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November 16, 2022

Director, Division of Enforcement
Department for Environmental Protection
300 Sower Blvd.
Frankfort, KY 40601

Chief, Water Enforcement Branch
Enforcement and Compliance Assurance Division
U.S. Environmental Protection Agency, Region 4
61 Forsyth Street SW
Atlanta, GA 30303

Chief, Environmental Enforcement Section
Environmental and Natural Resources Division
U.S. Department of Justice
Post Office Box 7611
Washington DC 20044-7611

Subject: Little Cedar Creek Rehab
Project Modification
IOAP Project No. S_CC_CC_67997_M_01_C
Civil Action No. 3:05-cv-236-S
DOJ Case No. 90-5-1-1-08254

Attention Chiefs and Director:

MSD is requesting approval of a proposed minor project modification to the Little Cedar Creek Interceptor project (IOAP Project No. S_CC_CC_67997_M_01_C). This request is part of the ongoing adaptive management review of the Integrated Overflow Abatement Plan (IOAP), approved May 2021.

2009 IOAP Project Description
The original Little Cedar Creek Interceptor Project consisted of upsizing approximately 3,900 LF of sewer to increase hydraulic capacity during wet weather flows. The project completion date was December 31, 2024.

2012 IOAP Modification Project Description
No changes were proposed in the 2012 IOAP Modification (approved in 2014). The project details remained the same as the 2009 project.

2021 IOAP Modification Project Description
No changes were proposed in the 2021 IOAP Modification. The project details remained the same as the 2009 and 2012 projects. The project completion date was changed to December 31, 2025.

2022 Project Modification Request
The project modification request involves eliminating the proposed project. MSD performed successful sewer rehabilitation upstream of the project area in 2013, recalibrated modeling indicates that no overflows occur for a 2-year cloudburst event, and no overflows have been documented since 2015.

Technical Justification
After the 2009 IOAP was approved, as part of the Capacity, Management, Operation, and Maintenance (CMOM) Program, MSD performed a Sanitary Sewer Evaluation Survey (SSES) inspection in the collection system upstream of the SSO location and detected significant defects in the system needing repair. In 2012 and 2013, MSD performed rehabilitation based on these results. The rehabilitation project consisted of epoxy coating or chimney seal replacements in 212 manholes, raising 3 manhole rims, and cured-in-place pipe lining for 43 pipe segments totaling 8,575 LF in length. Figure 1 shows where the system repairs were made relative to the proposed project location.

