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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: Gunpowder Pump Station Elimination  
Project Modification  
IOAP Project No. S\_HC\_HN\_NB02\_S\_09A\_C\_B  
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 Gunpowder PS Inline Storage project (IOAP Project No. S\_HC\_HN\_NB02\_S\_09A\_C\_B). 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 Gunpowder PS Inline Storage Project consisted of replacing 120 LF of 8" gravity sewer with 60" sewer to be used for inline storage. The project completion date was December 31, 2021.

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 changes the project solution from inline storage along Gunpowder Lane to elimination of the existing pump station by constructing approximately 3,000 LF of 18" sewer from the pump station site to the existing River Road Interceptor. The project level of control will remain a 2-year, 3-hour storm event. The project completion date will remain December 31, 2025. The new name associated with this project is listed below.

Project Name Change	
Old (2021)	New
Gunpowder Pump Station Inline Storage	<b>Gunpowder PS Elimination</b>

Technical Justification

The benefit-cost analysis (BCA) used to develop the projects in the original IOAP considered a wide range of regulatory, public health, environmental and ecological benefits to determine recommended projects for SSO mitigation. However, the BCA focused generally on SSO mitigation but did not explicitly consider other MSD functions and priorities. In the past several years, MSD has been analyzing select new capital projects using a Business Case Evaluation (BCE) Methodology to assess long-term costs and benefits of capital project alternatives. The BCE incorporates the same parameters as the IOAP BCA, but also provides a larger scale review to assist in selecting the best long-term capital project for MSD needs.

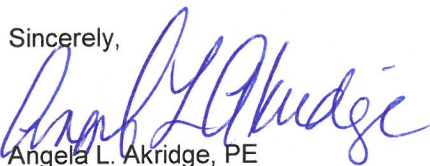
Pump stations generally have significantly higher annual operations and maintenance costs when compared to gravity interceptors, and both Gunpowder and Prospect Pointe Pump Stations were identified as having relatively high O&M costs. Additionally, the BCE review determined that additional significant capital costs would be incurred at Gunpowder Pump Station for it to remain in service. Based on the results of the BCE analysis, Gunpowder Pump Station should be eliminated via gravity in lieu of inline storage. The elimination provides a higher level of control than the 2021 IOAP commitment while providing additional long-term benefits to MSD.

For your reference, a copy of the original project fact sheet from the 2021 IOAP Modification can be found in Attachment "A". An updated fact sheet to reflect this project modification is included as Attachment "B".

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  
Attachment B: Updated Fact Sheet

**Attachment A**



<b>Project Name</b>	Gunpowder PS Inline Storage
<b>Project Number</b>	S_HC_HN_NB02_S_09A_C_B
<b>Modeled Area</b>	Hunting Creek North WQTC
<b>Branch or SSO ID</b>	NB02
<b>Project Type</b>	Inline Storage
<b>Receiving Stream</b>	Harrods Creek
<b>Project Description</b>	This alternative includes replacing 120 LF of 8" with 60" in-line storage pipe. In addition, 28 LF of pipe upgrades will be needed.
<b>Reason for Overflow</b>	Pump station capacity
<b>Design Parameters</b>	This solution is based on a 1.82 inch cloudburst rain event.
<b>Project Constraints</b>	N/A
<b>Estimated Capital Cost</b>	\$176,000
<b>Weighted Benefit/Cost Ratio</b>	78.71

Asset ID	SSO Start Date	Volume (Gal)
MSD1055-LS	1/1/2005	1000
MSD1055-LS	1/24/2002	600
MSD1055-LS	1/3/2005	95000
MSD1055-LS	1/4/2005	4000
MSD1055-LS	1/5/2005	50000
MSD1055-LS	11/11/2004	5490
MSD1055-LS	12/16/2000	0
MSD1055-LS	12/19/2002	6000
MSD1055-LS	3/28/2005	1200
MSD1055-LS	4/21/2002	3000
MSD1055-LS	4/23/2011	36000
MSD1055-LS	4/23/2011	9000
MSD1055-LS	4/5/2006	5000
MSD1055-LS	5/19/2005	6000
MSD1055-LS	5/27/2004	2500
MSD1055-LS	5/3/2011	92100
MSD1055-LS	5/30/2004	10000
MSD1055-LS	5/5/2003	2000
MSD1055-LS	6/6/2002	3000
MSD1055-LS	7/14/2006	9000
MSD1055-LS	9/26/2011	267000
MSD1055-LS	9/27/2002	3000

