

FY26 Annual Report

Odor Mitigation

Reporting from July 1, 2025 - June 30, 2026



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Background

Reducing the frequency and intensity of odors is one of MSD's top priorities. MSD acknowledges that when temperatures are high and conditions are dry, odors can increase and become more noticeable. While sewer odors will always exist, MSD is committed to mitigating their impact on the community.

On September 18, 2024, MSD entered into the Second Amended Agreed Board Order No. 21-01 (Agreed Order) with the Louisville Metro Air Pollution Control Board. The Agreed Order outlines requirements for developing Action Plans, updating MSD's dedicated odor webpage, hosting community meetings, and providing Mid-Year and Annual Reports.

Pursuant to the Agreed Order, MSD submitted its two-year Short-Term Action Plan on October 14, 2024. This plan outlines odor mitigation activities from July 1, 2024, to June 30, 2026, and was submitted to the Louisville / Jefferson County Mayor, Louisville / Jefferson County Metro Council, MSD Board, Louisville Metro Air Pollution Control Board, and the Louisville Metro Air Pollution Control District. Notice of the proposed Short-Term Action Plan was posted to the odor webpage and made available for public comment. No comments were received. Thirty days after the posting, the Short-Term Action Plan was considered final, and a copy can be found in Appendix A.

Pursuant to the provisions of the Agreed Board Order, MSD submitted its Mid-Year Report on March 31, 2026. The report summarized progress made between July 1, 2025, and December 31, 2025, and was posted on MSD's odor webpage. A copy of the Mid-Year Report is included in Appendix B.

MSD is submitting this Annual Report, which documents all odor mitigation efforts undertaken between July 1, 2025, and June 30, 2026. This report will likewise be posted on MSD's odor webpage and distributed to the Recipients.

Community Engagement

MSD continues to utilize its cIAIRity program to inform the community of its progress on odor mitigation efforts. To more effectively alert customers of a potential increase in odors, MSD has designated June through October as "Odor Season" and developed additional response activities specific to this period when odors are more prevalent. These activities are outlined in the Odor Response Standard Operating Procedures (SOP) available on the odor webpage.

To further inform and engage with the community, MSD attended additional meetings. MSD personnel participated in Metro Council district meetings and neighborhood meetings which included local churches.

Community Meetings

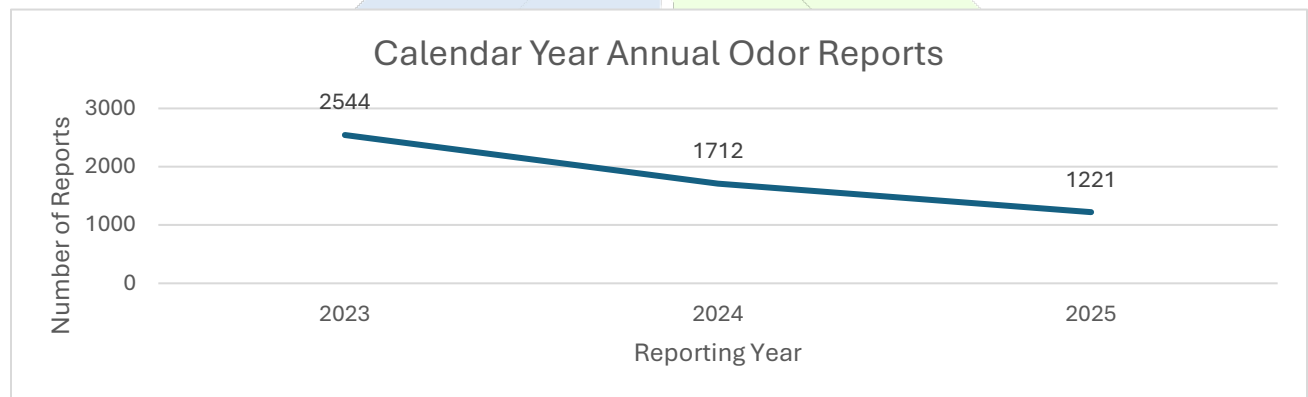
During FY26, MSD held five cIAIRity meetings to update the community on engagement efforts, odor response, and odor mitigation projects. A total of 61 people attended. The table below provides the date, location, address, and the number of attendees for each meeting.

Date	Location	Address	# Attendees
August 28, 2025	MSD New Office	1600 W Hill St.	6
October 14, 2025	MSD New Office	1600 W Hill St.	25
October 30, 2025	MSD New Office	1600 W Hill St.	19
April 23, 2026	MSD New Office	1600 W Hill St.	3
June 25, 2026	MSD New Office	1600 W Hill St.	8

The cIAIRity meetings provide an opportunity for all participants to ask questions and give feedback. Pursuant to the Agreed Order, all questions were answered during the meeting; however, they did not rise to the level of substantive change required for documentation. There are three more cIAIRity meetings scheduled for calendar year 2026. The Meetings will be held at various times and will take place at 1600 W. Hill Street on August 25th, October 13th, and October 29th. cIAIRity meetings will continue in calendar year 2027 but have yet to be scheduled.

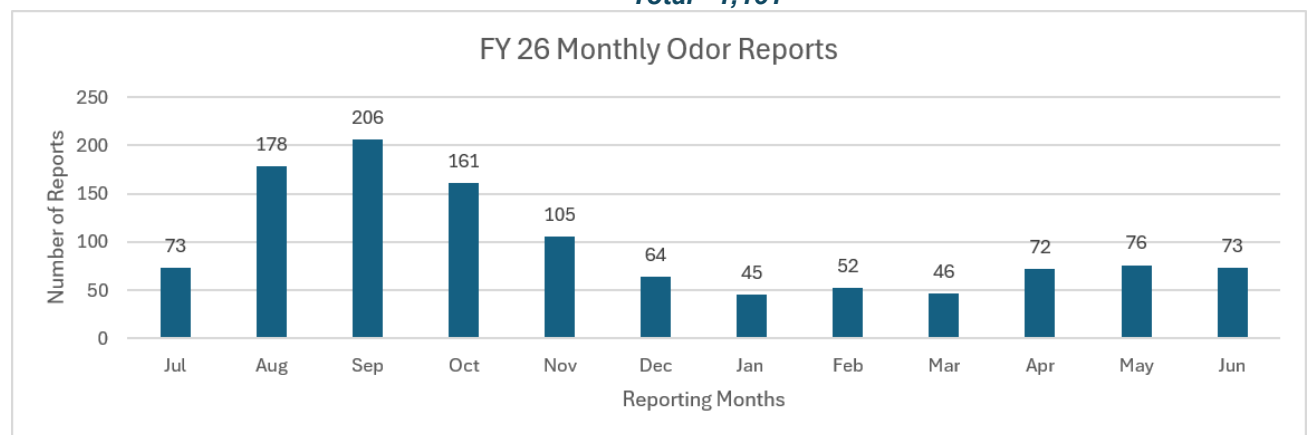
Odor Response

MSD continues to track and respond to odor reports received daily and strives to respond to all reports within 24 hours. Odor report logs can be found on the odor webpage. MSD saw a significant decrease in odor reports over the past two years, including a 29% reduction in odor reports in 2025 compared to 2024 (from 1,712 reports in 2024 to 1,221 in 2025). This downward trend continues into 2026, with YTD odor reports totaling 364.



MSD continues to refine and enhance the odor reporting dashboard, which allows users to easily search odor reports by date, street name, and Metro Council district. The dashboard is available on the Odor Program webpage. The bar chart below summarizes the number of odor reports received each month during Fiscal Year 26.

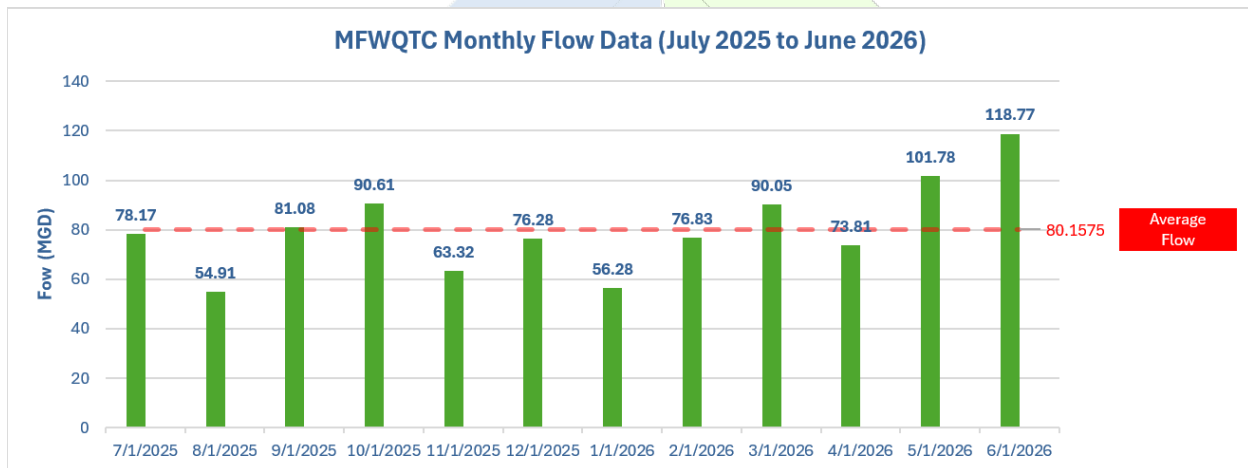
FY26 Monthly Odor Reports
(Reporting from July 1, 2025- June 30, 2026)
Total= 1,151



MSD continued its focus on improving customer experience related to odors which included customer call backs, customer letters, on-site meetings, and updates to online reporting functionality. During this reporting period, MSD performed 47 follow-up odor calls and sent 1,140 letters to customers. MSD also provided written monthly odor updates to the Louisville / Jefferson County Mayor's office and to Metro Council Members. The monthly cIAIRity reports for FY26 can be found in Appendix C.

Wastewater Flow Data

Wastewater flow data was collected from the Morris Forman Water Quality Treatment Plant on both a monthly and annual basis. The data provides insight into the flow conditions at the plant. MSD utilizes the data to perform operational adjustments to more effectively prevent odors. The following graphs represent the monthly flow that is coming into the plant.



The average flow for FY26 was 80.16 million gallons per day (MGD).

Short-Term Action Plan Project Updates

This Annual Report provides updates on all projects included in the Short-Term Action Plan and is organized by project category. For each project, the original scope, as presented in the Short-Term Action Plan, is provided along with an annual progress update. The report summarizes activities and accomplishments completed between July 1, 2024, and June 30, 2026. Project identifiers used throughout this report are consistent with those established in the Short-Term Action Plan. A summary of these projects is provided in the table below. Additional information regarding the projects and MSD's odor mitigation efforts is available on the Odor Control webpage at: <https://louisvillemsd.org/programs/odor-control/mitigation-projects>.

Category	Identifier	Project
Treatment	1	New Biosolids Facility (Morris Forman)
Treatment	2	Sedimentation Basin Rehabilitation (Morris Forman)
Treatment	A	Southwest Pump Station Gas Monitoring and Odor Control
Treatment	B	Odor Management Plan (Derek R. Guthrie)
Treatment	C	Hydrogen Sulfide (H ₂ S) Removal – Digester Gas (Morris Forman)
Treatment	D	Dissolved Air Flotation Thickener (DAFT) Rehabilitation (Morris Forman)
Collection System	E	Western Outfall Sewer Shed Studies
Collection System	F	Ohio River Force Main Technology Study
Collection System	G	Grand Avenue Pump Station Chemical Use Study
Pump Station	H	Starkey Pump Station – Evaluate options for odor mitigation technology

Catch Basins	I	Catch Basins Inspections
Catch Basins	J1	California Neighborhood Catch Basin Replacements
Catch Basins	J2	Chickasaw Neighborhood Catch Basin Replacements
Catch Basins	J3	Shawnee Neighborhood Catch Basin Replacements
Catch Basins	J4	Taylor Berry Neighborhood Catch Basin Replacements
Catch Basins	J5	East Market (Nulu) Catch Basin Replacements
Catch Basins	J6	Park Hill Neighborhood Catch Basin Replacements

Treatment

1. New Biosolids Handling Facility / Thermal Hydrolysis Pretreatment (THP)

Scope

MSD will continue developing its new biosolids processing facility using the Thermal Hydrolysis Process (THP) at the Morris Forman Water Quality Treatment Center (MFWQTC). The project team plans to finalize the THP system design and sidestream parameters with the engineer of record in FY25. This is a multi-year project that aims to improve solids handling and reduce odor emissions at the plant and surrounding areas. The final project will include an ammonia scrubber placed upstream of the existing odor control device and a carbon absorber placed downstream. At project completion and after all components are in service and acclimated, performance testing will be conducted on the odor control device to determine effectiveness and next steps, if needed.

Annual Update

During the period of July 1, 2025, through June 30, 2026, construction activities for the Biosolids Processing Solution (BPS) Project continued to advance on the solids handling treatment processes at the Morris Forman Water Quality Treatment Center (MFWQTC). Mechanical and electrical installation checkouts are ongoing in preparation for the start-up and commissioning of the four (4) new sludge screens and the new odor control system, which includes a new ammonia scrubber and carbon filtration system. These activities are scheduled to begin during the first quarter of Fiscal Year 2027 (Q1, FY2027). Similarly, the first of four (4) anaerobic digester rehabilitations is nearing completion, with digester seeding anticipated to follow during Q1, FY2027. The new Thermal Hydrolysis Processing (THP) Trains from Cambi, THP Trains No. 1 and No. 2, were installed, along with the four (4) new Dimpleflo Heat Exchangers (HEX). Four (4) new cake pumps were also installed below the two (2) new cake storage silos and will feed sludge to the two (2) THP Trains. All new buildings have been constructed, except for the new Cake Receiving Facility where foundation placement is ongoing. Concrete foundation and wall placements were completed for the new Sidestream Treatment Facility, and mechanical and electrical installations continue to support the new Demon anammox treatment system. Work also continues on multiple floors of the Main Equipment Building (MEB), including installation of new centrifuges and process water pumps, as well as rehabilitation of the two (2) existing blend wells. Associated mechanical piping, electrical and instrumentation conduit and equipment, foul air conveyance systems, painting and coating, and site housekeeping activities have continued to progress in support of the overall project. During the period covered by this report, MSD spent \$70.5 million on the BPS Project.

Projection for the Next 6 Months

Upcoming activities are focused on near-term construction, testing, and coordination of milestones, including grout placement and concrete work, along with multiple hydrostatic, leak, and pressure tests. Planned operational impacts of pressure testing and tentative shutdowns for tie-ins. Startup and commissioning efforts continue advancing, with THP Train 1 now projected for December 2026 and Train 2 in July 2027, while digester cover installations extend into late 2026 and 2027 due to ongoing coating issues. Additional key efforts include continued submittal reviews, startup planning, and coordination activities, with upcoming risk register meetings in June. Overall, the project remains active across multiple fronts, with substantial completion still contractually

set for December 2027 but currently trending into early 2028. As stated in the Short-Term Action Plan, this is a multi-year project that aims to improve solids handling and reduce odor emissions at the plant and surrounding areas

2. Sedimentation Basin Rehabilitation

Scope

MSD will continue its consent decree work with the U.S. EPA and the Kentucky Energy and Environment Cabinet for the primary sedimentation rehabilitation at the MFWQTC. This project includes rehabilitating and replacing the primary sedimentation basins and covering key assets. This project will contain odorous air and send it to the existing Biological Odor Control (BOC) system for treatment. This project started in FY20 and is expected to be completed in FY26. At project completion and after all components are in service and acclimated, performance testing will be conducted on the BOC to determine effectiveness and next steps, if needed.

Annual Update

During the period of July 1 through June 30, 2026, the project reached several key milestones. Rehabilitation of Basins 1 and 2 was completed, including installation of new traveling bridges with undercarriage systems, screw augers in the sludge hoppers, replacement of influent gates and actuators, and associated electrical and instrumentation upgrades. The North Pump Station upgrades were also finalized, encompassing new air-driven diaphragm pumps, a dewatering pump, and a scum pump; installation of a new HVAC system; improvements to piping and valves for primary sludge transfer to the digesters; and completion of the concrete deck replacement along with related electrical and instrumentation work. Work advanced on the odor control system with continued installation of structural supports, ductwork, fans, and piping. Additional enhancements included the upstream maintenance channel gate installation, improvements to the effluent channel serving Basins 1 and 2, and roadway improvements. The contractor began the start-up process of the odor control system. The primary treatment process for the plant was returned to full capacity. The contractor met substantial completion and worked towards final completion. During the period covered by this report, MSD spent \$4.2 million.

Projection for the Next 6 Months

The contractor will focus on achieving final completion of the project by completing remaining punch list items, finalizing odor control system startup activities, addressing outstanding restoration work, and completing project closeout requirements. These efforts will support final acceptance and close-out of the project.

A. Southwest Pump Station Gas Monitoring and Odor Control

Scope

MSD is finalizing a new odor control system at the Southwest Pump Station (SWPS). This system uses a biotrickling filter to treat odorous air, replacing the old carbon adsorption system. In addition to the areas treated by the previous system, the new system includes odorous air from Splitter Structure No. 1 (SP1) and the Dumpster Room. It is designed to remove 99% of inlet hydrogen sulfide when completed. A gas monitoring system will track hydrogen sulfide levels at the inlet and outlet. This technology will help mitigate odors and reduce impacts on the Bells Lane community. At project completion and after all components are in service and acclimated, performance testing will be conducted on the odor control device to determine effectiveness and next steps, if needed.

Annual Update

The installing contractor worked with the equipment manufacturer in making adjustments to improve the performance of the biotrickling filter/bioscrubber. These included fine-tuning the nutrient feed, freshwater cycle frequency and duration, and the recirculation frequency and duration. The odor control unit was turned over to

MSD in October 2025. During the period covered by this report, MSD spent \$35,000. A copy of the Project Certification Letter can be found in Appendix E.

B. Odor Control Management Plan (Derek R. Guthrie)

Scope

MSD contracted with AECOM to conduct a study of odors in our treatment centers and collection systems. Phase 2 of the Odor Control Management Plan work focuses on Derek R. Guthrie in the southern part of our service territory. Consistent with the prior plan developed for the MFWQTC, AECOM will evaluate current performance, identify potential odor sources, evaluate existing odor control systems, conduct sampling, and develop recommendations for treatment technologies. This plan will help identify odor problem areas and suggest solutions, guiding our approach to odor control around the Derek Guthrie Water Quality Treatment Center (DRGWQTC). Once finalized, MSD will review AECOM's recommendations, develop a response, and prioritize actions within budget constraints. MSD will reevaluate the need for identified actions as system improvements occur.

Annual Update

This project was completed in FY25. Please refer to the FY25 Annual Report for More information on final status.

C. Hydrogen Sulfide (H₂S) Removal – Digester Gas (Morris Forman)

Scope

The MFWQTC has four anaerobic digesters which use naturally occurring microorganisms in the digesters' oxygen free environment to break down organic matter. As organic matter breaks down, digester gas is produced. Recent sampling found high hydrogen sulfide (H₂S) levels present in the digester gas. To comply with the Federally Enforceable District Origin Operation Permit (FEDOOP), MSD will install a Hydrogen Sulfide Removal System that reduces the hydrogen sulfide concentrations in the digester gas prior to end use. This hydrogen sulfide adsorption system will utilize three (3) or four (4) vessels containing media. As the digester gas passes through approximately 50,000 pounds of media in each vessel, the hydrogen sulfide in the digester gas reacts with the media. The goal of this project would be to reduce hydrogen sulfide concentrations in the digester gas which will allow use of digester gas to supplement fuel for dryers and reduce the amount of gas flared.

Annual Update

During the period of July 1, 2025, through June 30, 2026, the three (3) Hydrogen Sulfide (H₂S) Removal Vessels were successfully installed. This installation included a new concrete pad, aluminum grating platforms with a ladder for accessing the top of the vessels, drip traps with drain lines to remove the condensate from inside the piping, iron hydroxide media inside each vessel for the H₂S removal, gas monitors to measure the H₂S concentrations in and out of the system, and piping with insulation to direct the digester gas to and from the vessels. A new Booster Blower Skid was also installed along with its concrete pad, drain lines, valves, instrumentation, and piping to maintain the digester gas pressure through the new H₂S Removal System. The yard piping for the new H₂S Removal System was completed, including the installation of the yard pipe supports, actuated and manual valves, and fittings. Pipe Bridges No. 1 and No. 2 were installed to provide vehicle access around the H₂S Removal System, while work on the pipe supports around Digester No.1, the piping insulation, and the overall heat tracing is ongoing. The new Flare No. 1, which was previously installed under a separate project but never commissioned, was also tied into the new H₂S Removal system piping. A new prefabricated, climate-controlled H₂S Electrical Building to house the power and controls for the H₂S Removal System was assembled and anchored to a new concrete pad. All the electrical work, including conduits, wiring, and power

connections, was completed from the existing Digester Building to the new prefabricated H₂S Electrical Building, and then from the H₂S Electrical Building out to the Booster Blower Skid, H₂S Removal Vessels, actuated valves, and Flare No. 1. In the first quarter of the next fiscal year, the Contractor is planning to start-up and commission the H₂S Removal System and Flare No. 1 with dry checkouts of the equipment, training, and commission testing. During the period covered in this report, MSD spent approximately \$6.3 million on the MFWQTC H₂S Removal System Project.

