



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

March 22, 2018

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

Jeff Cummins, Director
Division of Enforcement
Department for Environmental Protection
300 Sower Blvd., 3rd Floor
Frankfort, KY 40601

Chief, NPDES Permitting and Enforcement Branch
Water Protection Division
US EPA Region 4
Atlanta Federal Center
61 Forsyth Street SW
Atlanta, GA 30303

Subject: Southwestern Parkway Storage Basin
Minor Project Modification
IOAP Project No. L_OR_MF_105_M_13_B_A_0
DOJ Case No. 90-5-1-1-08254

Attention Chiefs and Director:

MSD is requesting approval of a proposed minor project modification to the Southwestern Parkway Storage Basin project (IOAP Project No. L_OR_MF_105_M_13_B_A_0). This request is part of the ongoing adaptive management review of the approved 2012 Integrated Overflow Abatement Plan (IOAP) dated May 2014.

2009 IOAP Project Description

The original Southwestern Parkway Storage Basin project involved the construction of a 5.08 million gallon (MG) storage basin to be completed by December 31, 2018, with a level of control of 0 overflows per Typical Year.

2012 Project Modification

As a result of the system-wide recalibration of the hydraulic model completed in 2010, the basin size was revised, and level of control analysis was redone using the basin sizes resulting from the recalibrated model. The level of control analysis based on the benefit cost evaluation determined that the level of control should remain at 0 overflows per year in the Typical Year. The basin size increased from 5.08 MG to 11.07 MG included the use of approximately 8.8 MG of inline storage in the Western Outfall and Northwestern Interceptor. This is the basin size included in the approved 2012 IOAP Modification dated May 2014.

2015 Project Modification

As a result of a detailed calibration and review of the project prior to construction, the basin size and level of control for the project were changed. The basin size increased from 11.07 MG to 20 MG and continued the use of inline storage in the Western Outfall and Northwestern Interceptor. The level of control was changed from 0 overflows per Typical Year to 8 overflows per Typical Year based on an updated Benefit/Cost Analysis. Changes to other projects were made concurrently to maintain the same level of reduction in residual Average Annual Overflow Volume (AAOV) for the overall system. This change was approved on September 11, 2015.

2018 Project Modification Request

The project modification request involves no changes to the project design capacity or level of control. The requested modification is to allow the project deadline to be extended to June 30, 2019. The request also involves clarification regarding the inline storage associated with the basin. With the 2015 basin sizing increase to 20 MG, the appropriate inline storage amount to achieve a level of control of 8 overflows per Typical Year is 6.3 MG. The fact sheet submitted in 2015 failed to correct this volume. This clarification does not change the overall storage volume, functionality, or level of control for the basin project. Additionally, this clarification does not affect the programmatic residual AAOV per Typical Year.

Technical Justification

Potential risks associated with the Southwestern Parkway Storage Basin schedule date back to 2015 when delays arose from a local conservancy district and other stakeholders on the project location. Shawnee Park was the original project location proposed in the IOAP. Although the agency coordination and public engagement process to resolve the project location and move forward with design wasn't complete until December 2015, MSD was prepared to mitigate schedule impacts by utilizing alternate delivery methods. The site location dispute between Olmsted Parks Conservancy and neighborhood stakeholders as well as MSD's plan for mitigating delays were discussed at the December 9, 2015, meeting between MSD and EPA Region IV. At that time, MSD expected that pursuing an alternative to the traditional 'design-bid-build' project delivery method would allow the project to be substantially operational by the December 31, 2018, IOAP deadline. A progressive design-build (PDB) approach was expected to allow construction to begin approximately 6 months earlier than with a conventional design-build approach, and over a year earlier than would have been possible with a conventional design-bid-build approach. In July of 2016, MSD issued a noticed-to-proceed to the selected contractor, with an anticipated start date for construction of the basin on January 3, 2017, and a projected substantially operational date of December 31, 2018.

Concurrent with the procurement process for the PDB contractor, MSD continued discussions with Louisville Metro Government to obtain the easements necessary for construction of the basin within the Great Lawn of Shawnee Park. Because Louisville Metro Parks had previously received federal funding through the Land and Water Conservation Fund (LWCF) for park improvements, any impairment to outdoor recreation had the potential to trigger the LWCF "conversion process", which could potentially add time to the approval process and add significant costs to the project. Louisville Metro, as the owner of the park and the original recipient of LWCF benefits, took the lead on reviewing the LWCF requirements and coordinating with requisite agencies.

