

FY2024

**Capital Improvement Plan
Overview Report**



May 18, 2023

Louisville MSD FY24 CIP Overview

DISCLAIMER: This document was prepared to provide a perspective of MSD's FY 24-28 CIP. The overview is based upon the best available information as of May 10, 2023. The projects included in this overview may shift among fiscal years; change in scope; or be replaced with higher priority needs. This document presents a reasonable representation of MSD's CIP. It demonstrates the level of investment warranted for MSD's wastewater, stormwater, flood protection, and support systems assets. The costs presented in this document have been escalated to future dollars when appropriate.

Document history and status

Revision	Date	Description	Author	Checked	Reviewed	Approved
0	5/3/2023	Draft report	SLY, LLP	YM, DS	DJ, BG	
1	5/10/2023	Addressed review comments	Reviewer Comments			LLP
FINAL	05/18/2023	Revised CIP values for Paddy's Run Project	SLY	LLP	DJ, BG	LLP

Distribution of copies

Revision	Issue approved	Date issued	Issued to	Comments

Louisville MSD FY24 CIP Overview

Executive Summary

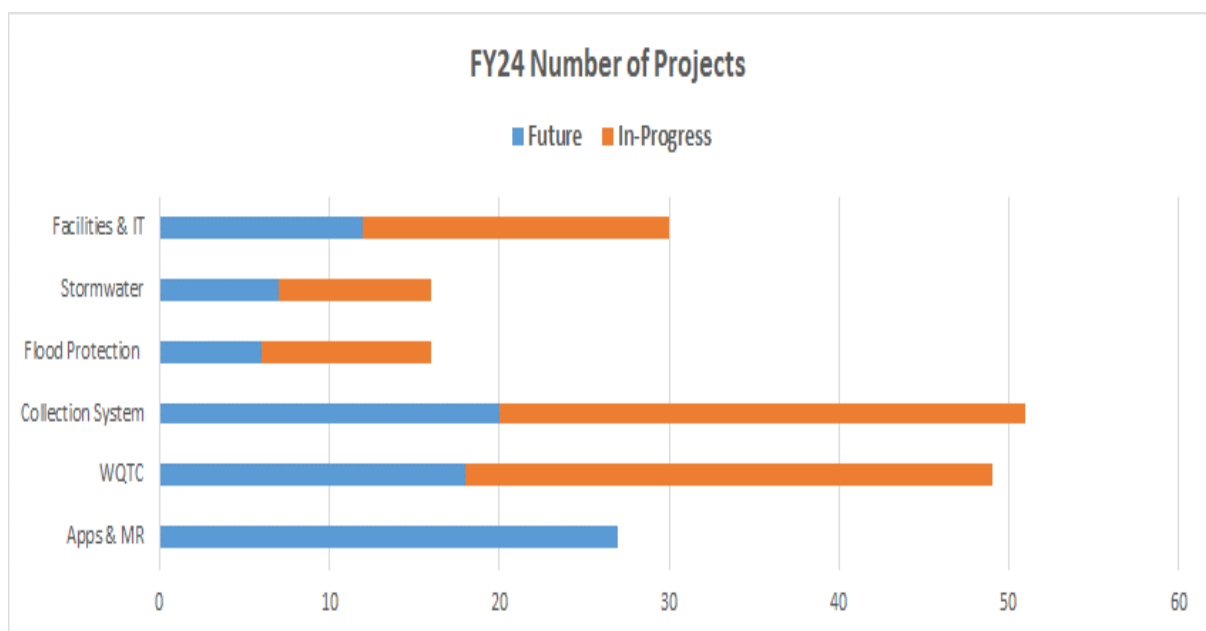
It is anticipated the MSD Board will approve the FY24 CIP as presented and recommended by MSD’s Chief Engineer and the Board’s Infrastructure Committee. The FY24 projects fit into a 5-Year CIP forecast totaling more than \$1.2 billion. A summary of the 5-Year CIP by service type is provided in Table 1.

Table 1 – Summary of 5-Year CIP by Service Type

Service Type	FY24	FY25	FY26	FY27	FY28	5-Year
Wastewater	\$ 161,185,000	\$193,451,000	\$ 202,274,000	\$ 151,207,000	\$ 114,697,000	\$ 822,814,000
Stormwater	\$ 62,125,000	\$ 87,931,000	\$ 93,333,000	\$ 49,737,000	\$ 26,903,000	\$ 320,029,000
Support Systems	\$ 18,133,000	\$ 4,838,000	\$ 5,469,000	\$ 4,328,000	\$ 4,241,000	\$ 37,009,000
Management Reserve	\$ 13,865,000	\$ 5,850,000	\$ 75,000	\$ 100,000	\$ 1,300,000	\$ 21,190,000
Total - CIP	\$ 255,308,000	\$292,070,000	\$ 301,151,000	\$ 205,372,000	\$ 147,141,000	\$ 1,201,042,000

The FY24 CIP includes 189 projects totaling \$255.3 million and \$13.9 million in Management Reserve. 72-percent of the FY24 budget (\$184.8 million) is required to continue advancing 99 existing projects (refer to orange bars in Figure 1). The FY24 CIP includes \$70 million to fund 90 new projects that have yet to begin spending capital funds (refer to blue bars in Figure 1). A breakdown of the FY24 CIP funding by status and project type is presented in Figure 1. A complete listing of all projects proposed for the 5-Year CIP is provided in **Appendix A**.

Figure 1 – Summary of FY24 CIP by Status



Progress with implementing the FY24 CIP will be reported in the Monthly Executive Reports.

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Acronyms and Abbreviations

AI	Artificial Intelligence
BC	Bullitt County
CAP	Corrective Action Plan
CCWQTC	Cedar Creek Water Quality Treatment Center
CD	Consent Decree
CIP	Capital Improvement Plan
CMF	Centralized Maintenance Facility
CMOM	Capacity, Management, Operation, & Maintenance
DRGWQTC	Derrick R Guthrie Water Quality Treatment Center
DRI	Drainage Response Initiative
FEMA	Federal Emergency Management Agency
FEPS	Final Effluent Pump Station
FFWQTC	Floyds Fork Water Quality Treatment Center
FM	Force Main
FOG	Fats, Oils, and Grease
FPS	Flood Pump Stations
FY	Fiscal Year
GIS	Geographical Information System
HCWQTC	Hite Creek Water Quality Treatment Center
IOAP	Integrated Overflow Abatement Plan
IT	Information Technology
KDEP	Kentucky Department of Environmental Protection
LOJIC	Louisville-Jefferson County Information Center
LTCP	Long Term Control Plan
LTMN	Long Term Monitoring Network
MCC	Motor Control Center
MFWQTC	Morris Forman Water Quality Treatment Center
MR	Management Reserve
MS4	Municipal Separate Storm Sewer System Program
MSD	Louisville and Jefferson County Metropolitan Sewer District
NMC	Nine Minimum Controls
OC	Oldham County
PS	Pump Station
PSE	Pump Station Elimination
RR	Repair and Replacement
RTC	Real Time Control
SCADA	Supervisory Controls and Data Acquisition
SSDP	Sanitary Sewer Discharge Plan
SWPS	Southwest Pump Station
USEPA	United States Environmental Protection Agency
USGS	United States Geological Survey
WQTC	Water Quality Treatment Center

Louisville MSD FY24 CIP Overview

Section 1 Process for Developing the FY24 CIP

MSD staff began developing the FY24 and updated 5-Year CIP in January 2023. A schematic of the overall process used to prepare the draft CIP is presented in Figure 2. A list of key activities performed by month is provided in Table 2.

Table 2 – Key Activities during CIP Budget Development Cycle

Month	CIP Development Activities
January	<ul style="list-style-type: none">• Guardrail meeting with Executive Manager & Chiefs to set expectations• Budget Summit with Directors (risks, lessons learned, packaging, priorities)• Review current forecasted FY24 CIP in cashflow tool & identify unknowns• Determine FY24 financial targets• Discuss grant and low-interest loan strategies (SRF, BRIC, other) with Planning• CIP Working Group for Flood Protection Projects• CIP Working Group for Morris Forman WQTC Projects
February	<ul style="list-style-type: none">• Conducted a series of staff meetings to vet projects and confirm current priorities• Assessed CIP impacts from regional planning efforts & asset management plans• Allowances requests submitted by staff• Forecast FY23 carryforward cost impacts to FY24 and 5-Year CIP• CIP Working Group for Regional WQTC Projects• CIP Working Group for Biosolids Projects• CIP Working Group for Sewers and Lift Stations• CIP Working Group for Development/Regionalization Projects• CIP Working Group for MS4 and Stormwater Projects
March	<ul style="list-style-type: none">• Cashflow forecast built with collected information• Allowances set by Chiefs
April	<ul style="list-style-type: none">• Executive Director and Chiefs review and approval• Review FY24 CIP staffing and resource plan
May	<ul style="list-style-type: none">• Finance & Infrastructure Committee Meeting• MSD Board Approval for FY24 CIP• Develop FY24 performance metrics (identify qualifying projects)• Start procuring FY24 professional services (use budget pending language)• Publish Draft FY24 CIP Overview Report
June	<ul style="list-style-type: none">• Issue budget IDs for new projects• Set FY24 Baseline and upload approved FY24 CIP into financial system• Issue FY24 CIP Overview Report

1.1 Confirming Asset Priorities for FY24

To determine the CIP needs beyond the in-progress work, the projects in the forecast were discussed with asset owners to confirm they remain of highest priority. Additional needs not previously considered were also identified and discussed.

CIP Working Groups comprised of the Chief Engineer, Chief of Operations, Chief Financial Officer, Enterprise Program Manager, Project Controls, Planning, Operations, and Engineering staff, held a series of workshops to discuss capital priorities for FY24 and the 5-Year CIP.

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1.2 Accounting for Uncertainty

During FY23, MSD continued to experience unprecedented challenges related to supply-chain delivery delays; unavailability of materials and equipment; and local, national, and global labor shortages. These challenges created multiple areas of uncertainty.

- Uncertainty with ability to fully implement the FY24 CIP due to external influences
- Uncertainty with receiving competitive solicitations due to limited resources
- Uncertainty with the level of risk that contractors are assuming which results with higher and unpredictable construction bids
- Uncertainty with project schedules and spending curves and forecasts for active contracts

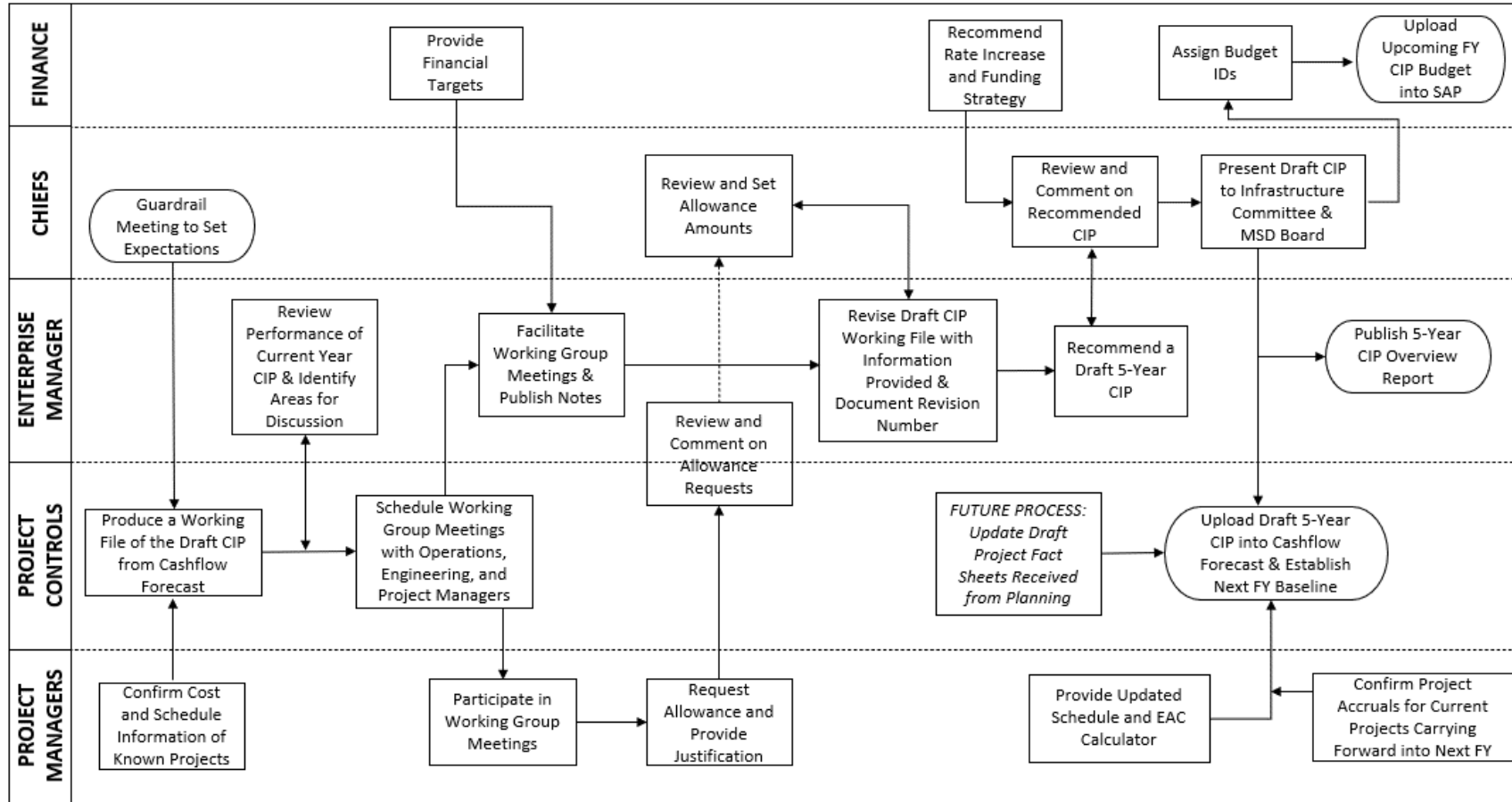
During FY23, these challenges impacted project schedules resulting with forecasted spending approximately \$175 million of the \$195.4 million FY23 budget. The challenges are continuing to occur and the impact on the FY24 CIP is uncertain.

For FY24, MSD included \$12 million in Management Reserve (MR) for Jefferson County projects, \$1.4 million in MR for Oldham County projects, and \$465,000 in MR for Bullitt County projects.

The MR funds are intended to provide additional flexibility related to the uncertainty. If project costs are higher than estimates; new priorities arise during the fiscal year; or emergencies exceed their budget, then MSD staff can request to use of a portion of the Management Reserve. The CIP Management Team must approve use of Management Reserve funds.

Louisville MSD FY24 CIP Overview

Figure 2- Workflow For CIP Development Process



Louisville MSD FY24 CIP Overview

Section 2 Approved & Forecasted CIP Programs

MSD has several programs requiring capital investment during FY24 and throughout the 5-Year CIP (FY24 – FY28). A summary of each program is provided herein and presented in Table 3.