Projection for the Next 6 Months

Upcoming work over the next reporting period will focus on continued mechanical and electrical installations, including ongoing pipe and pipe support installation, wire pulling to automated valves and the prefabricated electrical building, and completion of blower anchoring and alignment, as well as installation of remaining pipe bridge elements and digester brackets. Key near-term milestones include installation of H₂S media within the vessels, placement of bollards, and progression of piping across Pipe Bridge No. 2. Additional planned activities include continued weekend work to maintain schedule recovery, coordination of plant impact requests for electrical tie-ins and testing, and preparation for upcoming startup and commissioning phases later in the project, with overall substantial completion currently targeted for late September 2026 with an estimated expenditure of \$.29M in FY27. As stated in the Short-Term action Plan, MFWQTC has four anaerobic digesters which use naturally occurring microorganisms in the digesters' oxygen free environment to break down organic matter. As the organic matter breaks down, digester gas is produced. Recent sampling found high hydrogen sulfide (H₂S) levels present in the digester gas. To comply with the Federally Enforceable District Origin Operation Permit (FEDOOP), MSD will install a Hydrogen Sulfide Removal System that reduces the hydrogen sulfide concentrations in the digester gas prior to end use.

D. Dissolved Air Flotation Thickener (DAFT) Rehabilitation (Morris Forman)

Scope

The Dissolved Air Flotation Thickener (DAFT) system and its Main Equipment Building (MEB) exhaust at the MFWQTC have been identified as odor sources. MSD will perform a rehabilitation of the DAFT and its MEB exhaust. This project will evaluate and determine the best odor mitigation technologies for this area. Improving odors in this process will enhance overall air quality at the MFWQTC. Once the odor device is in service, performance testing will confirm if it meets design specifications. MSD will monitor for odors once the project is complete to determine effectiveness and next steps, if needed.

Annual Report

During the period of July 1 through June 30, 2026, the project was bid and awarded on July 28th with Notice to Proceed (NTP) issued Aug 21st. The contractor has completed demolition of the decommissioned Oxygen Generation Area (OGA) yard. This area will be the location for the new odor control equipment that will be servicing the DAFT area within the MEB Building. The contractor replaced the supply air ductwork within the DAFT room. The contractor demolished the existing equipment in DAFT Tank 3 and 4 and prepared for the structural repairs. The contractor is continuing to provide submittals of project equipment that are under review by the project team. During the period covered by this report, MSD spent \$11 million.

Projection for the Next 6 Months

Upcoming milestones and planned activities for the project include preparing Tanks 3 and 4 for inspection, with inspections expected to take about one day once ready. Key upcoming submittals include steel stairs for the Oxygen Generator Assembly (OGA) courtyard, handrails, and instrumentation packages, while ongoing coordination is focused on resolving Request for Information (RFI) (notably ductwork clearances) and progressing Request for Proposal (RFP) items such as polymer room Variable Frequency Drives (VFDs) and additional Programmable Logic Controllers (PLCs)-related supports. Material activities include continued

mobilization of recently delivered piping for Tanks 3 and 4, along with coordination of equipment storage and site access. Additional efforts will focus on finalizing design revisions, advancing allowance-related change orders, and maintaining progress payment documentation. The project is expected to be completed by December 29, 2027, with an estimated expenditure of \$15.59M across FY27-28. As stated in the Short-Term Action Plan, this project will evaluate and determine the best odor mitigation technologies for this area. Improving odors in this process will enhance overall air quality at MFWQTC.

Collection System

E. Western Outfall Sewer Shed Studies

Scope

The Western Outfall, a gravity sewer starting in the southwestern central business district, runs west along Broadway toward the Ohio River and then runs south to the MFWQTC. MSD has experienced high odor Reports along this system. AECOM documented in the Odor Control Master Plan that this system tends to run at positive pressure, which causes an increase in the release of odorous air. MSD will conduct a study to determine if changing the pressure in the system to negative will minimize the escape of odorous air. MSD will install a temporary unit along the gravity sewer line to create negative pressure conditions. In addition to the pressure study, MSD will develop a wastewater odor model using the WATS (Wastewater Aerobic / Anaerobic Transformations in Sewers) sewer process model. WATS simulates changes in conditions (i.e., aerobic, anoxic, and anaerobic) within the sewer system to determine the impact on odors. The WATS model will be used to run what-if scenarios to determine the effectiveness of different treatment methods. MSD will review recommendations from both the negative pressure pilot study and the WATS model to identify next steps. Further actions for system improvements will be prioritized within budget constraints.

Annual Update

This project was completed in FY25. Please refer to the FY25 Annual Report for More information on final status.

F. Ohio River Force Main Technology Study

Scope

The Ohio River Force Main runs between the Ohio River and I-71 beginning near US 42 and I-265 and discharges to the Ohio River Interceptor (ORI) in downtown Louisville at Hancock and Main. After discharging into the ORI, wastewater flow is conveyed west towards the MFWQTC for treatment. Previously, MSD utilized WATS modeling to identify treatment method(s) and location(s) for the Ohio River Force Main. From the result, MSD installed an oxygen injection facility at the Barbour Lane Pump Station and currently feeds Bioxide (calcium nitrate) at Mockingbird Valley to treat part of the force main. MSD will update the WATS model and collaborate with consultant(s) to evaluate the effectiveness of the current treatment practices and explore additional options for increased results further down the force main. MSD will review recommendations and determine the next steps. Further actions identified for system improvements will be prioritized within budget constraints.

Annual Update

During this reporting period, MSD completed an update to the Ohio River Force Main (ORFM) odor study and wastewater treatment model to evaluate the effectiveness of existing odor control measures and identify opportunities for further improvement. The updated model incorporated new field sampling data, flow information, and operational conditions collected during 2025 and confirmed that the existing oxygenation system at the Barbour Lane Pump Station continues to perform as designed and provides effective odor and corrosion control along a significant portion of the force main. Sampling results generally showed low hydrogen

sulfide (H_2S) concentrations throughout the system under normal operating conditions. MSD continues to monitor conditions within the Ohio River Force Main system and will use the results of this evaluation to support future odor management and infrastructure preservation efforts. A copy of the Project Certification Letter can be found in Appendix F.

G. Grand Avenue Pump Station Chemical Use Study

Scope

AECOM recommended a pilot study at the Grand Avenue Pump Station in the Morris Forman Odor Control Master Plan. Currently, Bioxide (calcium nitrate) is used at the Grand Avenue Pump station to minimize sulfides in the Grand Avenue Force Main. Although Bioxide is effective for some part of the sewer system, MSD desires to improve odors further down the force main. The chemical use study will explore alternative chemicals at the Grand Avenue Pump Station and identify options that may be more effective at reducing sulfides and deterring the formation of hydrogen sulfide in the sewer system and provide a larger impact further down the main. MSD will review recommendations and determine the next steps. Further actions identified for system improvements will be prioritized within budget constraints.

Annual Update

During the reporting period, MSD conducted an enhanced evaluation and monitoring program for the Grand Avenue Force Main and associated pump station to assess operational conditions and odor control performance. Results from the monitoring efforts indicate that direct nitrate injection into the force main continues to be an effective odor mitigation strategy, reducing the potential for septic conditions and the generation of hydrogen sulfide. Data collected throughout the year demonstrated consistent system performance and sustained improvement in force main conditions. MSD will continue routine monitoring of the Grand Avenue Force Main to verify the long-term effectiveness of the nitrate injection program and identify opportunities for operational optimization as needed. A copy of the Project Certification Letter can be found in Appendix G.

Pump Stations

H. Starkey Pump Station

Scope

The Starkey Pump Station (PS) is on the northern end of the Morris Forman service area, east of downtown and currently lacks odor control technology. Starkey PS has a small footprint with a large volume of air being ventilated which can lead to an increase in odors. Unfortunately, there is limited space for a traditional carbon or biological odor control solution at this pump station. MSD will engage with consultant(s) to assess potential options for odor control treatment systems. MSD will review recommendations and determine the next steps. Further actions identified for system improvements will be prioritized within budget constraints.

Annual Update

During the July 1, 2025 through June 30, 2026 reporting period, MSD completed a comprehensive odor evaluation of the Starkey Pump Station that included air sampling, continuous H_2S monitoring, odor panel testing, wastewater compound analysis, and odor dispersion modeling. The study found generally low average hydrogen sulfide (H_2S) concentrations, but periodic spikes in H_2S and odor levels were observed, indicating the potential for occasional off-site odor impacts under certain operating and weather conditions. MSD will continue to monitor conditions at the facility and use the results of this evaluation to inform future odor management decisions. A copy of the Project Certification Letter can be found in Appendix H.

Catch Basins

I. Catch Basin Inspections

Scope

MSD is actively inspecting catch basins within the combined system to determine repair needs and identify those for replacement. Repairs are scheduled for completion by MSD field crews while replacement work is bundled into smaller jobs to bid out to contractors. MSD plans to inspect roughly 4,200 catch basins per year. These inspections are the first step to reducing odors from catch basins located at the edge of customer properties.

Annual Update

Before 2025, MSD inspected 7,984 catch basins and identified 1,777 for replacement. Since 2025, another 5,701 basins were inspected, with 775 more marked for replacement. MSD focused on inspections in the neighborhoods most affected. A total of \$245,649 was spent on inspections during this reporting period. To date a total of 13,685 catch basins have been inspected and 2,552 have been identified for replacement. The table below shows inspection details for each neighborhood.

CATCH BASIN INSPECTIONS COMPLETED			
Neighborhood	# Inspected	Inspection Status	# Identified for Replacement
<u>Prior to July 1, 2024</u>			
Park DuValle	319	Completed	20
California	925	Completed	72
Chickasaw	745	Completed	69
Shawnee	1,142	Completed	176
Taylor Berry	817	Completed	14
Russell	1,332	Completed	641
TOTALS:	5,280		992
<u>July 1, 2024 - December 31, 2024</u>			
Old Louisville	1,176	Completed	271
Limerick	246	Completed	108
Park Hill	564	Completed	177
Parkland	434	Completed	158
East Market/Nulu	284	Completed	71
TOTALS:	2,704		785
<u>January 1, 2025 - July 31, 2026</u>			
Cherokee Triangle	319	Completed	85
Portland	1,364	Completed	366
Central Business District	1,516	Completed	282
Wyandotte	457	Completed	33
W Main Street	142	Completed	9
Algonquin	856	Completed	TBD
Beechmont	991	In Progress	TBD
Phoenix Hill	56	In Progress	TBD
TOTALS:	5,701		775
GRAND TOTALS:	13,685		2,552

The number of catch basins initially identified for replacement may change due to a more extensive review of the inspection results.

TBD = Inspections in this neighborhood are in progress and a final replacement number is yet to be determined.

Projection for the Next 6 Months

Catch basin replacements will be the focus for the remainder of 2026. The primary replacement area will be in the Chickasaw neighborhood.

J. Catch Basin Replacements

Scope

Catch basin replacements in fiscal years 2025 and 2026 will be targeted for completion in identified neighborhoods. These replacements will include installing trapped catch basins to deter odors from escaping the sewer system.

1. California Neighborhood: This project is complete. Please refer to the FY25 Annual Report for more information on final status.
2. Chickasaw Neighborhood: In the Chickasaw neighborhood, 746 catch basins were inspected, and 69 were identified for replacement. In FY26, a total of 29 catch basins were replaced. The remaining 40 catch basins will be replaced in FY27, with a total project expenditure of \$610,000.
3. Shawnee: All catch basins identified for replacement have been completed, with an expenditure of \$3.1 million. A copy of the Project Certification Letter can be found in Appendix I.
4. Taylor Berry: In the Taylor Berry neighborhood, 817 catch basins were inspected, and 14 were replaced in FY26, with an expenditure of \$190,000. A copy of the Project Certification Letter can be found in Appendix J.
5. Nulu: In the Nulu neighborhood, 19 catch basins were identified for replacement and all 19 catch basins were replaced. The total expenditure for this project was \$350,000.

MSD expects to see a decrease in customer odor Reports specific to these catch basins that will now be trapped. However, trapped catch basins that are dry can still release odors. Therefore, MSD will periodically inspect the catch basins and add water as needed to contain odors.

Annual Update

To evaluate the effectiveness of catch basin replacements in targeted neighborhoods, MSD uses odor complaint reports as a performance metric and compares complaint trends before and after project completion. This evaluation provides a measurable, data-driven assessment of actual performance, with reductions in odor complaints indicating the effectiveness of the improvements and helping determine whether additional odor mitigation measures may be needed. The total number of catch basins replaced to date as part of our odor-mitigation efforts is shown in the table below.

Neighborhood	# Identified for Replacement	# Replaced	% Complete
Park DuValle	20	20	100%
California	72	72	100%
Shawnee	176	178	100%
Taylor Berry	14	14	100%
Nulu	19	19	100%
West Main St.	9	9	100%
Chickasaw	69	29	42%
Park Hill	177	22	12%
Totals:	556	363	65%

Additional Project

- **Park Hill:** In the Park Hill neighborhood, 22 of the 177 catch basins identified for replacement have been completed, with a total expenditure of approximately \$300,000. The remaining work will continue in future years as the budget allows.
- **West Main:** In the West Main Street neighborhood, 142 catch basins were inspected, and 9 were replaced in FY26, with an expenditure of \$140,000. The remaining work will continue in future years as the budget allows.

Conclusion

MSD's work throughout FY26 demonstrates continued progress toward reducing odors, improving customer experience, and fulfilling the commitments of the Second Amended Agreed Board Order No. 2101. Through the coordinated efforts of the Odor Mitigation Team, MSD has strengthened internal collaboration, improved responsiveness, and enhanced transparency with customers, community leaders, and regulatory partners.

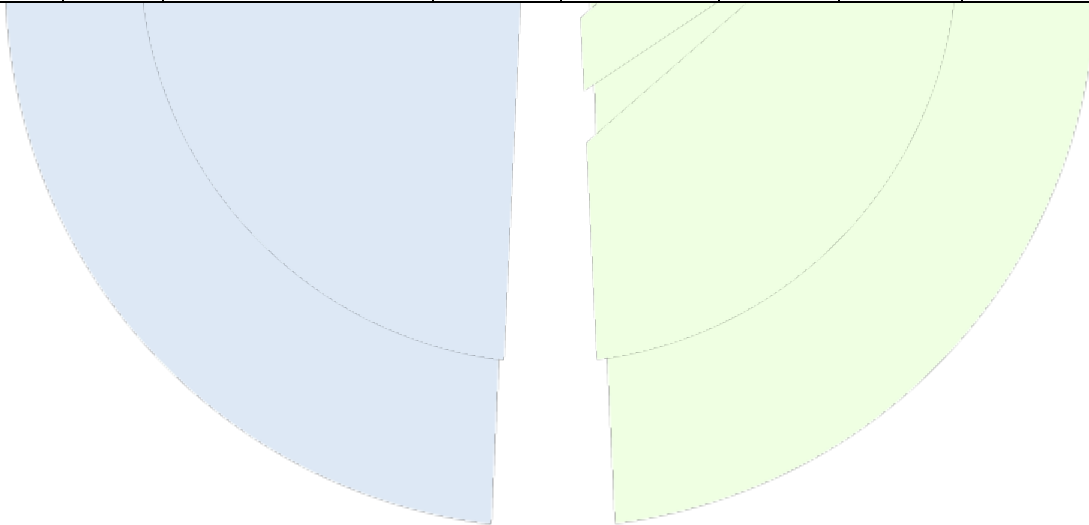
Community engagement remained a cornerstone of MSD's strategy, with the cAIRity program, district meetings, and neighborhood events providing opportunities for residents to learn about projects and share concerns. Combined with targeted operational and capital improvements, these efforts have contributed to measurable results, including a continued annual reduction in odor reports since 2023.

This Annual Report highlights key accomplishments across treatment facilities, the collection system, and catch basin replacement programs, including major infrastructure improvements, implementation of Odor Control Management Plan recommendations, and enhanced data tracking and reporting capabilities.

As the final report for the Short-Term Action Plan, this document marks an important milestone in MSD's odor mitigation program. With foundational short-term initiatives substantially implemented, MSD will now transition its focus to the Medium-Term Action Plan. Future efforts will emphasize continued infrastructure improvements, operational optimization, data-driven decision-making, and community engagement to achieve sustainable, long-term odor reduction and compliance objectives. MSD remains committed to making measurable progress in reducing odor impacts across the communities we serve.

Short-Term Action Plan Projects – Annual Update							
Category	Identifier	Project	FY25-FY26 Budget (millions)	FY26 Expenditures (Millions)	% Complete	Projected Completion Date	Status
Treatment	1	New Biosolids Facility (Morris Forman)- Consent Decree Project	\$60.00	\$70.50	75%	31-Nov-28	Continuing in Medium-Term Action Plan
Treatment	2	Sedimentation Basin Rehabilitation (Morris Forman)- Consent Decree Project	\$11.50	\$4.20	99%	30-Sep-26	Continuing in Medium-Term Action Plan
Treatment	A	Southwest Pump Station Gas Monitoring and Odor Control	\$0.80	N/A	100%	30-Jun-25	Complete
Treatment	B	Odor Management Plan (Derek R Guthrie)	\$0.20	N/A	100%	31-Dec-24	Complete
Treatment	C	Hydrogen Sulfide (H ₂ S) Removal-Digester Gas (Morris Forman)	\$8.00	\$6.30	85%	28-Sep-26	Continuing in Medium-Term Action Plan
Treatment	D	Dissolved Air Flotation Thickener (DAFT) Rehabilitation (Morris Forman)	\$16.10	\$11.00	20%	30-Dec-27	Continuing in Medium-Term Action Plan

Collections System	E	Western Outfall Sewer Shed Studies	\$0.43	N/A	100%	30-Jun-25	Complete
Collections System	F	Ohio River Force Main Technology Study	\$0.05	\$0.02	100%	30-Jun-26	Complete
Collections System	G	Grand Avenue Pump Station Chemical Use Study	\$0.05	\$0.02	100%	30-Jun-26	Complete
Pump Station	H	Starkey Pump Station-Evaluate options for odor mitigation technology	\$0.05	\$0.03	100%	30-Jun-26	Complete
Catch Basins	I	Catch Basin Inspections	\$0.25	\$0.25	N/A	N/A	Inspections may continue after FY28, with enough replacements identified for FY27-28.
Catch Basins	J1	California Neighborhood Catch Basin Replacements	\$1.30	N/A	100%	30-Jun-25	Complete
Catch Basins	J2	Chickasaw Neighborhood Catch Basin Replacements	\$0.61	\$0.30	42%	31-Dec-26	Continuing in Medium-Term Action Plan
Catch Basins	J3	Shawnee Neighborhood Catch Basin Replacements	\$3.00	\$3.11	100%	31-Dec-25	Complete
Catch Basins	J4	Taylor Berry Neighborhood Catch Basin Replacements	\$0.19	\$0.18	100%	31-Dec-25	Complete
Catch Basins	J5	NULU Catch Basin Replacements	\$0.40	N/A	100%	1-Mar-25	Complete
Catch Basins	J6	Park Hill Neighborhood Catch Basin Replacements	\$0.30	\$0.30	12%	6-Jun-27	Continuing in Medium-Term Action Plan



