



Louisville and Jefferson County Metropolitan Sewer District
700 West Liberty Street
Louisville Kentucky 40203-1911
502-540-6000
www.msdlouky.org

August 17, 2012

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

Jeff Cummins, Acting Director
Division of Enforcement
Department of Environmental Protection
300 Fair Oaks Lane
Frankfort, KY 40601

Chief, Water Programs Enforcement Branch
Water Management Program
US EPA Region 4
Atlanta Federal Center
61 Forsyth Street SW
Atlanta, GA 30303

Subject: Logan Street and Breckenridge Street Storage Basin
Minor Project Modification
IOAP Project No. L_SO_MF_092_M_09B_B_D_8
DOJ Case No. 90-5-1-1-08254

Attention Chiefs and Director:

MSD is providing advanced notification of a proposed minor project modification to the Logan Street and Breckenridge Street Storage Basin project (IOAP Project No. L_SO_MF_092_M_09B_B_D_8). This modification is part of an overall adaptive management review of the approved 2009 IOAP that will be documented in the proposed 2012 IOAP Modification to be formally submitted in 2013. No action is requested at this time.

2009 IOAP Project Description

The original Logan Street and Breckenridge Street Storage Basin project involved the construction of an 11.83 million gallon (MG) storage basin to be completed by December 31, 2017, with an eight overflows per typical year level of control.

Proposed Project Modification

The project modification involves the construction of a 16.6 MG storage basin to be completed by December 31, 2017, with an eight overflows per typical year level of control.

These modifications are part of an overall adaptive management review of the approved 2009 IOAP. Additional sewer system monitoring, hydraulic modeling recalibration and enhancements to the physical representation of the sewer system resulted in a redistribution of the flow in individual sewer lines, thus affecting project approach and sizing in some cases. Each proposed change will be justified in detail



Beneficial Use of Louisville's Biosolids
www.louisvillegreen.com

Logan Street and Breckenridge Street Storage Basin
August 17, 2012
Page 2 of 2

through minor modification letters. Detailed benefits, costs and program implementation refinements to the overflow abatement program will be documented in proposed 2012 IOAP Modification to be submitted in 2013. No action is requested at this time.

Technical Justification

A review of project approach and benefit/cost results indicated that the elimination of the Calvary Creekside Storage Basin (IOAP Project No. L_SO_MF_097_M_09B_B_D_8) and consolidation of its storage volume into the Logan Street and Breckenridge Street Storage Basin would prove to be a more cost-effective and constructible option than the original design for two separate storage basin projects.

Since the last IOAP submittal, additional flow monitors have been installed in the system. Detailed topographic surveys were conducted at many of the CSO structures. The combined sewer system model was updated with the new survey data and re-calibrated based on the data from the additional flow monitors. The flows in the re-calibrated model differed from the original model and required changes to some of the IOAP projects.

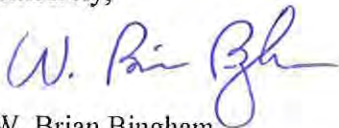
Based on the results of the re-calibration and the combination of the Calvary Creekside project, a level of control analysis was conducted on the Logan Street and Breckenridge Street Storage Basin. The level of control analysis showed that the basin size of 16.6 MG would limit the number of overflows to eight per year while providing the best benefit/cost ratio. Therefore, MSD proposes to change the Logan Street and Breckenridge Street Storage Basin solution from 11.83 MG to 16.6 MG. These improvements will maintain the same completion date of December 31, 2017, as the original solution.

For your reference, copies of the original project fact sheet and map from the IOAP are enclosed in Attachment A. A revised project fact sheet and map reflecting the project modifications 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 Ms. Angela Akridge, Project WIN Program Manager, or myself at (502) 540-6000.

Sincerely,



W. Brian Bingham
Regulatory Services Director

cc: G. Heitzman P. Purifoy
Attachments

MSD

Metropolitan Sewer District

ATTACHMENT

A

CSO LTCP Project Fact Sheet



LTCP Project Number: L_SO_MF_092_M_09B_B_D_8

Project Name: Logan Street and Breckinridge Street Storage Basin

Project Type: Off-Line Storage

Receiving Stream: South Fork Beargrass Creek

Project Description: This project includes a 11.83 MG underground covered storage basin for CSO091, 113, 117, 146, 149, & 152 to reduce overflows to 8 overflows per year. The facility will require a 11.83 MGD PS to return stored flow to the BGI.