- Regulatory Compliance Programs:** Mandates per a federal, state, or local regulation, rule, code, permit, Consent Decree, Agreed Order, or Administrative Order. This includes the provision included in the Second Amendment to the Consent Decree to spend an average of \$25 million per year through the Year 2035 for maintaining MSD’s existing wastewater assets. Regulatory compliance projects represent 82-percent of the 5-Year CIP.
- Wastewater Programs (non-regulatory):** Through 2035 this program excludes asset management needs and includes development coordination and funding set aside to address infrastructure emergencies. It is envisioned after 2035 this program category will include asset management based work. This program represents 6-percent of the 5-Year CIP.
- Stormwater & Flood Protection Programs (non-regulatory):** This program includes infrastructure improvements related to drainage and the Ohio River Flood Protection System that are not mandated by regulatory requirements. This program 041represents 7-percent of the 5-Year CIP.
- Support Systems Programs:** This program includes improvements needed to keep MSD’s infrastructure operating as intended including vehicles and large equipment; buildings and structures, information technology hardware and software, and general facility improvements. This program represents 3-percent of the 5-Year CIP.
- Management Reserve:** Funding set aside to assess unforeseen circumstances, bids over engineer’s estate, and changing/new infrastructure priorities for FY24.

Table 3 – Summary of 5-Year CIP by Service Type

Service Type	FY24	FY25	FY26	FY27	FY28	5-Year
Wastewater	\$ 161,185,000	\$193,451,000	\$ 202,274,000	\$ 151,207,000	\$ 114,697,000	\$ 822,814,000
Stormwater	\$ 62,125,000	\$ 87,931,000	\$ 93,333,000	\$ 49,737,000	\$ 26,903,000	\$ 320,029,000
Support Systems	\$ 18,133,000	\$ 4,838,000	\$ 5,469,000	\$ 4,328,000	\$ 4,241,000	\$ 37,009,000
Management Reserve	\$ 13,865,000	\$ 5,850,000	\$ 75,000	\$ 100,000	\$ 1,300,000	\$ 21,190,000
Total - CIP	\$ 255,308,000	\$292,070,000	\$ 301,151,000	\$ 205,372,000	\$ 147,141,000	\$ 1,201,042,000

Given the fluctuating nature of the current economy and post-pandemic supply chain challenges, MSD recognizes the importance of building flexibility into the 5-Year CIP. Projects may not be fully implemented as anticipated and will need to carry-over into the next fiscal year CIP. However, MSD needs to maintain a cap on the 5-year CIP to remain compliant with financial metrics. Each of the programs is detailed in this section including the spending forecasted in FY24 and the 5-Year CIP.

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2.1 Regulatory Compliance Projects

MSD is faced with many regulations comprised of mandated programs, consent decree mandates, and agreed orders with the state or local jurisdictions. 76-percent of the FY24 CIP is required for regulatory compliance and 83-percent of the 5-Year CIP addresses mandated infrastructure improvements. A summary of the Regulatory Compliance Projects in the 5-Year CIP is presented in Table 4. Each regulatory program is summarized herein.

Table 4 – Summary of Regulatory Compliance Projects in 5-Year CIP

Regulatory Program	FY24	FY25	FY26	FY27	FY28	5-Year
Consent Decree	\$ 169,647,000	\$230,148,000	\$ 258,164,000	\$ 163,849,000	\$ 108,367,000	\$ 930,175,000
State Agreed Orders	\$ 14,217,000	\$ 11,175,000	\$ -	\$ -	\$ -	\$ 25,392,000
CMOM Program	\$ 5,298,000	\$ 5,523,000	\$ 9,878,000	\$ 7,764,000	\$ 2,643,000	\$ 31,106,000
NMC Program	\$ 300,000	\$ 300,000	\$ 300,000	\$ 280,000	\$ 465,000	\$ 1,645,000
MS4 Program	\$ 2,651,000	\$ 1,932,000	\$ 2,152,000	\$ 2,279,000	\$ 2,685,000	\$ 11,699,000
Total	\$ 192,113,000	\$249,078,000	\$ 270,494,000	\$ 174,172,000	\$ 114,160,000	\$ 1,000,017,000

Note: CMOM Program represents only work not included in the Consent Decree Asset Management spend requirement.

2.1.1 Consent Decree Spending

The second amendment to the Consent Decree underwent public review and was approved by USEPA. MSD is continuing to advance projects to comply with all aspects of the Consent Decree as noted below in Table 5. MSD funds seven categories of projects that fall under the umbrella of the Consent Decree. The Integrated Overflow Abatement Plan (IOAP) outlined in the First Amendment to the Consent Decree included projects to reduce/eliminate sewer overflows through the Long-Term Control Plan (LTCP); Sanitary Sewer Discharge Plan (SSDP); and Green Infrastructure Program. The Second Amendment to the Consent Decree added projects related to Asset Management, Critical Sewers, and Specific Remedy projects. MSD utilizes consultant support for program management and modeling to deliver the CIP and Consent Decree requirements.

Table 5 – Consent Decree Projects in 5-Year CIP

Regulatory Program	FY24	FY25	FY26	FY27	FY28	5-Year
Asset Management	\$ 53,960,000	\$ 60,682,000	\$ 86,699,000	\$ 69,059,000	\$ 62,887,000	\$ 333,287,000
Consent Decree Support Services	\$ 3,200,000	\$ 2,400,000	\$ 2,400,000	\$ 2,240,000	\$ 3,719,000	\$ 13,959,000
Critical Sewer Projects	\$ 8,076,000	\$ 12,008,000	\$ 1,711,000	\$ -	\$ -	\$ 21,795,000
Long-Term Control Plan	<i>All LTCP projects named in the Consent Decree have been completed.</i>					
Sanitary Sewer Discharge Plan	\$ 7,411,000	\$ 17,058,000	\$ 20,354,000	\$ 33,550,000	\$ 27,761,000	\$ 106,134,000
Specific Remedy Projects	\$ 97,000,000	\$138,000,000	\$ 147,000,000	\$ 59,000,000	\$ 14,000,000	\$ 455,000,000
Total - Consent Decree Projects	\$ 169,647,000	\$230,148,000	\$ 258,164,000	\$ 163,849,000	\$ 108,367,000	\$ 930,175,000

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2.1.1.1 Consent Decree Asset Management Projects

The Second Amendment to the Consent Decree requires MSD to invest an average of \$25 million per year for asset management improvements for the wastewater system – a total of at least \$375 million through 2035. MSD is required to report progress with this annual spending metric in the annual Consent Decree Progress Report. Given the level of investment needed throughout the District for aging assets, there is no reason to believe MSD will not meet the \$25 million per year.

- **Costs eligible to be counted toward the asset management spend requirement** include work or services performed by MSD, its consultants, vendors, and contractors associated with facility plans, master plans, asset management plans, hydraulic and process modeling, asset inspection, condition assessment, risk assessment, field testing, design services, bidding services, asset performance evaluations, construction, construction inspection, commissioning (asset start-up), asset rehabilitation, asset replacement or upgrade, infiltration/inflow mitigation projects, and projects related to existing sewers, pump stations, storage facilities, treatment facilities, large equipment, utility vehicles, emergency repairs, and power/electrical systems.
- **Costs not eligible include work or services associated with** basin/watershed studies, permit renewal applications, financing, grant/loan applications, website updates or upgrades, facility remodeling, property acquisitions and land purchases, urban forestation or tree planting, landscaping, wetlands restoration, river/stream bank erosion or protection projects, aesthetic improvements not related to asset performance, Drainage Response Initiative (DRI) projects, construction of new sewers in unsewered areas, litigation, and annual operating budget line items such power, chemicals, labor, crane rental, or services associated with preventative or minor corrective maintenance costing less than \$5,000 (not capitalized).
- **FY24 CIP:** Although the annual totals listed in Table 5 for “Asset Management” are greater than \$25 million, MSD is required to spend an average of \$25 million per year. Given several high priority asset management projects will span multiple years, MSD prefers to front-load the CIP to accommodate long project durations. Some years will be higher than \$25M, other years may be lower than \$25 million. The Consent Decree mandate is for an annual average of \$25 million that is evaluated every five years. The first Consent Decree asset management reconciliation will occur in FY26 for years FY21 through FY25.

MSD anticipates spending on more than the eligible Consent Decree defined asset management projects during FY24 (refer to **Appendix B**). Given the uncertainty with supply chain economics and the condition of many existing assets, delays are expected for several equipment types, large equipment, and traditionally long-lead time items. To protect the integrity of MSD’s system, the number of projects advanced under this asset management program has been maximized.

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2.1.1.2 Consent Decree Critical Sewer Projects

Nine (9) critical sewer projects were added to the Consent Decree via the Second Amendment. Five of the projects are complete; three are currently underway; and one project (Buechel Trunk Sewer Repair) will begin in FY24 as shown in Table 6.

Table 6 – Consent Decree Critical Sewer Projects in 5-Year CIP

CD Critical Sewer Projects	FY24	FY25	FY26	FY27	FY28	5-Year
Buechel Trunk Sewer Repair	\$ 478,000	\$ 1,583,000	\$ 1,660,000	\$ -	\$ -	\$ 3,721,000
Large Diameter Sewer Rehabilitation - Stage 1 and 2	\$ 1,317,000	\$ -	\$ -	\$ -	\$ -	\$ 1,317,000
Prospect Phase II Rehab	\$ 662,000	\$ -	\$ -	\$ -	\$ -	\$ 662,000
Western Outfall Infrastructure Rehabilitation	\$ 5,619,000	\$ 10,425,000	\$ 51,000	\$ -	\$ -	\$ 16,095,000
Total - CD Critical Sewers Projects	\$ 8,076,000	\$ 12,008,000	\$ 1,711,000	\$ -	\$ -	\$ 21,795,000

Note: These critical sewer projects are required to be completed by December 31, 2026, per the Second Amendment to the Consent Decree.

2.1.1.3 Green Infrastructure Projects

MSD has completed all Consent Decree obligations associated with green infrastructure projects. The FY24 CIP includes \$158,000 for the Brown-Forman Distillery Project that remain in progress and discussion with private property owners.

2.1.1.4 Long-Term Control Plan Projects

MSD has completed construction of the projects included in the LTCP including the Ohio River Waterway Protection Tunnel Project.

2.1.1.5 Sanitary Sewer Discharge Plan (SSDP) Projects

MSD has 16 remaining SSDP projects to complete. The 5-Year CIP includes the projects required to be completed by 2025 (Cinderella PS Elimination, Gunpowder PS, Idlewood Storage, Kavanaugh PS, Leven PS Elimination, Little Cedar Creek Interceptor, and Monticello PS Elimination) and those required to be completed by 2030 (Bardstown Road PS, Dell Road Interceptor, Mellwood System, Raintree & Marian Phase 2, and the Upper Middle Fork projects). The forecasted spending for these projects is shown in Table 7. Two other SSDP projects are slated to begin after FY27 and be complete by 2035.

In November 2022, MSD submitted requests to modify four SSDP Projects including:

- Little Cedar Creek Interceptor Improvements. Request to eliminate this project given the upstream rehabilitation work and recalibrated model. No overflows have been reported since 2015.
- Kavanaugh Road Pump Station Elimination. Time extension requested to include additional pump station eliminations.
- Cinderella Pump Station Elimination. Time extension required to coordinate with the Admiral Way Diversion Project.
- Gunpowder Pup Station Elimination. Request to change scope from in-storage to a pump station elimination project by constructing 3,000 feet of 18-inch sewer.

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Table 7 – Consent Decree SSDP Projects in 5-Year CIP

SSDP Projects	FY24	FY25	FY26	FY27	FY28	5-Year
Bardstown Road PS Improvements	\$ -	\$ 382,000	\$ 2,648,000	\$ 688,000	\$ -	\$ 3,718,000
Cinderella Pump Station Elimination	\$ -	\$ -	\$ -	\$ -	\$ 159,000	\$ 159,000
Dell Road & Charlane Pkwy Interceptor Improvements	\$ -	\$ 555,000	\$ 4,816,000	\$ 4,324,000	\$ -	\$ 9,695,000
Goose Creek I&I Rehab	\$ -	\$ 788,000	\$ 2,028,000	\$ -	\$ -	\$ 2,816,000
Gunpowder Pump Station ILS	\$ 2,290,000	\$ 3,973,000	\$ 311,000	\$ -	\$ -	\$ 6,574,000
Idlewood Inline Storage	\$ 786,000	\$ -	\$ -	\$ -	\$ -	\$ 786,000
Kavanaugh Road Pump Station Elimination	\$ 1,660,000	\$ 2,802,000	\$ 118,000	\$ -	\$ -	\$ 4,580,000
Leven Pump Station Elimination	\$ 1,089,000	\$ 205,000	\$ -	\$ -	\$ -	\$ 1,294,000
Mellwood System Improvements and PSEs	\$ -	\$ -	\$ 229,000	\$ 1,235,000	\$ 907,000	\$ 2,371,000
Middle Fork Bg Crk SSR Ph 1	\$ -	\$ 769,000	\$ -	\$ -	\$ -	\$ 769,000
Monticello Pump Station Elimination	\$ 184,000	\$ -	\$ -	\$ -	\$ -	\$ 184,000
Raintree & Marian Ct 2 - Pipe Upgrades	\$ 246,000	\$ 815,000	\$ 854,000	\$ -	\$ -	\$ 1,915,000
Upper Middle Fork #2 PS Replacements	\$ 392,000	\$ 2,296,000	\$ 3,172,000	\$ 9,262,000	\$ 9,055,000	\$ 24,177,000
Upper Middle Fork Forcemain	\$ 312,000	\$ 1,828,000	\$ 2,525,000	\$ 7,374,000	\$ 7,210,000	\$ 19,249,000
Upper Middle Fork Relief Interceptor	\$ 452,000	\$ 2,645,000	\$ 3,653,000	\$ 10,667,000	\$ 10,430,000	\$ 27,847,000
Total - CD SSDP Projects	\$ 7,411,000	\$ 17,058,000	\$ 20,354,000	\$ 33,550,000	\$ 27,761,000	\$ 106,134,000

2.1.1.6 Specific Remedy Projects

The Second Amendment to the Consent Decree added the two projects shown in Table 8. The Paddy's Run Pump Station Improvements are required to be completed by 12/31/2026. The Morris Forman WQTC New Biosolids Facility is required to be completed by 12/31/2030. Both projects are under contract with design-build teams. The 30-percent design submittals will be submitted in early FY24 and will better inform the spending forecast for both projects.

Table 8 – Consent Decree Specific Remedy Projects in 5-Year CIP

Consent Decree Projects	FY24	FY25	FY26	FY27	FY28	5-Year
Morris Forman WQTC Biosolids Facility	\$ 52,000,000	\$ 68,000,000	\$ 77,000,000	\$ 29,000,000	\$ -	\$ 226,000,000
Paddy's Run FPS Capacity Upgrade	\$ 45,000,000	\$ 70,000,000	\$ 70,000,000	\$ 30,000,000	\$ 14,000,000	\$ 229,000,000
Total - CD Specific Remedy Projects	\$ 97,000,000	\$ 138,000,000	\$ 147,000,000	\$ 59,000,000	\$ 14,000,000	\$ 455,000,000

2.1.1.7 Consent Decree Support Projects

The support services forecasted for implementation of the Consent Decree work are shown in Table 9.

Table 9 – Consent Decree Support Projects in 5-Year CIP

Consent Decree Support Projects	FY24	FY25	FY26	FY27	FY28	5-Year
CIP Task Assistance	\$ 2,000,000	\$ 1,500,000	\$ 1,500,000	\$ 1,400,000	\$ 2,324,300	\$ 8,724,300
Modeling	\$ 1,200,000	\$ 900,000	\$ 900,000	\$ 840,000	\$ 1,394,600	\$ 5,234,600
Total	\$ 3,200,000	\$ 2,400,000	\$ 2,400,000	\$ 2,240,000	\$ 3,718,900	\$ 13,958,900

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2.1.2 State Agreed Orders

MSD entered into an Agreed Order with the Kentucky Department of Environmental Protection’s Energy and Environment Cabinet (KDEP) to complete the \$175 million Corrective Action Plan (CAP) for mitigating permit non-compliance at the Morris Forman WQTC. MSD has been working on the CAP projects since 2015. The last four projects totaling \$41 million are underway. The spending forecast is shown in Table 10.