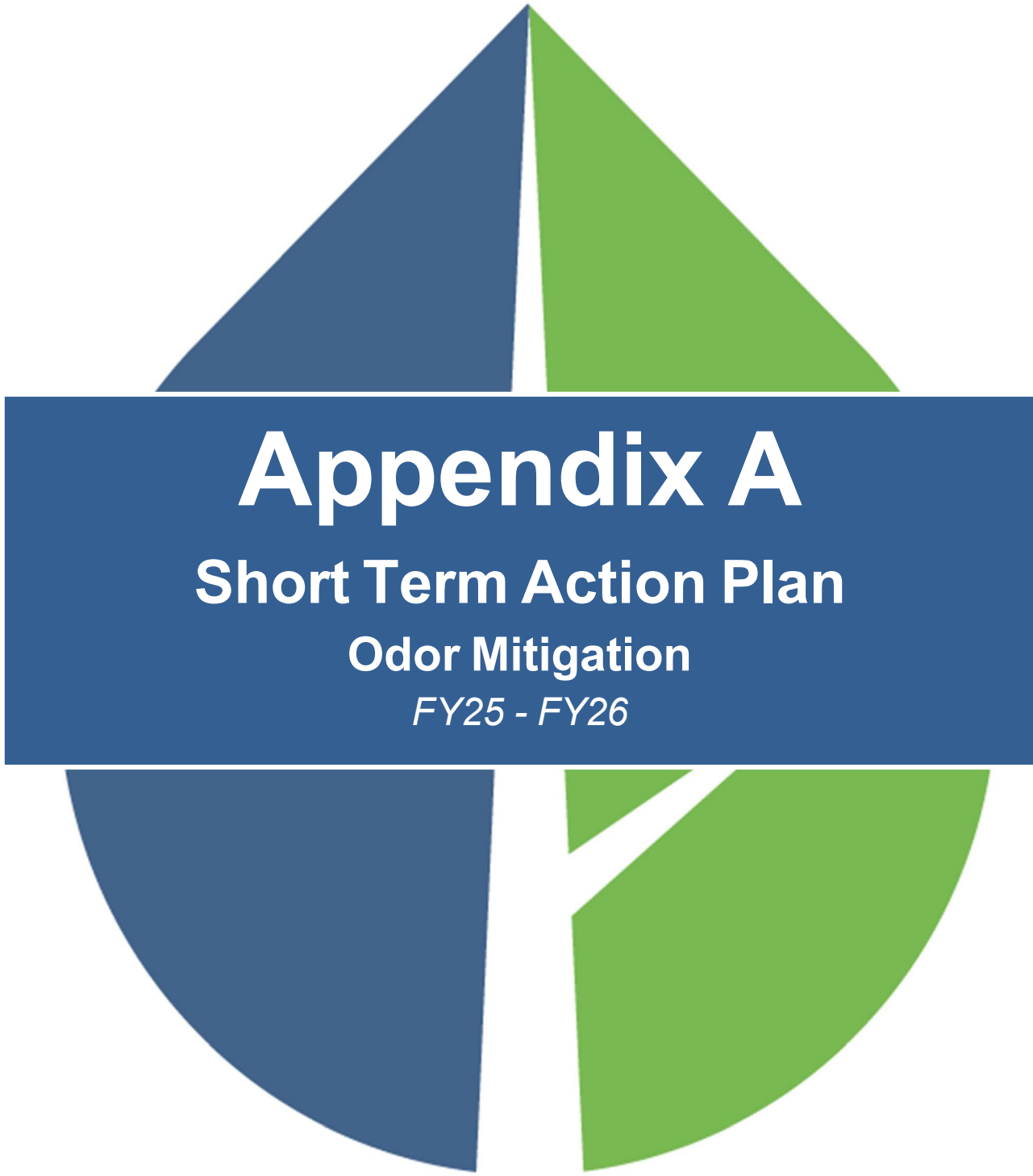


Appendix

FY26 Annual Report

July 1, 2025 - June 30, 2026





Appendix A

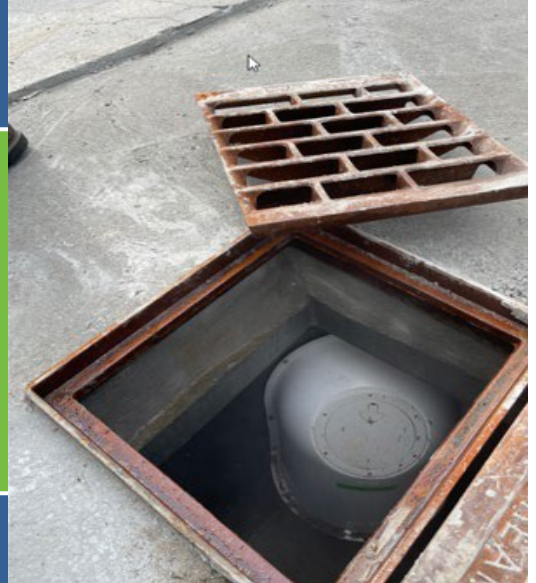
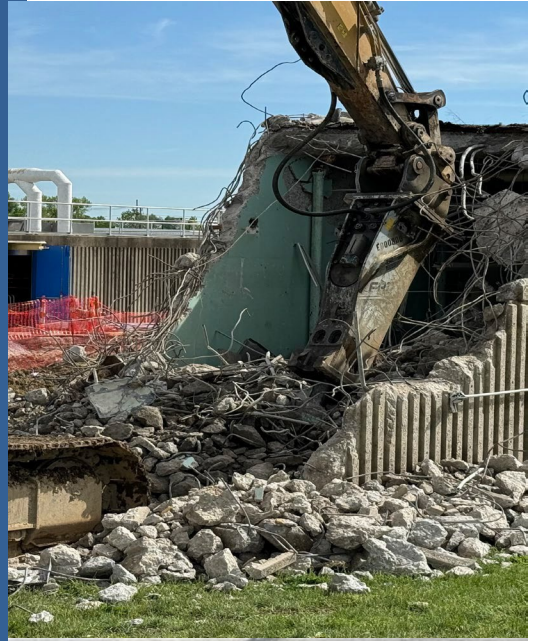
Short Term Action Plan

Odor Mitigation

FY25 - FY26

ODOR MITIGATION SHORT-TERM ACTION PLAN FY25 – FY26

Submitted October 14, 2024



Background

Pursuant to the provisions of the Second Amended Agreed Board Order No. 21-01 with the Louisville Metro Air Pollution Control Board, MSD submits this Short-Term Action Plan. Louisville and Jefferson County Metropolitan Sewer District (MSD) is a regional utility for wastewater, storm water, and flood protection services. MSD manages three utilities in one (**#3UtilitiesInOne**) to provide efficient, effective services to protect the region's people and property. On September 18, 2024, MSD entered the Second Amended Agreed Board Order (ABO) with the Louisville Metro Air Pollution Control Board to focus on odor mitigation in its water quality treatment centers and collections systems. Although odors are a natural part of wastewater and managing it can be challenging, MSD is committed to improving odors within the communities it serves. MSD can only address odors that are within their purview and responsibility. As part of this Short-Term Action Plan, MSD provides a summary of activities conducted during July 1, 2023 and June 30, 2024 to provide additional details on our progress to date. This period represents Fiscal Year 24 for MSD. MSD Fiscal Years start July 1 of each year and conclude on June 30 of the following year.

Fiscal Year 24 (FY24) Update

In FY24, MSD focused on customer communications, odor response, catch basin inspections, catch basin replacements, and other projects as outlined in this section.

Customer Communications

This summer MSD focused its efforts on communications and community outreach with its clAIRity program. MSD sent letters, sent post cards, participated in a segment on MetroTV, presented at the mayor's press conference, and ran an op-ed in the Courier Journal to inform the community on how to contact us, how we respond to odor complaints, and to provide updates on current and future projects for odor mitigation. MSD clAIRity meetings (a total of five were scheduled in 2024; three already conducted and the remaining two scheduled for later October) engaged with customers and answered odor related questions. MSD also reached out to the church community to further communicate with the neighborhoods most impacted. MSD continues to maintain its clAIRity webpage with information pertinent to odors. As is outlined in the ABO, MSD will look for additional opportunities to further enhance its existing webpage and engagement opportunities.

Odor Response

MSD actively responds to odor complaints received from the community. Concerns related to odors are received by phone call, MSD clAIRity webpage, Metro 311, Smell My City, and e-mail. MSD reviews concerns and creates a service request in our system for our employees to investigate. MSD strives to respond within 24 hours from receipt of an odor complaint. This summer MSD changed its protocol when responding to odor reports. If a customer calls to report an odor and provides their name and number, MSD contacts the customer to confirm receipt of the odor report and provide an update on the findings and actions taken. Some of the actions MSD takes to respond to odor concerns include flushing sewer mains and manholes, cleaning and deodorizing catch basins, and replacing missing or damaged catch basin plugs. In addition to these activities performed on site, MSD takes actions to improve odors by adjusting chemical feeds and replacing filter media at our pump stations and treatment facilities.

Catch Basins

Catch basins are curbside openings that collect rainwater and direct it to separate storm or combined sewer systems. As part of its regular maintenance, MSD cleans and maintains catch basins in the combined system. On average MSD cleans nearly 2,300 catch basins a month. Catch basins, especially in the combined system, that are untrapped can allow odors to escape to ambient air. MSD estimates that it has roughly 20,000 catch basins in its combined system.

Catch Basin Inspections

As part of its odor mitigation efforts in FY24, MSD inspected 5,281 catch basins in the combined system and identified those that required repairs and those that should be replaced. Roughly 22% of the catch basins inspected were identified for replacement. The number of catch basin replacements identified by neighborhood is listed in Table B-1. Please note that some of the numbers below differ from the original reports. With a focus placed on maximizing spend on replacing catch basins that could allow odors to escape, further investigations identified additional replacements in some areas and a reduction in others.

Neighborhood	# Inspected	# Identified for Replacement
Park DuValle	319	20
California (including Maple Street)	925	75
Chickasaw	746	79
Shawnee	1142	174
Taylor Berry	817	43
Russell	1332	747
Total	5,281	1,138

Table B-1

Catch Basin Replacements

MSD is actively working to bid, award, and complete catch basin replacements. In FY24, MSD expended \$374,000 to replace twenty catch basins identified in Park DuValle. Replacements in the California neighborhood also began with 15 of the 75 identified catch basins being replaced at roughly \$300,000.

Projects

New Biosolids Facility

MSD is updating its facility to include Thermal Hydrolysis Process (THP) technology as part of the U.S. EPA and the Kentucky Energy and Environment Cabinet Consent Decree requirement to improve the ability to treat biosolids at the Morris Forman Water Quality Treatment Center (MFWQTC). THP is a process technology applied in wastewater treatment plants with anaerobic digestion. Thermal hydrolysis exposes sewage sludge to high temperature and pressure to make solids more digestible. The new process will minimize the need to landfill solids and will provide some reduction in odor emissions to neighboring communities. This is a multi-year project projected to be completed in FY28. This year contractors started demolition activities on-site.

Sedimentation Basin Rehabilitation

MSD continued its primary sedimentation rehabilitation project that is part of the U.S. EPA and the Kentucky Energy and Environment Cabinet consent decree requirement. The project includes rehabilitating and replacing the primary sedimentation basins at the MFWQTC. Both influent and effluent channels, the east headworks influent channel, the aerated channel, the bypass channel, will be covered. The improvements to the primary sedimentation basins and the covering of key assets will assist with containing odors and decrease odor emissions in this area of the treatment facility. This is a multi-year project in progress and is projected to be completed in FY26.

Grand Avenue Pump Station

The Grand Avenue Pump Station is at the east end of the Morris Forman service area. This pump station has a dual-bed carbon adsorber system to control odors. Sampling conducted during the Odor Control Master Plan developed by AECOM (identified as pump station #2), indicated that the system was meeting performance requirements, but odor and hydrogen sulfide (H₂S) levels were elevated. MSD investigated the unit and determined the carbon media had reached the end of its useful life. In FY24, MSD replaced the carbon media and levels returned to acceptable ranges. The carbon media for the dual-bed carbon adsorber system was added to the Preventative Maintenance (PM) schedule and will be tested every two years to evaluate its effectiveness and replace if necessary.

In addition to the two year PM, a 6-month check of the system's differential pressure will also be conducted to determine if we are experiencing saturation or clogging indicating the need for a more immediate media change. No further action is required or planned at the Grand Avenue Pump Station.

FY25 – FY26 Planned Projects

This Short-Term Action Plan outlines the projects planned for fiscal years 2025 and 2026. This plan covers odor mitigation activities from July 1, 2024 through June 30, 2026. The projects listed in this Short-Term Action Plan are part of MSD's capital budget that was reviewed and approved by the MSD Board on May 28, 2024. Following finalization of the ABO, the MSD Board was updated on the projects outlined in this Short-Term Action Plan. Any project listed in section I.A.1. of the ABO and not identified in this Short-Term Action Plan will be addressed in the Medium-Term or Long-Term Action Plan. This Short-Term Action Plan is organized into the same four categories as outlined in the ABO which are Treatment, Collection System, Pump Stations, and Catch Basins.

Historical data on odor complaints illustrates that odors are most prevalent in the combined system where both wastewater and stormwater are carried in the same pipes. The combined system is served by the MFWQTC and is designated by the yellow boundary lines in Figure 1. The MFWQTC treats on average 100 million gallons per day. The western part of the service area served by the MFWQTC has reported the highest frequency of odor concerns. MSD's focus for this Short-Term Action Plan will be on the areas most impacted as indicated by the red circle in Figure 2.



Figure 1

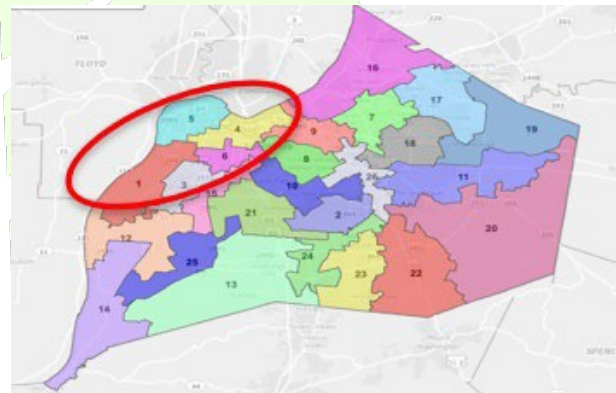


Figure 2

I. Treatment

The treatment category covers projects specific to our Water Quality Treatment Centers (WQTCs). MSD operates five WQTCs in Jefferson County. Wastewater travels from homes, businesses, and properties to these centers before being released into local waterways (Figure 1). The respective WQTC for each project is noted in parentheses in Tables T-1 and T-2. Table T-1 outlines the capital expenditures and projected start and end dates for the planned projects that are part of our consent decree work with the U.S. EPA and the Kentucky Energy Environment Cabinet that support our odor mitigation efforts. Table T-2 outlines the additional odor projects not related to the consent decree with estimated expenditures and projected start and end dates.

Consent Decree Projects	FY25-FY26 Estimated Expenditures (millions)	Projected Start Date	Projected End Date
1. New Biosolids Facility (Morris Forman)	\$60.0	In Progress	9/30/2028
2. Sedimentation Basin Rehabilitation (Morris Forman)	\$11.5	In Progress	12/31/2025

Table T-1

1. New Biosolids Handling Facility / Thermal Hydrolysis Pretreatment (THP)

MSD will continue developing its new biosolids processing facility using the Thermal Hydrolysis Process (THP) at the MFWQTC. The project team plans to finalize the THP system design and side stream parameters with the engineer of record in FY25. This is a multi-year project that aims to improve solids handling and reduce odor emissions at the plant and surrounding areas. The final project will include an ammonia scrubber placed upstream of the existing odor control device and a carbon absorber placed downstream. At project completion and after all components are in service and acclimated, performance testing will be conducted on the odor control device to determine effectiveness and next steps, if needed. The project is expected to be completed in FY29 with expenditures of \$60 million for FY25 and FY26. The total estimated cost for the life of the project is \$255 million.

2. Sedimentation Basin Rehabilitation

MSD will continue its consent decree work with the U.S. EPA and the Kentucky Energy and Environment Cabinet for the primary sedimentation rehabilitation at the MFWQTC. As stated in the FY24 Update, this project includes rehabilitating and replacing the primary sedimentation basins and covering key assets. This project will contain odorous air and send it to the existing Biological Odor Control (BOC) system for treatment. This project started in FY20 and is expected to be completed in FY26. At project completion and after all components are in service and acclimated, performance testing will be conducted on the BOC to determine effectiveness and next steps, if needed. The projected expenditure for FY25 and FY26 is \$11.5 million, with a total estimated cost of \$46 million over the life of the project.

Projects (Not Consent Decree related)	FY25-FY26 Estimated Expenditures (millions)	Projected Start Date	Projected End Date
A. Southwest Pump Station Gas Monitoring and Odor Control	\$0.8	In Progress	6/30/2025
B. Odor Management Plan (Derek R. Guthrie)	\$0.2	In Progress	12/31/2024
C. Hydrogen Sulfide (H ₂ S) Removal – Digester Gas (Morris Forman)	\$8.0	In Progress	6/30/2026
D. Dissolved Air Flotation Thickener (DAFT) Rehabilitation (Morris Forman)	\$18.1	In Progress	12/31/2026

Table T-2

A. Southwest Pump Station Gas Monitoring and Odor Control

MSD is finalizing a new odor control system at the Southwest Pump Station (SWPS). This system uses a biotrickling filter to treat odorous air, replacing the old carbon adsorption system. In addition to the areas treated by the previous system, the new system includes odorous air from Splitter Structure No. 1 (SP1) and the Dumpster Room. Currently in the acclimation phase, it is designed to remove 99% of inlet hydrogen sulfide when completed. A gas monitoring system will track hydrogen sulfide levels at the inlet and outlet. This technology will help mitigate odors and reduce impacts on the Bells Lane community. At project completion and after all components are in service and acclimated, performance testing will be conducted on the odor control device to determine effectiveness and next steps, if needed. This project began in 2021 and is projected to be completed by June 2025 with an estimated expenditure of \$800,000 in FY25 and \$2.84 million for the project's life.

B. Odor Control Management Plan (Derek R. Guthrie)

MSD contracted with AECOM to conduct a study of odors in our treatment centers and collection systems. Phase 2 of the Odor Control Management Plan work focuses on Derek R. Guthrie in the southern part of our service territory. Consistent with the prior plan developed for the MFWQTC, AECOM will evaluate current performance, identify potential odor sources, evaluate existing odor control systems, conduct sampling, and develop recommendations for treatment technologies. This plan will help identify odor problem areas and suggest solutions, guiding our approach to odor control around the Derek Guthrie Water Quality Treatment Center (DRGWQTC). The project is expected to be complete by December 31, 2024 with an estimated expenditure of \$200,000. Once finalized, MSD will review AECOM's recommendations, develop a response, and prioritize actions within budget constraints. MSD will reevaluate the need for identified actions as system improvements occur.

C. Hydrogen Sulfide (H₂S) Removal – Digester (Morris Forman)

The MFWQTC has four anaerobic digesters which use naturally occurring microorganisms in the digesters' oxygen free environment to break down organic matter. As the organic matter breaks down, digester gas is produced. Recent sampling found high hydrogen sulfide (H₂S) levels present in the digester gas. To comply with the Federally Enforceable District Origin Operation Permit (FEDOOP), MSD will install a Hydrogen Sulfide Removal System that reduces the hydrogen sulfide concentrations in the digester gas prior to end use. This hydrogen sulfide adsorption system will utilize three (3) or four (4) vessels containing media. As the digester gas passes through the approximately 50,000 pounds of media in each vessel, the hydrogen sulfide in the digester gas reacts with the media. The goal of this project would be to reduce hydrogen sulfide concentrations in the digester gas which will allow use of digester gas to supplement fuel for dryers and reduce the amount of gas flared. The project is expected to be complete by June 30, 2026, with an estimated expenditure of \$8 million.

D. Dissolved Air Flotation Thickener (DAFT) Rehabilitation (Morris Forman)

The Dissolved Air Flotation Thickener (DAFT) system and its Main Equipment Building (MEB) exhaust at the MFWQTC have been identified as odor sources. MSD will perform a rehabilitation of the DAFT and MEB exhaust. This project will evaluate and determine the best odor mitigation technologies for this area. Improving odors in this process will enhance overall air quality at the MFWQTC. Once the odor device is in service, performance testing will confirm if it meets design specifications. MSD will monitor for odors once the project is complete to determine effectiveness and next steps, if needed. The total spend through FY24 is \$950,000. The projected expenditure in FY25 & FY26 is \$18.1 million. The project will continue through the end of December 2026 (FY27) and will have expenses in the Medium-Term Action Plan. Total estimated expenditures for the life of the project are \$20 million.

II. Collection System

The collection system routes wastewater from homes, businesses, and industries to Water Quality Treatment Centers (WQTCs). MSD operates both combined and separate sewer systems. This Short-Term Action Plan focuses activities on the combined systems. Table C-1 lists the projects to be

completed in this Action Plan within the collection system with estimated expenditures and projected start and end dates.

Projects	FY25 – FY26 Estimated Expenditures	Projected Start Date	Projected End Date
E. Western Outfall Sewer Shed Studies	\$200,000	7/1/2024	6/30/2025
F. Ohio River Force Main Technology Study	\$50,000	7/1/2025	6/30/2026
G. Grand Avenue Pump Station Chemical Use Study	\$50,000	1/1/2025	6/30/2026

Table C-1

E. Western Outfall Sewer Shed Studies

The Western Outfall, a gravity sewer starting in the southwestern central business district, runs west along Broadway toward the Ohio River and then runs south to the MFWQTC. MSD has experienced high odor complaints along this system. AECOM documented in the Odor Control Master Plan that this system tends to run at positive pressure, which causes an increase in the release of odorous air. MSD will conduct a study to determine if changing the pressure in the system to negative will minimize the escape of odorous air. MSD will install a temporary unit along the gravity sewer line to create negative pressure conditions. In addition to the pressure study, MSD will develop a wastewater odor model using the WATS (Wastewater Aerobic / Anaerobic Transformations in Sewers) sewer process model. WATS simulates changes in conditions (i.e., aerobic, anoxic, and anaerobic) within the sewer system to determine the impact on odors. The WATS model will be used to run what-if scenarios to determine the effectiveness of different treatment methods. MSD will review recommendations from both the negative pressure pilot study and the WATS model to identify next steps. Further actions for system improvements will be prioritized within budget constraints. The Western Outfall studies outlined above are projected to be completed in FY25 with an expenditure of \$200,000.

