



MSD

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

December 19, 2008

Jeff Cummins, Director
Division of Enforcement
Department of Environmental Protection
14 Reilly Road
Frankfort, KY 40601

Subject: Annual Report
July 1, 2007 through June 30, 2008
DOJ Case No. 90-5-1-1-08254

Attention Director Cummins:

Please find attached our Quarterly Report, prepared in accordance with Paragraph 26 of our Consent Decree. This report is for the period July 1, 2007, through June 30, 2008.

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 Angela Akridge at (502) 540-6136 or Brian Bingham at (502) 649-3850.

Sincerely,

W. Brian Bingham
Regulatory Services Director

FY08 AR Certification KDEP 12-19-08

cc: H. J. Schardein, Jr.

Paula Purifoy

Laurence J. Zielke



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



MSD

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

December 19, 2008

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

Subject: Annual Report
July 1, 2007 through June 30, 2008
DOJ Case No. 90-5-1-1-08254

Attention Chief:

Please find attached our Annual Report, prepared in accordance with Paragraph 26 of our Consent Decree. This report is for the period July 1, 2007, through June 30, 2008.

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 Angela Akridge at (502) 540-6136 or Brian Bingham at (502) 649-3850.

Sincerely,

W. Brian Bingham
Regulatory Services Director

FY08 AR Certification EPA 12-19-08

cc: H. J. Schardein, Jr.

Paula Purifoy

Laurence J. Zielke



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



MSD

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

December 19, 2008

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

Subject: Annual Report
July 1, 2007 through June 30, 2008
DOJ Case No. 90-5-1-1-08254

Attention Chief:

Please find attached our Quarterly Report, prepared in accordance with Paragraph 26 of our Consent Decree. This report is for the period July 1, 2007, through June 30, 2008.

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 Angela Akridge at (502) 540-6136 or Brian Bingham at (502) 649-3850.

Sincerely,

W. Brian Bingham
Regulatory Services Director

FY08 AR Certification DOJ 12-19-08

cc: H. J. Schardein, Jr.

Paula Purifoy

Laurence J. Zielke



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

Louisville and Jefferson County Wet Weather Consent Decree Annual Report



Reporting Period:

July 1, 2007 through June 30, 2008

Submitted To:

Kentucky Department of Environmental Protection

United States Environmental Protection Agency

United States Department of Justice

Submitted By:

Louisville and Jefferson County Metropolitan Sewer District

700 W. Liberty Street

Louisville, Kentucky 40203-1911

Submittal Date:

December 31, 2008

TABLE OF CONTENTS

INTRODUCTION

SECTION 1: Project WIN Program Activities Performed during the Reporting Period

1.1 Nine Minimum Controls Implementation

1.2 Sewer Overflow Response Protocol Implementation

1.3 Capital Projects

1.4 Discharge Abatement Plans

1.4.1 Sanitary Sewer Discharge Plan

1.4.1.1 Updated Sanitary Sewer Overflow Plan Implementation

1.4.1.2 Interim Sanitary Sewer Discharge Plan

1.4.1.3 Final Sanitary Sewer Discharge Plan

1.4.2 Long Term Control Plan

1.4.2.1 Interim Long Term Control Plan

1.4.2.2 Final Long Term Control Plan

1.5 Public Outreach, Education, Notification and Participation

1.5.1 Public Outreach

1.5.2 Project WIN Public Meetings

1.5.3 Wet Weather Team Meetings

1.5.4 Public Education and Notification

SECTION 2: Performance Overview

2.1 Rainfall

2.2 Unauthorized Discharges to Waters of the United States

2.3 Exterior Overflows

2.4 Interior Overflows

2.5 CSO Reductions

2.6 SSO Reductions

2.7 Wastewater Treatment Plants

2.8 Performance Measures

SECTION 3: Project WIN Program Activities for the Next Reporting Period

3.1 Nine Minimum Controls Implementation

3.2 Sewer Overflow Response Protocol Implementation

3.3 Capital Projects

3.4 Discharge Abatement Plans

3.4.1 Sanitary Sewer Discharge Plan

3.4.1.1 Updated Sanitary Sewer Overflow Plan Implementation

3.4.1.2 Interim Sanitary Sewer Discharge Plan

3.4.1.3 Final Sanitary Sewer Discharge Plan

3.4.2 Long Term Control Plan

3.4.2.1 Interim Long Term Control Plan

3.4.2.2 Final Long Term Control Plan

3.5 Public Outreach, Education, Notification and Participation

3.5.1 Public Outreach

3.5.2 Project WIN Public Meetings

3.5.3 Wet Weather Team Meetings

3.5.4 Public Education and Notification

SECTION 4: Capacity Management Operations and Maintenance (CMOM) Annual Report

4.1 Capacity Management Operations and Maintenance Program Activities

4.1.1 Activities for this Reporting Period (July 1, 2007 to June 30, 2008)

4.1.2 Activities for the next Reporting Period (July 1, 2008 to June 30, 2009)

4.2 Continued Capacity Management Operations and Maintenance Program Implementation

SECTION 5: SUPPLEMENTAL ENVIRONMENTAL PROJECTS (SEPS) ANNUAL REPORT

ATTACHMENTS

APPENDIX A-SCHEDULES (A-1- A-4)

APPENDIX B-1 DISCHARGE WORK ORDERS (WATERS OF THE US)

APPENDIX B-2 DISCHARGE WORK ORDERS (BYPASS)

APPENDIX B-3 DISCHARGE WORK ORDERS (BLENDING)

APPENDIX C-EXTERIOR OVERFLOWS

APPENDIX D-INTERIOR AVERAGE

APPENDIX E-ANNUAL AVERAGE OVERFLOW VOLUME

APPENDIX F-CSO FLOW MONITORING INFORMATION

APPENDIX G – SEPS

APPENDIX H-ACRONYMS

INTRODUCTION

MSD has entered into a Consent Decree with the Kentucky Department of Environmental Protection (KDEP) and the United States Environmental Protection Agency (EPA). The Consent Decree was signed by United States District Judge Simpson and entered in United States District Court, Western Division of Kentucky, Louisville Division, on August 12, 2005.

This is the third Annual Report submitted in accordance with Paragraph 26 of the Consent Decree. This Report covers MSD's Fiscal Year 2008, which is defined as July 1, 2007, through June 30, 2008. The structure for this report is outlined as follows:

Section 1: Project WIN Program Activities Performed during the Reporting Period (excluding CMOM) - This section describes the scope, schedule and status for projects and other activities that were active during the reporting period of July 1, 2007 through June 30, 2008. The projects and activities described are those that demonstrate the efforts conducted to comply with the Consent Decree.

Section 2: Performance Overview - This section provides an accounting of the number of occurrences of overflows, including unauthorized discharges, from the separate sanitary sewer and combined sewer system and the estimated volumes of each. A discussion of the probable reductions, in both unauthorized discharge points and the discharges from MSD's CSO locations, identified in the Morris Forman WWTP KPDES permit that are expected to result from MSD's projects and activities during the reporting period are also contained in this section.

Section 3: Project WIN Program Activities for the Next Reporting Period (excluding CMOM) - This section describes the anticipated projects and activities that are scheduled to be performed during the next reporting period (July 1, 2008 through June 30, 2009) for continued compliance with the Consent Decree.

Section 4: Capacity Management, Operations and Maintenance (CMOM) Annual Report - The program activities performed during the reporting period (July 1, 2007 through June 30, 2008) and activities planned for the next reporting period (July 1, 2008 through June 30, 2009) are included in this section.

Section 5: Supplemental Environmental Projects (SEPs) Annual Report - The program activities performed during the reporting period (July 1, 2007 through June 30, 2008) and activities planned for the next reporting period (July 1, 2008 through June 30, 2009) are included in this section.

SECTION 1: Project WIN Program Activities Performed during the Reporting Period

1.2 Nine Minimum Controls Implementation

Per Paragraph 23.a. of the Consent Decree, the Nine Minimum Controls (NMC) Compliance Report was initially submitted to EPA and KDEP on February 10, 2006. MSD received an approval letter, dated February 22, 2007 for the NMC Compliance Report. The approved NMC Compliance document can be viewed on the MSD Project WIN website www.msdlouky.org/projectwin. Highlights of the NMC program implementation over this reporting period are outlined below:

NMC1: Proper Operation and Maintenance Program

- Inspected and cleaned 21,565 catch basins within the Combined Sewer System (CSS).
- Continued to inspect, maintain and properly operate the CSS pump stations and the Morris Forman WWTP.
- Performed 5,703 weekly inspections on CSOs, 1,009 creek inspections, and initiated over 526 work orders for debris removal and 20 work orders for modifications/repairs as determined to be necessary to allow proper system operation.
- As part of the gravity sewer preventive maintenance program, MSD cleaned 5,860 sewer line segments in the CSS, ranging in diameter sizes from 6-inches to 15-inches
- Cleaned the strip of pervious pavement located in front of the MSD building.
- CSO Inventory updated to include revised survey information on elevations, and improvements to the system. The inspection and maintenance procedures have been updated based on the system assets at each location.
- Siphon Inventory was reviewed and updated. Detailed sketches developed and posted in eB in October 2007.



CSO 82 Flapgate

- Routinely inspected 11 sites for Fats, Oils, and Grease (FOG) obstructions in known hotspots. Lines were cleaned as needed.



- Several projects underway to create improved access to some CSO sites to facilitate cleaning activities. Most of these projects are now in the easement acquisition stage. The Hamilton Road project to improve access to CSO120 and the associated siphon has been constructed.

- Administered CSO training on June 12, 2008, and

June 19, 2008, for CSO inspections, maintenance, and documentation of activities. Attendees included managers, CSO crews, and dispatch personnel assisting with documentation. 21 employees were trained in these seven hour sessions.

- Continued evaluation of CSO quick hit eliminations in concert with Long Term Control Plan (LTCP) efforts. Initial investigation shows that CSO181 & CSO202 may also be candidates for quick closure. Findings and recommendations will be documented in the Quick Closure memorandum that will be finalized by December 31, 2008.
- MSD crews removed regulators at CSO109, CSO110, CSO125, CSO126, CSO131, CSO144, CSO151 and CSO152.
- Contractors removed regulators at CSO118 and CSO132. Removal of regulator at CSO108 has been incorporated into the RTC project at this site.

NMC 2: Maximization of Storage in the Collection System

- Raised the diversion dam at CSO113 on March 18, 2008, as part of the wave screen rehabilitation effort.
- Raised the diversion dam at CSO125 on November 16, 2007, based on an analysis of backwater impacts.
- The regulators at CSO118 and CSO132 were removed by contractors on June 20, 2008, and the float chambers have been filled with concrete.
- The removal of the CSO108 Regulator is included in the scope of the RTC Phase II project at CSO108. During this timeframe, MSD developed the plans and advertised for construction on June 13, 2008.
- Continued operation of Phase I of the Real Time Control system. In Fiscal Year 2008 775.70 million gallons (MG) was kept in the system during rain events as shown in **Table 1**.



MSD

Louisville and Jefferson County
Metropolitan Sewer District

Consent Decree Annual Report July 1, 2007 – June 30, 2008

Table 1

WET WEATHER STORAGE IN THE MORRIS FORMAN SEWER SYSTEM VIA GOP RTC

Period	
From :	7/1/2007
To :	6/30/2008

Event Number	Wet Weather Event			Rainfall			Wet Weather Storage Volume (MG)			Comments
	Start Date	End Date	Duration (hh:mm)	Average* TRFD (in)	Max** TRFD (in)	Rain Gauge	SWPS SG Chamber	Brady Lake and Executive Inn Storage Facility	Total	
N/A***	7/4/2007 23:00	7/6/2007 0:35	25:35	0.963	1.590	TR15	16.10	3.80	19.90	
N/A	7/10/2007 11:50	7/10/2007 21:45	9:55	0.210	0.320	TR05	7.10	2.00	9.10	
N/A	7/19/2007 16:50	7/20/2007 13:45	21:55	1.134	2.130	TR14	16.60	5.60	22.50	
N/A	7/27/2007 18:50	7/28/2007 9:45	14:55	0.727	1.240	TR15	16.10	1.80	17.90	
N/A	8/5/2007 0:30	8/5/2007 16:10	15:40	0.217	0.320	TR11	7.90	0.70	8.60	
N/A	8/16/2007 16:30	8/17/2007 5:35	13:05	0.529	0.640	TR04	8.40	1.30	9.70	
N/A	8/21/2007 6:55	8/22/2007 8:35	25:40	1.224	1.410	TR12	16.10	4.50	20.60	
N/A	8/25/2007 15:40	8/26/2007 4:05	12:25	0.319	0.880	TR15	10.00	3.40	13.40	
N/A	9/9/2007 11:00	9/9/2007 22:20	11:20	0.396	0.620	TR14	9.70	1.50	11.20	
N/A	9/27/2007 5:10	9/28/2007 6:15	25:05	1.219	2.020	TR04	16.90	9.50	26.40	
N/A	10/16/2007 6:25	10/16/2007 18:10	11:45	0.404	0.490	TR05	10.20	0.05	10.25	
N/A	10/18/2007 3:00	10/19/2007 19:30	40:30	1.534	2.090	TR04	30.95	4.00	34.95	
N/A	10/22/2007 11:00	10/26/2007 23:05	108:05	7.110	8.080	TR14	16.70	16.50	33.20	
N/A	11/5/2007 15:20	11/6/2007 2:25	11:05	0.310	0.750	TR15	8.40	1.70	10.10	
N/A	11/13/2007 7:45	11/13/2007 17:35	9:50	0.301	0.410	TR13	7.40	0.30	7.70	
N/A	11/21/2007 10:20	11/22/2007 11:55	25:35	0.834	0.890	TR14	17.90	1.20	19.10	
N/A	11/25/2007 18:35	11/26/2007 14:30	87:55	0.871	1.090	TR15	27.30	2.25	29.55	
N/A	12/2/2007 15:40	12/3/2007 21:25	29:45	0.796	0.910	TR13	16.10	3.60	19.70	
N/A	12/7/2007 23:30	12/8/2007 16:45	17:15	0.174	0.240	TR15	11.10	0.30	11.40	
N/A	12/8/2007 18:05	12/9/2007 1:25	7:20	0.110	0.250	TR15	1.70	0.10	1.80	
N/A	12/22/2007 23:30	12/24/2007 6:30	31:00	0.416	0.470	TR14	16.10	0.70	16.80	
N/A	12/24/2007 8:30	12/27/2007 3:20	68:50	0.074	0.090	TR04	10.80	0.10	10.90	
N/A	12/27/2007 4:30	12/29/2007 10:20	53:50	0.321	0.350	TR14	14.10	0.70	14.80	
N/A	12/29/2007 12:00	1/8/2008 6:55	234:55	0.373	0.440	TR15	4.50	0.10	4.60	High River Levels
N/A	1/8/2008 6:55	1/10/2008 12:10	53:15	0.611	0.820	TR13	20.85	1.40	22.25	
N/A	1/10/2008 12:10	1/13/2008 8:00	67:50	0.903	1.200	TR15	12.35	1.05	13.40	
N/A	1/13/2008 8:00	1/17/2008 3:40	91:40	0.134	0.190	TR15	6.85		6.85	
N/A	1/17/2008 3:40	1/29/2008 1:25	285:45	0.154	0.240	TR14	9.45		9.45	
N/A	1/29/2008 1:25	2/1/2008 13:30	84:05	1.203	1.420	TR15	35.20	1.65	36.85	
N/A	2/4/2008 2:35	2/5/2008 8:10	29:35	0.294	0.590	TR15	8.55	0.70	9.25	
N/A	2/11/2008 6:15	2/17/2008 8:40	146:26	0.928	1.090	TR04	11.60	1.10	12.70	
N/A	2/17/2008 8:40	2/21/2008 13:15	100:35	0.189	0.230	TR13	8.75	0.90	9.65	
N/A	2/21/2008 13:15	2/25/2008 21:45	104:30	0.249	0.560	TR04	16.05	1.10	17.15	
N/A	2/25/2008 21:45	2/28/2008 2:00	52:15	0.296	0.340	TR14	12.50	0.85	13.35	
2008-001	2/28/2008 2:00	3/4/2008 10:45	128:45	2.013	2.390	TR14	3.80	0.75	4.55	
2008-008	3/15/2008 13:45	3/18/2008 7:40	65:55	0.250	0.390	TR04	11.75		11.75	High River Levels
2008-013	3/30/2008 20:30	4/3/2008 9:05	84:35	0.456	0.550	TR15	3.25		3.25	High River Levels
2008-015	4/9/2008 8:10	4/10/2008 16:05	31:55	0.011	0.040	TR12	3.40	0.15	3.55	
2008-016	4/10/2008 16:05	4/13/2008 10:25	66:20	0.643	0.940	TR13	14.15	0.25	14.40	
2008-017	4/13/2008 10:25	4/15/2008 23:35	81:10	0.074	0.130	TR15	8.10	0.60	8.70	
2008-020	4/26/2008 2:45	4/27/2008 11:20	32:35	0.391	0.540	TR15	13.55	1.80	15.35	
2008-023	5/2/2008 14:00	5/5/2008 3:50	61:50	2.390	3.050	TR04	19.00	1.00	20.00	
2008-024	5/7/2008 18:30	5/9/2008 5:50	35:20	0.949	1.260	TR15	28.90	2.05	30.95	
2008-026	5/11/2008 2:20	5/14/2008 7:00	76:40	0.581	0.800	TR15	14.20	0.90	15.10	
2008-027	5/14/2008 7:00	5/15/2008 11:35	28:35	0.729	0.990	TR15	14.95	1.50	16.45	
2008-029	5/17/2008 22:40	5/19/2008 23:05	48:25	0.026	0.050	TR15	8.05	0.40	8.45	High River Levels
2008-031	5/23/2008 22:35	5/25/2008 18:50	44:15	0.070	0.100	TR05	1.80		1.80	
2008-032	5/27/2008 20:35	5/28/2008 6:10	11:35	0.310	0.630	TR13	5.90	0.35	6.25	
2008-035	6/3/2008 4:05	6/3/2008 22:50	18:45	0.773	1.020	TR05	15.95	1.85	17.80	
2008-036	6/10/2008 5:55	6/10/2008 21:15	15:20	0.037	0.090	TR05	2.05		2.05	
2008-037	6/13/2008 13:05	6/14/2008 4:50	16:45	0.607	1.110	TR15	10.30	2.00	12.30	
2008-038	6/16/2008 8:25	6/16/2008 17:10	8:45	0.124	0.230	TR15	4.15	0.85	5.00	
2008-039	6/19/2008 19:55	6/20/2008 22:55	27:00	0.761	1.150	TR15	8.80	0.80	9.40	
2008-040	6/22/2008 16:05	6/23/2008 1:00	8:55	0.157	0.370	TR15	11.40	1.00	12.40	
2008-041	6/26/2008 18:15	6/26/2008 20:30	74:15	0.767	1.270	TR15	19.30	1.35	21.15	
Total				37.644			683.35	92.35	775.70	

*Average Total Rainfall Depth Based on Rain Gauge TR04, TR05, TR11, TR12, TR13, TR14 and TR15

**Maximum Total Rainfall Depth Measurement and its Location during the Wet Weather Event



- Completed negotiations for the RTC Phase II contract amendment, circulated the work orders for signature, held project kickoff meetings and started the following RTC Phase II projects:

CSoft without Weather Forecasting - The intent of this project is to program CSoft so that it can continue to function if the weather forecasting feed from OneRain is down and not providing information.

Extra Design Support During Construction for SWOR2, CSO108 and Wheeler Basin & MDS/SWPS/Morris Forman WWTP - It was determined that design support during construction was needed from the design consultant.

Improvements to Phase I - Several upgrades to Phase 1 are needed.

- Integration of a flood protection mode to the CSoft Supervisor subsystem in the case when the Ohio River reaches a predetermined higher elevation during dry weather conditions in Jefferson County.
- Providing a minimum flow to the Northern Ditch Pump Station in flood protection mode and safe mode by modifying the operation of the the Pump Station, Human Machine Interface (HMI) and the RTC system.
- Data filtering study at Hikes Point, Buechel Branch and the Beargrass Interceptor.
- Investigating the need for improvements to the rain gauge coverage.

Modeling - Phase I and Phase II control rules were defined for coding into the InfoWorks CS models for the combined sewer model and Southeast Diversion. The rules have allowed for the overflow reduction impact of Phase I and Phase II to be accounted for in developing overflow mitigation projects for the Integrated Overflow Abatement Plan (IOAP).

Web-Based Training – Development of a web-based training tool to educate MSD staff on the RTC system.

Reporting Tool – Development of a reporting tool for performance monitoring of the RTC system.

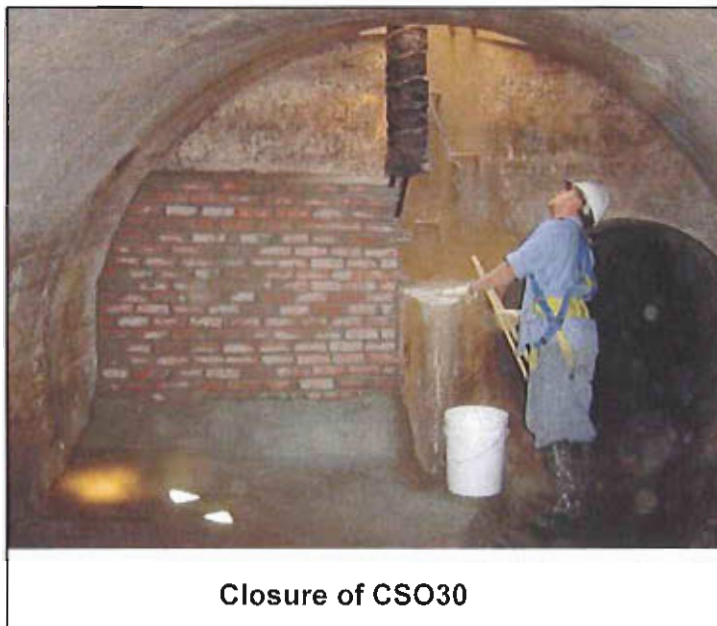


**Morris Forman WWTP Computer Room
RTC Monitoring Screens**

- Started the construction project to install an inflatable dam in the Southwestern Outfall during this period. This is part of the RTC at Southwestern Outfall SWOR2 - Budget ID

I05055.

- The Wheeler Basin and MDS/SWPS/Morris Forman WWTP projects were combined into one project for bidding and construction. The project was advertised in May and the bid opening was held on June 12, 2008. Bid documents were reviewed in preparation for August 2008 award.
- MSD crews closed the following CSOs on the Central Relief Drain:
 CSO194 on March 6, 2008.
 CSO32 on March 12, 2008.
 CSO33 on June 11, 2008.
 CSO30 on June 21, 2008. The cyclone unit was removed and a new location for its use is being evaluated.
- Continued the review of flood pump stations within the CSS to determine if modifications can be made to further maximize flow transported to the Morris Forman WWTP, as required by the Consent Decree.
- Process developed for a field analysis of outfalls to see if additional flap gates will improve system storage. Associated flap gate data has been updated in Hansen. The field analysis initially scheduled for March 3, 2008, continued to be postponed due to high water and rain throughout the spring months.
- Continued evaluation of quick closures of CSOs on the Central Relief Drain and any additional CSOs that have low average annual overflow volumes or occurrences.



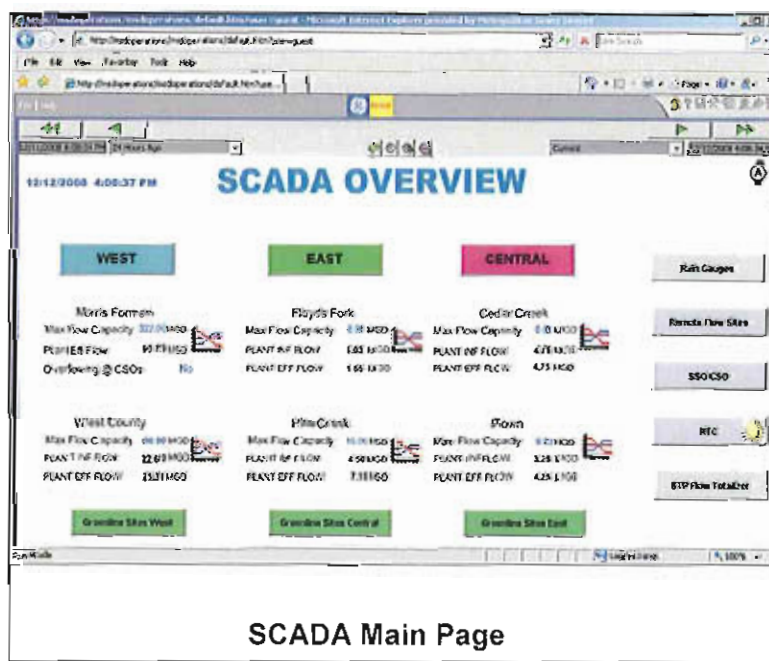
NMC 3: Review and Modification of Pretreatment Requirements

- Continued to send wet weather alerts to the Non-Domestic Dischargers (NDD) prior to rain events, reminding them of their commitment to implement controls during wet weather events.
- Completed the Threat Matrix exercises to determine the NDDs having the greatest potential to impact the stream during wet weather events.
- Revised NDD Fact Sheets for the top five NDDs based on the most recent InfoWorks hydraulic results. These Fact Sheets contain information specific to the NDD, receiving CSO, as well as the receiving stream the CSO discharges to during wet weather overflow events. They are intended to further educate each NDD on the possible impacts of discharges from their facilities during wet weather events.

- Follow-up inspections and meetings were conducted at the top five NDDs to discuss the requests listed in their respective letters and to review the forms used to document wet weather discharge minimization activities. Follow-up meetings will help determine the value in incorporating the voluntary commitments into permit requirements. Meeting summary correspondence was sent to each top five NDD.
- Continued the implementation of the CSO-SIU project in conjunction with the Long Term Control Plan (LTCP) preparation. Data from the June 2008 InfoWorks Hydraulic model of the CSS was used to reassess pollutants of concern and NDDs of interest in the spreadsheet models for conventional pollutants and metals. MSD formalized and documented the internal procedures that will be used for the regulation of new significant NDDs in the CSS.
- Developed performance measures to monitor the effectiveness of the implementation of NMC #3 within the Pretreatment Program.

NMC 4: Maximization of Flow at the Morris Forman Wastewater Treatment Plant

- Continued operation of RTC Phase I, which minimizes wet weather overflows from the Southwestern Pump Station, providing an optimized method for delivering more consistent flows into Morris Forman WWTP during and after wet weather events.
- Continued work on the RTC Phase II projects. The RTC at Southwestern Outfall SWOR2 (Budget ID I05055) is under construction. The Integration of Southwestern Pump Station/Morris Forman WWTP (Budget ID I05056) and Integration of Wheeler Basin (Budget ID I05057) have been combined into one project that bid on June 12, 2008. Both bids received were substantially higher than the Engineer's Estimate, so the course of action is being reviewed by MSD staff. The RTC consultant is also working on a tool to generate reports of actual wet weather events captured through RTC.
- Completed modifications to the Operations web page that displays flow, capacity and percent of capacity at the Morris Forman WWTP on April 24, 2008, and placed this information into production.
- Evaluated the use of alternatives to sodium hypochlorite for disinfection during high flows during the month of April. Waiting on the analysis report to determine if a successful replacement



or addition may allow MSD to improve disinfection system effectiveness at high flows to ensure that disinfection performance does not become a constraint on treatment capacity.

- There were 27 days during this fiscal year where the peak flow was over 300 MGD. Ten of these days were in March. There were no KPDES permit violations during Fiscal Year 2008. The final average daily flow at Morris Forman WWTP for March 2008 was 202.9 MGD, which is the highest monthly average on record. This average daily flow was influenced by an extremely wet period; 10.1 inches of rain was recorded from March 1, 2008 through March 31, 2008.

NMC 5: Elimination of CSOs During Dry Weather

- Continued implementation of the Unusual Discharge Request permit program, to prevent negative impacts on the CSS from discharges not already covered by a wastewater discharge permit.
- MSD reported dry weather overflows from the CSS in accordance with the Sewer Overflow Response Protocol (SORP). During this time period, eight dry weather discharges were reported. Three from CSO15 and two from CSO191, which discharge to the river through the same outfall conduit. These occurrences were related to elevated Ohio River levels and operation of the Paddy's Run Flood Pumping Station in compliance with the U.S. Army Corps of Engineers (USACE) flood pumping protocols. Three additional dry weather overflows occurred at CSO131, CSO113 and CSO18. The overflow at CSO131 was a structural failure that was repaired. The overflow at CSO113 was due to an obstruction that has been removed. The overflow at CSO18 was due to an electrical failure at the Nightingale Pumping Station and has been repaired.
- Modified the low flow pipe at CSO113 to allow more efficient drainage to the interceptor, and to prevent dry weather overflows.
- Metro Operations staff has coordinated with E.ON U.S. to ensure that electrical and natural gas shut downs will minimally impact the operation of MSD facilities.
- Performed reconnaissance and preventive maintenance of collection system FOG "hot spots" to proactively remove grease and debris buildup, minimizing the possibility of overflows at these locations.
- Conducted an analysis of ten locations throughout the District that historically have experienced excessive accumulation of FOG in sewers to determine if an engineered solution could cost-effectively and efficiently solve the maintenance problem. Technical memorandum will be finalized by December 31, 2008. One site may be a candidate for an engineering solution.

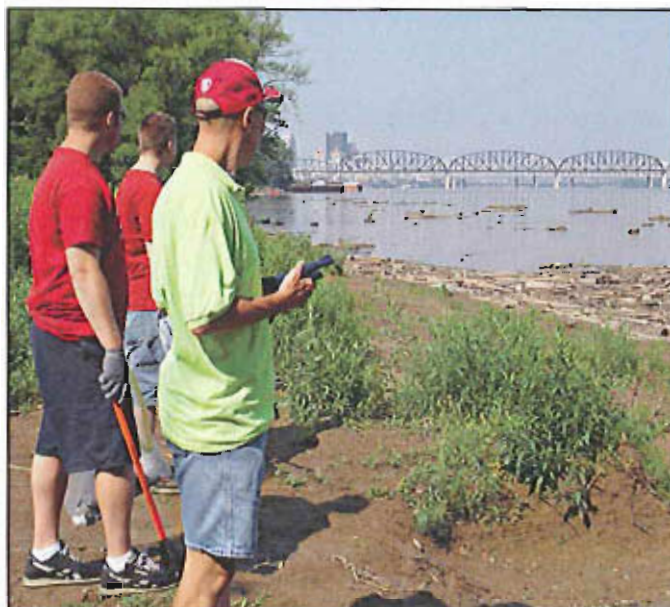
NMC 6: Control of Solid and Floatable Materials in Combined Sewer Overflows

- Continued inspection and maintenance procedures for the solids and floatables structures as part of the weekly CSO inspections and preventive maintenance (PM) cleaning routines, outlined under NMC 1. During this period, 526 work orders were issued for debris removal at the solids and floatables structures.

- Removed baffle, modified the structure and re-installed the wave screen at CSO113 to allow for capture and screening of more overflow.
- Replaced and reinforced the wave screen at CSO125.
- Completed construction of the CSO146 solids and floatables baffle vault and certified the project on January 16, 2008. The system was operational as of December 22, 2007. The finalized record drawings for the baffle vault at CSO146 (Budget ID H07026) were submitted and approved by MSD in June 2008.
- Reviewed inspection and maintenance procedures for solids and floatables controls during CSO training on June 12 and June 19, 2008.

NMC 7: Pollution Prevention Programs to Reduce Contaminants in CSOs

- Continued administration of the Hazardous Materials Ordinance, which requires users with hazardous materials on site to submit a spill prevention and control plan. Continued response to spills of hazardous materials and incidents involving discharges to the sewer system and provide spill mitigation kits to the Louisville Metro Fire Department to use to absorb vehicle fluids rather than flushing to the sewer.
- Continued administration of the Erosion Prevention and Sediment Control (EPSC) Ordinance.
- Continued issuance of wastewater discharge permits under the Industrial Pretreatment Program.
- Butchertown invasive plant removal event held on November 17, 2007.
- Held rain barrel distributions on November 10, 2007, and December 15, 2007. MSD is now partnering with the Louisville Nature Center to distribute rain barrels. 467 rain barrels have been distributed.
- A record number of volunteers participated in the Ohio River Sweep on Saturday, June 21, 2008. Volunteers gathered to pick up litter and debris along the banks of the Ohio River as part of a 15,000-volunteer effort from Pittsburgh, Pennsylvania to Cairo, Illinois. The event coordinated trash collection along 1,800 miles of riverbank. Six states and 72 counties were represented. More than 250 bags of debris were collected along the Louisville Metro Ohio River bank.



Ohio River Sweep



MSD

Louisville and Jefferson County
Metropolitan Sewer District

**Consent Decree Annual Report
July 1, 2007 – June 30, 2008**

- The X-Stream Clean Sweep was held on March 15, 2008, at 16 different sites within Jefferson County. Two locations were in Portland along the Ohio River, eight sites were located on Beargrass Creek and six sites were on Pond Creek.
- Continued coordination of activities performed by Louisville Metro such as: street sweeping, Operation Brightside (garbage pick-up), and other Metro pollution prevention programs.

NMC 8: Public Notification

- Distributed Project WIN grease scrapers at various public events.
- Two cycles of the Overflow Advisory sign inspections were performed during this reporting period. Approximately 2,176 inspections were performed on 1,088 signs. The second round of these annual inspections was completed prior to the start of the 2008 summer recreational contact season. Over 266 work orders were issued to repair/replace damaged signs and 20 work orders have been issued to clean signs of paint and graffiti. In the CSS, 274 signs were inspected and in the separate sewer system, 814 signs were inspected.
- Mailed "Holiday Tip" postcards to customers in November 2007.



- Finalized the Recreational Contact Survey detailing the extent of potential human contact to impacted waterways during the recreational season. This study consisted of visual observations of recreational use in and around key locations along Beargrass Creek and the Ohio River within Jefferson County that are easily accessible to the public. The study was used to determine if additional signage, information displays or other public notification efforts are warranted at locations of high use. Field work for this





study was conducted from May 1 – October 31, 2007. Results demonstrate that existing signage provides adequate notification for all areas that experience common recreational use. No additional signage was recommended as a result of this study.

- Continued to update the Project WIN website. Customers who voluntarily sign up to receive email alerts regarding sewer overflows now receive a revised notice that indicates when overflow conditions have returned to normal. In addition, there are messages from MSD, a repository of approved documents, Stakeholder meeting minutes and access to a public notification email system. This website can be found at www.msdlouky.org/projectwin.
- An advertisement was published in the *Sunday Courier Journal* newspaper on April 6, 2008, that discussed water quality issues and the Consent Decree. This same publication also appeared in the paper's Neighborhood Section on Wednesday of that week.
- Distributed informational material the week of April 14, 2008, to residents within 500 feet of the south shore of the Ohio River from the mouth of Beargrass Creek to the Portland canal and both sides of the three forks of Beargrass Creek, alerting them to wet weather issues and how to minimize the risks of coming into contact with water that may contain sewage.
- Placed an advertisement in the *Courier Journal* on April 9, 27, 30 and May 11 and 14, 2008, to inform the public about the Project WIN meetings.
- Placed information on Project WIN in the August, October and December 2007, January, March and May 2008 issues of *Today's Woman* magazine.
- Placed information on Project WIN in the August, September, October and December 2007, February, April, May and June 2008 issues of *Business First* newspaper.
- Placed information on Project WIN in the July, August, September, October and December 2007, January, February, March, April, May and June 2008 issues of *Louisville Magazine*.
- *MSD Update* sent to customers and staff in July, August, September, October, November and December 2007, January, February, March, April, May and June 2008. Project WIN related articles are contained in each issue. These publications are available on the MSD website.
- Published 7,000 copied of the MSD 2007 Annual Report for distributed to customers.
- The spring issue of *Crosscurrents* was distributed to over 9,500 customers. This publication, also available through the MSD website, contains Project WIN related articles on how hauling operations can prevent and reduce overflows and how rain gardens can help keep water out of the sewers.
- Facilitated public meetings throughout Louisville Metro to alert residents to water quality issues and Project WIN initiatives related to the Consent Decree.

NMC 9: Monitoring to Characterize CSO Impacts and the Efficacy of CSO Controls

Stream Monitoring

- Submitted the Water Quality Synthesis Report in December 2007 which included a watershed description of land use, population, impervious area and various environmental parameters. The report included a statistical analysis of water quality data collected within the Beargrass Creek watershed from 2000 through 2005 and is available on the Project WIN website.
- Completed the recreational use survey for the Ohio River and Beargrass Creek.
- United States Geological Survey (USGS) has installed a "side-looking" stream flow gauge near the mouth of Beargrass Creek and its confluence with the Ohio River to more accurately measure the backflow effects from the river on the stream and tie this data to dissolved oxygen readings in the area. The initial data from this gauge will be analyzed to determine data quality and better characterize the interaction between Beargrass Creek and the Ohio River.
- Continued to collect stream flow, sonde and other environmental data sets for use in further characterization of the combined service area.
- Wet weather sampling events occurred in October 2007 and March 2008 within the Beargrass Creek watershed mobilizing over 80 people and capturing grab samples at numerous stream locations, CSO, and SSO points for 96 hours and 48 hours respectively.