MSD also entered into an Agreed Order with the Louisville Metro Air Pollution Control Board related to odors from its collection system. An Odor Management Plan continues to be developed and specific improvements are underway for the West Louisville Community (refer to Table 10).

Finally, MSD entered into an Agreed Order with KDEP to address deficiencies in the recently acquired Oldham County collection system. A new interceptor will be constructed along Ash Avenue to improve the connectivity of service throughout Oldham County (refer to Table 10).

Table 10 – Agreed Order Projects in 5-Year CIP

Agreed Order	Regulatory Agreed Order Projects	FY24	FY25	FY26	FY27	FY28	5-Year
MFWQTC Corrective Action Plan	MFWQTC Sedimentation Basin RR	\$ 10,625,000	\$ 10,907,000	\$ -	\$ -	\$ -	\$ 21,532,000
	MFWQTC LG Dryer Replacements	\$ 725,000	\$ -	\$ -	\$ -	\$ -	\$ 725,000
Louisville Metro Air Pollution Control	Odor Management Plan	\$ 267,000	\$ 268,000	\$ -	\$ -	\$ -	\$ 535,000
Oldham County	OC Ash Avenue Interceptor	\$ 2,600,000	\$ -	\$ -	\$ -	\$ -	\$ 2,600,000
Total		\$ 14,217,000	\$ 11,175,000	\$ -	\$ -	\$ -	\$ 25,392,000

Note: All work associated with these Agreed Orders is forecasted to be complete as shown above and no spending is forecasted for FY27.

2.1.3 Nine Minimum Controls (NMC) Program

USEPA requires utilities to implement technology-based actions or measures designed to reduce the number of sewer overflow events and to mitigate the effects on water quality. MSD continues to advance its NMC Program and operate real time control systems. The projects included in the 5-Year CIP for this program are listed in Table 11.

Table 11 – NMC Program in 5-Year CIP

NMC Projects	FY24	FY25	FY26	FY27	FY28	5-Year
NMC RTC	\$ 300,000	\$ 225,000	\$ 225,000	\$ 210,000	\$ 348,600	\$ 1,308,600
NMC Support	\$ -	\$ 75,000	\$ 75,000	\$ 70,000	\$ 116,200	\$ 336,200
Total NMC Program	\$ 300,000	\$ 300,000	\$ 300,000	\$ 280,000	\$ 464,800	\$ 1,644,800

2.1.4 CMOM Program

The original Consent Decree required MSD to develop and implement a Capacity, Maintenance, Operations, and Management (CMOM) Program. The intent of the Program as established by USEPA is to continuously incorporate added information to help MSD better manage, operate, and maintain its infrastructure. The CMOM-related investments for each of MSD’s three service areas (Jefferson County, Bullitt County, and Oldham County) are listed in Table 12.

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Table 12 – CMOM Program in 5-Year CIP

Collection System	CMOM Program Projects	FY24	FY25	FY26	FY27	FY28	5-Year
Jefferson County System ¹	AI Aquisight Software at HCWQTC	\$ 200,000	\$ -	\$ -	\$ -	\$ -	\$ 200,000
	CCWQTC WAS Cycle Automation	\$ -	\$ 187,000	\$ -	\$ -	\$ -	\$ 187,000
	CMOM SCAP, AAM, FOG	\$ 100,000	\$ 113,000	\$ 113,000	\$ 105,000	\$ 174,000	\$ 605,000
	Comprehensive Facility Plan Update	\$ -	\$ 465,000	\$ 465,000	\$ -	\$ -	\$ 930,000
	Construction Inspection	\$ 1,400,000	\$ 375,000	\$ 375,000	\$ 350,000	\$ 581,000	\$ 3,081,000
	Cypress Springs PS Elimination	\$ 330,000	\$ 915,000	\$ -	\$ -	\$ -	\$ 1,245,000
	Floydsburg Road I&I Investigation and Rehab	\$ -	\$ 57,000	\$ -	\$ -	\$ -	\$ 57,000
	Fox Harbor #1 PS Elimination	\$ 404,000	\$ -	\$ -	\$ -	\$ -	\$ 404,000
	Fox Harbor #2 PS Elimination	\$ 462,000	\$ -	\$ -	\$ -	\$ -	\$ 462,000
	MFWQTC Planning Assistance	\$ 70,000	\$ -	\$ -	\$ -	\$ -	\$ 70,000
	Ohio River Area Facilities Plan	\$ 24,000	\$ -	\$ -	\$ -	\$ -	\$ 24,000
	Park Ridge Woods PS Elimination	\$ -	\$ -	\$ -	\$ 193,000	\$ 1,307,000	\$ 1,500,000
	Plumbing Modification Program	\$ 250,000	\$ 250,000	\$ 375,000	\$ 350,000	\$ 581,000	\$ 1,806,000
	Private Property I/I Program	\$ 250,000	\$ 798,000	\$ -	\$ -	\$ -	\$ 1,048,000
	SCADA Master Plan	\$ -	\$ -	\$ -	\$ 846,000	\$ -	\$ 846,000
Smart Sensor Pilot Study	\$ 17,000	\$ -	\$ -	\$ -	\$ -	\$ 17,000	
Total - Jefferson County System	\$ 3,507,000	\$ 3,160,000	\$ 1,328,000	\$ 1,844,000	\$ 2,643,000	\$ 12,482,000	
Bullitt County System	BC CMOM Infrastructure Rehab	\$ -	\$ 500,000	\$ 500,000	\$ 350,000	\$ -	\$ 1,350,000
	BC Collection Sys Gravity Sewer Rehabilitation	\$ -	\$ 500,000	\$ 500,000	\$ 70,000	\$ -	\$ 1,070,000
	BC Collection System Modeling	\$ -	\$ 25,000	\$ 25,000	\$ 35,000	\$ -	\$ 85,000
	BC Long-Term Monitoring Network (LTMN)	\$ 75,000	\$ -	\$ -	\$ -	\$ -	\$ 75,000
	BC PS RR	\$ -	\$ 100,000	\$ 100,000	\$ -	\$ -	\$ 200,000
	BC System Planning and Reg. Support	\$ -	\$ 100,000	\$ 100,000	\$ -	\$ -	\$ 200,000
	Bigwood PS Elimination	\$ 421,000	\$ -	\$ -	\$ -	\$ -	\$ 421,000
	Bullitt Hills and Hillview #1 WWTP Elimination	\$ 225,000	\$ 225,000	\$ 5,225,000	\$ 5,169,000		\$ 10,844,000
	Hillview PS#2 Elimination	\$ -	\$ -	\$ -	\$ 100,000	\$ -	\$ 100,000
Total - Bullitt County System	\$ 721,000	\$ 1,450,000	\$ 6,450,000	\$ 5,724,000	\$ -	\$ 14,345,000	
Oldham County System	OC CMOM Linear Infrastructure Rehab	\$ -	\$ 225,000	\$ 225,000	\$ 147,000	\$ -	\$ 597,000
	OC CMOM Vertical Infrastructure Rehab	\$ -	\$ 75,000	\$ 75,000	\$ 49,000	\$ -	\$ 199,000
	OC WQTC Eliminations	\$ -	\$ -	\$ 1,800,000	\$ -	\$ -	\$ 1,800,000
	Ohio River Service Area Lift Station Rehab	\$ 920,000	\$ 613,000	\$ -	\$ -	\$ -	\$ 1,533,000
	Mockingbird Valley WWTP Elimination	\$ 150,000	\$ -	\$ -	\$ -	\$ -	\$ 150,000
Total - Oldham County System	\$ 1,070,000	\$ 913,000	\$ 2,100,000	\$ 196,000	\$ -	\$ 4,279,000	

Note: ¹Excludes CMOM work included under \$25M Asset Management Consent Decree requirement for Jefferson County.

2.1.5 MS4 Program

The Municipal Separate Storm Sewer System Program (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 FY24 CIP includes MS4 projects totaling approximately \$2.6 million with a total of \$11.7 million forecasted for the 5-Year CIP as presented in Table 13.

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Table 13 – MS4 Program in 5-Year CIP

MS4 Program Projects	FY24	FY25	FY26	FY27	FY28	5-Year
Engineering Support for Env'l Monitoring	\$ 200,000	\$ -	\$ -	\$ -	\$ -	\$ 200,000
Env'L Data Collection – MS4 & IOAP	\$ 450,000	\$ 656,000	\$ 656,000	\$ 612,000	\$ 1,017,000	\$ 3,391,000
Maple Street Land Use Project	\$ 456,000	\$ -	\$ -	\$ -	\$ -	\$ 456,000
MS4 Program	\$ 610,000	\$ 450,000	\$ 450,000	\$ 420,000	\$ 697,000	\$ 2,627,000
Urban Reforestation	\$ 250,000	\$ 117,000	\$ 337,000	\$ 525,000	\$ 221,000	\$ 1,450,000
USGS Stream Monitoring	\$ 685,000	\$ 709,000	\$ 709,000	\$ 722,000	\$ 750,000	\$ 3,575,000
Total MS4 Program	\$ 2,651,000	\$ 1,932,000	\$ 2,152,000	\$ 2,279,000	\$ 2,685,000	\$ 11,699,000

2.2 Wastewater Non-Regulatory Projects

The 5-Year CIP includes funding for development coordination and emergency projects. Most of the wastewater system funding is included in the asset management annual Consent Decree spend mandate. The projects listed herein do not have a regulatory component.

2.2.1 Development Coordination

The Critical Repair and Reinvestment Plan identified potential regionalization corridors where MSD can further extend sewers to improve surface water quality. Economic development and regionalization are opportunities for optimizing resources across watersheds, improving water quality and facilitating economic growth (refer to Table 14).

Table 14 – Wastewater Development Projects in 5-Year CIP

Development Projects	FY24	FY25	FY26	FY27	FY28	5-Year
Development Infrastructure Support	\$ 85,000	\$ 64,000	\$ 64,000	\$ 60,000	\$ 99,000	\$ 372,000
Fee In Lieu Program	\$ 250,000	\$ -	\$ -	\$ -	\$ -	\$ 250,000
Floyds Fork Interceptor	\$ 1,000,000	\$ -	\$ -	\$ 9,098,000	\$ 16,891,000	\$ 26,989,000
KTC Greenwood Rd Assmt	\$ -	\$ -	\$ -	\$ -	\$ 232,000	\$ 232,000
KY 393 Reconstruction SSR	\$ 3,000	\$ -	\$ -	\$ -	\$ -	\$ 3,000
BC West Triangle PS FM and Interceptor	\$ 5,180,000	\$ 4,696,000	\$ 63,000	\$ -	\$ -	\$ 9,939,000
OC Forcemain to HCWQTC	\$ 302,000	\$ 1,276,000	\$ -	\$ -	\$ -	\$ 1,578,000
Total - Development Projects	\$ 6,820,000	\$ 6,036,000	\$ 127,000	\$ 9,158,000	\$ 17,222,000	\$ 39,363,000

2.2.2 Emergencies

Given the age of MSD's system, it is prudent to set aside funds for emergency line breaks and other situations where the Operations Division's operating budget is insufficient to expedite repair. MSD funds two projects for emergency use as deemed appropriate by the Director of Engineering, Chief Engineer, or Chief of Operations. The Operations Renewal & Replacement Project is used to address equipment failures at MSD's facilities. The Renewal and Replacement Project is used to address line breaks and field conditions requiring immediate attention. In the event these funds are not sufficient for a FY, staff can request use of Management Reserve funds from the CIP Management Team.

2.3 Stormwater & Flood Protection Programs

In addition to managing wastewater, MSD is responsible for stormwater management and flood protection. MSD's strategy has been to prioritize wet weather issues contributing to sewer overflows followed by maintaining operation of the 16 flood pump stations followed by

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addressing localized problems identified through the DRI Program. The combined sewer system improvements were constructed over the past several years (and continuing through FY24 in accordance with Consent Decree mandates. The Flood Pump Stations have continued to be improved to ensure reliable pumping capacity is available as needed. Drainage-based projects continue to be advanced throughout the District. MSD is in the process of collecting data to support development of a Stormwater Master Plan to determine the best options for managing stormwater throughout Jefferson County. The Master Plan projects will be subsequently prioritized to fit within MSD's long-term CIP.

2.3.1 Drainage Projects

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. The CRRP included a number of programs related to drainage and floodplain management. The level of spending forecasted for drainage projects over the next five years is presented in Table 15.

- **Drainage Response Initiative Program (DRI):** Since 2003, MSD has been implementing an aggressive program to address a wide variety of drainage issues that were pointed out by customers to address problems ranging from structural flooding to alleviating minor standing water problems. The FY24 CIP includes DRI projects totaling approximately \$3.7 million as noted in Table 15.
- **Floodplain Management Program:** Since 1997, MSD has purchased homes located in flood prone areas through federal grant programs (particularly FEMA). Following a number of spring flooding events in 2015, the Mayor formed a multiagency Flood Mitigation Workgroup to address impacted residents who were unable, for a variety of reasons, to get back in their homes after the floodwaters receded. The Flood Mitigation Workgroup recommended several mitigation approaches, including establishment of a "quick-buy" program to allow property owners to sell flood-impacted property in a much shorter time than would typically be possible. The Workgroup recommended an annual fund be established to provide timely relief to property owners impacted by future extreme storm events. The projects continue to be advanced but are not specifically included as part of the CIP due to the FEMA reimbursement portion of the program.
- **Stormwater Master Plan Implementation Program:** MSD is developing an extensive stormwater asset inventory. The FY24 work will continue collecting field inventory data and pilot monitoring activities. The FY24 CIP includes \$300,000 to support this effort. The information collected during FY24 will support drafting the Stormwater Master Plan in the future. The 5-Year CIP includes approximately \$4.5 million for development of the Stormwater Master Plan.

