

Louisville and Jefferson County Wet Weather Consent Decree Annual Report



Reporting Period:

July 1, 2011 through June 30, 2012

Submitted To:

Kentucky Department of Environmental Protection
United States Environmental Protection Agency
United States Department of Justice

Submitted By:

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INTRODUCTION

The Louisville and Jefferson County Metropolitan Sewer District (MSD) has entered into an Amended Consent Decree with the Kentucky Department of Environmental Protection (KDEP) and the United States Environmental Protection Agency (EPA). The Amended Consent Decree was signed by United States District Judge Simpson on April 10, 2009 and filed in United States District Court, Western Division of Kentucky, Louisville Division, on April 15, 2009.

This is the seventh Annual Report submitted in accordance with Paragraph 30 of the Amended Consent Decree. This report covers the time period from July 1, 2011, through June 30, 2012. **The structure for this report is outlined as follows:**

Section 1: Project WIN Performance Overview - This section provides an accounting of the number of overflow occurrences, 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 Combined Sewer Overflow (CSO) locations, identified in the Morris Forman Water Quality Treatment Center (WQTC) Kentucky Pollutant Discharge Elimination System (KPDES) permit, that are expected to result from MSD's projects and activities during the reporting period are also contained in this section.

Section 2: Program Activities for Nine Minimum Controls - This section describes the scope, schedule and status for projects and other activities that were active during the reporting period **July 1, 2011, through June 30, 2012**, and the anticipated projects and activities that are scheduled to be performed during the next reporting period (July 1, 2012, through June 30, 2013) for continued compliance with the Amended Consent Decree.

Section 3: Program Activities for Sewer Overflow Response Protocol - This section describes the scope, schedule and status for activities that were active during the reporting period **July 1, 2011, through June 30, 2012**, and the anticipated activities that are scheduled to be performed during the next reporting period (July 1, 2012, through June 30, 2013) for continued compliance with the Amended Consent Decree.

Section 4: Program Activities for Discharge Abatement Plans - This section describes the scope, schedule and status for projects and other activities that were active during the reporting period **July 1, 2011, through June 30, 2012**, and the anticipated projects and activities that are scheduled to be performed during the next reporting period (July 1, 2012, through June 30, 2013) for continued compliance with the Amended Consent Decree.

Section 5: Public Outreach, Education, Notification and Participation - This section describes the activities related to public outreach, education, notification and participation that were active during the reporting period **July 1, 2011, through June 30, 2012**, and the anticipated activities that are scheduled to be performed during the next reporting period (July 1, 2012, through June 30, 2013) for continued compliance with the Amended Consent Decree.

Section 6: Capacity Management Operations and Maintenance and Program Activities for Water Quality Treatment Centers - The program activities performed during the reporting

period **July 1, 2011, through June 30, 2012**, and activities planned for the next reporting period (July 1, 2012, through June 30, 2013) are included in this section for continued compliance with the Amended Consent Decree.

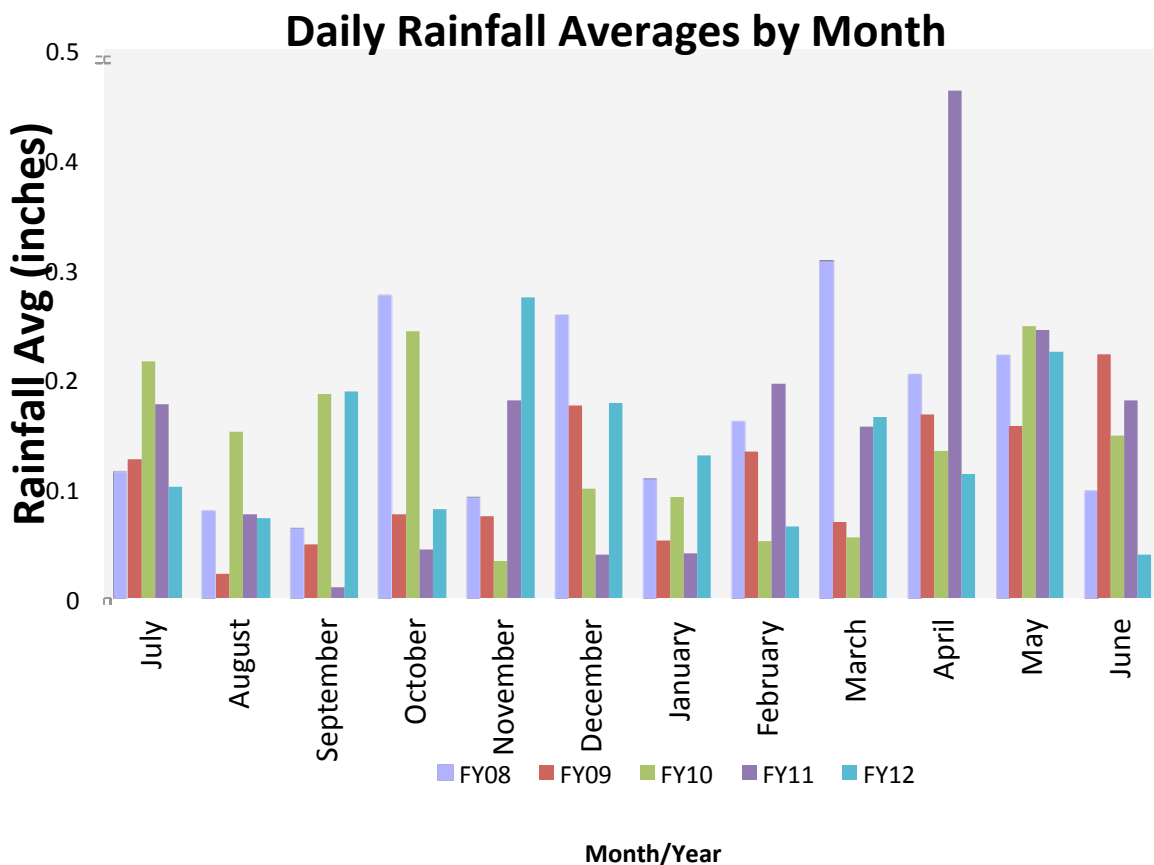
Section 7: Supplemental Environmental Projects (SEPs) Annual Report - The program activities performed during the reporting period (**July 1, 2011, through June 30, 2012**) and activities planned for the next reporting period (July 1, 2012, through June 30, 2013) are included in this section.

SECTION 1: Project WIN Performance Overview

1.1 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 daily rainfall amounts by the month (with an average of all MSD Rain Gauges) for the period between FY08 and FY12.

□



1.2 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 Amended 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).

There were 536 overflows that reached the **Waters of the United States** in FY12. 43 were reported during dry weather and 493 were wet weather related.

Unauthorized Discharges (WUS)			
	Dry Weather	Wet Weather	Total
Blending At Jeffersontown WQTC	0	16	16
Bypass At WQTC	8	12	20
Electrical Problems At MSD	2	3	5
Grease Blockage	0	1	1
Lack Of System Capacity	0	424	424
Mechanical Failure	4	5	5
Obstruction-Not Grease Or Root	16	0	16
Power Outage (LG&E)	0	1	1
Pumped Due To COE Manual	0	0	0
Pumped Overflow	0	30	30
Roots	2	0	2
Structural Failure	8	1	9
Utility Damaged MSD Asset	3	0	3
Total	43	493	536

An analysis, by asset type, of the 231 **dry weather unauthorized discharges** was performed.

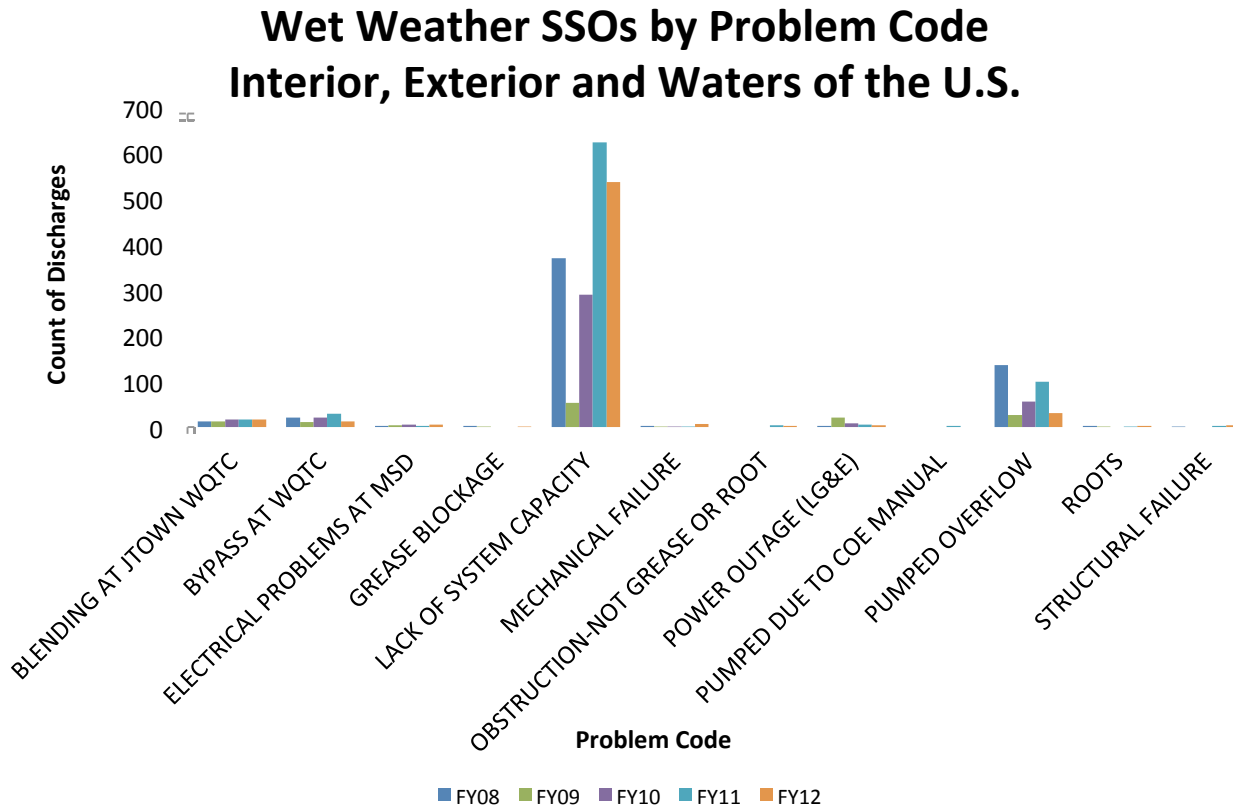
Dry Weather Unauthorized Discharges (Int/Ext/WUS) By Asset Type and Cause										
	Bypass	Electrical	Grease	Mechanical	Obstruction	Roots	Structural	Flood Pumping	Utility Damage	Total
Pump Station		2					2			4
Sewer Main					3	1	5		1	10
Manhole		1	6	5	23	4	2		4	45
Sewer Node							1			1
Sewer Service Line			20		65	53	10			148
WQTC	8			9	1		3			21
Sewer Valve				1			1			2
Totals	8	3	26	15	92	58	24		5	231

An analysis was performed by asset type, of the 619 **wet weather unauthorized discharges**.

Wet Weather Unauthorized Discharges (Int/Ext/WUS) By Asset Type and Cause												
	Capacity	Pump	Blending	Bypass	Power	Electrical	Obstruction	Roots	Structural	Grease	Mechanical	Total
Pump Station	33	8			1	1					2	45
Sewer Main					2				1			3
Manhole	376	22			1	2	1				2	404
Sewer Service Line	124						2	2	2	1		131
WQTC	2		16	12		2			1			33
Sewer Valve											2	2
Storm Inlet	1											1
Totals	536	30	16	12	4	5	3	2	4	1	6	619

This next chart shows the wet weather overflows by problem code. In FY12, 536 (multiple wet weather related problem codes) overflows were attributed to wet weather capacity issues. This is a significant reduction compared to FY11 due to the reduction in rainfall over the year. There was a significant reduction in pumped overflows, due to continuing SSES, and SSDP projects that have been completed since the inception of the Consent Decree. To reduce the number of overflows in wet weather, MSD hauls sewage from multiple locations.

□



1.2.1 Bypass Events at Water Quality Treatment Centers

Included in **Appendix B-2** is a report that details the 20 bypasses which occurred at water quality treatment centers (WQTC) during FY12. Bypasses were reported for the following WQTCs:

Bypass Events				
Name	KPDES Permit Number	Dry Weather	Wet Weather	Total
BERRYTOWN (MSD0209)	KY0036501	0	3	3
CEDAR CREEK (MSD0289)	KY0098540	1	1	2
CHENOWETH HILLS (MSD0263)	KY0029459	0	2	2
CHENOWETH RUN (MSD0403)	KY0042226	1	0	1
DEREK R. GUTHRIE (MSD0277)	KY0078956	0	1	1
FLOYDS FORK (MSD0294)	KY0102784	1	0	1
HITE CREEK (MSD0202)	KY0022420	0	1	1
JEFFERSONTOWN (MSD0255)	KY0025194	2	0	2
MCNEELY LAKE (MSD0228)	KY0029416	0	1	1
MORRIS FORMAN (MSD0278)	KY0022411	2	1	3
SHADOW WOOD (MSD0404)	KY0031810	1	0	1
STARVIEW (MSD0247)	KY0031712	0	2	2
Total		8	12	20

Project WIN Quarterly Report 18 included a memorandum, included as Appendix K, which described the analysis of 44 bypass events that occurred between July 1, 2008, and December 31, 2009. This analysis delineated bypasses into the following categories:

- Capacity (CAP)
- External Power failures (LGE Related – PWR)
- Equipment Failure (Mechanical -MCH, Electrical - ELE, Structural-STR)
- Human Error (OPN)

An assessment of FY12 WQTC bypasses was performed to determine the root cause of each bypass, the failure category, corrective actions to be taken, possible programmatic solutions, and corrective action completion date. Refer to **Appendix M** for details of this analysis. This analysis does not include the Jeffersontown WQTC blending events. Refer to **Section 1.2.2** for details of the Jeffersontown WQTC blending events.

1.2.2 Blending Events at the Jeffersontown WQTC

Included in **Appendix B-3** is a report that lists the 16 blending events which occurred at the Jeffersontown WQTC during FY12. The blending events, as posted on the Project WIN website, are as follows:

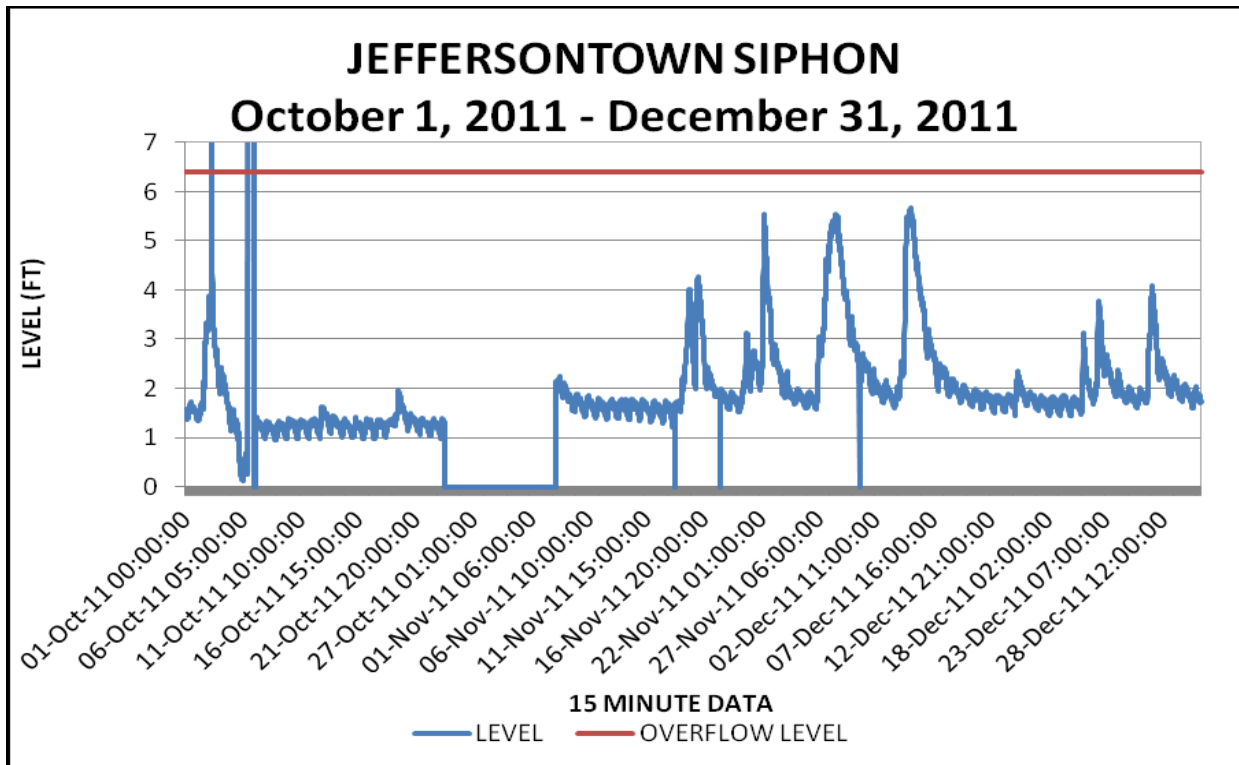
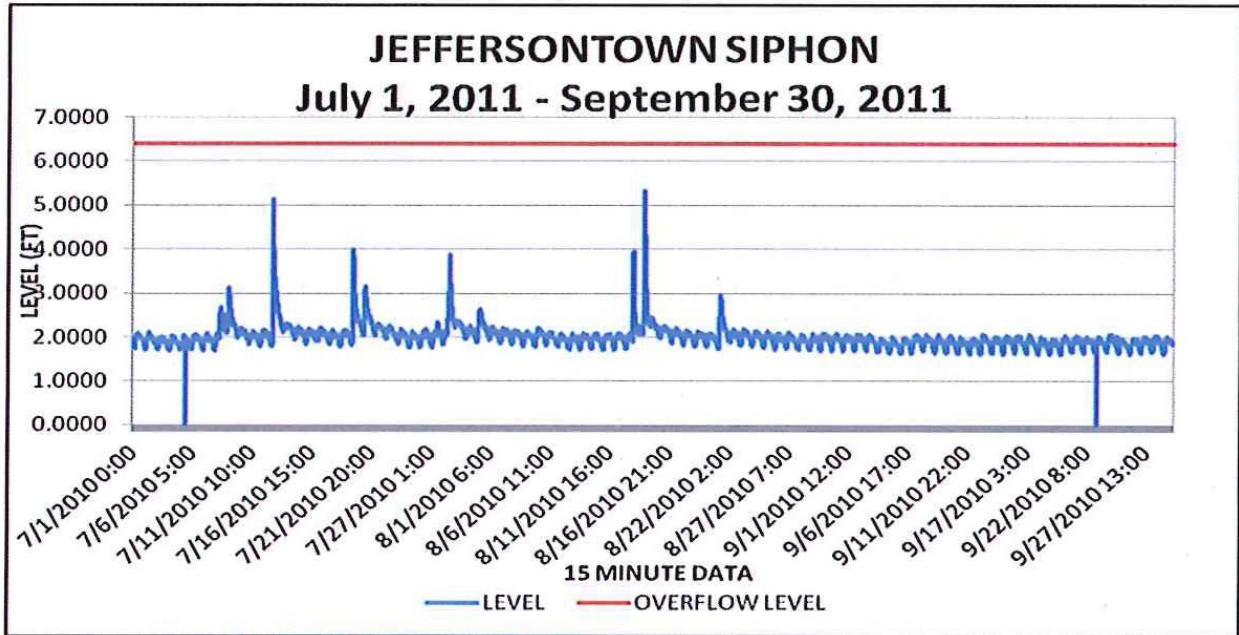
Blending Events	
Number	Date
1	September 26, 2011
2	November 15, 2011
3	November 16, 2011
4	November 22, 2011
5	November 27, 2011
6	December 5, 2011
7	December 22, 2011
8	December 27, 2011
9	January 26, 2012
10	March 8, 2012
11	March 16, 2012
12	March 17, 2012
13	April 1, 2012
14	May 13, 2012
15	May 29, 2012
16	May 31, 2012