Sewer Monitoring

- Continued development of a draft of the Post Construction Monitoring Plan section of the Integrated Overflow Abatement Plan. This plan outlines the monitoring and modeling procedures to be followed to assess combined sewer overflow reduction through traditional overflow controls as well as reductions due to source control related to green infrastructure. The plan also includes upgrades to current quality control practices.
- Continued to monitor the largest CSOs for flow volume to define the wet weather contribution of the overflows to the stream. In addition, the following monitoring activities have occurred:
 - Continued project to install flow meters at CSO16, CSO62, CSO97, and CSO146. Project costs are being developed for the meters, telemetry and power needed for installation at each site.
 - Continued project to upgrade existing flow meters with telemetry and power at CSO210 and CSO211.
 - Developing process to use existing Plant Information sensor data tags to calculate the flow at CSO15 and CSO191.
 - Developing process to install and use the level indicator to calculate flow at CSO20.

- Installed a flow meter at CSO125.
- Overflow/wet weather inspection routes are being reviewed and coordinated between the various MSD teams as well as the development of an inspection tracking process.

Modeling

- Calibrated the InfoWorks CSS Model in anticipation of increased use for the LTCP development. Additional sewer lines, up to an 18-inch diameter, were coded into the model and pump station and other physical parameter information were updated. The evaluation of the synthetic year rainfall with the typical rainfall year (2001) used for simulation within the model was completed. The typical year 2001 was selected for future use in AAOV calculations and water quality modeling analyses.
- Completed the calibration of the Water Quality Tool model of the Beargrass Creek Watershed in preparation for use in the CSO LTCP and the fecal and dissolved oxygen TMDLs. Continued the preparation of the Ohio River water quality model for use in the LTCP.
- Negotiated a contract for updated radar rainfall services with OneRain. These services will provide 6-hour predictive rainfall estimates to MSD, streamline rainfall data transfer between OneRain and the RTC model simulation, and provide a monthly, calibrated data set for use in historical event analysis. The services should be available in late 2008.

1.3 Sewer Overflow Response Protocol Implementation

Per Paragraph 23.d. of the Consent Decree, MSD initially submitted the Sewer Overflow Response Protocol (SORP) to EPA and KDEP on February 10, 2006. MSD received an approval letter, dated August 22, 2006 for the SORP. The SORP document can be viewed on the MSD Project WIN website www.msdlouky.org/projectwin. Highlights of SORP activities performed during this reporting period are outlined below.

Overflow Management and Field Documentation

- Continued daily, monthly and quarterly reviews with staff from Metro Operations, Infrastructure & Flood Protection (I&FP) and Regulatory Services (RS).
- MSD I&FP staff routinely monitors 11 locations and takes preventive measures to reduce basement backups. Work orders are used to track these various activities. During this period, MSD I&FP staff mobilized 116 times.
- MSD's RS staff continues to monitor approximately 60 sanitary sewer overflow (SSO) sites, which have been grouped into routes based on the range of rainfall rates necessary to cause an SSO. These routes are monitored during rain events depending on the magnitude and location of the storm. If an overflow is observed, a Discharge Work Order is created to document the event. During this period, MSD's RS staff reported 195 overflows.
- MSD Metro Operations continues to monitor over 300 sites via telemetry. There are approximately 20 sites where sewage is routinely hauled from pump stations to prevent overflows during rain events depending on the magnitude and location of the storm.

Due to wet weather capacity issues during this reporting period, MSD over 10,000,000 gallons of sewage. The hauled volume is reintroduced into the system at the nearest downstream location that can handle the flow.

- Several field audits were performed on the modeled overflow points:
 - 73 modeled overflow sites were inspected during a 4-inch rain event on March 13, 2008, to assist in the validation of the sewer models.
 - 13 modeled overflow sites were inspected on April 5, 2008, to assist in the validation of the sewer models.
 - 59 modeled overflow sites were inspected on May 12, 2008, to assist in the validation of the sewer models.

The modeled overflows that were verified during these audits have been established as documented or suspected SSOs and will be addressed in the SSDP.

- BLEND Code was added to the Overflow Report form to assist Metro OPS staff with overflow data collection at the Jeffersontown WWTP. There have been 12 blending events tracked since this process was implemented in February 2008 through June 2008.
- Enhancements were made to the Overflow Report form to assist staff with overflow data collection.
- SORP training documents and job aides were developed to assist staff in all aspects of SORP implementation.
 - Sample Text guide for Spot Inspections (posted in Hansen Help)
 - Step by Step guide for Overflow reporting
 - Volume Estimation Guide
- Telemetry was added to the siphon structure upstream of the Jeffersontown WWTP to facilitate overflow monitoring.



Overflow Advisory Sign

Public Notification and Communication

- Two cycles of the Overflow Advisory sign inspections were performed during this reporting period. Approximately 2,176 inspections were performed on 1,088 signs. The second round of these annual inspections was completed prior to the start of the 2008 summer recreation contact season. Over 266 work orders were issued to repair/replace damaged signs and 20 work orders have been issued to clean signs of paint and graffiti. In the CSS, 274 signs



were inspected and in the separate sewer system, 814 signs were inspected.

- Added a notification of blending events at the Jeffersontown WWTP to the Project WIN website for events starting on or after February 12, 2008. There have been 12 notices posted through June 2008.
- The process to populate the XY coordinates for all signs was completed on March 31, 2008. The data was added to the Hansen Inventory on April 1, 2008.
- An advertisement was published in the *Sunday Courier Journal* newspaper on April 6, 2008, that discussed water quality issues and the Consent Decree. This same publication also appeared in the paper's Neighborhood Section on Wednesday of that week.
- Distributed informational material the week of April 14, 2008, to residents within 500 feet of the south shore of the Ohio River from the mouth of Beargrass Creek to the Portland Canal and both sides of the three forks of Beargrass Creek, alerting them to wet weather issues, particularly how to minimize the risks of coming into contact with water that may contain sewage.
- Continued to update the Project WIN website. Customers who voluntarily sign up to receive email alerts regarding sewer overflows will now receive a revised notice that indicates when overflow conditions have returned to normal. In addition, there are messages from MSD, a repository of approved documents, Stakeholder meeting minutes and access to a public notification email system. This website can be found at www.msdlouky.org/projectwin.

MSD Sewer Overflow Advisory MSD-02: Wet Weather Overflow Conditions are Normal.

It has been 48 hours since significant rain has fallen in the Metro area.
The impact from sewer overflows has been reduced.

This e-mail message is part of a public notification system within MSD's multi-year project to clean up area waterways - Waterway Improvements Now (Project WIN). If you have questions or need more information about the notification system or Project WIN, please visit the MSD's website at www.msdlouky.org/projectwin/ or call MSD's Customer Relations Department at 502-587-0603.

If you want to unsubscribe from this e-mail notification system, please click on the link provided below or paste the entire link in your browser:
<http://inet.msdlouky.org/listsrv/response.aspx?us=0&e=qdkktlfqnxjtnkcrldkkti'hkti>

Thank you for your interest in MSD's Project WIN E-mail Notification System.

- Placed an advertisement in the *Courier Journal* on April 9, 27, 30 and May 11 and 14, 2008, to inform the public about the Project WIN meetings.
- Placed information on Project WIN in the August, October and December 2007, January, March and May 2008 issues of *Today's Woman* magazine.
- Placed information on Project WIN in the August, September, October and December 2007, February, April, May and June 2008 issues of *Business First* newspaper.



MSD

Louisville and Jefferson County
Metropolitan Sewer District

Consent Decree Annual Report July 1, 2007 – June 30, 2008

- Placed information on Project WIN in the July, August, September, October and December 2007, January, February, March, April, May and June 2008 issues of *Louisville Magazine*.
- MSD *Update* sent to customers and staff in July, August, September, October, November and December 2007, January, February, March, April, May and June 2008. Project WIN related articles are contained in each issue. These publications are available on the MSD website.
- MSD's 2007 Annual Report was published and distributed.
- The spring issue of *Crosscurrents* was distributed to over 9500 customers. This publication, also available through the MSD website, contains Project WIN related articles on how hauling operations can prevent and reduce overflows and how rain gardens can help keep water out of the sewers.

Regulatory Reporting and Data Management

- At the request of KDEP staff, Brad Kouns was removed from the email notification and Lisa Jeffries was added. Her email is LisaA.Jeffries@ky.gov. Request was completed on February 5, 2008.
- A supplemental email will now be sent if a discharge work order was not completed prior to the initial reporting. The EPA contact name to receive the discharge notification emails was changed from John Harkins to Sean Ireland.
- A link from the Hansen sign inventory to the GIS was created.

Stormwater Tip #1
**Use Low-Tech,
Old-Fashioned Technology.**



Rain barrels are a simple solution to help conserve water and reduce flooding. By collecting and storing rainwater for later use on your garden or lawn you'll relieve the impact of stormwater on sewer pipes and lower your water bill.

More Stormwater Tips:

1. Disconnect downspouts, gutters or foundation drains, groundcover, sump pumps, or any other stormwater connection from the sanitary sewer system. Redirect the downspouts so rain flows into your yard or garden.
2. Have the line that connects your house with the public sewer line inspected. Repairing broken laterals, which is the homeowner's responsibility, can reduce stormwater from leaking into pipes and prevent sewer backups into your home.

Be stormwater smart.
Small changes make a big difference.

Find out how you can start conserving with a rain barrel. Visit www.msdlouisville.org or call 502-587-6603.




Magazine Ad



MSD

Louisville and Jefferson County
Metropolitan Sewer District

**Consent Decree Annual Report
July 1, 2007 – June 30, 2008**

- The additional field of Receiving Treatment Plant was added to the email notification on February 5, 2008.
- The additional data fields of City, State and Zip were requested to be added to the email notification on March 27, 2008.
- BLEND problem code has been added to Hansen for tracking blending events at the Jeffersontown WWTP. MSD developed a process to automatically send an email reminder to responsible staff when a 5 day letter is needed for a BYPASS or BLENDING event.
- MSD's Information Technology (IT) staff created a tool to automatically publish data from the rain gages to track the start and stop of rain events. This information is published internally on MSDNet.
- MSD continued to improve the accessibility of data captured by the SCADA system for pump station and Real Time Control information. MSD continues to standardize various environmental data sets in preparation for integration with an upcoming SharePoint site.
- Monthly meetings continue to be held with interdepartmental staff to perform quality control on Discharge work orders.
- A review of the historical Discharge work orders was completed for all data back to July 1, 2004. This review was performed to assist with the confirmation of documented overflow locations needed for the IOAP. The associated assets in Hansen were updated to track these overflow locations. A process to review this data monthly has been structured and continues to be performed. The associated assets in Hansen were updated to track any new overflow locations.
- The Discharge Report was updated to include additional information on the monthly report that is submitted with the DMRs and the Quarterly Reports.
 - **DISSUP** log code and data was added. This code tracks when supplemental data is sent to KDEP and EPA on Discharge work orders.
 - **DISPUB** log code and data was added. This code tracks how MSD provided public notification of an overflow. The report now also includes **Assigned To** information.
- The XY coordinates for all signs were added to the Hansen Inventory on April 1, 2008.
- Templates have been created for the required BYPASS and BLENDING 5 day notification letters. Once approved by staff, these templates will be posted and available through MSDnet.

Staff Training and Communication

- The full SORP training module was provided in a 3.5 hour session format for those staff directly responsible for daily implementation of the SORP procedures. 199 employees were trained in 12 Field Training sessions.
- The module that overviews MSD's SORP Obligations and Project WIN was provided in a



30-minute session format for all MSD staff, contractors, the Wet Weather Team/Stakeholders and the MSD Board. 507 employees were trained in 28 SORP Overview sessions.

- Three makeup SORP classes were held for staff that were unable to attend the winter 2007 training sessions. 108 employees were trained in the 3 makeup sessions.
- Entering this third year of training, feedback from MSD field crews has been used to refine SORP training and to build on successes in the field. Participants actively shared field experiences and mitigation problem-solving strategies, feedback was shared regarding MSD's overflow data for the previous period and other performance information was reviewed. Nine quarterly SORP classes were held for I&FP and Metro Operations staff members. 138 employees have gone through training this period.
- MSD continues to review and update the data associated with discharges.
- Reports were created to review overflow response for the last three quarters. The reports were structured to use the EPA definition of a SSO.
- Field reviews were performed to evaluate MSD response to and documentation of unauthorized discharges for the February 4-6, 2008, and March 4, 2008, rain events.

Annual SORP Review

- Definitions, routes and inspections will be key areas updated in the annual SORP review.
- MSD has started the modifications to several sections of the SORP. The revised document will be submitted to EPA by August 22, 2008.

1.4 Capital Improvement Projects

Paragraph 23 of the Consent Decree requires the implementation of a specific list of projects to be completed and/or initiated prior to the implementation of the final Sanitary Sewer Discharge Plan (SSDP) and final Long Term Control Plan (LTCP).

Only one project from the original Consent Decree Early Action Plan listing remained active during this reporting period. After completion of the following project, this subsection of the Annual Report and Quarterly Reports will be eliminated. Refer to **Appendix A-1** for a chart showing the schedule of activities described in this section.

- CSO147 Elimination (Budget ID H06357) - CSO147 was eliminated prior to September 30, 2007, in accordance with the Consent Decree. Sewer separation and downspout disconnection work was performed to allow for the elimination of CSO147. MSD Construction Crews performed closure of the outfall on August 14, 2007, and a certification letter was sent to KDOW on September 11, 2007.

1.5 Discharge Abatement Plans

A requirement of the Consent Decree, per Paragraph 24, is to prepare and submit for review and approval discharge abatement plans for the elimination of unauthorized discharges from the separate sanitary sewer system and the combined sewer system, the reduction and control of discharges from the CSO locations identified in the Morris Forman WWTP KPDES permit and



the improvement of water quality in the receiving waters. The Sanitary Sewer Discharge Plan (SSDP) and the CSO Long Term Control Plan (LTCP) will be submitted concurrently under the title of the Integrated Overflow Abatement Plan (IOAP) by December 31, 2008.

1.4.1 Sanitary Sewer Discharge Plan

The Sanitary Sewer Discharge Plan (SSDP) will address the overflows and unauthorized discharges from the separate sanitary sewer system. Three separate plans will be submitted under this program as described below and outlined in Paragraph 24.a. of the Consent Decree.

1.4.1.1 Updated Sanitary Sewer Overflow Plan (SSOP) Implementation

MSD prepared and submitted the Updated Sanitary Sewer Overflow Plan (SSOP) on February 10, 2006. This plan included an overview of the MSD sanitary sewer overflow abatement program and specific actions taken to reduce/eliminate overflows from the sanitary sewer system. This document included a list of the proposed improvements to be accomplished by December 31, 2008. Refer to **Appendix A-2** for a chart showing a schedule of the activities described in this section.

The following projects were completed within the reporting period and have been certified complete under previous transmittals:

- Murray Hills Area Pump Station Upgrades (Budget ID F06297) – The project scope was modified to eliminate one pump station in the Murray Hills area. The project name was modified to Acushnet Pump Station Elimination. The flow has been diverted and remains in the Morris Forman WWTP service area. The project was certified on May 13, 2008, prior to the September 30, 2008 deadline, in accordance with the Consent Decree. This project is complete.
- Broadfern Pump Station Upgrade (Budget ID F02327) – Two new dry pit pumps have been installed along with new suction and discharge piping and pump level controls. Installation and initial testing was completed by December 28, 2007. The certification letter was sent January 25, 2008. This project is complete.



Sewer Rehabilitation Project

The following projects were active during the reporting period and will be completed as required by the Consent Decree:

- Interceptor Condition Assessment Phase 1 (Budget ID H04272) – The first phase of interceptor rehabilitation projects were identified using information from the assessment. The contract plans and specifications for these projects continue to be prepared. The first capital project (Northern Ditch Interceptor Rehabilitation – H07298) was advertised, bid and awarded during this timeframe. The contractor received a notice to proceed on June 30, 2008. The contract documents for the remaining capital rehabilitation projects (Budget IDs: H07294, H06301, H07295, H07296, H07297 and H04276) are being prepared for advertisement for construction contracts. The projects will be completed by December 31, 2008, in accordance with the Consent Decree.
- Fern Hill Subdivision Interceptor #8 (Budget ID C94086) - This construction contract was awarded January 28, 2008, and the notice to proceed for construction was issued on February 18, 2008. Included in this scope of work is the elimination of the Holly Oaks Pump Station. The flow which was being treated in the Cedar Creek WWTP service area was diverted to the West County WWTP service area as of April 18, 2008. The elimination of the Holly Oaks Pump Station was certified on May 9, 2008, and therefore completed prior to the March 30, 2009, deadline, in accordance with the Consent Decree. The Fern Hill Subdivision Interceptor #8 Project will continue with final punch list items to be completed.
- Thurman Drive Pump Station Elimination (Budget ID B06299) – The construction contract was executed during the first quarter of 2008 with construction beginning in January 2008. The elimination of the Thurman Drive Pump Station is near completion. The flow will remain in the West County WWTP service area but will be diverted to a new interceptor. The project will be completed by September 30, 2008, in accordance with the Consent Decree.
- Zabel Way Pump Station Elimination (Budget ID C06295) - The necessary easements were acquired during the first quarter of 2008 and the final construction plans prepared. MSD advertised for bids on the construction contract to eliminate this pump station. The construction contract was awarded and a notice to proceed was issued during this reporting period. Construction will be completed by September 30, 2008, in accordance with the Consent Decree.

1.4.1.2 Interim Sanitary Sewer Discharge Plan (ISSDP)

MSD submitted for approval an ISSDP on September 30, 2007. Comments were received on January 8, 2008. The response was resubmitted on March 7, 2008. As of June 30, 2008, MSD had not yet received the final approval. The overall project concept includes reconstruction of the Beechwood Village sanitary sewer system along with the construction of relief sewers, elimination of the Highgate Springs Pump Station and offloading sewers in the Hikes Point area that currently create unauthorized discharges during wet weather. The concept also involves conveying flow from the Southeast Diversion Structure through the Southeast Interceptor and the Northern Ditch Interceptor to a new relief sewer that will convey wet weather flows from the Northern Ditch Interceptor to the West County WWTP. A flow equalization basin and expansion of the existing contact stabilization activated sludge process is proposed to treat the diluted



wastewater conveyed by this relief sewer during wet weather. Refer to **Appendix A-3** for a chart showing the schedule of the activities described in the section.

To meet the implementation schedule required by the Consent Decree, the following activities have occurred:

- Beechwood Village (Budget IDs E07261 and E08034) - The new collector system design has reached 90% and is now on hold while MSD negotiates for the temporary easements needed for the installation of new property service connections along with the permanent easements for the route of the new outlet (Sinking Fork Interceptor Relief Budget ID H08357). There are 574 temporary easements needed to complete the construction project and MSD has recorded over 300 of the temporary easements. The Sinking Fork Interceptor Relief Sewer is expected to begin east of Beechwood Village, cross Shelbyville Road, through the Shelbyville Road Plaza to the Middle Fork of Beargrass Creek Interceptor. MSD did a preliminary walk through of the route, completed geotechnical sampling and has had a meeting with the U.S. Army Corps of Engineers regarding the possible sewer route. The project will be completed by April 2011, in accordance with the revised ISSDP.
- Southeast Diversion Structure (Budget ID H08358) - Construction will be required for a new relief interceptor parallel to the Southeast Interceptor from the Southeast Diversion Structure to the Northern Ditch Interceptor. A new junction structure is expected to be constructed to connect this relief sewer to the proposed Hikes Lane Interceptor and the existing Buechel Branch Interceptor. During development of the Final SSDP, alternatives have been identified for the Upper Middle Fork Pump Station and the Jeffersontown WWTP that could impact the sizing of this relief interceptor, and require the addition of a flow equalization basin somewhere along the route. Professional services selection and scope development have been put on hold pending selection of the alternatives for eliminating unauthorized discharges at these locations. This project has considerable "float" as it is not required until the proposed Hikes Lane Interceptor is completed. The construction of the Northern Ditch Diversion Interceptor and the West County WWTP Wet Weather Equalization and Treatment Project will eliminate the Southeast Diversion overflow and this will be completed by December 2011, in accordance with the revised ISSDP. The junction structure and the Southeastern Relief Interceptor will be completed in coordination with the Hikes Lane Interceptor by May 2012, in accordance with the revised ISSDP.
- Highgate Springs and Hikes Point Area (Budget ID H07286 and H07287) – Work continued on the Preliminary Engineering Report for the design of the Hikes Lane Interceptor and Hikes Point Relief Sewer Improvements. In mid June 2008, a meeting was held at MSD to review status of the preliminary design, discuss information found in the geotechnical investigation, traffic analysis and the recommendations made to date on the Hikes Lane Interceptor pipe materials and alignment. In addition, a review of the necessary Hikes Point Relief Sewer Improvements was made to determine if project scopes could be separated from the large interceptor work. The entire project package will be completed by November 2012, in accordance with the revised ISSDP.



- Northern Ditch Diversion Interceptor (Budget ID C85017) - Improvements described in previous three paragraphs will result in significantly more wet weather flow being retained in the West County WWTP and Morris Forman WWTP collection systems. The proposed plan will include the installation of a new interceptor parallel to the Northern Ditch drainage channel, allowing wet weather flow to be diverted from the Morris Forman WWTP service area (currently through the Northern Ditch Pump Station) to the West County WWTP service area. The Interceptor design is underway with the surveying completed and the 60% design milestone reached.
- West County WWTP Wet Weather Equalization and Treatment Project (Budget ID H06302) - The preliminary design of the West County WWTP improvements is underway with treatment alternatives reviewed by the design firm. Construction of flow equalization and wet weather secondary treatment at the West County WWTP will be completed by December 31, 2011, in accordance with the revised ISSDP.

1.4.1.3 Final Sanitary Sewer Discharge Plan

MSD is required to submit for approval a Final Sanitary Sewer Discharge Plan (SSDP) by December 31, 2008. During this reporting period, MSD completed the following activities:

- Completed the calibration, validation, quality control reviews and addressed all quality control comments for the hydraulic models addressing the regional treatment plant sewersheds (Jeffersontown, Floyds Fork, Cedar Creek, Hite Creek and West County) and the sewersheds that are tributary to the Morris Forman WWTP. Developed a template for calibration/validation reports and each modeling consultant began preparing their version of this report. Completed the tables that document the quality control reviews and how each was addressed. Developed a template for reviewing potential SSO solutions and distributed to modelers.
- Conducted three additional rounds of field investigation of "modeled overflow points" not previously identified as documented or suspected SSOs. Several additional SSOs were identified as either documented or suspected during these investigations.
- Completed the first draft mapping of system characterization and deficiencies. GIS data was used to characterize MSD's separate sanitary sewer system based upon pipe material, location relative to the floodplain, and slope versus minimum design slope. Existing conditions hydraulic modeling of the separate sanitary sewer system was used to identify and analyze areas of surcharging and bottlenecks for the 1.82 inch cloudburst design storm. This data and mapping will be used for multiple initiatives including the continuing sanitary sewer assessment program, system capacity assurance, and SSO elimination analysis and design.
- Completed build-out analyses for Hite Creek, Cedar Creek, Jeffersontown, Floyds Fork, Pond Creek and Mill Creek modeling areas. Build-out projections were incorporated into the models and considered in solution evaluations.
- Completed the identification of potential solutions for documented and suspected SSOs in each watershed.
- Conducted a field verification of potential SSO solutions in the Pond Creek basin and



began the same process in other basins prior to alternative development.

- Completed the initial development and sizing based on the 50 - percent probability storm boundary condition for the SSO elimination alternatives. Continued work on the benefit/cost evaluation of SSO elimination alternatives.
- Conducted a consolidation workshop on June 17, 2008, to begin the process of consolidating, validating and prioritizing the alternatives. As a result of this workshop, a first draft of the entire list of preferred alternatives was discussed in a follow-up workshop June 30, 2008. Two alternatives were identified for further evaluation to be completed and several questions were raised that required investigation.
- Completed third-party quality control reviews on both the comparative construction cost estimates and the benefit/cost ratio development.
- Conducted several workshops with MSD staff to review the potential solutions being considered in each watershed, to solicit feedback regarding constructability, land acquisition, permitting issues, etc.
- Completed preliminary treatment plant capacity reviews for the purpose of alternatives evaluation. Continued work in parallel on the Comprehensive Performance Evaluations (CPE) and Composite Correction Plan (CCP) evaluations in accordance with EPA guidance documents for the Jeffersontown WWTP and those plants that are projected to receive additional flows as a result of SSO elimination.
- Met with representatives of EPA and KDEP on April 16, 2008, to discuss issues relative to completion of the Integrated Overflow Abatement Plan (IOAP).
- The baseline for the SSDP is being defined in an official document to ensure that all documented and suspected overflows are being addressed by the SSDP. This baseline is being coordinated with MSD's GIS Services department so that the overflows being tracked in Hansen and those addressed by the SSDP have a one to one match. The SORP inspection routes will be adjusted once this baseline is formally documented.
- Cross-checked the complete list of documented and suspected SSOs compared to the list of SSOs with solutions developed. A few additional SSOs have been documented during the calendar year 2008 that were not on the original list of SSOs incorporated in the sewer model. These additional SSOs will have solutions developed and will be included in the Final SSDP.

1.4.2 Long Term Control Plan

The Long Term Control Plan (LTCP) will address the overflows and unauthorized discharges from the CSS. Two separate plans will be submitted under this program as described below and outlined in Paragraph 24.b. of the Consent Decree.

1.4.2.1 Interim Long Term Control Plan

The Interim CSO LTCP was initially submitted to EPA and KDEP on February 10, 2006. MSD received an approval letter dated February 22, 2007, for the Interim LTCP. The approved Interim LTCP can be viewed on the MSD Project WIN website www.msdlouky.org/projectwin.



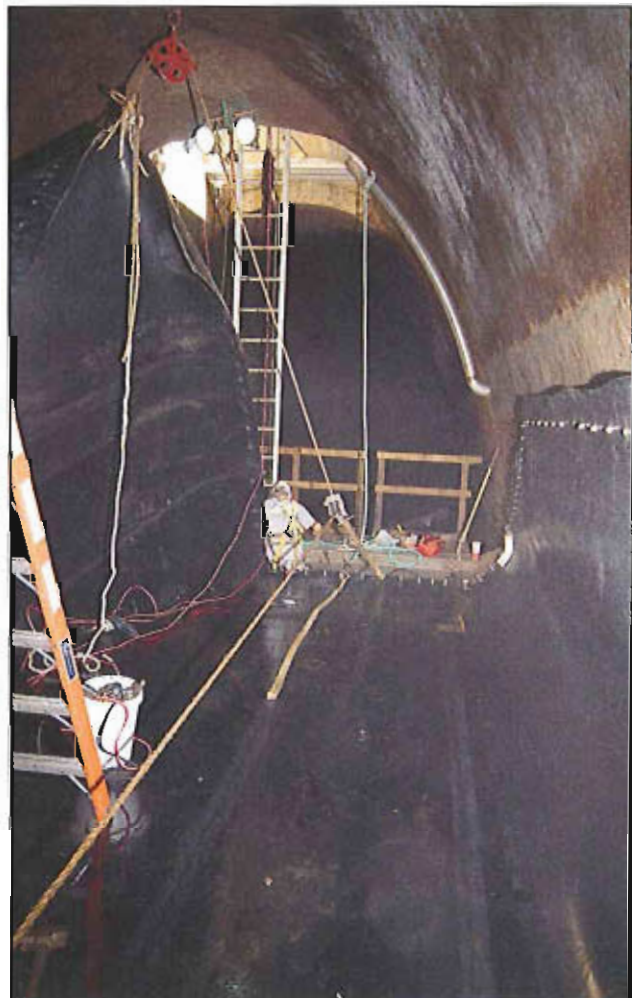
This plan includes an overview of the MSD program, efforts taken to reduce/eliminate discharges from the CSS and the list of proposed improvements to be accomplished by December 31, 2008. Refer to **Appendix A-4** for a chart showing a schedule of the activities described in this section.

The following project was completed or certified as complete during the reporting period:

- CSO146 Solids and Floatables Control (Budget ID H07026) - The project was substantially completed by December 22, 2007. Per the Consent Decree deadline, the solids and floatables control structure was operational prior to December 31, 2007, and the completion of the construction of the CSO146 solids and floatables baffle vault was certified on January 16, 2008.

The following projects were active during the reporting period:

- RTC at Southwestern Outfall SWOR2 (Budget ID I05055) – This project, part of Phase 2 of the RTC program, involves the installation of an inflatable dam for storage near the upper end of the Southwestern Outfall. Storage will primarily occur in the Upper Dry Run Trunk and the Mill Creek Trunk. The storage will be integrated into the Global Optimization RTC system. High water levels in the sewer system impacted the progress of this project. The contractor was delayed but lower flows in the sewers during June allowed the contractor to complete the underground access structure and begin necessary work in the pipe during off peak hours. In addition the control building is 75% complete. The schedule delay is pushing back the operational date by at least 30 days. This project will be completed by December 31, 2008, in accordance with the Consent Decree.
- RTC at CSO108 (Budget ID I03588) – This project, part of Phase 2 of the RTC program, involves improving the connection between the Beargrass Interceptor and the Beargrass Interceptor Relief Sewer to maximize storage and regulate



SWOR2 – Inflatable Dam



flow through these systems and, therefore the Nightingale Pump Station. The design phase continued during this period. MSD reached agreement on the terms of the extension of the Memorandum of Understanding with the property owner. MSD advertised for construction bids on June 13, 2008, and held a mandatory pre-bid meeting on June 19, 2008, for potential contractors. Bids are expected to be opened in July 2008. This project will be completed by December 31, 2008, in accordance with the Consent Decree.

- Integration of Southwestern Pump Station/Main Diversion Structure/Morris Forman WWTP (Budget ID I05056) – This project, part of Phase 2 of the RTC program, links the Southwestern Pump Station, Main Diversion Structure and the Morris Forman WWTP with the Global Optimization RTC system. MSD advertised and opened bids for this project on June 12, 2008. Two bids for the construction were received, both significantly higher than the engineer's estimate. MSD staff is determining best course of action at this time. This project will be completed by December 31, 2008, in accordance with the Consent Decree.
- Integration of Wheeler Basin (Budget ID I05057) – This project, part of Phase 2 of the RTC program, employs additional controls to better utilize approximately one million gallons of storage in the trunk line that drains the Wheeler Basin. The scope of this work has been combined with the project - Integration of Southwestern Pump Station/Main Diversion Structure/Morris Forman WWTP (Budget ID I05056). This project will be completed by December 31, 2008, in accordance with the Consent Decree.
- CSO206 Separation – This project includes the separation of combined sewers on the most upstream CSO on Middle Fork of Beargrass Creek. The sewershed had been divided into 15 sub-areas. Construction on the separation of areas 1-9 and areas 10-12 (Budget ID I01061) has been completed. The final design for areas 13 through 15 (Budget ID I01062) (of 15 total) is at 95% complete. An additional sewer line needs to be addressed by expanding the existing contract scope. This project will be completed in accordance with the Consent Decree by March 31, 2009.

1.4.2.2 Final Long Term Control Plan

Efforts associated with the Final LTCP continued through this reporting period and included the following activities.

- Completed the rainfall analysis summary memo and selected calendar year 2001 as the typical year to use for both water quality modeling and CSO hydraulic modeling.
- Completed the calibration and validation of the hydraulic model of the CSS. Completed quality control reviews and addressed the quality control comments. Work began to merge the models of the sanitary sewer system sewersheds that are tributary to the CSS into the CSS model, to allow a comprehensive evaluation of the impacts of SSO control projects on the CSS. Model run times have resulted in the need to simplify the level of detail in all the models to allow the merging to be useful. Detailed Real Time Control rules have been coded into the combined sewer model for Phase I & II to better define the model baseline for ultimate LTCP sizing.



- Completed modifications to the Ohio River Valley Water Sanitation Commission (ORSANCO) model of a segment of the Ohio River in the vicinity of Louisville. Completed calibration and validation, and began to use the model for evaluating the water quality impacts of CSOs on the river and resulting benefits of certain CSO abatement scenarios. A report for the Ohio River is being developed to help determine source loading in preparation for the water quality justification to be written for the IOAP development. This summary report will allocate loadings to the Louisville CSOs that contribute to the Ohio River to enable a clear picture to be defined on the limits of the LTCP to solely meet water quality standards.
- Initiated a water quality standards review in accordance with the CSO Policy and LTCP development guidance. Final model results confirm the preliminary findings. This review illustrates the inability of CSO controls alone to achieve water quality standards for bacteria during significant wet weather events. As noted above, this review will result in proposed approaches to meet water quality standards and provide a long-term target for CSO control. The control levels required may not be achievable during the time frame addressed by the IOAP, given the overwhelming need to control other load sources outside the scope of the IOAP in order for water quality standards can be met.
- Completed the load tables to support the development of dissolved oxygen and fecal coliform TMDLs for Beargrass Creek (BGC). The contractor working on the TMDL submitted the draft TMDLs to KDEP. Began runs using the WQT to evaluate the effectiveness of various CSO levels of control, assuming no background loads. This, combined with the TMDL, addresses the inability of CSO controls to solely achieve these standards for bacteria in BGC during wet weather. The draft TMDL will provide long-term goals for CSO control levels, but may not be achievable in the time frame addressed by this IOAP.
- The WQT, used to support the BGC TMDLs, and Ohio River Model is being prepared to analyze the preferred LTCP projects to assess the projected impacts of water quality on the water bodies.
- MSD began summarizing the following data for the Combined Sewer System by CSO basin: basin drainage area, land use, population, percent impervious, CSO receiving stream, AAOV, overflows in a typical year, average overflow duration and average volume per overflow incident.
- MSD began summarizing the following data for water monitoring activities on the receiving waters: stream flow monitoring, velocity, level, temperature, dissolved oxygen, pH, and turbidity at certain locations for inclusion in the IOAP.
- Completed a draft of a new AAOV table for CSOs based on the new detailed InfoWorks model for the CSS, using the new typical year input data.
- Identified and documented the baseline conditions for CSS overflow abatement alternative analysis.
- Identified opportunities for green infrastructure in each CSO basin and began identifying both project and programmatic goals for green infrastructure runoff reduction. This

volume reduction will be recognized in the sizing of the final traditional 'gray' solutions, assessed at an identified milestone during LTCP implementation and adjusted according to the results of this assessment.

- Using a rule-based management approach completed preliminary alternative development, sizing and costing based on a control level of four overflows per year at each location. Presented the results at June 17, 2008, consolidation workshop, and identified additional evaluations to be done. These were almost complete by the end of the month, with a draft revised list of preferred alternatives scheduled to be discussed July 2, 2008.
- Completed the Recreational Use Survey.
- Completed the Stream Reach Characterization Study.
- The Post Construction Monitoring (PCM) section for the IOAP is being drafted. Research for the best approach to green infrastructure and sewer rehabilitation impact measurement and projection is underway.

1.5 Public Outreach, Education, Notification and Participation

In addition to the technical aspects of Consent Decree implementation, MSD has enhanced programs to inform, educate and involve both staff and the local community. The program is broken down into different components aimed at accomplishing the goals for Discharge Abatement Plan development, as well as Consent Decree program implementation. The programs involve basic understanding of the community's water quality challenges and the personal behavioral changes necessary for complete success. A description of the programs follows.

1.5.1 Public Outreach

MSD has developed an outreach program aimed at educating the public on MSD's primary business functions with emphasis on wastewater, stormwater and flood protection. Presentations were given to numerous community groups during the reporting period. A portion of the presentation contains information related to the Consent Decree, including potential program direction and anticipated costs.



Rain Garden

**MSD**Louisville and Jefferson County
Metropolitan Sewer District**Consent Decree Annual Report
July 1, 2007 – June 30, 2008**

Below is a chronological summary of the **general outreach activities** during the reporting period.