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Table 15 – Stormwater Drainage Projects in 5-Year CIP

Stormwater Projects		FY24	FY25	FY26	FY27	FY28	5-Year
DRI Program	2314 Fallsview Road Bank Repair	\$ 13,000	\$ -	\$ -	\$ -	\$ -	\$ 13,000
	2530 Parkwood Rd Bank Repair	\$ 250,000	\$ -	\$ -	\$ -	\$ -	\$ 250,000
	2695 Pennacook Road Bank Repair	\$ 350,000	\$ -	\$ -	\$ -	\$ -	\$ 350,000
	4328 N Foeburn Bank Repair	\$ 37,000	\$ -	\$ -	\$ -	\$ -	\$ 37,000
	City of Graymoore - Devendale DIP	\$ 208,000	\$ -	\$ -	\$ -	\$ -	\$ 208,000
	Drainage Response Initiative (DRI) Program	\$ 2,800,000	\$ 2,100,000	\$ 2,100,000	\$ 1,960,000	\$ 3,254,000	\$ 12,214,000
	Total - DRI Program	\$ 3,658,000	\$ 2,100,000	\$ 2,100,000	\$ 1,960,000	\$ 3,254,000	\$ 13,072,000
Catch Basin Projects	California Maple St. Trap Catch Basin Rehab	\$ 432,000	\$ 48,000	\$ -	\$ -	\$ -	\$ 480,000
	California Neighborhood Trap Catch Basin Reh	\$ 199,000	\$ -	\$ -	\$ -	\$ -	\$ 199,000
	Catch Basin Rehab - Odor Control	\$ 200,000	\$ 1,000,000	\$ 1,000,000	\$ -	\$ -	\$ 2,200,000
	Lynnview Catch Basin Replacement	\$ 61,000	\$ -	\$ -	\$ -	\$ -	\$ 61,000
	Neighborhood Odor Control Catch Basin Inspect	\$ -	\$ 200,000	\$ -	\$ -	\$ -	\$ 200,000
	Total - Catch Basins	\$ 892,000	\$ 1,248,000	\$ 1,000,000	\$ -	\$ -	\$ 3,140,000
Stormwater Projects	Asset Management Plan Development - Drainage	\$ 250,000	\$ -	\$ -	\$ -	\$ -	\$ 250,000
	Oakmount Drive RFF Basin	\$ 1,000,000	\$ -	\$ -	\$ -	\$ -	\$ 1,000,000
	Oak Valley Drainage Remedies	\$ -	\$ -	\$ -	\$ 2,422,000	\$ -	\$ 2,422,000
	Brown-Forman Distillery GI Stipend	\$ 158,000	\$ -	\$ -	\$ -	\$ -	\$ 158,000
	FY24 Renewal & Replacement (Stormwater)	\$ 100,000	\$ -	\$ -	\$ -	\$ -	\$ 100,000
	Total - Stormwater Projects	\$ 1,508,000	\$ -	\$ -	\$ 2,422,000	\$ -	\$ 3,930,000
Stormwater Planning	Floyds Fork Flood Modeling	\$ 100,000	\$ -	\$ -	\$ -	\$ -	\$ 100,000
	Stormwater Asset Inventory & Analysis	\$ 300,000	\$ 300,000	\$ -	\$ -	\$ -	\$ 600,000
	Stormwater Master Plan	\$ -	\$ -	\$ 2,223,000	\$ 2,224,000	\$ -	\$ 4,447,000
	Stormwater Modeling Alternative Analysis	\$ -	\$ 95,000	\$ 156,000	\$ -	\$ -	\$ 251,000
	Stormwater Pilot Modeling	\$ 263,000	\$ -	\$ -	\$ -	\$ -	\$ 263,000
	Total - Stormwater Planning	\$ 663,000	\$ 395,000	\$ 2,379,000	\$ 2,224,000	\$ -	\$ 5,661,000

2.3.2 Flood Protection Projects

Flood protection is a critical public health service that MSD provides. As the FY22 CIP was being developed, it was anticipated the majority of MSD's flood protection system improvements for the next five years would be addressed through the United States Army Corps of Engineers (USACE) Reliability Improvements Program. Unfortunately, the USACE was not successful in receiving sufficient congressional appropriation funds for the system needs. Discussions remain planned for FY24 with MSD and the USACE.

In the meantime, as the FY24 CIP was being developed, MSD identified the elevated risk components of the Flood Protection Program. Given the fact that most of the Flood Pump Stations (FPS) have original electrical and switchgear systems and original gates dating back to the 1950s or 1960s, MSD is advancing several projects to replace outdated parts and systems (refer to Table 16).

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Table 16 – Flood Protection Projects in 5-Year CIP

Ohio River Flood Protection Projects		FY24	FY25	FY26	FY27	FY28	5-Year
Flood Pump Stations	5th Street FPS - MCC Emergency	\$ 106,000	\$ -	\$ -	\$ -	\$ -	\$ 106,000
	5th Street FPS - Generator Improvements	\$ -	\$ -	\$ -	\$ 1,021,000	\$ 1,717,000	\$ 2,738,000
	Beargrass Creek FPS Electrical Improvements	\$ 1,000,000	\$ 1,300,000	\$ -	\$ -	\$ -	\$ 2,300,000
	Bingham Way FPS - Capacity and Generator In	\$ -	\$ -	\$ -	\$ 564,000	\$ 620,000	\$ 1,184,000
	Pond Creek FPS Breaker Replacement	\$ 140,000	\$ -	\$ -	\$ 2,000,000	\$ -	\$ 2,140,000
	Riverport FPS - Electrical Improvements	\$ -	\$ 295,000	\$ 979,000	\$ 1,026,000	\$ -	\$ 2,300,000
	Shawnee Park FPS - Electrical Improvements	\$ -	\$ -	\$ -	\$ 527,000	\$ 2,303,000	\$ 2,830,000
	Starkey FPS Electrical Service Improvements	\$ 665,000	\$ 1,160,000	\$ 130,000	\$ -	\$ -	\$ 1,955,000
	Upper Mill Creek FPS MCC Replacement	\$ -	\$ 3,000,000	\$ -	\$ -	\$ -	\$ 3,000,000
	Upper Mill Creek FPS Transformer Replaceme	\$ 211,000	\$ 436,000	\$ 93,000	\$ -	\$ -	\$ 740,000
	Monitoring Sites Safety Improvements	\$ 51,000	\$ 249,000	\$ -	\$ -	\$ -	\$ 300,000
	CRRP Emergency Access Evaluation	\$ -	\$ -	\$ 667,000	\$ 667,000	\$ -	\$ 1,334,000
	Total - Flood Pump Stations	\$ 2,173,000	\$ 6,440,000	\$ 1,869,000	\$ 5,805,000	\$ 4,640,000	\$ 20,927,000
Gates & Floodwalls	Canal Street Floodwall	\$ -	\$ 2,133,000	\$ 3,585,000	\$ -	\$ -	\$ 5,718,000
	Flood Gate 114 Replacement	\$ -	\$ 1,510,000	\$ 4,040,000	\$ -	\$ -	\$ 5,550,000
	Flood Protection PM Support	\$ 96,000	\$ -	\$ -	\$ -	\$ -	\$ 96,000
	Flood Protection System Outfall Assessment	\$ 285,000	\$ -	\$ -	\$ -	\$ -	\$ 285,000
	Flood Structures RR	\$ 1,000,000	\$ 1,000,000	\$ 1,500,000	\$ 1,400,000	\$ 2,324,000	\$ 7,224,000
	Gate 102 Replacement	\$ 115,000	\$ -	\$ -	\$ -	\$ -	\$ 115,000
	Gate 30 Replacement	\$ 34,000	\$ -	\$ -	\$ -	\$ -	\$ 34,000
	High Hazard Dam Flood Level Sensors	\$ 307,000	\$ -	\$ -	\$ -	\$ -	\$ 307,000
	SGC Gate Replacements	\$ 2,665,000	\$ -	\$ -	\$ -	\$ -	\$ 2,665,000
	Sluice Gate Repair Program	\$ 470,000	\$ 1,173,000	\$ 4,709,000	\$ 3,648,000	\$ -	\$ 10,000,000
	Water Stop Repair	\$ 606,000	\$ -	\$ -	\$ -	\$ -	\$ 606,000
Total - Gates and Floodwalls	\$ 5,578,000	\$ 5,816,000	\$ 13,834,000	\$ 5,048,000	\$ 2,324,000	\$ 32,600,000	

2.4 Support System Programs

The Support Systems projects reflect the non-process related investments that must be made to keep the MSD businesses running. Facility improvements, computer systems (IT implementations), and vehicle acquisitions are some of the project types that fall under the Support System Program.

2.4.1 Facility Improvement Projects

MSD maintains more than 200 buildings as part of its infrastructure. The 5-Year CIP includes \$11.4 million related to buildings and site improvements and repairs as noted in Table 17.

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Table 17 – Facility Improvements in 5-Year CIP

Facility Improvement Projects		FY24	FY25	FY26	FY27	FY28	5-Year
Building Improvements	CMF Floor Replacement	\$ 23,000	\$ 35,000	\$ -	\$ -	\$ -	\$ 58,000
	CMF Structural Investigation	\$ 36,000	\$ -	\$ -	\$ -	\$ -	\$ 36,000
	CMF Structural Repairs	\$ -	\$ -	\$ -	\$ 880,000	\$ -	\$ 880,000
	Facility Lead Paint Abatement	\$ 408,000			\$ -	\$ -	\$ 408,000
	Facility Mold Abatement	\$ 191,000			\$ -	\$ -	\$ 191,000
	Facility Structural Investigations	\$ 34,000	\$ 34,000	\$ 33,000	\$ -	\$ -	\$ 101,000
	Total - Structural	\$ 692,000	\$ 69,000	\$ 33,000	\$ 880,000	\$ -	\$ 1,674,000
Site Improvements	CMF Garage Fluid Delivery System	\$ 83,000	\$ -	\$ -	\$ -	\$ -	\$ 83,000
	CMF Automated Vehicle Wash Facility	\$ -	\$ -	\$ 1,229,000	\$ 613,000	\$ -	\$ 1,842,000
	CMF Guard Building Entrance Enhancements	\$ 3,148,000	\$ -	\$ -	\$ -	\$ -	\$ 3,148,000
	SWPS Site Security	\$ 231,000	\$ -	\$ -	\$ -	\$ -	\$ 231,000
	Security Upgrades	\$ -	\$ -	\$ 375,000	\$ -	\$ -	\$ 375,000
	Total - Site	\$ 3,462,000	\$ -	\$ 1,604,000	\$ 613,000	\$ -	\$ 5,679,000
Roof Replacement	CCWQTC Maintenance Offices Roof Replacement	\$ 392,000	\$ -	\$ -	\$ -	\$ -	\$ 392,000
	CCWQTC Roof Repairs	\$ 136,000	\$ -	\$ -	\$ -	\$ -	\$ 136,000
	DRGWQTC Clarifier MCC Building Roof Replacement	\$ 69,000	\$ -	\$ -	\$ -	\$ -	\$ 69,000
	DRGWQTC Grit Electric MCC Building Roof Replacement	\$ 62,000	\$ -	\$ -	\$ -	\$ -	\$ 62,000
	FFWQTC Tertiary Trtmt Bldgs Roof Replacement	\$ 163,000	\$ -	\$ -	\$ -	\$ -	\$ 163,000
	FPS Roof Repair – Lower Mill Creek, Pond Creek & Riverport	\$ 434,000	\$ -	\$ -	\$ -	\$ -	\$ 434,000
	HCWQTC Aeration Blower Buildings, Sec 1 & 2 Roof Replacement	\$ 188,000	\$ -	\$ -	\$ -	\$ -	\$ 188,000
	MFWQTC Activated Sludge Building Roof Replacement	\$ 216,000	\$ -	\$ -	\$ -	\$ -	\$ 216,000
	MFWQTC Dechlorination Building Roof Replacement	\$ 183,000	\$ -	\$ -	\$ -	\$ -	\$ 183,000
	MFWQTC MEB Roof Replacement	\$ 702,000	\$ -	\$ -	\$ -	\$ -	\$ 702,000
	MFWQTC Odor Control Chemical Storage Building Roof Replacement	\$ 131,000	\$ -	\$ -	\$ -	\$ -	\$ 131,000
	Shawnee FPS, Sec 1 & 2 Roof Replacement	\$ 205,000	\$ -	\$ -	\$ -	\$ -	\$ 205,000
	Upper Mill Creek FPS Roof Replacement	\$ 206,000	\$ -	\$ -	\$ -	\$ -	\$ 206,000
	Western FPS Roof Replacement	\$ 199,000	\$ -	\$ -	\$ -	\$ -	\$ 199,000
Total - Roof Replacements	\$ 3,286,000	\$ -	\$ -	\$ -	\$ -	\$ 3,286,000	
Misc Support Services	Carpet Replacement	\$ -	\$ 278,000	\$ 151,000	\$ -	\$ -	\$ 429,000
	Supplemental Engineering Staff Support	\$ 300,000	\$ -	\$ -	\$ -	\$ -	\$ 300,000
	Water Reuse Study	\$ 33,000	\$ -	\$ -	\$ -	\$ -	\$ 33,000
	Total - Bldg Interior & Equipment	\$ 333,000	\$ 278,000	\$ 151,000	\$ -	\$ -	\$ 762,000

2.4.2 IT & Capital Equipment Projects

MSD owns more than 600 vehicles and portable equipment ranging from passenger vehicles and pick-up trucks to large excavators and sewer-cleaning trucks. MSD began an extensive vehicle replacement program in FY22, but the program was stalled due to supply-chain challenges and the lack of vehicle chips. As such, some of the costs included in the FY22 and FY23 CIP need to carry-over into FY24. The 5-Year CIP for these projects is provided in Table 18.

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Table 18 - IT and Capital Equipment in 5-Year CIP

IT & Equipment Support Projects		FY24	FY25	FY26	FY27	FY28	5-Year
Capital Equipment	Vehicles & Equipment (Sanitary/Drainage/ORFP)	\$ 6,000,000	\$ 3,000,000	\$ 3,000,000	\$ 2,100,000	\$ 3,486,400	\$ 17,586,400
	Total - Capital Equipment	\$ 6,000,000	\$ 3,000,000	\$ 3,000,000	\$ 2,100,000	\$ 3,486,400	\$ 17,586,400
IT Hardware and Software	Bi-Annual Aerial Imagery & Map Updates	\$ 189,000	\$ 311,000	\$ 142,000	\$ 233,000	\$ 223,000	\$ 1,098,000
	CMF Inventory Management System (Barcoding Ph 2)	\$ 89,000	\$ -	\$ -	\$ -	\$ -	\$ 89,000
	Extend Data Center Equipment	\$ 200,000	\$ -	\$ -	\$ -	\$ -	\$ 200,000
	HANA Phase 2 Enhancements	\$ 500,000	\$ -	\$ -	\$ -	\$ -	\$ 500,000
	IPS CDR Inspector Mobile Initiative	\$ 260,000	\$ -	\$ -	\$ -	\$ -	\$ 260,000
	IPS Support	\$ 360,000	\$ 195,000	\$ 195,000	\$ 182,000	\$ -	\$ 932,000
	IT Improvements	\$ -	\$ 150,000	\$ -	\$ -	\$ -	\$ 150,000
	IT Infrastructure Initiatives	\$ 725,000	\$ 231,000	\$ 231,000	\$ 215,000	\$ 357,000	\$ 1,759,000
	LOJIC Hw Upgrades & Replacements	\$ 100,000	\$ 75,000	\$ -	\$ -	\$ -	\$ 175,000
	LOJIC Support	\$ -	\$ -	\$ 112,000	\$ 105,000	\$ 174,000	\$ 391,000
	LOJIC Survey Control Maintenance	\$ 30,000	\$ 30,000	\$ -	\$ -	\$ -	\$ 60,000
	MF Network Encasement	\$ 7,000	\$ -	\$ -	\$ -	\$ -	\$ 7,000
	SAP Upgrade To HANA	\$ 1,900,000	\$ 500,000	\$ -	\$ -	\$ -	\$ 2,400,000
Total - IT	\$ 4,360,000	\$ 1,492,000	\$ 680,000	\$ 735,000	\$ 754,000	\$ 8,021,000	

2.5 Management Reserve

MSD included a \$13.8 million reserve in the FY24 CIP to account of unforeseen, unknown circumstances that result with higher project costs. Project Managers may request use of Management Reserve funds from the CIP Management Team. Separate reserve accounts were developed for each county as listed in Table 19.