Design Parameters / Assumptions: Basins are designed to the 9th overflow event volume, resulting in 8 CSO overflows/year. The 9th peak flowrate is evaluated to compare gravity vs. pumped conveyance. Design for pump-back is 24 hours. Type of basin based on hydraulics and surroundings.

Surrounding Area Land Use: The project is located within 'Public and Semi-Public', located at the corner of Logan St. and Breckinridge St. Adjacent land is 'Single Family Residential', 'Industrial' and 'Vacant and Undeveloped'.

Apparent Utilities Description: No major utilities conflict within the surrounding area of the proposed basin except for a few street lights

Capital Projects: 2007~Middle Fork Rehabilitation Phase 2 - Awaiting Start; 2013~RTC @ CSO146 & 117 - Awaiting Start

Advanced Site Restoration: N/A

Estimated Capital Cost (2008): \$30,320,000

Capital Cost / Gallon Overflow Removed: \$0.15

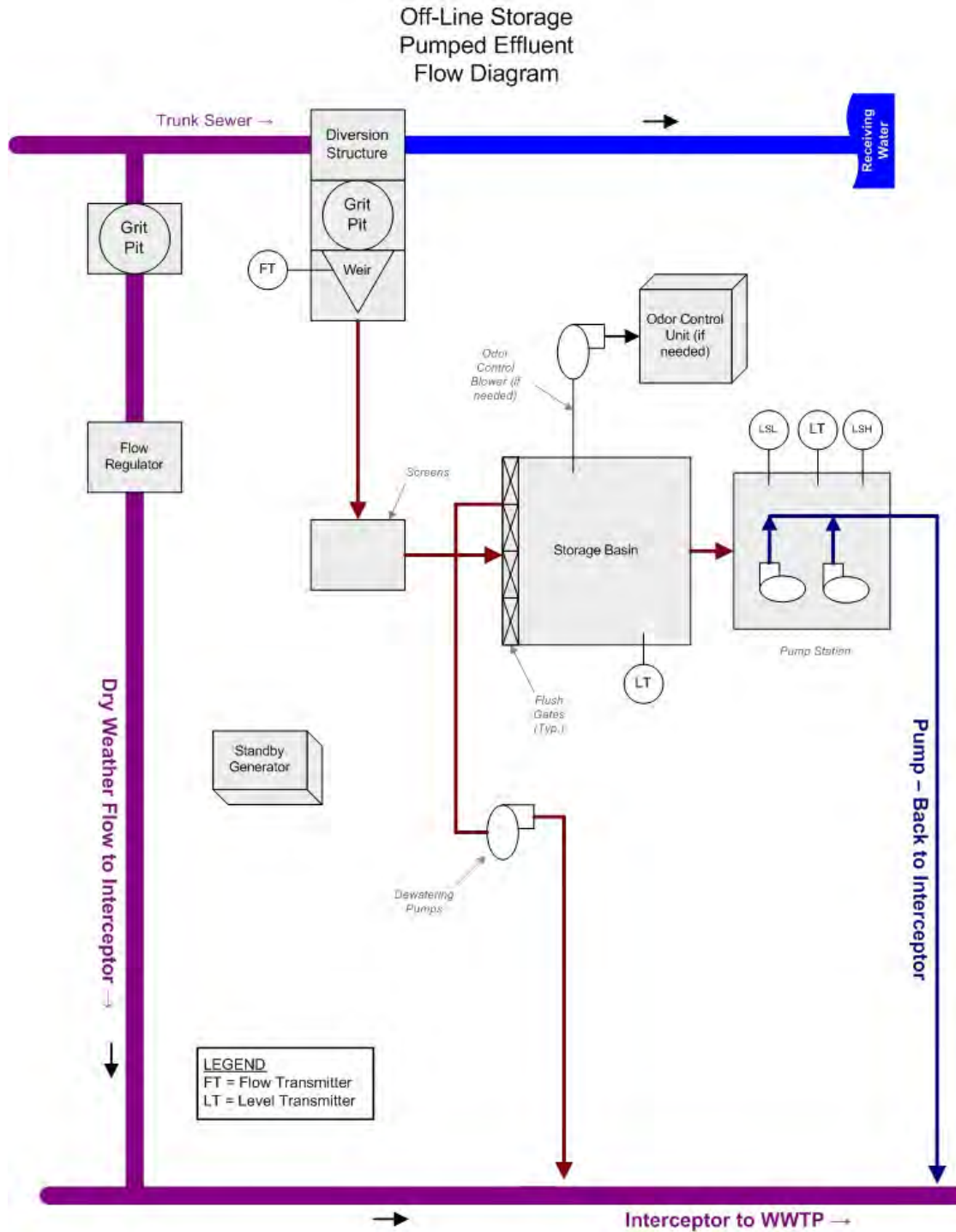
Weighted Benefit / Cost Ratio (Capital Cost): 44.12