**Integrated Overflow Abatement Plan**  
**Vol. 3 - Sanitary Sewer Discharge Plan**

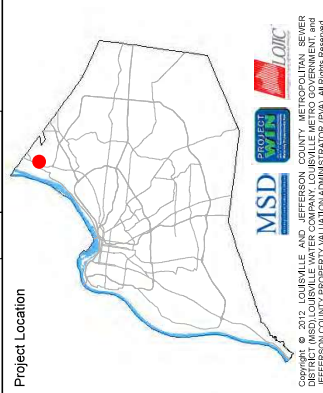
Hunting Creek North Sewershed  
 Gunpowder PS Inline Storage

**Preliminary - For Budget Development Only**

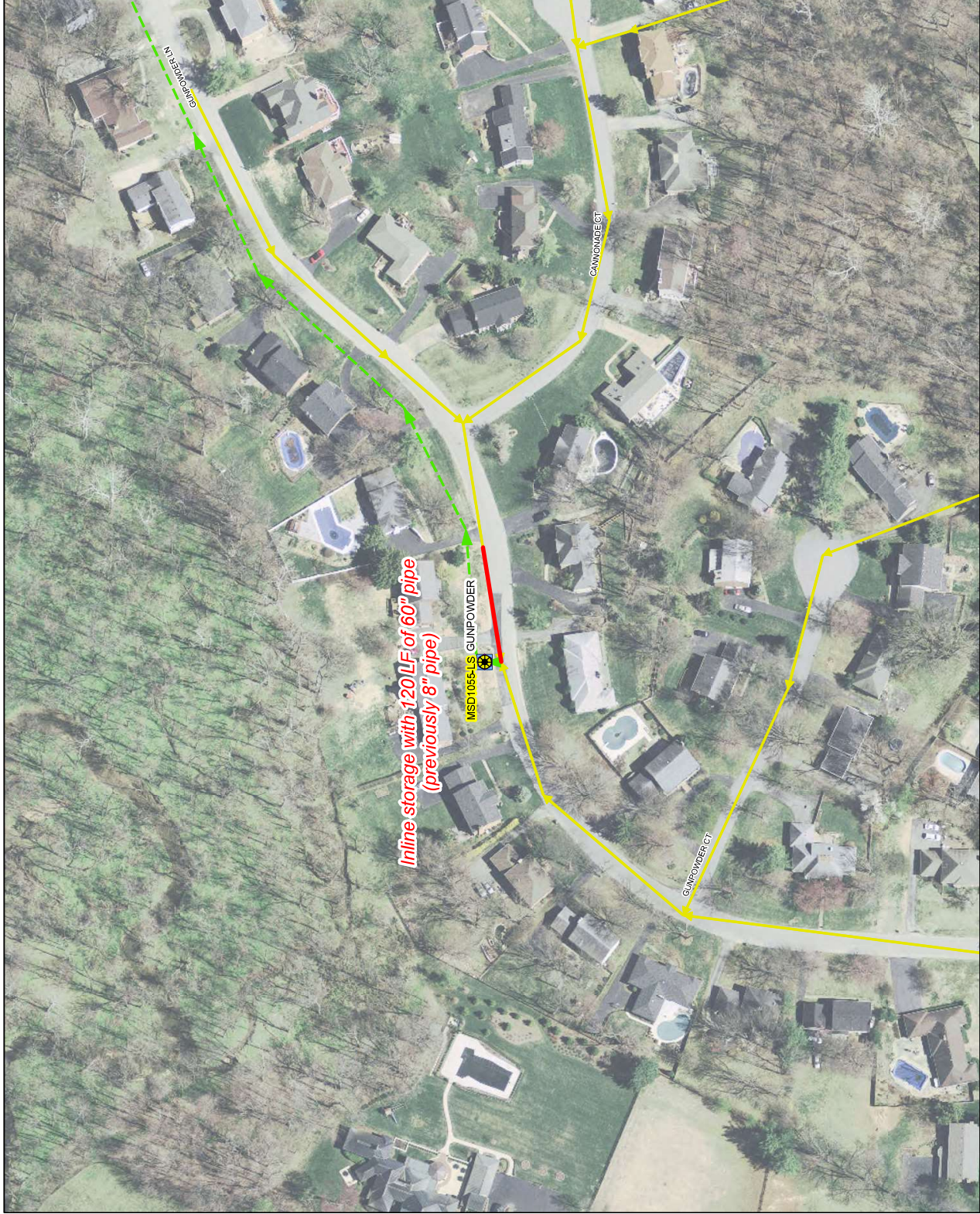
- Documented SSO
- Suspected SSO
- Haulop Locations
- Proposed Pump Station Solution
- Pump Stations
- WQTC
- Proposed Pipe Solution
- Combined Sewer Pipe
- Force Main
- Collector < 12"
- Interceptor >= 12"
- Streams
- Floodway
- Jefferson County Boundary