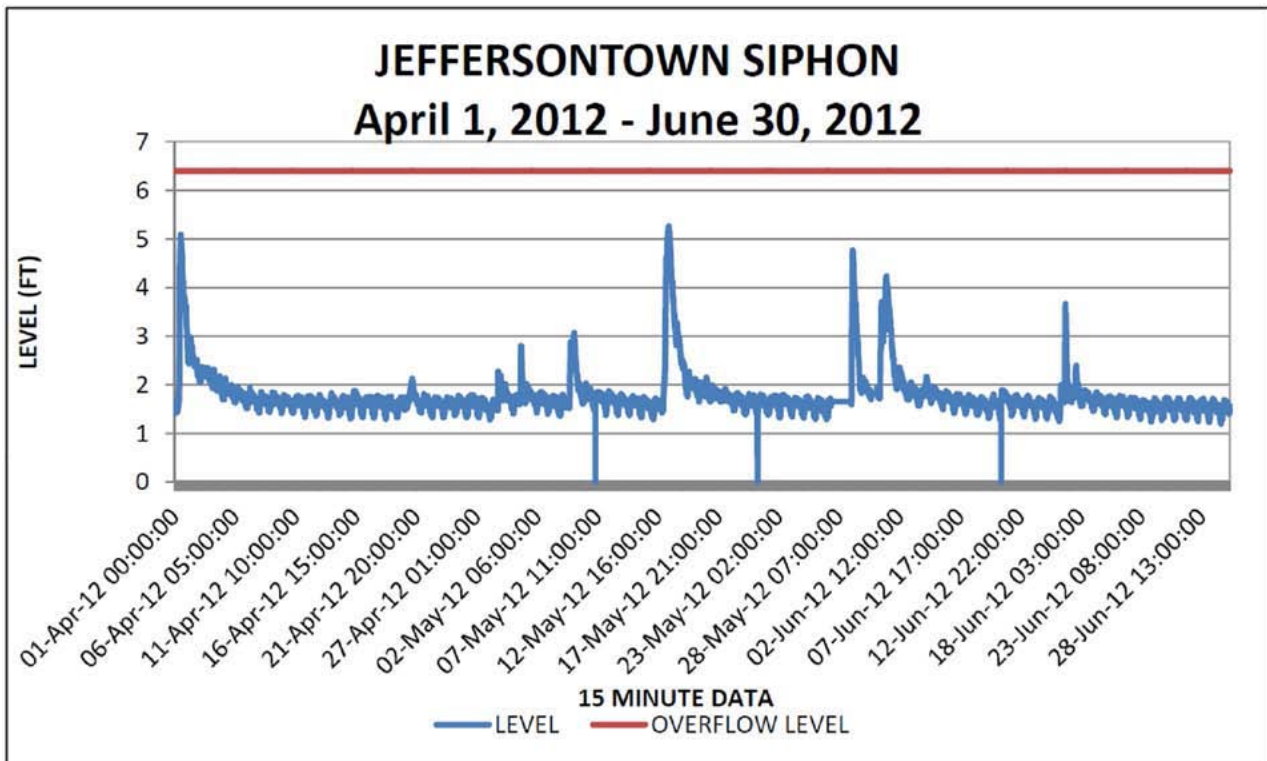
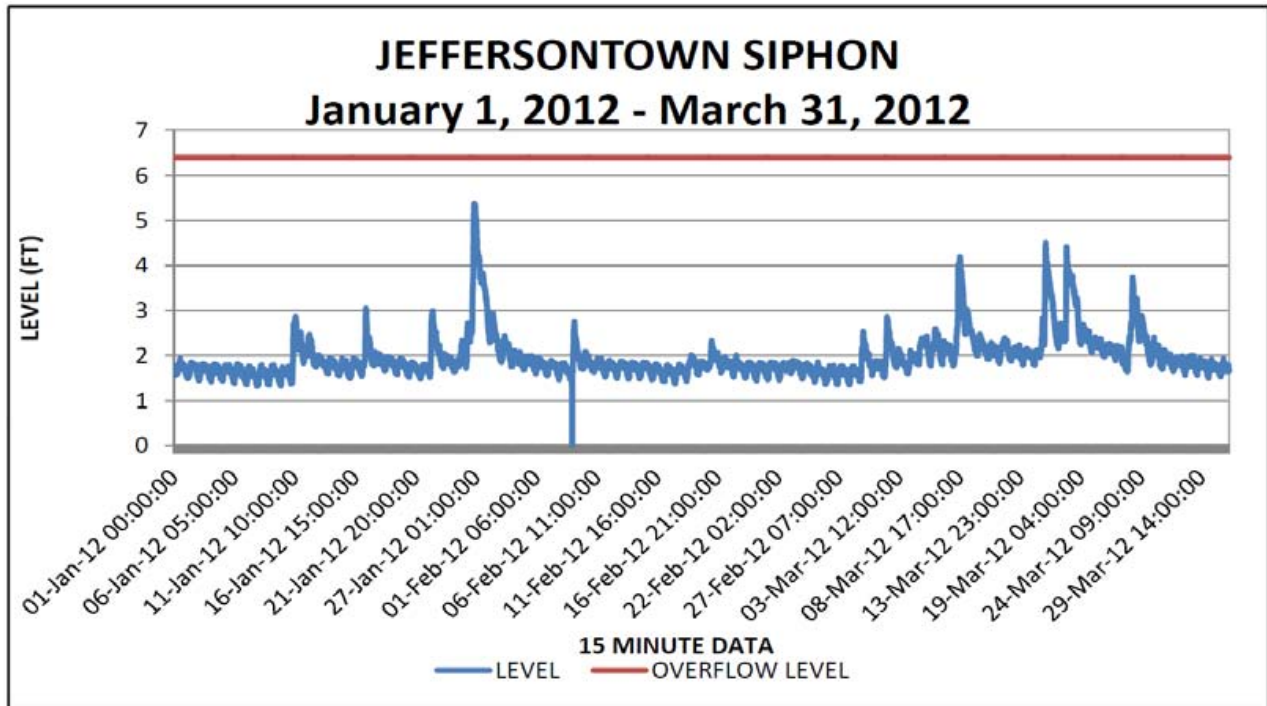
MSD submitted a Jeffersontown WQTC Process Control Plan on October 31, 2008, as required by paragraph 26.a of the Amended Consent Decree. MSD received comments on December 12, 2008, and resubmitted the plan January 16, 2009, and again on February 20, 2009. MSD received conditional approval of this document from EPA on April 1, 2009, pending finalization of the Amended Consent Decree that was under consideration by the Federal Court at the time the Process Control Plan was submitted. The Process Control Plan was accepted by the Federal Court and incorporated by reference into the Amended Consent Decree by an Order signed February 12, 2010, that was entered into public record February 15, 2010.

MSD reported 16 blending events at the Jeffersontown WQTC during FY12. The total blended amount, from the events, reported and documented on the Project WIN webpage was 31,599,722 gallons.

MSD conducted inspection routes for the Jeffersontown siphon during FY12. The inspections were completed on the following dates: August 11, 2011, September 26, 2011, November 15, 2011, November 22, 2011, November 23, 2011, November 29, 2011, November 30, 2011, December 5, 2011, December 6, 2011, December 7, 2011, December 8, 2011, December 27, 2011, January 1, 2012, January 26, 2012, February 29, 2012, March 8, 2012, March 16, 2012, March 17, 2012, March 18, 2012, March 23, 2012 April 4, 2012, May 5, 2012, May 13, 2012,

May 29, 2012. Three overflows were identified during these inspections along the siphon route. Levels appear to have exceeded the overflow elevation in October, however, this was determined to be erroneous data. No overflows were documented at the siphon as a result of inspections during these elevated levels. The following graphs are shown in six month intervals for clarity.





See **Section 6.2** for an update on the Comprehensive Performance Evaluations (CPE) /Composite Correction Plans (CCP) projects for the Jeffersontown WQTC.

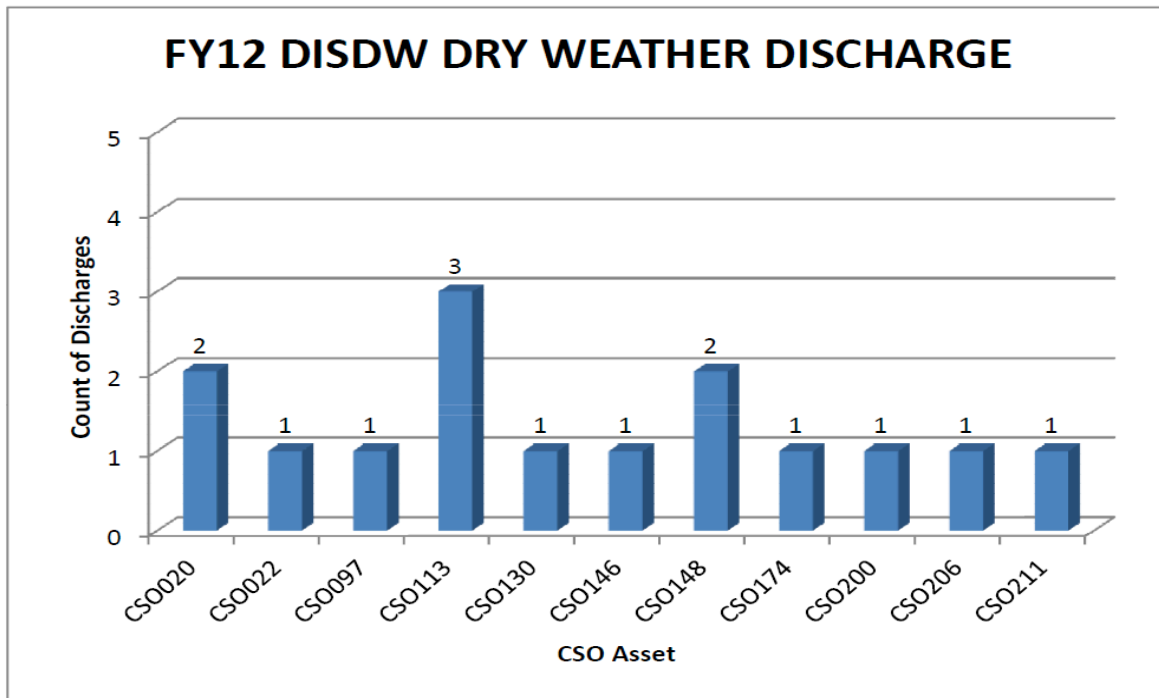
1.2.3 Phosphorus Monitoring at the Prospect WQTCs

As part of the Amended Consent Decree, MSD submits phosphorus monitoring data including the calculations of monthly averages with the quarterly reports. The charts in **Appendix G** show the monthly average phosphorous results for the five Prospect WQTCs. The phosphorous limit for these facilities is shown on the charts with a red line at 1mg/l. The five WQTCs met permit limits for phosphorous in every month in FY12, except for Ken Carla WQTC in September 2011, as explained below.

The exceedance at Ken Carla WQTC in September 2011, occurred due to the reduced effectiveness of the sodium aluminate because of the age of the chemical. To correct the situation, the contents of the aeration tank were removed, and the plant was re-seeded. To prevent future occurrences, MSD has modified the procedure for delivery and storage of the sodium aluminate at the Prospect WQTCs.

1.2.4 Dry Weather CSOs

During the FY12 reporting period there were 16 dry weather overflows from permitted CSO locations. At this time, 102 CSOs are functioning properly. The dry weather CSO's were analyzed by location and problem to identify issues that can be corrected. The major cause for dry weather CSOs during the reporting period were the two large water main breaks that discharged to the combined sewer system and mechanical failures at Starkey PS.



In FY12, the volume attributed to Dry Weather CSOs was approximately 5,156,532 gallons. This is a 1.3% increase of dry weather CSO volume compared to the previous fiscal year. Two significant dry weather CSOs occurrences accounted for 4,212,908 gallons of the reported volume. The significant dry weather overflows are described as follows:

- CSO020 (Buchanan Street Pump Station) occurred March 17, 2012. The overflow was caused by a mechanical failure of the hydrostatic level indicator. To stop the overflow, MSD switched level indicator systems. The number 2 system was used as the primary system until repairs were completed. This overflow discharged approximately 1,987,908 gallons until MSD crews could get the gate opened.
- CSO020 (Buchanan Street Pump Station) occurred April 4, 2012. The overflow was caused by an electrical failure of a pump. To stop the overflow, MSD reset the pump. This overflow discharged approximately 2,225,000 gallons until MSD crews could get the pump reset.

Dry Weather CSOs - By Problem				
CSO	Date	Problem	Description	Amount (GAL)
CSO019	09/07/2011	ELECTRICAL	STATION LOST 1 PHASE OF LGE POWER, GENERATOR CAME ON, CONTROLS CIRCUIT BREAKER TRIPPED, CONTROLS DID NOT ALLOW PUMPS TO COME ONLINE.	48,000
CSO020	03/17/2012	MECHANICAL	MECHANICAL FAILURE OF THE HYDROSTATIC LEVEL INDICATOR. THAT SHUT THE STATION DOWN	1,987,908
CSO020	04/04/2012	ELECTRICAL	PUMP ONE WENT TO GROUND TRIPPING OUT SUBSTATION	2,225,000
CSO022	03/14/2012	STRUCTURAL	STRUCTURAL FAILURE-1/2 INCH HOLE IN THE METAL DAM (WEIR)	280
CSO097	01/30/2012	MECHANICAL	LACK OF CAPACITY IN THE BGI AFTER RAIN EVENT DUE TO UNKNOWN RESTRICTION, TO BE DETERMINED.	1,905
CSO113	08/17/2011	OBSTRUCTION	OBSTRUCTION IN MAIN SEWER	22
CSO113	11/30/2011	OBSTRUCTION	OBSTRUCTION IN MAIN SEWER	180
CSO113	06/08/2012	OBSTRUCTION	OBSTRUCTION IN MAIN SEWER	365
CSO130	10/04/2011	OBSTRUCTION	LINE OBSTRUCTION DUE TO BRICKS IN SEWER	2,291
CSO146	08/11/2011	UTILITY DAMAGE	LWC WATER MAIN BREAK AT EASTERN PKY & CRITTENDEN DR CAUSED A SUBSTANTIAL INCREASE IN SEWER FLOW	551,760
CSO148	02/13/2012	OBSTRUCTION	BLOCKAGE IN LINE UPSTREAM OF SIPHON AND DOWNSTREAM OF CSO	1,250
CSO148	03/07/2012	OBSTRUCTION	BLOCKAGE IN LINE UPSTREAM OF SIPHON AND DOWNSTREAM OF CSO	15
CSO174	08/11/2011	UTILITY DAMAGE	LWC WATER MAIN BREAK AT EASTERN PKY & CRITTENDEN DR CAUSED A SUBSTANTIAL INCREASE IN SEWER FLOW	133,708
CSO200	06/21/2012	OBSTRUCTION	GRIT AND DEBRIS BUILD UP IN LINE	1,560
CSO206	11/30/2011	OBSTRUCTION	DISCHARGE WAS CAUSED BY A STOPPED UP STORM LINE THAT CAUSED TOO MUCH STORM WATER TO ENTER THE CSO.	100
CSO211	07/11/2011	UTILITY DAMAGE	LWC 48" WATER MAIN BREAK CAUSED A SUBSTANTIAL INCREASE IN SEWER FLOW, RESULTING IN A DRY WEATHER CSO AT THE MAIN DIVERSION	202,188

1.3 Overflows

Overflows in FY12 were delineated into three categories: overflows to Waters of the US (WUS), overflows to the exterior, and overflows to the interior. This section focuses on overflows to the exterior and interior. Please refer to **Section 1.2** for overflows to Waters of the US.

1.3.1 Overflows to the Exterior

MSD recorded information related to 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 approved through efforts associated with various components of the Amended Consent Decree. These overflows are included in **Appendix B-4** for the period July 1, 2011, through June 30, 2012.

Exterior Overflows			
	DRY	WET	TOTAL
Electrical Problems At MSD	1	2	3
Grease Blockage	7	0	7
Lack Of System Capacity	0	10	10
Mechanical Failure	11	1	12
Obstruction-Not Grease Or Root	11	2	13
Power Outage (LG&E)	0	3	3
Pumped Due To COE Manual	0	0	0
Pumped Overflow	0	0	0
Roots	8	0	8
Structural Failure	8	2	10
Utility Damaged MSD Asset	2	0	2
Totals	48	20	68

1.3.2 Overflows to the Interior

MSD recorded information related to 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 Amended Consent Decree. These overflows, that are the result of an issue in the main line, are included in **Appendix B-5** for the period of July 1, 2011, through June 30, 2012.

Interior Overflows			
	Dry	Wet	Total
Grease Blockage	19	0	19
Lack Of System Capacity	0	102	102
Obstruction-Not Grease Or Root	65	1	66
Roots	48	2	50
Structural Failure	8	1	9
Total	140	106	246

1.4 CSO and SSO Reductions

The following sections outline the activities performed in FY12 to reduce or eliminate CSOs and SSOs.

1.4.1 CSO Reductions

Appendix C includes the modeled Annual Average Overflow Volume (AAOV) for the permitted CSOs. The AAOV was derived from the InfoWorks CSO hydraulic model.

The InfoWorks model identified additional CSOs that have AAOVs exceeding 10 million gallons per year due to additional model detail and a revised typical rainfall year. These CSOs were fitted with appropriate monitoring equipment and Telog communication equipment and are reporting to the flow data site.

The CSO data for FY12 is included in **Appendix D**. The CSO data for each monitored overflow has been tabulated along with rainfall information from the nearest rain gauge to facilitate review of the overflows that occurred.

The following projects, completed during FY12, reduced or eliminated permitted CSOs:

- CSO086 - Located at 1429 Payne Street was closed February 16, 2012. MSD crews closed the CSO by bricking up the outfall. This CSO was tributary to Beargrass Creek.
- CSO022, CSO023 - Completed gate automation at the 4th Street Flood Pump Station which will eliminate dry weather discharges when flood pump station is in service.
- CSO019 - Completed gate automation and installed a sump pump in the CSO outfall at the 34th Street Flood Pump Station which will eliminate dry weather discharges when flood pump station is in service.

Please refer to **Section 4.5 Post Construction Compliance Monitoring** for information regarding system monitoring.

1.4.2 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 that impacted SSOs were completed during this reporting period:

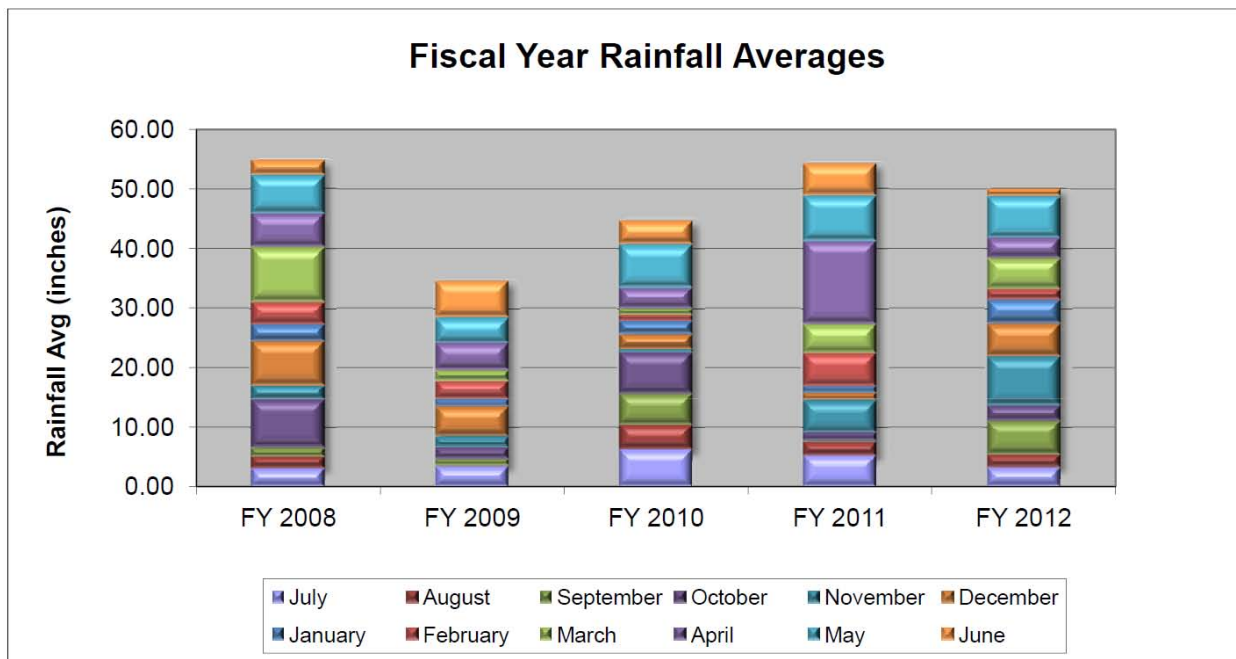
- Vannah PS Elimination – Completed September 23, 2011 – Eliminated the following SSO manhole: 01106.
- Edsel PS I/I Investigation & Rehabilitation – Completed September 27, 2011 – Eliminated the following SSO manholes: MSD1048-PS, 92098, 92099, 94009.
- Fern Lea - Completed November 9, 2011 - Eliminated the following SSOs: MSD0047-PS, MH# 04542
- Mary Catherine; D/S Pioneer - RS Telemetry - Completed November 9, 2011 - Eliminated the following SSO: 04498
- Pioneer Rd PS - Completed November 21, 2011 - Eliminated the following SSO: 81814-W
- Scottsdale #1 - Completed November 25, 2011 - Eliminated the following SSO: MSD0016-PS
- Jacks Lane - Completed November 29, 2011 - Eliminated the following SSO: MSD0044-PS
- Southeast Diversion Structure - Completed December 19, 2011 - Eliminated the following SSO: 72571-X
- Hurstbourne Golf Course Manholes – Completed December 27, 2011 – Eliminated the following SSOs: 01793, 47650, 47656, 67535
- Lantana PS – Completed December 29, 2011 – Eliminated the following SSOs: MSD0101-PS, MH#s: 25484, 93719
- Shively Interceptor - Completed February 27, 2012 - Eliminated the following SSOs: MSD0049-PS; 06915-W and MSD0050-PS
- East Rockford Lane PS Relocation Project - Completed March 30, 2012 - Eliminated the following SSO: 04699-W
- Derington Court PS I/I Investigation & Rehabilitation - Completed March 30, 2012 - Eliminated the following SSOs: MSD0095-PS; 20154-W; 20155

1.5 Performance Measures - Trends

MSD has developed performance measures to monitor the operation of the collection system and WQTC's, with the goal of reducing sewer overflows and improving surface water quality.