F. Ohio River Force Main Technology Study

The Ohio River Force Main runs between the Ohio River and I-71 beginning near US 42 and I-265 and discharges to the Ohio River Interceptor (ORI) in downtown Louisville at Hancock and Main. After discharging into the ORI, wastewater flow is conveyed west towards the MFWQTC for treatment. Previously, MSD utilized the WATS modeling to identify treatment method(s) and location(s) for the Ohio River Force Main. From the result, MSD installed an oxygen injection facility at the Barbour Lane Pump Station and currently feeds Bioxide (calcium nitrate) at Mockingbird Valley to treat part of the force main. MSD will update the WATS model and collaborate with consultant(s) to evaluate the effectiveness of the current treatment practices and explore additional options for increased results further down the force main. MSD will review recommendations and determine the next steps. Further actions identified for system improvements will be prioritized within budget constraints. The Ohio River Force Main Technology Study is projected to be completed in FY26 with \$50,000.

G. Grand Avenue Pump Station Chemical Use Study

AECOM recommended a pilot study at the Grand Avenue Pump Station in the Morris Forman Odor Control Master Plan. Currently, Bioxide (calcium nitrate) is used at the Grand Avenue Pump station to minimize sulfides in the Grand Avenue Force Main. Although Bioxide is effective for some part of the sewer system, MSD desires to improve odors further down the force main. The chemical use study will explore alternative chemicals at the Grand Avenue Pump Station and identify options that may be more effective at reducing sulfides and deterring the formation of hydrogen sulfide in the sewer system and provide a larger impact further down the main. MSD will review recommendations and determine the next steps. Further actions identified for system improvements will be prioritized within

budget constraints. The Grand Avenue Pump Station Chemical Use Study is projected to be completed in FY26 with \$50,000.

III. Pump Stations

Pump stations are utilized in gravity sewer systems to lift (pump) wastewater to a higher elevation when the route followed by a gravity sewer would require the sewer to be laid at an insufficient slope or at an impractical depth. Lift stations vary in size and type depending upon the quantity of wastewater to be handled and the height it must be lifted. Some MSD pump stations have been identified as sources of odor. Table C-2 lists the project that will be performed in the short-term at an MSD pump station with estimated expenditure and projected start and end dates.

Projects	FY25 – FY26 Estimated Expenditures	Projected Start Date	Projected End Date
H. Starkey Pump Station - Evaluate options for odor mitigation technology	\$50,000	7/1/2025	6/30/2026

Table C-2

H. Starkey Pump Station - Evaluate options for odor mitigation technology

The Starkey Pump Station (PS) is on the northern end of the Morris Forman service area, east of downtown and currently lacks odor control technology. Starkey PS has a small footprint with a large volume of air being ventilated which can lead to an increase in odors. Unfortunately, there is limited space for a traditional carbon or biological odor control solution at this pump station. MSD will engage with consultant(s) to assess potential options for odor control treatment systems. MSD will review recommendations and determine the next steps. Further actions identified for system improvements will be prioritized within budget constraints. The Starkey Pump Station project to evaluate odor mitigation technology is projected to be completed in FY26 with a \$50,000 expenditure.

IV. Catch Basins

MSD will continue to inspect the catch basins in the combined system with a focus on the target areas identified in Figure 2. MSD will also continue its work to rehabilitate and replace the catch basins listed below in Table CB-1 with estimated expenditures and projected start and end dates.

Projects	FY25-FY26 Replacement #	FY25 – FY26 Estimated Expenditures (millions)	Projected Start Date	Projected End Date
I. Catch Basin Inspections	N/A	\$0.6	Ongoing	N/A
J. Catch Basin Replacements				
1. California Neighborhood *	60	\$1.3	In Progress	6/30/2025
2. Chickasaw Neighborhood*	79	\$1.2	1/1/2025	12/31/2025
3. Shawnee Neighborhood	174	\$3.0	10/1/2024	6/30/2025
4. Taylor Berry Neighborhood	43	\$0.86	12/1/2024	12/31/2025
5. East Market (Nulu)**	19	\$0.40	10/15/2024	12/31/2024

Table CB-1

*Grant funded

**Part of Louisville Metro downtown beautification project.

I. Catch Basin Inspections

MSD is actively inspecting catch basins within the combined system to determine repair needs and identify those for replacement. Repairs are scheduled for completion by MSD field crews while replacement work is bundled into smaller jobs to bid out to contractors. MSD plans to inspect roughly 4,200 catch basins per year. These inspections are the first step to reducing odors from catch basins located at the edge of customer properties.

J. Catch Basin Replacements

Catch basin replacements in fiscal years 2025 and 2026 will be targeted for completion as outlined in Table CB-1. These replacements will include installing trapped catch basins to deter odors from escaping the sewer system.

1. **California Neighborhood**: In the California neighborhood, 925 catch basins were inspected, and 75 were identified for replacement. In FY24, 15 catch basins were replaced, and the remaining 60 will be replaced in FY25 with an estimated expenditure of \$1.3 million.
2. **Chickasaw**: In the Chickasaw neighborhood, 746 catch basins were inspected, and 79 were identified for replacement in FY25 and FY26, with an estimated expenditure of \$1.2 million.

The replacements in the California and Chickasaw neighborhoods are grant-funded, which could impact their timing.

3. **Shawnee**: In the Shawnee neighborhood, 1,142 catch basins were inspected, and 174 were identified for replacement in FY25, with an estimated expenditure of \$3.0 million.
4. **Taylor Berry**: In the Taylor Berry neighborhood, 817 catch basins were inspected, and 43 were identified for replacement in FY25 and FY26, with an estimated expenditure of \$860,000.
5. **East Market (Nulu)**: Louisville Downtown Development initiated a beautification project in the Nulu area of East Market. To align with this effort and to minimize multiple traffic disruptions for construction work, 19 catch basins in this area will be replaced as part of this project in FY25, with an estimated expenditure of \$400,000.

MSD expects to see a decrease in customer odor complaints specific to these catch basins that will now be trapped. However, trapped catch basins that are dry can still release odors. Therefore, MSD will periodically inspect the catch basins and add water as needed to contain odors.

V. Summary

While sewer odors will never be completely eliminated, MSD is committed to reducing their impact on the community. Odor mitigation has been made a priority, with significant funding allocated for the next few years. This Short-Term Action Plan estimates spending over \$71 million on consent decree projects (Table S-1) and nearly \$35 million on projects not related to the consent decree (Table S-2) that support odor mitigation over the next two fiscal years. Several projects listed in this Action Plan span multiple years, and the estimated expenditures in Tables S-1 and S-2 are totals for fiscal years 2025 and 2026 only.

**Summary of Estimated Expenditures
FY25 – FY26**

Category	Short-Term Action Plan Projects <u>Consent Decree Related</u>		FY25 - FY26 Estimate Expenditures (millions)
Treatment	1	New Biosolids Facility (Morris Forman)	\$60.00
	2	Sedimentation Basin Rehabilitation (Morris Forman)	\$11.50
TOTAL			\$71.50

Table S-1

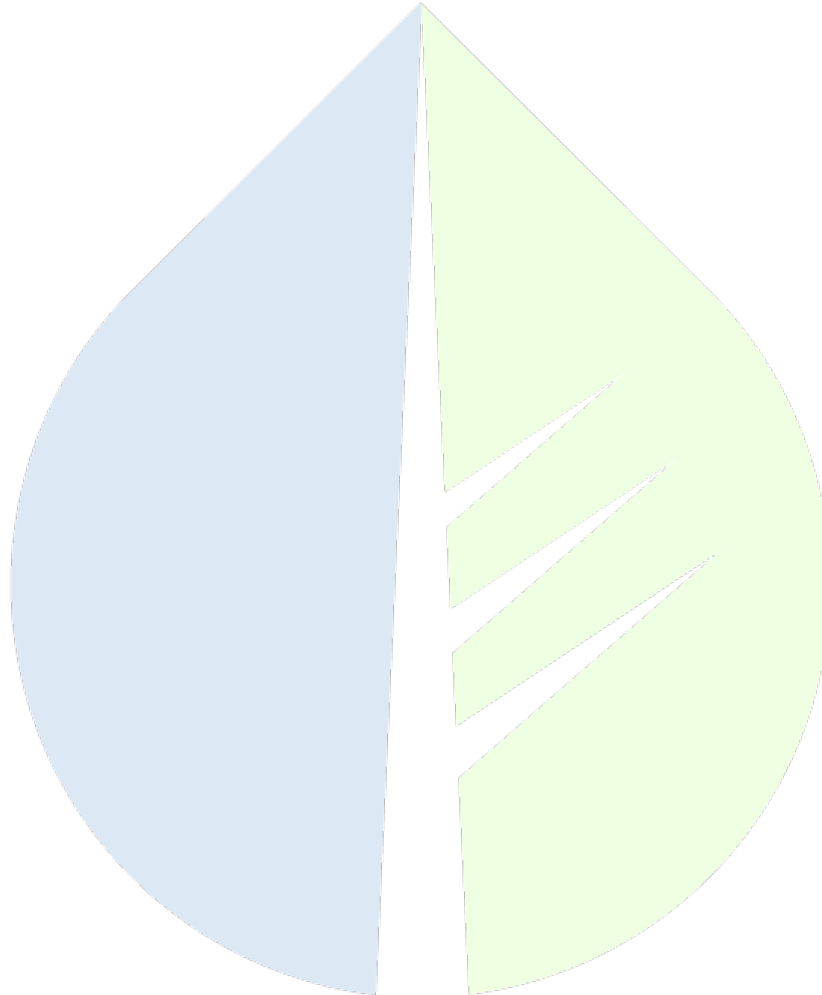
Category	Short-Term Action Plan Projects		FY25 - FY26 Estimated Expenditures (millions)
Treatment	A	Southwest Pump Station Gas Monitoring and Odor Control	\$0.80
	B	Odor Management Plan (Derek R. Guthrie)	\$0.20
	C	Hydrogen Sulfide (H ₂ S) Removal- Digester Gas (Morris Forman)	\$8.00
	D	Dissolved Air Flotation Thickener (DAFT) Rehabilitation (Morris Forman)	\$18.10
Collection System	E	Western Outfall Sewer Shed Studies	\$0.20
	F	Ohio River Force Main Technology Study	\$0.05
	G	Grand Avenue Pump Station Chemical Use Study	\$0.05
Pump Stations	H	Starkey Pump Station - Evaluate options for odor mitigation technology	\$0.05
Catch Basins	I	Catch Basin Inspections	\$0.60
	J	California Neighborhood Catch Basin Replacements	\$1.30
		Chickasaw Neighborhood Catch Basin Replacements	\$1.20
		Shawnee Neighborhood Catch Basin Replacements	\$3.00
		Taylor Berry Neighborhood Catch Basin Replacements	\$0.86
		East Market (Nulu)	\$0.40
TOTAL		\$34.81	

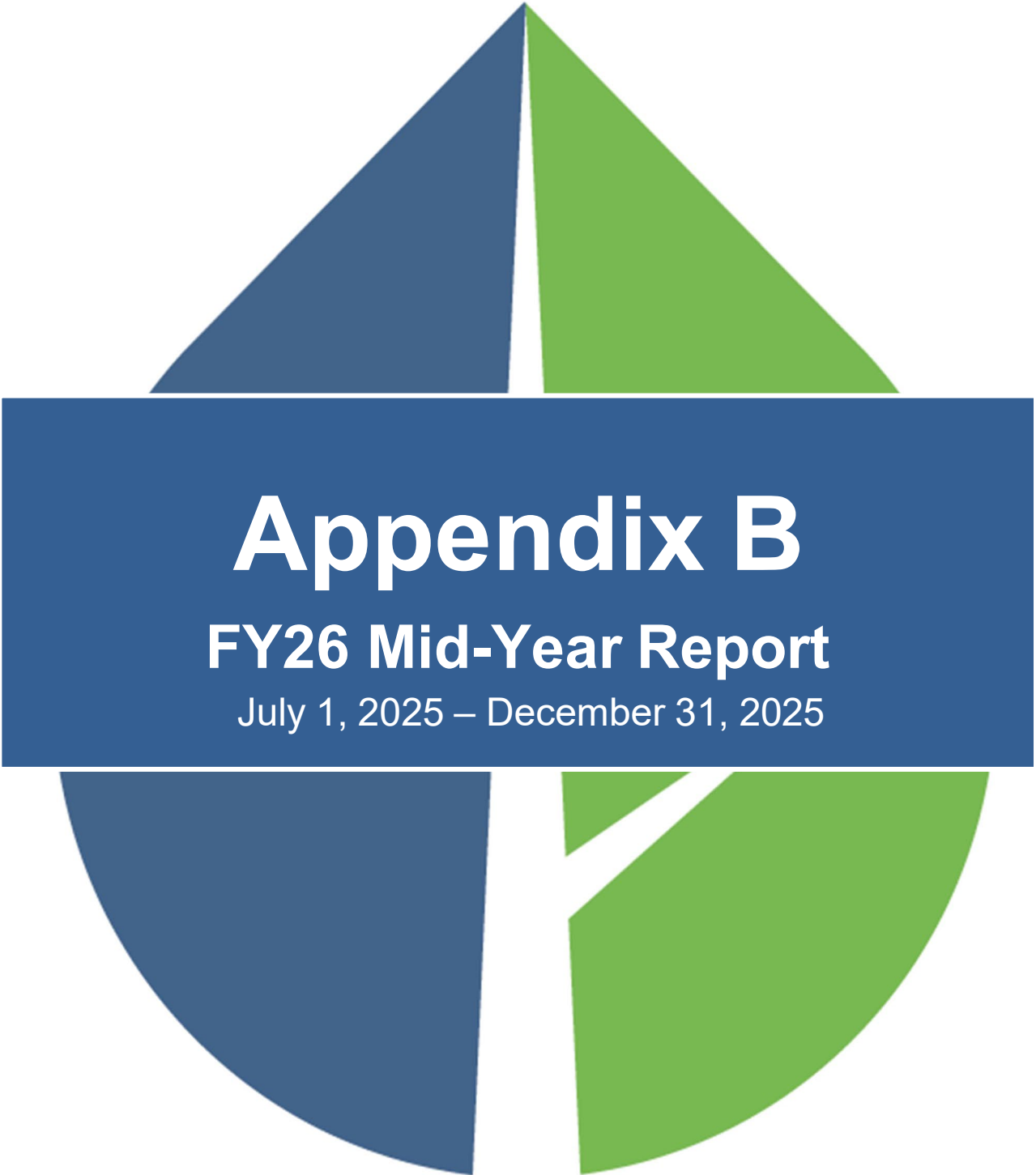
Table S-2

Table S-2

Conclusion

MSD is committed to completing the projects as outlined in this plan. However, significant increases in project costs, contractor availability, material shortages, or other extenuating factors could impact the timing of these projects. MSD will document any variations to this Short-Term Action Plan in its Mid-Year and Annual reports as changes are identified. A Mid-Year Report will be provided by March 31 of each year, covering progress made between July 1st and December 31st of the prior year. An Annual Report will be provided by September 30 for both fiscal years 2025 and 2026. MSD enhanced its customer communications and odor response efforts during the 2024 Odor Season. MSD will continue to actively respond to odor concerns and explore opportunities to expand its community engagement for the upcoming 2025 Odor Season.





Appendix B

FY26 Mid-Year Report

July 1, 2025 – December 31, 2025



FY26 Mid-Year Report

Odor Mitigation

July 1, 2025-December 31, 2025



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Background

Reducing the frequency and intensity of odors is one of MSD's top priorities. MSD acknowledges that when temperatures are high and conditions are dry, odors can increase and become more noticeable. While sewer odors will always exist, MSD is committed to mitigating their impact on the community.

On September 18, 2024, MSD entered into the Second Amended Agreed Board Order No. 21-01 (Agreed Order) with the Louisville Metro Air Pollution Control Board. The Agreed Order outlines requirements for developing Action Plans, updating MSD's dedicated order webpage, hosting community meetings, and providing Mid-Year and Annual Reports.

Pursuant to the Agreed Order, MSD submitted its two-year Short-Term Action Plan on October 14, 2024. This plan outlines odor mitigation activities from July 1, 2024, to June 30, 2026, and was submitted to the Louisville / Jefferson County Mayor, Louisville / Jefferson County Metro Council, MSD Board, Louisville Metro Air Pollution Control Board, and the Louisville Metro Air Pollution Control District. Notice of the proposed Short-Term Action Plan was posted to the odor webpage and made available for public comment. No comments were received. Thirty days after the posting, the Short-Term Action Plan was considered final, and a copy can be found in Appendix A.

Also pursuant to the provisions of the Agreed Board Order, MSD submits this Mid-Year Report covering progress from July 1, 2025 – December 31, 2025.

To strengthen MSD's efforts in addressing community odor concerns, a dedicated team of two full-time employees was assembled to lead odor-mitigation efforts, providing hands-on project management and developing targeted solutions to meaningfully reduce odor reports. This team spearheads MSD's efforts to promote transparency and keep residents informed of ongoing initiatives and progress. Community engagement remains a priority as the team works to foster open dialogue and encourage resident participation in identifying localized issues and shaping solutions. In addition, the team continues to provide periodic reports to city leadership and the public, reinforcing accountability and ensuring stakeholders remain updated on key findings and actions towards mitigation.

Community Engagement

MSD continues to utilize its clAIRity program to inform the community of its progress on odor mitigation efforts and heightened response activities during Odor Season (June-October). These activities are outlined in the Odor Response Standard Operating Procedures (SOP) version 2.0 available on the odor webpage.

Community Meetings

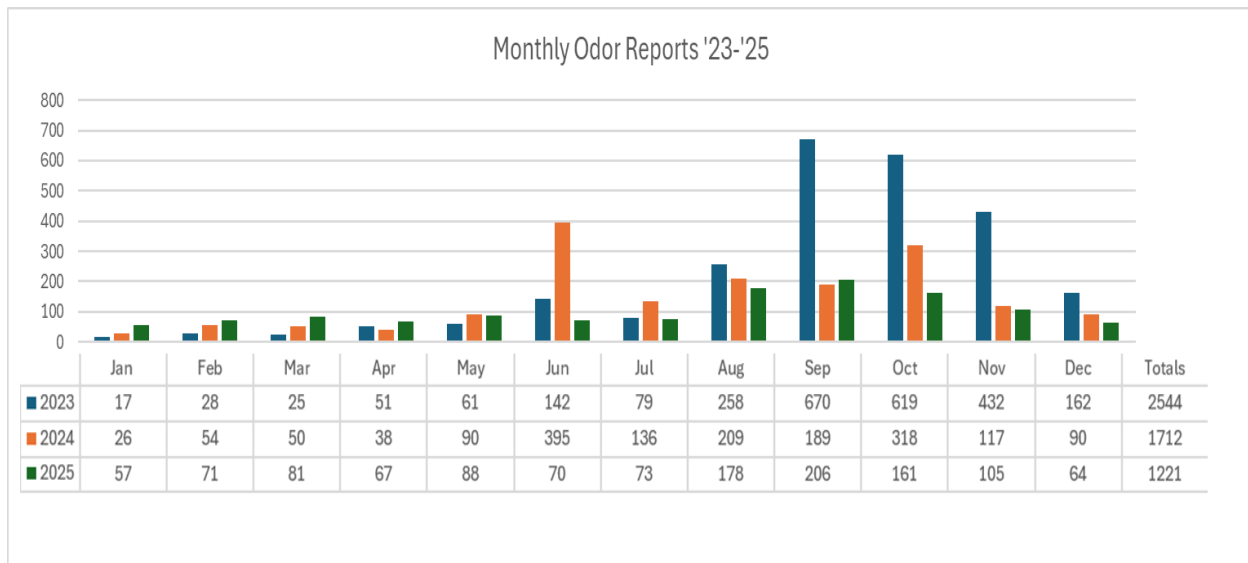
During the 2025 Odor Season, MSD held five in-person clAIRity meetings to update the community on engagement efforts, odor response, and odor mitigation projects. A total of 91 people attended. The table below provides the date, location, address, and number of attendees for each meeting. The meetings were also available for virtual attendance, as participants could attend the meetings via the live stream on MSD's YouTube channel. Recordings of the meetings are posted regularly to MSD's YouTube channel for those unable to attend in real time. In 2025, we had 184 views of the clAIRity meeting content on YouTube.