July 11, 2007	Home Builders Association – current sewer issues, i.e., action plan updates, Consent Decree, capacity requests, I&I fixes etc.
July 16-18, 2007	Five Cities Water Professional Conference
July 17, 2007	District 20 Town Hall Meeting
July 24, 2007	Clifton Community Council- Meeting to discuss Consent Decree Impact on Projects
July 25, 2007	Meeting with Jefferson County Public Schools to discuss Green Solution Opportunities
July 28, 2007	Rain Barrel Distribution
August 1, 2007	Metro Council Budget Meeting – Rate Increase for Project WIN
August 9, 2007	Metro Council Vote on Rate Increase
August 15, 2007	Kentucky State Fair – Press Conference to Announce MSD Participation in 2007 State Fair Exhibit Hall
August 16-26, 2007	Kentucky State Fair - Environmental Display
August 16-26, 2007	Kentucky State Fair – Booth on Main Street – Project WIN Education
August 22, 2007	Southern Indiana Public Works conference on Pervious Concrete
August 27, 2007	District 22 and 23 Public Town Forum
August 28, 2007	Green Initiatives and Metro Government agency to form partnerships and identify sustainable community practices and implementation
August 2007	Rain Garden Manual Publication for Distribution to Homeowners
September 11, 2007	Urban Ecosystems and Environmental BMP Presentation to Clifton Neighborhood Association
September 18, 2007	Stormwater Management, Native Plants and Ecosystems Presentation to the University of Louisville Urban Watershed Class
September 21, 2007	Stormwater Management, Native Plants and Ecosystems Presentation to Male High School
September 23, 2007	Beargrass Creek Clean Sweep
September 25, 2007	Mayors Water Summit - San Francisco CA - Louisville Metro's CD
October 2007	MSD plans to co-sponsor a visit from ORSANCO's water quality education and demonstration boat - the P.A. Denny. The boat is scheduled to be docked at the Louisville waterfront for a week in October, providing education opportunities for JCPS students and the general public.
October 1, 2007	District 20 Town Hall Meeting
October 1, 2007	Joint Agencies Discussion on LID/Green Infrastructure
October 2, 2007	Presentation on Consent Decree, Address rate increase and senior citizen discount.
October 2, 2007	JCPS meeting to discuss concept plan developed for elementary school located in the CS area implementing green infrastructure.
October 3, 2007	Environmental task force meeting - task force includes representatives of all government agencies with focus on partnerships and green building initiative.

**MSD**Louisville and Jefferson County
Metropolitan Sewer District**Consent Decree Annual Report
July 1, 2007 – June 30, 2008**

October 9, 2007	City of Thornhill - Presentation on Consent Decree initiatives and any current or planned projects for area.
October 13, 2007	Rain Barrel Distribution.
October 15, 2007	Site meeting with developer to discuss green alternatives and sanitary sewer issues within combined sewer area relating to the Consent Decree. Provided guidance on implementation of LID methods.
October 18, 2007	Crime Prevention Summit at Brandeis Elementary School - MSD staffed a table, distributed Project WIN educational materials, raffled one rain barrel and encouraged participation at upcoming events.
October 18, 2007	Project Win public meetings with residents.
October 19, 2007	Meeting with Metro Public Works to explore partnering in high profile beautification project underway, and proposal for alternative plan to install a bio-retention swale and curb inlets to direct stormwater flows away from the CSS to reduce CSO's. Opportunity for Community education of green solutions in urbanized high traffic area.
October 24, 2007	Meeting to discuss green roof and educational table display proposal at MSD owned facility Beargrass Creek Pump Station.
October 25, 2007	Jeff. Co. League of Cities – presentation on the Consent Decree and recent rate increase.
October 29, 2007	Bellarmine University - Bud's speaking engagement with college students to discuss the role of leadership in business and current Consent Decree initiatives in our community.
November 1, 2007	Climate change committee - Discussion how to involve partnering to achieve mutual environmental benefits.
November 6, 2007	Sustainable Cities Forum – Keynote Speaker
November 10, 2007	Rain Barrel Distribution
November 13, 2007	Green Opportunities and Partnerships between Metro agencies.
November 17, 2007	Butchertown Greenway Invasive Vegetation Removal and Native Tree and Shrub Planting
November 27, 2007	Metro Council Transportation & Public Works Committee - Present overview of Consent Decree and the importance of continued support by Metro Council for future CD rate increases and bond rating for the community.
November 29, 2007	Ad campaign sponsorship 2008 - Meeting to discuss the focus of the HS marketing/advertising campaign to increase awareness about Project WIN initiatives and encourage community involvement.
December 11, 2007	Beechwood Wood Village Council Meeting - Update residents on Consent Decree Project status
December 13, 2007	Meeting with the Louisville Metro Housing Authority to present MSD's obligations required by the Consent Decree and explore partnership and opportunities for implementing Green Infrastructure for Government owned properties.
December 14, 2007	MSD hosted a workshop on Pervious Concrete Hydrological Design and Resources training for the Kentucky Ready Mix Concrete Association & The Kentucky Concrete Pavement Association.
December 15, 2007	Rain Barrel Distribution

**MSD**Louisville and Jefferson County
Metropolitan Sewer District**Consent Decree Annual Report
July 1, 2007 – June 30, 2008**

January 3, 2008	Meeting with Metro Public Works about bioswales for Meyzeek Middle School
January 19, 2008	The theme for the 2008 KY Derby Festival Conference is "Going Green!" The KY Derby festival committee has requested a representative from MSD to sit on the panel and talk about Green Initiatives
January 24, 2008	Keynote Speaker for Annual Meeting of Salt River Watershed Basin
January 26, 2008	Volunteer event - Invasive Plant Removal with Living Lands and Waters and Metro Parks along Butchertown Greenway
February 6, 2008	Presentation on Consent Decree, Disconnect Down Spouts to Douglass Blvd. Neighborhood Association
February 8,15,22,28,	Stormwater Management and Rain Garden Design Class for Louisville Youthbuild
February 5, 2008 – April 22, 2008	MSD is sponsoring the 2008 Advertising Federation HS campaign. The Challenge: This year's marketing challenge is to create a marketing/advertising campaign that increases awareness about MSD's Project WIN and encourages our community to prevent both point and non-point sources of water pollution when possible.
February 21, 2008	Kentucky Nurseryman Association – Keynote Address
February 23, 2008	Volunteer event – Invasive Plant Removal with Metro Parks and Living Lands and Waters
March 3, 2008	Rain Garden Workshop, Jefferson Memorial Forest
March 7 & 14, 2008	Stormwater Management and Rain Garden Design Class for Louisville Youthbuild
March 15, 2008	X-Stream Clean Sweep - 16 sites county wide, 140 volunteers
March 25, 2008	Presentation on Consent Decree, etc., for Neighborhood Institute
April 2, 2008	Presentation on Native Plants, Rain Gardens and Rain Barrels for Stormwater Management for Floyds Fork Watershed Group
April 14, 2008	Rain Barrel Sales are on-going. During this period 263 rain barrels were distributed.
April 19, 2008	Rain Garden Workshop for Louisville Nature Center/Rain Garden Installation at Louisville Nature Center
May 10, 2008	Public presentation on Native Plants, Rain Gardens and Rain Barrels for Stormwater Management - Louisville Nature Center
May 18, 2008	Presentation on Native Plants, Rain Gardens and Rain Barrels for Stormwater Management for Old Louisville Neighborhood Association
June 3, 2008	Urban Stormwater Class for Youthbuild E-Corps
June 12, 2008	Presentation for Deer Park Neighborhood Association
June 20, 2008	Presentation on Urban Stormwater, Rain Gardens, Rain Barrels for Sierra Club
June 21, 2008	Ohio River Sweep ORSANCO
June 28, 2008	Rain Garden/Rain Barrel Workshop for Bernheim Arboretum and Research Forest

**MSD**Louisville and Jefferson County
Metropolitan Sewer District**Consent Decree Annual Report
July 1, 2007 – June 30, 2008****Public Outreach – KY State Fair**

In addition, MSD staff attended the following "District 12 Dialogues" at the request of Councilman Blackwell:

July 17, 2007	St. Paul Elementary School, 6901 Dixie Highway
August 29, 2007	Doss High School, Media Rm, 7601 St. Andrews Church Road
September 26, 2007	Iroquois HS Gym w/Mayor Community Conversation, 4615 Taylor Blvd
October 24, 2007	Conway Middle School, 6300 Terry Rd
November 21, 2007	Greenwood Elementary, 5801 Greenwood Rd
January 15, 2008	Incarnation Catholic Church, 2229 Lower Hunters Trace
February 19, 2008	Hillview Baptist Church, 5319 Dixie Highway
March 18, 2008	Beechland Baptist Church, 4613 Greenwood Road
April 15, 2008	Shively Christian Church, 1822 Kendall Lane
May 20, 2008	St. Lawrence Catholic Church, 1925 Lewiston Drive
June 17, 2008	Ormsby Heights Baptist Church, 2120 Lower Hunters Trace

MSD staff also attended the following "Mayor's Community Conversations":

July 16, 2007	Male High School, 4409 Preston Highway
August 20, 2007	Fairdale High School, 1001 Fairdale Road
September 17, 2007	Butler High School, 2222 Crums Lane
October 15, 2007	Seneca High School, 3510 Goldsmith Lane
November 19, 2007	Eastern High School, 12400 Old Shelbyville Road
January 28, 2008	Stuart Middle School large gym, 4601 Valley Station Road
February 18, 2008	Atherton High School small gym, 3000 Dundee Road



March 17, 2008	Butler High School small gym, 2222 Crums Lane
April 21, 2008	Fairdale High School small gym, 1001 Fairdale Road
May 19, 2008	Jeffersontown High School gym, 9600 Old Six Mile Lane
June 16, 2008	Knight Middle School large gym, 9803 Blue Lick Road

1.5.2 Project WIN Public Meetings

A second round of public meetings was held in October, November and December 2007 to provide an update on Project WIN progress, and obtain feedback from customers on the proposed Project WIN rate increase. The meetings described the CSO and SSO issues that MSD is dealing with, and illustrated through a series of maps the locations of the CSOs and SSOs, and the likely locations for abatement projects in the future. An overview of available control technologies and approaches was given to the public as an indication of the types of projects that may be occurring in their neighborhoods in the future. Ample time was available for feedback from the general public on issues that affected their neighborhood. The schedule of meetings for the second round was as follows:

October 29, 2007	The NIA Center
October 30, 2007	Fern Creek Firehouse
November 12, 2007	East Government Center
November 13, 2007	Fairdale Playtorium Center
November 20, 2007	Sun Valley Community Center
November 27, 2007	Clifton Center
December 4, 2007	Shawnee Golf Course Club House

As part of preparing the discharge abatement plans, MSD scheduled a third round of Project WIN meetings. During the month of May, MSD conducted this round of public meetings to provide an update on progress of the community's Consent Decree compliance, and to obtain input on the discharge abatement plans being developed. Meetings were held on the following dates:

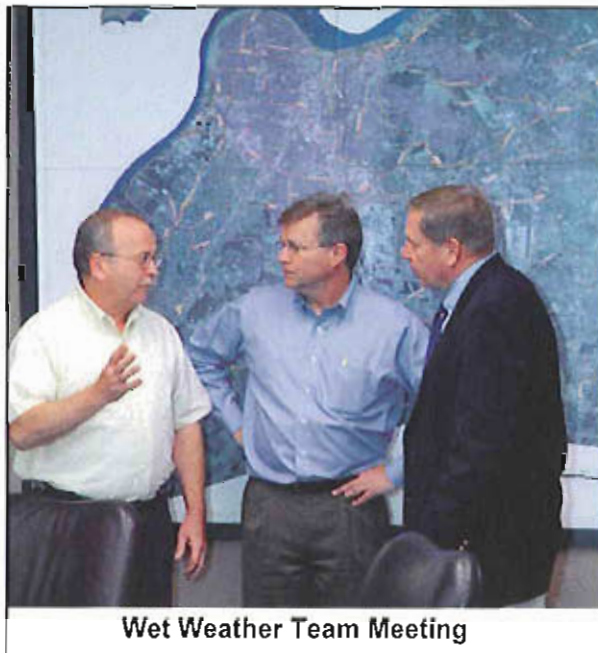
May 5, 2008	Republic Bank Building (Northeast)
May 8, 2008	Shawnee Golf Course (West)
May 13, 2008	Okolona Fire House (South)
May 14, 2008	MSD Main Office (Central Business District)
May 14, 2008	Long Run Golf Course (East)
May 27, 2008	Sun Valley Community Center (Southwest)
May 28, 2008	Swiss Hall (Central)
May 29, 2008	Jeffersontown Fire House (Southeast)

MSD presented an overview of the emerging vision for the IOAP and also presented preliminary overflow abatement projects tentatively planned in the areas near the meeting center. Public input was obtained relative to project location and project integration into the surrounding neighborhoods.

1.5.3 Wet Weather Team Meetings

The process of organizing a Wet Weather Team (WWT) as outlined in Consent Decree Paragraph 22 has been completed and WWT meetings are underway. Nine WWT meetings were held during this reporting period, as detailed below.

- August 2, 2007 – In this meeting discussions began on the root causes of CSOs, potential mitigation strategies for CSO control and the extent of CSO issues throughout the service area. In addition, several CSO locations were described in more detail to demonstrate how specific alternatives will be developed and evaluated. Green infrastructure opportunities were also discussed, with a facilitated group exercise to identify specific green infrastructure opportunities throughout the service area.
- September 20, 2007 – In this meeting the focus was on SSO issues. A presentation was given on the root causes of SSOs, potential strategies to eliminate SSOs, and an overview of SSO locations throughout the service area. A discussion of several specific SSO locations was also presented, as a way to illustrate how SSO elimination alternatives will be developed and evaluated. A presentation was made on the overall concepts being developed for post-construction compliance monitoring. Feedback was solicited to help structure the next round of public meetings.
- October 18, 2007 – This meeting continued the discussion on SSO elimination approaches, with a focus on inflow and infiltration (I&I) removal. Project WIN funding methods was discussed, as the first in a series of discussions about the funding approaches. The draft outline of the Wet Weather Plan was distributed for comment.
- December 6, 2007 – This meeting continued the discussion of I&I control approaches, and dealt specifically with the draft private property ordinance that has been proposed to Louisville Metro government. Further discussion of funding approaches was also part of the meeting.
- January 15, 2008 – In this meeting the preliminary results of water quality modeling updates for the Ohio River and Beargrass Creek water quality models were presented. A discussion was held on the regulatory compliance impacts of the model results. Discussions on the impacts of the different financing methods along with the start of discussions about potential refinements to the MSD rate structure were held.





MSD

Louisville and Jefferson County
Metropolitan Sewer District

**Consent Decree Annual Report
July 1, 2007 – June 30, 2008**

- February 16, 2008 – This meeting included a report on green infrastructure opportunities in the community. Further discussion on regulatory compliance approaches and discussions about CSO control approaches were held.
- April 3, 2008 - This meeting included presentations on funding requirements and potential strategies for rate structures and fees. A presentation of the emerging MSD vision for the IOAP was given, with the expectation that comments would be discussed in May. The CSO control strategies were presented, along with examples of how the benefit cost evaluation is being used to select projects for CSO control.
- May 15, 2008 - In this meeting, MSD reported on the status of the third round of Project WIN public meetings. A brief discussion of comments received on the IOAP vision presentation was followed by a more extensive discussion planned for June. A progress report was given of the evaluation of green infrastructure, with specific examples of potential green infrastructure projects.
- June 19, 2008 - This meeting included a presentation on the Public Involvement and Outreach program, and continued discussion on the integration of green infrastructure into the LTCP.



Green Infrastructure – Rain Barrels

All information provided to the WWT is available on the Project WIN website, at www.msdlouky.org/projectwin.

1.5.4 Public Education and Notification

MSD continued efforts related to an in-house training program for employees related to the Consent Decree. Copies of the Consent Decree and supporting information were distributed to employees. The basic elements and obligations of the Consent Decree were reviewed. New employee training has also been modified to include information regarding the Consent Decree.

MSD produced and distributed a number of products aimed at educating the community on the objectives of Project WIN and how to lessen the risks associated with coming into contact with

sewage overflows. The following activities occurred within this reporting period:

- Continued to update the Project WIN website. Customers who voluntarily sign up to receive email alerts regarding sewer overflows now receive a revised notice that indicates when conditions have returned to normal. In addition, there are messages from MSD, a repository of approved documents, Stakeholder meeting minutes and access to a public notification email system. This website can be found at www.msdlouky.org/projectwin.
- MSD co-sponsored a competition where 15 teams of Louisville high school students competed in a High School Marketing Challenge. The competition was focused this year on developing a marketing and advertising campaign around MSD's clean water initiative, Project WIN. Students were asked to build their campaigns around the idea of reducing the effects of pollution on streams and waterways by encouraging others to take simple steps and make slight behavior modifications. Competitors presented their campaigns over two days of competition, culminating with the judging on April 29, 2008, at MSD. The grand prize went to Team Prodigy of Doss High School whose slogan was *Simple Game Plans WIN*.
- Placed an advertisement in the Sunday issue of the *Courier Journal* newspaper on April 6, 2008, and the Wednesday Neighborhood Section of the *Courier Journal* on April 9, 2008, to inform the public about Project WIN.
- Placed an advertisement in the *Courier Journal* on April 9, 27, 30 and May 11 and 14, 2008, to inform the public about the Project WIN meetings.
- Placed information on Project WIN in the August, October and December 2007, January, March and May 2008 issues of *Today's Woman* magazine.
- Placed information on Project WIN in the August, September, October and December 2007, February, April, May and June 2008 issues of *Business First* newspaper.
- Placed information on Project WIN in the August, September, October and December 2007, February, April, May and June 2008 issues of *Business First*.
- Placed information on Project WIN in the July, August, September, October and December 2007, January, February, March, April, May and June 2008 issues of *Louisville Magazine*.
- MSD *Update* sent to customers and staff in July, August, September, October, November and December 2007, January, February, March, April, May and June 2008. Project WIN related articles are contained in each issue. These publications are available on the MSD website.





MSD

Louisville and Jefferson County
Metropolitan Sewer District

**Consent Decree Annual Report
July 1, 2007 – June 30, 2008**

- The spring issue of *Crosscurrents* was distributed to over 9,500 customers. This publication, also available through the MSD website, contains Project WIN related articles on how hauling operations can prevent and reduce overflows and how rain gardens can help keep water out of the sewers.
- The annual mailing to all residents within 500 feet of the south shore of the Ohio River from the mouth of Beargrass Creek to the Portland Canal and both sides of the three forks of Beargrass Creek was sent out the week of April 14, 2008.
- The 2007 MSD Annual Report was published and distributed.
- Held a contest for MSD staff to distribute the New Years resolution poster.
- Distributed the Holiday Tips postcard to residents.
- Created the Project WIN mascot (Kid WIN) to include on communications to the public.

WORD JUMBLE

CAN YOU UNSCRAMBLE THE WORDS!!

S O S N W I D O L O F

D S M M O S T R R E E G N

S O C I N G O V R E D O A L

T C H A C S N A I B O G F

N R A D S I A S Y W T A W E R

S F I H H R A T S

ANSWERS: SSO, WIN, FLOOD, MSD, STORM, GREEN, CSO,
OVERLOADING, CATCH BASIN, FOG, DRAIN,
WATERWAYS, FISH, TRASH

FUN MAZE

START HERE

CAN YOU HELP KID WIN
FIND HIS SHIRT?

CLEAN, GREEN, GROWING COMMUNITY

Project WIN Puzzle with Kid WIN

MSD continues to post Project WIN information on the website. On MSD's home page, the Project WIN area provides important information on the condition of area streams and shows a

warning if overflows are likely to be happening or have happened in the past 48 hours. Clicking on the Project WIN logo brings up the Project WIN site, which includes a repository of public documents related to Project WIN, tips for customers to help control overflows through their personal actions, information about the history and background of Project WIN and a place to sign up for overflow advisory emails warning when significant precipitation has caused overflows in MSD's system.

- Updates were made to the wet weather notification process. Start and stop times of the rain events are now being captured on MSD's intranet so that consistent decisions can be made.
- A secondary notification is now sent when conditions have returned to normal.
- Notifications of blending events at the Jeffersontown WWTP are now posted on the Project WIN website.

MSD updated the "calendar" of public information activities for the upcoming year. It is anticipated that the calendar will address unique activities such as Project WIN public meetings held in support of SSDP and LTCP development and also repetitive information and outreach activities. An example of repeating activities is MSD's plan to develop and disseminate information about control of household fats, oils and grease prior to the holiday season. MSD anticipates repeating this message every year before the holidays. Messages will also be developed and disseminated prior to the winter wet weather season, the summer recreation season and the autumn lawn-clean-up season.

Information related to this Consent Decree and Project WIN may be found at www.msdlouky.org/projectwin.



MSD

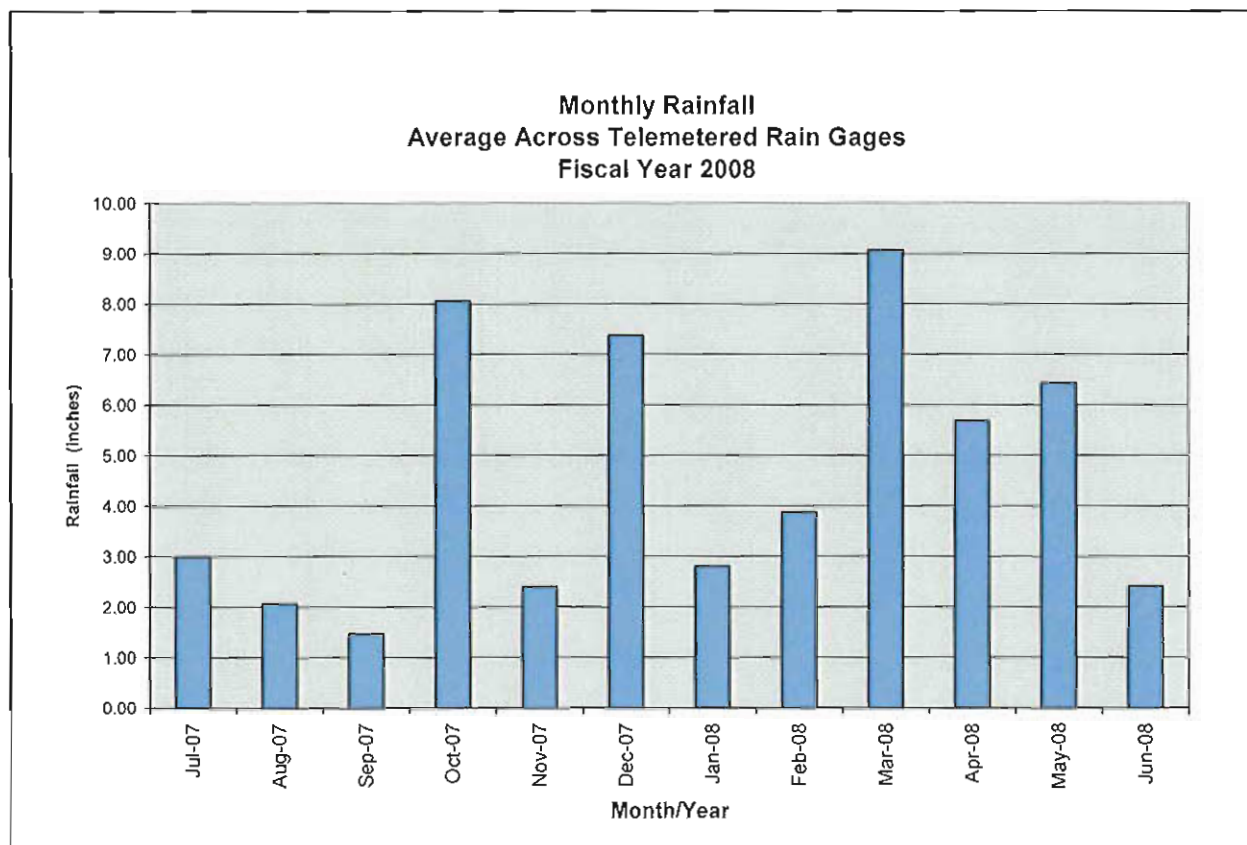
Louisville and Jefferson County
Metropolitan Sewer District

**Consent Decree Annual Report
July 1, 2007 – June 30, 2008**

SECTION 2: Performance Overview

2.1 Rainfall

The number and the volume of wet weather overflows are directly related to the amount of rain that has fallen during the reporting period. The following graph shows the Jefferson County average rainfall amounts for FY08. Data was pulled from MSD's Rain Gages.





2.2 Unauthorized Discharges to Waters of the United States

Appendix B-1 includes information related to MSD's discharges to Waters of the United States for the reporting period. This information is entered and maintained in the Hansen Information Management System (Hansen) utilizing procedures reviewed and improved through efforts associated with various components of the Consent Decree. These discharges have been reported to KDEP and EPA through automated email, telephone calls and monthly wastewater treatment plant discharge monitoring reports (DMRs). A summary of the unauthorized discharges to the Waters of the United States, broken down by Problem Code is presented in the table below.

Causes of Unauthorized Discharge Occurrences

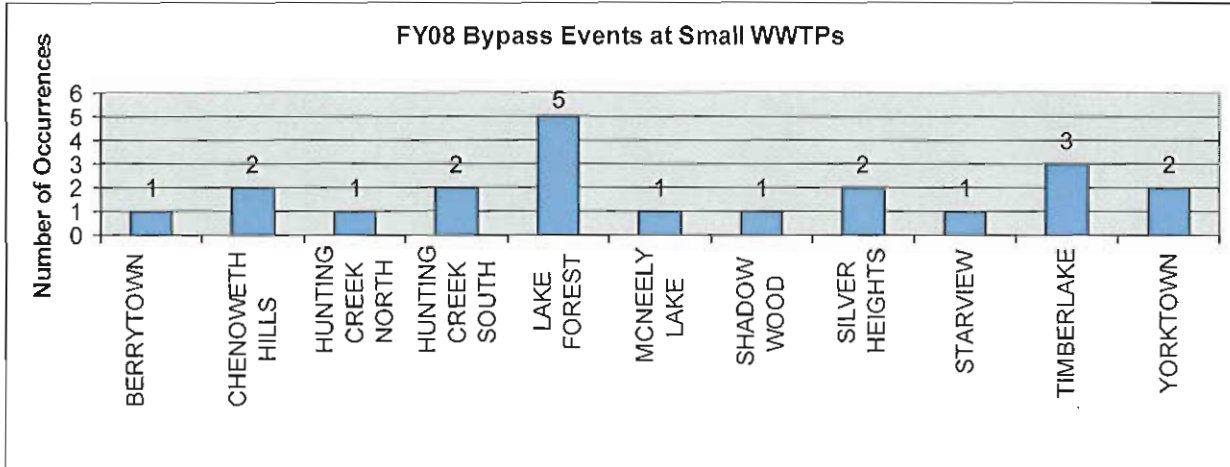
July 1, 2007 – June 30, 2008

	Dry Weather	Wet Weather	Total
Blending	0	12	12
Bypass	10	21	31
Capacity	0	389	389
Capacity Pumping	0	116	116
Electrical	1	2	3
Grease	0	2	2
Mechanical	4	3	7
Obstruction	3	0	3
Power Failure	0	3	3
Roots	7	3	10
Structural	4	1	5
USACE Flood Pumping	11	0	11
Utility Damage	2	0	2
Total	42	552	594



Included in **Appendix B-2** is a report that lists the details of the 31 bypasses that occurred at our treatment plants during this reporting period. Bypasses were reported 21 times at 11 of the 15 small treatment plants:

- Berrytown - KPDES Permit Number KY0036501
- Chenoweth Hills (2) - KPDES Permit Number KY0029459
- Hunting Creek North - KPDES Permit Number KY0029106
- Hunting Creek South (2)- KPDES Permit Number KY0029114
- Lake Forest/Beckley Woods (5) - KPDES Permit Number KY0042226
- McNeely Lake - KPDES Permit Number KY0029416
- Shadow Wood – KPDES Permit Number KY0031810
- Silver Heights (2) - KPDES Permit Number KY0028801
- Starview - KPDES Permit Number KY0031712
- Timberlake (3)- KPDES Permit Number KY0043087
- Yorktown (2) - KPDES Permit Number KY0036323





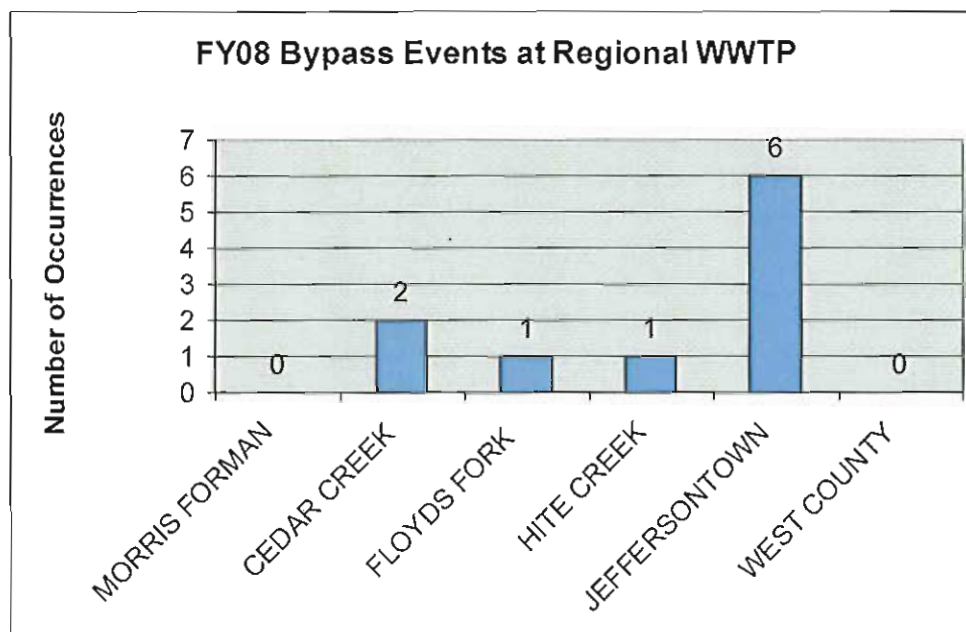
MSD

Louisville and Jefferson County
Metropolitan Sewer District

**Consent Decree Annual Report
July 1, 2007 – June 30, 2008**

Bypasses were reported 10 times at 4 of the 6 regional treatment plants:

- Cedar Creek (2)- KPDES Permit Number KY0098540
- Floyds Fork - KPDES Permit Number KY0102784
- Hite Creek – KPDES Permit Number KY0022420
- Jeffersontown (6) - KPDES Permit Number KY0025194 (excluding Blending)





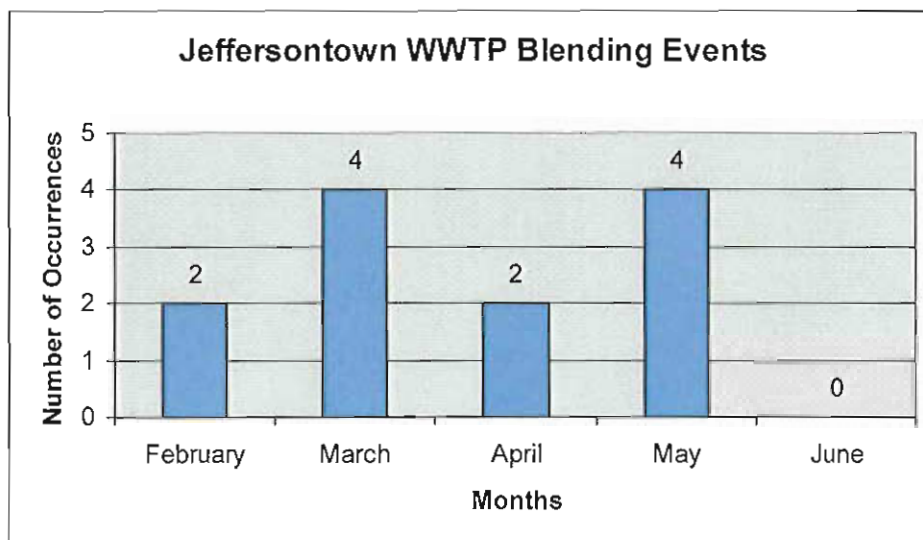
MSD

Louisville and Jefferson County
Metropolitan Sewer District

**Consent Decree Annual Report
July 1, 2007 – June 30, 2008**

Included in **Appendix B-3** is a report that lists the details of the 12 blending events that occurred at the Jeffersontown WWTP during this reporting period. It should be noted that MSD began documentation of blending events and posting the information on MSD Project WIN website in February 2008. There were no blending events during June 2008. Blending events, as posted on the Project WIN website, began on the following days:

- February 12, 2008
- February 22, 2008
- March 4, 2008
- March 18, 2008
- March 19, 2008
- March 27, 2008
- April 1, 2008
- April 3, 2008
- May 3, 2008
- May 8, 2008
- May 14, 2008
- May 15, 2008





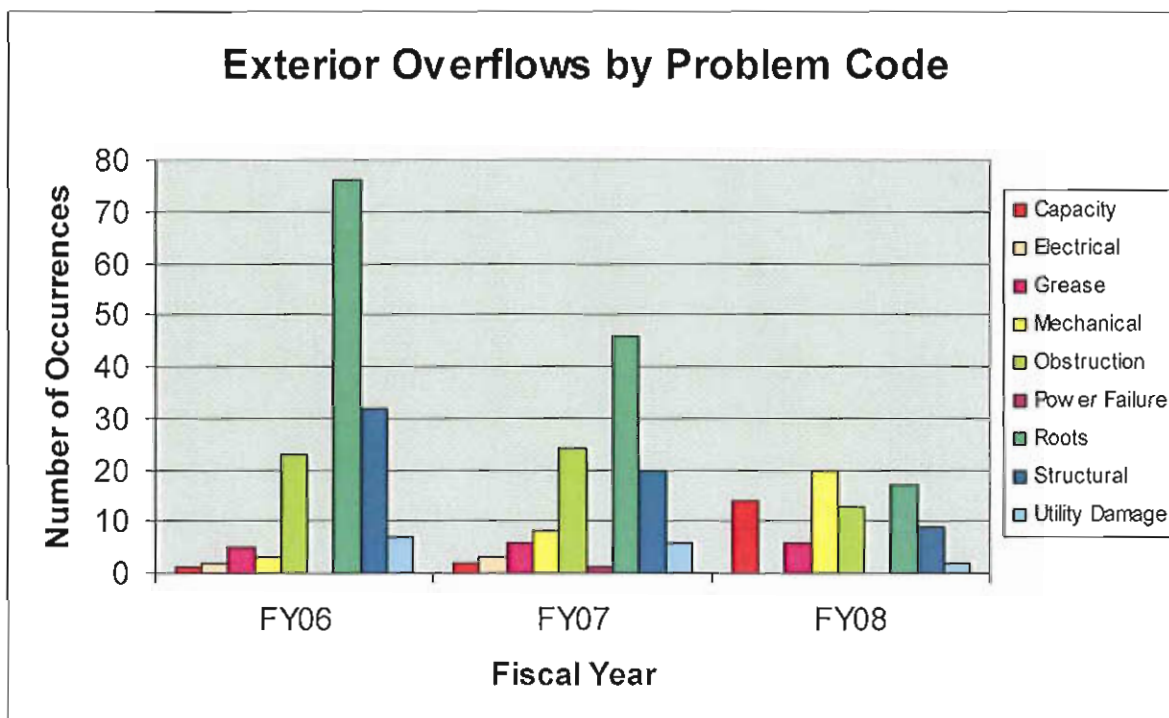
MSD

Louisville and Jefferson County
Metropolitan Sewer District

**Consent Decree Annual Report
July 1, 2007 – June 30, 2008**

2.3 Exterior Overflows

Appendix C includes information related to MSD's overflows to the ground that did not reach Waters of the United States for the reporting period. This information is entered and maintained in Hansen utilizing procedures reviewed and improved through efforts associated with various components of the Consent Decree. Over the last 3 fiscal years the number of exterior overflows has been reduced from 149 in FY06 to 81 in FY08.



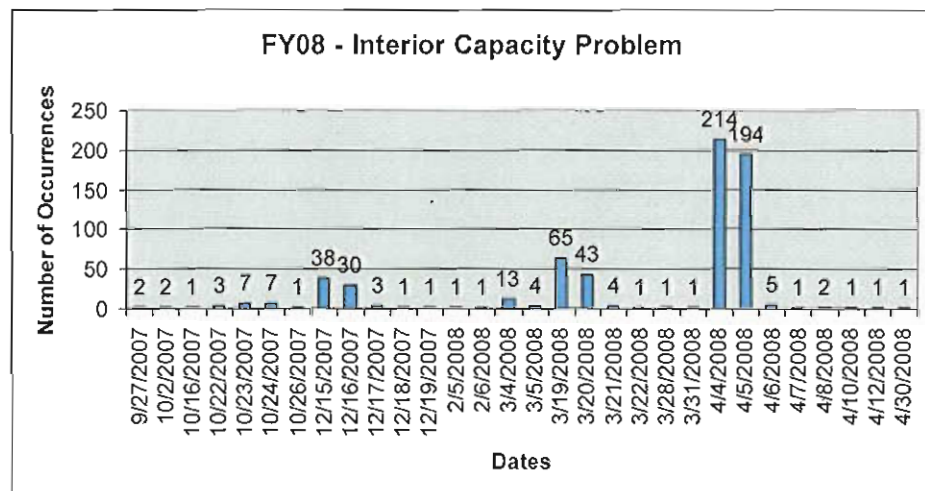
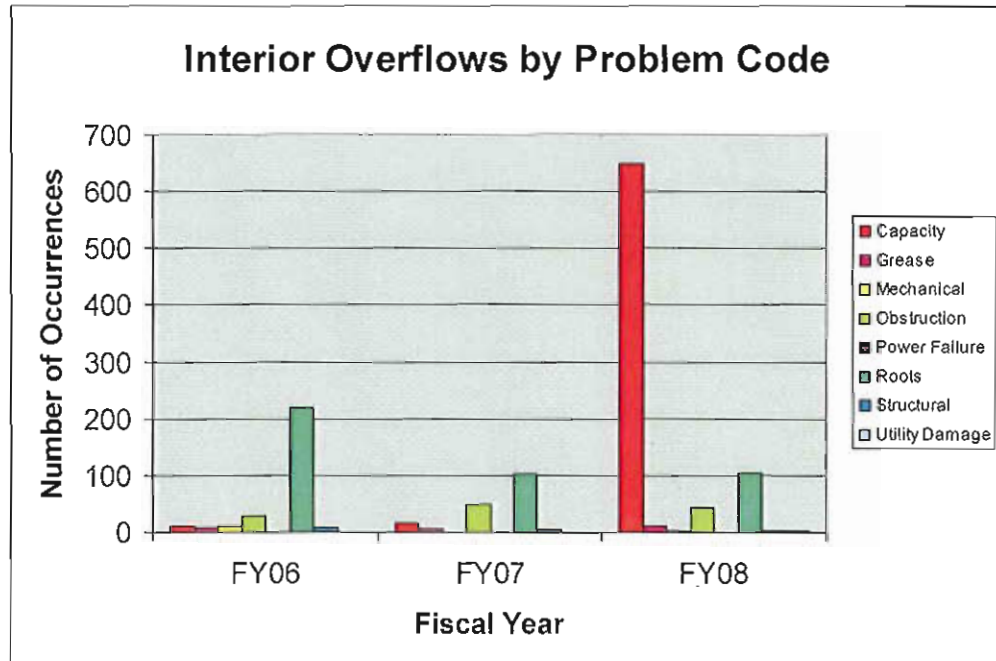


2.4 Interior Overflows

Appendix D includes information related to MSD's overflows to building interiors for the reporting period. This information is entered and maintained in Hansen utilizing procedures reviewed and improved through efforts associated with various components of the Consent Decree. Interior overflows, except for those associated with a Capacity issue, have decreased over the last 3 fiscal years.