1.5.1 Rainfall

The Louisville area experienced a decrease in rainfall in FY12, compared to FY11 (wettest year on record), and the overflow data reflects that trend. The chart below shows the FY08, FY09, FY10, FY11, and FY12 rainfall data broken up by month to show the significant months of rainfall over these years. Throughout the analysis of FY09, FY10, and FY11, rain events from January 2009 (Force Majeure ice storm event as described in the 2009 Annual Report), August 4, 2009 (Force Majeure rain event), and May 2, 2010 (Force Majeure rain event), and April 2011, are extracted to emphasize rainfall events that are comparable to events in the typical rainfall year. These more frequent events will provide a more accurate indication of the system performance, and improvement with the implementation of programmatic activities.



1.5.2 Bypass

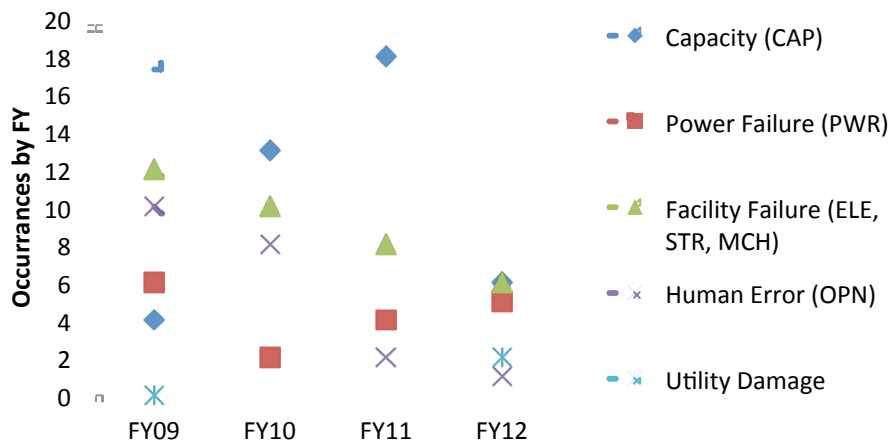
Project WIN Quarterly Report 18 included a memorandum, included as Appendix K, which described the analysis of 44 bypass events that occurred between July 1, 2008, and December 31, 2009. This analysis delineated bypasses into the following categories:

- Capacity (CAP)
- External Power failures (LGE Related – PWR)
- Equipment Failure (Mechanical -MCH, Electrical - ELE, Structural-STR)
- Human Error (OPN)

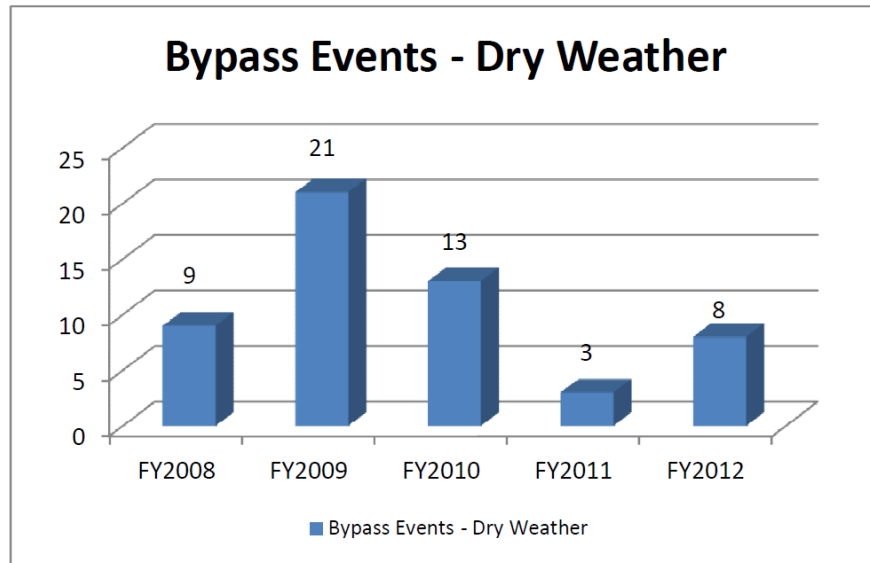
The following table and graphs show the results of the previous four fiscal years of bypasses by cause. Facility failures have decreased due to the increased preventive maintenance and CPE Phase II activities. Human Error related bypasses are significantly reduced from the March 2010 analysis due to increased training, accountability, and implementation of CPE Phase I activities. A small increase in Power Failure bypasses was observed during the reporting period. These failures are being evaluated for installation of generators, or possible enhancements to UV systems to prevent future failures.

Bypass Events - Causes								
Determined Cause	FY09		FY10		FY11		FY12	
	Occurrences	%	Occurrences	%	Occurrences	%	Occurrences	FY12
Capacity (CAP)	4	13%	13	39%	18	56%	6	30%
Power Failure (PWR)	6	19%	2	6%	4	13%	5	25%
Facility Failure (ELE, STR, MCH)	12	38%	10	30%	8	25%	6	30%
Human Error (OPN)	10	31%	8	24%	2	6%	1	5%
Utility Damage	0		0		0		2	10%

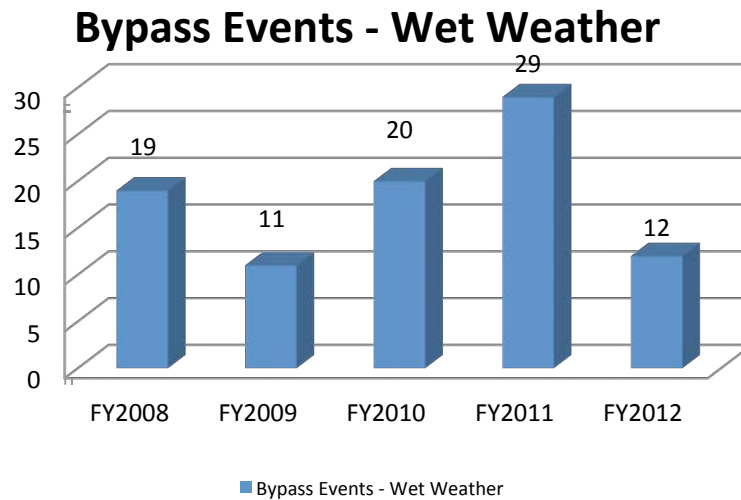
Fiscal Year Bypass Review (Number by Year by Cause)



The following charts show the WQTC dry weather and wet weather bypass events. An increase is shown in dry weather bypasses due to power outages and multiple large water main breaks during the fiscal year. It is expected that this category will decrease in the future due to continued CMOM and CPE efforts. Wet weather bypasses decreased dramatically during FY12, as compared to previous years.



□

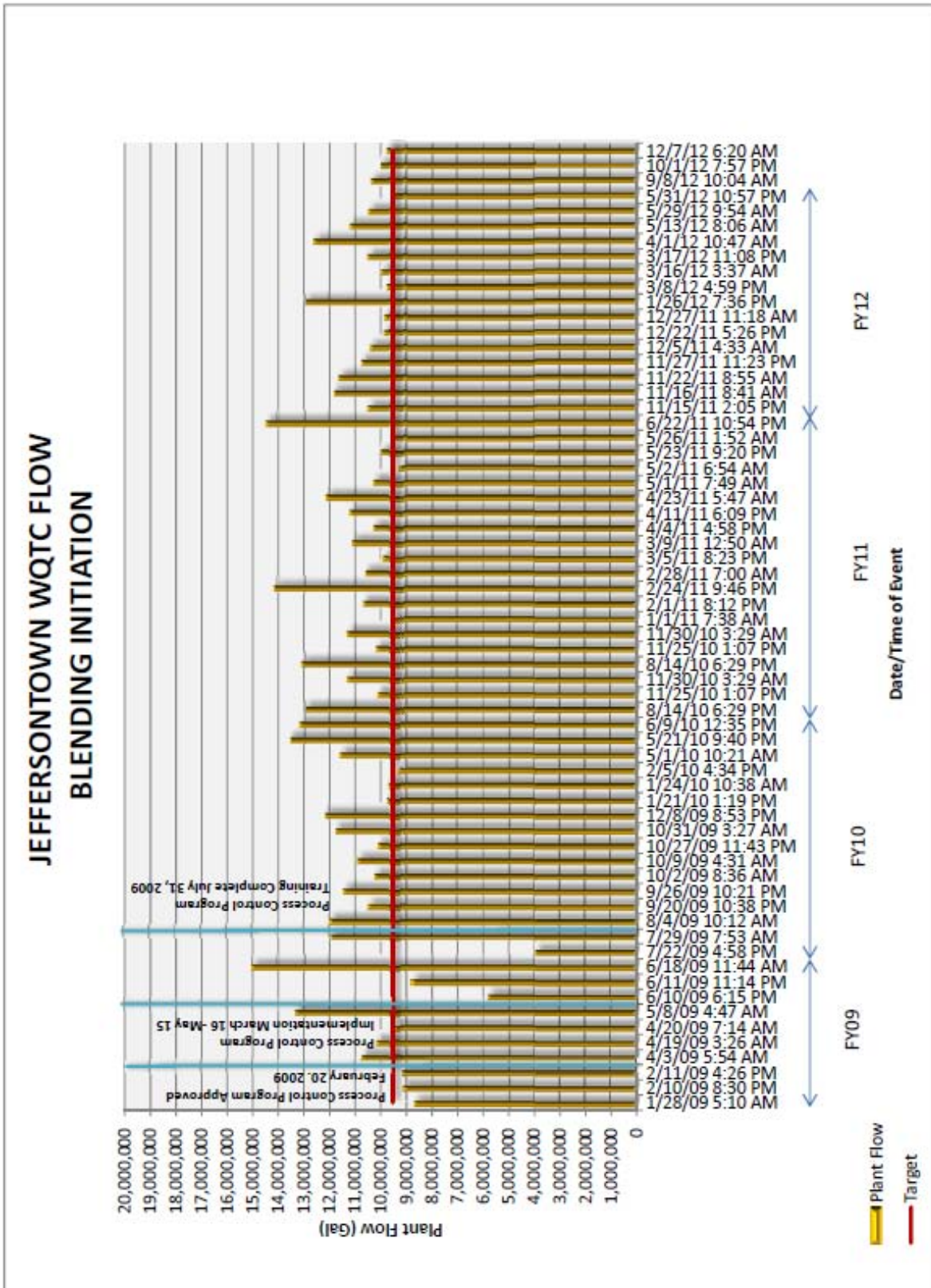


FY08-FY12 Bypass Count Trending										
Treatment Plant	Dry Weather					Wet Weather				
	FY08	FY09	FY10	FY11	FY12	FY08	FY09	FY10	FY11	FY12
BANCROFT	0	2	1	0	0	0	0	0	0	0
BERRYTOWN	0	1	1	0	0	1	0	2	9	3
CEDAR CREEK	1	1	1	2	1	1	1	3	3	1
CHENOWETH HILLS	0	2	4	0	0	0	3	4	1	2
CHENOWETH RUN	1	0	0	0	1	4	0	2	3	0
DEREK R. GUTHRIE	0	6	1	0	0	0	0	1	2	1
FLOYDS FORK	0	0	1	0	1	1	2	1	0	0
HITE CREEK	0	2	2	0	0	1	0	1	2	1
HUNTING CREEK NORTH	0	2	0	0	0	1	0	0	2	0
HUNTING CREEK SOUTH	0	0	1	0	0	2	0	1	0	0
JEFFERSONTOWN	3	1	1	0	2	3	2	2	0	0
MCNEELY LAKE	0	1	0	1	0	1	1	0	2	1
MORRIS FORMAN	0	0	0	0	2	0	0	0	1	1
SHADOW WOOD	1	0	0	0	1	0	0	0	0	0
SILVER HEIGHTS	1	2	0	0	0	1	0	0	1	0
STARVIEW	0	0	0	0	0	0	2	2	3	2
TIMBERLAKE	2	0	0	0	0	1	0	0	0	0
YORKTOWN	0	1	0	0	0	2	0	1	0	0
Total	9	21	13	3	8	19	11	20	29	12

1.5.3 Jeffersontown Water Quality Treatment Center

MSD has been documenting the blended flow at the Jeffersontown WQTC since February 2008. The FY 09 Jeffersontown WQTC Process Control Program describes the implementation of wet weather SOPs.

The Jeffersontown WQTC Process Control Program includes standard operating procedures (SOPs) for the initiation and disengagement of blending activities, with the goal of maximizing flow through secondary treatment during wet weather. The program was completed in February 2009, and implementation began in May, 2009, with training of all currently affected staff completed prior to July 31, 2009. The FY12 plant flows and blended flows are presented in **Appendix L – Jeffersontown WQTC Blending Event Charts**. The blending events were analyzed and compared to the wet weather protocols included in the SOPs regarding the flow rate when blending will occur. The chart that follows shows the plant flow when blending events began at the Jeffersontown WQTC. The red line on the chart is shown at 9.5 MGD, which is the SOP guidance for initiating blending. The chart shows that once the wet weather SOPs training was completed, blending practice closely conformed to SOP guidance. In some cases the flows significantly exceeded 9.5 MGD before blending occurred. This is due to the rapid increase in flows that the Jeffersontown WQTC can experience, and the relatively slow response time of the blending gate. Operating at these higher flows is not sustainable, as the aeration basins may overflow if more than 9.5 MGD is delivered to them for more than a few minutes.

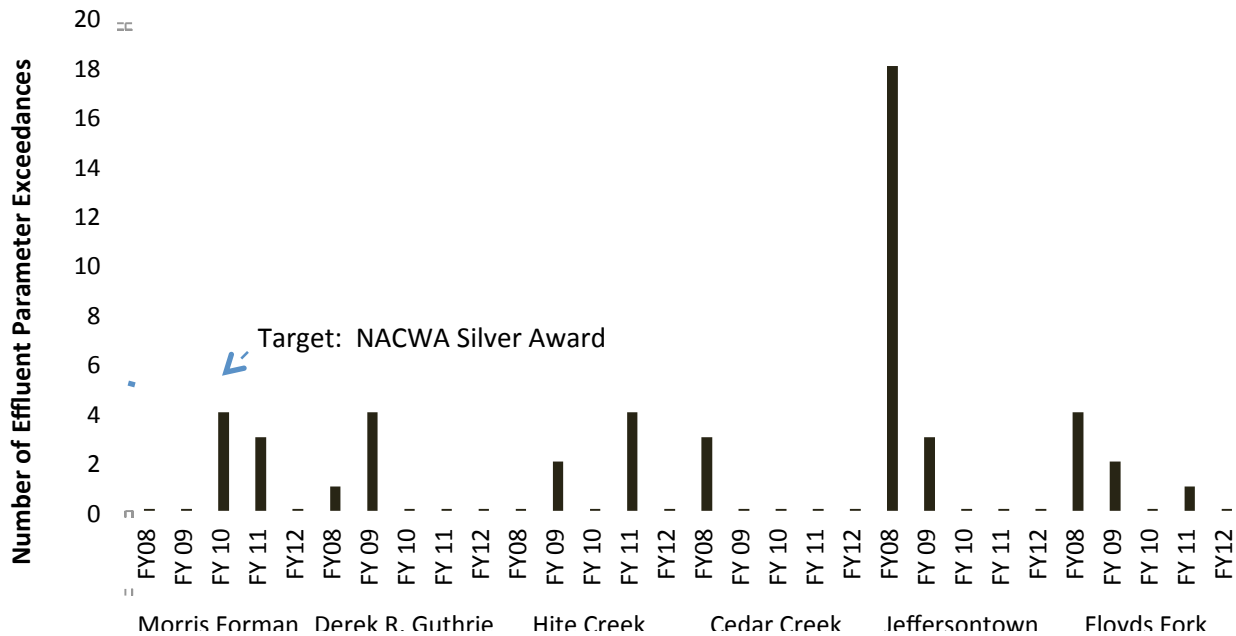


1.5.4 WQTC Effluent Compliance

MSD’s policy is to operate WQTC’s in full compliance with the permitted effluent water quality standards. However, circumstances sometimes arise that may cause wastewater WQTC’s 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 regional plants of receiving at least the NACWA Silver Award, which requires that the WQTC have five or fewer exceedances per year of any permit parameters.

As shown in the figure below, all six regional WQTCs have achieved this goal in FY09, FY10, FY11, and FY12. During the current reporting period, the Morris Forman WQTC and all the other five regional WQTCs met all permit parameter targets.

Regional Water Quality Treatment Center Performance



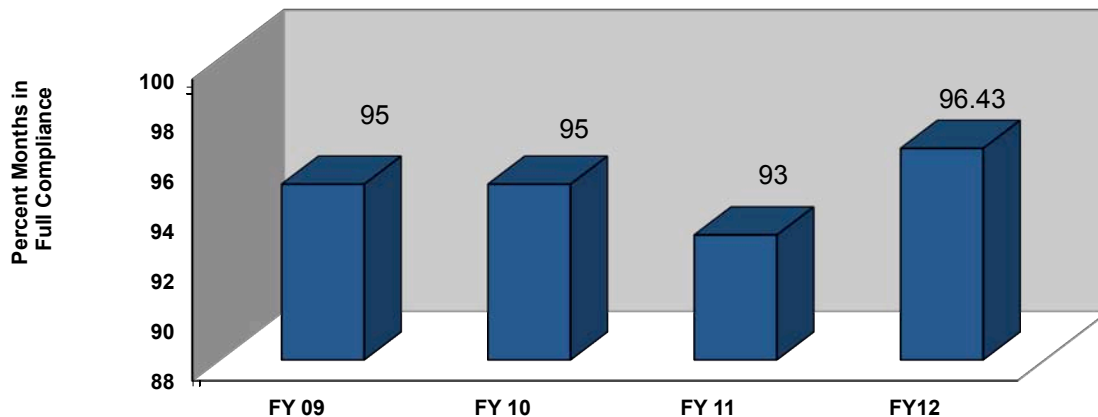
Since 1985, MSD has acquired more than 200 privately owned non-regional WQTCs (“package plants”). MSD currently operates 13 non-regional plants. MSD will continue to operate the non-regional WQTCs until infrastructure is constructed to divert the wastewater flow to a regional plant and ultimately eliminate the non-regional WQTC’s.