Date	Location	Address	# Attendees
April 22, 2025	MSD New Office	1600 W. Hill St.	8
June 24, 2025	MSD New Office	1600 W. Hill St.	33
August 28, 2025	MSD New Office	1600 W. Hill St.	6
October 14, 2025	MSD New Office	1600 W. Hill St.	25
October 30, 2025	MSD New Office	1600 W. Hill St.	19

The cIAIRity meetings provide an opportunity for all participants to ask questions and give feedback. Pursuant to the Agreed Order, all questions were answered during the meetings and did not rise to the level of substantive change required for documentation. The cIAIRity meetings will continue in calendar year 2026 but have yet to be scheduled. MSD personnel will also continue to participate upon request in Metro Council district meetings and neighborhood meetings which include local churches. MSD provides written monthly odor updates to the Louisville / Jefferson County Mayor's office and to Metro Council Members

Odor Response

MSD continues to track odor reports received daily and strives to respond within 24 hours. Odor report logs can be found on the odor webpage. MSD saw a significant decrease in odor reports over the past two years, including a **33%** reduction from 2023 to 2024 (from 2,544 reports in 2023 to 1,712 in 2024). This downward trend continued into 2025, with MSD experiencing an additional **29%** reduction compared to 2024. The total odor reports this year (2025) were 1,221 compared to 1,712 last year (2024). Below is a clustered bar chart showing the number of reports received per month each year. MSD has developed a dashboard that will make it easier to search odor reports by date, street name, and Metro Council district. The new dashboard is available on the odor webpage.



In 2025, MSD increased its focus on improving the customer experience related to odors, which included customer call backs, customer letters, on-site meetings, and updates to online reporting functionality. During this reporting period, MSD performed 809 follow-up contacts with customers.

Short-Term Action Plan Project Updates

A comprehensive list of all projects in the Short-Term Action Plan is provided in the conclusion. The updates included in this report focus on projects that were in progress or projected to start during the reporting period. These projects are listed below. For each project, the scope, mid-year update, and projection for the next 6 months are provided and organized by category. The identifiers listed correspond to those established in the Short-Term Action Plan.

Category	Identifier	Project
Treatment	1	New Biosolids Facility (Morris Forman)
Treatment	2	Sedimentation Basin Rehabilitation (Morris Forman)
Treatment	A	Southwest Pump Station Gas Monitoring and Odor Control
Treatment	B	Odor Management Plan (Derek R. Guthrie)
Treatment	C	Hydrogen Sulfide (H ₂ S) Removal – Digester Gas (Morris Forman)
Treatment	D	Dissolved Air Flotation Thickener (DAFT) Rehabilitation (Morris Forman)
Collection System	E	Western Outfall Sewer Shed Studies
Catch Basins	I	Catch Basins Inspections
Catch Basins	J1	California Neighborhood
Catch Basins	J3	Shawnee Neighborhood
Catch Basins	J4	Taylor Berry Neighborhood
Catch Basins	J5	East Market (Nulu)

Treatment

1. New Biosolids Handling Facility / Thermal Hydrolysis Pretreatment (THP)

Scope

MSD will continue developing its new biosolids processing facility using the Thermal Hydrolysis Process (THP) at the Morris Forman Water Quality Treatment Center (MFWQTC). The project team finalized the THP system design and sidestream parameters with the engineer of record in FY25. This is a multi-year project that aims to improve solids handling and reduce odor emissions at the plant and surrounding areas. The final project will include an ammonia scrubber placed upstream of the existing odor control device and a carbon adsorber placed downstream. At project completion and after all components are in service and acclimated, performance testing will be conducted on the odor control device to determine effectiveness and next steps, if needed.

Mid-Year Update

During the period of July 1, 2025, through December 31, 2025, MSD's contractors have been actively working on all processes within the solids treatment side of the Morris Forman Water Quality Treatment Center. The new screening building has been constructed with four (4) new screens installed and associated interior mechanical work underway. MSD's contractor received delivery of the Thermal Hydrolysis Processing (THP) units; THP # 1 & THP #2, from Cambi's United Kingdom factory along with the Dimpleflo heat exchangers (HEX Unit # 1 & HEX Unit # 2). The foundations, walls, and roofs of the new electrical and boiler buildings have been constructed. Construction of the sidestream treatment facility continues with multiple concrete

pours for the foundation, floor slab, and walls. Two (2) new cake storage silos have been constructed. Work continues in the Main Equipment Building (MEB) on multiple floors for the installation of new centrifuges, new process water pumps, and rehabilitation of the existing blend wells. Associated work related to piping, electrical/instrumentation conduit and equipment, foul air conduit, painting/coating, and site housekeeping have been occurring as work progresses. During the period covered by this report, MSD spent \$42.5 million.

Projection for the Next 6 Months

From January 1 through June 30, 2026, MSD's contractors will finish installing previously placed equipment, continue installing process piping and electrical/instrumentation systems, test and start up the new centrifuges, continue rehabilitation of Digesters 3 and 4, and install the new boilers.

During the next six months, work will continue on the THP project and the digesters.

2. Sedimentation Basin Rehabilitation

Scope

MSD will continue its consent decree work with the U.S. EPA and the Kentucky Energy and Environment Cabinet for the primary sedimentation rehabilitation at the MFWQTC. This project includes rehabilitating and replacing the primary sedimentation basins and covering key assets. This project will contain odorous air and send it to the existing Biological Odor Control (BOC) system for treatment. This project started in FY20 and is expected to be completed in FY26. At project completion and after all components are in service and acclimated, performance testing will be conducted on the BOC to determine effectiveness and next steps, if needed.

Mid-Year Update

Between July 1 and December 31, 2025, MSD advanced the Primary Sedimentation Basin Rehabilitation project. Major construction milestones were achieved, enabling MSD to restore flow to Basins 1 and 2 following a successful demonstration period. During this reporting period, the project reached several key milestones. Rehabilitation of Basins 1 and 2 was completed, including installation of new traveling bridges with undercarriage systems, screw augers in the sludge hoppers, replacement of influent gates and actuators, and associated electrical and instrumentation upgrades. The North Pump Station upgrades were also finalized, encompassing new air-driven diaphragm pumps, a dewatering pump, and a scum pump; installation of a new HVAC system; improvements to piping and valves for primary sludge transfer to the digesters; and completion of the concrete deck replacement along with related electrical and instrumentation work. Work advanced on the odor control system with continued installation of structural supports, ductwork, fans, and piping. Additional enhancements included the upstream maintenance channel gate installation and improvements to the effluent channel serving Basins 1 and 2. During the period covered by this report, MSD spent \$1.38 million.

Projection for the Next 6 Months

From January 1 to June 30, 2026, the contractor will work toward substantial and final project completion. To reach substantial completion, they must start up and successfully demonstrate the odor control equipment and install valves in the primary effluent channel. Final completion will require finishing roadway paving, replacement of the environmental systems, and extending the IT network.

A. Southwest Pump Station Gas Monitoring and Odor Control

Scope

MSD is finalizing a new odor control system at the Southwest Pump Station (SWPS). This system uses a biotrickling filter to treat odorous air, replacing the old carbon adsorption system. In addition to the areas treated

by the previous system, the new system includes odorous air from Splitter Structure No. 1 (SP1) and the Dumpster Room. It is designed to remove 99% of inlet hydrogen sulfide when completed. A gas monitoring system will track hydrogen sulfide levels at the inlet and outlet. This technology will help mitigate odors and reduce impacts on the Bells Lane community. At project completion and after all components are in service and acclimated, performance testing will be conducted on the odor control device to determine effectiveness and next steps, if needed.

Mid-Year Update

The installing contractor worked with the equipment manufacturer in making adjustments to improve the performance of the biotrickling filter/bioscrubber. These included fine-tuning the nutrient feed, freshwater cycle frequency and duration, and the recirculation frequency and duration. The odor control unit was turned over to MSD in October 2025. During the period covered by this report, MSD spent \$35,000. A copy of the Project Certification Letter can be found in Appendix G.

B. Odor Control Management Plan (Derek R. Guthrie)

Scope

MSD contracted with AECOM to conduct a study of odors in our treatment centers and collection systems. Phase 2 of the Odor Control Management Plan work focuses on Derek R. Guthrie in the southern part of our service territory. Consistent with the prior plan developed for the MFWQTC, AECOM will evaluate current performance, identify potential odor sources, evaluate existing odor control systems, conduct sampling, and develop recommendations for treatment technologies. This plan will help identify odor problem areas and suggest solutions, guiding our approach to odor control around the Derek Guthrie Water Quality Treatment Center (DRGWQTC). Once finalized, MSD will review AECOM's recommendations, develop a response, and prioritize actions within budget constraints. MSD will reevaluate the need for identified actions as system improvements occur.

Mid-Year Update

This project was completed in FY25. Please refer to the FY25 Annual Report for more information on final status.

C. Hydrogen Sulfide (H₂S) Removal – Digester Gas (Morris Forman)

Scope

The MFWQTC has four anaerobic digesters which use naturally occurring microorganisms in the digesters' oxygen free environment to break down organic matter. As organic matter breaks down, digester gas is produced. Recent sampling found high hydrogen sulfide (H₂S) levels present in the digester gas. To comply with the Federally Enforceable District Origin Operation Permit (FEDOOP), MSD will install a Hydrogen Sulfide Removal System that reduces the hydrogen sulfide concentrations in the digester gas prior to end use. This hydrogen sulfide adsorption system will utilize three (3) or four (4) vessels containing media. As the digester gas passes through approximately 50,000 pounds of media in each vessel, the hydrogen sulfide in the digester gas reacts with the media. The goal of this project would be to reduce hydrogen sulfide concentrations in the digester gas, which will allow use of digester gas to supplement fuel for dryers and reduce the amount of gas flared.

Between July 1, 2025, and December 2025, MSD spent this period removing coating from the digester floor and walls. Once coating was removed, work was completed to prepare the concrete surface for application of the new coating system. The new digester electrical building was installed on top of the digester complex. During the period covered by this report, MSD spent \$3.3 million.

Projection for the Next 6 Months

Between January 1, 2026, and June 30, 2026, MSD will work on installation of a concrete coating system and prepare Digester #3 for startup. Then work will shift to rehabilitation of Digester #4.

D. Dissolved Air Flotation Thickener (DAFT) Rehabilitation (Morris Forman)

Scope

The Dissolved Air Flotation Thickener (DAFT) system and its Main Equipment Building (MEB) exhaust at the MFWQTC have been identified as odor sources. MSD will perform a rehabilitation of the DAFT and its MEB exhaust. This project will evaluate and determine the best odor mitigation technologies for this area. Improving odors in this process will enhance overall air quality at the MFWQTC. Once the odor device is in service, performance testing will confirm if it meets design specifications. MSD will monitor odors once the project is complete to determine effectiveness and next steps, if needed. During the period covered by this report, MSD spent \$3.6 million.

Mid-Year Report

During the period of July 1 through Dec 31, 2025, the project was bid and awarded on July 28th with Notice to Proceed (NTP) issued Aug 21st. The contractor has begun the demolition of the decommissioned Oxygen Generation Area (OGA) yard. This area will be the location for the new odor control equipment that will be servicing the DAFT area within the MEB Building. The contractor is also in the process of replacing the supply air ductwork within the DAFT room. The contractor is continuing to provide submittals of project equipment that are under review by the project team, including the DAFT Equipment, Polymer Tanks and Pumps, and the new Main Control Center (MCC). During the period covered by this report, MSD spent \$3.6 million.

Projection for the Next 6 Months

During the period of January 1 through June 30, 2026, the contractor will be working towards finishing the demolition of the OGA courtyard, provide submittals for the odor control equipment, and continue the rehab of DAFT process equipment starting with DAFT Tanks #7, 8.

Collection System

E. Western Outfall Sewer Shed Studies

Scope

The Western Outfall, a gravity sewer starting in the southwestern central business district, runs west along Broadway toward the Ohio River and then runs south to the MFWQTC. MSD has experienced high odor complaints along this system. AECOM documented in the Odor Control Master Plan that this system tends to run at positive pressure, which causes an increase in the release of odorous air. MSD will conduct a study to determine if changing the pressure in the system to negative will minimize the escape of odorous air. MSD will install a temporary unit along the gravity sewer line to create negative pressure conditions. In addition to the pressure study, MSD will develop a wastewater odor model using the WATS (Wastewater Aerobic / Anaerobic Transformations in Sewers) sewer process model. WATS simulates changes in conditions (i.e., aerobic, anoxic,

and anaerobic) within the sewer system to determine the impact on odors. The WATS model will be used to run what-if scenarios to determine the effectiveness of different treatment methods. MSD will review recommendations from both the negative pressure pilot study and the WATS model to identify next steps. Further actions for system improvements will be prioritized within budget constraints.

Mid-Year Report

This project was completed in FY25. Please refer to the FY25 Annual Report for more information on final status.

Projection for the Next 6 Months

During the next 6 months, MSD will utilize information from the pressure tests and WATS modeling to explore treatment options. Small pilots may be used to further assess their effectiveness.

Catch Basins

I. Catch Basin Inspections

Scope

MSD is actively inspecting catch basins within the combined system to determine repair needs and identify those for replacement. Repairs are scheduled for completion by MSD field crews while replacement work is bundled into smaller jobs to bid out to contractors. These inspections are the first step to reducing odors from catch basins located at the edge of customer properties.

Mid-Year Update

Before 2025, MSD inspected 7,984 catch basins and identified 1,777 that needed replacement. In 2025, another 4,790 basins were inspected, with 775 more marked for replacement. MSD focused on inspections in the neighborhoods most affected. A total of \$245,649 was spent on inspections during this reporting period. Altogether, 12,774 catch basins have been inspected so far, and 2,552 have been identified for replacement. The table below shows details of each neighborhood.

CATCH BASIN INSPECTIONS COMPLETED			
Neighborhood	# Inspected	Inspection Status	# Identified for Replacement
Prior to July 1, 2024			
Park DuValle	319	Completed	20
California	925	Completed	72
Chickasaw	745	Completed	69
Shawnee	1,142	Completed	176
Taylor Berry	817	Completed	14
Russell	1,332	Completed	641
TOTALS:	5,280		992
July 1, 2024 - December 31, 2024			
Old Louisville	1,176	Completed	271
Limerick	246	Completed	108

Park Hill	564	Completed	177
Parkland	434	Completed	158
East Market/Nulu	284	Completed	71
TOTALS:	2,704		785
January 1, 2025 - December 31, 2025			
Cherokee Triangle	319	Completed	85
Portland	1,364	Completed	366
Central Business District	1,516	Completed	282
Wyandotte	457	Completed	33
W Main Street	142	Completed	9
Algonquin	168	In Progress	TBD
Beechmont	768	In Progress	TBD
Phoenix Hill	56	In Progress	TBD
TOTALS:	4,790		775
GRAND TOTALS:	12,774		2,552

The number of catch basins initially identified for replacement may change due to a more extensive review of the inspection results.

Projection for the Next 6 Months

Catch basin replacements will be the focus for the remainder of 2026. The primary replacement area will be in the Chickasaw neighborhood. There are 69 replacements planned for this area.

J. Catch Basin Replacements

Scope

Catch basin replacements in fiscal years 2025 and 2026 will be targeted for completion in identified neighborhoods. These replacements will include installing trapped catch basins to deter odors from escaping the sewer system.

1. California Neighborhood: This project is complete. Please refer to the FY25 Annual Report for more information on final status
2. Shawnee: All catch basins identified for replacement have been completed, with an expenditure of \$3.1 million. A copy of the Project Certification Letter can be found in Appendix E.
3. Taylor Berry: In the Taylor Berry neighborhood, 817 catch basins were inspected, and 14 were replaced in FY26, with an expenditure of \$190,000. A copy of the Project Certification Letter can be found in Appendix F.
4. East Market (Nulu): The Nulu Catch Basin Project replaced 19 catch basins as part of the larger Nulu Beautification Project. The work was timed to finish before Metro's paving and streetscape upgrades, and all construction is now complete, minimizing disruption for residents and businesses.

In contrast, the East Market Catch Basin Project will replace 52 catch basins in the East Market area. This project has not started yet but remains a priority for reducing odors and will proceed separately from the Nulu work. The cost for these efforts was \$350,000.

MSD expects to see a decrease in customer odor reports specific to these catch basins that will now be trapped. However, trapped catch basins that are dry can still release odors. Therefore, MSD will periodically inspect the catch basins and add water as needed to contain odors.

Mid-Year Update

The total number of catch basins replaced to date as part of our odor-reduction efforts is shown in the table below.

Neighborhood	# Identified for Replacement	# Replaced	% Complete	Expenditure
Park DuValle	20	20	100%	\$0.27M
California	72	72	100%	\$1.58M
Shawnee	176	178	100%	\$3.11M
Taylor Berry	14	14	100%	\$0.18M
Nulu	19	19	100%	\$0.35M
W Main Street	9	9	100%	\$0.14M
Park Hill	177	22	12%	\$0.30M
Totals:	487	334	69%	\$5.93M

Additional Project

- **Park Hill:** In the Park Hill neighborhood, 22 of the 177 catch basins identified for replacement have been completed, with a total expenditure of approximately \$300,000. The remaining work will continue in future years as the budget allows.
- **West Main:** In the West Main Street neighborhood, 142 catch basins were inspected, and 9 were replaced in FY26, with an expenditure of \$140,000. The remaining work will continue in future years as the budget allows.

Conclusion

MSD's work over the first half of FY26 demonstrates continued, measurable progress toward reducing odors, improving customer experience, and delivering on the commitments outlined in the Second Amended Agreed Board Order No. 2101. Through the coordinated efforts of the Odor Mitigation Team, now serving as the central hub through which all odor related work is managed, MSD has strengthened internal alignment, improved responsiveness, and enhanced transparency for customers, city leadership, and regulatory partners.

Community engagement continues to play a pivotal role. The cIAIRity program, district meetings, and participation in neighborhood-based events have provided consistent avenues for residents to learn about ongoing projects, ask questions, and share localized concerns that shape MSD's mitigation strategy. Early indicators, including a **56% reduction in odor reports from 2023 to 2025**, show that these combined efforts are yielding meaningful improvements.

This Mid-Year Report highlights major project advancements across treatment facilities, the collection system, and catch basin programs. Significant milestones including construction progress at the Morris Forman Water Quality Treatment Center, improvements at the Southwest Pump Station, continued execution of the Odor Control Management Plan recommendations, and substantial completion of catch basin replacements in several impacted neighborhoods which reflects MSD's sustained investment in long term odor control solutions. The development of enhanced data tools, such as the odor report dashboard, further strengthens MSD's ability to monitor issues, respond quickly, and support data-driven decision making.

While the projects summarized in this report capture work initiated or actively underway, MSD remains focused on advancing the full portfolio of actions within the Short-Term Action Plan. Over the next six months, MSD will continue construction on major treatment projects, progress on negative pressure and modeling assessments in the Western Outfall, expand catch basin replacements into additional neighborhoods, and maintain robust community communication throughout the 2026 Odor Season.

MSD's commitment to reducing the impact of odors is long term and unwavering. With projects advancing on schedule, strong coordination across teams, and continued engagement with our community and regulatory partners, MSD is well positioned to fulfill the requirements of the Agreed Board Order and deliver measurable improvements in air quality across the service area. The next update will be provided through the FY26 Annual Report by September 30, 2026, summarizing the full year of progress and outlining next steps for the years ahead.