The extremely high number of capacity related overflows, (649) can be attributed to several large rain events. The largest event was over the period of April 3-5 2008. During this period, MSD's 15 rain gauges recorded an average of 4.35 inches of rain across Jefferson

County. A maximum of 5.41 inches was recorded at the Fern Creek Fire Station #3 Rain Gauge while a minimum of 3.36 inches was recorded at the Hite Creek WWTP site. MSD recorded 408 capacity related interior overflows over this period. The chart below also shows that there were two other events that resulted in a high number of capacity related overflows. From March 19-20, 2008, 108 interior capacity overflows were recorded. From December 15-16, 2007, 68 interior capacity overflows were recorded. Once these 3 events are removed, there were 65 wet weather capacity related interior overflows for the rest of the fiscal year.



2.5 CSO Reductions

Appendix E includes the June 30, 2007, version of modeled Average Annual Overflow Volume (AAOV) for the permitted CSOs. Reduction in wet weather CSO volume was accomplished in the reporting period with the completion of these projects.

- CSO147 Elimination (Budget ID H06357) – CSO147 was eliminated prior to September 30, 2007, in accordance with the Consent Decree. Sewer separation and downspout disconnection work was performed to allow for the elimination of CSO147. MSD Construction Crews performed closure of the outfall on August 14, 2007, and a certification letter was sent to KDOW on September 11, 2007. Over 75% of 233 homes with downspouts have been disconnected from the sanitary sewer. This CSO is estimated to have a CSO AAOV of approximately 1.3 million gallons per year.
- RTC Program Phase 1 - The Average Annual Overflow Volume (AAOV) for the entire CSS had been previously estimated at 4,471 MG. The RTC Phase I controls prevented the overflow of approximately 778.70 MG of overflow for Louisville's entire CSS during the last fiscal year. Refer to Section 1.1 NMC 2 for additional information on this program. MSD is currently defining the procedures and reporting guidelines for RTC system performance.
- CSO30 Elimination, as reported in Section 1.1 was completed. This CSO was estimated to have a CSO AAOV of approximately 1.36 million gallons per year.
- CSO33 Elimination, as reported in Section 1.1 was completed. This CSO was estimated to have a CSO AAOV of approximately 0.012 million gallons per year.
- CSO194 Elimination, as reported in Section 1.1 was completed. This CSO was estimated to have a CSO AAOV of approximately 0 million gallons per year. The overflow only occurred during storms exceeding those in a typical year.
- CSO32 Elimination, as reported in Section 1.1 was completed. This CSO was estimated to have a CSO AAOV of approximately 0 million gallons per year. The overflow only occurred during storms exceeding those in a typical year.

In addition, the following occurred over the reporting period related to CSO monitoring.

- The CSO19 flow meter experienced some instrumentation problems and a power failure. MSD was unable to download data from March 2, 2008, to March 31, 2008.
- The CSO105 flow meter experienced a power failure due to bad batteries. Batteries have been replaced. Batteries are tested before installation and the CSO flow monitoring sites are inspected every three weeks. Batteries are replaced every 90 days or when the voltage falls below four volts. MSD was unable to download data from June 25, 2008, to June 30, 2008.
- The CSO206 flow meter experienced a power failure due to bad batteries. Batteries have been replaced. Batteries are tested before installation and the CSO flow monitoring sites are inspected every three weeks. Batteries are replaced every 90 days or when the voltage falls below four volts. MSD was unable to download data from April 1, 2008, to April 14, 2008, and June 21, 2008, to June 30, 2008.

- Continued project to install flow meters at CSO16, CSO62, CSO97, and CSO146. Project costs are being developed for the meters, telemetry and power needed for installation at each site.
- Flow meter installed at CSO125 during this reporting period.
- Continued project to upgrade existing flow meters with telemetry and power at CSO210 and CSO211.
- Developing process to use existing Plant Information sensor data tags to calculate the flow at CSO15 and CSO191.
- Developing process to install and use a level indicator to calculate flow at CSO20.

Appendix F includes CSO flow monitoring information for the reporting period and a table with the description of each CSO and its flow monitoring status.

2.6 SSO Reductions

Estimation of SSO volume is not available in the same manner as it is for the CSO locations. The SSO volume reductions are estimates based on actual observations or from flow monitoring information. The following projects have been completed in the reporting period in an effort to reduce or eliminate SSOs located at, or associated with, the projects.

- The Holly Oaks Pump Station, a documented SSO, was eliminated on April 18, 2008, as part of the Fern Hill Subdivision Interceptor #8 project (Budget ID C94086).



Elimination of Holly Oaks Pump Station

- The Acushnet Pump Station was eliminated (formerly known as the Murray Hills Area Pump Station Upgrade project - Budget ID F06297) in an effort to reduce or eliminate SSOs. During this reporting period, the roadway and driveway paving have been completed. Final project close out is expected during the next reporting period.

2.7 Wastewater Treatment Plants

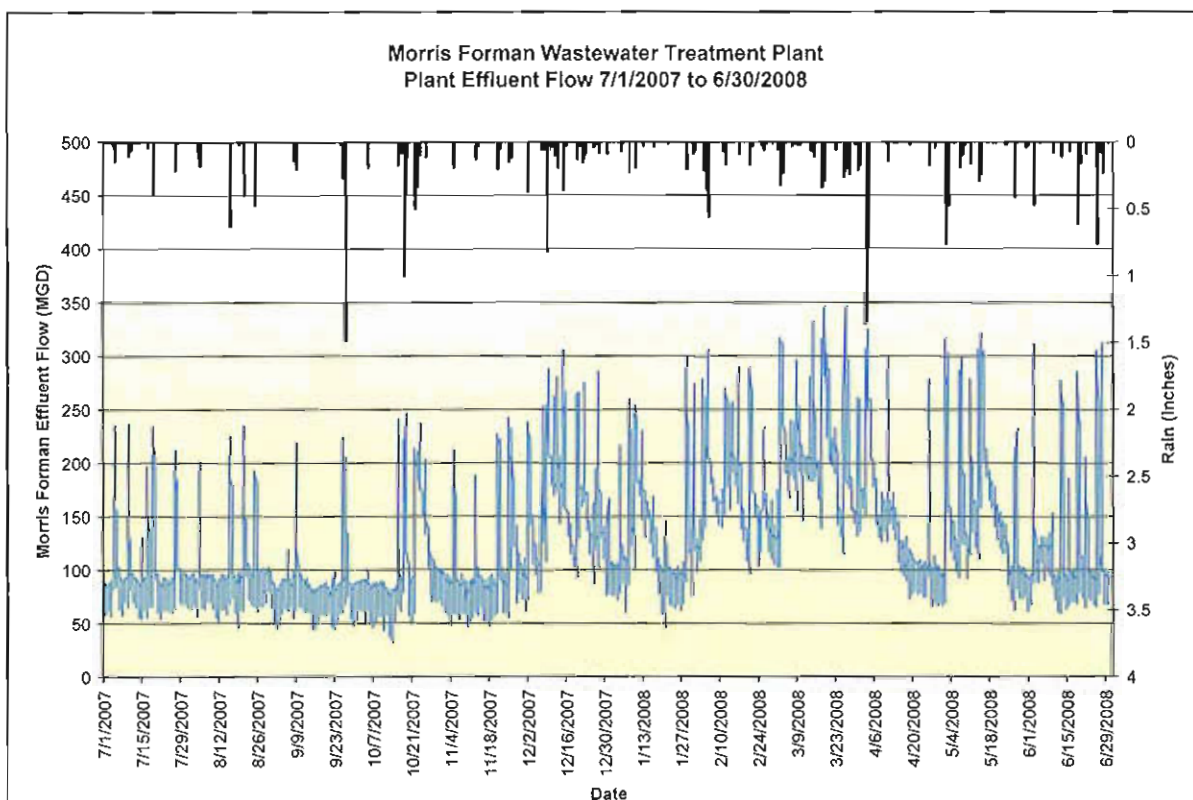
Discharge Monitoring Reports

Beginning July 31, 2008, MSD will start posting, on the Project WIN website, a DMR (Discharge Monitoring Report) packet for each WWTP. Historical DMR data will be available back through January 2007. The new DMR packets will include the DMR cover letter, DMR, Monthly Operating Report (MOR), IMSAST0004 - Discharge Report and the 5-day follow up letter for any bypass events that occurred during that period.

The DMRs may be found at www.msdlouky.org/projectwin under Wastewater Treatment Plant Reports.

Morris Forman WWTP

There were 22 days during this reporting period where the peak flow was over 300 MGD. There were no KPDES permit violations during this time frame.



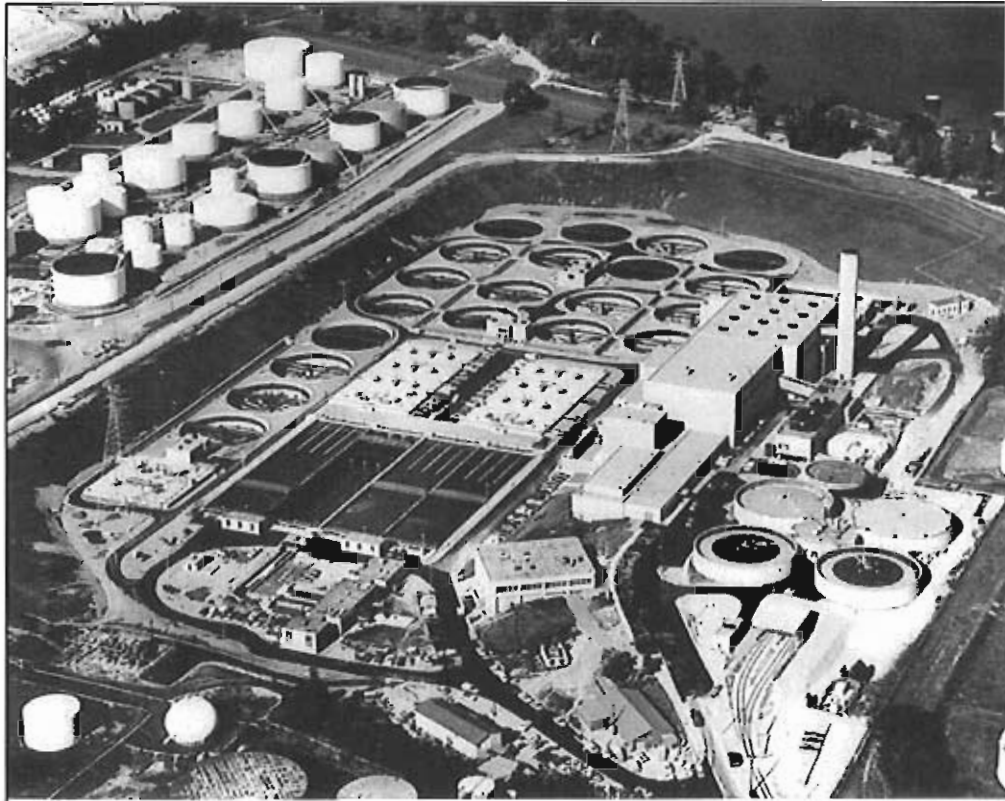
Improved wet weather capture is illustrated by the peak flow rates shown on the hydrograph for the Morris Forman WWTP. Flows at the plant approached the 350 MGD peak hydraulic capacity twice during the year, and exceeded 300 MGD several times. This hydrograph also shows the impact of the record-setting spring rains in the spring of 2008.



MSD

Louisville and Jefferson County
Metropolitan Sewer District

**Consent Decree Annual Report
July 1, 2007 – June 30, 2008**



Aerial view of Morris Forman Wastewater Treatment Plant

Jeffersontown WWTP

In February 2008 MSD began to post Jeffersontown WWTP blending event information on the Project WIN website.

Beginning July 1, 2008, the following activities will occur for this treatment plant:

- Plant effluent will be sampled seven days per week, analyzing for the parameters listed in the KPDES Permit. This data will be posted on the Project WIN webpage with the monthly DMRs.
- Electronic monitoring of the water surface elevation in the siphon head box will begin. When this level indicates that SSOs are close to occurring, the constructed siphon overflow and manholes on the gravity interceptor within two thousand feet of the headworks of the Jeffersontown WWTP that may overflow will be inspected. When these inspections identify an SSO, the occurrence will be documented and reported in accordance with the approved SORP for the 24-hour notification. Unauthorized Discharges will be submitted in the Quarterly Reports starting October 30, 2008.

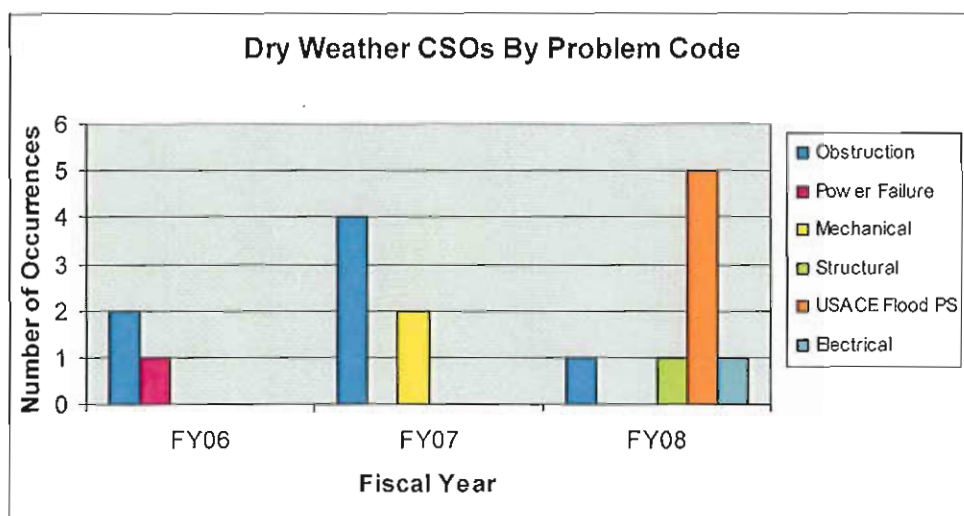
2.8 Performance Measures

MSD has developed performance measures in order to monitor the operation of the collection system and wastewater treatment plants, with the goal of reducing sewer overflows and improving surface water quality.

2.8.1 Dry Weather Combined Sewer Overflows

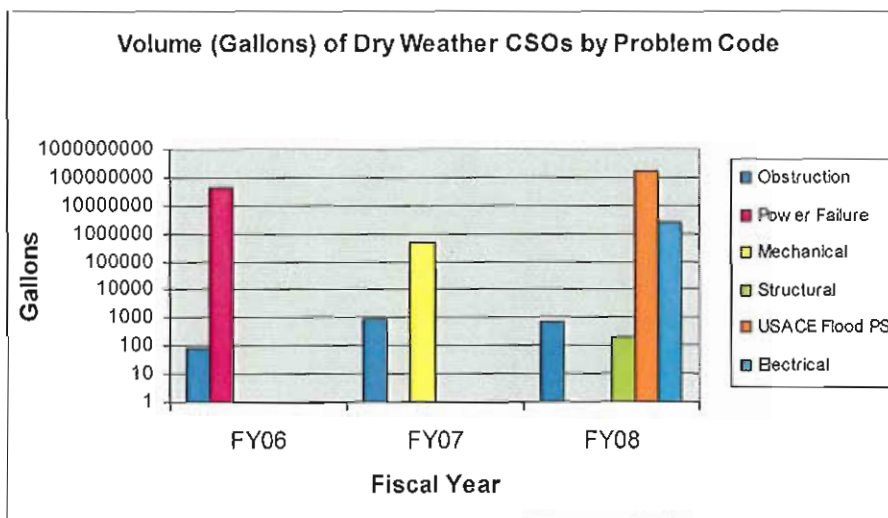
MSD has implemented NMC programs and provided resources to reduce CSOs that occur during dry weather. The figure below shows the number of occurrences of dry weather CSOs between FY06 and FY08, in bar chart format broken down by the problem that caused the overflow.

The number of occurrences over the last three fiscal years has remained relatively low (between three and eight). In FY08, five of the eight work orders were related to the operation of the Flood Protection System in accordance



with the USACE procedures. MSD is working with the USACE to modify operations to reduce the number of occurrences of dry weather CSOs. Since five of the eight FY08 dry weather CSOs were related to the flood protection system, the volume this past fiscal year greatly increased as shown in the figure below. In FY06 the dry weather CSO volume was approximately 42,328,000 gallons. In FY08 the volume was approximately 181,359,000 gallons.

Of this volume, 178,859,000 gallons were due to the operation of the flood protection system pump stations.

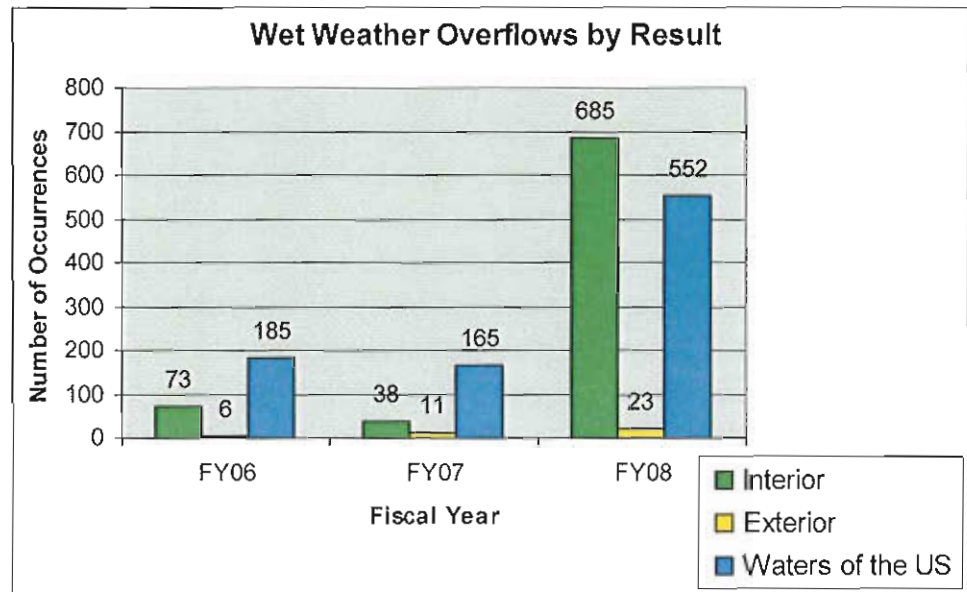




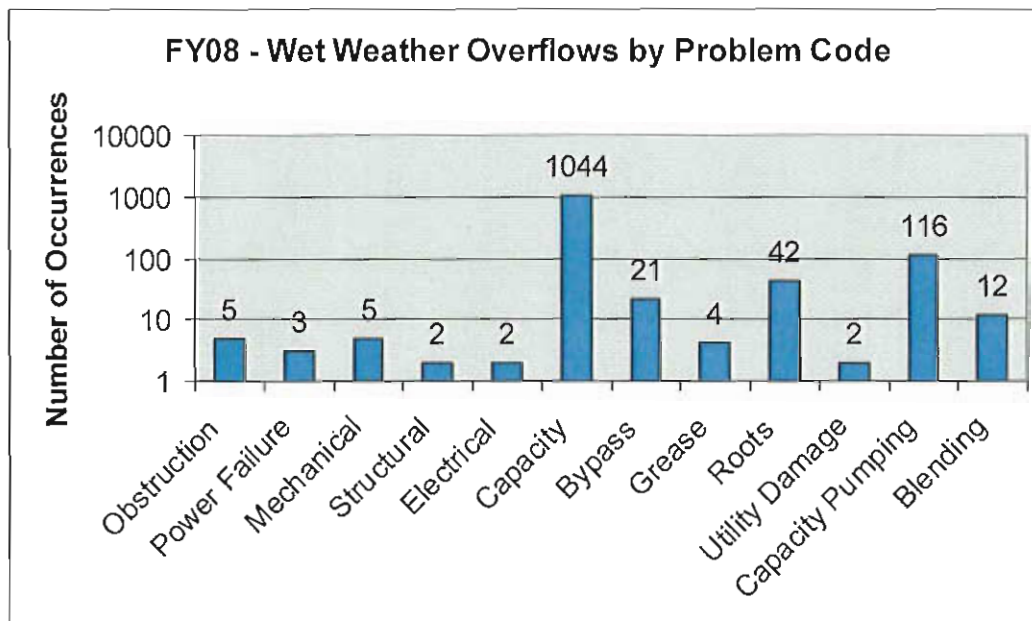
2.8.2 Wet Weather Sanitary Sewer Overflows

MSD is committed to reducing SSOs that occur during wet weather events. The accompanying figures show that in FY08 the number of wet weather SSOs dramatically increased. The number

of overflows would have been even greater if MSD was not aggressively using the placement of tanker trucks at pump stations that have high wet well level alarms. MSD staff utilizes the tanker trucks, which include portable pumps, to haul wet weather flow that is in excess of the pump station capacity. The second chart shows the wet weather



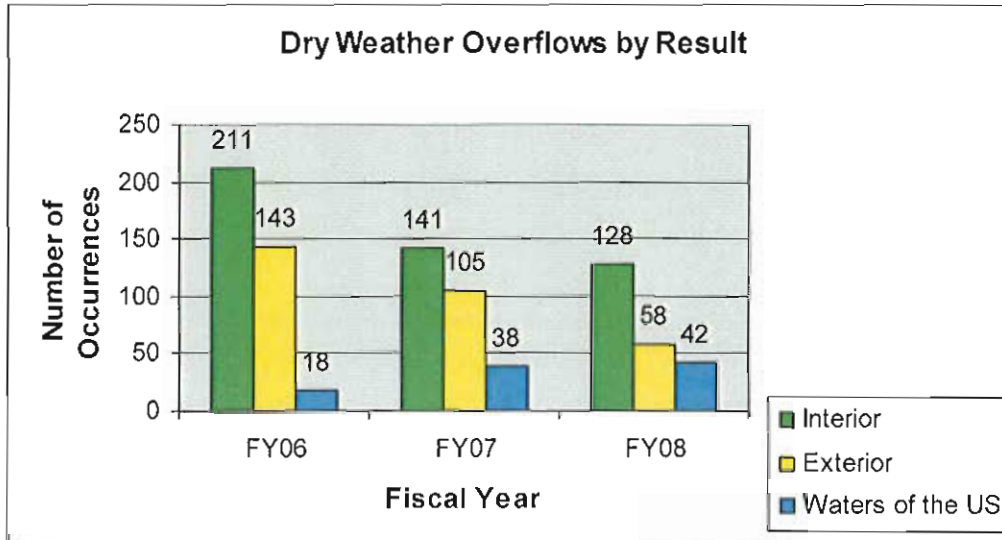
overflows by problem code. Over 1,000 overflows were attributed to wet weather capacity issues. In FY08 Jefferson County experienced a very wet spring. These rain events contributed to the high number of wet weather overflows.



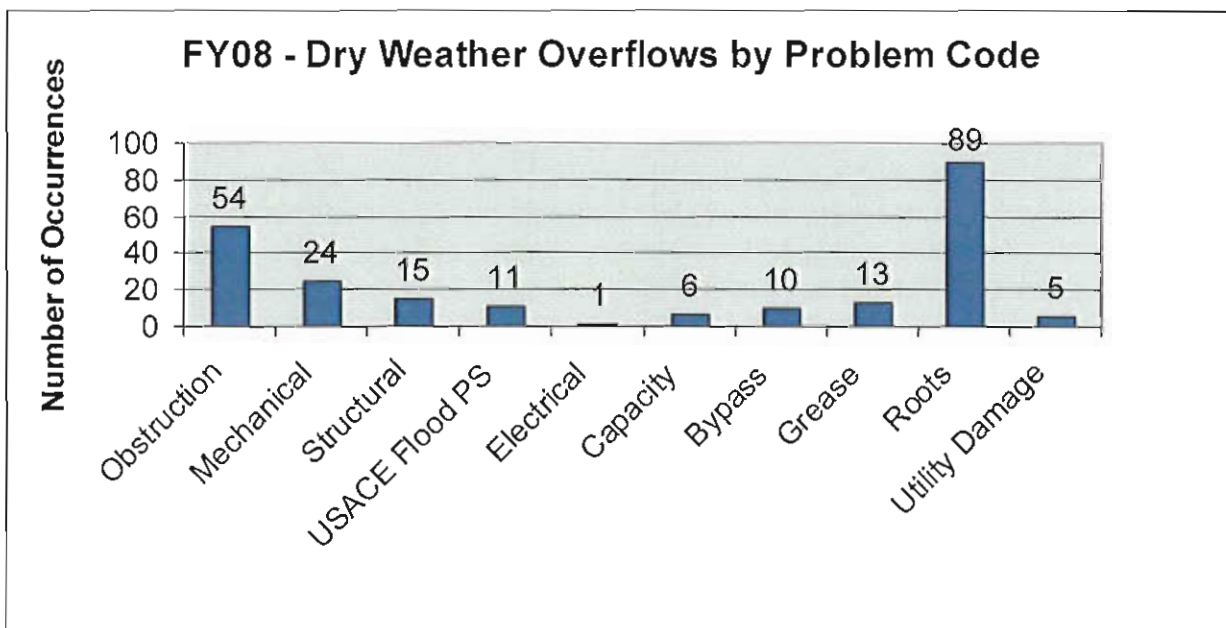


2.8.3 Dry Weather Sanitary Sewer Overflows

MSD is committed to reducing SSOs that occur during dry weather. The accompanying figures show that in FY08 the overall number of dry weather SSOs has continued to decrease.



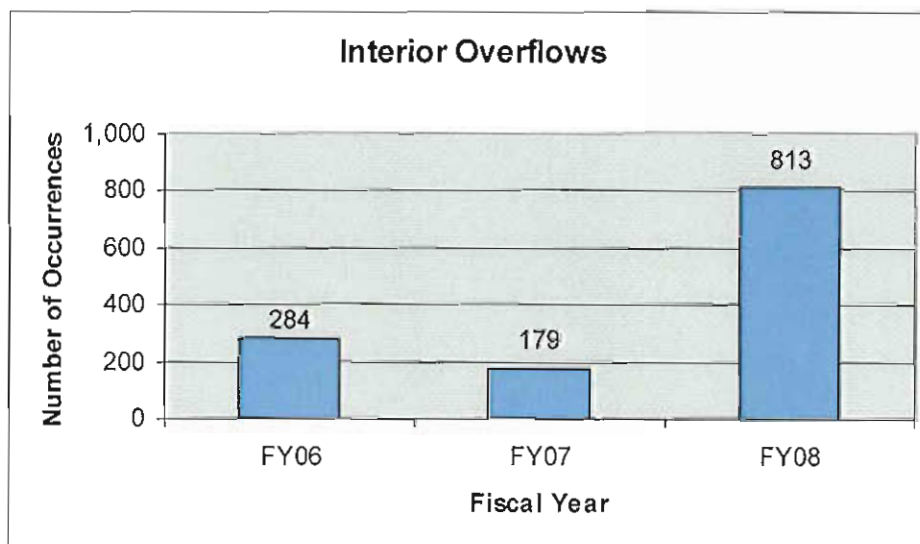
As shown in the chart below, the main problem that causes MSD's dry weather overflows is a root issue. MSD is addressing the root issue with our gravity line preventive maintenance program.





2.8.4 Interior Overflows

Interior overflows are those that occur in a customer's home or facility. Those overflows that are MSD's responsibility and that are not caused by a problem in the lateral are shown in the figure below. In FY08, 649 of the interior overflows reported were the result of a wet weather capacity issue.



2.8.5 Solids and Floatables Control

MSD has a targeted goal to install solids and floatables control devices to capture 95% of the modeled Average Annual Overflow Volume (AAOV). In fiscal year 2007, MSD previously installed solids and floatable (S&F) devices at 78 locations, which increased the percent of volume receiving solids and floatable treatment to 75%. Three CSOs currently do not have solids and floatables control devices due to the complexities of the sites and requirements for major capital improvements. Those sites will be addressed in the Final CSO LTCP.

MSD has the goal to inspect weekly and clean the solids and floatables devices if determined as necessary during the inspections. During this reporting period, there were 526 work orders to clean solids and floatables devices based on weekly inspections. During the same reporting period, 96% of the solids and floatables devices were cleaned within one week of issuing the work order.



MSD

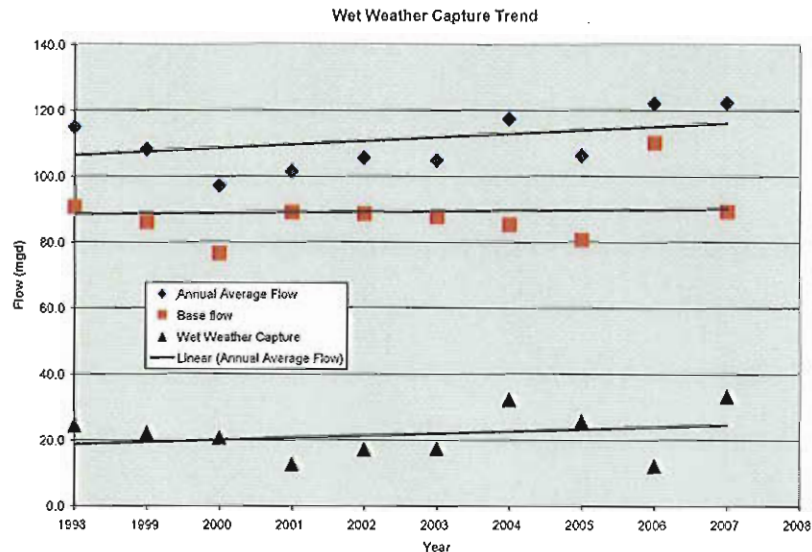
Louisville and Jefferson County
Metropolitan Sewer District

Consent Decree Annual Report July 1, 2007 – June 30, 2008

2.8.6 Wet Weather Capture

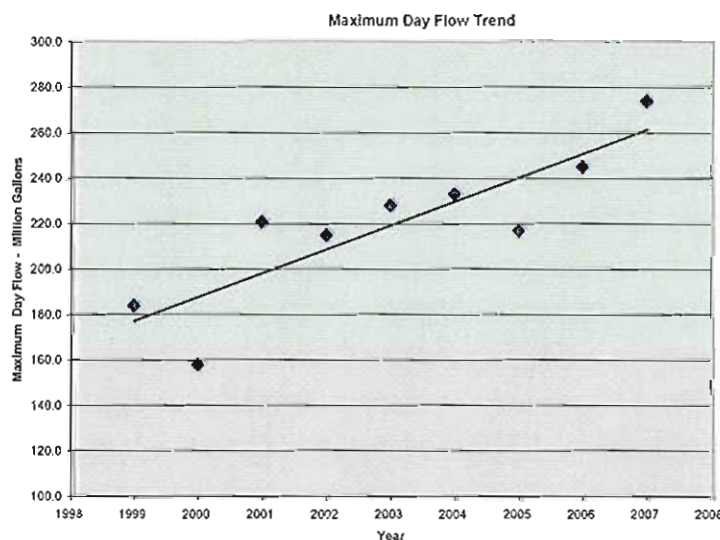
Over the past ten years, MSD has continued to increase the amount of wet weather flow treated at the Morris Forman WWTP. The increase in treatment of wet weather flow (wet weather capture) is graphically shown in the adjacent figure. The wet weather capture is the difference between the annual average flow treated and the base wastewater flow (defined as the lowest monthly average day flow during the year). The figure shows that the base flow remains relatively constant over the past ten years. This is supported by the fact that the industrial customer base in the Morris Forman WWTP service area has decreased 3.7% over the past three

years and the total customer base has only increased 0.04% during the same period. In contrast, the annual average flow and therefore the wet weather capture show an increasing trend.



The increase of wet weather capture is largely attributed to a combination of capital improvements at the Morris Forman WWTP, development of wet weather operational procedures and implementation of RTC facilities in the CSS.

The improved plant wet weather flow capture performance is also reflected in the increasing trend in the maximum day flow treated at Morris



Forman WWTP, as shown in the adjacent figure. Each data point represents the maximum daily flow treated during the year. Although the instantaneous peak hydraulic capacity of the

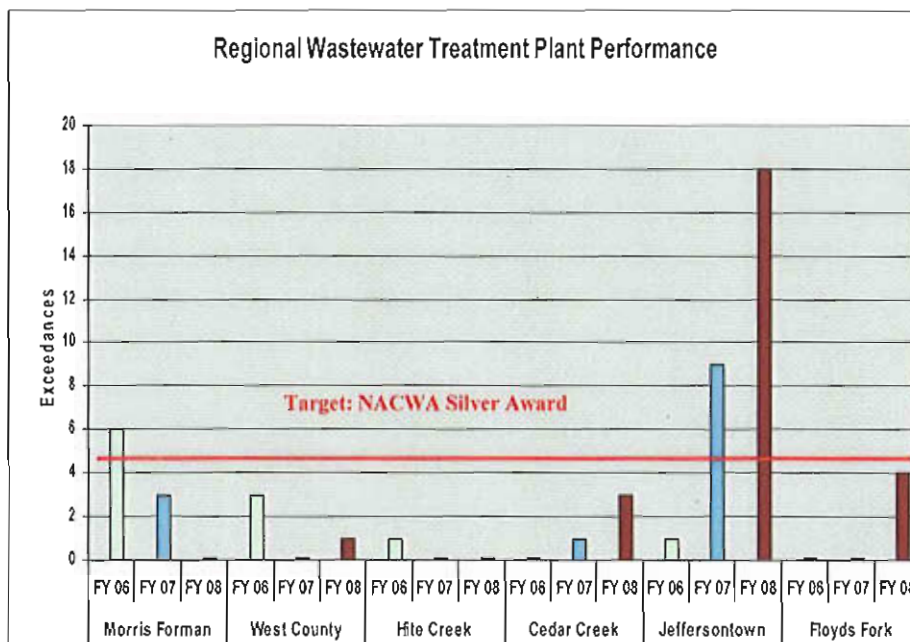
Morris Forman WWTP is 350 MGD, the sustained flow that can be treated on a daily basis is governed by performance of the biological treatment processes.

Finally, improved wet weather capture is illustrated by the peak flow rates shown on the annual hydrograph for the Morris Forman WWTP in **Section 2.7**. Flows at the plant approached the 350 MGD peak hydraulic capacity twice during the year, and exceeded 300 MGD several times. This hydrograph also shows the impact of the record-setting spring rains in the spring of 2008.

2.8.7 Treatment Plant Effluent Compliance

MSD's policy is to operate all wastewater treatment plants in full compliance with the permitted effluent water quality standards. However, circumstances sometimes arise that may cause wastewater treatment plants to exceed the permitted effluent limits. This reality is recognized by the National Association of Clean Water Agencies (NACWA), which gives awards at different levels (platinum, gold, silver) based on the number of effluent parameter exceedances during the year. Based on past operating history, MSD has established the target for all regional plants of receiving at least the NACWA Silver Award, which requires that the WWTP have five or fewer exceedances per year of any permit parameters.