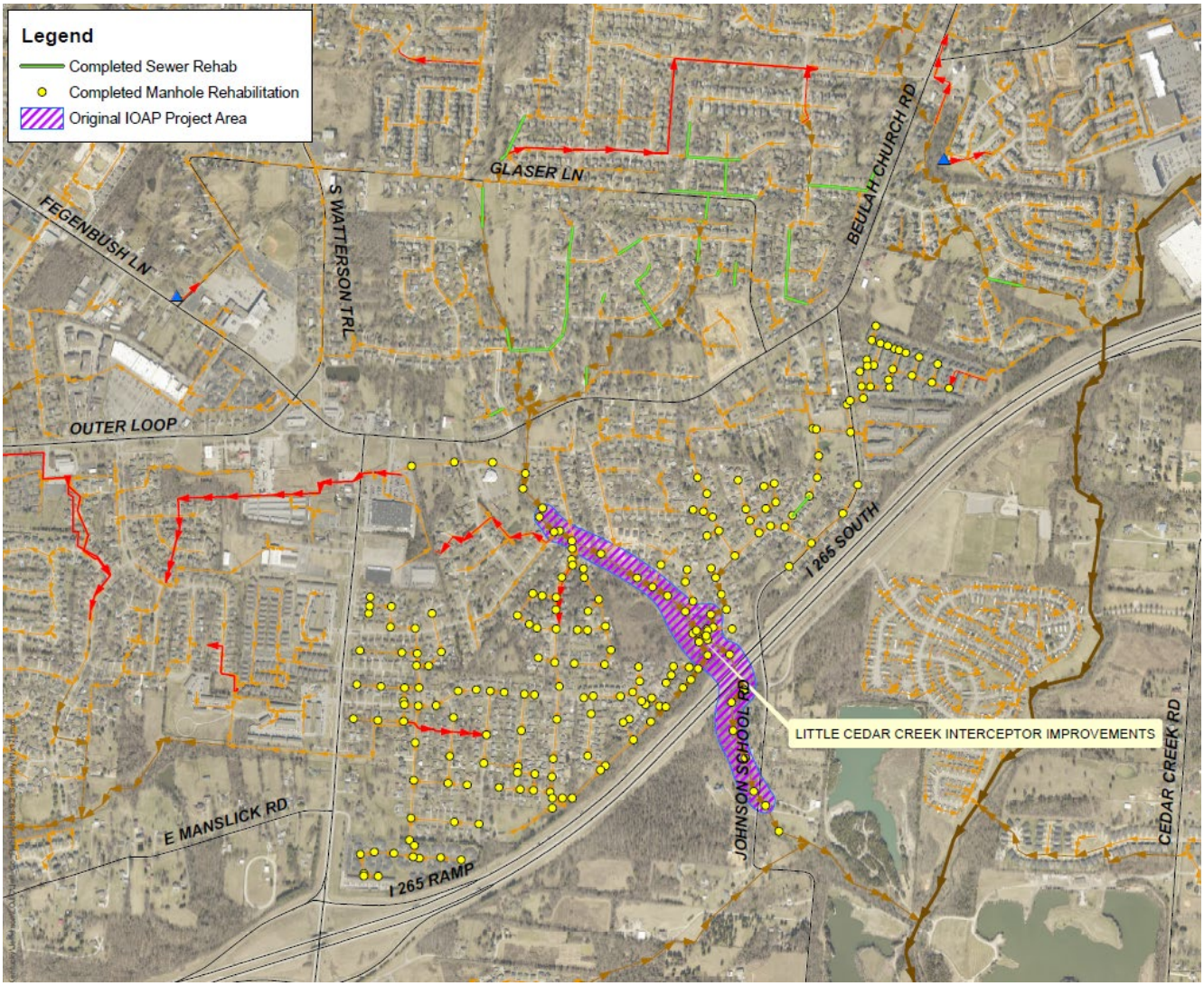

Figure 1

In 2020, MSD installed flow monitors in the area to review and update the calibration of the existing models. Four discrete rainfall events, each with a rainfall depth between 1.5" and 2", occurred during the flow monitoring period and were used for analysis. Initial model simulations using the pre-rehabilitation model parameters significantly overpredicted peak flow rates and volumes when compared to the observed data, and the model parameters were re-calibrated using those four events. After re-calibration, 2, 5, and 10-year events were simulated, and the models predicted no overflows for a 2-year cloudburst event. Additionally, overflow records from 2014 through 2021 were reviewed. During that period, one event, April 3, 2015, created an observed overflow. This rainfall event had a total depth of 2.9", greatly exceeding the 2-year cloudburst rainfall depth. There were no other observed overflows during the reviewed duration. Therefore, the updated model calibration and a review of historical overflow data since the rehabilitation was completed demonstrate the rehabilitation successfully mitigates the solution to a 2-year level of control. Therefore, no further mitigation is justified and no project is necessary.

For your reference, a copy of the original project fact sheet from the 2021 IOAP Modification, updated to show this project as "eliminated", can be found in Attachment "A".

I certify under penalty of law that this document and all attachments 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. Based on my inquiry of the person or persons who manage the system, or those

persons directly responsible for gathering such information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

If you have questions or need additional information, please contact me at (502) 540-6136.

Sincerely,

Angela L. Akridge, PE
Chief Strategy Officer
for Business Transformation and Regulatory Compliance

cc: T. Parrot D. Johnson, PE J. Quarles
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Attachment A: 2021 IOAP Modification Fact Sheet (Updated)

Attachment A

~~Project Name~~ ~~Little Cedar Creek Interceptor Improvements~~

Project Number S_CC_CC_67997_M_01_C

Modeled Area Cedar Creek

Branch or SSO ID 67997

Project Type Pipe Upgrades

Receiving Stream Little Cedar Creek

Project Description This alternative includes upsizing 3,701 LF of open cut sewer and 215 LF of 21"tunneling interceptor pipe in the area to increase hydraulic capacity during wet weather peak flows.

Reason for Overflow System capacity

Design Parameters This solution is based on a 1.82 inch cloudburst rain event.

Project Constraints Project will occur primarily in existing MSD easements.

Estimated Capital Cost $1,875,000

Weighted Benefit/Cost Ratio 23.86

Asset ID	SSO Start Date	Volume (Gal)
67997	5/2/2010	4030
86424	5/3/2010	1
89196	5/3/2010	1

ELIMINATED

Integrated Overflow Abatement Plan

Vol. 3 - Sanitary Sewer Discharge Plan

Cedar Creek Sewershed

Little Cedar Creek Interceptor Improvements

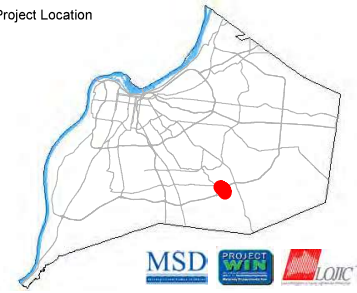
Preliminary - For Budget Development Only

- Documented SSO
- Suspected SSO
- Haulop Locations
- Pump Stations
- WQTC
- Proposed Pipe Solution
- Combined Sewer Pipe
- Force Main
- Collector < 12"
- Interceptor >= 12"
- Proposed Storage Solution
- Streams
- Floodway
- Jefferson County Boundary

General representation of overflow abatement solutions are for preliminary planning purposes. Alignments and locations may be altered during design.

1 inch = 300 feet	N	Aerial Date: 2009	Map Revision: April 9, 2012

Project Location



J:\msd\SharedMaps\IOAP\2012 Revision\MXD\2009Updates\Little Cedar Creek Interceptor Improvement.mxd

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