Table 19 – Management Reserve Forecast

Management Reserve	FY24	FY25	FY26	FY27	FY28	5-Year
Jefferson County - Management Reserve	\$ 12,000,000	\$ 5,100,000	\$ -	\$ -	\$ -	\$ 17,100,000
Oldham County - Management Reserve	\$ 1,400,000	\$ 750,000	\$ 75,000	\$ 100,000	\$ 300,000	\$ 2,625,000
Bullitt County - Management Reserve	\$ 465,000	\$ -	\$ -	\$ -	\$ 1,000,000	\$ 1,465,000
Total	\$ 13,865,000	\$ 5,850,000	\$ 75,000	\$ 100,000	\$ 1,300,000	\$ 21,190,000

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Appendix A – Detailed Listing of Projects in the 5-Year CIP

Budget ID	Project Name	County	Service Type	2024	2025	2026	2027	2028	5-Yr Total
23BD-009	FY24 IPS Support	JC	Support	\$360,000					\$360,000
23BD-011	FY25 IPS Support	JC	Support		\$195,000				\$195,000
23BD-012	CCWQTC Digester Tank Addition	JC	Wastewater		\$858,867	\$2,379,033			\$3,237,900
23BD-014	CCWQTC UV Improvements	JC	Wastewater	\$1,325,309	\$1,067,091				\$2,392,400
23BD-015	Cypress Springs PS Elimination	JC	Wastewater	\$330,188	\$914,612				\$1,244,800
23BD-016	Fox Harbor #1 PS Elimination	JC	Wastewater	\$403,500					\$403,500
23BD-017	Fox Harbor #2 PS Elimination	JC	Wastewater	\$462,200					\$462,200
23BD-018	Park Ridge Woods PS Elimination	JC	Wastewater				\$192,617	\$1,307,183	\$1,499,800
23BD-022	FY26 IPS Support	JC	Support			\$195,000			\$195,000
23BD-023	FY27 IPS Support	JC	Support				\$182,000		\$182,000
23BD-032	FY25-FY28 Urban Reforestation	JC	Stormwater		\$117,079	\$336,602	\$525,288	\$221,031	\$1,200,000
23BD-036	HANA Phase 2 Enhancements	JC	Support	\$500,000					\$500,000
23BD-041	AI Aquasight at HCWQTC	JC	Wastewater	\$200,000					\$200,000
23BD-042	FFWQTC Sodium Aluminate	JC	Wastewater	\$516,200					\$516,200
23BD-043	FFWQTC UV Gates	JC	Wastewater	\$258,100					\$258,100
23BD-044	Regional WQTC Controls Upgrades	JC	Wastewater	\$516,200					\$516,200
23BD-045	FFWQTC Sludge Storage Tank	JC	Wastewater	\$833,827	\$2,309,673				\$3,143,500
23BD-058	Sluice Gate Repair Program	JC	Stormwater	\$470,000	\$1,172,915	\$4,709,288	\$3,647,797		\$10,000,000
23BD-064	Riverport FPS - Electrical Improv	JC	Stormwater		\$295,386	\$978,736	\$1,025,878		\$2,300,000
23BDW-003	FY25 OC CMOM Vertical Rehab	OC	Wastewater		\$225,000				\$225,000

Louisville MSD FY24 CIP Overview

Budget ID	Project Name	County	Service Type	2024	2025	2026	2027	2028	5-Yr Total
23BDW-005	FY26 OC CMOM Vertical Infrastructure Rehab	OC	Wastewater			\$225,000			\$225,000
23BDW-007	FY27 OC CMOM Vertical Infrastructure Rehab	OC	Wastewater				\$147,000		\$147,000
23BDW-009	Mockingbird Valley WWTP Elimination (Design)	OC	Wastewater	\$150,000					\$150,000
23BDW-013	FY25 OC CMOM Linear Infrastructure Rehab	OC	Wastewater		\$75,000				\$75,000
23BDW-014	FY26 OC CMOM Linear Infrastructure Rehab	OC	Wastewater			\$75,000			\$75,000
23BDW-015	FY27 OC CMOM Linear Infrastructure Rehab	OC	Wastewater				\$49,000		\$49,000
23BDW-017	FY26 OC WQTC Eliminations	OC	Wastewater			\$1,800,000			\$1,800,000
23BDY-015	FY25 Collection Sys Gravity Sewer Rehab.	BC	Wastewater		\$500,000				\$500,000
23BDY-016	FY25 Collection System Modeling	BC	Wastewater		\$25,000				\$25,000
23BDY-017	FY25 System Planning and Reg. Support	BC	Wastewater		\$100,000				\$100,000
23BDY-018	FY26 Collection Sys Gravity Sewer Rehab.	BC	Wastewater			\$500,000			\$500,000
23BDY-019	FY26 Collection System Modeling	BC	Wastewater			\$25,000			\$25,000
23BDY-020	FY26 System Planning and Reg. Support	BC	Wastewater			\$100,000			\$100,000
23BDY-021	FY27 Collection Sys Gravity Sewer Rehab.	BC	Wastewater				\$70,000		\$70,000
23BDY-022	FY27 Collection System Modeling	BC	Wastewater				\$35,000		\$35,000
23BDY-030	FY25 BC PS RR	BC	Wastewater		\$100,000				\$100,000
23BDY-031	FY26 BC PS RR	BC	Wastewater			\$100,000			\$100,000

Louisville MSD FY24 CIP Overview

Budget ID	Project Name	County	Service Type	2024	2025	2026	2027	2028	5-Yr Total
23BDY-034	FY25 BC CMOM Infrastructure Rehab	BC	Wastewater		\$500,000				\$500,000
23BDY-035	FY26 BC CMOM Infrastructure Rehab	BC	Wastewater			\$500,000			\$500,000
23BDY-036	FY27 BC CMOM Infrastructure Rehab	BC	Wastewater				\$350,000		\$350,000
24BD-005	FY24 Vehicles & Equipment (Sanitary)	JC	Support	\$4,000,000					\$4,000,000
24BD-006	FY24 Renewal & Replacement (Stormwater)	JC	Stormwater	\$100,000					\$100,000
24BD-007	FY25 Stormwater Asset Inventory & Analysis	JC	Stormwater		\$300,000				\$300,000
24BD-008	Asset Management Plan Development - Drainage	JC	Stormwater	\$250,000					\$250,000
24BD-009	IPS CDR Inspector Mobile Initiative	JC	Support	\$260,000					\$260,000
24BD-010	Fee In Lieu Program	JC	Wastewater	\$250,000					\$250,000
24BD-011	Private Property I/I Program Construction	JC	Wastewater		\$797,800				\$797,800
24BD-013	Floyds Fork Flood Modeling	JC	Stormwater	\$100,000					\$100,000
24BD-014	Neighborhood Odor Control Catch Basin Inspections	JC	Stormwater		\$200,000				\$200,000
24BD-015	Brown-Forman Distillery GI Stipend	JC	Stormwater	\$158,000					\$158,000
24BD-016	Monitoring Sites Safety Improvements	JC	Stormwater	\$51,125	\$248,875				\$300,000
24BD-017	Engineering Support for Env'l Monitoring	JC	Stormwater	\$200,000					\$200,000
24BD-018	Asset Management Program Implementation - Non \$25M AM	JC	Wastewater	\$250,000					\$250,000
24BD-019	Asset Management Program Implementation - \$25M AM	JC	Wastewater	\$750,000					\$750,000

Louisville MSD FY24 CIP Overview

Budget ID	Project Name	County	Service Type	2024	2025	2026	2027	2028	5-Yr Total
24BD-020	CMOM Cleaning and Inspection Legacy Data Migration	JC	Wastewater	\$500,000					\$500,000
24BD-021	FFWQTC Dewatering Improvements	JC	Wastewater		\$2,000,000	\$8,000,000	\$8,000,000		\$18,000,000
24BD-022	DRGWQTC Sludge Screens	JC	Wastewater			\$1,819,245	\$4,680,755		\$6,500,000
24BD-023	FY24 Urban Reforestation	JC	Stormwater	\$250,000					\$250,000
24BD-024	Lea Ann Way Rehabilitation	JC	Wastewater		\$852,075	\$4,147,925			\$5,000,000
24BD-025	Catch Basin Rehab - Odor Control	JC	Stormwater	\$200,000	\$1,000,000	\$1,000,000			\$2,200,000
24BD-026	Southern Ditch Alternatives	JC	Wastewater		\$201,083	\$2,745,893	\$3,053,023		\$6,000,000
24BD-028	Upper Mill Creek FPS MCC Replacement	JC	Stormwater		\$3,000,000				\$3,000,000
24BD-029	Stormwater Modeling Alternative Analysis	JC	Stormwater		\$94,517	\$155,483			\$250,000
24BD-XX1	LTMN	BC	Wastewater	\$75,000					\$75,000
A14135	KTC Greenwood Rd Assmt	JC	Wastewater					\$232,400	\$232,400
A18485	Shady Villa Pump Station Elimination	JC	Wastewater				\$369,313	\$1,022,987	\$1,392,300
A20081	FY24 Construction Inspection	JC	Wastewater	\$1,400,000					\$1,400,000
A20244	Large Diameter Sewer Rehabilitation - Stage 1 and 2	JC	Wastewater	\$1,315,933					\$1,315,933
A21032	FY25 Construction Inspections	JC	Wastewater		\$375,000				\$375,000
A22183	15th St Sewer Emergency Repair	JC	Wastewater	\$93,856					\$93,856
A23139	Oakmount Dr. RFF Basin	JC	Stormwater	\$1,000,000					\$1,000,000
A23141	Supplemental Engineering Staff Support	JC	Support	\$300,000					\$300,000

Louisville MSD FY24 CIP Overview

Budget ID	Project Name	County	Service Type	2024	2025	2026	2027	2028	5-Yr Total
BD-007	CCWQTC Sludge Storage Blower Upgrade	JC	Wastewater		\$850,800				\$850,800
BD-009	CRRP Emergency Access Evaluation	JC	Stormwater			\$667,000	\$667,000		\$1,334,000
BD-010	FFWQTC Influent Pump VFDs	JC	Wastewater	\$774,300					\$774,300
BD-017	FY27 CIP Task Assistance	JC	Wastewater				\$1,400,000		\$1,400,000
BD-018	FY27 Linear Assets RR	JC	Wastewater				\$400,000		\$400,000
BD-019	FY27 CMOM Gravity Line Cleaning & Inspection	JC	Wastewater				\$1,050,000		\$1,050,000
BD-020	FY27 CMOM I&C Implementation	JC	Wastewater				\$204,750		\$204,750
BD-021	FY27 CMOM Infrastructure Rehabilitation Program	JC	Wastewater				\$1,400,000		\$1,400,000
BD-022	FY27 CMOM Program Management Assistance	JC	Wastewater				\$105,000		\$105,000
BD-023	FY27 CMOM SCAP, AAM, FOG	JC	Wastewater				\$105,000		\$105,000
BD-024	FY27 Construction Inspection	JC	Wastewater				\$350,000		\$350,000
BD-026	FY27 Development Infrastructure Support	JC	Wastewater				\$59,500		\$59,500
BD-027	FY27 DRI	JC	Stormwater				\$1,960,000		\$1,960,000
BD-028	FY27 Env'l Data Collection – MS4 & IOAP	JC	Stormwater				\$612,500		\$612,500
BD-029	FY27 Flood Structures RR	JC	Stormwater				\$1,400,000		\$1,400,000
BD-031	FY27 IT Infrastructure Initiatives	JC	Support				\$215,250		\$215,250
BD-032	FY27 LOJIC Support	JC	Support				\$105,000		\$105,000
BD-033	FY27 MFWQTC Equipment RR	JC	Wastewater				\$1,750,000		\$1,750,000

Louisville MSD FY24 CIP Overview

Budget ID	Project Name	County	Service Type	2024	2025	2026	2027	2028	5-Yr Total
BD-036	FY27 Modeling	JC	Wastewater				\$840,000		\$840,000
BD-037	FY27 MS4 Program	JC	Stormwater				\$420,000		\$420,000
BD-040	FY27 NMC RTC	JC	Wastewater				\$210,000		\$210,000
BD-041	FY27 NMC Support	JC	Wastewater				\$70,000		\$70,000
BD-042	FY27 Operations Renewal & Replacement	JC	Wastewater				\$1,610,000		\$1,610,000
BD-043	FY27 Plumbing Modification Program	JC	Wastewater				\$350,000		\$350,000
BD-044	FY27 PS Replacement, Overhaul or Elimination	JC	Wastewater				\$700,000		\$700,000
BD-045	FY27 Regional WQTC Equipment RR	JC	Wastewater				\$1,050,000		\$1,050,000
BD-046	FY27 Renewal & Replacement	JC	Wastewater				\$1,400,000		\$1,400,000
BD-047	FY27 USGS Stream Monitoring	JC	Stormwater				\$722,309		\$722,309
BD-048	FY27 Vehicles & Equipment	JC	Support				\$2,100,000		\$2,100,000
BD-049	FY28/29 Aerial Imagery & Map Updates	JC	Support					\$222,947	\$222,947
BD-050	FY28 CIP Task Assistance	JC	Wastewater					\$2,324,300	\$2,324,300
BD-051	FY28 Linear Assets RR	JC	Wastewater					\$464,900	\$464,900
BD-052	FY28 CMOM Gravity Line Cleaning & Inspection	JC	Wastewater					\$1,743,200	\$1,743,200
BD-053	FY28 CMOM I&C Implementation	JC	Wastewater					\$339,900	\$339,900
BD-054	FY28 CMOM Infrastructure Rehabilitation Program	JC	Wastewater					\$2,324,300	\$2,324,300
BD-055	FY28 CMOM Program Management Assistance	JC	Wastewater					\$174,300	\$174,300

Louisville MSD FY24 CIP Overview

Budget ID	Project Name	County	Service Type	2024	2025	2026	2027	2028	5-Yr Total
BD-056	FY28 CMOM SCAP, AAM, FOG	JC	Wastewater					\$174,300	\$174,300
BD-057	FY28 Construction Inspection	JC	Wastewater					\$581,100	\$581,100
BD-059	FY28 Development Infrastructure Support	JC	Wastewater					\$98,800	\$98,800
BD-060	FY28 DRI	JC	Stormwater					\$3,254,000	\$3,254,000
BD-061	FY28 Env'l Data Collection – MS4 & IOAP	JC	Stormwater					\$1,016,900	\$1,016,900
BD-062	FY28 Flood Structures RR	JC	Stormwater					\$2,324,300	\$2,324,300
BD-064	FY28 IT Infrastructure Initiatives	JC	Support					\$357,400	\$357,400
BD-065	FY28 LOJIC Support	JC	Support					\$174,300	\$174,300
BD-066	FY28 MFWQTC Equipment RR	JC	Wastewater					\$2,905,400	\$2,905,400
BD-069	FY28 Modeling	JC	Wastewater					\$1,394,600	\$1,394,600
BD-070	FY28 MS4 Program	JC	Stormwater					\$697,300	\$697,300
BD-073	FY28 NMC RTC	JC	Wastewater					\$348,600	\$348,600
BD-074	FY28 NMC Support	JC	Wastewater					\$116,200	\$116,200
BD-075	FY28 Operations Renewal & Replacement	JC	Wastewater					\$2,672,900	\$2,672,900
BD-076	FY28 Plumbing Modification Program	JC	Wastewater					\$581,100	\$581,100
BD-077	FY28 PS Replacement, Overhaul or Elimination	JC	Wastewater					\$1,162,100	\$1,162,100
BD-078	FY28 Regional WQTC Equipment RR	JC	Wastewater					\$1,743,200	\$1,743,200
BD-079	FY28 Renewal & Replacement	JC	Wastewater					\$2,324,300	\$2,324,300
BD-080	FY28 USGS Stream Monitoring	JC	Stormwater					\$750,000	\$750,000