Based upon Louisville Metro's review of LWCF requirements and MSD's secondary review, MSD and Louisville Metro signed a Memorandum of Agreement (MOA) in June 2016, itemizing the terms and the proposed easements MSD would obtain. The MOA noted that for all intents and purposes of this MOA, the project would not trigger a 'conversion' process, and it also noted that MSD and Louisville Metro would comply with "all applicable regulations and requirements of the Land and Water Conservation Fund State Assistance Program Federal Financial Assistance Manual." Louisville Metro then proceeded to submit a request for review and clarification of the project to the Kentucky Department for Local Government (DLG). The DLG verbally concurred with Louisville Metro that this project would not trigger the conversion process, and then submitted a written request to the Federal Department of the Interior for concurrence in January 2017. Receiving no response by March 2017, MSD directly contacted the Department of the Interior (DOI), and notified the Department that MSD was going to begin construction. This delayed the start of construction by approximately three months, and construction commenced on April 3, 2017.

As noted above, the project schedule initially submitted by the PDB contractor provided for construction to start on January 3, 2017, and be substantially operational by December 31, 2018. This was a very aggressive schedule, with nominal "float". The three-month waiting period before a response was received from the Federal Department of the Interior caused the construction start to be delayed. Beginning with the early phases of the project, MSD worked with the contractor to expedite construction activities and has made every effort to mitigate the three-month schedule delay. However, in December 2017, the PDB contractor notified MSD that they cannot meet the December 31, 2018, deadline with a quality product while continuing to maintain a safe work environment and officially requested a time extension. Because crew times and production are currently

maximized, MSD is requesting a six-month extension to certify the project as substantially operational by June 30, 2019. This will provide wet weather days and float in the schedule as well as mitigate the original 3-month start delay.

Although the Southwestern Parkway Storage Basin construction site will be fully restored to the original Great Lawn conditions, with an additional \$2 million invested in the construction, restoration, and enhancement of recreational facilities at the park, the Department of the Interior notified the DLG in April 2017, that based upon its review, the project would be required to go through the conversion process due to construction activities lasting longer than 12 months. The notification from the Department of the Interior quantifies 18 acres of impaired area to be restored to recreational use or a new area be developed for recreation via the conversion process although the overall project contributes to a net gain in public outdoor recreational facilities and amenities. Currently, Louisville Metro, MSD, and the DLG are coordinating to determine if the conversion process is required and what the potential requirements would be. Construction is currently ongoing, but it should be noted that if construction is ordered to stop by the DOI or DLG until the conversion issue is resolved, the schedule for the project will be delayed even further.

Regarding the design clarification, the 2015 minor project modification submittal included the use of inline storage in the Western Outfall and Northwestern Interceptor upstream of the proposed CSO diversion structures as well as downstream of the proposed CSO structures. To provide inline storage downstream, the existing flood control gates would need to be modified and used. MSD determined that dual use of the gates for flood control and overflow abatement could result in numerous operational and construction concerns potentially affecting public health and safety, and elected to utilize approximately 6.3 MG of inline storage upstream. The basin had initially been resized to 17.5 MG assuming the use of the 8.8 MG of inline storage described in 2012. Since MSD determined that only 6.3 MG of inline storage is available upstream of the basin, the basin was resized to 20 MG to meet the level of control of 8 overflows per Typical Year. The reduction in inline storage was mistakenly not reflected in the project fact sheet accompanying the 2015 modification. The level of control and overall storage volume for the basin project as a whole will not change.

For your reference, a copy of the project fact sheets and maps from the minor project modification approved in September 2015 are included in Attachment A. New project fact sheets and maps addressing this clarification request have been provided in 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, P.E.
Chief Engineer

cc: T. Parrot P. Purifoy

sbl. X:\Data\IOAP\2014 IOAP\2014 Modification\Mod Letters\2018 - SW Pkwy and UMF#2

Attachments

Attachment A

Project Name: Southwestern Parkway Storage Basin

Project Number: L_OR_MF_105_M_13_B_A_0

Project Type: In-Line & Off-Line Storage

Rec Stream: Ohio River

Project Description: This project includes a 20 MG underground covered concrete basin for CSO104, 105, and 189 and in-line storage in the Western Outfall and the Northwest Interceptor for an additional 8.8 MG using adjustable gates to reduce overflows to eight overflows per typical year.