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

MSD has a targeted goal of achieving full compliance with permit parameters in 95% of the months. As shown in the figure, 95% of the months were in full compliance in FY09, and FY10. In FY 11 these facilities were at full compliance at 93% of the time. Performance at the smaller plants in FY12 has increased to over 96% compliance. To achieve this increase, CPE/CCE activities were performed such as additional training and SOP review, as well as removal of lagoons and polishing ponds. It is anticipated that the capital projects and CPE/CCE efforts will reduce the occurrence of non-compliance in FY13.

□

Non Regional WQTC Performance



1.5.5 Dry Weather CSOs

MSD has implemented NMC programs and provided resources to reduce dry weather combined sewer overflows (CSOs). The figure below shows the number of occurrences of dry weather CSOs between FY08 and FY12, in bar chart format, broken down by the problem that caused the overflow. It appears that the greatest increase in dry weather CSOs is related to obstructions in the system. In the CSSA program this problem code will be a focus for evaluation.

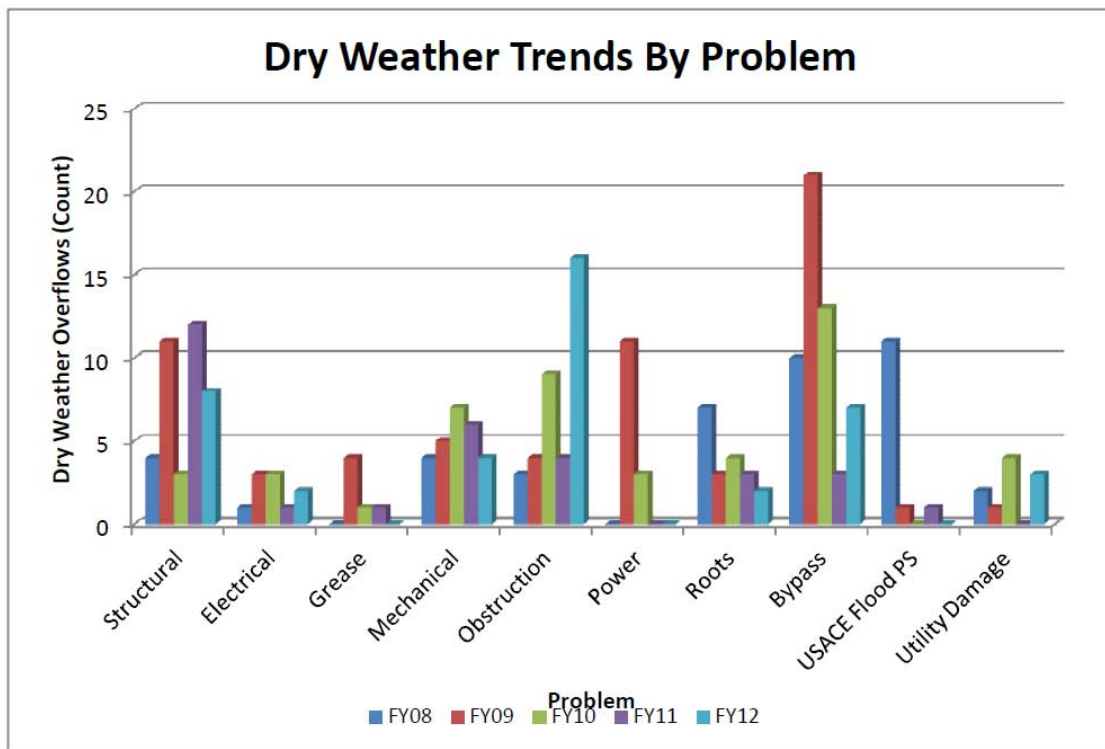
Dry Weather CSOs by Problem Code					
	FY08	FY09	FY10	FY11	FY12
Electrical	1	1	2	0	0
USACE Flood PS	1	1	0	1	1
Mechanical	0	0	4	1	1
Obstruction	0	0	4	9	9
Power	0	0	2	0	0
Structural	0	0	1	0	0
Utility Damage	1	1	2	2	2
Roots	0	0	1	0	0
Total	3	3	16	13	13

1.5.6 Dry and Wet Weather SSOs

MSD is committed to reducing SSOs that occur during wet weather events. The following table shows the wet weather SSOs (to Waters of the US) by problem code. Due to decreases in rainfall in FY12, the unauthorized discharges decreased when compared to the two previous years. MSD staff continues to utilize tanker trucks, which include portable pumps, to haul wet weather flow that is in excess of the pump station capacity, to reduce the number of documented overflows.

Unauthorized Wet Weather Discharges					
	FY08	FY09	FY10	FY11	FY12
Blend	12	12	16	17	16
Bypass	21	11	20	29	12
Capacity	369	151	993	623	424
Pump	136	22	53	99	30
Electrical	2	4	5	3	2
Grease	2	7	1	0	1
Mechanical	3	1	2	1	5
Obstruction	0	22	16	4	0
Power	3	42	8	5	1
Roots	3	13	17	1	0
Structural	1	3	1	3	1
USACE Flood PS	0	0	0	2	0
Utility Damage	0	1	0	0	0
Total	552	289	1132	787	492

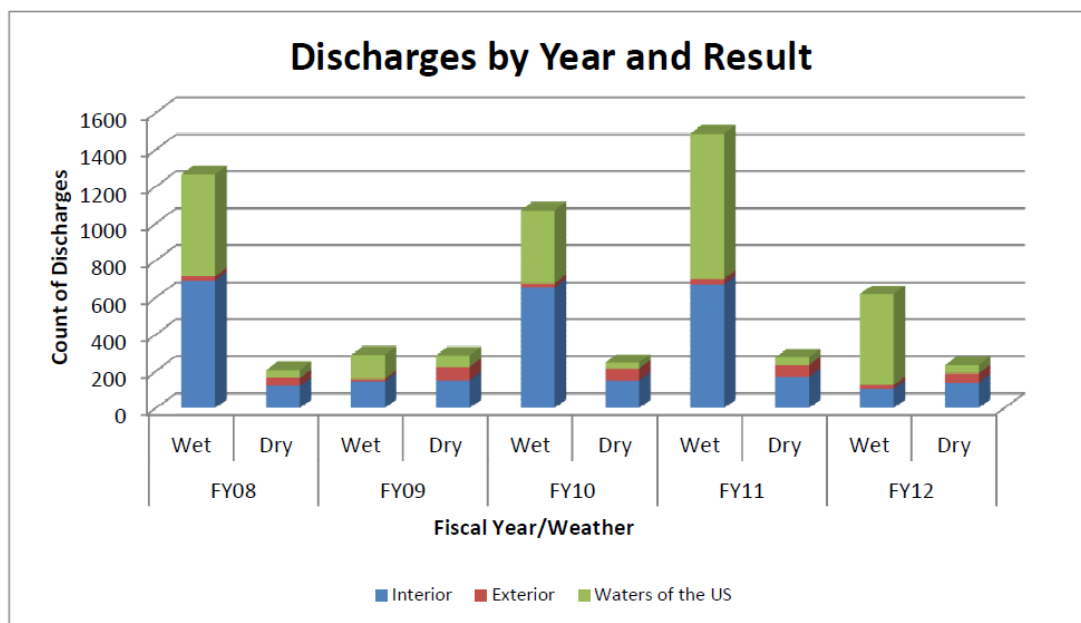
The following chart shows the dry weather SSOs (to WUS) by result for FY09, FY10, FY11, and FY12. An increase in dry weather SSOs due to an increase in obstructions was observed in FY12. The GLPM program will be enhanced to address these increases. The trends show that FOG enforcement and removal programs are effective in preventing SSOs, and that power related SSOs have trended downward due to installation of permanent generators across the district.



The following table shows the distribution of dry weather SSOs (Int. Ext., WUS) by problem code. The prevalent cause of dry weather SSOs, as shown in the figure, are due to obstructions. In FY12, an analysis of the dry weather overflow causes will occur to enhance the CSSA and GLPM programs. The enhanced CSSA and BAP activities continuing into FY12, will be honed to address these overflow issues.

Unauthorized Dry Weather Discharges					
	FY08	FY09	FY10	FY11	FY12
Structural	11	21	10	31	23
Electrical	0	7	3	3	2
Grease	11	16	10	21	26
Mechanical	24	24	22	25	13
Obstruction	48	87	99	104	84
Power	0	40	3	1	0
Roots	84	66	74	82	58
Bypass	10	21	13	3	8
USACE Flood PS	0	1	0	2	0
Utility Damage	4	4	12	4	2
Capacity	0	0	0	0	0
Total	192	287	246	276	216

The following chart shows the breakdown of SSOs by category (Int., Ext., and WUS) for the past five fiscal years. There is a reduction in total wet and dry SSOs between FY11 and FY12.

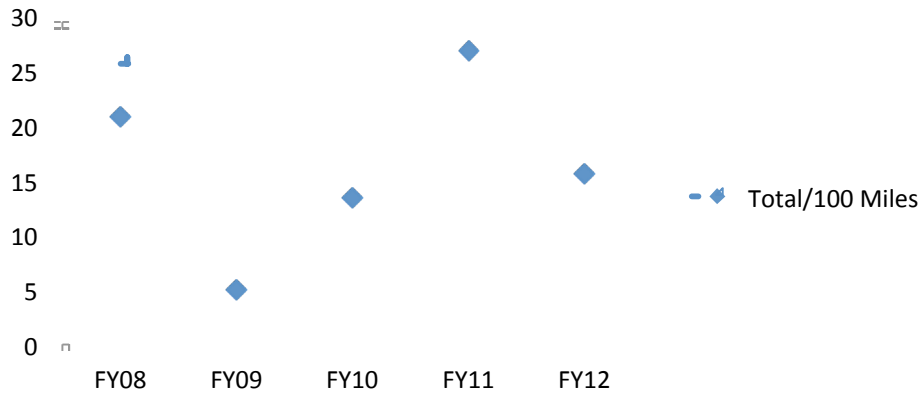


1.5.7 SSOs per 100 Miles of Sewer

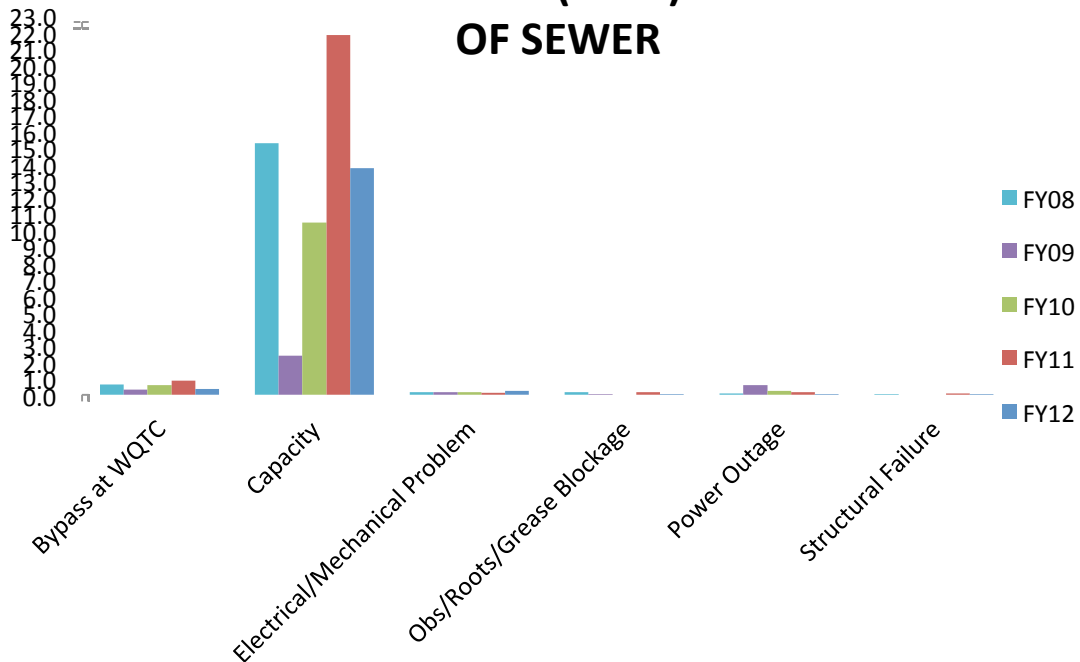
Per the request of EPA, and in keeping with benchmarks from other utilities, MSD has prepared the following analysis of SSOs per 100 Miles of sewer by cause for FY12, as well as by year

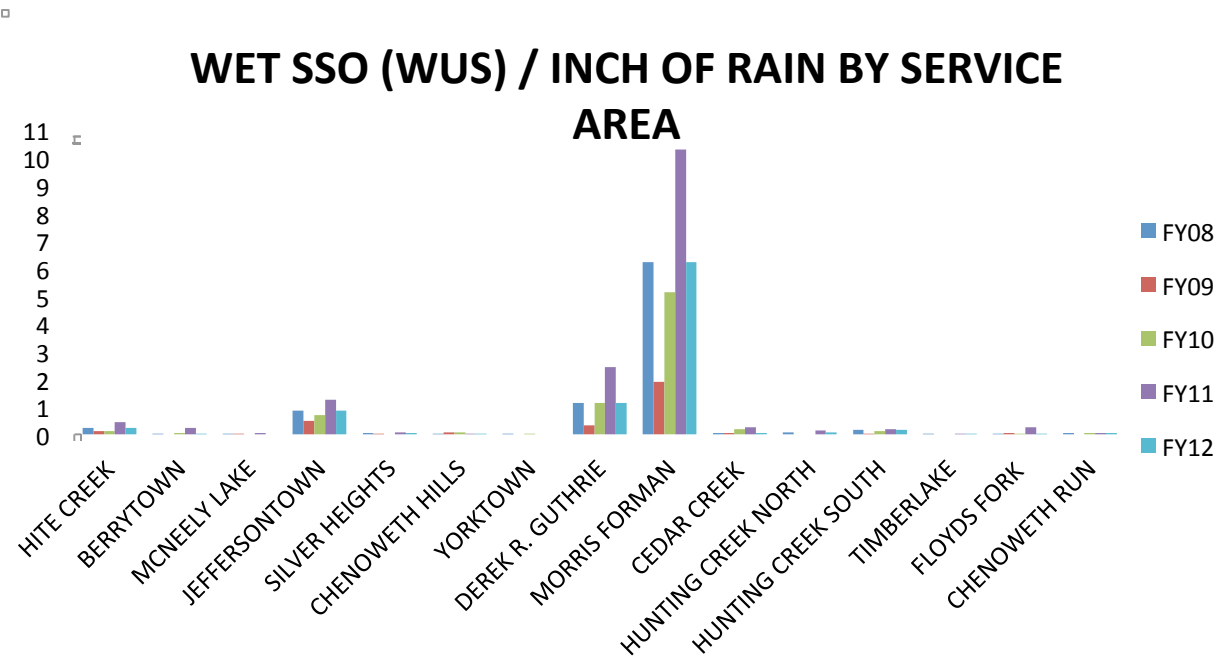
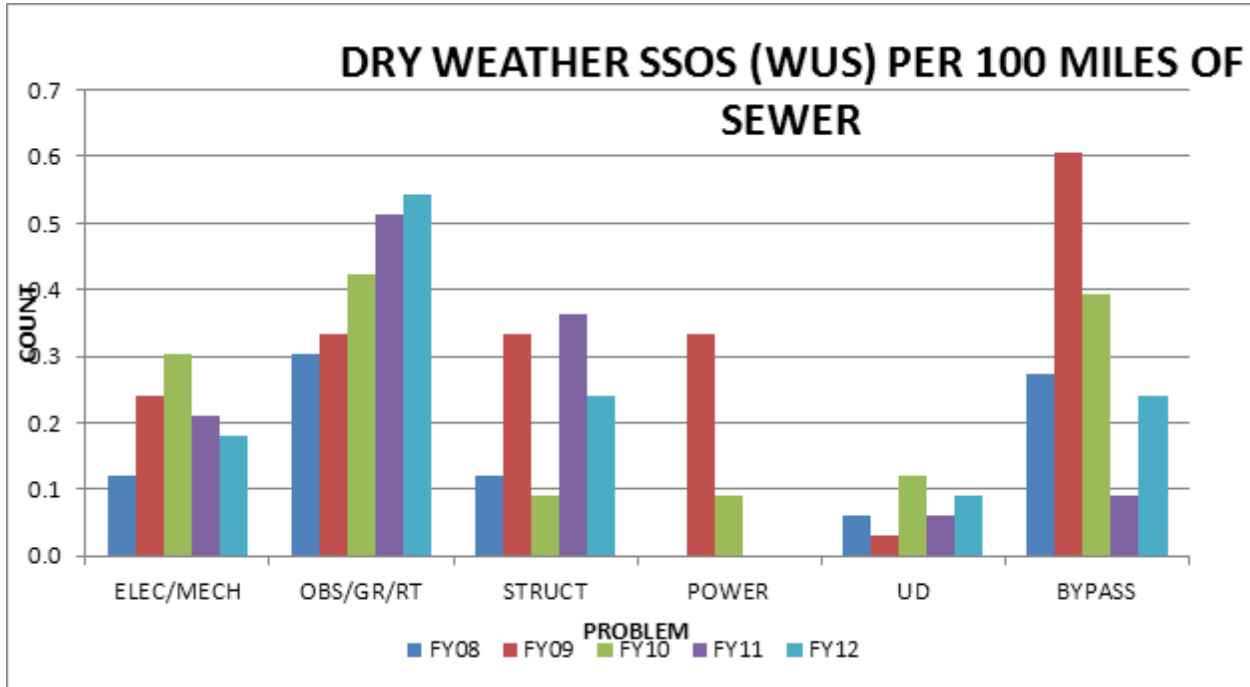
(and compared to national standards). It is shown that MSD compares favorably against benchmarks, and efforts documented in this Annual Report (CMOM, SORP, CPE, Bypass Reviews, etc.) are proving effective at reducing overflows.

Total SSOs (WUS) Per 100 Miles of Sewer



WET WEATHER SSOs (WUS) PER 100 MILES OF SEWER





SECTION 2: Program Activities for Nine Minimum Controls

2.1 Nine Minimum Controls Program Background

Per Paragraph 24.a. of the Amended 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 during FY12 are outlined below.

2.2 NMC 1: Proper Operation and Maintenance Programs

FY12 Program

Program Metrics

- Inspected and cleaned 30,255 catch basins within the combined sewer system (CSS) during FY12.
- Continued to conduct inspections of the catch basin leads within the combined sewer system and other key areas. These inspections involve testing each basin by filling it with water and ensuring it drains properly. During FY12, 7,942 catch basins were inspected.
- Continued to inspect, maintain and properly operate the CSS pump stations and the Morris Forman WQTC.
- Performed 5,338 weekly inspections on CSOs, 1,092 creek inspections, 612 siphon inspections, and initiated 483 work orders for debris removal and/or repairs as determined to be necessary to allow proper system operation during FY12.
- Flushed 584 sewer line segments in the CSS, including 55,438 feet (10 miles) of sewer lines ranging in size from 6 inches to 15 inches. Vactored 66 sewer line segments, including 17,678 feet (3 miles). Performed formula TV inspection on 828,972 feet (157 miles) of sewer lines, as part of the gravity sewer preventive maintenance program in the CSS, during FY12.
- Chemically treated 239,853 feet of sanitary sewer for roots during FY12.

- Achieved the following program metrics:

<u>Target</u>	<u>Result</u>
95% of CSOs inspected weekly.	100% Compliance - 102 CSOs were inspected weekly.
95% of flap gates inspected weekly.	100% Compliance – 14 flap gates on CSOs were inspected weekly.
95% of siphons inspected monthly.	100% Compliance - 10 siphons are inspected weekly and 7 additional siphons are inspected monthly.
95% of Debris or Repair Work Orders on CSO assets created the next work day after the inspection of the asset and open for no more than 5 days.	99.8% Compliance - 474 of 474 DEBRIS work orders and 8 of 9 CSOREP work orders created in FY12.
95% of the catch basins within the CSSA cleaned every 15 months.	100% Compliance - Currently MSD performs on a 12-month cycle.

Annual Training

- Administered annual CSO training on June 28, 2012, to CSO Inspection Personnel, Dispatchers, and Engineering Staff. Annual CSO training included modules on pump stations in the combined system, and completion of work order documentation.

Annual Asset Review and Documentation

- Continued several projects to create improved access to selected CSO sites to facilitate cleaning activities. Repaired solids and floatables control devices for five (5) CSOs. Two (2) CSOs received new on-site confined space equipment due to safety issues related to access. Implemented flow monitoring at six (6) CSOs.
- Completed construction to eliminate the Grantswood Court Siphon 17 on July 8, 2011, by redirecting the flow to a parallel system. Because of the configuration of siphons, obstructions, and consequently, overflows are more likely to occur. This project reduces the probability of an unauthorized discharge at this location.
- Completed closure activities for CSO086 on February 12, 2012, near the intersection of Spring Street and Payne Street.