Overflow Points Addressed:

<u>CSO Number</u>	<u>CSO Name</u>	<u>CSO Area (Acres)</u>	<u>2008 AAOV (MG / Yr)</u>	<u># of Overflows / Yr</u>	<u>Post LTCP AAOV (MG/Yr)</u>	<u>Post LTCP # Overflows / Year</u>
CSO091	Schiller Avenue Overflow	14.99	1.62	34	0.2	8
CSO113	Ellison Avenue Sewer	67.62	7.72	37	0.87	8
CSO117	Regulator Number 11 - Dry Run	74.17	92.76	39	12.67	8
CSO146	Sneads Branch Diversion	112.60	63.67	59	5.34	8
CSO149	Dry Run Diversion	226.53	56.35	37	5.96	8
CSO152	Regulator Number 7- Southeastern	260.56	75.35	51	7.37	8

NOTE: CSO hydraulic statistics are predicted based on InfoWorks model results.

LTCP Project Number: L_SO_MF_092_M_09B_B_D_8



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

South Fork Beargrass Creek
SolutionID # L_SO_MF_092_M_09B_B_D_8
Logan St and Breckinridge St Storage Basin

**Preliminary - For Budget Development Only
Legend**

- PS Proposed Pump Station Solution
- Active CSO
- Eliminated CSO
- PS Pump Station
- Proposed Pipe Solution
- Force Main
- Collector < 12"
- Interceptor => 12"
- Combined Sewer Pipe
- Streams
- Proposed Storage Solution
- Floodway
- Metro Parks
- County Boundary

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

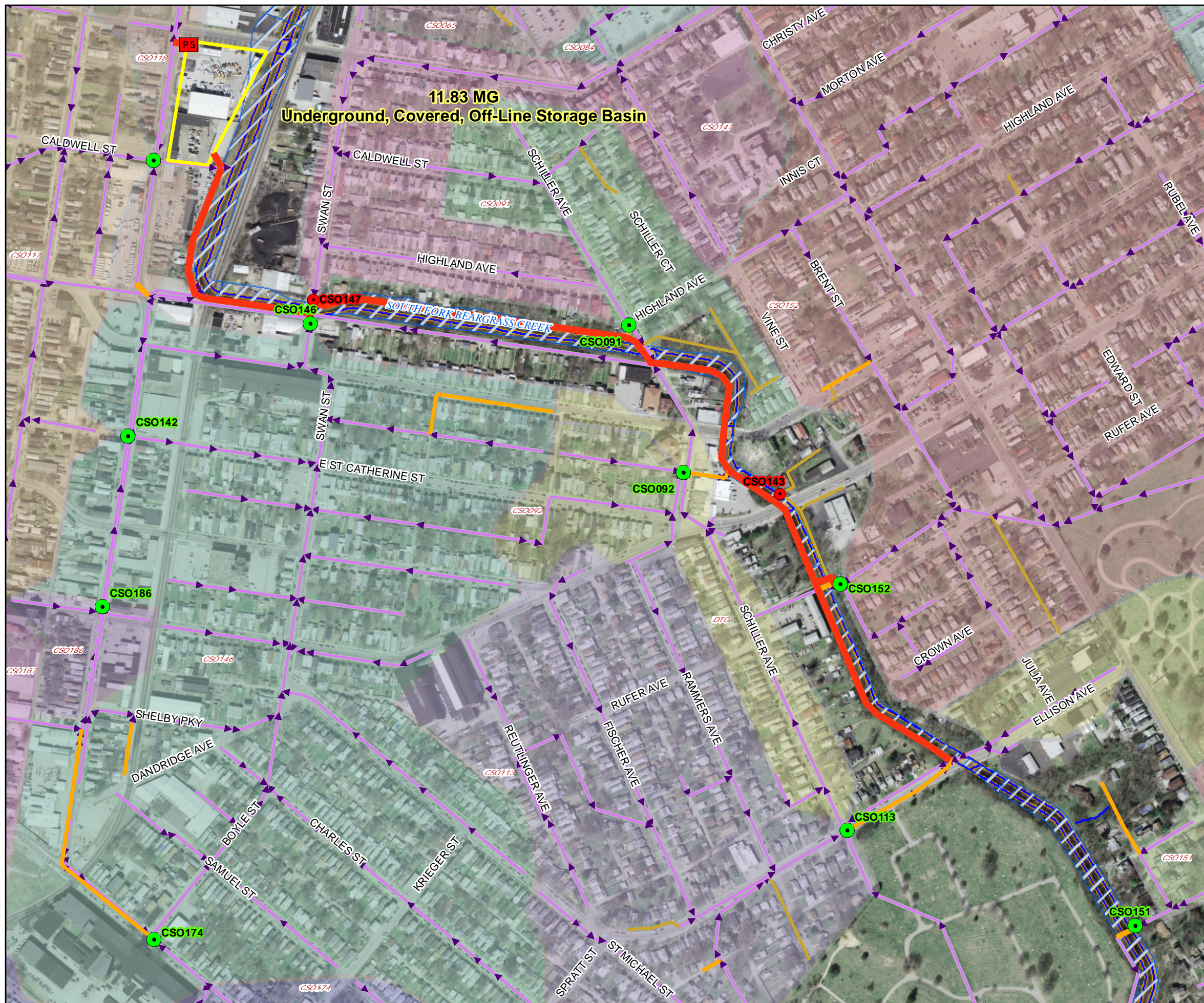
1 inch equals 400 feet
Scalable when printed on 11" X 17" paper



