	FY20 ASSET MANAGEMENT ASSISTANCE	CD - \$25M AM	148,993.91
H20087	FY21 TREE PROGRAM	Stormwater Quality (MS4)	147,574.60
D20223	BELLS LANE PHASE 2 - MOVE POLYMER ROOM LINES	CD - \$25M AM	139,106.62
F19245	FLOOD GATE 1 REPLACEMENT	Ohio River Flood Protection	131,564.88
C21155	8506 RUNNING SPRINGS DRIVE DIP	Drainage	131,101.00
H17166	W INDIAN TRAIL RL FLOOD MITIGATION	Floodplain Management	129,160.22
H20045	FY20 REGULATORY COMPLIANCE SUPPORT	CMOM	127,229.79
D20226	BELLS LANE & MF HW BAR SCREEN GRIT STUDY	CD - \$25M AM	127,000.00
E21071	WATHEN LANE PS REHABILITATION	CD - \$25M AM	112,478.84
F20211	FY20 FLOODWALL TOE DRAIN INSPECTION	Ohio River Flood Protection	103,738.87
D20034	FY20 FFWQTC EQUIPMENT RENEWAL & REPLACE	CD - \$25M AM	103,000.00
F18515	PADDY'S RUN FPS CAPACITY UPGRADE	CD - SRP	102,750.14
H18442	FY20 NMC RTC	NMC	101,978.94
D20167	MFWQTC EAST HEADWORKS HVAC	Regulatory - Non CD	101,900.00
H20152	URBAN LEAGUE TRACK & FIELD GREEN INFRASTRUCTURE	CD - IOAP GI	99,469.40
H16059	FY20 USGS STREAM MONITORING	Stormwater Quality (MS4)	98,212.50

<u>Budget ID</u>	<u>Project Name</u>	<u>Program Type</u>	<u>Total</u>
W21002	OC CURRY'S CROSSING PUMP UPSIZE	CMOM	92,296.00
D21191	CCWQTC DEWATERING PLANNING EVALUATION	CD - \$25M AM	89,958.15
D21233	MFWQTC MEB & SERVICE/BLOWER BLDGS ROOF	CD - \$25M AM	88,245.00
H17103	DRGWQTC PUMPING PACKAGE	CD - \$25M AM	87,753.00
C20091	FY21 STORMWATER ASSET INVENTORY & ANALYSIS	Drainage	87,000.00
G18433	FY21 DEV INFRASTRUCTURE EXCESS COST REIMBURSE	Development	83,715.45
D19028	FY20 MFWQTC UPGRADE PLCs	CD - \$25M AM	82,301.05
H21089	FY21 MAPLE ST LAND USE PLANNING	Floodplain Management	82,218.38
F21061	CLIFTON HEIGHTS STORAGE BASIN SUMP PUMP IMPROVEMENTS	CD - \$25M AM	81,356.00
E21091	SANDERS LANE PS REHABILITATION	CD - \$25M AM	80,039.43
D19048	MSD RADIO REPEATERS	CD - \$25M AM	79,456.82
D20306	MFWQTC LOADING DESIGN CRITERIA EVALUATION	CD - \$25M AM	76,443.42
D18130	MFWQTC FEPS MCC REPLACEMENT	Regulatory - Non CD	73,518.14
G19001	FY19 RENEWAL & REPLACEMENT	CD - \$25M AM	72,276.50
D21092	FY21 WQTC ENGINEERING SUPPORT	CD - \$25M AM	71,904.72
G17015	FY21 DEVELOPMENT INFRASTRUCTURE SUPPORT	Development	71,267.20
D21247	MFWQTC HVAC UPGRADES	CD - \$25M AM	68,821.91
H21111	FY21 FOG PROGRAM SUPPORT	CMOM	67,807.82
W21010	OC FY21 COLLECTION SYSTEM MODELING	CMOM	67,195.78
H14096	FY14 MS4 PROGRAM	Stormwater Quality (MS4)	66,507.81
D20148	FFWQTC REGIONAL FACILITIES PLAN UPDATE	CD - \$25M AM	66,140.12
D19286	SWPS GAS MONITORING & SP1 ODOR CONTROL	CD - \$25M AM	65,487.00
H20056	FY21 CMOM I&C IMPLEMENTATION	CD - \$25M AM	63,331.83
C20302	5433 JOHNSONTOWN ROAD	Drainage	62,860.50
C20191	8904 BLOSSOM LANE DIP PHASE 2	Drainage	61,982.00
H16338	WEWOKA WEST PARK FLOOD MITIGATION	Floodplain Management	61,665.75
C21152	JACOBS SCHOOL ROAD DIP	Drainage	60,059.30
D20030	FY20 CCWQTC EQUIPMENT R&R	CD - \$25M AM	59,322.81
H09164	IDLEWOOD INLINE STORAGE	CD - IOAP SSDP	59,318.59
D20219	FY20 HDR MFWQTC ENGINEERING SUPPORT	CD - \$25M AM	58,914.19
C20332	10005 CEDAR CREEK DRIVE DIP	Drainage	54,449.00
C20309	KINGS HWY DIP	Drainage	54,097.50
G21221	FY21 MUDMASTER	CD - \$25M AM	53,958.34
G21220	FY21 ACOUSTIC EQUIPMENT	CD - \$25M AM	52,935.00
D18453	SUNDRY VARIANCE - WO ISSUE V3IT TICKET	CD - \$25M AM	51,188.85
W21011	OC FY21 OC WQTC R&R	CMOM	49,398.50
G18417	MFWQTC ADMIN BLDG ROOF REPLACEMENT	CD - \$25M AM	49,265.04
C20090	FY20 STORMWATER ASSET INVENTORY & ANALYSIS	Drainage	48,900.00
C20235	1712 SHERIDAN AVE DIP	Drainage	47,621.81
H16045	FY20 PMP	CMOM	45,826.00
D21226	DRG WWPS BLDG ROOF REPLACEMENT	CD - \$25M AM	45,200.00
F21124	STARKEY & SHAWNEE FPS ARC FLASH STUDIES	CD - \$25M AM	45,180.40