-
- The flap gate downstream from CSO130, FG0010, was repaired on October 5, 2011. This repair took more than five days to complete.
 - Continuing to review catch basin areas against the CSS area and explored re-alignment to confirm that regulatory commitments of cleaning on a 15-month cycle in the CSS are being achieved.

CSSA

- Provided details on the CSSA activities for FY12 in **Appendix I: CSSA Annual Report**.

FY13 Program

Program Metrics

- Continue cleaning and inspection programs.
- Continue to report on the following program goals:
 - 95% of CSOs Inspected/Week.
 - 95% of flap gates inspected weekly.
 - 95% of siphons inspected monthly.
 - 95% of Debris or Repair Work Orders on CSO assets created the next work day after the inspection of the asset and open for no more than 5 days.
 - 95% catch basins within the CSS cleaned every 15 months.

Annual Training

- Incorporate the results of the annual field investigation to adjust and enhance the annual CSO Field training modules.
- Schedule and conduct the annual CSO field training with I&FP and Morris Forman WQTC personnel.

Asset Review and Documentation

- Continue implementation of field verification effort to determine operation and maintenance enhancements to be incorporated into annual training. This includes installing new rungs at eleven (11) CSOs and safety rails at two (2) CSOs to improve safety, and determining alternatives for solids and floatables control at CSO113.
- Continue to design and build access enhancement projects at CSO and siphon locations.
- Review the CSO Inventory schematics and revise as necessary.
- Update the CSO characterization sheets to reflect the updated and calibrated hydraulic model.

CSSA

- Evaluate sewers requiring additional and/or immediate maintenance or cleaning based upon CSSA inspection results from FY12.

-
- Define critical areas and large diameter sewers for inspection in FY13.
 - Continue to enhance the blockage abatement program. Continued implementation of the PipeLogic PACP software for internal crews.

2.3 NMC 2: Maximization of Storage in the Collection System

FY12 Program

Real Time Control Optimization

- Continued operation of Phase I and Phase 2 of the Real Time Control (RTC) system. During FY12, approximately 1147 MG were stored in the system during rain events and routed to the Morris Forman WQTC once the system was able to handle the flow. See the end of Section 1 for a detailed report.
- Continued utilization of “RTC active storage” to standardize the calculation of the volume of flow stored during wet weather events by RTC facilities.
- Completed phase 1 of an evaluation of existing and planned IOAP control facilities, pump stations, gates, and system models to determine opportunities and operational procedures to optimize the use of current and future CSO control facilities. Phase one reviewed the RTC system constructed to date and developed additional tasks to be completed during additional phases.
- Continued the RTC Phase II analytical and administrative projects.
- Continued programming of tracking mechanisms to determine the volume of combined sewage stored in the system during rain events.
- Negotiated new Csoft maintenance and service agreement contract with BPR CSO. This new contract provides MSD staff training on the programming that will staff to perform in-house program adjustments to optimize the system.

Storage Optimization

- CSO108 Dam Modification – Monitored the performance of the bending weir installed at CSO 108. Analysis of this flow data shows performance of the bending weir and adjustments to the inlet of the solids and floatables control reduces overflows to the prescribed level of control.
- Performed preliminary evaluation of opportunities for bending weirs at other CSO outfalls to reduce overflows.

FY13 Program

Real Time Control Optimization

- Continue to monitor CSOs upstream of Morris Forman WQTC to determine if physical modifications to the structures at CSO210 and CSO016 have reduced wet weather overflow.
- Begin development of strategies to implement control of the Northern Ditch Diversion, the Northern Ditch Pump Station, and flow control gates in the vicinity of the Southeast Diversion Structure.

- Begin implementation of system optimization phase 2 as suggested during the overall system evaluation completed during phase 1. This phase will look at each of the existing and planned IOAP control facilities, pump stations, gates, and system models to determine opportunities and operational procedures to optimize the use of current and future CSO control facilities.

Storage Optimization

- Continue to evaluate opportunities to raise dams and maximize storage to reduce overflow volumes and frequencies.
- Continue to plan and design for bending weir installation at strategic outfalls.



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

Period	
From :	07/01/2011
To :	06/30/2012

Event Number	Wet Weather Event			Rainfall			Wet Weather Storage Volume (MG)						High River Levels	Comments	
	Start Date	End Date	Duration	Average* TRFD (in)	Max** TRFD (in)	Rain Gauge	SWPS SG Chamber	SWOR2	Brady Lake and Executive Inn Storage	Southern Outfall	Ohio River Interceptor	Sneads Branch			Total
2011-047	07/05/2011 19:35	07/06/2011 04:05	8:30	0,15	0,17	TR04	4,5	3,0	1,7	0,8	1,7	1,3	12,9	No	High intensity rainfall on western portion of system only (TR01 - 04).
2011-048	07/09/2011 02:40	07/08/2011 19:50	17:10	0,80	1,39	TR14	3,3	2,4	0,4	1,6	2,2	1,1	10,9	No	
2011-049	07/12/2011 15:30	07/13/2011 10:00	18:30	0,56	1,06	TR11	12,6	6,2	4,2	3,7	3,2	2,2	32,0	No	Rainfall distributed over short duration (+/- 4 hours)
2011-051	07/19/2011 19:55	07/21/2011 01:35	29:40	1,26	1,76	TR14	9,0	7,5	4,2	3,7	4,0	2,8	31,1	No	
2011-055	08/07/2011 03:30	08/08/2011 08:45	29:15	1,48	1,90	TR12	9,5	7,2	5,7	3,8	4,1	2,7	32,9	No	SWGS manually controlled for portion of event.
2011-056	08/08/2011 13:40	08/08/2011 23:55	10:15	0,18	0,32	TR11	3,2	2,6	1,3	2,1	2,8	1,5	13,3	No	
2011-058	08/13/2011 18:55	08/14/2011 04:45	9:50	0,55	1,22	TR13	9,3	3,9	3,7	4,8	4,2	2,5	28,4	No	
2011-068	09/18/2011 09:05	09/20/2011 08:20	47:15	0,71	0,83	TR05	8,7	0,0	0,7	5,5	4,5	2,5	21,9	No	SWOR2 manually controlled
2011-070	09/23/2011 00:55	09/24/2011 03:55	27:00	0,82	1,01	TR14	13,7	0,0	2,5	4,8	4,2	1,2	26,4	No	SWOR2 manually controlled
2011-072	09/25/2011 19:10	09/27/2011 21:50	50:40	3,08	4,28	TR04	19,2	1,0	7,5	3,8	3,8	3,0	38,2	No	SWOR2 manually controlled
2011-073	10/13/2011 06:30	10/14/2011 01:40	19:10	0,48	0,60	TR14	3,9	1,5	0,8	3,8	3,8	0,1	13,8	No	
2011-075	10/18/2011 18:25	10/20/2011 17:20	46:55	0,65	0,79	TR13	0,0	0,0	0,2	3,0	6,0	0,0	9,2	No	SWOR2 manually controlled, Consecutive small storms with dewatering between events
2011-076	10/26/2011 07:50	10/28/2011 03:20	43:30	1,25	1,58	TR15	15,6	7,4	4,3	4,7	4,3	1,7	38,0	No	
2011-077	11/03/2011 08:25	11/04/2011 07:50	23:25	0,68	0,74	TR15	8,0	0,0	0,1	2,9	3,3	0,1	14,4	No	SWOR2 manually controlled, Consecutive small storms with dewatering between events
2011-080	11/14/2011 21:05	11/17/2011 16:10	67:05	2,14	2,42	TR14	18,8	6,3	6,5	10,3	11,0	1,1	54,0	No	Consecutive storms with some dewatering between events
2011-082	11/20/2011 03:00	11/24/2011 20:50	113:50	2,05	2,68	TR15	21,1	6,4	6,1	11,6	10,4	1,5	57,1	No	Consecutive storms with some dewatering between events
2011-083 & 084	11/27/2011 02:05	12/03/2011 05:15	147:10	3,17	3,68	TR14	25,1	10,5	8,7	10,6	8,2	2,2	65,3	Yes	SWOR2 and SWSG manually controlled, Consecutive storms with some dewatering between events
2011-085	12/04/2011 14:15	12/08/2011 14:20	96:05	2,95	3,32	TR05	28,1	12,3	8,1	5,8	4,6	2,2	61,1	Yes	Many site manually controlled
2011-086	12/15/2011 03:10	12/15/2011 20:20	17:10	0,45	0,51	TR04	7,9	0,0	0,7	3,8	3,8	0,1	16,2	No	SWOR2 and SWSG manually controlled
2011-087	12/20/2011 22:20	12/22/2011 02:50	28:30	0,65	0,80	TR14	12,8	2,8	1,8	4,7	4,2	0,6	26,9	No	SWOR2 manually controlled
2011-088	12/22/2011 10:40	12/23/2011 21:35	34:55	0,56	0,64	TR14	13,8	1,5	2,1	4,6	4,2	0,3	26,5	No	SWOR2 manually controlled
2011-089	12/27/2011 00:30	12/29/2011 00:30	48:00	0,80	0,86	TR15	14,7	1,7	3,0	6,0	4,5	0,2	30,1	No	SWOR2 manually controlled

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

Period	
From :	07/01/2011
To :	06/30/2012

Event Number	Wet Weather Event			Rainfall			Wet Weather Storage Volume (MG)							High River Levels	Comments
	Start Date	End Date	Duration	Average* TRFD (in)	Max** TRFD (in)	Rain Gauge	SWPS SG Chamber	SWOR2	Brady Lake and Executive Inn Storage	Southern Outfall	Ohio River Interceptor	Sneads Branch	Total		
2012-002	01/11/2012 04:45	01/12/2012 21:10	16:25	0,94	1,09	TR13	14,9	0,0	2,8	4,5	4,8	0,6	27,6	no	SWOR2 manually controlled
2012-003	01/17/2012 03:00	01/18/2012 11:15	8:15	0,55	0,96	TR14	13,4	0,0	1,4	4,5	4,5	0,5	24,3	no	SWOR2 manually controlled
2012-004	01/22/2012 23:00	01/24/2012 09:40	34:40	0,64	0,76	TR05	13,9	0,0	2,2	4,2	3,8	0,7	24,8	no	SWOR2 manually controlled
2012-005	01/25/2012 15:35	01/30/2012 16:05	120:30	1,82	1,98	TR05	21,0	3,6	7,5	8,7	7,0	1,8	49,7	Yes	SWOR2 manually controlled; SWPS SG chamber manually controlled during the event due to high river levels; three consecutive storm cells with dewatering between events
2012-006	02/04/2012 08:30	02/05/2012 06:45	22:15	0,36	0,41	TR14	7,2	0,2	0,2	3,1	3,3	0,1	14,1	no	SWOR2 manually controlled; SWPS SG chamber manually controlled since previous storm event as high river level continues to recede to normal levels
2012-013	02/29/2012 02:05	02/29/2012 22:35	20:30	0,57	0,65	TR11	12,6	0,0	0,8	4,2	3,1	0,4	21,1	no	SWOR2 manually controlled
2012-016	03/08/2012 09:45	03/09/2012 21:50	12:05	0,74	0,90	TR15	12,7	0,0	2,2	4,4	3,6	0,5	23,4	Yes	SWOR2 manually controlled; SWPS SG chamber manually controlled during the event due to high river levels
2012-018	03/15/2012 16:40	03/17/2012 14:30	21:50	1,04	1,19	TR15	12,8	0,0	1,9	6,6	5,4	0,6	27,3	no	SWOR2 manually controlled; two consecutive storm cells with dewatering between events
2012-019	03/17/2012 16:10	03/20/2012 12:05	67:55	0,88	1,26	TR11	14,5	0,4	3,7	4,3	3,3	0,6	26,8	no	SWOR2 manually controlled
2012-020	03/23/2012 00:10	03/25/2012 16:50	16:40	1,38	1,75	TR04	9,2	0,2	0,5	10,5	8,0	2,1	30,6	no	SWOR2 manually controlled; SWPS manually controlled - overflowing multiple times to manage (lower) rapid water level increases in SWO; consecutive storm cells with dewatering between events
2012-023	04/01/2012 07:25	04/02/2012 17:40	34:15	1,40	1,83	TR15	13,1	0,6	4,2	4,2	4,2	1,3	27,5	no	SWOR2 manually controlled with gates in open position and minimal available storage utilization;
2012-030	04/28/2012 19:55	04/29/2012 18:00	22:05	0,67	1,03	TR15	14,3	0,0	2,2	4,5	3,9	1,3	26,2	no	SWOR2 manually controlled with gates in open position and minimal available storage utilization;
2012-031	04/30/2012 15:50	05/02/2012 18:50	51:00	0,57	0,97	TR05	11,5	0,0	1,1	3,8	2,9	0,5	19,7	no	SWOR2 manually controlled with gates in open position and minimal available storage utilization;
2012-032	05/04/2012 16:50	05/06/2012 13:25	44:35	1,45	2,11	TR14	16,3	0,0	4,6	4,8	3,8	1,3	30,8	no	SWOR2 manually controlled with gates in open position and minimal available storage utilization;
2012-034	05/12/2012 21:45	05/15/2012 21:40	71:55	2,24	2,67	TR14	18,3	0,0	8,0	4,3	4,1	2,2	36,9	no	SWOR2 manually controlled with gates in open position and minimal available storage utilization;
2012-038	05/29/2012 06:55	05/30/2012 23:05	40:10	2,64	3,58	TR12	14,6	0,0	8,8	4,7	4,2	1,6	33,9	no	SWOR2 manually controlled with gates in open position and minimal available storage utilization; Many sites manually controlled;
2012-039	05/31/2012 18:50	06/02/2012 18:00	47:10	1,43	1,84	TR11	15,0	0,0	6,5	6,6	5,5	1,6	35,2	no	SWOR2 manually controlled with gates in open position and minimal available storage utilization; Some dewatering occurring at MDS during rainfall event;
2012-043	06/17/2012 12:10	06/17/2012 23:15	11:05	0,16	0,44	TR15	4,9	0,0	0,4	0,1	1,1	0,0	6,4	no	SWOR2 manually controlled with gates in open position and minimal available storage utilization;
TOTAL							502,8	89,0	133,1	193,9	179,2	48,7	1146,6		

* 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

2.4 NMC 3: Review and Modification of Pretreatment Requirements

FY12 Program

- Completed annual (FY12) NMC #3 Trunk Sewer Water Quality Data Collection effort in quarter 25 (October 1, 2011 through December 31, 2011).
- Completed review and evaluation of industrial user data (all Non-Domestic Dischargers (NDD) of concern) and trunkline sewer data contributory to CSOs to determine if the NDD discharge a disproportionate share of pollutants of concern (POC) to the combined sewer system (CSS) in quarter 26 (January 1, 2012 through March 31, 2012).
- Finalized POC, NDD, and trunkline sewer (contributory to CSOs) data analysis and modeling for FY12 in quarter 27 (April 1, 2012 through June 30, 2012).
- Finalized file report to document the findings and recommendations resulting from above efforts in quarter 27 (April 1, 2012 through June 30, 2012).
- Continued to send wet weather alerts to NDD of concern prior to rain events, reminding them of their commitment to implement voluntary controls during wet weather events. During this reporting period, the MSD service area experienced 79 measurable rain events, four events with only trace rainfall and two snow events. MSD sent email notices to NDD 114 times prior to a precipitation event. There are currently 9* NDD that voluntarily implement controls during wet weather by alternating their cleaning schedule and/or by storing wastewater during a rain event and releasing later.

**One NDD, Opta Foods, started dry production from March 7, 2011, to August 8, 2011. The industry initiated wet production periods from August 8, 2011, to September 30, 2011, and from April 3, 2012, to June 3, 2012. The company expects to run wet production 4 to 5 months each year. MSD will re-evaluate them as a NDD of concern in FY13.*

- Continued to track performance measures to quantify the effectiveness of the controls program during wet weather events. The average pollutant kept out of the CSS per typical rain event in the last 5 fiscal years was quantified with the data from wet weather logs as submitted by NDD of concern. The average results of pollutants kept out of the CSS (average of pollutant reduction per NDD per rain event) are presented in the table below.

Parameter	Average Pollutants Kept Out of the CSS per Rain Event				
	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012
Number of NDD Participating	6	7	9	9	9
Flow (gallons)	127,000	90,000	134,000	139,000	110,000
BOD (lbs)	2,640	1,300	3,860	4,310	3,910
TSS (lbs)	620	303	2,180	2,490	1,690
NH ₃ -N ⁽¹⁾ (lbs)	9	6	7	9	13

⁽¹⁾Only one industry (DD Williamson) was quantified for NH₃-N discharge.

The flow and mass of pollutants kept out of the CSS in the last 5 fiscal year was quantified based on the actual rain events when NDDs detained their flow or otherwise reduced their discharge. The table below lists the total quantity of pollutants kept out of the CSS in the last 5 fiscal years for the NDDs.

Parameter	Total Quantity Pollutants Kept Out of the CSS (FY08- FY12)				
	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012
Number of Wet Weather Days	93	79	136	130	68
Flow, gal	1,484,000	1,237,000	4,507,000	7,909,000	3,524,000
BOD, lbs	64,000	47,000	140,000	265,000	109,000
TSS, lbs	15,000	11,000	83,000	160,000	51,000
NH ₃ -N ⁽¹⁾ , lbs	38	115	47	166	166

⁽¹⁾Only one industry (DD Williamson) was quantified for NH₃-N discharge.

- Continued to include specific NMC #3 related language as appropriate, in new and re-issued wastewater discharge permits to facilities located in the CSS, as well as in all

Unusual Discharge Requests approved for discharge to the CSS. MSD re-issued 32 wastewater discharge permits to users discharging to or immediately upstream of the CSS and issued 23 Unusual Discharge Requests in the CSS during FY12.

- Conducted NMC3 site inspections at NDD facilities as part of the permit renewal process. During this reporting FY12 period, MSD conducted eight of these inspections.
- Conducted NMC3 site inspections at Significant Industrial User permittee facilities not currently in the formal NMC #3 program as part of the initial permitting or permit renewal process. These are facilities found to have little to no impact during rain events. During this reporting FY12 period, MSD conducted 32 of these inspections. MSD elected not to request implementation of voluntary controls at this time because of the limited benefit to be gained. During the inspections, MSD heightened the understanding of the CSS operation during wet weather events.
- Continued to seek out green infrastructure opportunities at NDD discharging to CSS. For example, Parallel Products, an industry within the CSS, has initiated a green infrastructure capital project.
- Continued to track performance measures to monitor the effectiveness of the implementation of NMC #3 within the Pretreatment Program.
- Initiated a comprehensive review of NDD to identify those that may be removed from the program, as well as any that may need to be added. This effort is undertaken on a three year cycle to consider changes in industrial discharges and changes in the CCS sewer system and/or water quality criteria.

FY13 Program

- Complete comprehensive review of NDDs to identify those that may be removed from the program, as well as any that may need to be added. This effort is undertaken on a three year cycle to consider changes in industrial discharges and changes in the CCS sewer system and/or water quality criteria.
- Complete annual (FY13) NMC #3 Trunk Sewer Water Quality Data Collection effort.
- Complete review and evaluation of user data of NDD of concern and trunkline sewer data contributory to CSOs to determine if they discharge a disproportionate share of pollutants of concern to the CSS.
- Determine POC, NDD, and trunkline sewer (contributory to CSOs) for FY13.
- Prepare a file report to document the findings and recommendations resulting from FY13 NMC3 trunksewer collection data.
- Continue to send wet weather alerts to NDDs of concern prior to rain events, reminding them of their commitment to implement voluntary controls during wet weather events.

MSD plans to check with their NDD's if they are reliant on receiving the MSD wet weather alert email or they can act independent of receiving MSD's email notification.

- Continue to include specific NMC #3 related language as appropriate, in new and re-issued wastewater discharge permits to facilities located in the CSS, as well as in all Unusual Discharge Requests approved for discharge to the CSS.
- Conduct NMC3 site inspections at Significant Industrial User permitted facilities not currently in the formal NMC #3 program as part of the permit renewal process.
- Discuss NMC3 program participation at each annual site inspection for Significant Industrial Users who are currently in the NMC3 program.
- Continue to seek out green infrastructure opportunities at NDDs discharging to the CSS.
- Continue to track performance measures to monitor the effectiveness of the implementation of NMC #3 within the Pretreatment Program.