As shown in the figure, four out of the six regional WWTPs have achieved this goal

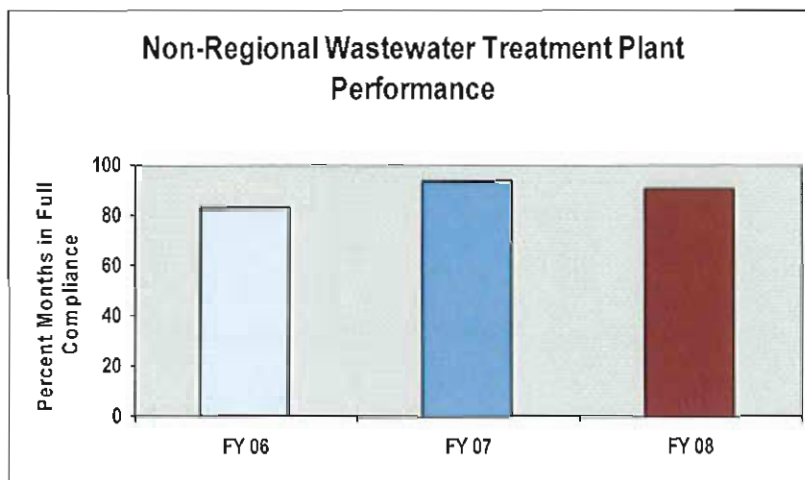


for the last three fiscal years. During this reporting period, Morris Forman and Hite Creek WWTPs were in 100% compliance with all permit parameters, while West County had only one exceedance and Cedar Creek had only three exceedances. Jeffersontown WWTP had a total of 18 exceedances. The cause of the large number of exceedances at the Jeffersontown WWTP has been the result of excessive wet weather which has been addressed in the Process Control Program and Comprehensive Performance Evaluation (CPE) as part of the Amended Consent Decree.

Since 1985, MSD has acquired 200 privately owned non-regional WWTPs ("package plants") of which 184 have since been eliminated. In fiscal year 2006, MSD operated 21 non-regional WWTPs. Fern Hill and Nottingham Hills WWTPs were eliminated in fiscal year 2006, Watterson Woods and the Polo Fields WWTPs were eliminated in fiscal year 2007, and Glenview Acres was eliminated in fiscal year 2008. Additionally, the contract to operate the KY Correctional

Institution for Women WWTP was not renewed in fiscal year 2008. MSD currently operates 15 non-regional plants. MSD will continue to operate the non-regional WWTPs until infrastructure is constructed to divert the wastewater flow to a regional plant and ultimately eliminate the non-regional WWTPs.

The non-regional WWTPs typically have very limited operating flexibility, and are subject to high levels of variability in loads. The non-regional WWTPs have been in operation over 35 years and typically have much poorer records of compliance than larger plants such as MSD's regional WWTPs. This is the reason that MSD has aggressively eliminated non-regional WWTPs. As part of MSD's continuing



efforts to improve non-regional WWTP performance, MSD has a targeted goal of achieving full compliance with all permit parameters in 95% of the months. As shown in the figure, 83% of the months were in full compliance in fiscal year 2006, 94% in fiscal year 2007 and 91% in fiscal year 2008. In fiscal year 2006, KY Correctional Institution for Women, Polo Fields and Lake Forest WWTPs represented a large portion of the exceedances. As mentioned above, Watterson Woods and Polo Fields WWTPs have since been eliminated and the KY Correctional Institution for Women WWTP is no longer being operated by MSD. The Lake Forest WWTP (also called Chenoweth Run or Beckley Station) was brought back into full compliance with the ammonia limits in September 2007 with operational changes. It is anticipated that with the goal of at least 95% of months in full compliance will be achieved in the next reporting period.



Floyd's Fork Wastewater Treatment Plant



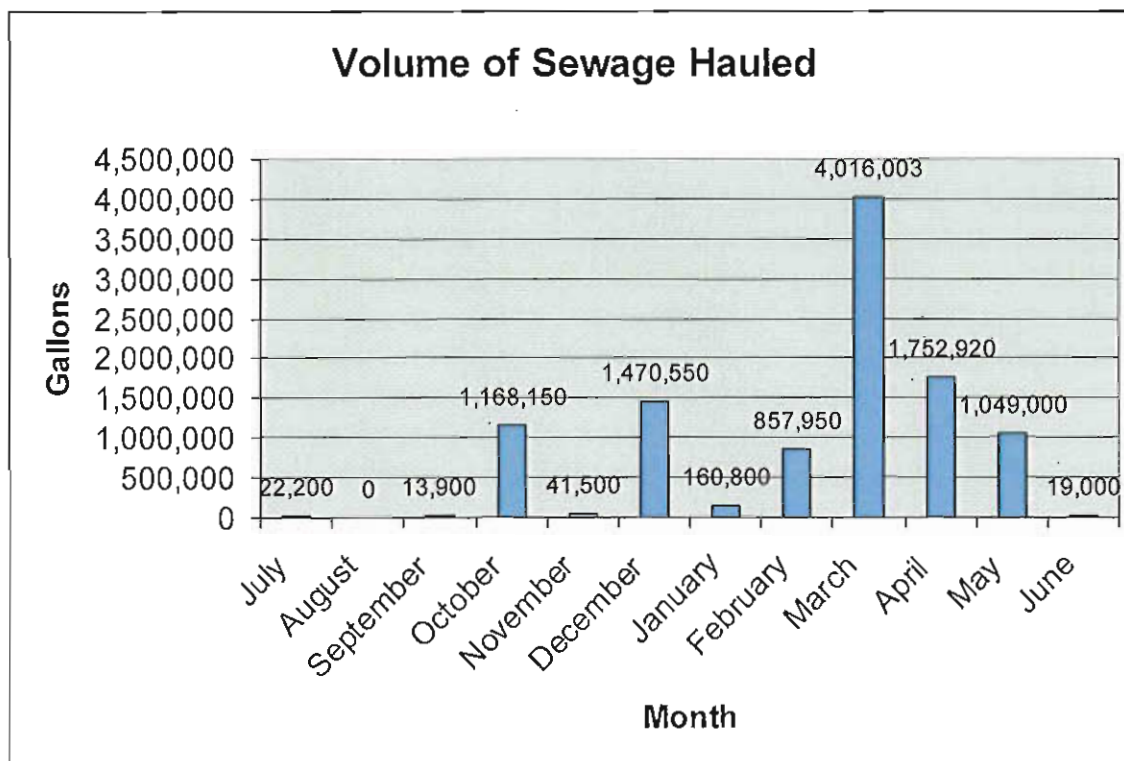
MSD

Louisville and Jefferson County
Metropolitan Sewer District

**Consent Decree Annual Report
July 1, 2007 – June 30, 2008**

2.8.8 Volume of Sewage Hauled

In an effort to reduce the number and volume of overflows, MSD's Metro Operations department has implemented an aggressive wet weather hauling program. In the last fiscal year MSD has hauled over 10 million gallons. The chart shows the volume of sewage that was hauled each month.



SECTION 3: Project WIN Program Activities for the Next Reporting Period

This section describes the anticipated projects and activities (CMOM activities can be found in Section 4 of this document) that are scheduled to be performed during the next reporting period (July 1, 2008, through June 30, 2009) for continued compliance with the Consent Decree.

3.1 Nine Minimum Controls Implementation

Implementation of the NMC program is an on-going initiative. MSD will continue to review programs and assess the need to employ programmatic enhancements and CSS improvements. Specific enhancement activities to be implemented during the next reporting period, over and above the routine activities already in place and discussed in Section 1.1, are as follows:

NMC 1: Proper Operation and Maintenance Program

Annual Training

- Development of a technical memorandum describing the results of the annual CSO Field Investigation that will be conducted in September 2008. The technical memorandum will be completed by December 31, 2008.
- The results of the annual field investigation will be used to adjust and enhance the annual CSO Field training modules.
- The annual CSO field training will be scheduled and held.

Annual Asset Review and Documentation

- The text in the CSO Inventory will be reviewed and drawings will be updated to incorporate all of the changes made to the inventory over the past year by December 31, 2008.
- Construction activities will be completed to remove the last mechanical regulator within the CSS at CSO108.
- Complete the evaluation of CSO Central Relief Drain eliminations and develop a technical memorandum that documents the findings and plan of action by December 31, 2008. These actions will continue into the reporting period in concert with Long Term Control Plan efforts.

NMC 2: Maximization of Storage in the Collection System

Real Time Control Operation

- Construction of RTC Phase II projects: CSO108, RTC Integration of SWPS/MDS/Morris Forman WWTP/Wheeler Basin, and SWOR2 will be completed. RTC Phase II construction projects are to be completed by December 31, 2008, as required within the Consent Decree.
- The RTC Phase II analytical and administrative projects will continue.

CSoft without Weather Forecasting - The intent of this project is to program CSoft so that it can continue to function if the weather forecasting feed from OneRain is down and not providing information.

Web-Based Training – Development of a web-based training tool to educate MSD staff on the RTC system.

Reporting Tool – Development of a reporting tool for performance monitoring of the RTC system.



CDS Unit at CSO 108

Flap gate Evaluation

- In order to evaluate the need for flap gates to further limit the possibility for inflow of river/creek water into the CSS during high stream flow events, a field review will be completed in September 2008. A technical memorandum will be developed by December 31, 2008, to document the findings. Recommendations for the implementation of any enhancements will be documented in the technical memo.

NMC 3: Review and Modification of Pretreatment Requirements

- Conduct follow-up site visit for all NDDs of concern.
- Complete NDD Water Quality Impact Risk Model based on recent changes to hydraulic model.



- Collect data from NDDs of concern and CSS trunk sewers to support future NDD Water Quality Impact Risk Model updates.
- Update NMC #3 file as needed.
- Track annual pretreatment inspections using Hansen.
- Provide email wet weather event notifications to NDDs of concern.
- Refer projects internally for green infrastructure opportunities.
- Utilize the revised permit application.
- Review performance measures and consider new measures.

NMC 4: Maximization of Flow at the Morris Forman Wastewater Treatment Plant

- MSD tracks and displays the percentage of plant capacity (as determined by the capacity calculator) that is being treated. MSD has established performance metrics for the Morris Forman WWTP that include the availability of the critical (i.e. rate-limiting) unit processes, the percentage of time the full firm capacity of the treatment system is available to treat wet weather flows, and the percentage of time that the plant operates near the peak flow capacity of the plant when CSOs are occurring at the Southwestern Pump Station (CSO15) or the Main Diversion Structure (CSO211). During the next reporting period MSD anticipates developing automatically updated displays of these metrics for internal use.
- RTC Phase II includes a project that will allow the RTC computer system to regulate the flows into Morris Forman WWTP, based on the current availability of treatment trains. Construction is to be completed by December 31, 2008, as required within the Consent Decree.
- Testing for the use of alternatives to sodium hypochlorite for disinfection during high flows during the month of April 2008 did not result in conclusive results. During the next reporting period the analysis report will be reviewed to determine if a revised application approach could demonstrate that alternative disinfectants may allow MSD to improve disinfection system effectiveness at high flows to ensure that disinfection performance does not become a constraint on treatment capacity.

NMC 5: Elimination of CSOs During Dry Weather

Flood Pumping Stations

- Continuation of the review of flood pumping stations within the CSS to determine if additional operational modifications are feasible, further maximizing operations and efficiently transporting more flow to the Morris Forman WWTP for treatment. Discussions with the U.S. Army Corps of Engineers (USACE) will continue regarding proposed modifications to the operation of flood and sanitary pump stations that will minimize sewer overflows. Findings will be transmitted as part of the IOAP that will be submitted by December 31, 2008.

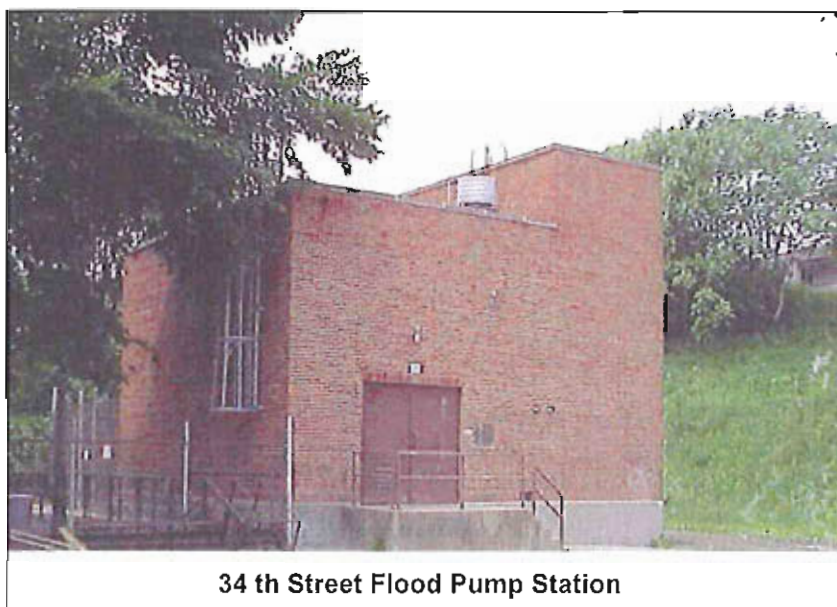
Asset Analysis

- Completion of the analysis of locations throughout the District that historically have experienced excessive accumulation of fats, oils or greases (FOG) in sewers to determine if an engineered solution could cost-effectively and efficiently solve the maintenance problem. Develop a technical memorandum that documents the findings and outlines a plan of action by December 31, 2008.
- Perform a quarterly evaluation of dry weather overflows to the Waters of the United States, with emphasis on the CSS, to determine causes and to determine if there is a need for corrective activities.

NMC 6: Control of Solid and Floatable Materials in Combined Sewer Overflows

Field Verification

- Implement an expanded visual inspection program to determine the efficacy of installed controls by April 30, 2009. The intent of the visual inspections is to verify the installed controls are working by checking the appearance of the creek/river during and after an event compared to a standard for aesthetics.
- Evaluation of the proper placement of the COPA Cyclone removed from CSO30.



34 th Street Flood Pump Station

- Execute a Memorandum of Agreement with the Kentucky State Nature Preserves Commission and submit an annual report by December 31, 2008, in accordance with the Memorandum of Understanding.
- Implement a plan to monitor material removal at CSO108 in accordance with the MOU with the Kentucky State Nature Preserves Commission center by May 30, 2009.

Solids and Floatables Debris Removal

- Develop a process to track the tonnage of solids and floatables materials removed from the CSS by June 30, 2009.

NMC 7: Pollution Prevention Programs to Reduce Contaminants in CSOs

- Continue to facilitate clean sweep events and coordinate volunteers to remove trash and debris from the waterways in Jefferson County.

- Continue to distribute a rain garden manual outlining design and installation procedures for homeowners.
- Continue to facilitate rain barrel give-away events and sales in partnership with the Louisville Nature Center.
- Continue to prepare and distribute informational pieces, targeted to inform customers and residents on activities that can be practiced within their homes to assist in the reduction of overflows within the collection system.
- Continue to promote Green Infrastructure initiatives within Jefferson County, such as pervious pavement and rain garden installations at MSDs main office.
- Continue coordination with Louisville Metro staff for programs such as street sweeping, Operation Brightside, "Adopt-a-Highway" cleanup programs and litter pick-up activities to maximize the efficiency of those operations and determine the amounts of materials as they relate to preventing solids and floatables from entering the CSS.



Pervious Pavement

NMC 8: Public Notification

- Conduct the annual inspection of the Overflow Advisory Signs, before May 1, which is the official start of the recreational contact season in Kentucky. Missing or damaged signs will be repaired or replaced.
- Distribution of informational material, by May 1, providing a general overview and awareness relating to public health impacts associated with sewer overflows and an update of Project WIN initiatives.
- Distribution of informational material, by May 1, to residents living within 500 feet of the south shore of the Ohio River from the mouth of Beargrass Creek to the Portland canal and both sides of the three forks of Beargrass Creek, alerting them to wet weather issues, particularly how to minimize the risks of coming into contact with water that may contain sewage.



MSD

Louisville and Jefferson County
Metropolitan Sewer District

Consent Decree Annual Report July 1, 2007 – June 30, 2008

- Publish the results of the Recreational Contact Survey as an appendix to the IOAP. This survey detailed the extent of potential human contact to impacted waterways during the recreational season. This study was conducted by visual observations of recreational use in and nearby key locations along Beargrass Creek and the Ohio River within Jefferson County. Results demonstrated that the existing signage provides adequate notification for all areas that experience common recreational use. No additional signage is recommended as a result of this study.
- Continuation of efforts to utilize various media outlets, including television, radio and the newspaper, to serve as a conduit for disseminating information to the public.
- Advertisements to inform the public on Project WIN activities will be published in *Business First*, *Louisville Magazine* and *Today's Woman*.
- *MSD Update* and *Crosscurrents* will be sent to customers and staff. Project WIN related articles are contained in each issue. These publications are available on the MSD website.
- MSD Customer Relations will continue to mail out Project Win Information packages to customers who call in with questions regarding the Consent Decree.

NMC 9: Monitoring to Characterize CSO Impacts and the Efficacy of CSO Controls

Stream Monitoring

- Implement an expanded visual inspection program to determine the efficacy of installed controls as part of the IOAP Post Construction Compliance Monitoring Plan by June 30, 2009.
- MSD will perform sampling upstream and downstream of CSO206, as well as the overflow stream, during dry and wet weather to establish baseline conditions prior to its elimination. This sampling is scheduled to occur during the 2008 and 2009 recreational seasons.
- Sonde data will continue to be collected through the USGS Automated Data Processing System (ADAPS) site and additional quality control review procedures will be defined.

**THE ONLY THING WE WANT
OVERFLOWING IN OUR CITY
IS PRIDE.**

At MSD, we'll be working hard all year to keep Louisville Metro safe and informed.

During heavy rains, sewers carrying stormwater and sewage can become overloaded and overflow into our creeks, streams and rivers. Sewage is not only harmful to the environment, but it can also be a health hazard. To MSD wants to ensure your health and safety by asking that you follow these simple rules:

1. Pay attention to MSD warning signs and avoid contact with creeks, streams and rivers during and 48 hours after a rainfall. Don't swim, fish or play in water until at least 2 days after rain has ended.
2. Keep children out of ponds, creeks, streams, drainage ditches and other places that might potentially become water overflows.
3. If you do come in contact with sewage overflow, wash your hands thoroughly in soap, water before handling food or touching other persons or surfaces.
4. During storms, minimize water-using activities such as washing clothes and dishes, bathing, etc.

PROJECT WIN

MSD
Louisville and Jefferson County
Metropolitan Sewer District
www.msdlouky.org

Magazine Ad



- The CSO control projects and their overflow volume reduction will be simulated to assess the LTCP's ability to meet water quality standards and the extent to which other loading sources are responsible. Overall impacts of CSOs on receiving streams will be summarized using the results of these models combined with professional opinion of model limitations and additional environmental parameters. Results of these analyses will be included in the IOAP.
- Completion of the review and update of the CSS pollutant characterization table is scheduled for December 31, 2008.

Sewer Monitoring

- MSD will perform monitoring to characterize CSO impacts. MSD will continue to monitor its largest CSOs for flow volume to continue to define the wet weather contribution of the overflows to the stream.
- The 24 CSOs currently fitted with flow monitors will be added to telemetry by June 30, 2009.
- The new InfoWorks model has identified an additional 15+ CSOs that have AAOVs exceeding 10 million gallons per year. These additional CSOs are as follows: CSO174, CSO153, CSO149, CSO121, CSO119, CSO105, CSO097, CSO084, CSO058, CSO055, CSO050, CSO023, CSO018, CSO016, and the CSOs discharging to Sneads Branch Relief. A plan for monitoring, measuring, or calculating flows at each location will be developed by June 30, 2009. New flow meters will be installed at these locations by December 31, 2009.

Modeling

- The InfoWorks combined sewer model has been calibrated in preparation for simulating the CSO mitigation projects to be included in the Final LTCP. CSO mitigation projects will be simulated within the model and analyzed for efficacy and collective impact. Additionally, this model will be truly integrated with the contributing separate sanitary sewer service areas into a complete sewer model for all areas flowing to the Morris Forman WWTP.
- The Water Quality Tool for the Beargrass Creek Watershed and the Ohio River model will be calibrated and pollutant load allocations will be simulated to attribute load to each source. The CSO control projects and their overflow volume reduction will be simulated within both models and the LTCP ability to meet water quality standards will be reviewed. Overall impacts of CSOs on receiving streams will be summarized using the results of these models combined with professional opinion of model limitations and additional environmental parameters. Water quality model development for other areas in MSD's service area will be considered.

3.2 Sewer Overflow Response Protocol (SORP) Implementation

The following activities will be performed in the next annual reporting period as identified in the approved SORP.

Overflow Management and Field Documentation

- Additional field reviews of SORP procedures to both ensure successful implementation and to assist with the annual SORP overall review will be performed.
- MSD will review and update the SORP field documentation manual as needed.

Public Notification and Communication

- Annual inspection of Overflow Advisory signs will be performed. The process will include inspection and repair/replacement work orders in Hansen. Schedules are set up in Hansen so the annual inspection can be scheduled for the spring of each calendar year.
- Broadcasting of 4 different ads on radio and television, to educate the public on Project WIN initiatives.
- MSD will tape the IOAP presentation and investigate the possibilities of showing the presentation on Metro TV.
- Advertisements to inform the public on Project WIN activities will be published in *Business First*, the *Louisville Magazine* and in *Today's Woman*.
- *MSD Update* and *Crosscurrents* will be sent to customers and staff. Project WIN related articles are contained in each publication. These publications are available on the MSD website.
- Metro TV (Channel 25) will periodically show the **Project WIN 2008 video series** - a series of seven videos to inform the public about MSD, the Consent Decree and Project WIN.
- Project WIN 2008 video series will be available through the Project WIN website.

Regulatory Reporting and Data Management

- Review of discharge work orders will continue and assets will be updated to reflect status.
- Perform a detailed data review and trend analysis in preparation for each quarterly report.

Staff Training and Communication

- The module that overviews MSD's SORP Obligations and Project WIN will be provided in a 30 minute session format for all MSD staff, the Wet Weather Team/Stakeholders and the MSD Board.
- SORP Training will be scheduled and administered.
- Development of a SORP "wallet card" or similar reference tool for use by field staff will begin.

Annual SORP Review

- MSD will perform the annual SORP protocols and procedures review. If modifications are necessary, a new SORP will be submitted to EPA and KDEP for review and approval by August 22, 2009.
- Distribute and post the revised SORP when approval is received.

3.3 Capital Improvement Projects

Paragraph 23.b of the Consent Decree requires the implementation of a specific list of projects to be completed and/or initiated prior to the implementation of the Final SSDP and Final LTCP. There are no projects from the original Consent Decree listing remaining active during this reporting period. This section will be removed from future reports.

3.4 Discharge Abatement Plans

The activities for the two discharge abatement plans (SSDP and LTCP) are described separately below. While the plans are discussed separately, many of the same activities are required, such as alternative development and evaluation, performance evaluations, etc. In addition, some of the activities such as affordability evaluation and rate impacts are programmatic in nature, applying to both discharge abatement plans. These are scheduled to be completed through an integrated program rather than the individual components and will be submitted as the Integrated Overflow Abatement Plan (IOAP) by December 31, 2008.

3.4.1 Sanitary Sewer Discharge Plan

The following discussion of the Sanitary Sewer Discharge plan includes the implementation of the Updated SSOP, implementation of the Interim SSDP, and development of the Final SSDP.

3.4.1.1 Updated Sanitary Sewer Overflow Plan Implementation

The following projects are under design and/or construction, and will be active during the next reporting period. Refer to **Appendix A-2** for a chart showing a schedule of the activities described in this section.

- Fern Hill Subdivision Interceptor #8 (Budget ID C94086) – Final punch list items will be addressed on this project as the elimination of the Holly Oaks Pump Station has been completed. The project was required to be completed by March 30, 2009, in accordance with the Consent Decree.
- Thurman Drive Pump Station Elimination (Budget ID B06299) - The contractor is expected to have completed the elimination of the Thurman Drive Pump Station during the next reporting period. The flow will be diverted to a gravity interceptor and remain in the West County WWTP service area. This project will be completed by September 30, 2008, in accordance with the Consent Decree.
- Zabel Way Pump Station Elimination (Budget ID C06295) - The construction contract is expected to be nearly complete in the next reporting period. The flow, once diverted from the Zabel Way Pump Station will remain in the West County WWTP service area.

The project will be completed by September 30, 2008, in accordance with the Consent Decree.

- Acushnet Pump Station Elimination (Budget ID F06297) – This project (formerly known as the Murray Hills Area Pump Station Upgrade Project) has only final project close out activities to complete during the next reporting period.
- Interceptor Condition Assessment Phase 1 (Budget ID H04272) – In the next reporting period, MSD will continue to schedule and begin corrective/rehabilitation projects to address the Phase 1 findings from the Interceptor Condition Inspections.

The first project – Northern Ditch Interceptor Rehabilitation Phase 1 (Budget ID H07298) will be under construction in the next reporting period.

In addition, all of the remaining Phase 1 rehabilitation projects are expected to be under construction during this reporting period. Projects will be completed prior to December 31, 2008, in accordance with the Consent Decree.



Sewer Rehabilitation Project

- H07294 - Sinking Fork Interceptor Rehabilitation Phase 1
- H06301 - Beechwood Village SSO Abatement Phase 1
- H07295 - Hikes Lane Rehabilitation Phase 1
- H07296 - Goldsmith Lane Rehabilitation Phase 1
- H07297 - Buechel Branch Rehabilitation Phase 1
- H04276 - Middle Fork System Improvements Phase 1

3.4.1.2 Interim Sanitary Sewer Discharge Plan

The revised Interim Sanitary Sewer Discharge Plan (ISSDP) was submitted on March 7, 2008. The implementation of this plan, upon approval, will continue during the next reporting period, with preliminary engineering, route selection, easement acquisition and related activities underway on the following projects: Refer to **Appendix A-3** for a chart showing a schedule of the activities described in this section.

- Beechwood Village (Budget ID E07261 & E08036) - Design is expected to be finalized and progress to advertising for construction bids in the next reporting period. MSD will continue to negotiate for the remaining temporary and permanent easements needed to complete the construction projects in Beechwood Village along with the Sinking Fork

Interceptor Relief Sewer (Budget ID H08357). The project will be completed by April 2011, in accordance with the revised ISSDP.

- Southeast Diversion Structure (Budget ID H08359) – A professional services contract for the design of this project is expected to be executed in the next reporting period. Negotiations for purchase of a flow equalization basin site are expected to move forward. The construction of the Northern Ditch Diversion Interceptor and the West County WWTP Wet Weather Equalization and Treatment Project will eliminate the Southeast Diversion overflow and this will be completed by December 2011, in accordance with the revised ISSDP. The junction structure and the Southeastern Relief Interceptor will be completed in coordination with the Hikes Lane Interceptor by May 2012, in accordance with the revised ISSDP.
- Highgate Springs and Hikes Point Area (Budget ID H07286 & H07287) – The Preliminary Design Report will be completed and an alignment will be selected in order to initiate the final design services contract in the next reporting period. MSD will then be able to contact affected utility agencies and property owners. In addition, a final design services contract will be negotiated in order to address one of the Hikes Point Relief Sewer Efforts in the Carson-Ribble area separately from the Hikes Lane Interceptor contract. Construction will be completed by November 2012, in accordance with the revised ISSDP.
- Northern Ditch Diversion Interceptor (Budget ID C08507) - The design of the Northern Ditch Diversion Interceptor to divert wastewater to the West County WWTP will be completed and easement negotiations will continue in the next reporting period. MSD will apply for appropriate permits in order to advertise for construction contracts.
- West County WWTP Wet Weather Equalization and Treatment Project (Budget ID H06302) – A Technical Memorandum (TM) will be prepared describing the selected alternative for the flow equalization and wet weather treatment process. The Preliminary Engineering Report will be completed, including a refined implementation schedule and cost estimate. Design consultants will be selected and final design initiated for the facilities described in the Preliminary Engineering Report. Construction of flow equalization and high-rate secondary treatment at the West County WWTP will be completed by December 31, 2011, in accordance with the revised ISSDP.
- Increased Performance for ISSDP Elements - Additional overflow eliminations that may require flow to be routed through the conveyance and treatment processes listed above are currently being analyzed. Adjustments to design parameters (size, storage) of the above projects are being considered to allow the projects to accommodate additional wet weather flows. A summary of these elimination projects will be included in the Final SSDP by December 31, 2008, in accordance with the Consent Decree.

3.4.1.3 Final Sanitary Sewer Discharge Plan Development

The following activities are planned for the next reporting period.

- Complete the evaluation of alternatives and develop the list of recommended alternatives for a 1.82-inch, 3-hour cloudburst storm.



- Evaluate differing levels of control (2.25-inch, 3-hour cloudburst storm and possibly a 2.60-inch, 3-hour cloudburst storm) for the preferred alternative solution addressing each SSO.
- Refine selected alternatives, develop site-specific cost estimates and develop summary of recommended program.
- Analyze the programmatic performance of the full list of selected alternatives.
- Develop programmatic costs related to annual inspection and rehabilitation programs to reduce inflow and infiltration as well as a possible enhanced private property program to eliminate illicit connections.
- Analyze possible rate impacts after the list of preferred projects and site specific cost estimate is developed.
- Present results of preferred projects to Wet Weather Team Stakeholder Group.
- Complete the IOAP Volume 1, 2 and 3 and submit to EPA and KDEP by December 31, 2008, in accordance with the Consent Decree.
- Comments are anticipated from KDEP and EPA 60 days following submittal. Response to comments and revisions to the SSDP are due 60 days after that, so the review and revision cycle is expected to be complete within the next reporting period.

**CSO 108**

3.4.2 Long Term Control Plan

The activities described under Long Term Control Plan (LTCP) include implementation of the Interim LTCP and development of the Final LTCP.

3.4.2.1 Interim Long Term Control Plan

The following projects are under design and/or construction, and will be active during the next reporting period: Refer to **Appendix A-4** for a chart showing a schedule of the activities described in this section.

- RTC at CSO108 (Budget ID I03588) – During the next reporting period construction will be completed by December 31, 2008, in accordance with the Consent Decree.
- Integration of Southwestern Pump Station/Main Diversion Structure/Morris Forman WWTP (Budget ID I05056) – During the next reporting period the construction will be completed by December 31, 2008, in accordance with the Consent Decree.
- Integration of Wheeler Basin (Budget ID I05057) – During the next reporting period the construction will be completed by December 31, 2008, in accordance with the Consent Decree.
- RTC at Southwestern Outfall SWOR2 (Budget ID I05055) – Construction will be completed by December 31, 2008, in accordance with the Consent Decree.
- CSO206 Sewer Separation (Budget ID I01062) – During the next reporting period construction on Areas 13 through 15 (of 15 total areas) of this project will be advertised, awarded and construction will start. This project will be completed in accordance with the Consent Decree by March 31, 2009.



Southwestern Outfall

3.4.2.2 Final Long Term Control Plan

A brief description of the major activities planned in the next reporting period follows.

- Final updates to the LTCP modeling will be completed for the sizing of overflow controls for the initial level of protections.
- The list of preferred projects will be determined, and an assessment of the potential impacts of a proposed green infrastructure program will be performed. Following these steps, optimization of preferred solutions will be completed.
- Alternatives will be developed for different levels of control (e.g. other than 4 overflows/year) and will be evaluated using the benefit/cost evaluation process for the preferred alternative approaches. Water quality impacts of the different levels of control will also be evaluated, and a recommended level of control selected and documented. The approach to demonstrating compliance with water quality standards will be developed and discussed with the regulatory agencies.

- The possible overflow reduction impacts of a green infrastructure program will be analyzed on a CSO basin level and a 'business-case' will be evaluated to justify and establish annual funding levels related to implementation of various 'green' technologies.
- The final recommended list of projects, project schedules and probable cash flow will be presented to the MSD Board, and subsequently discussed with the Wet Weather Team Stakeholder Group.
- Possible rate impacts of the recommended projects will be developed.
- Complete the IOAP Volume 1, 2 and 3 and submit to EPA and KDEP by December 31, 2008, in accordance with the Consent Decree.
- Comments are anticipated from KDEP and EPA 60 days following submittal. Response to comments and revisions to the LTCP are due 60 days after that, so the review and revision cycle is expected to be complete within the next reporting period.

3.5 Public Outreach, Education, Notification and Participation

The public participation process consists of several related components: stakeholder involvement as part of the WWT; public outreach through community meetings and MSD's Speaker's Bureau; public education through MSD mailings, brochures, newsletters and MSD's webpage; and, public input through a series of public meetings and a public hearing.



Rain Garden Installation

3.5.1 Public Outreach

A series of public outreach meetings will be held during the next reporting period. The intent of these meetings is to discuss with the public the extent of the CSO and SSO issues, and potential mitigation/elimination strategies. This will be an opportunity to hear from the public what concerns they have about projects that might occur in their neighborhood, and what other opportunities for problem solving they might see.

Below is a chronological summary of the **general outreach activities** scheduled to occur during the reporting period.

July 19, 2008	Rain Garden & Rain Barrel Workshop for Louisville Nature Center
July 21, 2008	Presentation on Urban Stormwater, Rain Gardens and Rain Barrels for Germantown Neighborhood Association
July 29, 2008	Field trip to Floyds Fork Wastewater Treatment Plant – Whitney Young Scholars

August 17 – 27, 2008	Educational exhibit at the KY State Fair - <i>Infrastructure: Supporting Kentucky's Future</i>
August 20, 2008	2 nd Edition of Rain Garden Manual – A How-To Guide for Building Your Own Rain Garden – 10,000 copies
September 2, 2008	Wetland planting/stormwater activities with students and teachers, Stonestreet Elementary
September 9, 2008	Mayor's Healthy Hometown Active Living Committee meeting
September 19, 2008	Exhibitor, Presbyterian USA employee green fair
September 20, 2008	Kentucky Conservation Committee Conference
September 22, 2008	Professional development for JCPS teachers on Measuring and mitigating stormwater runoff, University of Louisville
September 27, 2008	Beargrass Creek Clean Sweep combined with National Trust Clean-Up with Metro Parks and Natural Resource Conservation Service
October 3, 2008	Professional Development for JCPS teachers/stormwater, University of Louisville
October 7, 2008	Mayor's Healthy Hometown Active Living Committee meeting
October 8, 2008	Presentation and stormwater activities with Youth Presbyterian Seminary campus
October 11, 2008	Rain Garden Installation and On-site Workshop, 2105 and 2107 Dorothy Avenue, Douglass Blvd. Neighborhood Association
October 14, 2008	Presenter, Stormwater activities to JCPS and Archdiocese of Louisville students with Brightside, Partnership for a Green City, 6 th annual Environmental Youth Summit, University of Louisville
October 18, 2008	Field trip to Beargrass Creek with Eastern High School students canoeing urban watershed
October 20, 27, November 3, 2008	Workshop on Urban Stormwater, Native Plants, Rain Gardens and Rain Barrels at Louisville Nature Center
October 22, 2008	Exhibitor, University of Louisville Campus Sustainability Day
October 26, 27, 2008	Exhibitor, Bluegrass Green Living Expo, Lexington, KY, Green Infrastructure, stormwater
November 3, 2008	Professional development for Teachers, Project Webfoot, Stonestreet and Sanders Elementary
November 11, 12, 2008	Field Trips to Morris Forman WWTP with Eastern High School
November 12, 2008	Presentation on Urban Stormwater, Rain Barrels and Rain Gardens to Indian Trail/Preston Neighborhood Association, Liberty High School
November 13, 2008	Presentation on Urban Stormwater, Rain Barrels and Rain Gardens, Beckham Bird Club Harvey Brown Presbyterian Center
November 13, 14, 2008	Professional Development for JCPS teachers, Earth Force, Floyds Fork Wastewater Treatment Plant
November 19, 2008	Presentation "Water Matters" Indiana University Southeast, Panel discussion and presentation on harvesting water
November 21, 2008	Friends of Beargrass Creek clean-up
November 24, 2008	Rain Barrel installation, Meyzeek student science fair project

January 19, 2009	Presentation on Urban Stormwater & Rain Gardens to Jefferson County KY/Southern Indiana Master Gardeners
February 16, 2009	Presentation on Urban Stormwater & Rain Gardens to Cherokee Triangle Neighborhood Association
June 20, 2009	Ohio River Sweep
FY 2009	Installation of rain garden at the MSD Main Office
FY 2009	Rain Garden workshop - location and date to be announced

MSD staff is scheduled to attend the following "District 12 Dialogues" at the request of Councilman Blackwell:

July 15, 2008	Rockford Lane Baptist Church - 2006 Rockford Lane
August 19, 2008	Mt. Everest Baptist Church - 6012 Mt. Everest Drive
September 16, 2008	St. Paul Catholic Church - 6901 Dixie Highway
October 21, 2008	St. Polycarp Catholic Church - 7718 Columbine Drive
November 18, 2008	PRP High School - 5901 Greenwood Road

Mayor's Community Conversation meetings are scheduled for the following dates in FY09:

July 21, 2008	Carter Elementary School cafeteria, 3600 Bohne Avenue
August 18, 2008	T.J. Middle School large gym, 1501 Rangeland Road
September 15, 2008	Central High School large gym, 1130 W. Chestnut Street
October 20, 2008	Waggener High small gym, 330 Hubbards Lane
November 17, 2008	Pleasure Ridge Park large gym, 5901 Greenwood Road
January 19, 2009	Location to be announced
February 16, 2009	Location to be announced
March 16, 2009	Location to be announced
April 19, 2009	Location to be announced
May 18, 2009	Location to be announced
June 15, 2009	Location to be announced

3.5.2 Project WIN Public Meetings

There are three IOAP public meetings scheduled during the next reporting period.