Louisville MSD FY24 CIP Overview

Budget ID	Project Name	County	Service Type	2024	2025	2026	2027	2028	5-Yr Total
BD-081	FY28 Vehicles & Equipment	JC	Support					\$3,486,400	\$3,486,400
BD-149	Manning Rd/Cardinal Drive Sewer Rehab	JC	Wastewater				\$3,280,399	\$9,086,601	\$12,367,000
BD-150	Manslick Ave Sewer Rehab	JC	Wastewater				\$1,223,873	\$4,055,202	\$5,279,075
BD-156	OC Forcemain to HCWQTC	JC	Wastewater	\$302,097	\$1,275,503				\$1,577,600
BD-157	Ohio River Interceptor - High Risk	JC	Wastewater					\$7,379,031	\$7,379,031
BD-159	Ohio River Interceptor - Medium Risk	JC	Wastewater					\$1,673,307	\$1,673,307
BD-160	Reality Trail Interceptor	JC	Wastewater			\$737,195	\$2,042,005		\$2,779,200
BD-163	FY24 DRI	JC	Stormwater	\$2,800,000					\$2,800,000
BD-164	FY24 Stormwater Asset Inventory & Analysis	JC	Stormwater	\$300,000					\$300,000
BD-165	FY26 CIP Task Assistance	JC	Wastewater			\$1,500,000			\$1,500,000
BD-166	FY26 Linear Assets RR	JC	Wastewater			\$400,000			\$400,000
BD-167	FY26 CMOM Gravity Line Cleaning & Inspection	JC	Wastewater			\$1,125,000			\$1,125,000
BD-168	FY26 CMOM I&C Implementation	JC	Wastewater			\$219,375			\$219,375
BD-169	FY26 CMOM Infrastructure Rehabilitation Program	JC	Wastewater			\$1,500,000			\$1,500,000
BD-170	FY26 CMOM Program Management Assistance	JC	Wastewater			\$112,500			\$112,500
BD-171	FY26 CMOM SCAP, AAM, FOG	JC	Wastewater			\$112,500			\$112,500
BD-172	FY26 Construction Inspection	JC	Wastewater			\$375,000			\$375,000
BD-174	FY26 Development Infrastructure Support	JC	Wastewater			\$63,750			\$63,750

Louisville MSD FY24 CIP Overview

Budget ID	Project Name	County	Service Type	2024	2025	2026	2027	2028	5-Yr Total
BD-175	FY26 DRI	JC	Stormwater			\$2,100,000			\$2,100,000
BD-176	FY26 Env'l Data Collection – MS4 & IOAP	JC	Stormwater			\$656,250			\$656,250
BD-177	FY26 Facility Security Upgrades	JC	Support			\$375,000			\$375,000
BD-178	FY26 Flood Structures RR	JC	Stormwater			\$1,500,000			\$1,500,000
BD-180	FY26 IT Infrastructure Initiatives	JC	Support			\$230,625			\$230,625
BD-181	FY26 LOJIC Support	JC	Support			\$112,500			\$112,500
BD-182	FY26 MFWQTC Equipment RR	JC	Wastewater			\$1,875,000			\$1,875,000
BD-185	FY26 Modeling	JC	Wastewater			\$900,000			\$900,000
BD-186	FY26 MS4 Program	JC	Stormwater			\$450,000			\$450,000
BD-189	FY26 NMC RTC	JC	Wastewater			\$225,000			\$225,000
BD-190	FY26 NMC Support	JC	Wastewater			\$75,000			\$75,000
BD-191	FY26 Operations Renewal & Replacement	JC	Wastewater			\$1,725,000			\$1,725,000
BD-192	FY26 Plumbing Modification Program	JC	Wastewater			\$375,000			\$375,000
BD-193	FY26 PS Replacement, Overhaul or Elimination	JC	Wastewater			\$750,000			\$750,000
BD-194	FY26 Regional WQTC Equipment RR	JC	Wastewater			\$1,000,000			\$1,000,000
BD-195	FY26 Renewal & Replacement	JC	Wastewater			\$1,500,000			\$1,500,000
BD-196	FY26 USGS Stream Monitoring	JC	Stormwater			\$708,914			\$708,914
BD-197	FY26 Vehicles & Equipment	JC	Support			\$3,000,000			\$3,000,000
BD24-000	5th Street FPS - Generator Improvements	JC	Stormwater				\$1,021,443	\$1,716,754	\$2,738,197

Louisville MSD FY24 CIP Overview

Budget ID	Project Name	County	Service Type	2024	2025	2026	2027	2028	5-Yr Total
BD24-XXX	HCWQTC Sludge Screens	JC	Wastewater	\$451,725	\$1,917,691	\$1,530,584			\$3,900,000
C21035	FY25 DRI	JC	Stormwater		\$2,100,000				\$2,100,000
C22028	Lower Floyds Fork Facilities Plan	JC	Wastewater	\$19,098					\$19,098
C22029	Ohio River Area Facilities Plan	JC	Wastewater	\$23,738					\$23,738
C22031	2695 Pennacook Road Bank Repair	JC	Stormwater	\$350,000					\$350,000
C22173	High Hazard Dam Flood Level Sensors	JC	Stormwater	\$306,882					\$306,882
C23040	Oak Valley Drainage Remedies	JC	Stormwater				\$2,421,734		\$2,421,734
C23058	Stormwater Pilot Modeling	JC	Stormwater	\$262,744					\$262,744
C23063	2314 Fallsview Road Bank Repair	JC	Stormwater	\$13,062					\$13,062
C23065	4328 N Foeburn Bank Repair	JC	Stormwater	\$37,272					\$37,272
C23067	2530 Parkwood Rd Bank Repair	JC	Stormwater	\$250,000					\$250,000
C23083	City of Graymoore - Devendale DIP	JC	Stormwater	\$208,000					\$208,000
C23137	Lynnview Catch Basin Replacement	JC	Stormwater	\$61,010					\$61,010
D16275	CCWQTC WAS Cycle Automation	JC	Wastewater		\$187,200				\$187,200
D17039	MFWQTC Daft Rehab and Twas Piping Replacement	JC	Wastewater	\$1,232,571	\$4,771,903	\$5,995,525			\$12,000,000
D17042	MFWQTC Sedimentation Basin RR	JC	Wastewater	\$10,625,199	\$10,906,941				\$21,532,140
D18090	CCWQTC Sludge Dewatering Facility	JC	Wastewater	\$476,500	\$4,425,758	\$12,848,754	\$7,225,488		\$24,976,500
D18132	DRGWQTC WWPS WWSB HVAC & Roof and U3 & U4 Transformer Elimination	JC	Wastewater	\$955,986	\$1,824,825	\$1,598,213	\$155,050		\$4,534,074

Louisville MSD FY24 CIP Overview

Budget ID	Project Name	County	Service Type	2024	2025	2026	2027	2028	5-Yr Total
D18159	MFQTC HPO Tanks Structural Repairs	JC	Wastewater					\$2,807,700	\$2,807,700
D18160	MFQTC Secondary Clarifiers Structural Repairs	JC	Wastewater	\$266,273	\$3,394,885	\$7,258,900	\$10,168,929	\$3,911,012	\$25,000,000
D18161	MFQTC Chlorine Contact Tanks & FEPS Structural Repairs	JC	Wastewater	\$424,407	\$1,175,593				\$1,600,000
D19286	SWPS Gas Monitoring and SP1 Odor Control	JC	Wastewater	\$460,012					\$460,012
D20007	Peabody Gate Structure Rehabilitation	JC	Wastewater	\$423,287					\$423,287
D20008	Kirby Lane Pump Station Elimination	JC	Wastewater	\$1,086,153					\$1,086,153
D20009	CCWQTC Service Area - Enhanced Odor Control For Two Pump Stations	JC	Wastewater				\$427,192	\$1,183,308	\$1,610,500
D20011	Northern Ditch Pump Station Replacement	JC	Wastewater	\$1,292,352	\$2,172,349	\$6,254,937	\$8,781,619	\$5,687,144	\$24,188,400
D20012	SGC RTC Enhancements	JC	Wastewater			\$3,977,113	\$2,377,622		\$6,354,736
D20148	FFWQTC Regional Facilities Plan Update	JC	Wastewater	\$68,454					\$68,454
D20149	CCWQTC Admin Building Expansion	JC	Wastewater	\$1,389,626	\$5,064,099	\$2,207,455			\$8,661,180
D20285	MFQTC LG Dryer Replacements	JC	Wastewater	\$725,000					\$725,000
D20351	Floyds Fork Interceptor	JC	Wastewater	\$1,000,000			\$9,097,992	\$16,891,187	\$26,989,178
D21021	FY24 MFQTC RR	JC	Wastewater	\$1,000,000					\$1,000,000
D21041	FY25 MFQTC Equipment RR	JC	Wastewater		\$1,000,000				\$1,000,000
D21059	Asset Management Plan Development	JC	Wastewater	\$750,000					\$750,000
D21063	Odor Management Plan	JC	Wastewater	\$267,041	\$267,041				\$534,083
D21078	DRGWQTC Replace Clarifiers 4, 5, & 6	JC	Wastewater		\$1,291,100				\$1,291,100

Louisville MSD FY24 CIP Overview

Budget ID	Project Name	County	Service Type	2024	2025	2026	2027	2028	5-Yr Total
D21079	Fairmount Road Pump Station FM Extension - Phase 2 and 3	JC	Wastewater	\$5,430,612	\$1,065,179				\$6,495,791
D21099	FY24 Regional WQTC Equipment RR	JC	Wastewater	\$500,000					\$500,000
D21109	FY25 Regional WQTC Equipment RR	JC	Wastewater		\$1,000,000				\$1,000,000
D21230	DRG RAS Pumps 2&3 Replacement	JC	Wastewater	\$1,731,646	\$577,215				\$2,308,861
D21233	MFQWTC MEB Roof Replacement	JC	Support	\$702,940					\$702,940
D21242	DRGWQTC Lab Upgrades	JC	Wastewater	\$363,811					\$363,811
D21247	MFQWTC MEB HVAC Replacement	JC	Wastewater	\$2,827,336	\$1,884,890				\$4,712,226
D22080	DRG Clarifier 4-6 Mechanism Update	JC	Wastewater	\$2,983,072	\$745,768				\$3,728,840
D22098	CCWQTC Re-rating to 9.0 MGD	JC	Wastewater	\$4,483,635	\$4,109,999				\$8,593,633
D22100	Morris Forman Water Quality Treatment Plant Biosolids Facility	JC	Wastewater	\$52,000,000	\$68,000,000	\$77,000,000	\$29,000,000		\$226,000,000
D22102	MFQWTC Centrifuge Repair	JC	Wastewater	\$33,888					\$33,888
D22122	MFQWTC MEB Boiler Replacement	JC	Wastewater	\$565,209					\$565,209
D22186	MFQWTC Computer Room Upgrades	JC	Wastewater	\$1,429,384	\$21,635				\$1,451,018
D22187	FFWQTC Tertiary Treatment Bldgs Roof Replacement	JC	Support	\$162,683					\$162,683
D22209	DRG Centrifuge Maintenance Platforms	JC	Wastewater	\$46,066					\$46,066
D22213	CCWQTC Tertiary Filtration	JC	Wastewater	\$3,000,000	\$6,000,000	\$5,295,955			\$14,295,955
D23159	CCWQTC Maintenance Offices Roof Replacement	JC	Support	\$391,781					\$391,781
D23160	CCWQTC Roof Repairs	JC	Support	\$136,146					\$136,146

Louisville MSD FY24 CIP Overview

Budget ID	Project Name	County	Service Type	2024	2025	2026	2027	2028	5-Yr Total
D23161	DRGWQTC Clarifier MCC Building Roof Replacement	JC	Support	\$68,822					\$68,822
D23162	DRGWQTC Grit Electric MCC Building Roof Replacement	JC	Support	\$61,600					\$61,600
D23164	FPS Roof Repair – Lower Mill Creek, Pond Creek & Riverport	JC	Support	\$434,500					\$434,500
D23165	HCWQTC Aeration Blower Buildings, Sec 1 & 2 Roof Replacement	JC	Support	\$187,489					\$187,489
D23166	MFQWQTC Activated Sludge Building Roof Replacement	JC	Support	\$215,798					\$215,798
D23167	MFQWQTC Dechlorination Building Roof Replacement	JC	Support	\$182,825					\$182,825
D23168	MFQWQTC Odor Control Chemical Storage Building Roof Replacement	JC	Support	\$131,532					\$131,532
E15035	Lake Forest Pump Station Eliminations	JC	Wastewater	\$1,797,442	\$230,645				\$2,028,087
E17053	Buechel Trunk Sewer Repair	JC	Wastewater	\$478,011	\$1,583,851	\$1,660,138			\$3,722,000
E20112	FY24 Operations Renewal & Replacement	JC	Wastewater	\$500,000					\$500,000
E21022	FY24 PS Replacement, Overhaul or Elimination	JC	Wastewater	\$1,500,000					\$1,500,000
E21026	FY25 Linear Assets RR	JC	Wastewater		\$400,000				\$400,000
E21027	FY25 CMOM Gravity Line Cleaning & Inspection	JC	Wastewater		\$1,125,000				\$1,125,000
E21028	FY25 CMOM I&C Implementation	JC	Wastewater		\$219,375				\$219,375
E21029	FY25 CMOM Infrastructure Rehabilitation Program	JC	Wastewater		\$1,500,000				\$1,500,000
E21030	FY25 CMOM Program Management Assistance	JC	Wastewater		\$112,500				\$112,500
E21031	FY25 CMOM SCAP, AAM, FOG	JC	Wastewater		\$112,500				\$112,500

Louisville MSD FY24 CIP Overview

Budget ID	Project Name	County	Service Type	2024	2025	2026	2027	2028	5-Yr Total
E21047	FY25 NMC Support	JC	Wastewater		\$75,000				\$75,000
E21049	FY25 NMC RTC	JC	Wastewater		\$225,000				\$225,000
E21050	FY25 Operations Renewal & Replacement	JC	Wastewater		\$1,500,000				\$1,500,000
E21052	FY25 PS Replacement, Overhaul or Elimination	JC	Wastewater		\$750,000				\$750,000
E21062	Modesto Pump Station Elimination	JC	Wastewater	\$257,780					\$257,780
E21066	Pirogue Pump Station Elimination	JC	Wastewater			\$580,176	\$539,286		\$1,119,462
E21068	SCADA Master Plan	JC	Wastewater				\$846,200		\$846,200
E21070	Rosa Terrace PS Elimination	JC	Wastewater	\$271,550					\$271,550
E21071	Wathen Lane PS Rehabilitation	JC	Wastewater	\$629,267					\$629,267
E21090	Sonne Avenue PS Elimination	JC	Wastewater	\$138,684					\$138,684
E21091	Sanders Lane PS Rehabilitation	JC	Wastewater	\$126,730					\$126,730
E22116	South Shelby Street Sanitary Sewer Improvements	JC	Wastewater	\$142,766	\$123,887				\$266,653
E22223	Lantana Drive PS No. 1 Elimination	JC	Wastewater	\$1,836,220	\$2,547,142	\$101,396			\$4,484,758
E23172	Liberty St Emergency Sewer Repair	JC	Wastewater	\$900,000					\$900,000
F15010	Gate 102 Replacement	JC	Stormwater	\$114,575					\$114,575
F15012	5th Street FPS - MCC Emergency	JC	Stormwater	\$105,894					\$105,894
F16004	Canal Street Floodwall	JC	Stormwater		\$2,132,929	\$3,584,844			\$5,717,774
F18434	FFWQTC Service Area Mh And Arv Floodproofing For 100 Yr Storm	JC	Wastewater					\$138,800	\$138,800