2.5 NMC 4: Maximization of Flow at the Morris Forman Water Quality Treatment Center (WQTC)

FY12 Program

- Designed, bid, and awarded contract to install secondary clarifier flow meters. Construction is underway under strict schedule constraints to minimize the number of secondary clarifiers out of service. This project is scheduled to be completed during the next reporting period.
- Designed, bid, and awarded contract to replace the delaminated bottom section of the secondary bypass Parshall flume. Removal of the old flume liner revealed unforeseen conditions related to the installation of the original flume liner in 1978. MSD is working with the contractor and the replacement flume liner vendor to determine an approach to completing removal of the old liner and installing the new liner at the correct elevation without compromising the structural integrity of the channel bottom. This project is scheduled to be completed during the next reporting period.
- Initiated preliminary design of upgrades to the screening and grit removal systems for both the East and West Headworks at the Morris Forman WQTC. This preliminary design is the next step towards implementing the results of the preliminary treatment study completed in FY 11. MSD is targeting this project for completion before the commissioning of the major off-line storage basins, in anticipation of increased grit and screenings loading to the Morris Forman WQTC when the new storage basins are cleaned following wet weather events. This project is not included in the IOAP and does not have a fixed deadline for completion. Included in this project is the evaluation to replace the flow control weir gate at the West Headworks to allow a more accurate flow calculation for flow over the weir.

- Continued implementation of recommendations outlined in the Morris Forman WQTC Wet Weather Process Control Plan. Most of the recommendations are either complete or have processes underway to complete, but final implementation of all the recommendations is on hold pending completion of the secondary clarifier flow meter replacement and secondary bypass flume liner replacement, since improved flow measurement and control capability is critical to successful adoption of many of the recommendations.
- Begin preliminary engineering for the replacement of the current oxygen generation facilities.

FY13 Program

- Complete project to replace secondary clarifier flow meters.
- Complete project to replace delaminated bottom section of the secondary bypass Parshall flume.
- Update Capacity Calculator to reflect results of secondary clarifier stress testing and implement the remainder of the Wet Weather Process Control Plan following the completion of the secondary clarifier flow meter and secondary bypass flume projects. Also implement use of the algorithm developed to calculate flow under Sluice Gate 1 at the Main Diversion Structure.
- Develop the final design of the modifications to the East and West Headworks facilities.
- Complete evaluation of current role of Bioroughing Towers in Morris Forman WQTC process scheme.
- After wet weather process control plan is implemented, develop and begin tracking performance measures for maximization of treatment through Morris Forman WQTC.
- As part of the East and West Headworks design, complete the evaluation to replace the flow control weir gate at the West Headworks to allow a more accurate flow calculation for flow over the weir.

2.5.1 Morris Forman Water Quality Treatment Center

- The charts provided in **Appendix J** illustrate performance in maximizing flow to the Morris Forman WQTC. The top of the chart shows rainfall inches per day. The middle part of the chart shows Morris Forman WQTC effluent flow, secondary treatment flow, and secondary bypass flow. The bottom of the chart shows days with a CSO activation at the five CSOs in the vicinity of the Morris Forman WQTC (CSOs 015, 016, 191, 210, and 211). Note that the flow meter downstream from CSO 211 is known to be affected by backwater effects of the Ohio River, so CSO activations at CSO 211 were keyed to water levels in the Main Diversion Structure. The other CSO activations were tied to flow measurement downstream of the respective CSOs. MSD is currently investigating the impact of backwater on the other CSO flow meters to ensure that CSO volumes and activations are being measured as accurately as is practical, given the site limitations of the meter locations. The charts show the high performance of delivering flow to and

through the plant prior to active storage and overflows occurring. The following bullets describe any anomalies that are shown on the MFWQTC charts.

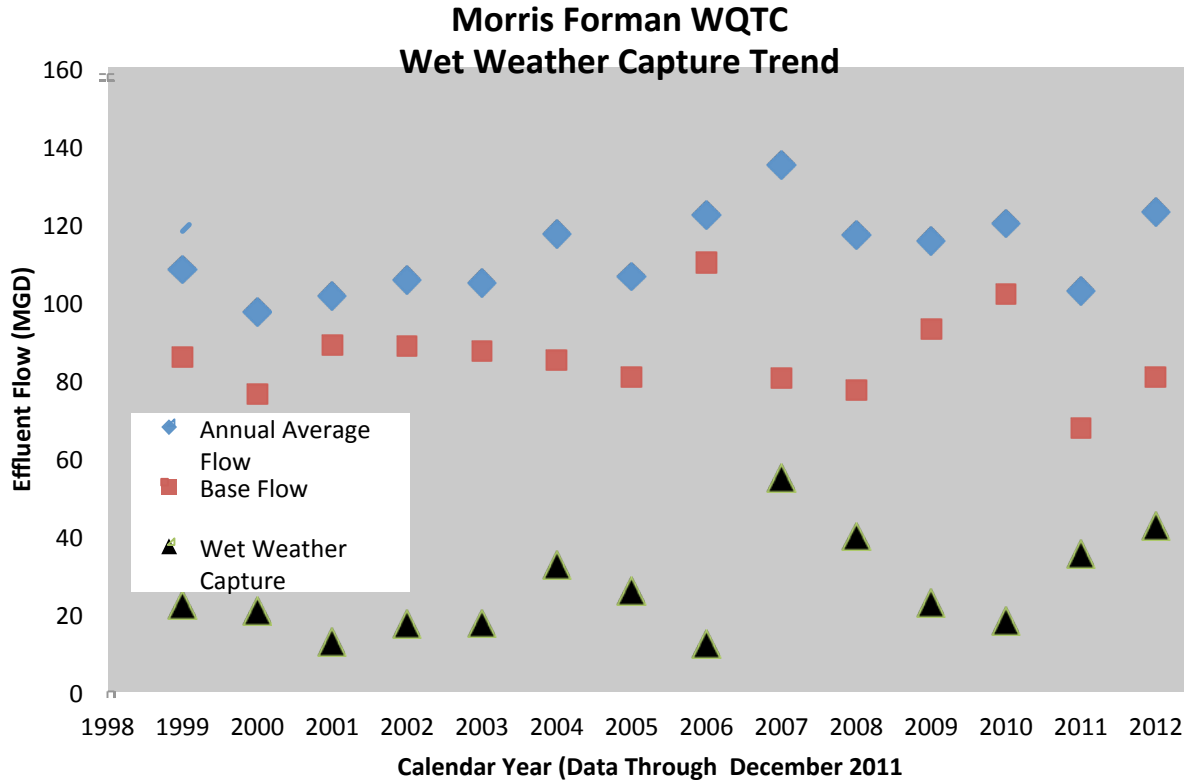
- During June 2011, one of the primary sedimentation basins was taken out of service for repairs that were completed July 6, 2011. Preventive maintenance inspections and similar repairs were required for the other three primary sedimentation basins. Basins were out of service July 13 through August 14, 2011, and August 18 through October, 2011. These repairs included cleaning, normal “wear and tear” preventive maintenance, and repair of the bottom scrapers, which are a high-wear item. With one sedimentation basin out of service, the peak flow capacity of the Morris Forman WQTC is 210 – 270 MGD, depending on sludge blanket depths. This is reflected in the reduced peak wet weather flows handled during the period of repairs.
- In October 2011, the Morris Forman staff also started a program of preventive maintenance and rehabilitation for the grit chambers in the West (old) Headworks. Two of the grit chambers were rehabilitated during this reporting period, with the third completed in January 2012. Since these inspections were conducted concurrently with primary sedimentation basin outages no further impact on plant capacity occurred.
- There were no violations of the Morris Forman WQTC KPDES permit during FY 12.

FY 13 Program

The FY 13 program for the Morris Forman WQTC is as described previously under Section 2.5.

2.5.2 Wet Weather Capture

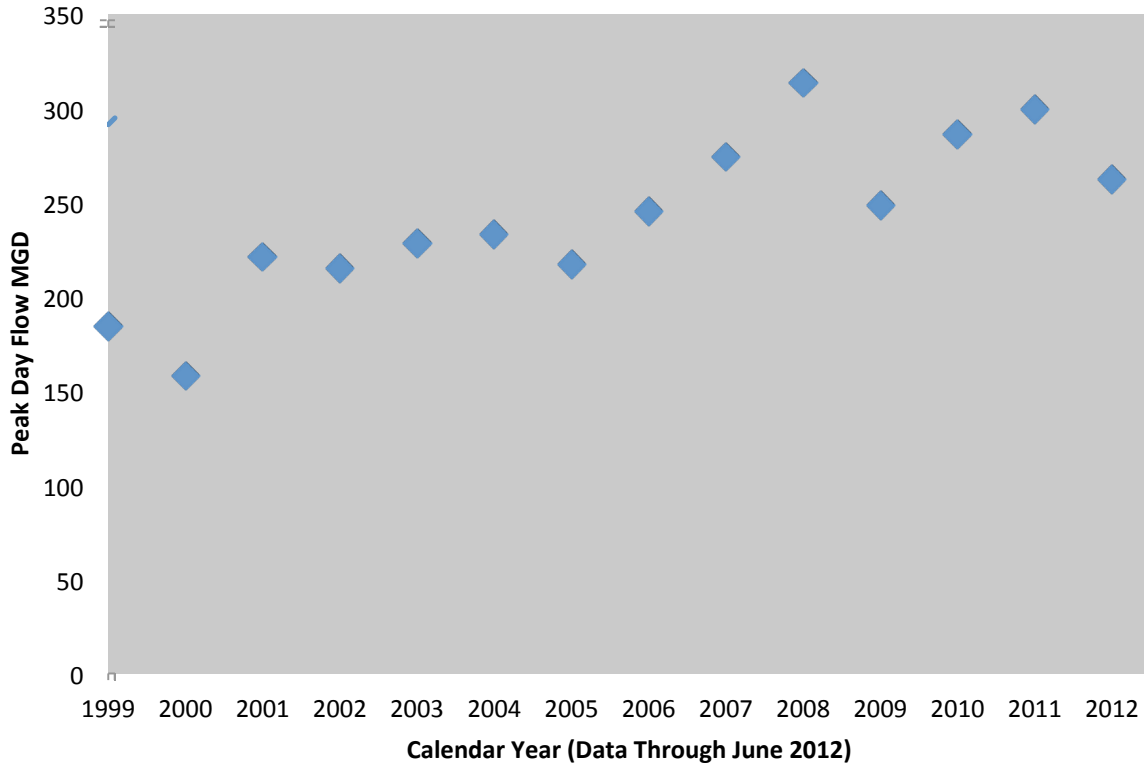
Over the past several years, the long term trend continues to show that MSD has increased the amount of wet weather flow treated at the Morris Forman WQTC. The wet weather capture is the difference between the annual average flow treated and the base wastewater flow (defined in state regulations as the lowest monthly average day flow during the calendar year). The base flow for calendar year 2011 shows a recovery from the dramatic drop in 2010 due to the record-setting drought in August and September of 2010. Overall, the long term base flow trend is flat, reflective of no significant changes in the industrial/commercial or residential customer base in the Morris Forman WQTC service area. The twelve-year trend shown in the figure below confirms that wet weather capture continues to increase. The increasing trend in wet weather capture is largely attributed to a combination of capital improvements at the Morris Forman WQTC, development of wet weather operational procedures, and implementation of RTC facilities in the CSS.



The improving trend in plant wet weather flow capture performance is also reflected in the long term trend in the maximum day flow treated at Morris Forman WQTC, as shown in the figure below. Each data point represents the maximum daily flow treated during the year. Although the instantaneous peak hydraulic capacity of the Morris Forman WQTC is 350 MGD, the sustained flow that can be treated on a daily basis is governed by a number of other factors, including the performance of the biological treatment processes.

The data trend continues to show increases in peak day flows treated, even though the peak day in the first half of calendar year 2012 is 262 MGD, compared to a peak day of 299 MGD during the record-setting precipitation of April 2011. Factors contributing to this long-term positive trend are implementation of the new wet weather SOP, and better wet weather process control at the Morris Forman WQTC. These two factors result in the Morris Forman WQTC being able to treat elevated flows for a longer period of time without jeopardizing permit compliance, resulting in more flow being treated for longer periods of time during wet weather events.

**Morris Forman WQTC
Peak Day Flow Trend**



2.6 NMC 5: Elimination of CSOs During Dry Weather

FY12Program

Flood Pump Stations

- Continued updates of the U.S. Army Corps of Engineers (USACE) Flood Operations and Maintenance Manual per staff review and to reflect changes in operations that have occurred with the IOAP projects and operational SOP improvements. This will be an ongoing task until all the projects in the IOAP are completed.
- Pumped approximately 34,800 gallons of trapped flow back into the sanitary sewer system to avoid dry weather overflows as a result of operation of the flood protection system from the 34th Street, Starkey, and 4th Street Flood Pump Stations during FY12.
- Completed design activities for the 27th Street and Shawnee Flood Pump Station (FPS) Dry Weather Overflow (DWO) Elimination projects. The Consent Decree deadline for completion of these projects is December 31, 2013.

- Completed construction of the gate automation changes at 4th Street and 34th Street PS to eliminate DWOs in “idle” mode. The Consent Decree deadline for completion of these projects is December 31, 2012.
- Implemented gate automation changes at 4th Street and 34th Street Flood Pump Stations to eliminate DWOs in “idle” mode. The Consent Decree deadline for completion of these projects is December 31, 2012.

Asset Analysis

- Performed the quarterly evaluation of dry weather unauthorized discharges 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. Some of the recommendations delivered from the inspection included: revision to the preventive maintenance of a gate at the Starkey PS, and removal of flap gate debris along the improved channel of Beargrass Creek. MSD will continue to report dry weather overflows from the CSS in accordance with the Sewer Overflow Response Protocol (SORP).
- Performed inspection and cleaning of FOG hotspots within the CSS, in accordance with CMOM commitments.
- Performed a review of Louisville Water Company SOPs and practices relative to line breaks, hydrant flow tests and line flushing that may create DWOs or storm water discharges by hyper-chlorinated releases during FY12.

FY13 Program

Flood Pump Stations

- Continue to implement additional operational and/or structural modifications at flood pump stations within the CSS to prevent dry weather overflows. Discussions with the USACE continued regarding proposed modifications to these pumping stations that will minimize dry weather CSOs due to high river levels. This will be an ongoing activity until all the IOAP projects are completed and as staff implements programmatic NMC activities. The suite of DWO elimination projects are to be completed by June 30, 2014, per the IOAP.
- Initiate design activities to implement gate automation changes for the 17th Street Flood Pump Station (FPS) Dry Weather Overflow (DWO) Elimination project. The Consent Decree deadline for completion of this project is December 31, 2014.
- Bid construction activities and implement gate automation changes at the 27th Street and Shawnee Flood Pump Station (FPS) Dry Weather Overflow (DWO) Elimination projects. The Consent Decree deadline for completion of these projects is June 30, 2013.
- Obtain final approval of the updated of the U.S. Army Corps of Engineers (USACE) Flood Operations and Maintenance (O&M) Manual. MSD staff will present changes to USACE for final approval. Once approved MSD will initiate staff training to of the new manual to reflect operational procedures and protocols revisions. The updates and revisions to the manual will be an ongoing activity as LTCP and NMC programmatic activities are completed.

-
- Continue to review SOPs for the Flood Pump Stations to reflect ongoing operational changes that occur as capital projects and NMC programmatic activities are completed.

Asset Analysis

- 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.
- Initiate a work group including members of MSD staff and Louisville Water Company staff to review protocols for hydrant flow tests to prevent any DWOs caused by hyper-chlorinated discharges. LWC processes that could cause overflows or any impacts to MSD facilities will be considered and discussed.
- Perform inspection and cleaning of FOG hotspots within the CSS, in accordance with CMOM commitments.

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

FY12 Program

Field Verification

- Continued to monitor and document performance of the CSO108 Solids and Floatables control CDS operation in accordance with the MOU with the Kentucky Nature Preserve. Two semi-annual reports of the efficacy of the CDS unit were submitted to the Kentucky Nature Preserve in FY12. Copies of the semi-annual CSO108 efficacy report are provided in **Appendix A**.
- Continued to review new S&F technologies for potential incorporation into the program.

Solids and Floatables Debris Removal

- Continued inspection and maintenance procedures for the solids and floatables structures as part of the weekly CSO inspections and PM cleaning routines, outlined under NMC #1. During FY12, 474 work orders were issued for debris removal at the solids and floatables structures.
- Continued working with staff to determine the quantity of debris and floatables captured by street sweeping, catch basin cleaning, at the headworks of the Morris Forman WQTC, and at the end of line S&F controls. Reports have been developed to capture the amount of material removed through catch basin cleaning and at the end of the line S&F controls. Results for the FY12 are shown in the table below:

Location	Approximate Amount of Debris Removed
Catch Basin and Sewer Cleaning	5,386 CY
S&F Controls and Sneads Branch	475 CY
Street Sweeping	496 Tons
Headworks of Morris Forman WQTC	6560 CY

FY13 Program

Field Verification

- Continue to observe and document the effectiveness of controls for different floatable types at selected locations. Summarize findings in the FY13 Annual Report.
- Continue to monitor and document performance of the CSO108 Solids and Floatable structure operation in accordance with the MOU with the Kentucky Nature Preserve by MSD Crews. Reports will be submitted on June 30, and December 31 annually.

□

Solids and Floatables Capture at MFWQTC



Solids and Floatables Debris Removal

- Track the volume of solids and floatables materials removed from the CSS.

2.8 NMC 7: Pollution Prevention Programs to Reduce Contaminants in CSOs

FY12 Program

- Continued coordination of activities performed by Louisville Metro such as: street sweeping, Operation Brightside (trash and litter clean-up), and other Metro pollution prevention programs.
- 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 provided 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 Ordinance (EPSC). Continued use of a tracking system for EPSC NOVs and Field Correction Notices within the CSS. In FY12, 101 field correction notices and 7 NOVs were issued for activities within the CSS.
- Continued issuance of Wastewater Discharge Permits under the Industrial Pretreatment Program.
- Continued to facilitate clean sweep events and coordinate volunteers to remove trash and debris from the waterways in Jefferson County; 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; promote Green Infrastructure initiatives within Jefferson County, such as pervious pavement and aqua pavers; and distribute a rain garden manual outlining design and installation procedures for homeowners throughout FY12.
- Continued 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.
- Executed a contract to develop Stormwater Pollution Prevention Plans (SWPPPs) for the WQTCs, major Pump Stations, and CMF.
- Continued issuance of Wastewater Discharge Permits under the Industrial Pretreatment Program.
- Distributed literature to SIUs on BMPs for prevention of pollution.
- Continued enhancement of the framework for the IOAP green infrastructure program tracking in HANSEN and Sharepoint.
- Utilized and distributed the rain garden handbook to Louisville Metro agencies and to the public in order to encourage green infrastructure.
- Applied base template plans and training modules related to Stormwater Pollution Prevention Plans (SWPPPs) at the WQTCs, major Pump Stations, and CMF.

FY13 Program

- Utilize and distribute the rain garden handbook to Louisville Metro agencies and to the public in order to encourage green infrastructure.
- Continue to track green infrastructure projects and initiatives in Hansen and Sharepoint.
- Enhance the green infrastructure BMP manual as necessary.
- Continue to track EPSC NOVs and Field Correction Notices within the CSS.
- 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.

2.9 NMC 8: Public Notification

- To reduce duplication, public notification information will be reported in **Section 5: Project WIN Program Activities for Public Outreach, Education, Notification and Participation.**

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

Please refer to **Section 4.5 - Post Construction Compliance Monitoring** for information regarding system monitoring.

SECTION 3: Program Activities for Sewer Overflow Response Protocol

3.1 SORP Program Background

Per Paragraph 24.d. of the Amended Consent Decree, MSD initially submitted the Sewer Overflow Response Protocol (SORP) to EPA and KDEP on February 10, 2006, and received comments on March 13, 2006. MSD resubmitted the revised SORP on May 12, 2006, and received an approval letter for the SORP on August 22, 2006. The most recent version is dated February 12, 2012. The approved SORP document can be viewed on the MSD Project WIN website www.msdlouky.org/projectwin. The following activities were performed during this reporting period.