Short-Term Action Plan							
Category	Identifier	Project	FY25-FY26 Budget (millions)	FY26 Mid-Year Expenditures (Millions)	% Complete	Projected Completion Date	Status
Treatment	1	New Biosolids Facility (Morris Forman)- Consent Decree Project	\$60.00	\$42.5	62%	30-Sep-28	Under Construction
Treatment	2	Sedimentation Basin Rehabilitation (Morris Forman)- Consent Decree Project	\$11.50	\$1.38	92%	30-Jun-26	Under Construction
Treatment	A	Southwest Pump Station Gas Monitoring and Odor Control	\$0.80	N/A	100%	30-Jun-25	Complete
Treatment	B	Odor Management Plan (Derek R Guthrie)	\$0.20	N/A	100%	31-Dec-24	Complete
Treatment	C	Hydrogen Sulfide (H ₂ S) Removal-Digester Gas (Morris Forman)	\$8.00	\$3.3	57%	31-Jul-26	Under Construction
Treatment	D	Dissolved Air Flotation Thickener (DAFT) Rehabilitation (Morris Forman)	\$16.10	\$3.6	17%	30-Apr-27	Under Construction
Collections System	E	Western Outfall Sewer Shed Studies	\$0.43	N/A	100%	30-Jun-25	Complete
Collections System	F	Ohio River Force Main Technology Study	\$0.05	\$0.02	40%	30-Jun-26	study/tests in progress
Collections System	G	Grand Avenue Pump Station Chemica Use Study	\$0.05	\$0.02	40%	30-Jun-26	study/tests in progress
Pump Station	H	Starkey Pump Station-Evaluate options for odor mitigation technology	\$0.05	\$0.033	66%	30-Jun-26	study/tests in progress
Catch Basins	I	Catch Basin Inspections	\$0.246	\$0.246	N/A	N/A	This work will precede Catch Basin Replacement
Catch Basins	J1	California Neighborhood Catch Basin Replacements	\$1.30	N/A	100%	30-Jun-25	Complete
Catch Basins	J2	Chickasaw Neighborhood* Catch Basin Replacements	\$1.20	\$0.000	0%	31-Dec-26	Projected start February 2026

Catch Basins	J3	Shawnee Neighborhood Catch Basin Replacements	\$3.00	\$3.11	100%	31-Dec-25	Complete
Catch Basins	J4	Taylor Berry Neighborhood Catch Basin Replacements	\$0.19	\$0.175	100%	31-Dec-25	Complete
Catch Basins	J5	NULU Catch Basin Replacements	\$0.40	N/A	100%	1-Mar-25	Complete

*Chickasaw Catch Basin Replacements - Construction for 35 of the 69 total catch basins is projected to start February 1, 2026. The remaining 44 catch basins are grant-funded and may take longer to begin.



Appendix C

Monthly clAIRity Reports



MSD's cIAIRity Update – July 15, 2025

MSD's cIAIRity Program is our ongoing work to mitigate the natural odor related to organic materials that decompose as a part of wastewater treatment and management. This monthly brief provides updates on the status of various projects under the cIAIRity initiative over the past month.

Odor Mitigation Projects Continue in Several Neighborhoods

MSD is taking targeted action in neighborhoods where odor concerns are most frequent, combining engineering analysis and infrastructure upgrades to address the issue at its source.

We're currently exploring opportunities for odor mitigation along the Western Outfall, a large sewer line which runs underneath Broadway from downtown to Shawnee Park. MSD contracted Webster Environmental Associates (WEA) to conduct pressure tests at key points along the line to evaluate the potential for long-term odor control. Using a fan system to draw air from the sewer system, WEA monitored pressure changes to help assess whether this method could help reduce odor in the future.

MSD also is continuing the systematic investments to replace outdated and "untrapped" catch basins. In the California neighborhood, the final phase of a \$1.3 million project to replace 75 catch basins is now complete. This is part of a larger \$6.4 million effort to replace 400 catch basins across additional neighborhoods including Shawnee, Taylor Berry and West Main Street by December 2025. Another 1,000 catch basins have been identified for future replacement in Old Louisville, Limerick, Park Hill and Parkland.

Stay Engaged with MSD

MSD hosted its second cIAIRity community meeting of the year on Tuesday, June 24, continuing open dialogue around odor concerns and air quality. These meetings offer a space to share your experience, ask questions and hear directly from MSD experts about the steps we're taking to address odors in your neighborhood. There are still three opportunities to join the conversation, virtually or in person, at MSD's new office (1600 W. Hill Street in the Park Hill neighborhood):

- Thursday, August 28 | 6–7 p.m.
- Tuesday, October 14 | 6–7 p.m.
- Thursday, October 30 | 6–7 p.m.

MSD is available to join existing meetings hosted by faith-based organizations, nonprofits and neighborhood groups across the community. To schedule a conversation at your next group meeting, contact us at CustomerRelations@LouisvilleMSD.org.

To learn more or report an odor, visit LouisvilleMSD.org/odor or call 502.540.6000.

June Weather and Odor Reports

In June our community received 3.1 inches of total precipitation, up 74 percent from last June's 1.78 inches. MSD responded to 70 service requests related to odor throughout June, down from 85 in May. The requests came from 19 ZIP codes, and each resulted in an MSD crew investigating and responding as appropriate. For the majority of service calls, MSD crews on-site cleaned, deodorized and flushed with water the nearby sewer mains, catch basins or manholes where necessary.

About MSD

The Louisville/Jefferson County Metropolitan Sewer District (MSD) works to achieve and maintain clean, environmentally safe waterways for a healthy and vibrant community. The organization's nearly 800 employees provide wastewater management, drainage and flood protection services across the 376 square miles of Louisville Metro and wastewater service in portions of Bullitt and Oldham Counties. In addition to operating and maintaining Louisville Metro's sewer system, floodwall system, water quality treatment centers and flood pumping stations, MSD invests in hundreds of infrastructure improvement projects each year, plants more than 1,000 trees and other vegetation annually to enhance water filtration and reduce runoff and provides numerous outreach programs to inform and educate the community about protecting our waterways.

MSD's clAIRity Update – August 15, 2025

MSD's clAIRity Program is our ongoing work to mitigate the natural odor related to organic materials that decompose as a part of wastewater treatment and management. This monthly brief provides updates on the status of various projects under the clAIRity initiative over the past month.

MSD Reduces Rate Increase

After hearing from the community during the public comment period, MSD's Board approved a reduced rate increase for fiscal year 2026, 3.9 percent instead of the originally proposed 4.9 percent. This change makes the average monthly increase for Jefferson County customers \$3.11, while still funding critical projects to protect public health, safety and local waterways.

Under the approved FY26 budget, MSD will invest more than \$302 million in 181 capital-improvement projects across the service area. Ninety percent of the capital budget supports work required or mandated to meet federal and state environmental standards. Several of these projects will support ongoing odor mitigation efforts, including the major multi-year project to modernize the Morris Forman Water Quality Treatment Center. MSD's long-range capital plans over the next five years include more than \$49 million committed to replacing hundreds of outdated catch basins that are contributors to ambient odor across several Louisville neighborhoods.

The increase will take effect on September 1, 2025. MSD offers several options for income-eligible households who need assistance, including the Drops of Kindness partnership with Louisville Water, Emergency Wastewater Rate Assistance Program and Senior Citizen Discount.

To learn more, view the full budget or explore assistance options, visit LouisvilleMSD.org/PayMyBill.

Join MSD to Discuss Odor Management

MSD is hosting the third of five clAIRity community meetings on Thursday, August 28, continuing open dialogue around odor concerns within the community. These meetings offer a space to share your experience, ask questions and hear directly from MSD experts about the steps we're taking to address odors in your neighborhood. There are three opportunities remaining to join the conversation, virtually or in person, at MSD's new office (1600 W. Hill Street in the Park Hill neighborhood):

- Thursday, August 28 | 6–7 p.m.
- Tuesday, October 14 | 6–7 p.m.
- Thursday, October 30 | 6–7 p.m.

MSD is available to join existing meetings hosted by faith-based organizations, nonprofits and neighborhood groups across the community. To schedule a conversation at your next group meeting, contact us at CustomerRelations@LouisvilleMSD.org.

To learn more or report an odor, visit LouisvilleMSD.org/odor or call 502.540.6000.

July Weather and Odor Reports

In July our community received 5.93 inches of total precipitation, up 30 percent from the 30-year average of 4.56 inches. MSD responded to 73 service requests related to odor throughout July, up from 70 in June. The requests came from 26 ZIP codes, and each resulted in an MSD crew investigating and responding as appropriate. For the majority of service calls, MSD crews on-site cleaned, deodorized and flushed with water the nearby sewer mains, catch basins or manholes where necessary.

About MSD

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MSD's clAIRity Update – September 15, 2025

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Odor Mitigation Projects Continue in Several Neighborhoods

“Untrapped” and outdated catch basins can be a source of odor in the sewer system. To address this, MSD is carrying out an extensive, multi-year program to inspect and replace catch basins across several Louisville neighborhoods. These improvements not only help reduce odor but also strengthen our overall infrastructure.

- West Main Street: Inspections of all 142 catch basins are complete, with 9 identified for replacement. The work to replace all 9 catch basins began in July and concluded in August, at a total cost of \$132,030.
- Park Hill: Inspections of all 564 catch basins are complete, with 177 identified for replacement. Phase 1 is currently underway to replace 23 catch basins.

Stay Connected: clAIRity Community Meeting Schedule

MSD hosted its third clAIRity community meeting of the year on Thursday, August 28, continuing open dialogue around odor concerns and air quality. These meetings offer a space to share your experience, ask questions and hear directly from MSD experts about the steps we're taking to address odors in your neighborhood. There are two opportunities left this year to join the conversation, virtually or in person at MSD's new office (1600 W. Hill Street in the Park Hill neighborhood):

- Tuesday, October 14 | 6–7 p.m.
- Thursday, October 30 | 6–7 p.m.

MSD representatives are also available to attend existing meetings hosted by faith-based organizations, nonprofits or neighborhood groups across the community. If you'd like to schedule a conversation with MSD at your next group meeting, please contact us at CustomerRelations@LouisvilleMSD.org.

For more details or to report an odor, visit LouisvilleMSD.org/odor or call 502.540.6000.

August Weather and Odor Reports

In August our community received 1.45 inches of total precipitation, down 59 percent from the 30-year average of 3.53 inches. The lack of rain skyrocketed odor reports during the month of August, with MSD receiving 178 service requests, up from 73 in July. The requests came from 27 ZIP codes, and each resulted in an MSD crew investigating and responding as appropriate. For the majority of service calls, MSD crews on-site cleaned, deodorized and flushed with water the nearby sewer mains, catch basins or manholes where necessary.

These periods of dry weather can increase sewer odors when the large, 160-year-old combined sewer system and catch basin inlets start to dry up and let odors escape. Throughout Odor Season MSD is continuing to increase the number of crews in areas that are experiencing heightened odors. On top of the construction work to address odors, you will see our team cleaning and deodorizing catch basins, putting water in the system through water trucks and continuing our partnership with Louisville Water to turn on hydrants where it can help the situation.

About MSD

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MSD's clAIRity Update – October 15, 2025

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Projects at MSD Pump Stations Helping Mitigate Odor

MSD's pump stations can be a contributor to ambient odor resulting from the natural decomposition of organic materials. We are systematically assessing these facilities and making improvements where possible to minimize the impact of odor.

At the Southwestern Pump Station, MSD is finalizing the install of a new odor-control system designed to remove 99% of hydrogen sulfide odors. We have performance tested the system and provided training to employees on its operation. This project, which began in 2021, is expected to be completed by October 31, 2025. Meanwhile, work at the Starkey Pump Station began October 1 to evaluate odor sources and test potential mitigation strategies. This study will help MSD identify long-term solutions to reduce odor impacts in nearby neighborhoods.

These facilities are part of a comprehensive flood protection system that also includes floodwalls, floodgates and other infrastructure. This system protects more than 200,000 residents, 87,000 homes and \$24 billion in property. Regular updates ensure these stations continue to safeguard our neighborhoods while also reducing community impacts.

Don't Miss the Last clAIRity Community Meeting of 2025

MSD hosted the second-to-last clAIRity Community Meeting of the year on Tuesday, October 14, continuing open dialogue around odor concerns and air quality. These meetings create space to share your experience, ask questions and hear directly from MSD experts about the steps we're taking to address odors in your neighborhood.

Be sure to join us at the clAIRity Community Meeting on Thursday, October 30, our last scheduled gathering this year, either virtually or in person at MSD's new office (1600 W. Hill Street in the Park Hill neighborhood) from 6 to 7 p.m.

MSD representatives are also available to attend meetings hosted by faith-based organizations, nonprofits, or neighborhood groups across the community. To schedule a conversation with MSD at your next group meeting, please contact us CustomerRelations@LouisvilleMSD.org.

For more details or to report an odor, visit LouisvilleMSD.org/odor or call 502.540.6000.

September Odor Reports

In September our community received 4.17 inches of total precipitation, up 16 percent from the 30-year average of 3.61 inches. MSD responded to 206 service requests related to odor throughout September, up from 178 in August. The requests came from 30 ZIP codes, and each resulted in an MSD crew investigating and responding as appropriate. For the majority of service calls, MSD crews on-site cleaned, deodorized and flushed with water the nearby sewer mains, catch basins or manholes where necessary.

About MSD

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MSD's clAIRity Update – November 14, 2025

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Odor Season Progress You Can Measure

As temperatures cool and we move out of 2025's peak odor season, it's evident that our ongoing investments and proactive response are making a measurable difference.

From January through October 2025, odor reports are down 31% compared to the same period last year. This progress is supported by \$83 million invested to upgrade our combined sewer system and wastewater treatment facilities, along with the replacement of 313 catch basins identified as odor sources by year's end. To help control odors during dry spells, our crews pumped 243,000 gallons of water into the system, while responding to each of the 1,052 odor reports, from all parts of the community, between January and October.

Our work doesn't stop when the temperatures cool, our team monitors and responds to system needs year-round, because odor management is a continuous commitment. Every dollar spent, every catch basin replaced and every call answered reflects our dedication to making life better for the people we serve.

As part of this commitment, MSD hosted five clAIRity community meetings during odor season, providing residents with the opportunity to learn more about our ongoing odor-reduction efforts. These meetings allowed attendees to hear directly from MSD officials, share experiences and learn more about the steps being taken to address odor issues across the community. Feedback from these small-group discussions is important in helping shape our future actions.

In addition to MSD-hosted community meetings, our team continues to welcome the opportunity to engage with church groups, nonprofit organizations and other community stakeholders who would like to learn more about our clAIRity program initiatives. To request a visit, please reach out to CustomerRelations@LouisvilleMSD.org.

For more information or to report an odor, visit LouisvilleMSD.org/odor or call 502.540.6000.

October Odor Reports

A wetter-than-normal October helped to flush our system of underground pipes. The community received 7.13 inches of total precipitation, nearly double the 30-year average of 3.65 inches for October. MSD responded to 161 service requests related to odor throughout the month, down from 206 in September. The requests came from 25 ZIP codes, and each resulted in an MSD crew investigating and responding as appropriate. For the majority of service calls, MSD crews on-site cleaned, deodorized and flushed with water the nearby sewer mains, catch basins or manholes where necessary.

About MSD

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MSD's clAIRity Update – December 15, 2025

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Continuing Modernization of MSD Treatment Facilities

It's been a year of significant progress at the Morris Forman Water Quality Treatment Center – the community's largest, serving more than two-thirds of Louisville households – as our team kept operations running smoothly while moving forward with several major odor-reduction and facility-improvement projects.

Work continued on the long-term Biosolids Processing Solution Project, including the installation of two new Thermal Hydrolysis Process (THP) units in October and November. Crews installed new equipment to make the dewatering process more efficient, and upgraded storage areas, electrical buildings and a fully powered warehouse to enhance day-to-day operations. Beyond the THP project, MSD brought two primary sedimentation basins back online in December after significant rehabilitation work, improving overall treatment performance. Looking ahead to 2026, the focus will shift to bringing the new THP systems into operation, completing remaining basin work and continuing improvements that support safety, reliability and long-term odor reduction.

At the Bells Lane Wet Weather Treatment Plant, this December marked the completion of odor-control upgrades and improvements to electrical systems, while also beginning demolition on the area supply duct work as part of an ongoing improvement project.

Catch Basin Replacement Program Makes Strides in 2025

MSD made significant progress in reducing ambient odors throughout 2025 by replacing untrapped catch basins across several neighborhoods in our community. Over the course of the year, MSD replaced 259 catch basins, including 176 in Shawnee, 18 in California (bringing to 72 the total replacements in that neighborhood), 23 in Park Hill, 14 in Taylor Berry, 9 along West Main Street and 19 in NuLu as part of the Main Street beautification project. In the past two years, MSD has invested more than \$5 million to replace untrapped catch basins, directly improving neighborhood air quality and reducing odor sources. Work will continue into 2026, beginning with 69 additional catch basin replacements in the Chickasaw neighborhood.

November Odor Reports

MSD responded to 105 service requests related to odor throughout the month, down from 120 in October – despite a drier month with 2.03 inches of total precipitation, down 41 percent from the 30-year average. The odor reports came from 22 ZIP codes, and each resulted in an MSD crew investigating and responding as appropriate. For the majority of service calls, MSD crews on-site cleaned, deodorized and flushed with water the nearby sewer mains, catch basins or manholes where necessary.

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MSD's cIAIRity Update – January 15, 2026

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Major Projects Advancing at Morris Forman

Serving more than two-thirds of Louisville, the Morris Forman Water Quality Treatment Center is MSD's largest treatment center and several capital projects are advancing throughout 2026 to continue progress to modernize this vital asset.

A key focus has been upgrading/improving the facility's dryer trains, large systems that dry and process treated solids into safe, reusable material instead of sending it to landfills. One dryer train has entered final testing and is expected to return to full operation soon, while restoration work on the second train continues as key components arrive. Also the facility's Hydrogen Sulfide Removal project advanced with major equipment installations, and the Thermal Hydrolysis Process program reached an important milestone with the delivery of new equipment/parts/components that support increased efficiency and beneficial reuse.

Together, these and other efforts at Morris Forman are enhancing reliability, capacity and long-term performance for MSD's system.

Upcoming Catch Basin Replacements in Chickasaw

Outdated or "untrapped" catch basins can be a source of odor in the sewer system. To address this, MSD is carrying out an extensive, multi-year program to replace catch basins across several Louisville neighborhoods. Beginning in February, MSD will replace 69 catch basins in the Chickasaw neighborhood as part of a \$1.05 million investment to reduce odor, improve system performance and modernize aging infrastructure.

December Odor Reports

MSD responded to 64 service requests related to odor throughout the month, down from 92 in December 2024, marking the third consecutive month (October through December) with fewer odor reports compared to the same time frame in 2024. The December requests came from 20 ZIP codes, and each resulted in an MSD crew investigating and responding as appropriate. For the majority of service calls, MSD crews on-site cleaned, deodorized and flushed with water the nearby sewer mains, catch basins or manholes where necessary.

In 2025, MSD received 1,221 odor-related service requests, an approximately 30 percent decrease from the 1,744 reports received in 2024. This significant reduction in odor reports reflects the ongoing hard work and dedication of MSD crews, who investigated and responded to every odor report to help minimize impacts for the community.

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MSD's clAIRity Update – February 13, 2026

MSD's clAIRity Program is our ongoing work to mitigate the natural odor related to organic materials that decompose as a part of wastewater treatment and management. This monthly brief provides updates on the status of various projects under the clAIRity initiative over the past month.

MSD Preparations During Seasonal Transition

Management of snow melt helps prevent localized flooding, and ensures our underground system of pipes flow properly. Over the past two months Louisville received more than 16 inches of snow and as warmer temperatures begin to melt it, the challenge shifts from accumulation to managing runoff. Our crews have been hard at work clearing snow and ice from catch basins throughout the city so snow melt can flow smoothly into the MSD system. These efforts help reduce localized flooding, limit refreezing around infrastructure, and protect pipes, property and water quality from unnecessary strain.

MSD officials are closely monitoring the river and creek levels as the snow melts, and current forecasts suggest minimal flooding impacts compared to past years. Our flood protection facilities remain staffed and prepared should there be any unexpected rises with the Ohio River.

January Odor Reports

Ongoing efforts to mitigate and reduce odor impacts in the community continue to take hold. MSD responded to 45 service requests related to odor throughout the month, down from 64 in December, marking the fourth consecutive month since October 2025 with fewer odor reports. The January service requests came from 19 ZIP codes, and each resulted in an MSD crew investigating and responding as appropriate. For the majority of service calls, MSD crews on-site cleaned, deodorized and flushed with water the nearby sewer mains, catch basins or manholes where necessary.

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clAIRity Community Meetings Returning in 2026

MSD clAIRity Community Meetings continue to serve as an important forum for open dialogue about odor management and system improvements. The meetings provide a space for residents to share their experiences, voice concerns and learn about MSD's ongoing and planned efforts to reduce odors, including updates on current projects and initiatives.

We're pleased to share that the clAIRity community meetings will return in 2026, continuing our commitment to transparency and open dialogue around odor management efforts. Dates and locations are currently being finalized and will be shared well in advance.

In addition, MSD continues to engage with smaller groups, such as churches, nonprofits and other local organizations, for more personalized discussions. If your group would like to host MSD for a conversation tailored to your group, you can request a visit by emailing CustomerRelations@LouisvilleMSD.org.

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MSD's clAIRity Update – March 13, 2026

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Mark Your Calendar: 2026 Community Meetings Schedule

MSD's clAIRity Community Meetings are returning to foster discussions with the community about odor management projects to ensure community feedback plays a key role in shaping our strategies.

The first meeting in this year's series will take place on Thursday, April 23, where attendees will have the opportunity to ask questions, share their experiences and hear updates on MSD's ongoing and planned efforts to reduce odors. Discussions will cover the factors that contribute to odor, the steps MSD is taking to address them and the multiple efforts underway to reduce their impact.