- Monday November 10, 2008, 6:00 pm at the Southwest Government Center
- Wednesday, November 12, 2008, 6:00 pm at the Jeffersontown Fire Department
- Thursday, November 20, 2008, 6:00 pm at the East Government Center

There will be a formal public hearing

- Tuesday December 2, 2008, 6:00 pm in the MSD Board Room.

Input from the public obtained during these meetings will be used to shape the final configuration of projects that are proposed for inclusion in the IOAP. A public responsiveness document will be prepared to catalog all formal comments and MSD's responses.

3.5.3 Wet Weather Team Meetings

The WWT has been formed and regular meetings are scheduled to be conducted approximately every four to six weeks during this reporting period. As previously discussed, this team will address the issues related both to the development of the SSDP and LTCP. The stakeholder component of this team is comprised of community leaders, environmental advocates and industry representatives. The stakeholder group will assist MSD in the development and implementation of programs and projects that will satisfy the requirements of the Consent Decree while meeting the level of service objectives of the community.

The schedule of WWT meetings, along with the meeting topics, planned for the next reporting period are as follows:

- July 17, 2008 – The plan is to present at this meeting the complete list of preferred alternatives and the initial look at the knee of the curve evaluations.
- September 23, 2008 – The draft IOAP will be presented to the group, including the final recommended project list, implementation schedule and total program costs.
- December 4, 2008 – The IOAP public comments will be presented to the group and an endorsement of the IOAP will be sought.
- Depending on the timing of the receipt of review comments, there may be an additional meeting of the Stakeholder Group in April 2009 to discuss EPA/KDEP comments and MSD's proposed responses to those comments.

3.5.4 Public Education and Notification

MSD continues to update the annual "calendar" of public information activities for the upcoming year. It is anticipated that the calendar will address unique activities such as Project WIN public meetings, and also repetitive information and outreach activities. An example of repeating activities is MSD's plan to develop and disseminate information about control of household fats, oils and grease prior to the holiday season. MSD anticipates repeating this message every year before the holidays. Messages will also be developed and disseminated prior to the winter wet weather season, the summer recreation season, and the autumn lawn-clean-up season.

The following activities will occur during the next reporting period:

- Advertisements to inform the public on Project WIN activities will be published in *Louisville Magazine*, *Business First* and *Today's Woman*.
- *MSD Update* will be sent to customers and staff each month. Project WIN related articles are contained in each issue. These publications are available on the MSD website.
- *MSD Crosscurrents* newsletter will be sent to customers and staff twice a year. Project WIN and Consent Decree related articles are contained in each issue. These publications are available on the MSD website.



MSD

Louisville and Jefferson County
Metropolitan Sewer District

**Consent Decree Annual Report
July 1, 2007 – June 30, 2008**

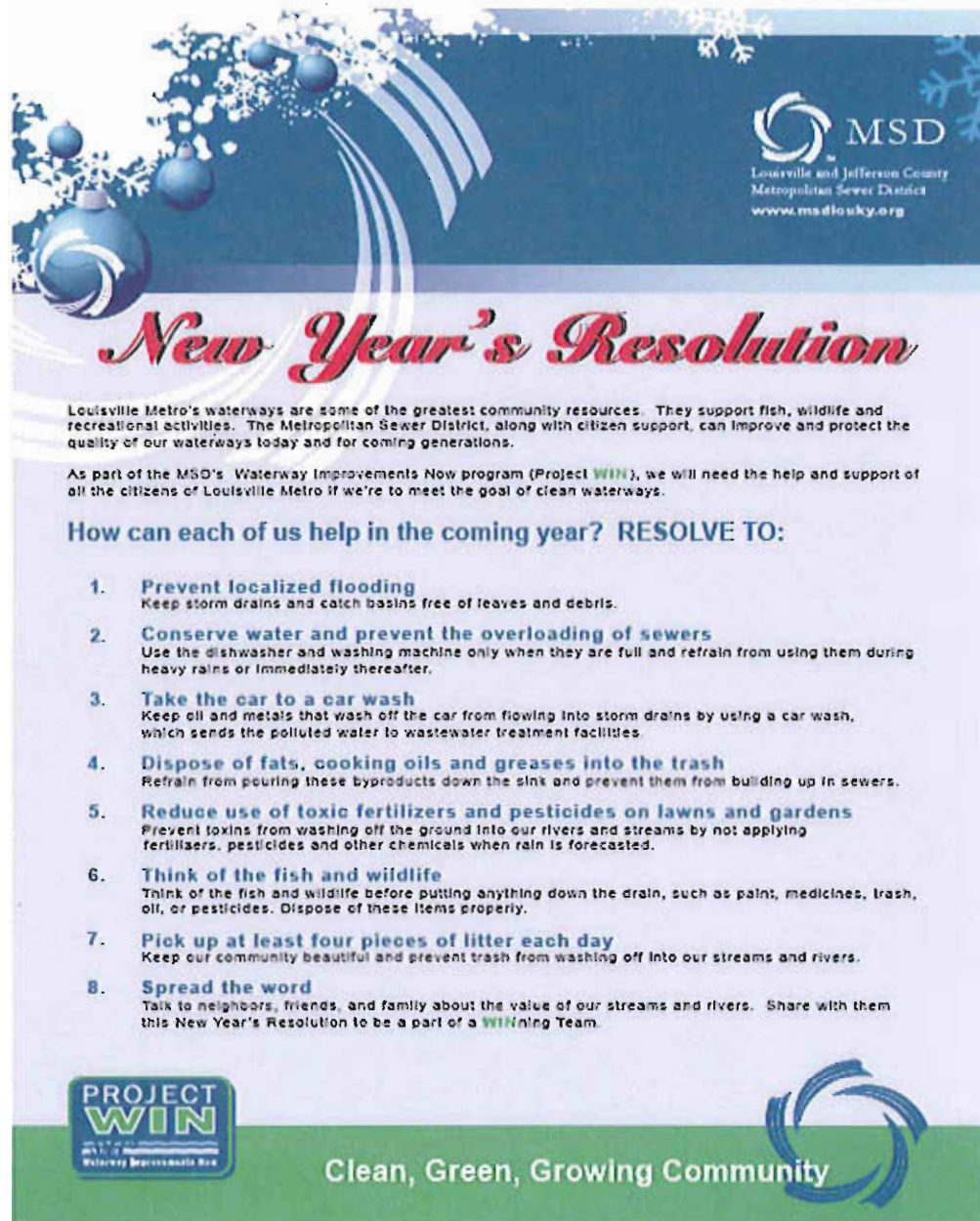
- Annual distribution of the Holiday Tips Postcard. Postcards will be sent to approximately 2075 residents that have had FOG issues in the past.
- Distribute FOG postcards and grease scrapers at public events.



- MSD will develop and distribute its Annual Report.
- MSD will distribute the annual Beargrass Creek and Ohio River mailing to residents within 500 feet.
- MSD will develop and distribute the biannual 2007 Sustainability Report (as required for CERES certification).
- Annual bill insert will be sent in late summer 2008. Bill insert will contain information about MSD rates, including the EPA surcharge.
- Broadcasting of 4 different radio and TV ads to educate the public on Project WIN initiatives.
- MOA with the University of Louisville School of Public Health will be developed to provide an intern for the Eastern High School Program at the Floyds Fork WWTP. The intern will work with the Eastern High School students to conduct educational activities and provide speakers.
- Metro TV (Channel 25) will periodically show the **Project WIN 2008 video series** - a series of seven videos to inform the public about MSD, the Consent Decree and Project WIN.



- Project WIN 2008 video series will be available through the Project WIN website.
- Annual distribution of the New Year's Resolutions advertisement and posters. Focus will be to distribute these posters to all Jefferson County Public schools, Parochial schools and all public libraries.



MSD
Louisville and Jefferson County
Metropolitan Sewer District
www.msdlouky.org

New Year's Resolution

Louisville Metro's waterways are some of the greatest community resources. They support fish, wildlife and recreational activities. The Metropolitan Sewer District, along with citizen support, can improve and protect the quality of our waterways today and for coming generations.

As part of the MSD's Waterway Improvements Now program (Project WIN), we will need the help and support of all the citizens of Louisville Metro if we're to meet the goal of clean waterways.

How can each of us help in the coming year? RESOLVE TO:

- 1. Prevent localized flooding**
Keep storm drains and catch basins free of leaves and debris.
- 2. Conserve water and prevent the overloading of sewers**
Use the dishwasher and washing machine only when they are full and refrain from using them during heavy rains or immediately thereafter.
- 3. Take the car to a car wash**
Keep oil and metals that wash off the car from flowing into storm drains by using a car wash, which sends the polluted water to wastewater treatment facilities.
- 4. Dispose of fats, cooking oils and greases into the trash**
Refrain from pouring these byproducts down the sink and prevent them from building up in sewers.
- 5. Reduce use of toxic fertilizers and pesticides on lawns and gardens**
Prevent toxins from washing off the ground into our rivers and streams by not applying fertilizers, pesticides and other chemicals when rain is forecasted.
- 6. Think of the fish and wildlife**
Think of the fish and wildlife before putting anything down the drain, such as paint, medicines, trash, oil, or pesticides. Dispose of these items properly.
- 7. Pick up at least four pieces of litter each day**
Keep our community beautiful and prevent trash from washing off into our streams and rivers.
- 8. Spread the word**
Talk to neighbors, friends, and family about the value of our streams and rivers. Share with them this New Year's Resolution to be a part of a **WINning** Team.

PROJECT WIN
Waterway Improvements Now

Clean, Green, Growing Community

Information related to this Consent Decree and Project WIN may be found at www.msdlouky.org/projectwin.

SECTION 4: Capacity Management Operations and Maintenance (CMOM)

4.1 Capacity Management Operations and Maintenance Program Activities

Per Paragraph 23.c of the Consent Decree, the Capacity Management Operations and Maintenance (CMOM) Self Assessment Report was submitted to EPA and KDEP on February 10, 2006. MSD received a letter of approval on August 22, 2006. The approved CMOM document can be viewed on the MSD Project WIN website www.msdlouky.org/projectwin. Highlights of the CMOM program implementation over this reporting period are outlined below:

4.1.1 Activities for Reporting Period (July 1, 2007 to June 30, 2008)

MSD continued to implement the recommendations from the CMOM Self-Assessment report. The activities are being performed using a combination of in-house resources and consultants. A summary of the activities which occurred during this reporting period, that still have deadlines, are presented below. Refer to **Appendix A - 5** for a chart showing a schedule of the activities described in this section.

- M-D-3 Implement Utility Information Management (UIM) Support Plan (Due October 31, 2007). MSD selected a consultant to assist in the development of the information dashboard that supports each of the operating division's goals. Staff and consultants worked to refine data needs and reviewed database linkages. The system configuration and implementation was performed by MSD's Information Technology Division. The dashboard graphically displays data that is tracked in various MSD databases (Hansen, LIMS) along with MSD's performance targets. The performance measures are available to staff through MSDnet by clicking on the PWIN Dashboard Link.
- M-D-4 Revise Utility Information Management (UIM) Support Plan (Due May 14, 2009). MSD received and installed the hardware and software required to implement a SharePoint web portal for improved information management. A combination of in-house and external consultants are working on the SharePoint site.
- M-E-3 Initial Continuing Sewer System Assessment (Due December 31, 2007). MSD initiated the development of standard methodologies to assess sewer conditions and maintenance programs for at-risk assets. MSD evaluated and selected the Hansen Advanced Asset Management module to serve as the basis for the collection system asset management system. The module utilizes existing asset information (age, material, and inspection results) to provide strategic life cycle planning recommendations based on risk management principals (consequence of failure times probability of failure). A pilot area was selected and the evaluation process was executed. The CSSA annual report was written in December 2007.
- M-E-4 Annual Continuing Sewer System Assessment Update (Due December 31, 2008). MSD continues to implement the CSSA system and to develop the annual CSSA Update Report. The CSSA Update Report addresses accomplishments for the fiscal year and identifies specific infrastructure rehabilitation/replacement projects and O&M actions based on asset condition assessment. The Annual CSSA Update Report will also propose areas of the system to assess for the coming year and be prepared by December 31, 2008. MSD also conducted training during this reporting period on the



use of PACP TV Inspection and held a series of task meetings to continue the implementation of the CSSA.

- M-E-5 Continuing Sewer System Assessment (Due June 30, 2008). MSD prepared a technical memorandum summarizing the findings and recommendations of the Phase 1 Assessment. MSD has also scheduled corrective/rehabilitation projects to address the Interceptor Condition Assessment Phase 1 (Budget ID H04272) findings. The first project – Northern Ditch Int. Rehab Phase 1 (Budget ID H07298) was awarded on June 30, 2008. The 5 remaining projects will be bid and constructed prior to December 31, 2008. MSD also continued the process to identify the next round of proposed interceptor condition assessments and develop projects and budgets for inclusion in the 2009 fiscal year budget, which begins July 1, 2008. The Notice to Proceed for Phase 2 of the Interceptor Conditions Assessment is scheduled to be issued on August 4, 2008.
- M-E-7 Facility Capacity Protocol (Due September 29, 2007). MSD has evaluated the capacities for the pump stations and 15 small wastewater treatment plants. Flow capacities at the small treatment plants were determined by reviewing the most recent engineering design and construction plans, individual site visits, and performance certifications where available. This task also includes development of field data collection protocol for the Composite Correction Analysis (CCA) and updated pump station drawdown procedures.
- M-E-8 Current and Committed Capacity (Due February 28, 2008). MSD initiated a standardized process for determining available capacity for its treatment plants and predicting the timing of new development loads on each system. MSD also completed the process of converting and standardizing its hydraulic models into a single InfoWorks CS platform to evaluate sewer main capacities in the collection system. MSD continues to refine a Capacity Certification program to address available system capacity for an expanding service area.
- M-E-9 Build-Out Capacity (Due September 30, 2008). MSD prepared flow projections for build-out conditions of each sewershed. The information was incorporated into the InfoWorks sewer system model where appropriate, which is being used for the development of the IOAP. The analysis identified the timing of flow additions and the location and timing of potential future capacity limitations. Work began on the documentation of the approach and results of this analysis.
- M-E-10 Available Capacity SOP (Due February 28, 2008). MSD has developed the process to regularly review and update the capacity of operating assets, the current, committed and projected loads, and regularly identify current or projected capacity problems, and identify mitigation approaches or capacity improvement projects to address limitations. MSD has built and calibrated the comprehensive hydraulic models of the combined and separate sanitary sewer service areas. In addition to supporting the discharge abatement plans, these models eventually will be used to support future evaluations of new connection requests. The models include sanitary sewers 8-inch and larger in the separate sanitary area and 18-inches and larger in the combined area.
- M-E-11 Wet Weather Plan (Due December 31, 2008). The Wet Weather Plan (now referred to as the IOAP) is a comprehensive document that incorporates elements from



CMOM, LTCP and SSDP. While it is referenced in the CMOM report, it is not primarily a CMOM document. This document will be submitted to EPA and KDEP by December 31, 2008. The details of this activity will be addressed under the Discharge Abatement Plan discussions.

- M-H-2 Inventory and Spare Parts Plan (Due December 31, 2007). MSD developed a strategic inventory and spare parts plan. The goal of the Inventory and Spare Parts Plan was to optimize spare parts and tools procurement, storage and check-out procedures. An adequate inventory of spare parts, equipment and supplies are necessary to minimize equipment downtime and thereby reduce the potential for overflows. MSD also developed training programs and standard operating procedures to improve the operation of the Storeroom. Coordination meetings and a user survey were also conducted with storeroom customers in order to improve service and responsiveness.
- M-K-1 Water Quality Data Access (Due October 30, 2007). MSD has been collecting environmental data sets for years and storing the data in various locations and formats. The data sets include: precipitation, stream flow, sewer flow, biological stream, sonde and laboratory. MSD developed a plan for improving the accessibility of water quality data and has begun implementation of the plan. A Technical Memorandum documenting the review process was prepared.
- M-L-1 Implement Back-up Power (Due December 31, 2008). MSD assigned an in-house team to work on back-up power implementation. MSD also selected natural gas as the preferred fuel for the generators and identified locations for natural gas sources at all locations. The installation of the natural gas generator at the Westover Pump Station is complete. The remaining portion of Phase 1 of this project includes the installation of the natural gas generators at Trail Ridge and Grand Isle Pump Stations and propane generators at the Wind Ridge and Breakwater Pump Stations. During this reporting period, the contractor has installed the generators on concrete pads at all four locations. There is additional equipment needed for the propane generators in order to address cold weather conditions. The Trail Ridge and Grand Isle generators are installed and awaiting connection to the public gas system. In a separate Phase 2 construction contract, the natural gas generator for the Anchor Estates #2 Pump Station and the propane generator systems for the St. Patrick and Fairway Lane Pump Stations have been installed on concrete pads at the sites. There is additional equipment needed for the propane generators in order to address cold weather conditions. The Anchor Estates #2 generator is installed and awaiting connection to the public gas system.
- O-A-1 Update Pump Station SOPs (Due July 31, 2007). MSD uses routine operator inspections to ensure that its system of sanitary pump stations operate properly on demand. MSD reviewed pump station overflow data and best management practices (BMPs) to determine if changes in the Standard Operating Procedures (SOPs) were needed. Because MSD owns and operates over 300 pump stations throughout its collection system, varying in size, type and complexity, the SOPs were categorized by pump station configuration (submersible, dry pit, etc.). The routine inspection checklists were updated and standardized based on these pump station configurations. A Technical Memorandum documenting the SOP revisions was prepared.



- O-A-3 Implement Greenline Analysis (Due September 28, 2007). MSD implemented the recommendations of the Greenline Analysis Technical Memorandum for Beechwood Village and Hikes Point. The Greenline elevations were raised at selected manholes and fixed length suction pipes were fabricated and delivered to the pump crews. The pump operators were also trained in the new procedures.
- O-A-4 Implement Pump Station Standard Operating Procedures (Due September 28, 2007). MSD operators were trained to follow the updated Pump Station Standard Operating Procedures that were developed.
- O-A-5 Identify Facility Upgrades (Due December 31, 2007). MSD Engineering staff continues to meet on a monthly basis with Operations staff to determine capital project priorities and advise on the budgetary needs on a quarterly basis.
- O-D-1 to O-D-5 Fats, Oil and Grease (FOG) Program (Due December 31, 2007). MSD completed an internal benchmarking study of other utility FOG programs and performed a comprehensive FOG program analysis. MSD completed an evaluation of public educational activities associated with the FOG Program, defining the different audiences to target for FOG education and outreach activities. MSD completed work on a FOG Policy and Guidelines which include a mechanism requiring new commercial development properties to include two separate sewer lines to accommodate future Food Services Establishments (FSEs). This requirement was included in changes to the MSD Wastewater/Stormwater Discharge Regulations (WDR). Additionally, MSD revised the Enforcement Response Plan (ERP) as part of this effort. MSD presented these documents to its Board for review in December 2007.
- O-F-3 Flow Monitoring Plan (Due September 29, 2008). MSD continued to develop a long-term flow monitoring plan that includes approximately 45 locations for permanent sewer flow monitors. The flow monitoring plan includes equipment for measurement and telemetry. Several CSO sites have had flow monitoring equipment installed during the last reporting period. The flow monitoring program is being integrated with the post construction compliance monitoring plan that will be implemented to track performance of the Integrated Overflow Abatement Plan. A workshop was held with MSD staff and with a meter consultant to review the sites and begin preparation of the proposal.
- S-A-2 Implement Pump Station Preventive Maintenance Plan (Due September 29, 2007). MSD trained its maintenance personnel to follow the updated Preventive Maintenance Plan.
- S-C-1 Gravity Line PM Risk Evaluation (Due January 31, 2008). MSD continues to expand the overall plan for preventive maintenance of gravity sewers. As part of this effort MSD developed a staffing and resource plan for the division that maintains the sewers (sanitary, storm and combined) to ensure that the proper resources are available to maintain the system.
- S-C-2 Integrate Maintenance Activities & Capital Improvement Plan (Due December 31, 2008). MSD continued the process to integrate the information obtained in the CSSA Report to assist MSDs I&FP Division in identifying potential infrastructure assets requiring consideration for renewal or replacement. This CSSA Report will also be used

to identify maintenance issues that should be dealt with proactively. During this period MSD has started the restructuring of the Gravity Sewer PM program.

4.1.2 Activities for the Next Reporting Period (July 1, 2008, through June 30, 2009)

Section 4.1.2 describes those activities that are still in progress and have upcoming deadlines. Refer to **Appendix A-5** for a chart showing a schedule of the activities described in this section.

- M-D-4 Revise Utility Information Management (UIM) Support Plan (Due May 14, 2009). Contract and MSD staff will continue the development of the SharePoint site during the next reporting period. The SharePoint site will be fully functional by May 2009.
- M-E-4 Annual Continuing Sewer System Assessment Update (Due December 31, 2008). MSD will continue to work on the Annual Continuing Sewer System Assessment (CSSA) Update Report, which will address accomplishments for each fiscal year and identify



specific infrastructure rehabilitation and replacement projects and O&M actions based on asset condition assessment. Activities will continue to update missing age and material types on sewer assets, develop a method for assumed condition based on this data, and further prioritize inspection accounting for those assets in worst assumed condition, wet weather issues, and new development pressures. The Annual CSSA Update Report will also propose areas, equal to 10%, of the sewer system to assess for the coming year.

- M-E-9 Build-Out Capacity (Due September 30, 2008). MSD will prepare a Technical Memorandum (TM) summarizing the flow projections for build-out conditions of each sewershed. The TM will identify the timing of flow additions, and the location and timing of potential future capacity limitations.
- M-E-11 Wet Weather Plan (Due December 31, 2008). The Wet Weather Plan (now referred to as the IOAP) is a comprehensive document that incorporates elements from



CMOM, LTCP and SSDP. While it is referenced in the CMOM report, it is not primarily a CMOM document. This document will be submitted to EPA and KDEP by December 31, 2008. The details of this activity will be addressed under the Discharge Abatement Plan discussions.

- M-L-1 Implement Back-up Power (Due December 31, 2008). The permanent emergency generators at Wind Ridge, Trail Ridge, Breakwater, Grand Isle, Anchor Estates #2, St. Patrick and Fairway Pump Stations are expected to be installed, operating and staff trained by the end of September 2008.
- O-F-3 Flow Monitoring Plan (Due September 29, 2008). The flow monitoring plan will be updated as the LTCP and SSDP are developed to support the post construction compliance monitoring program being developed as part of the Wet Weather Plan. The equipment purchase, data delivery and quality control plan for an expanded sewer monitoring network is currently under review.
- S-C-2 Integrate Maintenance Activities & Capital Improvement Plan (Due December 31, 2008). MSD will continue the process to integrate the information obtained in the CSSA Report to identify potential infrastructure assets requiring consideration for renewal or replacement. This CSSA Report will also be used to identify maintenance issues that should be dealt with proactively.

4.2 Continued CMOM Program Implementation

Although the program implementation deadlines from the CMOM Self Assessment Report were previously met, MSD continued to enhance the activities listed in the table below during this reporting period.

The CMOM ID numbers in the table below correspond to the CMOM ID numbers in the original EPA checklist and Table 3.2 from the CMOM Self Assessment. All "Continued CMOM Program Implementation" activities (Section 4.2 of this document) will be reported using these original CMOM ID numbers. These original ID numbers do not correspond to the numbering system used in Section 4.1 of this document. The ID numbering system referenced in Section 4.1 is a numbering system which was based on the schedule submitted in the CMOM Self Assessment Report that was submitted to EPA and KDEP on February 10, 2006.

This conflict in the numbering systems has become a point of confusion when reporting progress. Therefore, as the CMOM deadlines are met in Section 4.1, future progress will be reported using the original CMOM ID numbering system.



Rubbertown Force Main Inspection



MSD

Louisville and Jefferson County
Metropolitan Sewer District

**Consent Decree Annual Report
July 1, 2007 – June 30, 2008**

CMOM FY08 Annual Report

Programs and Activities	CMOM Program FY08	CMOM Program FY09
I. Management Programs		
A - Table of Organization	<i>This section describes MSD's Table of Organization. The goal of this section is to ensure each department works efficiently and cooperatively by clearly defining each department's role in the organization in terms of authority, function, position, duties, and relation to other departments. This section also identifies positions currently budgeted and filled.</i>	
M-A-1 Organizational Chart	MSD's Organization Chart is updated on a quarterly basis and posted on MSD's Intranet. See Table 2 for a January 2008 snapshot summary of vacancies by Division.	Quarterly updates of the Organizational Chart will continue.
M-A-2 Relationship to other Departments		

**Table 2
Organizational Summary**

	<u>Total</u>	<u>Filled</u>	<u>Vacant</u>	<u>Exempt</u>	<u>Non-Exempt</u>	<u>Unit</u>
Executive Office Division	4	4	0	2	2	0
Legal Division	7	6	1	0	2	0
Human Resources Division	18	18	0	1	7	0
Finance Division	13	17	1	10	0	0
Physical Assets Division	39	38	3	6	15	18
Regulatory Services Division	10	46	4	20	20	1
Engineering Division	20	22	1	11	12	0
Watershed Area Teams Division	29	25	4	19	10	0
Infrastructure & Flood Protection Division						
Administration & Support Services	58	57	1	9	10	33
Sewer/Flood Protection & Stormwater Drainage	157	153	4	13	3	141
Operations Division						
Metro Operations & Maintenance	54	62	2	10	6	69
MFWTP Operations	35.5	32.5	3	11	8.5	38
MFWTP Maintenance	37	35	2	4	5	28
Information Technology Division						
Information Technology	43	40	3	20	14	0
Customer Relations	20	20	0	2	10	0
DISTRICT TOTAL	622.5	593.5	29	142	134.5	308

**MSD**Louisville and Jefferson County
Metropolitan Sewer District**Consent Decree Annual Report
July 1, 2007 – June 30, 2008**

Programs and Activities		CMOM Program FY08	CMOM Program FY09
B - Training Programs		<i>This section describes MSD's Training Programs. The goal of this section is to ensure employee growth and workplace safety, through mandatory training (both initial and ongoing), attendance to conferences and seminars, certification, accurate record keeping of employee training, and incentives such as pay, promotions, and ability to work. All training programs promote MSD's fundamental mission, goals, and policies.</i>	
M-B-1 Technical Training M-B-2 Skills Training M-B-3 Safety Training	160 different in house training courses were offered in FY08. 636 employees were trained in the various courses. This information is stored in a HR database (SAP).	Training will continue in FY09. Investigate the possibility of incorporating external training records into the MSD training database	



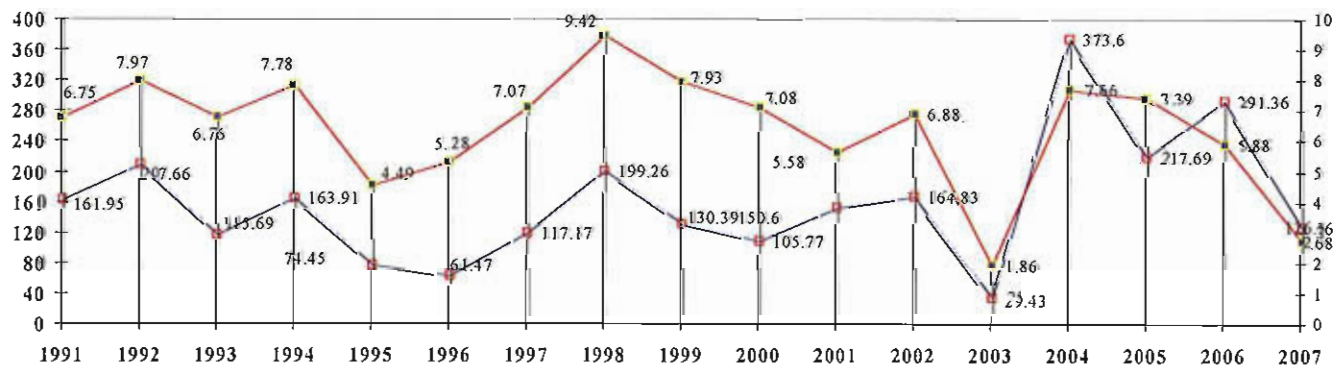
MSD

Louisville and Jefferson County
Metropolitan Sewer District

Consent Decree Annual Report July 1, 2007 – June 30, 2008

Programs and Activities	CMOM Program FY08	CMOM Program FY09
C – Safety Programs	<i>This section describes MSD's Safety Programs. The goal of this section is to eliminate on-the-job injuries. MSD's Safety Programs include safety committees, confined space entry procedures, district wide safety policies, traffic management, lock out/tag out procedures, and proper use of safety equipment.</i>	
M-C-1 Safety Committee M-C-2 Confined Space Entry M-C-3 General Safety Procedures M-C-4 Traffic Management M-C-5 Lock Out/Tag Out M-C-6 Safety Equipment M-C-7 Performance Measures	<p>There were two MSD construction site visits from OSHA resulting in 6 NOVs. The associated fees were \$19,500.</p> <p>MSD recorded 139 safety incidents.</p> <p>MSD recorded 15 lost time incidents.</p> <p>There were 51 Worker Comp Claims filed.</p> <p>MSD staff were off a total of 707 days due to work related issues.</p> <p>MSD's Safety staff conducted 60 random job site inspections, weekly inspections at Morris Forman WWTP, and quarterly inspections with Metro Ops of WWTPs and Pump Stations.</p> <p>MSD employees attended mandatory training on: Trench Training, Confined Space, First Aide, Hazmat Response and Fire Extinguisher usage.</p> <p>(The above safety numbers are based on the 2007 calendar year.)</p>	<p>Safety programs will continue in FY09.</p>

LOST TIME AND SEVERITY RATES PER 200,000 MAN HOURS



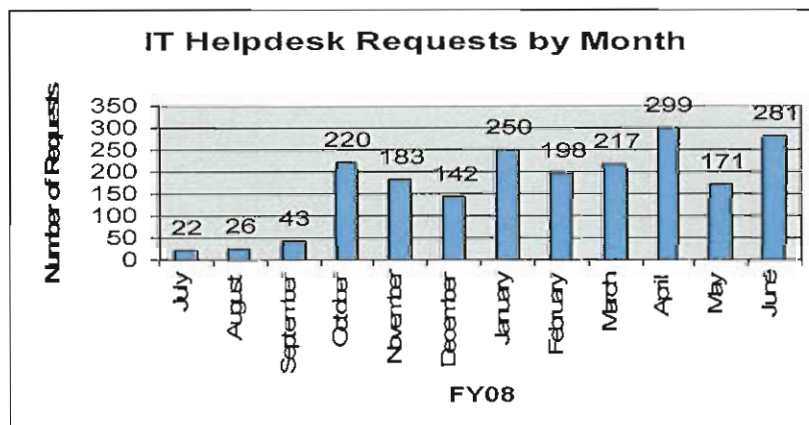


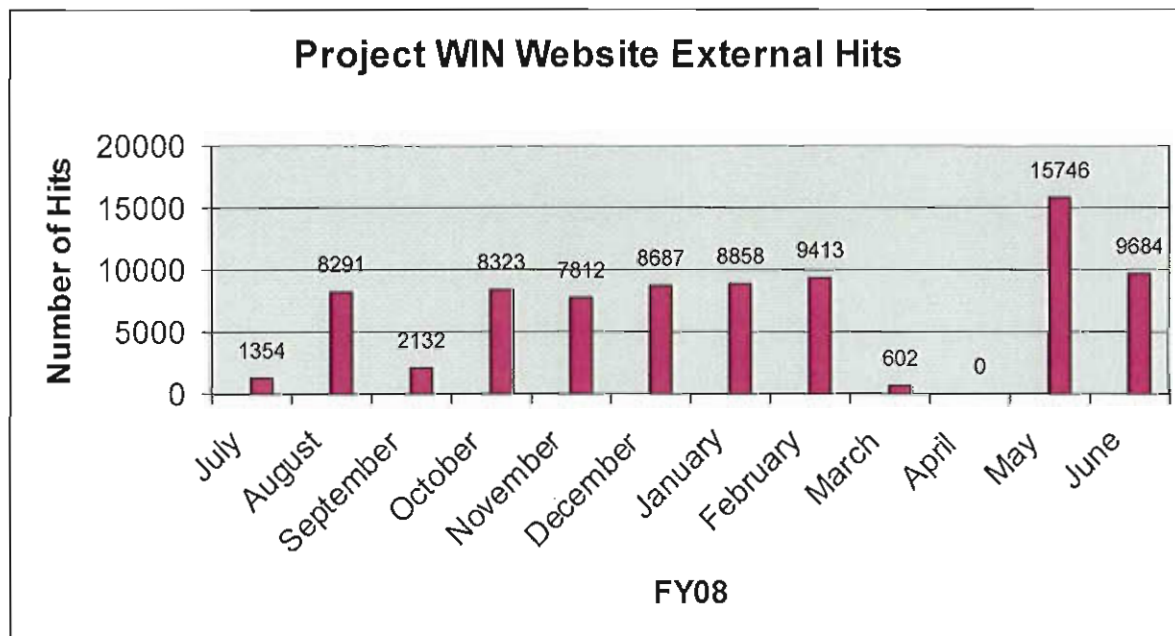
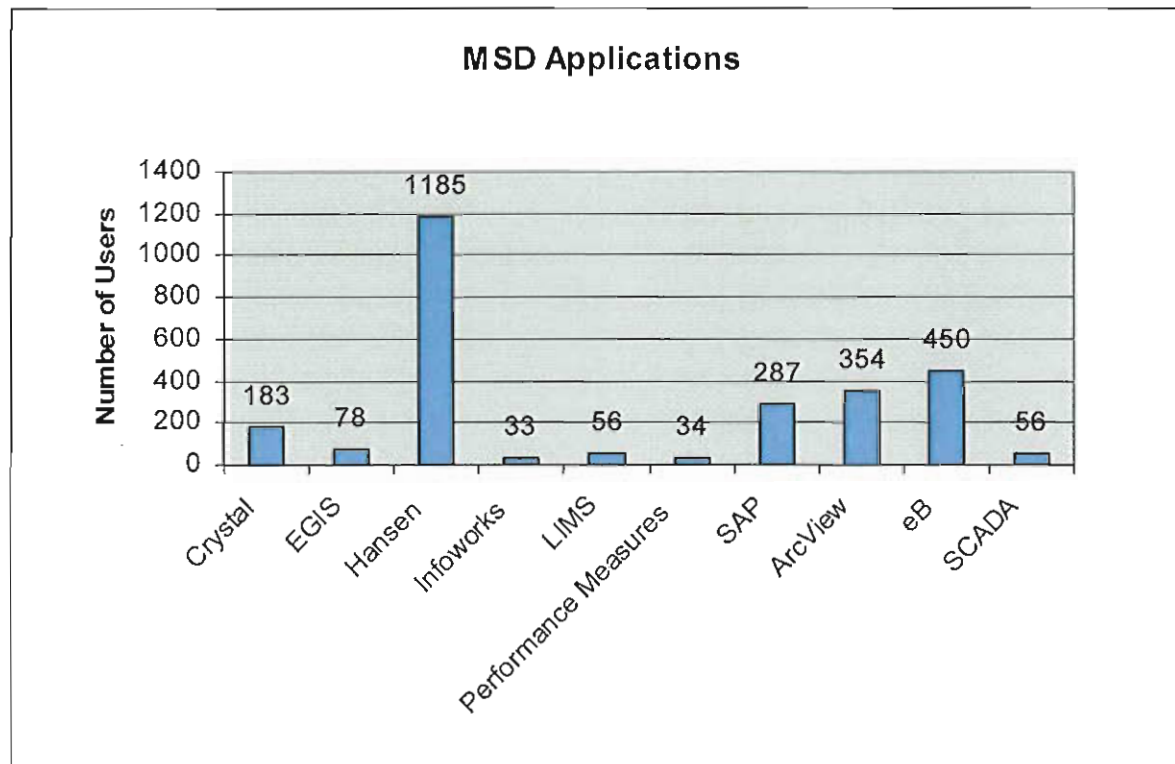
MSD

Louisville and Jefferson County
Metropolitan Sewer District

**Consent Decree Annual Report
July 1, 2007 – June 30, 2008**

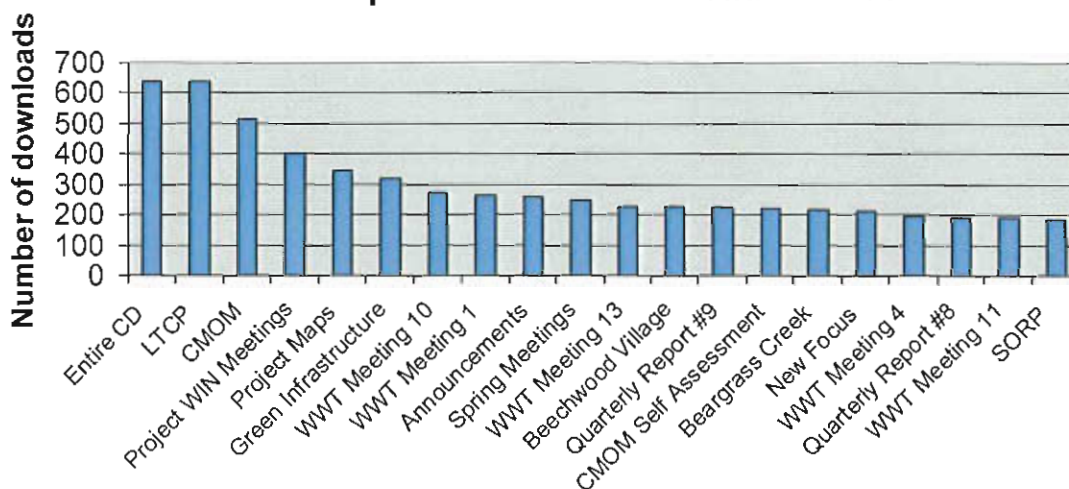
Programs and Activities	CMOM Program FY08	CMOM Program FY09
D Utility Information Management Systems	<i>This section describes MSD's Utility Information Management System. The goal of this section is to produce quality information regarding sewer system performance. MSD's Utility Information Management System supports the following programs: management, operations, maintenance, complaint management, and performance indicators.</i>	
M-D 1 Management Information Management Systems M-D-2 Operations Information Management Systems M-D-3 Maintenance Information Management Systems M-D-4 Complaint Management and Tracking Information Management Systems M-D-5 Performance Indicators	<p>The MSD network runs 24/7 and has been available 99% of the time.</p> <p>MSD has a helpdesk system to track and respond to requests from users. MSD installed a new HELPDESK system in October 2007.</p> <p>MSD utilizes a wide variety of software to operate the day-to day business activities associated with wastewater collection, conveyance and treatments. The following are some of our major applications:</p> <p>Hansen EGIS SAP eB SCADA Rain Gauge Network LIMS Crystal Infoworks Performance Measures</p> <p>MSD has developed a website for Project WIN. Several graphs were created to monitor the information that is being used by the public.</p>	Continue to upgrade systems and performance in FY09.