3.2 Overflow Management and Field Documentation

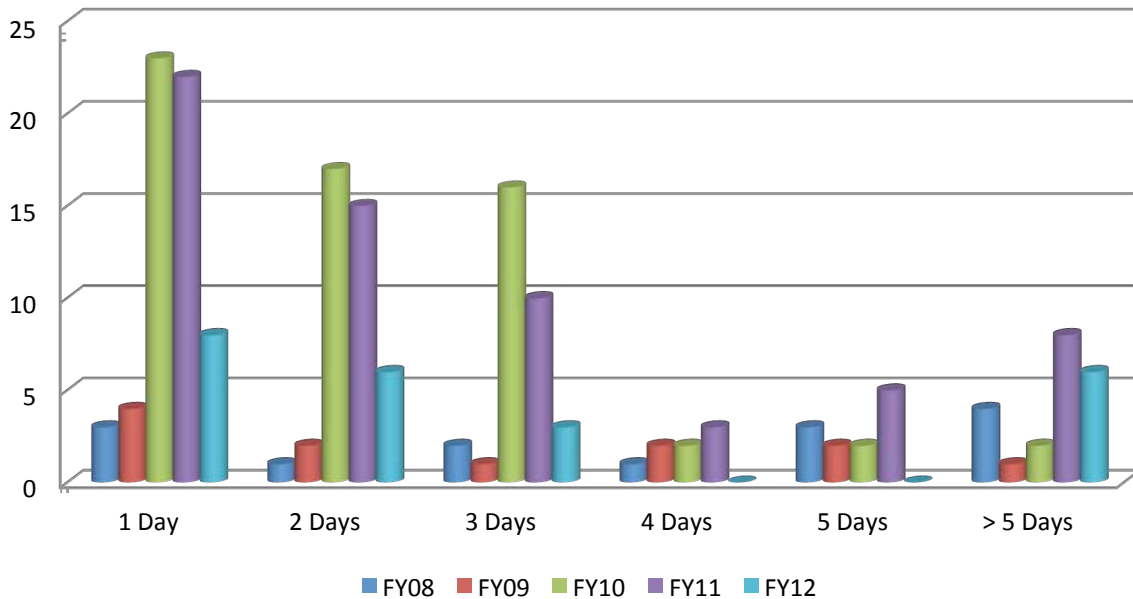
FY12 Program

- Documented a total of 850 overflows in FY12. The charts pertaining to overflows in Section 1 show these overflows broken down by Dry/Wet, Interior, Exterior, Waters of the US (WUS), and by Problem Code. Interior overflows are from MSD main line issues only, and **do not** include those that are the result of a problem on MSD's portion of the lateral. In addition, any interior overflow that is caused by a private property matter is also excluded from reporting.
- Reported 827 of the 850 overflows that reached the WUS (97%) within 24 hours.
- Reported 23 of the 850 overflows that reached the WUS (3%) more than 24 hours after the start of the event.
- Reported 36 of the 850 of the overflows that reached the WUS (4%), as a Bypass or Blending event that required an additional 5 day written report.
- Reported 16 of the 231 dry weather discharges (6.9%), each with a volume between 1,000 and 50,000 gallons.
- Reported 9 of the 231 dry weather discharges (3.8%), each with a volume greater than 50,000 gallons.

- Continued to review and enhance the SORP Implementation Manual.

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Unauthorized Discharges Reported Beyond 24-Hours



- Revised SORP Documentation and adjusted overflow/wet weather inspection routes as part of the annual SORP review. New SORP Document submitted to EPA/KDEP August 14, 2012.
- Continued daily, monthly and quarterly reviews with staff from Metro Operations, Infrastructure & Flood Protection and Regulatory Services.
- Continued to monitor overflow (SSO) sites, which have been grouped into routes based on the range of rainfall rates necessary to cause a SSO. These routes were monitored during rain events depending on the magnitude and location of the storm. If an overflow was observed, a Discharge Work Order was created to document the event. During FY12, MSD RS and Engineering staff found 270 unauthorized discharges. Eighty-one inspection routes were executed on 24 days in FY12.
- Continued to monitor over 300 sites via telemetry. There were approximately 16 sites where sewage was routinely (3 or more times per year) hauled from pump stations to prevent overflows during rain events depending on the magnitude and location of the storm. Due to capacity issues during FY12, MSD Metro Operations staff hauled over 3 million gallons of sewage.

FY13 Program

- Continue to monitor data, train staff and update information as needed.
- Continue to monitor over 300 sites via telemetry.
- Continue to haul to prevent overflows and backups during rain events until system improvements are completed.
- Continue to monitor documented collection system SSO sites, which have been grouped into routes based on the range of rainfall rates necessary to cause a SSO.
- Continue the daily, monthly and quarterly data reviews with staff from Metro Operations, Infrastructure & Flood Protection and Regulatory Services to ensure accuracy and consistency in reporting.
- Schedule additional field reviews of SORP procedures after rain events to both ensure successful implementation and to assist with the annual SORP overall review.

3.3 Regulatory Reporting and Data Management

FY12 Program

- Conducted monthly meetings with staff to perform quality control on discharge work orders.
- Conducted a monthly review of the discharge work orders and updated the associated assets in Hansen as needed.
- Performed a detailed review and trend analysis on the discharge data, incorporated the findings into the quarterly SORP training and the quarterly reports.

FY13 Program

- Continue to perform quality control on discharge work orders with appropriate staff.
- Update assets in Hansen when new overflow locations are identified.
- Continue to review the overflow data for trends. These trends are discussed with staff in the Quarterly SORP training and documented in the Quarterly Reports.

3.4 Staff Training and Communication

FY12 Program

- Facilitated the **SORP FY12 Quarterly Training**.

Key Learning Objective	Session 1 July - September	Session 2 October - December	Session 3 January - March	Session 4 April - June
Clean up and public notification	13 classes in September - 271 staff trained			
Overflow field documentation		7 classes in November, 6 classes in December - 289 staff trained		
Monitoring, staging, reconnaissance and mobilization.			12 classes in March - 256 staff trained	
Control zones, mitigation and volume estimation.				12 classes in June, 2 classes in July - 291 staff trained

- Facilitated the **SORP FY12 Annual Training** from November 2011 through December 2011. 27 training sessions were held and 661 staff/contractors attended.
- Updated the modules for each of the quarterly SORP training prior to each session.
- Enhanced the SORP Implementation Manual.

FY13 Program

- Schedule the FY12 SORP Quarterly Training as described below.

	Session 1 July - September	Session 2 October - December	Session 3 January - March	Session 4 April - June
Key Learning Objectives	Clean up and public notification	Overflow field documentation	Monitoring, staging, reconnaissance and mobilization	Control zones, mitigation and volume estimation

- Conduct the Annual SORP training in November and December 2012, for MSD staff.
- Continue to review and update the data associated with overflows.

3.5 Annual Program Review

FY12 Program

- Completed the annual SORP document review in August, 2011. The SORP Document was revised and re-organized to better reflect appropriate MSD personnel response based on annual and quarterly training.
- Reviewed and updated routes to include any new SSO locations. New routes were published on February 12, 2012, and sent to EPA/KDEP as part of the updated SORP documentation.

FY13 Program

- Perform the annual SORP review prior to August 2012. There are no major program updates anticipated at this time. Routes will be reviewed and updated to include any new SSO locations. New routes will be sent to EPA/KDEP by August 22, 2011. New routes will be published once approved by EPA/KDEP.

3.6 Public Notification and Communication

To reduce duplication, public notification information will be reported in **Section 5: Project WIN Program Activities for Public Outreach, Education, Notification and Participation.**

SECTION 4: Program Activities for Discharge Abatement Plans

4.1 Integrated Overflow Abatement Plan (IOAP)

As a requirement of the Amended Consent Decree, per Paragraph 25, MSD 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 WQTC KPDES permit, and the improvement of water quality in the receiving waters.

The Final Sanitary Sewer Discharge Plan and the Final CSO Long Term Control Plan were submitted concurrently and certified on December 19, 2008, under the title of the Integrated Overflow Abatement Plan (IOAP). The IOAP was accepted by the Federal Court and incorporated by reference into the Amended Consent Decree by an Order signed February 12, 2010, that was entered into public record February 15, 2010.

MSD submitted an IOAP modification request to EPA/KDEP on September 20, 2012, with partial approval granted via certified letter on October 25, 2012.

4.2 Sanitary Sewer Discharge Plan (SSDP)

The Sanitary Sewer Discharge Plan (SSDP) addresses the overflows and unauthorized discharges from the separate sanitary sewer system. Three separate plans have been submitted under this program as described below and outlined in Paragraph 25.a. of the Amended Consent Decree.

4.2.1 Updated Sanitary Sewer Overflow Plan 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. Activities required under the Updated SSOP have been completed.

4.2.2 Interim Sanitary Sewer Discharge Plan

MSD submitted for approval an Interim Sanitary Sewer Discharge Plan (ISSDP) on September 30, 2007. Comments were received on January 8, 2008. MSD resubmitted the revised ISSDP on March 7, 2008, and received an approval letter for the ISSDP on July 24, 2008. The approved ISSDP document can be viewed on the MSD Project WIN website www.msdlouky.org/projectwin.

4.2.3 Final Sanitary Sewer Discharge Plan

MSD submitted for approval a Final Sanitary Sewer Discharge Plan (SSDP) on December 19, 2008, as Volume 3 of the Integrated Overflow Abatement Plan (IOAP). The IOAP was accepted by the Federal Court and incorporated by reference into the Amended Consent Decree by an Order signed February 12, 2010, that was entered into public record February 15, 2010.

Prospect WQTC Elimination Projects Easement Status - A total of 38 easements have been identified that are necessary to complete the entire suite of projects related to the plant eliminations. To date, MSD has acquired 16 of these easements, and have made offers to purchase two others. The remaining 20 easement plats are still being finalized.

4.3 CSO Long Term Control Plan

The CSO Long Term Control Plan (LTCP) addresses the overflows and unauthorized discharges from the CSS. Two separate plans have been submitted under this program as described below and outlined in Paragraph 25.b. of the Amended Consent Decree.

4.3.1 Interim CSO 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. All projects associated with this plan have been completed.

4.3.2 Final CSO Long Term Control Plan

MSD submitted for approval the Final CSO LTCP on December 19, 2008, as Volume 2 of the Integrated Overflow Abatement Plan (IOAP). The IOAP was accepted by the Federal Court and incorporated by reference into the Amended Consent Decree by an Order signed February 12, 2010, that was entered into public record February 15, 2010.

4.3.3 Green Demonstration Project Update

The Final CSO Long Term Control Plan (Volume 2 of the IOAP) included 19 green demonstration projects with schedules for completion in 2010 and 2011. The 19 green demonstration projects have been certified.

4.3.4 Green Infrastructure Programmatic Activities

FY12 Program

During FY12 the following programmatic activities related to the Green Infrastructure Program occurred:

- Updated the Green Best Management Practice (BMP) manual.
- Finalized and published the Green Incentives and Savings program for private property.
- Accepted and approved applications for the urban reforestation program.
- Finalized a green tracking protocol for green infrastructure projects.
- Executed memoranda of agreement on the urban reforestation program applicants

(approximately 3000 trees included in proposals) to get on par with the 1000 tree/year IOAP commitment.

- Received MSD Board Approval for the following green partnership projects:

Board Approval Date	Project
8-Aug-11	Shakes Run Section 5B,LLC
22-Aug-11	Second & Breck, LLC, for Spaulding Student Suites
22-Aug-11	Jefferson Development Group for Outer Loop Retail Site Phase I
22-Aug-11	Young Adult Development In Action (aka Youthbuild)
22-Aug-11	Ursuline Society and Academy of Education and Sacred Heart Schools
12-Sep-11	University of Louisville for Belknap Campus
	Bioretention Eastern Parkway
	Speed School of Engineering Infiltration Trench
	UofL Laboratories Infiltration Trench
12-Sep-11	Ford Motor Company Louisville Assembly Plant
26-Sep-11	Paris/Germantown Rain Garden Green Demonstration Project
10-Oct-11	Downtown Edge, LLC/Liberty Green
10-Oct-11	JCPS Roosevelt Elementary School
10-Oct-11	Stodard Johnson Scholar House
10-Oct-11	Louisville Metro; fire Station #10 (Ashland)
10-Oct-11	JCPS Lincoln Elementary
19-Oct-11	Green Demonstration Project - Permeable Pavement Along Adams St
24-Oct-11	Nucleus Med Center 3
24-Oct-11	Cardinal Town Phase 2
24-Oct-11	Assumption
24-Oct-11	St. Bartholomew
24-Oct-11	Masonic Homes
14-Nov-11	Masonic Homes (Saplings)
14-Nov-11	Kentucky Center
14-Nov-11	Sojourn

Board Approval Date	Project
14-Nov-11	Magnolia Avenue Infiltration Trench, Contract No. 15581/E-Z Construction Company, Inc.
28-Nov-11	UPS Terminal 32 Phase 1
28-Nov-11	Flavorman
28-Nov-11	Fairdale Library
28-Nov-11	Liberty Green – Louisville Metro Housing Authority
28-Nov-11	Hyatt Regency
28-Nov-11	Bike Courier Bike Shop
9-Jan-12	Spaulding University
23-Jan-12	Eyedia Design It Again
23-Jan-12	Cobalt Ventures, LLC
29-May-12	Fairdale High School
29-May-12	JBS Swift Co.
29-May-12	Kentucky Center for the Arts
29-May-12	Advance Properties
25-Jun-12	Butchertown Green Project, CSO 130 Mitigation

FY13 Program

- Review and revise the Green BMP Manual, and Re-publish
- Participate in the Louisville Metro Sustainability Plan
- Create and publish the Green Infrastructure Program web page to outline incentives, partnerships, overflow reductions, and value.
- Advertise a second round of urban reforestation grants.
- Continue to track green infrastructure projects in the HANSEN and MSD GIS systems.
- Continue to provide incentives for green infrastructure on private property.

4.4 Activity Progress Chart

A Gantt chart showing the previous and Proposed IOAP Modification schedules (Refer to IOAP, Volume 1 – Figure 6.3.1 for the previous) for the entire program is provided below.

MSD Integrated Overflow Abatement Plan Implementation Schedule (01 Jan 2009- 31 Dec 2024)

Activity Name	Scheduled Finish	2009 IOAP Completion	2012 IOAP Modification	2009				2010				2011				2012				2013				2014				2015				2016				2017				2018				2019				2020				2021				2022				2023				2024			
				Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4												
MSD IOAP SCHEDULE	31-Dec-24	31-Dec-24	31-Dec-24																																																																
LONG TERM CONTROL PLAN	01-Jan-21	31-Dec-20	31-Dec-20																																																																
GREEN DEMONSTRATION PROJECTS	31-Dec-20	31-Dec-20	31-Dec-20																																																																
GREEN INFRASTRUCTURE DEMONSTRATION PROJECTS	31-Dec-11 A	31-Dec-11	31-Dec-11																																																																
GREEN INFRASTRUCTURE DEMONSTRATION PROJECTS	31-Dec-11 A	31-Dec-11	31-Dec-11																																																																
GREEN INFRASTRUCTURE PROGRAM	31-Dec-20	31-Dec-20	31-Dec-20																																																																
GREEN INFRASTRUCTURE PROGRAM	31-Dec-20	31-Dec-20	31-Dec-20																																																																
GRAY INFRASTRUCTURE PROJECTS	01-Jan-21	31-Dec-20	31-Dec-20																																																																
CSO 123 DOWNSPOUT DISCONNECTION	31-Dec-12	31-Dec-12	31-Dec-12																																																																
CSO 123 DOWNSPOUT DISCONNECTION	31-Dec-12	31-Dec-12	31-Dec-12																																																																
I-64 AND GRINSTEAD DRIVE STORAGE BASIN	31-Dec-20	21-Dec-14	31-Dec-20																																																																
I-64 AND GRINSTEAD DRIVE STORAGE BASIN	31-Dec-20	21-Dec-14	31-Dec-20																																																																
CSO 140 INCREASE PIPE CONVEYANCE	31-Dec-15	31-Dec-15	31-Dec-15																																																																
CSO 140 INCREASE PIPE CONVEYANCE	31-Dec-15	31-Dec-15	31-Dec-15																																																																
CSO 206 SEWER SEPARATION	30-Dec-13	31-Dec-13	30-Dec-13																																																																
CSO 206 SEWER SEPARATION	30-Dec-13	31-Dec-13	30-Dec-13																																																																
CLIFTON HEIGHTS STORAGE BASIN	31-Dec-18	31-Dec-18	31-Dec-18																																																																
CLIFTON HEIGHTS STORAGE BASIN	31-Dec-18	31-Dec-18	31-Dec-18																																																																
PADDY'S RUN WET WEATHER TREATMENT FACILITY AND OFF LINE I	31-Dec-16	31-Dec-14	31-Dec-16																																																																
PADDY'S RUN WET WEATHER TREATMENT FACILITY	31-Dec-16	31-Dec-14	31-Dec-16																																																																
PORTLAND WHARF STORAGE BASIN	31-Dec-19	31-Dec-19	31-Dec-19																																																																
PORTLAND WHARF STORAGE BASIN	31-Dec-19	31-Dec-19	31-Dec-19																																																																
STORY AVENUE AND MAIN STREET STORAGE BASIN	31-Dec-20	31-Dec-13	31-Dec-20																																																																
STORY AVENUE AND MAIN STREET STORAGE BASIN	31-Dec-20	31-Dec-13	31-Dec-20																																																																
CSO 058 IN-LINE STORAGE AND GREEN INFRASTRUCTURE CONTROL	31-Dec-14	31-Dec-14	31-Dec-14																																																																
CSO 058 IN-LINE STORAGE AND GREEN INFRASTRUCTURE CONTROLS	31-Dec-14	31-Dec-14	31-Dec-14																																																																
SOUTHWESTERN PARKWAY STORAGE BASIN	31-Dec-18	31-Dec-18	31-Dec-18																																																																
SOUTHWESTERN PARKWAY STORAGE BASIN	31-Dec-18	31-Dec-18	31-Dec-18																																																																
13TH STREET AND ROWAN STREET STORAGE BASIN	01-Jan-21	31-Dec-20	31-Dec-20																																																																
13TH STREET AND ROWAN STREET STORAGE BASIN	31-Dec-20	31-Dec-20	31-Dec-20																																																																
13TH STREET AND ROWAN STREET STORAGE BASIN	31-Dec-20	31-Dec-20	31-Dec-20																																																																
CENTRAL RELIEF DRAIN IN-LINE STORAGE, GREEN INFRASTRUCTURE AND DISTRIBUTED STORAGE	01-Jan-21	31-Dec-18	31-Dec-18																																																																
CENTRAL RELIEF DRAIN IN-LINE STORAGE, GREEN INFRASTRUCTURE AND DISTRIBUTED STORAGE	01-Jan-21	31-Dec-18	31-Dec-18																																																																
CSO 160 IN-LINE STORAGE AND GREEN INFRASTRUCTURE CONTROL	31-Dec-15	31-Dec-15	31-Dec-15																																																																
CSO 160 IN-LINE STORAGE AND GREEN INFRASTRUCTURE CONTROLS	31-Dec-15	31-Dec-15	31-Dec-15																																																																
ADAMS STREET SEWER SEPARATION	31-Dec-12	31-Dec-12	31-Dec-12																																																																
ADAMS STREET SEWER SEPARATION	31-Dec-12	31-Dec-12	31-Dec-12																																																																
18TH AND NORTHWESTERN PKY STORAGE BASIN	31-Dec-17	31-Dec-17	31-Dec-17																																																																
18TH AND NORTHWESTERN PKY STORAGE BASIN	31-Dec-17	31-Dec-17	31-Dec-17																																																																
ALGONQUIN PARKWAY STORAGE BASIN	01-Jan-19	31-Dec-18	31-Dec-18																																																																
ALGONQUIN PARKWAY STORAGE BASIN	31-Dec-18	31-Dec-18	31-Dec-18																																																																
SOUTHERN OUTFALL IN-LINE STORAGE (SOR 1)	31-Dec-18	31-Dec-18	31-Dec-18																																																																
SOUTHERN OUTFALL IN-LINE STORAGE AT 43RD ST.	31-Dec-18	31-Dec-18	31-Dec-18																																																																
SOUTHERN OUTFALL IN-LINE RETENTION (SOR 2)	01-Jan-19	31-Dec-18	31-Dec-18																																																																
SOUTHERN OUTFALL IN-LINE RETENTION AT 13TH AND WILSON AVE. (SOR 2)	01-Jan-19	31-Dec-18	31-Dec-18																																																																
NIGHTINGALE PUMP STATION REPLACEMENT AND STORAGE	31-Dec-15	31-Dec-16	31-Dec-15																																																																
NIGHTINGALE PUMP STATION REPLACEMENT AND STORAGE	31-Dec-15	31-Dec-16	31-Dec-15																																																																
LEXINGTON ROAD AND PAYNE STREET STORAGE BASIN	31-Dec-20	31-Dec-20	31-Dec-20																																																																
LEXINGTON ROAD AND PAYNE STREET STORAGE BASIN	31-Dec-20	31-Dec-20	31-Dec-20																																																																
LOGAN STREET AND BRECKENRIDGE ST STORAGE BASIN	31-Dec-17	31-Dec-17	31-Dec-17																																																																
LOGAN STREET AND BRECKENRIDGE ST STORAGE BASIN	31-Dec-17	31-Dec-17	31-Dec-17																																																																
CSO 088 STRUCTURAL MODIFICATIONS AND GREEN INFRASTRUCTURE CONTROLS	31-Dec-15	31-Dec-15	31-Dec-15																																																																
CSO 093 STRUCTURAL MODIFICATIONS AND GREEN INFRASTRUCTURE CONTROLS	31-Dec-15	31-Dec-15	31-Dec-15																																																																
CSO 108 DAM MODIFICATIONS	31-Dec-10 A	31-Dec-10	31-Dec-10																																																																
CSO 108 DAM MODIFICATIONS	31-Dec-10 A	31-Dec-10	31-Dec-10																																																																
STORY AVENUE AND SPRING STREET GREEN INFRASTRUCTURE CONTROL	31-Dec-16	31-Dec-16	31-Dec-16																																																																
STORY AVENUE AND SPRING STREET GREEN INFRASTRUCTURE CONTROLS	31-Dec-16	31-Dec-16	31-Dec-16																																																																
FLOOD PUMP STATION PROJECTS	31-Dec-14	31-Dec-14	31-Dec-14																																																																
27TH STREET FLOOD PUMP STATION	30-Jun-13	30-Jun-13	30-Jun-13																																																																
27TH STREET FLOOD PUMP STATION	30-Jun-13	30-Jun-13	30-Jun-13																																																																