Mark your calendar for the upcoming meetings:

- Thursday, April 23 | 6-7 p.m.
- Thursday, June 25 | 2-3 p.m.
- Tuesday, August 25 | 6-7 p.m.
- Tuesday, October 13 | 11 a.m.-12 p.m.
- Thursday, October 29 | 6-7 p.m.

All meetings will be held at **MSD's new office, 1600 W. Hill Street, in the Park Hill neighborhood**, and will include a virtual option for those unable to attend in person.

In addition, the MSD team is meeting with church groups, nonprofit organizations and other community stakeholders, to hear directly from those who are experiencing odors. These small-group meetings are an opportunity for community groups to have direct conversations with MSD officials. To request a visit to your community group please reach out to CustomerRelations@LouisvilleMSD.org.

Odor Mitigation Projects Continue in Chickasaw

"Untrapped" and outdated catch basins can be a source of odor in the sewer system. To address this, MSD is carrying out an extensive, multi-year program to inspect and replace catch basins across several Louisville neighborhoods. Work is now underway in the Chickasaw neighborhood, where MSD is systematically replacing untrapped catch basins through two project phases. Construction on phase 1 began on February 19, marking the next step in MSD's ongoing commitment to modernizing infrastructure and helping reduce odor in the communities we serve.

February Odor Reports

Ongoing efforts to mitigate and reduce odor impacts in the community continue to take hold. MSD responded to 52 service requests related to odor throughout the month, up from 45 in January. The February service requests came from 16 ZIP codes, and each resulted in an MSD crew investigating and responding as appropriate. For the majority of service calls, MSD crews on-site cleaned, deodorized and flushed with water the nearby sewer mains, catch basins or manholes where necessary.

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MSD's clAIRity Update – April 15, 2026

MSD's clAIRity Program is our ongoing work to mitigate the natural odor related to organic materials that decompose as a part of wastewater treatment and management. This brief provides updates on the status of projects under the clAIRity initiative over the past month.

Mid-year Report Details MSD Odor-response Progress

In accordance with the Second Amended Order issued by the Air Pollution Control Board, MSD has submitted its Mid-Year Odor Report to the Mayor's Office, Metro Council, MSD Board, and the Air Pollution Control Board and District. In addition to detailing specific odor-mitigation initiatives from July through December of 2025, it identified a significant decrease in odor reports over the past two years as a result of MSD's cumulative efforts across operations and capital improvements. The report references an overall 52% reduction in odor reports since 2023. Specifically, 2023 to 2024 saw a 33% reduction, followed by another 29% reduction from 2024 to 2025.

MSD's report also shared considerable progress in developing the new biosolids processing facility using thermal hydrolysis pretreatment (THP) at the Morris Forman Water Quality Treatment Center. This multi-year project will improve solids handling and odor reduction at the plant and its surrounding areas. Contractors have been actively working on all processes within the solids treatment side of the center. The new screening building has been constructed and work on the sidestream treatment facility is ongoing. Work will continue on the THP project and digester equipment throughout this year.

The report also summarizes additional ongoing odor-mitigation initiatives at the Southwest Pump Station, Derek R. Guthrie Water Quality Treatment Center and the Western Outfall, as well as MSD's work to repair or replace catch basins identified as odor sources – now totaling 340 catch basins replaced across the neighborhoods of California, Park DuValle, Shawnee, Taylor Berry, West Main, and Nulu. Work is currently underway in Chickasaw, focused on replacing 69 identified catch basins there, and we are preparing to begin another phase of replacements in Park Hill.

Save the Date: clAIRity Community Meeting April 23

The first clAIRity meeting of 2026 is taking place on Thursday, April 23. The clAIRity community meetings provide an opportunity for participants to ask questions, address concerns, and hear vital updates on MSD's continued work to minimize sewer odor generated naturally in the wastewater treatment process. The meeting will occur at MSD's Park Hill neighborhood office, 1600 W. Hill Street, from 6 p.m. to 7 p.m. For anyone unable to attend in person, the meeting will be live streamed on MSD's YouTube channel.

March Odor Reports

Ongoing efforts to mitigate and reduce odor impacts in the community continue to take hold. MSD responded to 46 service requests related to odor throughout the month, down from 52 in February. The February service requests came from 15 ZIP codes, and each resulted in an MSD crew investigating and responding as appropriate. For the majority of service calls, MSD crews on-site cleaned, deodorized and flushed with water the nearby sewer mains, catch basins or manholes where necessary.

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MSD's clAIRity Update – May 15, 2026

MSD's clAIRity Program is our ongoing work to mitigate the natural odor related to organic materials that decompose as a part of wastewater treatment and management. This brief provides updates on the status of projects under the clAIRity initiative and other key MSD news over the past month.

Drainage system gets Derby week workout

After intense rains brought three inches of rain to the region April 27–29, MSD's drainage system quietly helped keep Derby festivities safe and moving. While MSD maintains its 376-square-mile drainage system and more than 1,100 miles of pipes year-round, crews increased inspections, catch-basin cleanings, and minor repairs in high-traffic Derby areas both before and during the storm.

Visitors around Churchill Downs also benefited from MSD's green infrastructure beneath the racetrack's 55 acres of parking. Seventeen feet below the surface, a network of football field-sized storage basins connected by 96-inch pipes can hold up to three million gallons of stormwater, keeping it out of the sewer system and helping reduce overflows.

SmartCover Pilot Program

MSD is piloting new technology to help mitigate sewer odors. SmartCovers – sensor-equipped manhole covers – allow crews to remotely monitor sewer conditions and proactively identify potential odor issues before they become a concern. MSD is rotating the devices through areas with frequent odor reports to evaluate their effectiveness.

Daytime Options Added to clAIRity Community Meetings

MSD's clAIRity community meetings provide an opportunity for participants to ask questions, address concerns, and hear vital updates on MSD's continued work to minimize sewer odor generated naturally in the wastewater treatment process. Meetings will be held at MSD's Park Hill neighborhood office, **1600 W. Hill Street**, and will include a virtual option for those unable to attend in person. New this year are some daytime options, in addition to evening times:

- Thursday, June 25 | 2-3 p.m.
- Tuesday, August 25 | 6-7 p.m.
- Tuesday, October 13 | 11 a.m.-12 p.m.
- Thursday, October 29 | 6-7 p.m.

Please note that the visitor parking lot is closed due to construction. Guests may drive to the employee parking entrance gate and press the intercom button to ask for the gate to open.

April Odor Reports

Efforts to mitigate odor impacts across the community continue daily. MSD responded to 72 odor-related service requests in April, compared to 67 during the same month last year. Requests came from 26 ZIP codes, with crews investigating each report and responding as needed. In most cases, crews cleaned, deodorized, and flushed nearby sewer mains, catch basins, or manholes.

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The Louisville/Jefferson County Metropolitan Sewer District (MSD) works to achieve and maintain clean, environmentally safe waterways for a healthy and vibrant community. More than 800 employees provide wastewater management, drainage and flood protection services across the 376 square miles of Louisville Metro and wastewater service in portions of Bullitt and Oldham Counties. In addition to operating and maintaining Louisville Metro's sewer system, floodwall system, water quality treatment centers and flood pumping stations, MSD invests in hundreds of infrastructure improvement projects each year, plants more than 1,000 trees and other vegetation annually to enhance water filtration and reduce runoff and provides numerous outreach programs to inform and educate the community about protecting our waterways.

MSD's clAIRity Update – June 15, 2026

MSD's clAIRity Program is our ongoing work to mitigate the natural odor related to organic materials that decompose as a part of wastewater treatment and management. This brief provides updates on the status of projects under the clAIRity initiative and other key MSD news over the past month.

'Odor Season' is underway

MSD Executive Director Tony Parrott dubbed June through October as "Odor Season," as it's often during these warmer, drier months when odors can increase. This is due, in many cases, to less water flowing through the system to flush our underground network of pipes, especially in older parts of our city where the pipes carry both stormwater and wastewater. MSD is committed to minimizing odors year-round, but we put special efforts forth during Odor Season. During this time, you'll see MSD crews in neighborhoods, cleaning and deodorizing storm grates, and using water trucks to "rehydrate" dry catch basins. Sometimes, we'll even partner with Louisville Water to open hydrants in select areas to flush the system. It's all part of our ongoing commitment to strategically and systematically mitigate odors across our community.

MSD's FY27 budget continues odor-reduction progress

The recently announced FY27 budget and preliminary rate proposal will fund MSD continued progress in odor-mitigation. This includes ongoing construction of a new biosolids processing facility at Morris Forman Water Quality Treatment Center. This \$255 million project will be complete in 2028, greatly increasing efficiency of waste solids handling and contributing to odor reduction at MSD's largest treatment facility, serving more than two-thirds of the community.

In addition, the budget continues MSD's systematic replacement of catch basins identified as odor sources, with 69 additional replacements scheduled in the coming year. Since 2023, MSD has invested more than \$185 million in odor mitigation and related system improvements, contributing to a 50% reduction in odor-related customer service requests.

Residents may view the preliminary rate proposal by visiting louisvillemsd.org/rates. Comments may be submitted to finance@louisvillemsd.org and accepted until July 3.

Public invited to the next clAIRity meeting

The next in MSD's series of meetings to engage with the community on odor-related matters takes place in the afternoon, as opposed to previous evening meetings, to provide new options for residents. These clAIRity meetings provide an opportunity for participants to ask questions, address concerns, and hear vital updates on MSD's continued work to minimize sewer odor across its system. Here are details:

When: Thursday, June 25, 2 p.m.

Where: 1600 W. Hill Street

This is MSD's new office in the Park Hill neighborhood. Note that the visitor parking lot is closed due to construction. Guests may drive to the employee parking entrance gate and press the intercom button and ask to open the gate.

May Odor Reports

Efforts to mitigate odor impacts across the community continue daily. MSD responded to 75 odor-related service requests in May, on par with 72 last month. Requests came from 23 ZIP codes, with crews investigating each report and responding as needed. In most cases, crews cleaned, deodorized, and flushed nearby sewer mains, catch basins, or manholes.

For more information or to report an odor, visit LouisvilleMSD.org/odor or call 502.540.6000.

About MSD

The Louisville/Jefferson County Metropolitan Sewer District (MSD) works to achieve and maintain clean, environmentally safe waterways for a healthy and vibrant community. More than 800 employees provide wastewater management, drainage and flood protection services across the 376 square miles of Louisville Metro and wastewater service in portions of Bullitt and Oldham Counties. In addition to operating and maintaining Louisville Metro's sewer system, floodwall system, water quality treatment centers and flood pumping stations, MSD invests in hundreds of infrastructure improvement projects each year, plants more than 1,000 trees and other vegetation annually to enhance water filtration and reduce runoff and provides numerous outreach programs to inform and educate the community about protecting our waterways.



Appendix D

Community Meeting Agendas

Community Meeting Agenda

Meeting date: Thursday, August 28, 6-7 p.m.
Location: MSD's New Office - 1600 W. Hill Street, Louisville, KY, 40210
Purpose: Provide updates about MSD's continued efforts to mitigate odor and engage the community through the cIAIRity program.

Welcome

About MSD and the cIAIRity Program

What Causes Sewer Odors?

- Information MSD-related odors compared to non-MSD sources

Water Quality Treatment Centers

- Information regarding MSD's treatment centers, with a focus on the improvements underway at Morris-Forman WQTC

Odor Reports & Combined Sewer System Overview

- A look at current odor reports and an overview of our combined sewer system

Potential Odor Pathways

- Overview of potential sewer odor pathways in the home and how to reduce them

Water in the System

- The importance water plays in the sewer system

Mitigation Methods

- Approaches MSD uses to combat odors at MSD facilities and in the field

Short Term Action Plan

- Update on MSD's investments across four key areas – treatment facilities, collection systems, pump stations and catch basins – to reduce wastewater odors across the community

Q&A

- MSD will facilitate a discussion period; meeting attendees may ask questions verbally or by submitting questions in writing on provided cards

Meeting Conclusion

- MSD representatives are also available before and after the meeting to speak directly with customers

For more information or to report an odor,
visit LouisvilleMSD.org/odor or call 502.540.6000.

Community Meeting Agenda

Meeting date: Tuesday, October 14, 6-7 p.m.
Location: MSD's New Office - 1600 W. Hill Street, Louisville, KY, 40210
Purpose: Provide updates about MSD's continued efforts to mitigate odor and engage the community through the cIAIRity program.

Welcome

About MSD and the cIAIRity Program What

Causes Sewer Odors?

- Information MSD-related odors compared to non-MSD sources

Water Quality Treatment Centers

- Information regarding MSD's treatment centers, with a focus on the improvements underway at Morris-Forman WQTC

The Combined Sewer System

- Providing an understanding of differences between combined and separate sewer systems, and how that can impact odor.

Odor Reports & Combine Sewer System Overview

- A look at current odor reports and an overview of our combined sewer system

Potential Odor Pathways

- Overview of potential sewer odor pathways in the home and how to reduce them

Water in the System

- The importance water plays in the sewer system

Mitigation Methods

- Approaches MSD uses to combat odors at MSD facilities and in the field

Short Term Action Plan

- Update on MSD's investments across four key areas – treatment facilities, collection systems, pump stations and catch basins – to reduce wastewater odors across the community

Q&A

- MSD will facilitate a discussion period; meeting attendees may ask questions verbally or by submitting questions in writing on provided cards

Meeting Conclusion

- MSD representatives are also available before and after the meeting to speak directly with customers

For more information or to report an odor, visit
LouisvilleMSD.org/odor or call 502.540.6000.

Community Meeting Agenda

Meeting date: Tuesday, October 30, 6-7 p.m.
Location: MSD's New Office - 1600 W. Hill Street, Louisville, KY, 40210

Purpose: Provide updates about MSD's continued efforts to mitigate odor and engage the community through the cIAIRity program.

Welcome

About MSD and the cIAIRity Program What

Causes Sewer Odors?

- Information MSD-related odors compared to non-MSD sources

Water Quality Treatment Centers

- Information regarding MSD's treatment centers, with a focus on the improvements underway at Morris-Forman WQTC

Odor Reports & Combine Sewer System Overview

- A look at current odor reports and an overview of our combined sewer system

Potential Odor Pathways

- Overview of potential sewer odor pathways in the home and how to reduce them

Water in the System

- The importance water plays in the sewer system

Mitigation Methods

- Approaches MSD uses to combat odors at MSD facilities and in the field

Short Term Action Plan

- Update on MSD's investments across four key areas – treatment facilities, collection systems, pump stations and catch basins – to reduce wastewater odors across the community

Q&A

- MSD will facilitate a discussion period; meeting attendees may ask questions verbally or by submitting questions in writing on provided cards

Meeting Conclusion

- MSD representatives are also available before and after the meeting to speak directly with customers.

For more information or to report an odor, visit
LouisvilleMSD.org/odor or call 502.540.6000.

Community Meeting Agenda

Meeting date: Thursday, April 23, 6-7 p.m.
Location: MSD's New Office - 1600 W. Hill Street, Louisville, KY, 40210
Purpose: Provide updates about MSD's continued efforts to mitigate odor and engage the community through the clAIRity program.

Welcome

About MSD and the clAIRity Program

Morris Forman Water Quality Treatment Center

- Update on the improvements underway at the Morris-Forman WQTC

Catch Basin Replacement Program

- Overview of continued efforts to identify and replace catch basins identified as odor sources across several neighborhoods

New Technology Coming Soon

- A look into new SmartCover technology to remotely monitor sewer conditions and proactively identify potential odor sources

Short Term Action Plan

- Update on MSD's investments across four key areas – treatment facilities, collection systems, pump stations and catch basins – to reduce wastewater odors across the community

MSD Crews at Work

- Breakdown of MSD's ongoing field operations to proactively maintain the combined sewer system and respond to community odor reports

Q&A

- MSD will facilitate a discussion period; meeting attendees may ask questions verbally or by submitting questions in writing on provided cards

Meeting Conclusion

- MSD representatives are also available before and after the meeting to speak directly with customers

For more information or to report an odor,
visit LouisvilleMSD.org/odor or call 502.540.6000.

Community Meeting Agenda

Meeting date: Thursday, June 25, 2026, 2:00-3:00 p.m.
Location: MSD Office - 1600 W. Hill Street, Louisville, KY, 40210

Purpose: Provide updates about MSD's continued efforts to mitigate odor and engage the community through the cIAIRity program.

Welcome

About MSD and the cIAIRity Program

Proactive Activities

- Information regarding catch-basins as potential odor sources, and MSD's ongoing maintenance schedule

Response Activities

- Information regarding customers' ability to request a cleaning or inspection of a catch basin, and types of responses MSD provides.

System Upgrades

- Information regarding investments MSD is making to its systems to enhance odor mitigation, including improvements at treatment centers, catch-basin replacements and new technology.

Short-Term Action Plan

- An update on MSD's Short Term Action plan to enhance odor mitigation.

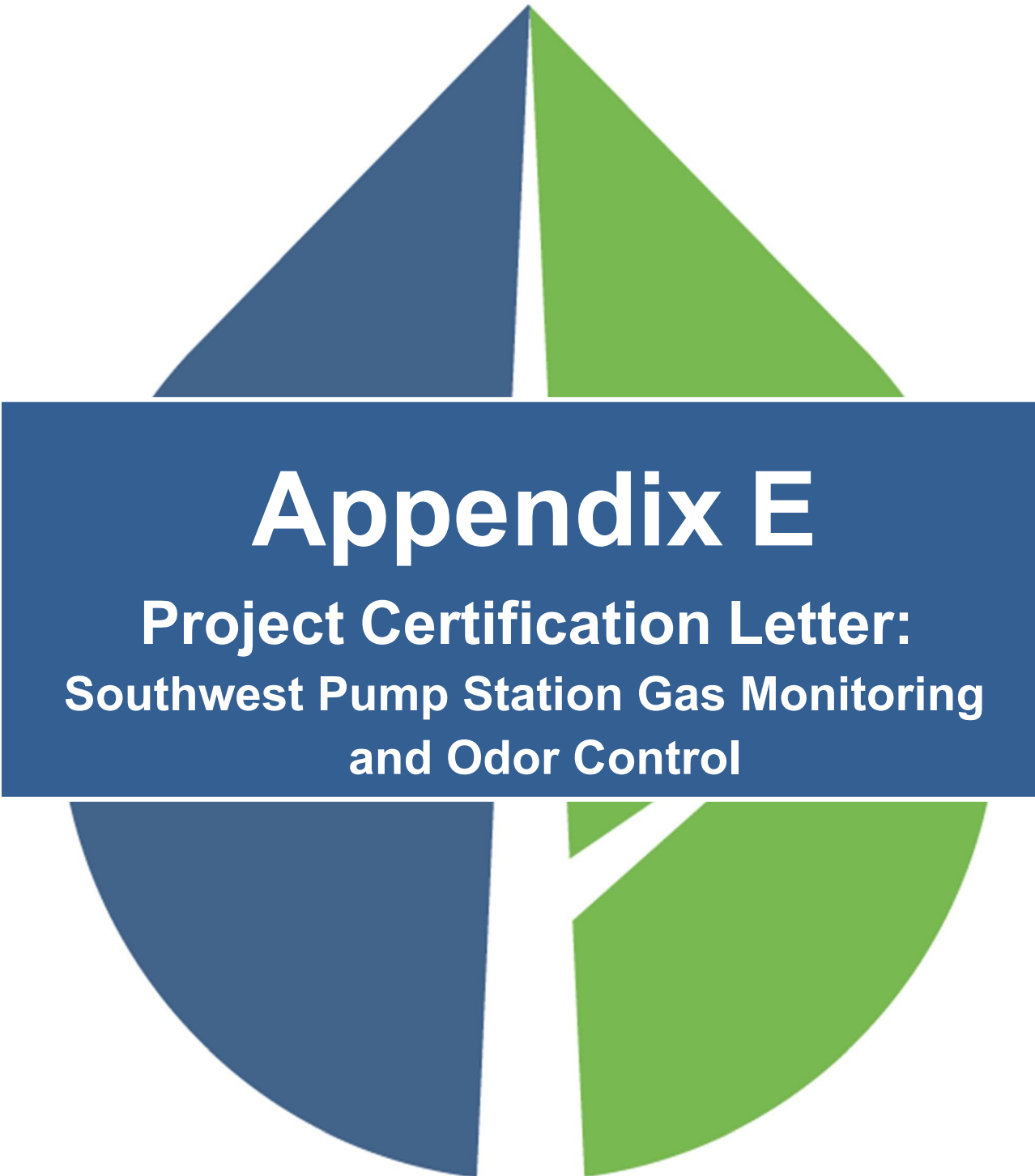
Q&A

- MSD will facilitate a discussion period; meeting attendees may ask questions verbally or by submitting via online chat.