Louisville MSD FY24 CIP Overview

Budget ID	Project Name	County	Service Type	2024	2025	2026	2027	2028	5-Yr Total
F18439	CCWQTC Service Area Mh And Arv Floodproofing For 100 Yr Storm	JC	Wastewater					\$206,100	\$206,100
F18440	CCWQTC Service Area Pump Station Floodproof For 100 Yr Storm	JC	Wastewater				\$204,000		\$204,000
F18455	DRGWQTC Service Area Pump Station Floodproof For 100 Yr Storm	JC	Wastewater				\$408,100		\$408,100
F18490	FFWQTC Service Area Pump Station Floodproof For 100 Yr Storm	JC	Wastewater					\$202,200	\$202,200
F18496	DRGWQTC Service Area Mh And Arv Floodproofing For 100 Yr Storm	JC	Wastewater					\$6,948,700	\$6,948,700
F18515	Paddy's Run FPS Capacity Upgrade	JC	Stormwater	\$45,000,000	\$70,000,000	\$70,000,000	\$30,000,000	\$14,000,000	\$229,000,000
F20107	Starkey FPS Electrical Service Improvements	JC	Stormwater	\$664,723	\$1,160,129	\$130,368			\$1,955,220
F20110	Upper Mill Creek FPS Transformer Replacement	JC	Stormwater	\$211,437	\$435,874	\$92,517			\$739,829
F21037	FY25 Flood Structures RR	JC	Stormwater		\$1,000,000				\$1,000,000
F21083	Bingham Way FPS - Capacity and Generator Improvements	JC	Stormwater				\$563,450	\$619,795	\$1,183,245
F21098	FY24 Flood Structures RR	JC	Stormwater	\$1,000,000					\$1,000,000
F22210	Gate 30 Replacement	JC	Stormwater	\$34,375					\$34,375
F23037	Maple Street Park Initial Design	JC	Stormwater	\$456,758					\$456,758
F23051	Beargrass Creek FPS Electrical Improvements	JC	Stormwater	\$1,000,000	\$1,300,000				\$2,300,000
F23052	Flood Gate 114 Replacement	JC	Stormwater		\$1,509,667	\$4,039,879			\$5,549,546
F23053	Flood Protection System Outfall Assessment	JC	Stormwater	\$285,714					\$285,714
F23057	Shawnee Park FPS - Electrical Improvements	JC	Stormwater				\$526,458	\$2,303,379	\$2,829,837

Louisville MSD FY24 CIP Overview

Budget ID	Project Name	County	Service Type	2024	2025	2026	2027	2028	5-Yr Total
F23059	Water Stop Repair	JC	Stormwater	\$606,116					\$606,116
F23119	Flood Protection PM Support	JC	Stormwater	\$96,101					\$96,101
F23169	Upper Mill Creek FPS Roof Replacement	JC	Support	\$205,843					\$205,843
F23170	Western FPS Roof Replacement	JC	Support	\$199,242					\$199,242
F23171	Shawnee FPS, Sec 1 & 2 Roof Replacement	JC	Support	\$204,910					\$204,910
FY24 MGTRES	FY24 JC Management Reserve	JC	MR	\$12,000,000					\$12,000,000
FY24W MGTRES	FY24 OC Management Reserve	OC	MR	\$1,400,000					\$1,400,000
FY24Y MGTRES	FY24 BC Management Reserve	BC	MR	\$465,000					\$465,000
FY25 MGTRES	FY25 JC Management Reserve	JC	MR		\$5,100,000				\$5,100,000
FY25W MGTRES	FY25OC Management Reserve	OC	MR		\$750,000				\$750,000
FY26W MGTRES	FY26 OC Management Reserve	OC	MR			\$75,000			\$75,000
FY27W MGTRES	FY27 OC Management Reserve	OC	MR				\$100,000		\$100,000
FY28W MGTRES	FY28 OC Management Reserve	OC	MR					\$300,000	\$300,000
FY28Y MGTRES	FY28 BC Management Reserve	BC	MR					\$1,000,000	\$1,000,000
G18146	Facility Lead Paint Abatement	JC	Support	\$407,800					\$407,800
G18150	Facility Mold Abatement	JC	Support	\$191,000					\$191,000
G18151	Facility Structural Investigations	JC	Support	\$33,667	\$33,667	\$33,667			\$101,000
G18154	CMF Structural Repairs	JC	Support				\$880,000		\$880,000

Louisville MSD FY24 CIP Overview

Budget ID	Project Name	County	Service Type	2024	2025	2026	2027	2028	5-Yr Total
G18155	CMF Structural Investigation	JC	Support	\$36,500					\$36,500
G20018	SWPS Site Security	JC	Support	\$231,330					\$231,330
G21102	CMF Floor Replacement	JC	Support	\$23,120	\$34,680				\$57,800
G21225	MFWQTC & CMF Entrance Enhancements	JC	Support	\$3,147,861					\$3,147,861
G22078	CMF Automated Vehicle Wash Facility	JC	Support			\$1,228,900	\$612,517		\$1,841,417
G23014	Carpet Replacement	JC	Support		\$277,653	\$151,447			\$429,100
G23020	CMF Garage Fluid Delivery System	JC	Support	\$82,500					\$82,500
G23146	Smart Senor Pilot Study	JC	Wastewater	\$17,413					\$17,413
G24001	FY24 Renewal & Replacement	JC	Wastewater	\$400,000					\$400,000
G25001	FY25 Renewal & Replacement	JC	Wastewater		\$1,500,000				\$1,500,000
H09164	Idlewood Inline Storage	JC	Wastewater	\$786,483					\$786,483
H09165	Bardstown Road PS Improvements	JC	Wastewater		\$381,779	\$2,647,558	\$687,564		\$3,716,900
H09171	Kavanaugh Road Pump Station Elimination	JC	Wastewater	\$1,658,698	\$2,802,066	\$117,836			\$4,578,599
H09179	Dell Road & Charlane Pkwy Interceptor Improvements	JC	Wastewater		\$555,293	\$4,814,522	\$4,323,585		\$9,693,400
H09182	Monticello Pump Station Elimination	JC	Wastewater	\$183,761					\$183,761
H09186	Upper Middle Fork #2 PS Replacements	JC	Wastewater	\$392,092	\$2,296,000	\$3,171,561	\$9,261,829	\$9,054,997	\$24,176,478
H09188	Mellwood System Improvements and PSES Winton And Mockingbird Valley Eliminations	JC	Wastewater			\$229,368	\$1,236,120	\$906,112	\$2,371,600
H09192	Cinderella Pump Station Elimination	JC	Wastewater					\$158,658	\$158,658

Louisville MSD FY24 CIP Overview

Budget ID	Project Name	County	Service Type	2024	2025	2026	2027	2028	5-Yr Total
H09196	Leven Pump Station Elimination	JC	Wastewater	\$1,088,901	\$204,981				\$1,293,882
H09242	Gunpowder Pump Station ILS	JC	Wastewater	\$2,288,522	\$3,972,435	\$311,031			\$6,571,988
H10043	Raintree & Marian Ct 2 - Pipe Upgrades	JC	Wastewater	\$245,838	\$814,564	\$853,798			\$1,914,200
H11306	Middle Fork Beargrass Creek SSR Ph 1	JC	Wastewater		\$768,900				\$768,900
H16066	Goose Creek I&I Rehab	JC	Wastewater		\$788,349	\$2,028,351			\$2,816,700
H16075	Prospect Phase II Rehab	JC	Wastewater	\$662,439					\$662,439
H17030	Stormwater Master Plan	JC	Stormwater			\$2,223,400	\$2,223,400		\$4,446,800
H17057	Floydsburg Road I&I Investigation and Rehabilitation	JC	Wastewater		\$57,400				\$57,400
H18168	Comprehensive Facility Plan - Five Year Update	JC	Wastewater		\$465,500	\$465,500			\$931,000
H18310	Upper Middle Fork Forcemain	JC	Wastewater	\$312,181	\$1,828,061	\$2,525,178	\$7,374,214	\$7,209,535	\$19,249,170
H18311	Upper Middle Fork Relief Interceptor	JC	Wastewater	\$451,610	\$2,644,522	\$3,652,989	\$10,667,731	\$10,429,503	\$27,846,354
H18503	I-64 and Grinstead Infrastructure Rehabilitation	JC	Wastewater	\$1,020,796					\$1,020,796
H20021	Admiral Rd. Force Main	JC	Wastewater		\$1,310,104	\$5,207,043	\$5,830,461	\$2,732,149	\$15,079,758
H20038	FY24 Modeling	JC	Wastewater	\$1,200,000					\$1,200,000
H20039	FY24 NMC RTC	JC	Wastewater	\$300,000					\$300,000
H20044	FY24 CIP Task Assistance	JC	Wastewater	\$2,000,000					\$2,000,000
H20053	FY24 CMOM Infrastructure Rehabilitation Program	JC	Wastewater	\$2,000,000					\$2,000,000
H20060	FY24 Linear Assets RR	JC	Wastewater	\$400,000					\$400,000

Louisville MSD FY24 CIP Overview

Budget ID	Project Name	County	Service Type	2024	2025	2026	2027	2028	5-Yr Total
H20065	FY24 CMOM Gravity Line Cleaning & Inspection	JC	Wastewater	\$1,600,000					\$1,600,000
H20080	FY24 Plumbing Modification Program	JC	Wastewater	\$250,000					\$250,000
H20082	FY24 Env'L Data Collection – MS4 & IOAP	JC	Stormwater	\$450,000					\$450,000
H20083	FY24 MS4 Program	JC	Stormwater	\$610,000					\$610,000
H20084	FY24 USGS Stream Monitoring	JC	Stormwater	\$685,115					\$685,115
H20097	FY24 Development Infrastructure Support	JC	Wastewater	\$85,000					\$85,000
H20113	FY24 CMOM SCAP, AAM, FOG	JC	Wastewater	\$100,000					\$100,000
H20134	FY25 Development Infrastructure Support	JC	Wastewater		\$63,750				\$63,750
H20147	Western Outfall Infrastructure Rehabilitation	JC	Wastewater	\$5,616,619	\$10,427,842	\$50,822			\$16,095,283
H21025	FY25 CIP Task Assistance	JC	Wastewater		\$1,500,000				\$1,500,000
H21036	FY25 Env'L Data Collection – MS4 & IOAP	JC	Stormwater		\$656,250				\$656,250
H21044	FY25 Modeling	JC	Wastewater		\$900,000				\$900,000
H21045	FY25 MS4 Program	JC	Stormwater		\$450,000				\$450,000
H21051	FY25 Plumbing Modification Program	JC	Wastewater		\$250,000				\$250,000
H21054	FY25 USGS Stream Monitoring	JC	Stormwater		\$708,914				\$708,914
H22010	Barcoding Phase 2	JC	Support	\$89,051					\$89,051
H22014	MFWQTC Groundwater Dewatering System Automation	JC	Wastewater	\$1,113,201					\$1,113,201
H22015	Water Reuse Study	JC	Support	\$32,800					\$32,800

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Budget ID	Project Name	County	Service Type	2024	2025	2026	2027	2028	5-Yr Total
H22018	CCWQTC Sludge Storage Tank Improvements	JC	Wastewater	\$1,637,353					\$1,637,353
H22022	SGC Gate Replacements	JC	Stormwater	\$2,664,539					\$2,664,539
H22032	DRGWQTC Sodium Bisulfite Bldg. Improvements	JC	Wastewater	\$2,419,766					\$2,419,766
H22038	Sneads Branch Pump Replacement	JC	Wastewater	\$1,033,805					\$1,033,805
H22086	Floyds Fork & Ohio River Condition Assessment	JC	Wastewater	\$112,310					\$112,310
H23016	California Neighborhood Trap Catch Basin Rehab	JC	Stormwater	\$198,750					\$198,750
H23018	Cedar Creek Main Interceptor	JC	Wastewater		\$3,736,861	\$2,755,011			\$6,491,872
H23038	MF Network Encasement	JC	Support	\$6,904					\$6,904
H23039	Middletown Station PS Elimination	JC	Wastewater	\$84,575		\$363,805	\$573,838		\$1,022,218
H23041	Olde Copper Ct. PS Elimination	JC	Wastewater	\$405,998					\$405,998
H23043	Parkwood PS Elimination	JC	Wastewater			\$812,916	\$14,355		\$827,271
H23044	Pond Creek FPS Breaker Replacement	JC	Stormwater	\$140,579			\$2,000,000		\$2,140,579
H23046	Southfork Dry Bed	JC	Wastewater	\$1,713,600	\$1,428,000	\$0	\$0	\$0	\$3,141,600
H23048	SWPS Screen Replacement	JC	Wastewater	\$1,326,635	\$3,243,870	\$3,203,356	\$189,455		\$7,963,315
H23050	WQTC Regional Lab Upgrade	JC	Wastewater	\$525,000	\$43,750				\$568,750
H23147	MFWQTC Planning Assistance	JC	Wastewater	\$70,241					\$70,241
H23175	California Maple St. Trap Catch Basin Rehab	JC	Stormwater	\$432,000	\$48,000				\$480,000
H23179	CSO 140 Outfall Reconstruction	JC	Wastewater	\$116,885					\$116,885

Louisville MSD FY24 CIP Overview

Budget ID	Project Name	County	Service Type	2024	2025	2026	2027	2028	5-Yr Total
J18107	FY24/25 Aerial Imagery & Map Updates	JC	Support	\$189,034	\$310,966				\$500,000
J20026	FY24 LOJIC Survey Control Maintenance	JC	Support	\$30,000					\$30,000
J20070	FY26/27 Aerial Imagery & Map Updates	JC	Support			\$141,775	\$233,225		\$375,000
J20072	FY24 LOJIC Hw Upgrades & Replacements	JC	Support	\$100,000					\$100,000
J21039	FY25 LOJIC HW Upgrades & Replacements	JC	Support		\$75,000				\$75,000
J21040	FY25 LOJIC Survey Control Maintenance	JC	Support		\$30,000				\$30,000
K20079	FY24 Vehicles & Equipment (Drainage/ORFP)	JC	Support	\$2,000,000					\$2,000,000
K21055	FY25 Vehicles & Equipment	JC	Support		\$3,000,000				\$3,000,000
N20073	FY25 IT Infrastructure Initiatives	JC	Support		\$230,625				\$230,625
N20074	FY24 IT Infrastructure Initiatives	JC	Support	\$725,000					\$725,000
N20132	Extend Data Center Equipment	JC	Support	\$200,000					\$200,000
N20133	SAP Upgrade To HANA (FY24-26)	JC	Support	\$1,900,000	\$500,000				\$2,400,000
N21023	FY25 IT Improvements	JC	Support		\$150,000				\$150,000
SY-044	Deep Trail PS Elimination	JC	Wastewater	\$321,200					\$321,200
SY-045	Brandywyne Ct. PS Elimination	JC	Wastewater		\$593,519	\$477,881			\$1,071,400
W21006	OC Ash Avenue Interceptor	OC	Wastewater	\$2,600,000					\$2,600,000
W21126	Ohio River Service Area Lift Station Rehabilitation	OC	Wastewater	\$920,066	\$613,377				\$1,533,443
W23142	KY 393 Reconstruction SSR	OC	Wastewater	\$2,764					\$2,764

Louisville MSD FY24 CIP Overview

Budget ID	Project Name	County	Service Type	2024	2025	2026	2027	2028	5-Yr Total
X_0287	Private Property I/I Program Design	JC	Wastewater	\$250,000					\$250,000
Y22124	West Triangle PS FM and Interceptor	BC	Wastewater	\$5,180,694	\$4,698,423	\$63,492			\$9,942,609
Y22139	Bigwood PS Elimination	BC	Wastewater	\$421,036					\$421,036
Y22146	Bullitt Hills and Hillview #1 WWTP Elimination	BC	Wastewater	\$225,000	\$225,000	\$5,225,000	\$5,168,750		\$10,843,750
Y22155	Hillview PS#2 Elimination	BC	Wastewater				\$100,000		\$100,000
Y23069	BHWQTC Screening	BC	Wastewater	\$8,638					\$8,638
Y23158	BC Property Acquisition	BC	Wastewater	\$18,227	\$163				\$18,390

Note: 1. Values represented forecasted estimated costs based upon various mathematical algorithms. Values in this table have not been rounded and as such do not represent a level of confidence or accuracy to the dollar – they remain a forecasted representation of project spend rates as configured in May 2023.