<u>Budget ID</u>	<u>Project Name</u>	<u>Program Type</u>	<u>Total</u>
D17131	BIOSOLIDS PROCESSING SOLUTION	NMC	45,124.97
H17019	FY21 IOAP POST CONST COMPLIANCE ASSMT	CD Support	44,998.00
D21230	DRG RAS PUMPS 2&3 REPLACEMENT	CD - \$25M AM	44,455.77
W21012	OC FY21 OC COLL SYSTEM GRAVITY SEWER REHAB	CMOM	43,300.00
H16335	BELQUIN FLOOD MITIGATION	Floodplain Management	42,536.99
C20299	PICADILLY AVE DIP	Drainage	41,109.00
C20277	TRIO AVENUE CULVERT REPAIR	Drainage	41,072.43
H16013	FY20 CMOM SCAP, AAM & FOG	CD - \$25M AM	40,095.00
D21232	MFWQTC PROCESS IMPROVEMENTS	CD - \$25M AM	39,072.00
D21224	DRG SO HYPO & WATER PROCESS BLDGS ROOF REPLACEMENT	CD - \$25M AM	38,163.00
F20305	4TH STREET FLOOD PUMP EMERGENCY REPAIRS	Ohio River Flood Protection	37,277.92
D19275	MDS DOWNSTREAM FLOW METER	CD - \$25M AM	37,217.63
W21126	OC OHIO RIVER SERVICE AREA REHAB	CMOM	36,600.00
H16051	FY20 GREEN INFRASTRUCTURE	CD - IOAP GI	35,200.00
D21208	MFWQTC ADMIN BLDG ENV DAMAGE ASSMT	CD - \$25M AM	34,086.62
H20088	FY20 MAPLE ST LAND USE PLANNING	Floodplain Management	32,272.39
C21160	505 CANDLELIGHT LANE DIP	Drainage	30,421.78
C20193	513 MOSER ROAD DIP	Drainage	28,030.00
G21231	FY21 WQTC & FPS ROOF ASSESSMENTS	CD - \$25M AM	27,062.79
C20183	1010 MT HOLLY ROAD DIP	Drainage	27,000.00
H17020	FY21 NMC SUPPORT	CD - \$25M AM	25,531.34
Y21207	BULLITT COUNTY WQTC HSE PLAN	CMOM	24,992.41
C20210	HANSEN CLEAN UP	Drainage	24,909.15
D21222	DRG GRIT BUILDING ROOF REPLACEMENT	CD - \$25M AM	24,375.00
D20337	FFWQTC ARC FLASH STUDY	CD - \$25M AM	23,085.00
F15010	GATE 102 REPLACEMENT	Ohio River Flood Protection	22,823.98
C20236	3910 EAST PAGES LANE DIP	Drainage	21,967.27
D21223	HCWQTC GRIT & PROCESS WATER BLDGS ROOF REPLACEMENT	CD - \$25M AM	21,240.45
D20036	FY20 DRGWQTC EQUIPMENT R&R	CD - \$25M AM	20,871.00
C21163	IRELAND DRIVE DIP	Drainage	18,502.80
K18264	FY20 FPS EQUIPMENT RENEWAL & REPLACEMENT	Ohio River Flood Protection	17,249.38
F18238	FY20 FLOODWALL CLOSURES/VAULTS R&R	Ohio River Flood Protection	16,594.00
F21202	SGC EMERGENCY	CD - \$25M AM	16,530.00
D21181	MFWQTC SODIUM HYPOCHLORITE BLDG FLOOR REPAIR	CD - \$25M AM	15,261.00
C20267	4623 PRESTON HWY REAR DIP	Drainage	15,200.00
H20086	FY20 TREE PROGRAM	Stormwater Quality (MS4)	14,710.00
H20055	FY20 CMOM I&C IMPLEMENTATION	CD - \$25M AM	14,442.58
H21127	SUTHERLAND/CALDER POCKET PARK PLAN	Floodplain Management	12,700.00
D21176	MFWQTC DIGESTER BLDG CEILING TILES	CD - \$25M AM	12,340.00
C20201	7912 GRENELLE DRIVE DIP PHASE 2	Drainage	11,895.00

<u>Budget ID</u>	<u>Project Name</u>	<u>Program Type</u>	<u>Total</u>
G16048	FY20 DEV INFRASTRUCTURE SUPPORT	Development	11,500.00
D21209	DRG WWPS VIBRATION TESTING OF PUMPS 1A&2B	CD - \$25M AM	11,394.11
D19285	BELLS LANE PHASE II	CD - \$25M AM	9,941.42
H16056	FY20 NMC	NMC	9,448.56
C21073	TYCOON WAY DRI	Drainage	8,400.00
C20294	2160 LOWELL AVE DIP	Drainage	7,255.54
C20238	967 IDA WAY DIP	Drainage	7,067.40
H16336	LINWOOD FLOOD MITIGATION	Floodplain Management	6,581.92
			203,275,360.74



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Safe, clean waterways