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

1 inch = 100 feet  
 Aerial Date: 2009  
 Map Revision: April 9, 2012



MSD PROJECT PARTNER  
 LOIIC  
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**Attachment B**

<b>Project Name</b>	Gunpowder PS Elimination
<b>Project Number</b>	S_HC_HN_NB02_S_09A_C_B
<b>Modeled Area</b>	Hunting Creek North WQTC
<b>Branch or SSO ID</b>	NB02
<b>Project Type</b>	Pump Station Elimination
<b>Receiving Stream</b>	Harrods Creek
<b>Project Description</b>	This project will eliminate the existing pump station by constructing approximately 3,000 LF of 18" sewer from the pump station site to the existing River Road Interceptor.
<b>Reason for Overflow</b>	Pump station capacity
<b>Design Parameters</b>	This solution is based on a 1.82 inch cloudburst rain event.
<b>Project Constraints</b>	N/A
<b>Estimated Capital Cost</b>	\$6,825,700
<b>Weighted Benefit/Cost Ratio</b>	78.71

Asset ID	SSO Start Date	Volume (Gal)
MSD1055-LS	1/24/2002	600
MSD1055-LS	1/3/2005	95000
MSD1055-LS	1/1/2005	1000
MSD1055-LS	11/11/2004	5490
MSD1055-LS	5/30/2004	10000
MSD1055-LS	5/27/2004	2500
MSD1055-LS	5/5/2003	2000
MSD1055-LS	4/5/2006	5000
MSD1055-LS	9/27/2002	3000
MSD1055-LS	1/4/2005	4000
MSD1055-LS	5/19/2005	6000
MSD1055-LS	12/16/2000	0
MSD1055-LS	4/21/2002	3000
MSD1055-LS	12/19/2002	6000
MSD1055-LS	3/28/2005	1200
MSD1055-LS	6/6/2002	3000
MSD1055-LS	9/26/2011	267000
MSD1055-LS	1/5/2005	50000
MSD1055-LS	5/3/2011	92100
MSD1055-LS	4/23/2011	36000
MSD1055-LS	4/23/2011	9000
MSD1055-LS	7/14/2006	9000

**Integrated Overflow Abatement Plan  
Vol 3 Sanitary Sewer Discharge Plan**

**Hunting Creek North Sewershed**

**Gunpowder PS Elimination**

Preliminary - For Budget Development Only

Documented SSO

Suspected SSO

Pump Stations

Haulop Locations

Proposed Pipe Solution

Combined Sewer Pipe

Force Main

Collector < 12"

Interceptor >= 12"

Drainage Mains

Streams

Floodway

Small WWTP Service Area

Large WWTP Service Area

Jefferson County Boundary

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

1 inch = 200 feet



Aerial Date: 2021

Map Revision: Sep 30, 2022



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