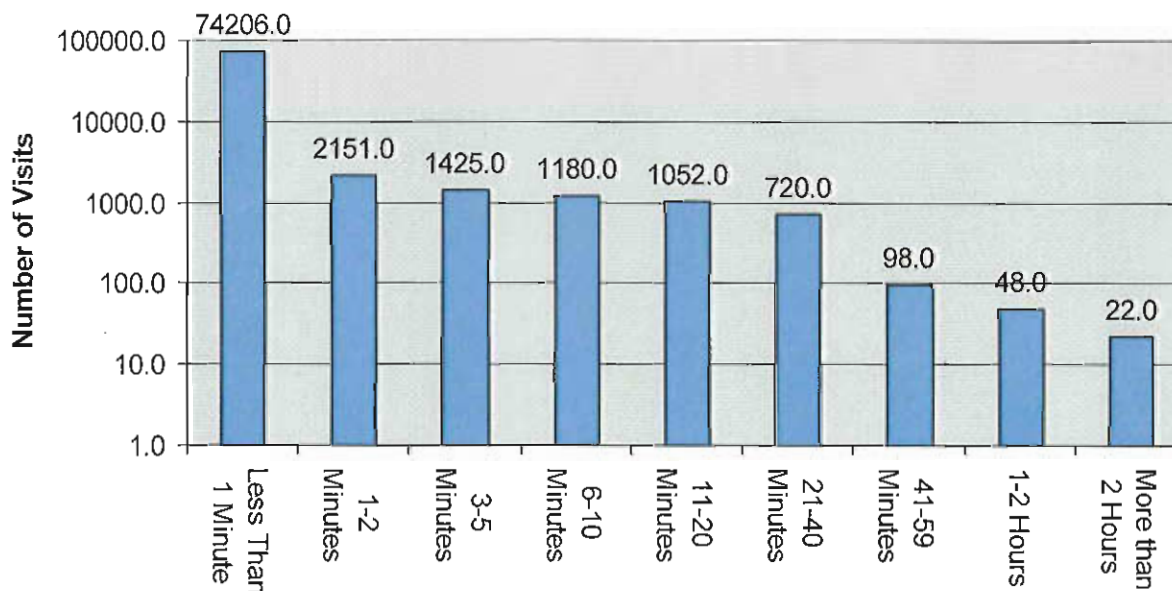




Top Document Downloads - FY08



Length of Site Visit - FY08



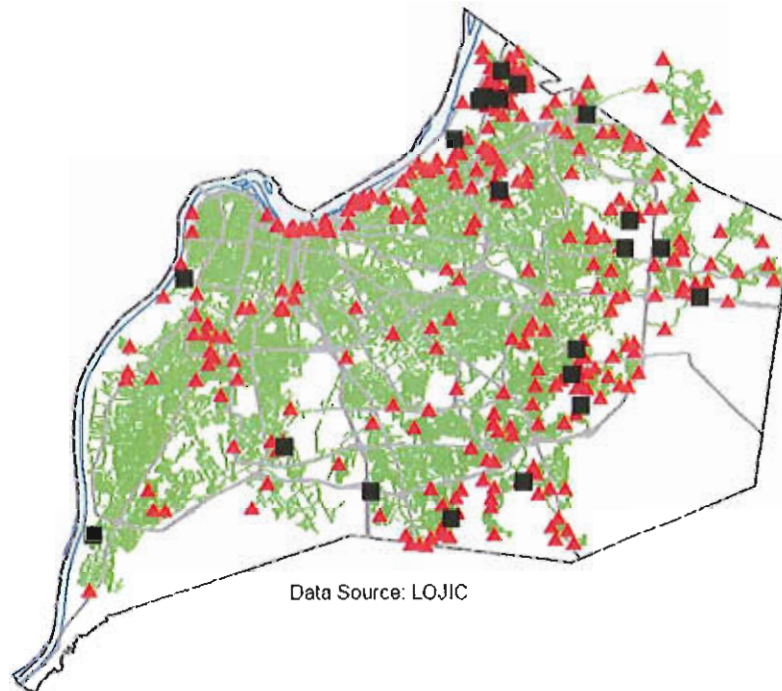


MSD

Louisville and Jefferson County
Metropolitan Sewer District

**Consent Decree Annual Report
July 1, 2007 – June 30, 2008**

Programs and Activities	CMOM Program FY08	CMOM Program FY09
E- Engineering Programs	<i>This section describes MSD's Engineering Projects. The goal of this section is to maintain accurate plans of current sewer system infrastructure, oversee construction quality of new infrastructure, and conduct assessments to maximize the efficiency of current WWTPs. MSD's engineering programs include the following: collection and transmission system plans, system inventory, mapping, sewer system design, sewer construction, construction inspection, acquisition considerations, continuing sewer system assessment (CSSA), infrastructure rehabilitation, and system capacity assurance (SCAP).</i>	
M-E-1 Collection and Transmission System Plans	MSD scans all plans into out eB imaging system. In FY08 99 projects were added to eB.	Continue to scan plans and update data in the GIS and asset management software from the collection and transmission plans. Complete the migration of PS data into Hansen.
M-E-2 System Inventory	Scan plans are then captured in the GIS and asset management software. In FY08 we added 2,585 property service connections and 182,000 feet of sewer.	
M-E-3 Mapping	In FY08 MSD installed a new ArcGIS application, GEOAdministrator for the editing of our sewer and storm GIS data. MSD started the process to migrate PS data into Hansen.	



Data Source: LOJIC

Facility Map of MSD sewers, Treatment Plants and Pump Stations.

**MSD**Louisville and Jefferson County
Metropolitan Sewer District**Consent Decree Annual Report
July 1, 2007 – June 30, 2008**

Programs and Activities	CMOM Program FY08	CMOM Program FY09
E- Engineering Programs	<i>This section describes MSD's Engineering Projects. The goal of this section is to maintain accurate plans of current sewer system infrastructure, oversee construction quality of new infrastructure, and conduct assessments to maximize the efficiency of current WWTPs. MSD's engineering programs include the following: collection and transmission system plans, system inventory, mapping, sewer system design, sewer construction, construction inspection, acquisition considerations, continuing sewer system assessment (CSSA), infrastructure rehabilitation, and system capacity assurance (SCAP).</i>	
M-E-4 Sewer System Design M-E-5 Sewer Construction M-E-6 Construction Inspection	<p>MSD continued to review its design and construction standards to identify opportunities to reduce infiltration and inflow of new construction. As part of the updating process, MSD has initiated a third party review of the design and construction standards for other desired improvements.</p> <p>A notice to proceed letter was sent May 7, 2008 for the consulting engineer to provide additional resources to aid in updating the standards and preparing new documentation for distribution.</p> <p><u>Engineering</u></p> <p>FY 08 Capital Budget - \$136,147,000</p> <p>FY 08 Capital Expenditures - \$59,500,000 (includes capitalized project costs)</p> <p>Percent Capital Budget Expended – 44%</p> <p>FY 08 Professional Services Committed Funds - \$12,717,000</p> <p>Professional Services Schedule Milestones Number Achieved – 65%</p> <p>Professional Services Milestone Value Achieved – 78%.</p> <p>FY 08 Construction Contracts Awarded - \$13,894,000</p> <p>FY 08 Construction Funds Committed - \$8,748,000</p> <p>FY 08 Total Change Orders - \$1,140,000</p> <p>FY 08 Change Order Causes :</p> <ul style="list-style-type: none"> • MSD-requested scope change – 83% • Unforeseen Conditions – 14% • Design Error or Omission - 1 % • Final Compensating quantities – 2% 	<p>MSD will continue to review its design and construction standards to identify opportunities to reduce overflows. As part of the updating process, MSD will continue the third party review of the design and construction standards for other desired improvements.</p> <p>Internal meetings will be held to gather input from MSD staff in several divisions regarding recommended improvements to the existing documents. Work will continue with the comprehensive updating of the standards during the next reporting period.</p> <p>In FY09 MSD staff will migrate to tracking performance measures and project milestones through Sharepoint.</p>

**MSD**Louisville and Jefferson County
Metropolitan Sewer District**Consent Decree Annual Report
July 1, 2007 – June 30, 2008**

Programs and Activities	CMOM Program FY08	CMOM Program FY09
E- Engineering Programs	<i>This section describes MSD's Engineering Projects. The goal of this section is to maintain accurate plans of current sewer system infrastructure, oversee construction quality of new infrastructure, and conduct assessments to maximize the efficiency of current WWTPs. MSD's engineering programs include the following: collection and transmission system plans, system inventory, mapping, sewer system design, sewer construction, construction inspection, acquisition considerations, continuing sewer system assessment (CSSA), infrastructure rehabilitation, and system capacity assurance (SCAP).</i>	
M-E-7 Acquisition Considerations	In FY08 MSD acquired 130 easements at a cost of \$208,780.00.	
M-E-8 Continuing Sewer System Assessment	<p>275 manhole condition assessments were performed in FY08.</p> <p>Work orders were issued for 271 manhole repairs.</p> <p>Staff from I&FP, Engineering, RS and IT attend PACP TV inspection training.</p> <p>If FY08 67,909 feet of sewer mains were televised. 610 feet were done using PACP codes.</p>	<p>Migrate to the use of PACP coding for the majority of TV inspections.</p> <p>Continue condition assessments for manholes in strategic areas.</p> <p>Identify new priority areas for Condition Assessment and initiate associated inspections</p> <p>Identify SSES project areas and start investigations</p> <p>Continue to train staff on the use of PACP codes</p>
M-E-9 Infrastructure Rehabilitation	<p>MSD scheduled and began corrective, rehabilitation projects to address the Phase 1 findings from the Interceptor Condition Inspections. The first project – Northern Ditch Int. Rehab Phase 1 (Budget ID H07298) was advertised and bids opened.</p> <p>MSD slip lined 216 property service connections in FY08.</p>	<p>The first project – Northern Ditch Int. Rehab Phase 1 (Budget ID H07298) will be completed. In addition, construction contracts for all of the remaining six rehabilitation projects are expected to be advertised and awarded for construction during the next reporting period.</p> <p>The projects are scheduled to be completed by December 31, 2008, in accordance with the Sanitary Sewer Overflow Plan (SSOP).</p> <ul style="list-style-type: none"> • H07294- Sinking Fork Int. Rehab Phase 1 • H06301-Beechwood Village SSO Abatement Phase 1 • H07295-Hikes Lane Rehab Phase 1 • H07296-Goldsmith Lane Rehab Phase 1 • H07297-Buechel Branch Rehab Phase 1 • H04276-Middle Fork System Improvements Phase 1 <p>Complete Phase II of the ICA</p> <p>Identify additional rehabilitation projects from the ICA Phase I and Phase II</p>

**MSD**Louisville and Jefferson County
Metropolitan Sewer District**Consent Decree Annual Report
July 1, 2007 – June 30, 2008**

Programs and Activities	CMOM Program FY08	CMOM Program FY09
E- Engineering Programs	<i>This section describes MSD's Engineering Projects. The goal of this section is to maintain accurate plans of current sewer system infrastructure, oversee construction quality of new infrastructure, and conduct assessments to maximize the efficiency of current WWTPs. MSD's engineering programs include the following: collection and transmission system plans, system inventory, mapping, sewer system design, sewer construction, construction inspection, acquisition considerations, continuing sewer system assessment (CSSA), infrastructure rehabilitation, and system capacity assurance (SCAP).</i>	
M-E-10 System Capacity Assurance Program	<p>As part of the development of the System Capacity Assurance Plan and the Integrated Overflow Abatement Plan (IOAP), MSD developed hydraulic models for the entire service area using InfoWorks CS modeling software. The sewer system models contain pump stations, hydraulic structures, interceptors, real time control features, and collector sewers within the MSD service area. During this reporting period, the process for documenting current and committed capacity in each treatment plant watershed was reviewed and updated. Work also began to update and improve the processes for tracking current and committed capacity for pump stations and sewer lines. This work includes the development of standard report templates to track new lateral extension requests that will flow to each pump station, similar to the way new flow requests are tracked for treatment plants. Additionally, collection system and pump station surcharge reports and GIS information are currently being generated for the SCAP design event using the hydraulic sewer models as a basis to make this information more readily available to the LE review team.</p> <p>During this reporting period the SCAP document was posted on the PROJECT WIN website and staff continues to use this plan to make decisions. The determination of the fee schedule associated with this program is under review by the Board.</p> <p>In FY08 MSD approved 163 lateral extension contracts with projected flow of 3,211,671 GPD.</p> <p>25 lateral extension projects with projected flow of 464,804 GPD were denied approval due to capacity limitations. Projects denied are broken down by the following reasons:</p> <ul style="list-style-type: none"> • 42% Capacity at Jeffersontown WWTP • 4% Capacity at Hite Creek WWTP • 4% Capacity at Floyds Fork WWTP • 34% Capacity at small WWTPs • 16 % Other Reasons <p>128 lateral extension projects with projected flow of 2,666,503 GPD have been conditionally approved.</p>	<p>Treatment plant capacities and new development flows are continued to be tracked in accordance with the SCAP, as previously described. Reports for pump station capacity will be refined and an initial credit evaluation will be performed for each credit catchment and balanced with approved new flows. Development of a training module will begin to help convey enhancements in the SCAP to additional MSD staff. GIS information related to capacity will be published and made available to general personnel. Credit calculation and tracking in Hansen will be evaluated and a process will be documented.</p> <p>Treatment plant capacities and new development flows are continued to be tracked in accordance with the SCAP, as previously described.</p>



MSD

Louisville and Jefferson County
Metropolitan Sewer District

**Consent Decree Annual Report
July 1, 2007 – June 30, 2008**

Programs and Activities	CMOM Program FY08	CMOM Program FY09
F – Sanitary Sewer Overflow Reporting and Notification Program	<i>This section describes MSD's Sanitary Sewer Overflow (SSO) Reporting and Notification Program. The goal of this section is to maintain accurate, up to date records of SSOs and to ensure proper, timely notification of the agencies and organizations through un-permitted discharge reporting, SSO notification, and tracking.</i>	
<p>M-F-1 Unauthorized Discharge Reporting</p> <p>M-F-2 Sanitary Sewer Overflow Notification</p> <p>M-F-3 Tracking Sanitary Sewer Overflows</p>	<p>In FY08 there were 1488 reportable overflows.</p> <p>594 overflows were unauthorized discharges that reached the Waters of the US. 571 (96%) were reported within 24 hours and 23 (4%) were reported more than 24 hours after the start of the event.</p> <p>43 of these unauthorized discharges (<2%) were a Bypass or Blending event that required an additional 5 day written report.</p> <p>In FY08 there were 11 dry weather discharges (<1%) with volumes between 1,000 and 50,000 gallons.</p> <p>There were 7 dry weather discharges (<1%) with volumes greater than 50,000 gallons.</p>	<p>In FY09 MSD will continue to monitor data, train staff and update information as needed.</p> <p>MSD will enhance the Project WIN website with a interactive map showing CSO locations and documented SSOs.</p>

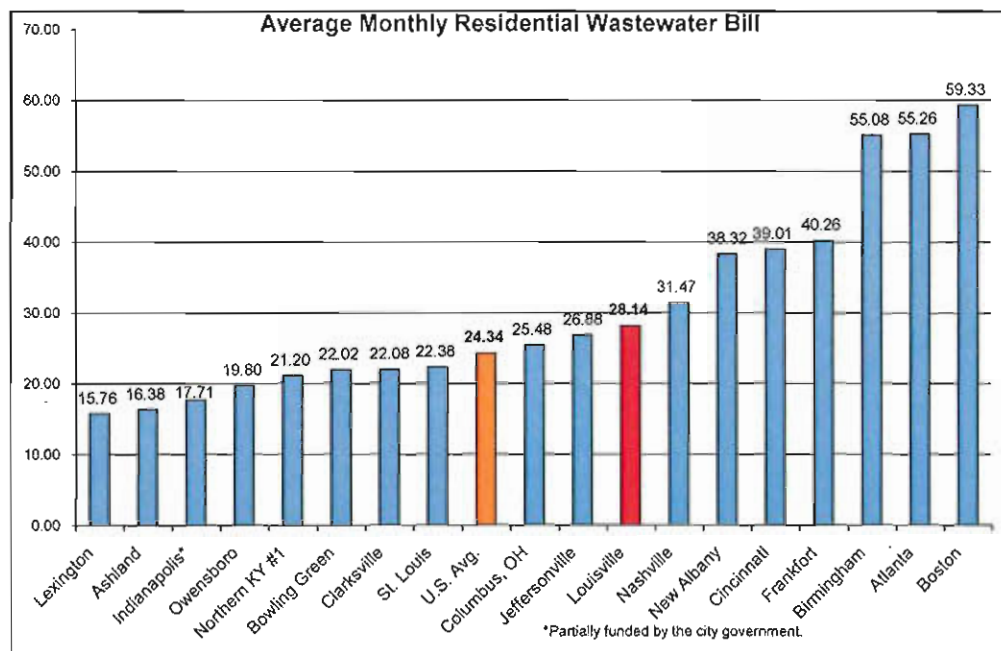


MSD

Louisville and Jefferson County
Metropolitan Sewer District

Consent Decree Annual Report July 1, 2007 – June 30, 2008

Programs and Activities	CMOM Program FY08	CMOM Program FY09
G – Financing and Cost Analysis Program	<i>This section describes MSD's Financing and Cost Analysis Program. The goal of this section is to provide a detailed cost analysis for both the capital and operational costs of MSD for use in future budgeting and decision making. The following cost analysis programs are included in this section: operations, maintenance, capital improvement program funding, management, life cycle, and budget and customer rate setting.</i>	
M-G-1 Operations Cost	Total Operating Cost = \$98,107,000; 5.3% over budget; 8.6% increase over FY 07	MSD will continue to look for the best funding sources and cost saving measures in FY09.
M-G-2 Maintenance Cost	Net Operating Cost (Total minus capitalized project costs) = \$70,335,000; 6.8% over budget, 10.8 % increase over FY 07	
M-G-3 Capital Improvement Funding	Total Debt Service = \$77, 643,000; 4.1% increase over FY 07 Total Revenues = \$168,429,000; 4.9% above budget, 15.9% increase over FY 07	
M-G-4 Management Programs Cost	Debt Service Coverage = 126%, up from 110% in FY07 Capital Expenditures - \$39, 541,000; 4.9% increase over FY 07	
M-G-5 Life Cycle Cost	Developer Construction Cost - \$15,006,000; 67% increase over FY 07	
M-G-6 Budget and Customer Rate Setting	Total System Construction - \$54,546,000; 16.8 % increase over FY 07	





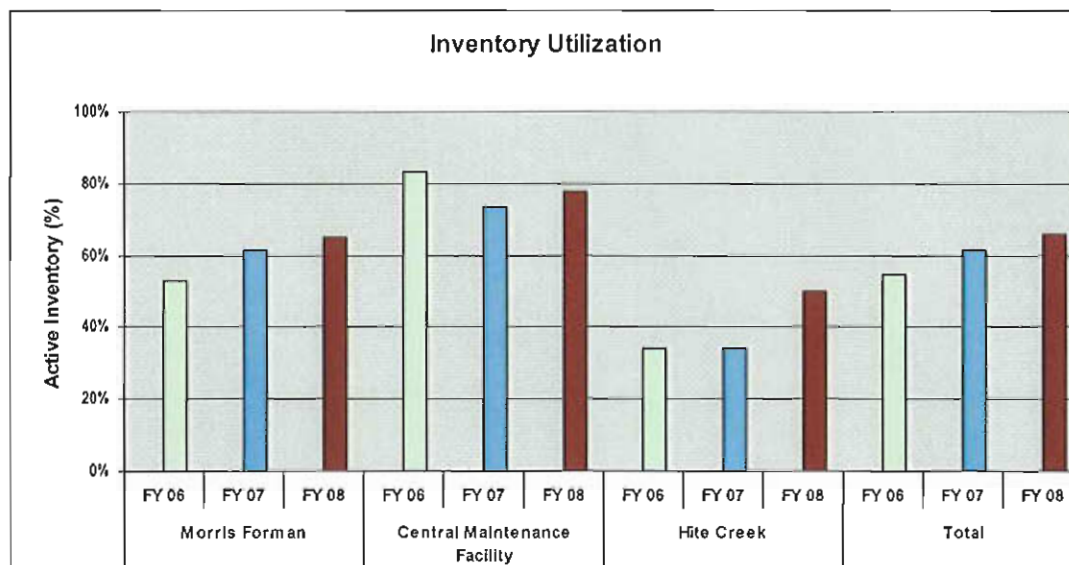
MSD

Louisville and Jefferson County
Metropolitan Sewer District

**Consent Decree Annual Report
July 1, 2007 – June 30, 2008**

Programs and Activities		CMOM Program FY08	CMOM Program FY09
H – Equipment and Tools Management and Maintenance Program		<i>This section describes MSD's Equipment and Tools Management Programs. The goal of this section is to facilitate efficient repair and support of MSD's sewer systems through an accurate spare parts inventory, a timely equipment maintenance schedule, vehicle repair, and needed tools and supplies.</i>	
M-H-1 Spare Parts Inventory Management	<p>During the past fiscal year, MSD has continued to improve the efficiency and responsiveness of the storeroom facilities. MSD has made significant efforts to ensure that critical parts are readily available, either on-site or through vendor agreements, while reducing the inventory of unnecessary and obsolete items. MSD has consolidated store room locations and improved customer service through employee training and changes in the storeroom layout. MSD storeroom staff conducted regulator meeting with MSD operations management staff to ensure the timely delivery of parts and equipment. The inventory utilization, defined as the part numbers that have been used during the year divided by the total part numbers in the system, showed continued improvement for the three storeroom locations as shown in Figure 1.</p> <p>Metro Louisville is looking into the possibility of centralized fleet management. MSD will not pursue a new fleet system until this decision is made.</p>	<p>MSD plans to utilize the SAP accounting system to create automatic cycle count reports and plans to investigate the viability of using a bar code system to manage the inventory. MSD will continue to meet with vendors to identify opportunities for vendor managed and consignment programs as well vendor warehousing on low-volume critical inventory items. MSD also plans to review the inventory that appears to be obsolete with managers to eliminate unnecessary material.</p> <p>MSD IT staff is updating the data input screens for fleet in the SAP system to make the interface more user friendly.</p>	
M-H-2 Equipment and Tools Repair Management			
M-H-3 Vehicle Repair Management Program			
M-H-4 Supplies Management			

Figure 1





MSD

Louisville and Jefferson County
Metropolitan Sewer District

**Consent Decree Annual Report
July 1, 2007 – June 30, 2008**

Programs and Activities		CMOM Program FY08	CMOM Program FY09
I-Customer Service Programs		<i>This section describes MSD's Customer Service Programs. The goal of this section is to strengthen and maintain a healthy relationship between MSD and their client (the public) through service programs which include complaint management, public information, and public education.</i>	
M-I-1 Customer Service M-I-2 Public Information M-I-3 Public Education	<p>In FY08 MSD's Customer Relations staff handled 157,898 calls. See Table 3 for a detailed breakdown between MSD and METROCALL. March 08 was the month with the highest number of calls.</p> <p>A survey postcard was included in the annual report for readers to critique the subject matter and readability, as well as offer suggestions for future topics. The survey was also made available on the MSD Web site at www.msdlouky.org. Responses from the survey have assisted the committee in determining whether or not we met our customer's expectations on the information covered in the annual report. Results of the survey included:</p> <ul style="list-style-type: none">• Approximately 72 percent of respondents either agree or strongly agree that the theme of this year's annual report provided them a better understanding of the flood protection system.• A little more than 66 percent of readers reported that they learned something about MSD they did not know previously.• More than 80 percent agreed that the photographs included in the report enhanced their understanding of the corresponding topic.• Nearly 81 percent of readers responded that they found the report easy to read.• Respondents selected drainage, flood protection and wastewater treatment as the top three subjects of interest in the report.• Topics suggested for future reports include: Untreated sewage in residential areas, upcoming construction projects, plant capacities and treatment plant expansion plans. <p>Comments from elected officials of the community also help MSD meet obligations under the Consent Decree and the National Flood Insurance Program.</p>		<p>During FY09 MSD will be developing customer surveys as part of the IOAP.</p> <p>MSD will continue to respond to customer requests.</p>

Table 3

	MSD			METROCALL		
	Call's Rec'd	Calls Abandoned	Avg. Hold Time	Call's Rec'd	Calls Abandoned	Avg. Hold Time
Jul-07	4800	584	10 seconds	5600	632	2 minutes
Aug-07	7158	830	15 seconds	4573	279	4 minutes
Sep-07	6805	769	12 seconds	2698	221	3 minutes
Oct-07	7956	886	18 seconds	3862	642	4 minutes
Nov-07	6486	862	12 seconds	3769	581	4 minutes
Dec-07	5432	920	30 seconds	4285	901	2 minutes
Jan-08	5296	1061	12 seconds	5252	1200	5 minutes
Feb-08	5278	956	14 seconds	5615	767	1 minute
Mar-08	7028	1070	30 seconds	6238	1279	2 minutes
Apr-08	7924	1176	60 seconds	6327	1477	2 minutes
May-08	6745	782	20 seconds	6625	1323	3 minutes
Jun-08	5101	729	20 seconds	6062	1056	2 minutes
	76,009	10,625		60,906	10,358	





MSD

Louisville and Jefferson County
Metropolitan Sewer District

**Consent Decree Annual Report
July 1, 2007 – June 30, 2008**

J – Legal Support Programs		<i>This section describes MSD's Legal Support Programs. The goal of this section is to provide legal staff to MSD to enforce all binding ordinances. The following support programs are included in this section: inter-jurisdictional agreement, ordinances, pretreatment legal support, grease control legal support, service laterals legal support, septic tank haulers legal support, and "Call Before You Dig" legal support.</i>
M-J-1 Inter-Jurisdictional Agreement	MSD discussed the proposed Ordinance with the Wet Weather Team Stakeholder group. Redraft of the ordinance was completed. Development of the financial impacts of implementation is being worked on as part of the Integrated Overflow Abatement Plan.	MSD will complete the financial impacts analysis and present the redrafted ordinance and the financial analysis to Metro Council members of the Stakeholder Group.
M-J-2 Ordinances		
M-J-3 Pretreatment		
M-J-4 Grease Control		
M-J-5 Service Laterals		
M-J-6 Septic Tank Haulers Legal Support		
M-J-7 "Call Before You Dig"		

**MSD**Louisville and Jefferson County
Metropolitan Sewer District**Consent Decree Annual Report
July 1, 2007 – June 30, 2008**

Programs and Activities		CMOM Program FY08	CMOM Program FY09
K- Water Quality Monitoring Program		<i>This section describes MSD's Water Quality Monitoring Program. The goal of this section is to maintain an accurate, consistent record of water quality in receiving bodies of water. Monitoring results are used to determine the effect of effluent discharge and/or spills through the following monitoring programs: routine water quality, investigative water quality, and water quality monitoring for spill impact.</i>	
M-K-1 Routine Water Quality Monitoring Programs	MSD continued to improve the accessibility of data reported to the SCADA system for pump station and Real Time Control information as well as standardize various environmental data sets in preparation for integrated data querying and display through an upcoming SharePoint site.	<p>MSD continued work on improving and broadening staff access to the Laboratory Information Management System (LIMS), the Plant Information System (PI), sonde data and sewer flow data. MSD is working toward developing its flow meter and sonde data warehouses to an Oracle application interfaced with its Hansen asset management system.</p> <p>The Sharepoint site effort will continue. This site will ultimately enable access to raw environmental data sets and will have graphing capabilities.</p>	
M-K-2 Investigate Water Quality Monitoring	The number of samples per location per pollutant (LTMN) is shown in the following table. MSD samples for 25 different parameters at 56 different locations		
M-K-3 Water Quality Monitoring for Spill Impact	IWD took 2540 Industrial Samples in FY08 for a total of 2540 pollutants.		
	The LTMN period of record (stream flow and sonde) can be seen in the following table.		
	The number of calibrations in FY08 (stream flow and sonde) can be seen in the following table. 40 sites were calibrated.		
	The USGS currently calibrates the stream flow meters twice per month and works up all of the finalized data as a batch job after each "Water Year" (October 1 - September 30.) Sonde data is reviewed and calibrated monthly.		



Consent Decree Annual Report
July 1, 2007 – June 30, 2008

[illegible]¹H-NMR by Ion Chromatography explains the following: a) analytical characteristics, b) purity, c) stability, and d) identification.

NOTE: ICP ANALYSIS METHOD certifies the following 25 analytes: Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Molybdenum, Nickel, Phosphorus, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Titanium, Vanadium, and Zinc.

**MSD**Louisville and Jefferson County
Metropolitan Sewer District**Consent Decree Annual Report
July 1, 2007 – June 30, 2008**

Location	Number of FY08 Calibration Events	Period of Record
EMIMI002	28	March, 1999 - Present
EMIMI004	39	December, 2000 - Present
EMIMI006	40	February, 2001 - Present
EMIMI009	29	July, 2000 - Present
EMIMI010	39	January, 2001 - Present
EMIMI014	28	April, 2007 - Present
EMUMU001	38	November, 1999 - Present
EMUMU004	39	July, 2003 - Present
EMUMU005	36	July, 2002 - Present
ESFBR003	29	April, 2007 - Present
ESFSF001	29	March, 1999 - Present
ESFSF002	32	March, 1999 - Present
ESFSF006	39	January, 2001 - Present
ESFSF007	21	January, 2001 - Present
ESFSF009	30	January, 2001 - Present
ESFSF012	29	January, 2001 - Present
ESFSF014	26	July, 2002 - Present
ESFSF015	25	January, 2001 - Present
ESFSF020	31	September, 2003 - Present
ECBCB001	37	May, 2002 - Present
ECCCC001	33	March, 1999 - Present
EFFCR001	31	March, 1999 - Present
EFFCR002	29	March, 1999 - Present
EEEEF001	27	August, 1999 - Present
EEEEF002	39	January, 2001 - Present
EEEEF003	30	March, 1999 - Present
EGGCG001	27	April, 1999 - Present
EGGCG002	31	March, 2000 - Present
EGCLG001	31	June, 1998 - Present
EHCHC001	26	March, 1999 - Present
EHCHC002	27	December, 2001 - Present
EHCWP002	23	August, 2001 - Present
EMCMC001	33	August, 1999 - Present
ECOCOC001	37	March, 1999 - Present
EPCBC001	38	March, 1999 - Present
EPCFC001	39	March, 1999 - Present
EPCND001	18	March, 1999 - Present
EPCPC001	31	April, 1999 - Present
EPCPC002	37	March, 1999 - Present
EPRPR001	34	March, 1999 - Present

**MSD**Louisville and Jefferson County
Metropolitan Sewer District**Consent Decree Annual Report
July 1, 2007 – June 30, 2008**

Programs and Activities	CMOM Program FY08	CMOM Program FY09
L – Contingency Plan for Sewer and Treatment Plant	<i>This section describes MSD's Contingency Plan for Sewer and Treatment System. The goal of this section is to provide a protocol for sewer overflow. The following elements are included in this section: contingency planning process, response flow diagram, public notification plan, agency notification plan, emergency flow control plan, emergency operations and maintenance plan, preparedness training program, water quality monitoring plan, and sewer overflow response plan (SORP). The SORP requires training for all MSD employees.</i>	
M-L-1 Contingency Planning Process M-L-2 Response Flow Diagram M-L-3 Public Notification Plan M-L-4 Agency Notification Plan M-L-5 Emergency Flow Control Plan M-L-6 Emergency Operations and Maintenance Plan M-L-7 Preparedness Training M-L-8 Water Quality Monitoring Plan M-L-9 Sewer Overflow Response Plan (SORP)	MSD has implemented a comprehensive plan for SORP. This plan is reviewed annually and any changes are submitted to EPA and KDEP in August of each year for approval. 615 people attended SORP overview training. 31 different sessions were held 199 people attended one of the 12 field training sessions that were held for staff directly responsible for daily implementation of the SORP procedures. These sessions were 3.5 hours long.	MSD will respond to comments received on the annual SORP revision. Once approved an updated document will be posted on the Project WIN website and distributed to staff.

**MSD**Louisville and Jefferson County
Metropolitan Sewer District**Consent Decree Annual Report
July 1, 2007 – June 30, 2008**

Programs and Activities		CMOM Program FY08	CMOM Program FY09
II. Operations Programs			
A – Pump Station Operation Program		<i>This section describes MSD's Pump Station Operation Programs. The goal of this section is to maintain pump stations for optimal use during routine and emergency operations through well documented operating procedures.</i>	
O-A-1 Routine Operating Programs	MSD continued to work on draft flow schematics showing the flow path at different river elevations for the combination flood/sanitary pump stations.	MSD will finalize flow schematics for the flood pump stations. The flow schematics will show the gate positions for the various modes of operation.	
O-A-2 Emergency Operating Programs	<p>MSD updated the list of pump stations that have the potential of flooding residents if the wet well reaches a critical elevation.</p> <p>MSD RS staff meets with Operations staff on a monthly basis to determine capital project priorities. On a quarterly basis this information is used to adjust budgetary needs. During this reporting period MSD held the April 2008 budget meetings.</p>	<p>MSD will continue to review overflow elevations at pump stations and small wastewater treatment plants to improve information management and alarm notifications and to find opportunities to reduce the frequency and volume of unauthorized discharges while at the same time protecting properties from interior discharges.</p> <p>MSD RS staff will continue to meet on a monthly basis with Operations staff to better coordinate capital budget needs along with identifying future funding needs and advise on the budgetary needs on a quarterly basis.</p>	

**MSD**Louisville and Jefferson County
Metropolitan Sewer District**Consent Decree Annual Report
July 1, 2007 – June 30, 2008**

Programs and Activities		CMOM Program FY08	CMOM Program FY09
B- Pretreatment Program		<i>This section describes MSD's Pretreatment Programs. The goal of this section is to protect MSD's sewer system and treatment plants by requiring industrial users to pre-treat their effluent to required levels through industrial user permitting, inspection and sampling and enforcement.</i>	
O-B-1 Industrial User Permit	In FY08 there were no Upsets or Bypasses due to an Industrial Source.	Continue to monitor the pre-treatment program in FY09.	
O-B-2 Inspection and	There were 76 inspections of SIUs. Eleven NOV's were written to SIUs.		
O-B-3 Sampling Enforcement	There were no fines assessed. The percent of SNC was 4.6%.		