Meeting Conclusion

- MSD representatives are also available before and after the meeting to speak directly with customers

For more information or to report an odor,
visit LouisvilleMSD.org/odor or call 502.540.6000



Appendix E

Project Certification Letter: Southwest Pump Station Gas Monitoring and Odor Control



November 22, 2025

MSD Board
700 West Liberty, Street
Louisville, Kentucky 40203

Subject: Capital Project Certification
Second Amended Air Pollution Control Board Order No. 21-01
Odor Mitigation Short-Term Action Plan
Item #B – Southwest Pump Station Gas Monitoring and Odor Control

Attention MSD Board:

Pursuant to the Second Amended Air Pollution Control Board Order No. 21-01, section I.C.4, upon completion of any project included in an Action Plan, MSD shall complete a Capital Project Certification and submit a copy to the MSD Board.

The following project outlined in the Odor Mitigation Short-Term Action Plan that was submitted on October 14, 2024, is complete:

Southwest Pump Station Gas Monitoring and Odor Control

MSD engaged Webster Environmental Associates and Jacobs Engineering MSD to design and install a new odor control system at the Southwest Pump Station (SWPS). This system uses a biotrickling filter to treat odorous air, replacing the old carbon adsorption system. It is designed to remove 99% of inlet hydrogen sulfide when completed. A gas monitoring system will track hydrogen sulfide levels at the inlet and outlet. This technology will help mitigate odors and reduce impacts on the Bells Lane community. The objective of this initiative was to support odor control efforts.

I certify that this document and all attached were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted.

Sincerely,

James A. Parrott
Executive Director
Louisville / Jefferson County Metropolitan Sewer District

cc: Kellie Watson, MSD
Kimberly Reed, MSD
Brian Bingham, MSD



Appendix F

Project Certification Letter: Ohio River Force Main Technology Study



700 West Liberty Street | Louisville, KY 40203-1911
Phone: 502.540.6000 | LouisvilleMSD.org

September 21, 2026

MSD Board
1600 West Hill Street
Louisville, Kentucky 40210

Subject: Capital Project Certification
Second Amended Air Pollution Control Board Order No. 21-01
Odor Mitigation Short-Term Action Plan
Item # F – Ohio River Force Main Technology Study

Attention MSD Board:

Pursuant to the Second Amended Air Pollution Control Board Order No. 21-01, section I.C.4, upon completion of any project included in an Action Plan, MSD shall complete a Capital Project Certification and submit a copy to the MSD Board at its next regularly scheduled Board Meeting.

The following project outlined in the Odor Mitigation Short-Term Action Plan that was submitted on October 14, 2024, is complete:

Ohio River Force Main Technology Study

The Ohio River Force Main Technology Study was conducted to evaluate and enhance odor control strategies along the Ohio River Force Main, which conveys wastewater from northeast Jefferson County to the Ohio River Interceptor and ultimately the Morris Forman Water Quality Treatment Center. Building on previous WATS modeling efforts and existing odor mitigation measures, including oxygen injection at the Barbour Lane Pump Station and Bioxide dosing at Mockingbird Valley, the study updated the WATS model and assessed the effectiveness of current treatment practices. The project also explored additional technologies and treatment alternatives to further reduce sulfides and odors downstream in the force main. Study findings will support MSD's evaluation of future odor control improvements and help prioritize system enhancements within available budget constraints.

I certify that this document and all attached were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted.

Sincerely,

James A. Parrott
Executive Director
Louisville / Jefferson County Metropolitan Sewer District

cc: Kellie Watson, MSD
Kimberly Reed, MSD
Brian Bingham, MSD



Appendix G

Project Certification Letter:

Grand Avenue Pump Station
Chemical Use Study





700 West Liberty Street | Louisville, KY 40203-1911
Phone: 502.540.6000 | LouisvilleMSD.org

September 21, 2026

MSD Board
1600 West Hill Street
Louisville, Kentucky 40210

Subject: Capital Project Certification
Second Amended Air Pollution Control Board Order No. 21-01
Odor Mitigation Short-Term Action Plan
Item # G – Grand Avenue Pump Station Chemical Use Study

Attention MSD Board:

Pursuant to the Second Amended Air Pollution Control Board Order No. 21-01, section I.C.4, upon completion of any project included in an Action Plan, MSD shall complete a Capital Project Certification and submit a copy to the MSD Board at its next regularly scheduled Board Meeting.

The following project outlined in the Odor Mitigation Short-Term Action Plan that was submitted on October 14, 2024, is complete:

Grand Avenue Pump Station Chemical Use Study

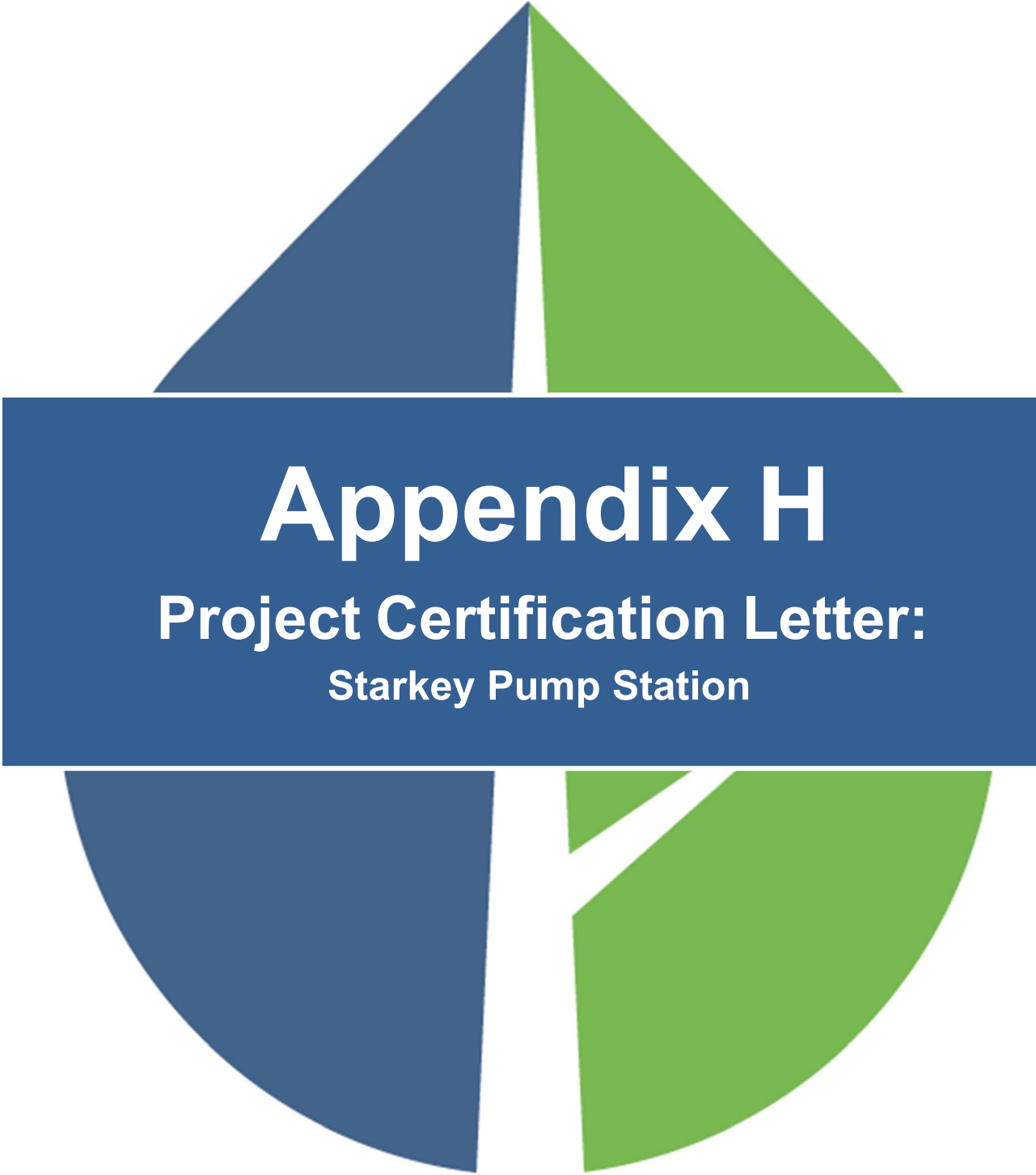
The Grand Avenue Pump Station Chemical Use Study was initiated in response to our engineering consultant's recommendation in the Morris Forman Odor Control Master Plan. The study evaluated alternative chemical treatment options to improve odor control and reduce sulfide and hydrogen sulfide formation within the Grand Avenue Force Main. While Bioxide (calcium nitrate) is currently used effectively at the pump station, the objective was to identify solutions that could provide greater odor mitigation benefits farther downstream in the collection system. The study results will support MSD's evaluation of future odor control strategies and help prioritize potential system improvements within available budget constraints.

I certify that this document and all attached were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted.

Sincerely,

James A. Parrott
Executive Director
Louisville / Jefferson County Metropolitan Sewer District

cc: Kellie Watson, MSD
Kimberly Reed, MSD
Brian Bingham, MSD



Appendix H

Project Certification Letter: Starkey Pump Station



700 West Liberty Street | Louisville, KY 40203-1911
Phone: 502.540.6000 | LouisvilleMSD.org

September 21, 2026

MSD Board
1600 West Hill Street
Louisville, Kentucky 40203

Subject: Capital Project Certification
Second Amended Air Pollution Control Board Order No. 21-01
Odor Mitigation Short-Term Action Plan
Item #H – Starkey Pump Station

Attention MSD Board:

Pursuant to the Second Amended Air Pollution Control Board Order No. 21-01, section I.C.4, upon completion of any project included in an Action Plan, MSD shall complete a Capital Project Certification and submit a copy to the MSD Board.

The following project outlined in the Odor Mitigation Short-Term Action Plan that was submitted on October 14, 2024, is complete:

Starkey Pump Station

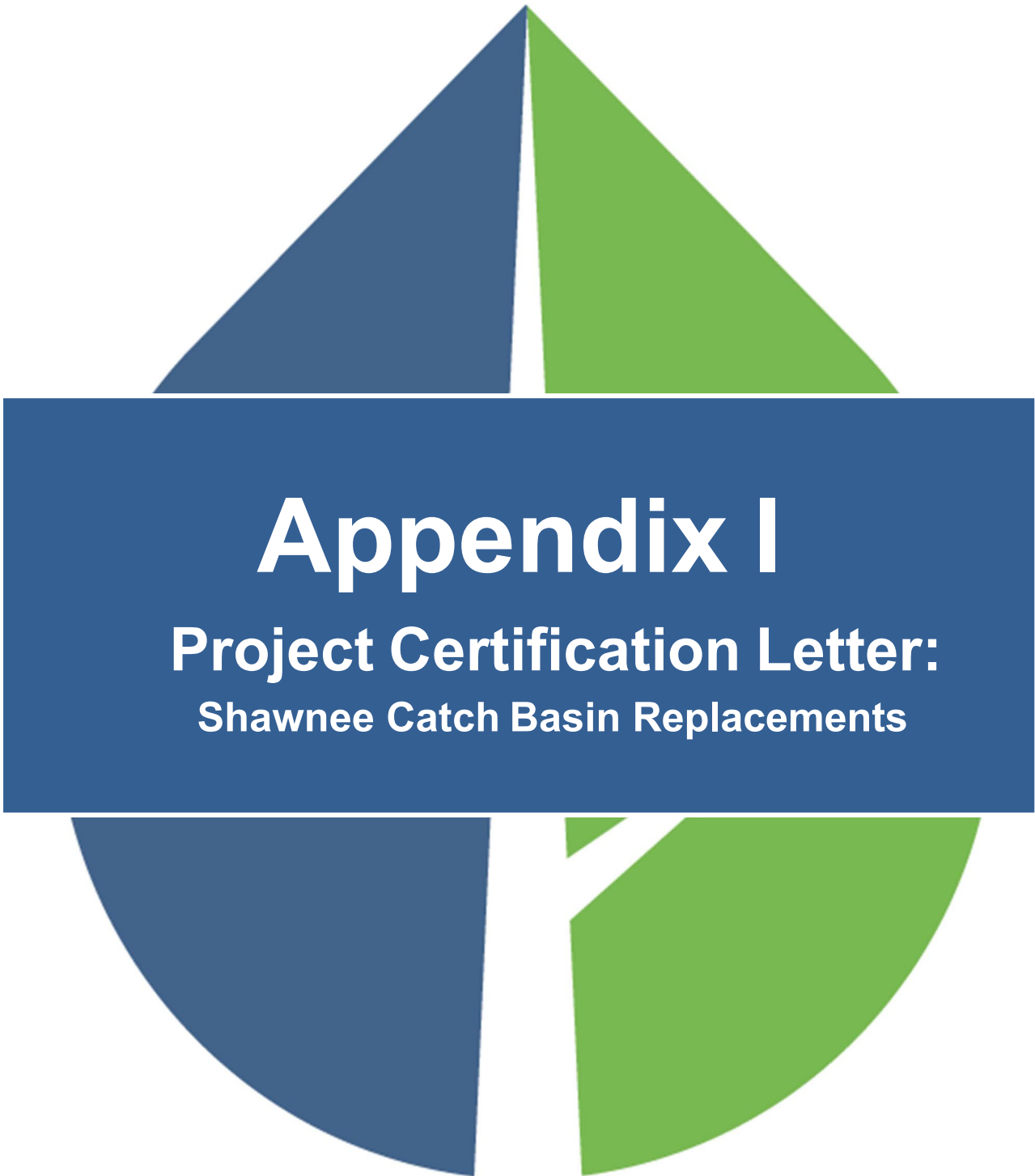
The Starkey Pump Station, located in the northern portion of the Morris Forman service area east of downtown, lacked odor control technology. Due to the station's small footprint and high air ventilation volume, odor mitigation presented unique challenges, while space limitations restricted the feasibility of traditional carbon or biological treatment systems. MSD engaged consultants to evaluate alternative odor control technologies and reviewed recommendations to determine the most effective solution. Any future system improvements will be prioritized based on identified needs and available funding.

I certify that this document and all attached were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted.

Sincerely,

James A. Parrott
Executive Director
Louisville / Jefferson County Metropolitan Sewer District

cc: Kellie Watson, MSD
Kimberly Reed, MSD
Brian Bingham, MSD



Appendix I

Project Certification Letter: Shawnee Catch Basin Replacements



700 West Liberty Street | Louisville, KY 40203-1911
Phone: 502.540.6000 | LouisvilleMSD.org

November 17, 2025

MSD Board
700 West Liberty, Street
Louisville, Kentucky 40203

Subject: Capital Project Certification
Second Amended Air Pollution Control Board Order No. 21-01
Odor Mitigation Short-Term Action Plan
Item #J5 – Shawnee Neighborhood Catch Basin Replacements

Attention MSD Board:

Pursuant to the Second Amended Air Pollution Control Board Order No. 21-01, section I.C.4, upon completion of any project included in an Action Plan, MSD shall complete a Capital Project Certification and submit a copy to the MSD Board at its next regularly scheduled Board Meeting.

The following project outlined in the Odor Mitigation Short-Term Action Plan that was submitted on October 14, 2024, is complete:

Shawnee Neighborhood Catch Basin Replacements

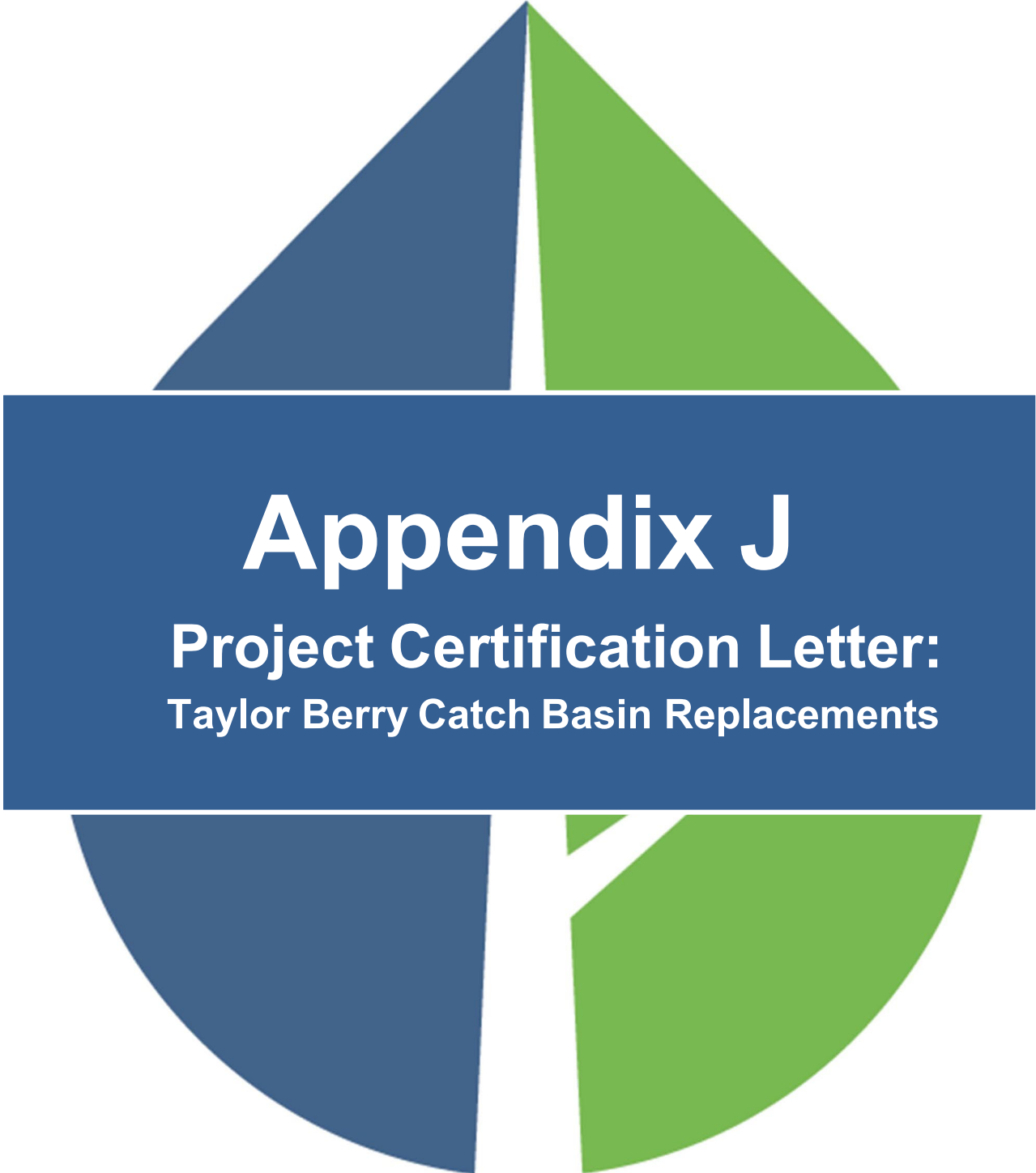
MSD engaged Basham Construction to replace untrapped catch basins with trapped catch basins in the Shawnee Neighborhood Area as part of our ongoing odor mitigation initiative. A total of 1,142 catch basins were inspected, resulting in the replacement of 176 basins to improve air quality and system performance in the area.

I certify that this document and all attached were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted.

Sincerely,

James A. Parrott
Executive Director
Louisville / Jefferson County Metropolitan Sewer District

cc: Kellie Watson, MSD
Kimberly Reed, MSD
Brian Bingham, MSD



Appendix J

Project Certification Letter: Taylor Berry Catch Basin Replacements



700 West Liberty Street | Louisville, KY 40203-1911
Phone: 502.540.6000 | LouisvilleMSD.org

November 17, 2025

MSD Board
700 West Liberty, Street
Louisville, Kentucky 40203

Subject: Capital Project Certification
Second Amended Air Pollution Control Board Order No. 21-01
Odor Mitigation Short-Term Action Plan
Item #J5 – Taylor/Berry Neighborhood Catch Basin Replacements

Attention MSD Board:

Pursuant to the Second Amended Air Pollution Control Board Order No. 21-01, section I.C.4, upon completion of any project included in an Action Plan, MSD shall complete a Capital Project Certification and submit a copy to the MSD Board at its next regularly scheduled Board Meeting.

The following project outlined in the Odor Mitigation Short-Term Action Plan that was submitted on October 14, 2024, is complete:

Taylor Berry Neighborhood Catch Basin Replacements

MSD engaged Allterrain Paving & Contracting to replace untrapped catch basins with trapped catch basins in the Taylor Berry area as part of our ongoing odor mitigation initiative. A total of 817 catch basins were inspected, resulting in the replacement of 14 basins to improve air quality and system performance in the area.

I certify that this document and all attached were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted.

Sincerely,

Tony Parrott
Executive Director
Louisville / Jefferson County Metropolitan Sewer District

cc: Kellie Watson, MSD
Kimberly Reed, MSD
Brian Bingham, MSD