Note 2. Actual rate of spend will vary depending upon scope, schedule, budget, resources, supply-chain economics, and similar conditions.

Louisville MSD FY24 CIP Overview

Appendix B – Candidate Projects for the Consent Decree \$25M Annual Asset Management Program Spending Requirements

Asset Management Projects		FY24	FY25	FY26	FY27	FY28	5-Year
MFQWTC Projects	MFWQTC Centrifuge Repair	\$ 34,000	\$ -	\$ -	\$ -	\$ -	\$ 34,000
	Chlorine Contact Tanks & FEPS Repairs	\$ 424,000	\$ 1,176,000	\$ -	\$ -	\$ -	\$ 1,600,000
	Daft Rehab and Twas Piping Replacement	\$ 1,233,000	\$ 4,772,000	\$ 5,995,000	\$ -	\$ -	\$ 12,000,000
	MFWQTC Equipment RR	\$ 1,000,000	\$ 1,000,000	\$ 1,875,000	\$ 1,750,000	\$ 2,905,000	\$ 8,530,000
	Groundwater Dewatering System Automation	\$ 1,113,000	\$ -	\$ -	\$ -	\$ -	\$ 1,113,000
	HPO Tanks Structural Repairs	\$ -	\$ -	\$ -	\$ -	\$ 2,808,000	\$ 2,808,000
	MFWQTC MEB Boiler Replacement	\$ 565,000	\$ -	\$ -	\$ -	\$ -	\$ 565,000
	Secondary Clarifiers Structural Repairs	\$ 266,000	\$ 3,395,000	\$ 7,259,000	\$ 10,169,000	\$ 3,911,000	\$ 25,000,000
	Total - MFWQTC	\$ 4,635,000	\$ 10,343,000	\$ 15,129,000	\$ 11,919,000	\$ 9,624,000	\$ 51,650,000
Regional WQTC Projects	CCWQTC Digester Tank Addition	\$ -	\$ 859,000	\$ 2,379,000	\$ -	\$ -	\$ 3,238,000
	CCWQTC UV Improvements	\$ 1,325,000	\$ 1,068,000	\$ -	\$ -	\$ -	\$ 2,393,000
	CCWQTC Sludge Storage Blower Upgrade	\$ -	\$ 851,000	\$ -	\$ -	\$ -	\$ 851,000
	CCWQTC Sludge Dewatering Facility	\$ 477,000	\$ 4,426,000	\$ 12,849,000	\$ 7,225,000	\$ -	\$ 24,977,000
	CCWQTC Re-rating to 9.0 MGD	\$ 4,484,000	\$ 4,110,000	\$ -	\$ -	\$ -	\$ 8,594,000
	CCWQTC Tertiary Filtration	\$ 3,000,000	\$ 6,000,000	\$ 5,296,000	\$ -	\$ -	\$ 14,296,000
	CCWQTC Sludge Storage Tank Mods	\$ 1,637,000	\$ -	\$ -	\$ -	\$ -	\$ 1,637,000
	DRGWQTC Sludge Screens	\$ -	\$ -	\$ 1,819,000	\$ 4,681,000	\$ -	\$ 6,500,000
	DRGWQTC Replace Clarifiers 4, 5, & 6	\$ -	\$ 1,291,000	\$ -	\$ -	\$ -	\$ 1,291,000
	DRG RAS Pumps 2&3 Replacement	\$ 1,732,000	\$ 577,000	\$ -	\$ -	\$ -	\$ 2,309,000
DRG Clarifier 4-6 Mechanism Update	\$ 2,983,000	\$ 746,000	\$ -	\$ -	\$ -	\$ 3,729,000	

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Asset Management Projects		FY24	FY25	FY26	FY27	FY28	5-Year
	DRG Centrifuge Maintenance Platf7orms	\$ 46,000	\$ -	\$ -	\$ -	\$ -	\$ 46,000
	DRGWQTC Sodium Bisulfite Bldg. Improv.	\$ 2,420,000	\$ -	\$ -	\$ -	\$ -	\$ 2,420,000
	FFWQTC Sodium Aluminate System Improv.	\$ 516,000	\$ -	\$ -	\$ -	\$ -	\$ 516,000
	FFWQTC UV Gates	\$ 258,000	\$ -	\$ -	\$ -	\$ -	\$ 258,000
	FFWQTC Sludge Storage Tank Improv.	\$ 833,000	\$ 2,310,000	\$ -	\$ -	\$ -	\$ 3,143,000
	FFWQTC Dewatering Improvements	\$ -	\$ 2,000,000	\$ 8,000,000	\$ 8,000,000	\$ -	\$ 18,000,000
	FFWQTC Influent Pump VFDs	\$ 774,000	\$ -	\$ -	\$ -	\$ -	\$ 774,000
	HCWQTC Sludge Screens	\$ 452,000	\$ 1,918,000	\$ 1,531,000	\$ -	\$ -	\$ 3,901,000
	Regional WQTC Controls Upgrades	\$ 516,000	\$ -	\$ -	\$ -	\$ -	\$ 516,000
	Regional WQTC Equipment RR	\$ 500,000	\$ 1,000,000	\$ 1,000,000	\$ 1,050,000	\$ 1,743,000	\$ 5,293,000
	Operations Renewal & Replacement	\$ 500,000	\$ 1,500,000	\$ 1,725,000	\$ 1,610,000	\$ 2,673,000	\$ 8,008,000
	Total - Regional WQTCs	\$ 22,453,000	\$ 28,656,000	\$ 34,599,000	\$ 22,566,000	\$ 4,416,000	\$ 112,690,000
Pump Station Eliminations	Brandywyne Ct. PS Elimination	\$ -	\$ 594,000	\$ 478,000	\$ -	\$ -	\$ 1,072,000
	Deep Trail PS Elimination	\$ 321,000	\$ -	\$ -	\$ -	\$ -	\$ 321,000
	Kirby Lane Pump Station Elimination	\$ 1,086,000	\$ -	\$ -	\$ -	\$ -	\$ 1,086,000
	Lake Forest Pump Station Eliminations	\$ 1,797,000	\$ 231,000	\$ -	\$ -	\$ -	\$ 2,028,000
	Lantana Drive PS No. 1 Elimination	\$ 1,836,000	\$ 2,547,000	\$ 101,000	\$ -	\$ -	\$ 4,484,000
	Middletown Station PS Elimination	\$ 85,000	\$ -	\$ 364,000	\$ 574,000	\$ -	\$ 1,023,000
	Modesto Pump Station Elimination	\$ 258,000	\$ -	\$ -	\$ -	\$ -	\$ 258,000
	Olde Copper Ct. PS Elimination	\$ 406,000	\$ -	\$ -	\$ -	\$ -	\$ 406,000
	Parkwood PS Elimination	\$ -	\$ -	\$ 813,000	\$ 14,000	\$ -	\$ 827,000
	Pirogue Pump Station Elimination	\$ -	\$ -	\$ 580,000	\$ 540,000	\$ -	\$ 1,120,000
	Rosa Terrace PS Elimination	\$ 272,000	\$ -	\$ -	\$ -	\$ -	\$ 272,000
	Shady Villa Pump Station Elimination	\$ -	\$ -	\$ -	\$ 369,000	\$ 1,023,000	\$ 1,392,000
Sonne Avenue PS Elimination	\$ 138,000	\$ -	\$ -	\$ -	\$ -	\$ 138,000	

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Asset Management Projects		FY24	FY25	FY26	FY27	FY28	5-Year
Total - Pump Station Eliminations		\$ 6,199,000	\$ 3,372,000	\$ 2,336,000	\$ 1,497,000	\$ 1,023,000	\$ 14,427,000
Pump Station Improvements Projects	CCWQTC Enhanced Odor Control 2 PS	\$ -	\$ -	\$ -	\$ 427,000	\$ 1,183,000	\$ 1,610,000
	CCWQTC P/S Floodproof For 100 Yr Storm	\$ -	\$ -	\$ -	\$ 204,000	\$ -	\$ 204,000
	DRGWQTC PS Floodproof For 100 Yr Storm	\$ -	\$ -	\$ -	\$ 408,000	\$ -	\$ 408,000
	FFWQTC PS Floodproof For 100 Yr Storm	\$ -	\$ -	\$ -	\$ -	\$ 202,000	\$ 202,000
	Northern Ditch Pump Station Replacement	\$ 1,292,000	\$ 2,172,000	\$ 6,255,000	\$ 8,782,000	\$ 5,687,000	\$ 24,188,000
	Sanders Lane PS Rehabilitation	\$ 127,000	\$ -	\$ -	\$ -	\$ -	\$ 127,000
	Sneads Branch Pump Replacement	\$ 1,034,000	\$ -	\$ -	\$ -	\$ -	\$ 1,034,000
	SWPS Gas Monitoring and SP1 Odor Control	\$ 460,000	\$ -	\$ -	\$ -	\$ -	\$ 460,000
	SWPS Screen Replacement	\$ 1,327,000	\$ 3,244,000	\$ 3,203,000	\$ 189,000	\$ -	\$ 7,963,000
	Wathen Lane PS Rehabilitation	\$ 629,000	\$ -	\$ -	\$ -	\$ -	\$ 629,000
	PS Replacement, Overhaul or Elimination	\$ 1,500,000	\$ 750,000	\$ 750,000	\$ 700,000	\$ 1,162,000	\$ 4,862,000
	Total - Pump Station Projects	\$ 6,369,000	\$ 6,166,000	\$ 10,208,000	\$ 10,710,000	\$ 8,234,000	\$ 41,687,000
Sewer Rehabilitation or Improvement Projects	15th St Sewer Emergency Repair	\$ 94,000	\$ -	\$ -	\$ -	\$ -	\$ 94,000
	Admiral Rd. Force Main	\$ -	\$ 1,310,000	\$ 5,207,000	\$ 5,830,000	\$ 2,732,000	\$ 15,079,000
	CCWQTC MH/ARV Floodproofing 100 Yr	\$ -	\$ -	\$ -	\$ -	\$ 206,000	\$ 206,000
	Cedar Creek Main Interceptor	\$ -	\$ 3,737,000	\$ 2,755,000	\$ -	\$ -	\$ 6,492,000
	CMOM Inspection Legacy Data Migration	\$ 500,000	\$ -	\$ -	\$ -	\$ -	\$ 500,000
	CMOM Gravity Line Cleaning & Inspection	\$ 1,600,000	\$ 1,125,000	\$ 1,125,000	\$ 1,050,000	\$ 1,743,000	\$ 6,643,000
	CMOM I&C Implementation	\$ -	\$ 219,000	\$ 219,000	\$ 205,000	\$ 340,000	\$ 983,000
	CMOM Infrastructure Rehabilitation Program	\$ 2,000,000	\$ 1,500,000	\$ 1,500,000	\$ 1,400,000	\$ 2,324,000	\$ 8,724,000
	CMOM Program Management Assistance	\$ -	\$ 112,000	\$ 113,000	\$ 105,000	\$ 174,000	\$ 504,000
	CSO 140 Outfall Reconstruction	\$ 116,000	\$ -	\$ -	\$ -	\$ -	\$ 116,000
	DRGWQTC MH/ARV Floodproofing 100 Yr	\$ -	\$ -	\$ -	\$ -	\$ 6,949,000	\$ 6,949,000
	Fairmount Road PS FM Ext. - Phase 2 and 3	\$ 5,431,000	\$ 1,065,000	\$ -	\$ -	\$ -	\$ 6,496,000

Louisville MSD FY24 CIP Overview

Asset Management Projects		FY24	FY25	FY26	FY27	FY28	5-Year
	FFWQTC MH/ARV Floodproofing For 100 Yr	\$ -	\$ -	\$ -	\$ -	\$ 139,000	\$ 139,000
	I-64 and Grinstead Infrastructure Rehab	\$ 1,021,000	\$ -	\$ -	\$ -	\$ -	\$ 1,021,000
	Lea Ann Way Rehabilitation	\$ -	\$ 852,000	\$ 4,148,000	\$ -	\$ -	\$ 5,000,000
	Liberty Street Emergency Sewer Repair	\$ 900,000	\$ -	\$ -	\$ -	\$ -	\$ 900,000
	Linear Assets RR	\$ 400,000	\$ 400,000	\$ 400,000	\$ 400,000	\$ 465,000	\$ 2,065,000
	Manning Rd/Cardinal Drive Sewer Rehab	\$ -	\$ -	\$ -	\$ 3,280,000	\$ 9,087,000	\$ 12,367,000
	Manslick Ave Sewer Rehab	\$ -	\$ -	\$ -	\$ 1,224,000	\$ 4,055,000	\$ 5,279,000
	Ohio River Interceptor - High Risk	\$ -	\$ -	\$ -	\$ -	\$ 7,379,000	\$ 7,379,000
	Ohio River Interceptor - Medium Risk	\$ -	\$ -	\$ -	\$ -	\$ 1,673,000	\$ 1,673,000
	Reality Trail Interceptor	\$ -	\$ -	\$ 737,000	\$ 2,042,000	\$ -	\$ 2,779,000
	Renewal & Replacement	\$ 400,000	\$ 1,500,000	\$ 1,500,000	\$ 1,400,000	\$ 2,324,000	\$ 7,124,000
	SGC RTC Enhancements	\$ -	\$ -	\$ 3,977,000	\$ 2,378,000	\$ -	\$ 6,355,000
	South Shelby Street Sanitary Sewer Improv.	\$ 143,000	\$ 124,000	\$ -	\$ -	\$ -	\$ 267,000
	Total - Sewer Projects	\$ 12,605,000	\$ 11,944,000	\$ 21,681,000	\$ 19,314,000	\$ 39,590,000	\$ 105,134,000
Asset Planning Projects	Asset Management Program - \$25M AM	\$ 750,000	\$ -	\$ -	\$ -	\$ -	\$ 750,000
	Asset Management Plan Development	\$ 750,000	\$ -	\$ -	\$ -	\$ -	\$ 750,000
	FFWQTC Regional Facilities Plan Update	\$ 68,000	\$ -	\$ -	\$ -	\$ -	\$ 68,000
	Floyds Fork & Ohio River Condition Assess.	\$ 112,000	\$ -	\$ -	\$ -	\$ -	\$ 112,000
	Lower Floyds Fork Facilities Plan	\$ 19,000	\$ -	\$ -	\$ -	\$ -	\$ 19,000
	Southern Ditch Alternatives	\$ -	\$ 201,000	\$ 2,746,000	\$ 3,053,000	\$ -	\$ 6,000,000
	Total - Planning Projects	\$ 1,699,000	\$ 201,000	\$ 2,746,000	\$ 3,053,000	\$ -	\$ 7,699,000

Total \$25M AM Project Candidates \$ 53,960,000 \$ 60,682,000 \$ 86,699,000 \$ 69,059,000 \$ 62,887,000 \$ 333,287,000

- END of REPORT -