Programs and Activities		CMOM Program FY08	CMOM Program FY09
C – Corrosion Controls Program		<i>This section describes MSD's Corrosion Controls Program. The goal of this section is to extend the life of MSD's sewer system by controlling the corrosive effects of Hydrogen Sulfide and other corrosive chemicals in the system through inspection, control measures, monitoring, and performance measures.</i>	
O-C-1 Inspection	MSD received 1001 odor complaints in FY08. 97% of the requests are handled by 3 areas.	<p>In FY09 MSD will respond to the NOV received on December 2008 for the Morris Forman WWTP.</p> <p>MSD will continue to clean our facilities to reduce odors.</p> <p>MSD will split our service requests for Operations into two groups: those that are associated with the Morris Forman WWTP and those associated with the remaining WWTPs and Pump Stations.</p>	
O-C-2 Control Measures	The Industrial Waste Department handles 5% of the Odor requests. These requests are chemical in nature or are related to a discharge. Metro Operations handles 14% of the requests. These requests are associated with WWTPs or pump stations. I&FP handles 78% that deal with odors from catch basins or manholes.		
O-C-3 Monitoring	IWD received 50 odor complaints, Operations received 143 odor complaints and I&FP received 779 odor complaints.		
O-C-4 Performance Measures	There were no NOVs issued in FY08 due to Odor at MFWTP. There was an investigation underway in FY08.		
	Most of the odor control systems at Morris Forman WWTP were up 100% during FY08. The Digester Gas Flare was up 99% of the time.		
	MSD cleaned 2225 catch basins in FY08 at the requests of customers. The majority of these cleanings were due to Odor Requests.		



Programs and Activities	CMOM Program FY08	CMOM Program FY09
D-Grease Trap Inspection and Enforcement Programs	<i>This section describes MSD's Grease Trap Inspection and Enforcement Programs. The goal of this section is to reduce the amount of fats, oils and grease (FOG) that enter MSD's sewer system and treatment plants through permitting, inspection, enforcement, performance measures, and the FOG program.</i>	
<p>O-D-1 Permitting</p> <p>O-D-2 Inspection,</p> <p>O-D-3 Enforcement</p> <p>O-D-4 Performance Measures</p> <p>O-D-5 FOG</p>	<p>MSD presented the updated FOG program documents (policy, guidelines, design specifications and Best Management Practices (BMP)), as well as revised Wastewater/Stormwater Discharge Regulations (WDR) and an Enforcement Response Plan (ERP) to the MSD Board Policy Committee on May 7, 2008. The Policy Committee approved the documents for submittal to the full MSD Board. This occurred on May 27, 2008 and the documents were approved by the MSD Board.</p> <p>On June 4, 2008, MSD submitted the WDRs and ERP to the KDEP for approval. This process involves a 30-day public comment period once KDEP approves the documents. KDEP has committed to a speedy review of the documents.</p> <p>In addition, MSD sent FOG educational letters to 2,230 dental customers that discharge to pump stations experiencing repeated FOG accumulations. MSD hopes that this outreach activity will inspire these homeowners to practice FOG BMPs and reduce FOG discharges from their homes.</p> <p>In FY08 there were 207 discharge work orders with a problem code of GB.</p> <p>There were 130 work orders created for inspection of problem grease areas.</p> <p>IWD inspected 102 grease traps as a result of a FOG issue.</p> <p>There were 26 NOVs given for grease trap violations.</p> <p>There were 112 Grease Control Equipment (GCE) plans approved.</p> <p>MSD performed 86 Grease Control Equipment (GCE) inspections.</p>	<p>MSD will begin development of the training modules for the Certified Hauler/Plumber initiative and Food Service Establishments (FSE) personnel under the updated FOG program.</p> <p>MSD will conduct reconnaissance at FOG "hot spot" locations along with concurrent inspections of online FSE grease control equipment (GCE).</p>



MSD

Louisville and Jefferson County
Metropolitan Sewer District

**Consent Decree Annual Report
July 1, 2007 – June 30, 2008**

E. New Connection Tap-In Program		<i>This section describes MSD's New Connection Tap-In Program. The goal of this section is to ensure that future connections do not compromise the capacity or structural integrity of the receiving treatment plant. The program is implemented using a new service taps approval process, inspection, enforcement, and performance measures.</i>	
O-E-1 Installation of New Service Taps			
O-E-1 Inspection	Plans were received for 99 sewer projects in FY09. Treatment plan capacity is reviewed prior to approval of any plans based on the SCAP.		
O-E-1 Enforcement	2585 Property service connections were installed.		
O-E-1 Performance Measures	MSD inspects the installation of all sewers.		
O-E-5 Other			

Continue to review all project for capacity availability.

**MSD**Louisville and Jefferson County
Metropolitan Sewer District**Consent Decree Annual Report
July 1, 2007 – June 30, 2008**

Programs and Activities		CMOM Program FY08	CMOM Program FY09
F. Flow Monitoring Field Operation Programs		<i>This section describes MSD's Flow Monitoring Field Operation Programs. The goal of this section is to provide accurate flow data for use in evaluating various aspects of MSD's sewer system. Flow is monitored at both permanent and temporary stations.</i>	
O-F-1 Permanent Stations	MSD continued to review proposed locations for new sewer flow monitoring installations that will be made available through telemetry. Existing sites that are not currently on telemetry are intended to be retrofitted with equipment to ease maintenance and data availability.	The inventory of the meters owned by MSD is being updated to include more detailed information on each meter, such as the manufacturer, model, age, features, location, and purpose. Additionally, an expanded flow monitoring and telemetry system is under development in support of the post construction compliance monitoring plan being developed as part of the IOAP, the SCAP being implemented as part of M-E-10, and others. Flow meters are being added as assets in the Hansen system to better track the location and history of these assets. A proposal will be finalized for implementing an expanded flow monitoring network and retrofit.	
O-F-2 Temp Stations		MSD will install additional permanent flow meters with telemetry equipment to facilitate remote communication of flow data and meter status back through MSD's website to the Oracle database. This process will preserve the flow data integrity and provide early indication of the need for calibration or maintenance. MSD staff will have the ability to see meter data in real time and identify meters in need of cleaning, calibration, or battery replacement. MSD will integrate the efforts of the Operations and Regulatory Services Division to set common goals in monitoring different points of the sewer system. A proposal will be finalized for implementing an expanded flow monitoring network and retrofit.	

**MSD**Louisville and Jefferson County
Metropolitan Sewer District**Consent Decree Annual Report
July 1, 2007 – June 30, 2008**

Programs and Activities		CMOM Program FY08	CMOM Program FY09
G. Septic Tank Haulers Program		<i>MSD does not accept septic tank waste. This is handled through private contractors in Jefferson County.</i>	
N/A			
H. "Call Before You Dig" Program		<i>This section describes MSD's "Call Before You Dig" Program. The goal of this section is to prevent the damaging or cutting of sewer lines and subsequent spills through permitting, inspection, enforcement, and performance measures.</i>	
O-H-1 Permitting	MSD contracts for BUD markings of our facilities. In FY08 the locating contractor was paid \$421,472.00 to locate our facilities. MSD also paid the KY811(BUD Center) \$85,189.36 to participate in this program.		MSD will continue to contract for this service in FY09
O-H-2 Inspection	In FY08 MSD's locating contractor processed 61,804 requests to mark MSD facilities.		
O-H-3 Enforcement	MSD made 2178 requests to the BUD Center for the marking of other utilities in FY08.		
O-H-4 Performance Measures	In FY06 there were 29 Discharge Work Orders caused by other utilities damaging MSD facilities.		

**MSD**Louisville and Jefferson County
Metropolitan Sewer District**Consent Decree Annual Report
July 1, 2007 – June 30, 2008**

Programs and Activities		CMOM Program FY08	CMOM Program FY09
III. Maintenance Programs			
A – Pump Station Preventive Maintenance		<i>This section describes MSD's Pump Station Preventative Maintenance program. The goal of this section is to prevent unanticipated repairs and subsequent down-time by providing scheduling, staff, and records to perform routine, preventative pump station maintenance. Electrical, mechanical, and physical maintenance are included in this section.</i>	
S-A-1 Electrical	MSD continued the process of updating its preventive maintenance and inspection plan for its flood pump stations based on a review of the <i>USACE Inspection Guide</i> . Staff has started using the Hansen database to track Flood Pump Station work orders. This same process was done for MSD sanitary pump stations. In FY08 2,579 work orders have been executed for pump station maintenance. Drawdown tests were performed on 208 pump stations. Pump station average run times and number of starts can be pulled from the PI system.	MSD currently uses SAP as its computerized maintenance management system (CMMS) for its sanitary pump stations. MSD will continue the process of converting its pump station CMMS to Hansen and enhancing the use of Hansen for Flood Pump Stations.	
S-A-2 Mechanical	18 portable generators are available.		
S-A-3 Physical	16 of Portable Pumps (including Silent Knights) 33 pump stations have backup power. In FY08 there were 12 discharge work orders at a pump station that were the due to mechanical problems. In FY08 there were 5 discharge work orders at a pump station that were the due to electrical problems.		

MSD currently uses SAP as its computerized maintenance management system (CMMS) for its sanitary pump stations. MSD will continue the process of converting its pump station CMMS to Hansen and enhancing the use of Hansen for Flood Pump Stations.

**MSD**Louisville and Jefferson County
Metropolitan Sewer District**Consent Decree Annual Report
July 1, 2007 – June 30, 2008**

Programs and Activities	CMOM Program FY08	CMOM Program FY09
B – Force Main Preventive Maintenance	<i>This section describes MSD's Force Main Preventive Maintenance program. The goal of this section is to prevent unanticipated repairs and subsequent down-time by providing scheduling, staff, and records to perform routine, preventive force main maintenance. The maintenance programs include air release valves and valve exercise and walking the line to find cave-ins on the force main..</i>	
<p>S-B-1 Air Release Valves,</p> <p>S-B-2 Valve Exercise Program</p>	<p>The program was implemented in June 2007.</p> <p>Inspection walks for the following force mains were completed during FY08: Lea Ann Way ORFM West County Sludge Main Admiral Way Anchor Estates #1 & #2 Avanti Chenoweth Run Kavanaugh Center Lakelet Way Rubbertown Nightingale Park Ridge Woods Pope Lick Rosa Terrace Floydsburg Landherr Diode Ct Long Creek Way Kavanaugh Road</p> <p>In FY08 there were 7 discharge work orders on force mains and 1 discharge work order on an air release valve. 2 of the work orders on force mains were caused by others damaging MSD lines.</p> <p>261,000 LF of force main was inspected in FY08. There were 20 corrective work orders created for problems identified on the force main walks. 14 were for valve replacements, 2 follow-up inspections to gain access to site, 2 lid replacements, 1 MH raise and 1 MH repair.</p>	<p>The following force mains are scheduled for inspection over the next fiscal year:</p> <ul style="list-style-type: none"> • Meadowstream • Stannye • Valley Village • West Goose Creek • West County Sludge Main – remaining portions • ORFM • Rubbertown

**MSD**Louisville and Jefferson County
Metropolitan Sewer District**Consent Decree Annual Report
July 1, 2007 – June 30, 2008**

Programs and Activities	CMOM Program FY08	CMOM Program FY09
C - Gravity Line Preventive Maintenance	<i>This section describes MSD's Gravity Line Preventative Maintenance program. The goal of this section is to reduce infiltration and increase efficiency of the gravity line system through routine cleaning, root control, and manhole preventative maintenance.</i>	
<p>S-C-1 Routine Hydraulic Cleaning</p> <p>S-C-2 Routine Mechanical Cleaning</p> <p>S-C-3 Root Control Program</p> <p>S-C- 4 Manhole Preventive Maintenance</p>	<p>Infrastructure & Flood Protection Resource and Staffing Plan was updated to address a better understanding on how to address overflows due to problems in the lateral. This information was to be used to help establishing operating budgets for the next fiscal year. Budgets were established during this reporting period.</p> <p>In FY08:</p> <ul style="list-style-type: none"> • 67,909 feet of sewer mains were televised. 610 feet were done using PACP codes. • 273 manholes were inspected • 33,931 LF of mainline was vactored • 98,070 LF of mainline was flushed • 78,421 LF of mainline was root cut • 126,000 LF of mainline received chemical root treatment • 389 manholes were repaired • 334,8351 LF of mainline was cleaned • 25,986 catch basins were cleaned 	<p>During the reporting period the existing PM Cleaning program will be reviewed and enhancements made to expand the program to include new areas as needed. Develop new PM maintenance areas based on priorities related to NMC #1 and Advanced Asset Management (AAM) data gaps, develop detailed PM plan for FY 2009, identify transition plan to new PM recommended program.</p>

**MSD**Louisville and Jefferson County
Metropolitan Sewer District**Consent Decree Annual Report
July 1, 2007 – June 30, 2008**

Programs and Activities	CMOM Program FY08	CMOM Program FY09
<i>D – Equipment and Collection System Maintenance</i>	<i>This section describes MSD's Equipment and Collection System Maintenance program. The goal of this section is to maximize the efficiency of the collection system by maintaining the supporting equip.</i>	
S-D-1 Equipment Maintenance	In FY08 MSD staff executed 4,859 work orders on Mission Critical Equipment. Of these works, 1,201 were scheduled PM.	In FY09 MSD will continue to review fleet work order data to ensure the critical equipment is available when needed.

**MSD**Louisville and Jefferson County
Metropolitan Sewer District**Consent Decree Annual Report
July 1, 2007 – June 30, 2008**

Programs and Activities		CMOM Program FY08	CMOM Program FY09
<i>E – Maintenance of Way</i>		This section describes MSD's Maintenance of Way program. The goal of this section is to maintain access to sewer system pipes, eliminate unnecessary road cutting and line breaks by maintaining right of way easements, monitoring street paving, and a line location program for third parties.	
S-E-1 Maintenance of Rights-of-Way and Easements	In FY08 MSD performed 448 locate work orders. 73 were on manholes.	MSD will continue to partner with Metro Louisville and other utilities to coordinate construction projects.	
S-E -2 Monitoring of Street Paving	123 manholes were requested to be raised. Eight projects were identified that required easements for better access.		
S-E-3 Line Locations for Third Parties			

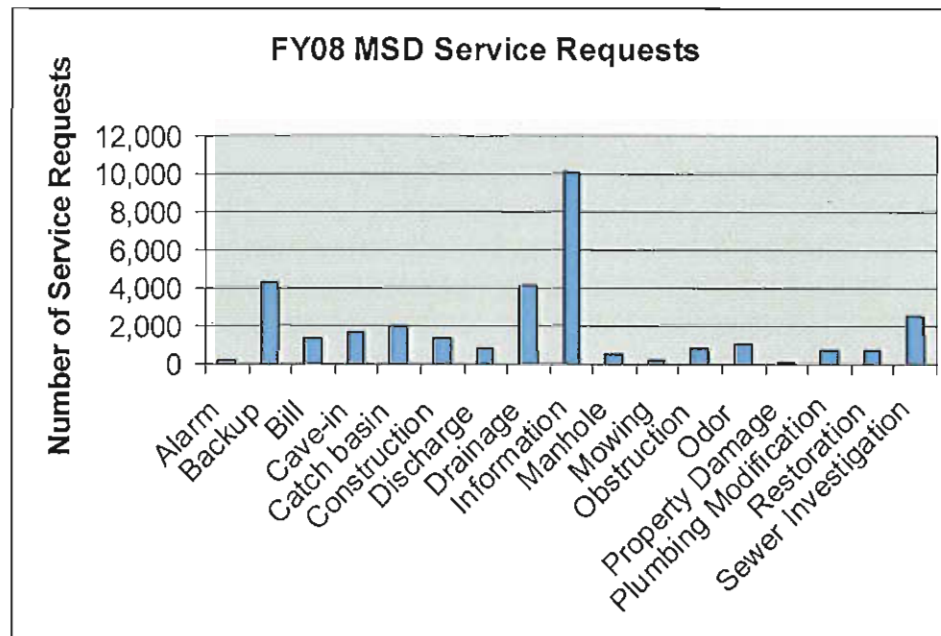


MSD

Louisville and Jefferson County
Metropolitan Sewer District

**Consent Decree Annual Report
July 1, 2007 – June 30, 2008**

Programs and Activities		CMOM Program FY08	CMOM Program FY09
F- Un-scheduled Maintenance		This section describes MSD's Un-Scheduled Maintenance program. The goal of this section is to effectively respond to customer complaints through scheduling, mapping, and customer follow up.	
S-F-1 Response to Complaints	<p>In FY08 MSD entered 55,879 service requests into Hansen for MSD. The chart below shows the major categories that are tracked.</p> <p>From these service requests MSD staff responds and performs unscheduled maintenance as needed.</p> <p>During rain events MSD staff will use the EGIS tool to locate calls and help speed up response time.</p> <p>MSD vehicles are equipped with GPS so that dispatch staff can route the closest crews when necessary.</p>	In FY08 MSD will continue to respond to customer requests and schedule improvements as needed.	



SECTION 5: Supplemental Environmental Projects (SEPs)

5.1 SEP Requirements

The original SEP requirements (August 2005) are outlined in paragraph 28 of the Consent Decree, with the specific SEPs described in Exhibit A of the Consent Decree. The SEPs categories and related deadlines are as follows.

- **Public Health Screenings – Western Louisville:** Originally this was to be performed by December 31, 2007, subject to the approval of the Health Department. In 2007 Louisville Mayor Jerry E. Abramson signed a resolution to enter into an agreement with the KDEP and MSD to organize and conduct community health screenings with results, follow-up and referral which was completed by June 30, 2008.
Funding level: \$1,200,000.
- **Environmental Education and Public Outreach**
 - Riparian buffers - Originally these activities were to be performed by August 12, 2008 but the deadline was later amended to Dec. 31, 2008.
Funding level: \$250,000.
 - Sustainable Landscaping – These activities were completed prior to the deadline of August 12, 2007. **Funding level: \$100,000.**
 - Outdoor Classroom- These activities have a deadline of August 12, 2010.
Funding level: \$100,000.
 - Kentucky Personal Responsibility in a Desirable Environment (PRIDE) – These activities were completed prior to the deadline of February 12, 2006. **Funding level: \$200,000.**
 - Environmental Education Certification – These activities were completed prior to the deadline of August 12, 2010. **Funding level: \$50,000.**
 - Watershed Focused Environmental Groups- These activities were completed prior to the deadline of August 12, 2010. **Original Funding level: \$150,000. Added \$100,000** see Property Reclamation and Community Connectivity following.
 - Bicycle and Pedway Connections along K&I Railroad Bridge and Metro Park System- This project had a deadline of February 12, 2007, subject to the approval of the Waterfront Commission. **Funding level: \$100,000.**
- **Property Reclamation and Community Connectivity-** The original scope of work was amended to redirect the funding from the Lee's Lane Landfill to the Public Health Screenings and to the Watershed Focused Environmental Groups. These activities are to be completed by August 12, 2008.

The Consent Decree requires preparation of a SEP Completion Report within 60 days of the completion of the specific SEP. The report must address the following topics:

- A detailed description of the SEP
- A description of any operating problems encountered and the solutions thereto
- A breakdown of itemized costs
- Certification that the SEP is complete
- A description of the environmental and public health benefits resulting from the SEP

The following sections describe progress on each SEP during the current reporting period, its current status, and work planned during the next reporting period. For SEPS completed within the reporting period, copies of the SEP Completion Report are included in an Appendix G of the Annual Report from MSD and is considered by MSD to fulfill the commitment as stated in Section 29 of the August 2005 Consent Decree.

5.2 Public Health Screening–Western Louisville (Budget ID J06248) Due June 30, 2008

The purpose of this SEP was to perform public health screenings for residents adjacent to the industrialized areas of western portion of Louisville Metro. The screenings were coordinated through the Louisville Metro Department of Public Health and Wellness (LMPHW) and performed at no cost to the residents. During the screening period of September 10 to November 9, 2007, 2,407 persons participated. The Community Health Screenings Project Report, including the statistical data and demographical information, is contained in Appendix G-1.

The original, proposed cost for this SEP was \$1,000,000. As a result of changes to the Property Reclamation and Community Connectivity SEP (as described in a previous sub-section) the budget for this SEP was increased to \$1,200,000. The health screening was originally proposed to be completed by December 31, 2007, subject to the approval of the Health Department. A subsequent Memorandum of Understanding between MSD and the Health Department changed the completion date to June 30, 2008. On March 12, 2007, MSD provided the project funding to the LMPHW. The project was initiated on April 15, 2007, with completion in February 2008, prior to the mandated deadline of June 30, 2008. Final report is in Appendix G-1.

Funding amount: \$1,200,000

Status: Completed in this reporting period

5.3 Environmental Education Outreach and Public Outreach

The purpose of this SEP is to perform or provide funding for groups that will perform efforts to raise environmental awareness and stewardship for the local and regional community. Specific emphasis will be placed on efforts that promote watershed focused environmental activities. The original, proposed cost for this SEP was \$950,000. Following the amendment of Exhibit A of the Consent Decree, the cost was changed to \$1,050,000, and the total amount was then divided among a number of different activities as described below. Completion dates for each of the activities are addressed in the detailed descriptions that follow.

5.3.1 Riparian Buffers

The riparian buffer SEP is intended to provide education, planning, and plant material for the development and implementation or restoration of riparian buffers along urbanized streams. Additionally, a demonstration project will be implemented that restores a small section of riparian buffer that will be a "No Mow Zone" to demonstrate the process and define expectations for prospective participants in the program. A total of \$250,000 (under Budget IDs J06130 and J06132) has been allocated to riparian buffers, which had an original deadline of August 12, 2008, but was extended to December 31, 2008. Specific projects being implemented under this SEP are as follows.

The Beargrass Greenway - As part of this riparian buffer SEP, MSD accepted a proposal from Bennett Knox, Metro Parks Natural Areas Manager dated November 9, 2006. This SEP focuses on the Beargrass Greenway to restore habitat, introduce high school students to practical applications of ecological and environmental science principles and raise awareness of the watershed issues affecting Beargrass Creek. MSD accepted the proposal and Metro Parks notified by a letter dated December 11, 2005. Metro Parks received the \$25,000 funding from MSD in January 2006. Work began on this project in November 2006, and during this reporting period, Metro Parks worked with classes from Louisville Male High School (now in its second year) to conduct water quality monitoring and install interpretive signage at the trailhead of Beargrass Greenway. There were some operating challenges encountered that necessitated the deadline be extended in order to complete this portion of the Riparian Buffer SEP. The challenges included staffing issues and the lack of securing volunteer support for the removal of invasive plants. The deadline was extended to December 31, 2008. However, the entire scope was not completed in 2008 but Metro Parks expects to complete the scope of this SEP in the next reporting period. A December 2008 Progress Report is included in Appendix G-2 which describes the operating problems encountered and the solutions implemented.

Funding Amount: \$25,000

Status: Ongoing to be completed in next reporting period.

Woodland Restoration in Cherokee Park addresses soil erosion and vegetation damage to the native landscape. MSD and the Olmsted Conservancy worked together to educate our community in ecologically sound landscape management. Funding was provided by MSD to the Olmsted Conservancy in January 2006. The Olmsted Conservancy planted over 600 trees and shrubs in the Nettleroth Management Area located along Beargrass Creek in Cherokee Park in order to stabilize the areas and restore the riparian zones. In addition, 500 shrubs were planted along the banks of the Ohio River channel in Shawnee Park to restore the native species population that had been reduced with the presence of the invasive tree species and stabilize the upper terrace of the river bank. The work, with a deadline of December 31, 2008, continued beyond this reporting period however the SEP completion report is included in Appendix G-3 of this report.

Funding Amount: \$35,000

Status: Ongoing with work completed in the next reporting period.



Doctoral Support for "Assessing the Effects of Urbanization on Riparian Functions and Determining Streambank Nitrate Removal Potential Along an Impervious Surface Gradient in Harrods, Goose and Beargrass Creeks". The University of Louisville Department of Biology was awarded SEP funding on March 28, 2007. This effort had a deadline of December 31, 2008. The study's scope included the measurements of the rates of greenhouse efflux from riparian sites adjacent to streams draining catchments with various impervious cover, the concentration of nitrate and dissolved organic carbon in groundwater adjacent to the same streams, and the depth to groundwater using piezometer wells as a measure of how wet or dry the soil column would be in the riparian areas. Sampling and measurements are ongoing and data will be analyzed as well as compiling gas flux data in the next reporting period. Appendix G-4 contains information about activities during this reporting period along with the initial data analysis which occurred during the next reporting period.

Funding Amount: \$15,000

Status: Ongoing to be completed in the next reporting period.

Grinstead/Lexington Rd Infiltration Basin - The remaining \$175,000 allocated to the Riparian Buffer SEP have been committed towards the continuation of the Grinstead Ave./Lexington Rd Project, also known as the Beargrass Greenway. In April 2008, MSD accepted the Phase 1 proposal from Redwing Ecological Services for site inventory and analysis. This scope of work is included in Appendix G-5 and will be completed in the next reporting period. This work was initiated in June 2008 to assess the existing detention and treatment potential of the existing basin, evaluate the feasibility of improving the basin's treatment efficiency for storm water runoff and provide recommendations for improving the basin's ability to detain and treat runoff through wetland and riparian restoration and identify enhancement activities. Information from the study will be used to develop a plan to be developed in July 2008. Site visits will be required with representatives from the United States Army Corps of Engineers (USACE) and Metro Parks. Permit applications will be submitted to Kentucky Division of Water, Kentucky Department of Transportation and USACE for review and approval once the plan is completed. Construction is expected to begin in November 2008 and be completed by December 31, 2008 in accordance with the deadline. Volunteer efforts for invasive vegetation removal in the area will also be conducted in September 2008. A portion of the SEP work requires that the plant installation be scheduled for spring 2009 when weather is suitable for planting.

Funding Amount: \$175,000

Status: Ongoing with work to be completed during the next reporting period.

5.3.2 Sustainable Landscaping

The sustainable landscaping SEP is intended to provide education, planning, and plant material for implementing sustainable landscaping for urban areas. Specifically, schools and in-fill, low income housing will be targeted. The completion date is August 12, 2008, with a total funding allocation of \$100,000 (Budget ID J06134). Specific activities being conducted under this SEP are as follows.

The Farm Literacy Project at Oxmoor Farm is a non-profit educational agency partnering with a working farm to teach the Louisville community about the processes and products of organic and local agriculture. The Farm Literacy program was granted a total of \$24,554 in June 2006 to increase awareness among the Louisville community, enabling urban people to identify their own role and responsibility in the food system through educational programs and technical assistance offered in partnership with a working farm. The Farm Literacy Program trained more than ten volunteers who facilitated small group student programs. During calendar year 2006, 240 students attended farm education programs. In 2007, 957 students attended Farm Literacy programs. The SEP funding provided the opportunity for students to visit the farm and engage in a variety of activities intended to develop a greater capacity to grow one's own food. The SEP completion report dated August 29, 2007, occurred during this reporting period and Appendix G-6 contains a copy of this report along with a final listing of the expenses from the Food Literacy Project at Oxmoor Farm.

Funding Amount: \$20,000

Status: Completed in previous reporting period; Report included in this period.

ACTIVE Louisville completed the conversion of a vacant lot adjacent to St. Peter Claver into an edible sustainable garden for Smoketown residents. This project focused on growing food and followed the relationship of the vegetable garden to the kitchen. In April 2006 SEP funding was provided, allowing ACTIVE Louisville to develop an edible garden on a vacant lot in the Smoketown neighborhood. As part of the project, two small rain gardens were designed and installed adjacent to the community garden by Youthbuild E-Corps. During calendar year 2006, more than ten garden plots grew vegetables for neighboring residents. The SEP funding allowed ACTIVE Louisville to procure additional funding from Active Living by Design and Healthy Eating by Design. These programs address the growing risk of obesity among low-income children. A SEP completion report was prepared in March 2007 and provided in Appendix G of the 2007 Annual Report.

Funding Amount: \$30,000

Status: Completed and reported in previous reporting period.

Youthbuild / E-Corps – This SEP funding to Louisville Youthbuild supported a Conservation Corps that provided intense environmental study in addition to the current education, job training, life-skills program model. This funding provided 675 hours of environmental service work for developing and installing rain gardens in West Louisville. The MSD SEP funding allowed Youthbuild to form a completely new program of E-Corps. A team of young men and women between the ages of 17 and 21, spent eight weeks building a rain garden at a community center, maintaining Outdoor Classrooms, and teaching children about working farms as part of the Food Literacy Program. A SEP completion report dated September 1, 2007, was completed during this reporting period, however the report was included in Appendix G of the 2007 Annual Report.

Funding Amount: \$45,000

Status: Completed and reported in the previous reporting period.

5.3.3 Outdoor Classroom

The Outdoor Classroom SEP continued support of the Outdoor Classroom program with Jefferson County Public Schools. This program was started under the MFWTP Agreed Order and is closely connected to the Sustainable Landscape SEP. The Outdoor Classroom SEP was allocated a total funding of \$100,000 (Budget IDs J06136, J06137, J06138, J06139), with all monies to be spent before August 12, 2010. Specific projects that have been identified to date and are being implemented under this SEP are as follows:

Kennedy Montessori Elementary was granted \$5,000 for continued development of an outdoor classroom. This outdoor classroom serves as an outdoor laboratory providing hands-on connections to the natural world. Kennedy Montessori held a Tree Transplanting Day November 2005 where more than 60 parents, students and volunteers planted native trees to the schoolyard. A letter notifying Kennedy Montessori Elementary of their award and a copy of the final report was included in Appendix G of the previous Annual Report.

Funding Amount: \$5,000

Status: Completed and reported in previous reporting period.

RESTORE Earth Partnership Institute and Outdoor Classroom at Farnsley Middle School were granted funds to install a native courtyard at Farnsley Middle School. Traditionally, implemented outdoor classrooms are maintained by individual, interested teachers. The classrooms have had difficulty surviving due to dwindling educational system budgets and the lack of support from the school's maintenance staff. In July 2006, a team was formed with two local environmental resource professionals and three middle school science teachers to address the integration of outdoor classroom curriculum with the legislated state curriculum. MSD designed and supervised the installation of the native landscape outdoor classroom at Farnsley Middle School. The landscape plan began in April 2007 and was completed in May 2007. During the first year, the school's after school environmental club used the site on a weekly basis. A report on the completion is included in Appendix G of the previous reporting period.

Funding Amount: \$46,176

Status: Completed and reported in the previous reporting period

Americana Community Center received \$13,500 from MSD for the installation of a rain garden and an 800 gallon rain barrel. During this reporting period, the site design was completed, a work crew assembled and planting began on the site. The work crew consisted of eight youth from around the world (Bosnia, Croatia, Congo, Haiti, Liberia and Somalia) who worked with the Garden Manager to channel the rain waster from the roof of the Center's gym to their garden. Although the work on the rain garden was completed in the next reporting period - August 2008- Appendix G-7 contains the SEPs Completion Report along with a photo summary of the

construction, media coverage of the opening of the rain garden and the Community Center newsletter that featured the rain garden.

Funding Amount: \$13,500

Status: Completed in next reporting period; Report included in this period.

Food Literacy Outdoor Classroom Project and Scholarships – This SEP allows urban youth to participate the Food Literacy curriculum and then visit their outdoor classroom at Oxmoor Farm during Fall 2008. The \$6,000 funding will also provide support for a storm water irrigation system under construction at the classroom that was under construction during this reporting period with completion occurring in December 2008. MSD was provided with a completion report along with samples of the curriculum, newsletter documenting the progress of the construction along with an example of student feedback and this is contained in Appendix G-8.

Funding Amount: \$6,000

Status: Completed in next reporting period; Report included in this period.

YouthBuild E-Corps MSD provided \$4000 to YouthBuild to be used for their E-Corps summer program. The E-Corp crew included 8 young adults, 3 interns and 85 students from Liberty High School. In 2007, students worked in retrofitting rain barrels, constructing trails along with maintaining outdoor classrooms, removing invasive species, picking up litter and landscaping. There were also guest speakers who conducted educational workshops with the students on topics such as native plants, proper planting techniques and soil testing. Appendix G-9 contains a summary report of these activities.

Funding Amount: \$4,000

Status: Completed and reported during this reporting period.

More Kids in the Woods – MSD provided \$4000 to Louisville Metro Parks for Connecting urban Youth in Louisville to Nature Project, as part of U.S. Forest Service "More Kids in the Woods" Program. This effort is expected to begin and be completed in the next reporting period. See Appendix G-10 for a status report.

Funding Amount: \$4,000

Status: To be completed during the next reporting period.

Jeffersontown Elementary School – The SEP provided \$500 to improve the existing Outdoor Classroom which is part of the Life Sciences Program at the Jeffersontown Elementary School. The funds were used to plant native species seedlings along with fixtures such as a new hose system, thermometers and plant markers. The school will be planting two large trees in Spring 2009 in order to increase the tree cover to reduce run off from the school property. In Appendix

G-11, a status report is provided.

Funding Amount: \$500

Status: Ongoing with work to be completed during the next reporting period.

5.3.4 Kentucky PRIDE

This SEP provides Kentucky PRIDE organization \$200,000 for "implementation and/or expansion of PRIDE into the local and regional area". The deadline for funding distribution was February 2006. A check for \$200,000 was sent to KDOW – Department of Enforcement for distribution to Kentucky PRIDE. A copy of the cancelled check was included in Appendix G of the 2007 Annual Report.

Funding Amount: \$200,000

Status: Completed in the 2006 reporting period.

5.3.5 Environmental Education Certification

This SEP provided \$50,000 to the Environmental Education Certification Program of the Kentucky Environmental Education Council (KEEC). This is a new endeavor for the Commonwealth to provide certification for environmental educators. There were 115 graduates of the program which consisted of four, 3-day workshops and an independent study over the course of one year. The established deadline to complete this effort is August 2010 but the scope was completed during this reporting period. A summary report from Jane Eller, Executive Director of KEEC is included in Appendix G-12.

Funding Amount: \$50,000

Status: Completed and reported in this reporting period.

5.3.6 Watershed Focused Environmental Groups

This SEP originally provided \$150,000 in grants to watershed focused environmental groups to allow them to provide water quality data interpretation for their group and the general public. As part of the agreement to delete the Lee's Lane Landfill reclamation, this SEP was allocated an additional \$100,000, for a total of \$250,000. The deadline for expenditure of funds is August 12, 2010. The following groups have received funding under this SEP.

Metro Parks / Environmental Trust - SEP funding was provided to Louisville Jefferson County Environmental Trust (LJCET) through Metro Parks in order to hire an intern for monitoring conservation easements and transferring Trinity Conservation Easement to LJCET. The funding was provided and an individual was hired in August 2006. In June 2008, Metro Parks began fully funding this position and the SEP funding was no longer needed. A final report is included in Appendix G-13.

Funding Amount: \$50,000

Status: Completed and reported during this reporting period.

Soil and Water Conservation District (SWCD) received SEP funding in February 2006 for a two year period for watershed education. SWCD requested these funds in order to provide watershed education to adults and children and to develop a watershed curriculum for elementary students in the Jefferson County schools. The proposal from the SWCD was accepted by MSD on December 13, 2005. Work began in 2006 and over the course of the two years, over 16,000 students from 48 different schools and community groups participated in the learning program. This SEP allowed SWCD to create a watershed education program which resulted in the development of a curriculum used by teachers to support their classroom activities and student studies on water quality. The program focused on educational outreach on water quality in the Beargrass Creek watershed. Approximately 65% of the funding allowed a hands-on, outdoor classroom style study with the students. The remaining 35% of the funding provided program support such as field testing supplies, sampling equipment, field tools and transportation for the students from the indoor classroom to the watershed classroom. The work continued beyond this reporting but the summary report, along with a SWCD newsletter, are included in Appendix G-14.

Funding amount: \$50,000

Status: To be completed in next reporting period; Report included in this period.

Living Lands and Waters - Originally the SEP funding for \$50,000 was established for the Living Lands and Waters (LLW) for educational programs and clean sweeps for Ohio River, Salt River Watershed, and Beargrass Creek Watershed. An award letter dated March 22, 2006, was provided to LLW. An additional \$100,000 (originally committed as part of the Lee's Land Landfill SEP) was given to LLW for invasive removal and replanting with native plant material along Beargrass Creek with an award letter for this amount dated July 9, 2007. LLW staff hosted three main programs while in Louisville – River Cleanups, Invasive Plant Removal and Big River Educational Workshops. They worked directly with an estimated 350 volunteers while in Louisville between November 2007 and April 2008. Details of their work can be found in Appendix G-15. Their work was completed during this reporting period.

Funding Amount: \$150,000

Status: Completed and reported during this reporting period

5.3.7 Bicycle and Pedway Connections Along K&I Railroad Bridge and Metro Park System

This SEP provided \$100,000 to the Louisville Waterfront Development for opening the K&I railroad bridge to pedestrian and bicycle access. The award letter was dated January 17, 2006 and the funds were distributed to the Louisville Waterfront Development in November, 2006. This project added to the Mayor's multi-purpose county loop trail project. When finished, the trail will provide a connection from the Portland neighborhood, across the Ohio River to Indiana.



MSD

Louisville and Jefferson County
Metropolitan Sewer District

**Consent Decree Annual Report
July 1, 2007 – June 30, 2008**

The work included in this SEP was for additional lighting and relocation of the existing street lights, installation of a new ramp and repairs to the Riverwalk asphalt along with establishing a new river's edge. A summary report is included in Appendix G-16.

Funding Amount: \$100,000

Status: Completed during this reporting period.

5.4 Property Reclamation and Community Connectivity

This SEP was intended to convert the former Lee's Lane Landfill into an area for public use. Overwhelming public opposition to this plan resulted in this SEP being eliminated, and the \$300,000 associated with it redistributed to other SEPs as noted previously. A copy of the Amended Appendix A to the Consent Decree is included in Appendix G of the previous Annual Report.