Design Assumption: Available CSS storage capacity is based on June, 2001 BPR RTC Study. Model Run with RTC Coded in confirms available storage. Flow Control assumes inflatable dams are available at the time of construction.

Capital Cost: \$49,841,000

Capital Benefit/Cost: 14.81

Present Worth Benefit Cost: 24.06

CSO	CSO Name	Existing May 2012 ¹		Baseline May 2012 ²	
		Avg. Annual Overflow Volume	Avg. Annual Frequency	Avg. Annual Overflow Volume	Avg. Annual Frequency
CSO104	SW PKWY SEWER @ BROADWAY	3.90	16	3.90	16
CSO105	WESTERN OUTFALL @ BROADWAY	59.69	30	59.67	30
CSO189	NORTHWESTERN SAN DIV	51.19	28	43.98	28

1. Existing May 2012 conditions reflect existing system operating conditions as of that date.

2. Baseline May 2012 assumes all SSDP projects are complete and critical combined sewer facilities (e.g. Morris Forman WQTC Southwestern Pump Station, Starkey Pump Station) are operating at optimal, sustainable levels.

Integrated Overflow Abatement Plan Vol. 2 - Final CSO Long Term Control Plan

Ohio River

Southwestern Parkway Storage Basin

Preliminary - For Budget Development Only

- Active CSO
- Eliminated CSO
- ▲ Proposed Flow Control Solution
- PS Proposed Pump Station Solution
- PS Pump Stations
- Proposed Pipe Solution
- Combined Sewer Pipe
- Force Main
- Collector < 12"
- Interceptor ≥ 12"
- Drainage Mains
- 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



Aerial Date:
2012

Map Revision:
July 16, 2015



Copyright © 2015 LOUISVILLE AND JEFFERSON COUNTY METROPOLITAN SEWER DISTRICT (MSD), LOUISVILLE WATER COMPANY, LOUISVILLE METRO GOVERNMENT, and JEFFERSON COUNTY PROPERTY VALUATION ADMINISTRATOR (PVA). All Rights Reserved.



Attachment B



CSO Project Fact Sheet

2018 IOAP Project Modification



Project Name: Southwestern Parkway Storage Basin

Project Number: L_OR_MF_105_M_13_B_A_0

Project Type: In-Line & Off-Line Storage

Rec Stream: Ohio River

Project Description: This project includes a 20 MG underground covered concrete basin for CSO104, 105, and 189 and in-line storage in the Western Outfall and the Northwest Interceptor for approximately 6.3 MG using adjustable gates to reduce overflows to eight overflows per typical year.

Design Assumption: Available CSS storage capacity is based on June, 2001 BPR RTC Study. Model Run with RTC Coded in confirms available storage.

Capital Cost: \$49,841,000

Capital Benefit/Cost: 14.81

Present Worth Benefit Cost: 24.06

CSO	CSO Name	Existing May 2012 ¹		Baseline May 2012 ²	
		Avg. Annual Overflow Volume	Avg. Annual Frequency	Avg. Annual Overflow Volume	Avg. Annual Frequency
CSO104	SW PKWY SEWER @ BROADWAY	3.90	16	3.90	16
CSO105	WESTERN OUTFALL @ BROADWAY	59.69	30	59.67	30
CSO189	NORTHWESTERN SAN DIV	51.19	28	43.98	28

1. Existing May 2012 conditions reflect existing system operating conditions as of that date.

2. Baseline May 2012 assumes all SSDP projects are complete and critical combined sewer facilities (e.g. Morris Forman WQTC Southwestern Pump Station, Starkey Pump Station) are operating at optimal, sustainable levels.

Integrated Overflow Abatement Plan
Vol. 2 - Final CSO Long Term Control Plan

Ohio River

Southwestern Parkway Storage Basin

Preliminary - For Budget Development Only

- Active CSO
- Eliminated CSO
- PS Pump Stations
- Proposed Pipe Solution
- Combined Sewer Pipe
- Force Main
- Collector < 12"
- Interceptor >= 12"
- Drainage Mains
- 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: 2012 Map Revision: January 03, 2018



Copyright © 2018 LOUISVILLE AND JEFFERSON COUNTY METROPOLITAN SEWER DISTRICT (MSD), LOUISVILLE WATER COMPANY, LOUISVILLE METRO GOVERNMENT, and JEFFERSON COUNTY PROPERTY VALUATION ADMINISTRATOR (PVA). All Rights Reserved.