Some boundaries are uniquely symbolized within the map.
Map Revision
December 3, 2008
Aerial Date: 2006



Copyright © 2008 LOUISVILLE AND JEFFERSON COUNTY METROPOLITAN SEWER DISTRICT (MSD), LOUISVILLE WATER COMPANY, LOUISVILLE METRO GOVERNMENT, and JEFFERSON COUNTY PROPERTY VALUATION ADMINISTRATOR (PVA). All Rights Reserved.



MSD

Metropolitan Sewer District

ATTACHMENT

B

Project Name: Logan and Breckinridge Street Storage Basin

Project Type: Off-Line Storage

Rec Stream: South Fork Beargrass Creek

Project Description: This project includes a 16.6 MG underground covered storage basin to reduce overflows for a group of CSOs to 8 overflows per typical year.

Design Assumption: Basins are designed to the 9th overflow event volume, resulting in 8 CSO overflows per typical year. The 9th peak flowrate is evaluated to compare gravity vs. pumped conveyance. Design for pump-back is 24 hours. Type of basin based on hydraulics and surroundings.

Capital Cost: \$52,165,000

Capital Benefit/Cost: 55.09

Present Worth Benefit Cost: 61.19

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
CSO091	SCHILLER AVE OVFL	2.83	55	2.83	55
CSO097	CANTONMENT SIPHON NO 2	10.50	34	6.74	33
CSO106	ROYAL - NEFF	0.28	12	0.27	12
CSO110	REG NO 3 - GOSS AVE	9.56	33	7.45	33
CSO113	ELLISON AVENUE SEWER	4.79	19	4.71	18
CSO117	REG NO 11 - DRY RUN	47.87	35	46.66	35
CSO137	CALVARY CEMETARY	2.33	23	2.28	23
CSO146	SNEADS BRANCH DIVERSION	57.83	34	57.29	34
CSO148	EASTERN PKWY DIVERSION	1.11	22	1.10	22
CSO149	DRY RUN DIVERSION	45.77	29	44.82	29
CSO151	REG NO 5 - CASTLEWOOD	81.39	54	67.35	52
CSO152	REG NO 7 - SOUTHEASTERN	175.41	57	173.90	57

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**

South Fork Beargrass Creek
SolutionID # L_SO_MF_092_M_09B_B_D_8
Logan St and Breckinridge St Storage Basin

Preliminary - For Budget Development Only

- Active CSO
- Eliminated CSO
- 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 = 700 feet



Aerial Date: 2009

Map Revision: April 9, 2012



Copyright © 2012 LOUISVILLE AND JEFFERSON COUNTY METROPOLITAN SEWER DISTRICT (MSD), LOUISVILLE WATER COMPANY, LOUISVILLE METRO GOVERNMENT, and JEFFERSON COUNTY PROPERTY VALUATION ADMINISTRATOR (PVA). All Rights Reserved.