Approved 2009 IOAP
 Remaining Work
 Completed Work

1 of 5

Date Date: 01-Jul-12

MSD Integrated Overflow Abatement Plan Implementation Schedule (01 Jan 2009- 31 Dec 2024)																																						
Activity Name	Scheduled Finish	2009 IOAP Completion	2012 IOAP Modification	2009		2010		2011		2012		2013		2014		2015		2016		2017		2018		2019		2020		2021		2022		2023		2024				
				Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
34TH STREET FLOOD PUMP STATION	31-Dec-12	31-Dec-12	31-Dec-12																																			
4TH STREET FLOOD PUMP STATION	31-Dec-12	31-Dec-12	31-Dec-12																																			
8 HAWNEE FLOOD PUMP STATION	30-Jun-13	30-Jun-13	30-Jun-13																																			
17TH STREET FLOOD PUMP STATION	31-Dec-14	31-Dec-14	31-Dec-14																																			
SANITARY SEWER DISCHARGE PLAN	31-Dec-24	31-Dec-24	31-Dec-24																																			
BEARGRASS CREEK MIDDLE FORK AREA	31-Dec-24	31-Dec-24	31-Dec-24																																			
GOOSE CREEK PUMP STATION	31-Dec-24	31-Dec-24	31-Dec-24																																			
GOOSE CREEK PS PH1 - DEVONDALE PS WW STORAGE	31-Dec-24	31-Dec-24	31-Dec-24																																			
GOOSE CRK PS PH2 - PS & WET WEATHER STORAGE	31-Dec-24	31-Dec-24	31-Dec-24																																			
ANCHOR ESTATES- ANCHOR ESTS PS 1 & 2 PS ELIMINATIONS	31-Dec-16	31-Dec-16	31-Dec-16																																			
ANCHOR ESTATES- VANNAH PS ELIMINATION	15-Oct-11 A	31-Dec-13	31-Dec-13																																			
HURSTBOURNE I&I INVESTIGATION & REHABILITATION	27-Dec-11 A	31-Dec-11	31-Dec-11																																			
MIDDLE FORK RELIEF INTERCEPTOR, WET WEATHER STORAGE, AND UMFLS DIVERSION 1 - BUECHEL BASIN	31-Dec-13	31-Dec-13	31-Dec-13																																			
MIDDLE FORK RELIEF INTERCEPTOR, WET WEATHER STORAGE, AND UMFLS DIVERSION 2 PS & WET WEATHER STORAGE	31-Dec-23	31-Dec-23	31-Dec-23																																			
LITTLE CEDAR CREEK INTRECEPTOR IMPROVEMENTS	31-Dec-24	31-Dec-24	31-Dec-24																																			
IDLEWOOD INLINE STORAGE	31-Dec-23	31-Dec-23	31-Dec-23																																			
BARDSTOWN RD PS IMPROVEMENTS	31-Dec-21	31-Dec-21	31-Dec-21																																			
RUNNING FOX PS ELIMINATION	05-Apr-10 A	31-Dec-10	31-Dec-10																																			
FAIRMOUNT RD PS IMPROVEMENTS	01-Jan-15	31-Dec-23	31-Dec-23																																			
FAIRMOUNT RD PS IMPROVEMENTS	24-Apr-12 A	31-Dec-23	31-Dec-23																																			
FAIRMOUNT STORAGE BASIN	01-Jan-15	31-Dec-15	31-Dec-15																																			
HAZELWOOD PS I&I INVESTIGATION & REHABILITATION	30-Jun-11 A	30-Jun-11	30-Jun-11																																			
SONNE PUMP STATION I&I INVESTIGATION & REHABILITATION	30-Jun-11 A	30-Jun-11	30-Jun-11																																			
CAMP TAYLOR SSES	09-Jul-11 A	31-Dec-11	31-Dec-13																																			
CAMP TAYLOR SANITARY SEWER #1A	31-Dec-12	31-Dec-13	31-Dec-13																																			
CAMP TAYLOR SANITARY SEWER #1B	31-Dec-13	31-Dec-13	31-Dec-13																																			
CAMP TAYLOR SANITARY SEWER #2	31-Dec-13	31-Dec-13	31-Dec-13																																			
CAMP TAYLOR #3- SEWER REHABILITATION	31-Dec-17	31-Dec-17	31-Dec-17																																			
CAMP TAYLOR #4-SEWER REHABILITATION & REPLACEMENT	31-Dec-23	31-Dec-23	31-Dec-23																																			
WOODLAND HILL PS DIVERSION	01-Apr-10 A	30-Jun-11	01-Apr-10																																			
ASHBURTON PS IMPROVEMENTS AND DIVERSION	22-Jan-10 A	31-Dec-21	22-Jan-10																																			

Approved 2009 IOAP
 Remaining Work
 Completed Work



MSD Integrated Overflow Abatement Plan Implementation Schedule (01 Jan 2009- 31 Dec 2024)																																																																			
Activity Name	Scheduled Finish	2009 IOAP Completion	2012 IOAP Modification	2009				2010				2011				2012				2013				2014				2015				2016				2017				2018				2019				2020				2021				2022				2023				2024			
				Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4																
HITE CREEK AREA																																																																			
MEADOW STREAM PS AND FORCE MAIN	31-Dec-12	31-Dec-16	31-Dec-16																																																																
MEADOW STREAM PS AND FORCE MAIN	31-Dec-12	31-Dec-16	31-Dec-16																																																																
KAVANAUGH RD PS IMPROVEMENTS	31-Dec-24	31-Dec-24	31-Dec-24																																																																
KAVANAUGH RD PS IMPROVEMENTS	31-Dec-24	31-Dec-24	31-Dec-24																																																																
FLOYDSBURG RD 30ES, REHAB AND PUMP STATION UPGRADE	17-Dec-10 A	31-Dec-10	31-Dec-10																																																																
FLOYDSBURG RD SSES, REHAB AND PUMP STATION UPGRADE	17-Dec-10 A	31-Dec-10	31-Dec-10																																																																
INTERIM SSSDP PROJECTS																																																																			
ISSDP BEECHWOOD VILLAGE SANITARY SEWER REPLACEMENT	29-Sep-10 A	27-Apr-11	27-Apr-11																																																																
ISSDP BEECHWOOD VILLAGE SANITARY SEWER REPLACEMENT	29-Sep-10 A	27-Apr-11	27-Apr-11																																																																
BEECHWOOD VILLAGE SANITARY SEWER REPLACEMENT (WEST)	29-Sep-10 A	27-Apr-11	27-Apr-11																																																																
BEECHWOOD VILLAGE SANITARY SEWER REPLACEMENT (EAST)	29-Sep-10 A	27-Apr-11	27-Apr-11																																																																
BEECHWOOD VILLAGE SANITARY SEWER REPLACEMENT	29-Sep-10 A	27-Apr-11	27-Apr-11																																																																
SINKING FORK RELIEF SEWER	23-Dec-09 A	30-Dec-10	23-Dec-09																																																																
SINKING FORK RELIEF SEWER	23-Dec-09 A	30-Dec-10	23-Dec-09																																																																
ISSDP DEREK R GUTHRIE WATER QUALITY TREATMENT CENTER	30-Jul-12	31-Dec-11	31-Oct-12																																																																
ISSDP DEREK R GUTHRIE WATER QUALITY TREATMENT CENTER	30-Jul-12	31-Dec-11	31-Oct-12																																																																
DEREK R GUTHRIE WQTC WET WEATHER TREATMENT FACILITY	20-May-12 A	31-Oct-12	31-Oct-12																																																																
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ISSDP HIKES LANE INTERCEPTOR HIGHGATE SPRINGS PS	30-Oct-12	27-Nov-12	27-Nov-12																																																																
HIKES POINT INTERCEPTOR	30-Nov-11 A	27-Nov-12	27-Nov-12																																																																
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ISSDP NORTHERN DITCH DIVERSION INTERCEPTOR	16-Feb-11 A	31-Jul-11	31-Jul-11																																																																
ISSDP NORTHERN DITCH DIVERSION INTERCEPTOR	16-Feb-11 A	31-Jul-11	31-Jul-11																																																																
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BILLOWING RD PS, FM & INT	31-Dec-12	31-Dec-12	31-Dec-12																																																																
BILLOWING RD PS, FM & INT	31-Dec-12	31-Dec-12	31-Dec-12																																																																
CHENOWETH HILLS WQTC ELIMINATION & PS IMPROVEMENTS	31-Dec-15	31-Dec-15	31-Dec-15																																																																

Approved 2009 IOAP
 Remaining Work
 Completed Work



4.4.1 Project Certification Progress

FY12 Program

The following table shows the projects completed and certified during the FY12 reporting period:

IOAP FY12 PROJECT COMPLETION DATES				
(Sorted By Date Completed)				
Budget ID	ACD Project Number	Project Name	Date Completed	ACD Date
A09226, C85017	NORTHERN DITCH DIVERSION INTERCEPTOR	NORTHERN DITCH DIVERSION INTERCEPTOR	16-Feb-11	31-Jul-11
H09197	S_PO_WC_PC11_M_07_ C	EDSEL PS I/I INVESTIGATION & REHABILITATION	27-Sep-11	30-Sep-11
H09446	L_OR_MF_191_S_12_A_ B	3RD STREET AND CAMPBELL VENTURES GREEN PROJECT (formerly JFK MONTESSORI AREA DRY WELL)	20-Dec-11	31-Dec-11
H11044	ADDITIONAL RAIN GARDEN PROJECT	BROWN-FORMAN GREEN ROOF PROJECT (formerly BARDSTOWN RD PRESBYTERIAN CHURCH GREEN PARKING LOT)	30-Dec-11	31-Dec-11
H09201	S_SF_MF_30917_M_09_ A	CAMP TAYLOR #1 - SSES	8-Jul-11	31-Dec-11
H09221	CPE/CCP MODIFICATIONS TO WQTC	CPE/CCP MODIFICATIONS TO WQTC	19-Dec-11	31-Dec-11

IOAP FY12 PROJECT COMPLETION DATES				
(Sorted By Date Completed)				
H09443	L_OR_MF_019_S_12_A	EAST WASHINGTON @ ADAMS STREET GREEN DEMONSTRATION PROJECT (formerly I-264 ON-RAMP DRY WELL)	19-Dec-11	31-Dec-11
H11460	ADDITIONAL RAIN GARDEN PROJECT	GERMAN/PARISTOWN GREEN STREET RAIN GARDEN	20-Dec-11	31-Dec-11
H09444	L_OR_MF_191_S_12_A_A	GRAWENMAYER HALL PARKING LOT (formerly the I-264 AND GIBSON DRY WELL)	20-Dec-11	31-Dec-11
H09219	S_MI_MF_NB07_S_07_C	HURSTBOURNE I&I INVESTIGATION & REHABILITATION	27-Dec-11	31-Dec-11
H09193	S_PO_WC_PC05_M_07_C	LANTANA PS I/I INVESTIGATION & REHABILITATION	29-Dec-11	31-Dec-11
H09442	L_OR_MF_189_S_12_A	SPEED ART MUSEUM INFILTRATION TRENCH (formerly the I-264 OFF-RAMP DRY WELL)	20-Dec-11	31-Dec-11
H09445	L_OR_MF_191_S_12_A_C	WILSON CROSSINGS GREEN PARKING LOT (formerly THE RUSSELL LEE DRIVE DRY WELL)	30-Dec-11	31-Dec-11
H09190	S_OR_MF_NB03_S_07_C	DERINGTON CT PS I/I INVESTIGATION & REHABILITATION	30-Mar-12	31-Mar-12

IOAP FY12 PROJECT COMPLETION DATES				
(Sorted By Date Completed)				
H08358, H11022	SOUTHEASTERN DIVERSION STRUCTURE & INTERCEPTOR	SOUTHEAST DIVERSION STRUCTURE & INTERCEPTOR	19-Apr-12	12-May-12
H08478	L_OR_MF_019_S_03_A_ B	34TH STREET FPS DWO ELIMINATION	11-Jun-12	31-Dec-12
H08477	L_OR_MF_022_M_03_A_ A	4TH STREET FPS DWO ELIMINATION	15-Jun-12	31-Dec-12

FY13 Program

The following table shows the projects to be completed and certified during the FY13 reporting period:

IOAP FY12 PROJECT REQUIRED COMPLETION DATES				
(Sorted By ACD Required Completion Date)				
Budget ID	ACD Project Number	Project Name	Date	ACD Date
H09561, H06302, H09562, H09563	DEREK R GUTHRIE WATER QUALITY TREATMENT CENTER	DEREK R GUTHRIE WQTC		27-Nov- 12
H11026, H07286, H09008, H07287	HIKES LANE INTERCEPTOR /HIGHGATE SPRINGS PS	HIKE LANE INTERCEPTOR & HIGHGATE SPRINGS PS		27-Nov- 12
H09135	L_OR_MF_172_S_09B_B_A_0	ADAMS STREET SEWER SEPARATION		31-Dec- 12
I04247	L_MI_MF_123_S_08_A_A_0	CSO 123 DOWNSPOUT DISCONNECTION		31-Dec- 12

IOAP FY12 PROJECT REQUIRED COMPLETION DATES				
(Sorted By ACD Required Completion Date)				
H09173	S_FF_LF_NB01_S_13_C_A	LAKE FOREST PS SSO INVESTIGATION		31-Dec-12
H09174	S_HC_HC_MSD1082_S_09A_C	MEADOW STREAM PS INLINE STORAGE		31-Dec-12
A09556	S_OR_MF_NB01_M_01_B	MELLWOOD SYS 1 - MELLWOOD PS & FORCE MAIN		31-Dec-12
H09126	L_OR_MF_019_S_03_A_A	27TH STREET FPS DWO ELIMINATION		30-Jun-13
H09136	L_OR_MF_189_M_03_A_A	SHAWNEE FPS DWO ELIMINATION		30-Jun-13

4.5 Post Construction Compliance Monitoring Program

Within the Integrated Overflow Abatement Plan, monitoring efforts that support the impact evaluation of both project and plan implementation are discussed in Volume 1, Section 6.5 - Post Construction Compliance Monitoring (PCCM). These efforts are incorporated into MSD’s overall environmental data monitoring and management planning and activities, which support various MSD initiatives including operational support, the Municipal Separate Storm Sewer System (MS4) program, hydraulic and water quality modeling, and a range of regulatory reporting and trending requirement. For the IOAP specifically, the PCCM efforts will allow for an evaluation of the efficacy of various projects in meeting regulatory targets and adjusting as needed.

As such, during development of the Integrated Overflow Abatement Plan (IOAP), detailed and calibrated sewer models were built to assist in analyzing hundreds of solution alternatives for sewer overflow mitigation. A large amount of data was generated within each model representing existing sewer conditions and various solutions and solution combinations throughout the various collection systems. Since the approval of the IOAP, the sewer models have continued to be refined using additional field monitoring data.

As implementation of the IOAP continues, the sewer models increasingly support critical planning and design decisions on sizing, location and operation of new facilities (storage basins, pump stations, gates, etc.) as well as reporting MSD’s compliance with the IOAP’s anticipated efficacy. The following efforts will continue in this fiscal year:

- Engineering design support
- Capacity assurance evaluations for requests for new capacity

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- Rain event analyses for regulatory reporting
 - Field survey and reconnaissance for improving hydrologic & hydraulic accuracy
 - Sewer modeling calibration using data from the expanded flow monitoring and rainfall networks
 - IOAP capital project assessment resulting from model calibration
 - IOAP capital project impact negotiation with the EPA and KDEP
 - Green infrastructure assessment for various CSO basins
 - Sewer model integration and calibration for newly connected service areas (DRG, Morris Forman, Jeffersontown WQTCs along with Prospect area and Hite Creek WQTC)
 - Model exhibit development (maps, tables, videos, schematics and diagrams)
 - Real Time Control integration assessment of new facilities
 - Two-dimensional modeling of the combined sewer system including flood protection system, Ohio River and Beargrass Creek influences
 - Post-construction compliance monitoring evaluation, conclusions and reports for completed IOAP projects to be included in the next annual report
 - Data management for historical and upcoming analyses, memoranda, reports and exhibits for utilization throughout MSD

In FY13, refinements to the PCCM program will be outlined the 2012 Integrated Overflow Abatement Plan (IOAP) Modification and will be submitted for regulatory review.

SECTION 5: Public Outreach, Education, Notification and Participation

5.1 Public Notification Program

MSD produced and distributed a number of products aimed at notifying 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 FY12 or are scheduled to occur in FY13.

5.1.1 Overflow Advisory Signs

FY12 Program

- Completed the annual sign inspection process on March 31, 2012. 1233 signs were inspected. 296 signs were replaced, cleaned or repaired.
- Completed follow-up documentation of the annual sign inspection which concluded on March 31, 2012.

FY13 Program

- Schedule the annual sign inspection process.
- Perform an annual evaluation of the sign location against the documented overflows to ensure all needed signs are in place.
- Perform an evaluation of damaged/defaced signs to determine if relocation could prevent vandalism.

5.1.2 Electronic Notifications

FY12 Program

- Notified customers who voluntarily sign up to receive email alerts regarding sewer overflows.
- Provided notification on 25 dry weather unauthorized discharges of more than 1000 gallons.
- Converted to the new Louisville Metro text/e-mail alert system to broadcast messages to the public.

FY13 Program

- Continue email alerts to customers who sign up to receive the information.
- Continue to work with the Louisville Metro alert system to increase participation in the email program, and to improve retention of those who sign up.

5.1.3 Print Notifications

FY12 Program

- Mailed 4844 Project WIN information packets to customers who called with questions about the Amended Consent Decree – specifically regarding overflows, discharges, plumbing modification and the surcharge fee.
- Distributed the annual mailing to residents within 500 feet of Beargrass Creek and Ohio River prior to May 1, 2012. A copy of the letter to residents is provided in **Appendix F**.

FY13 Program

- Continue to mail Project WIN information packets to customers who call with questions about the Amended Consent Decree – specifically regarding overflows, discharges, plumbing modification and the surcharge fee.
- Continue to send out FOG residential public outreach letters to areas that have FOG issues.
- Distribute notification and informational material, providing a general overview and awareness relating to public health impacts associated with sewer overflows and an update of Project WIN initiatives by May 1, 2013.
- Distribute, prior to May 1, 2013, the annual mailing to residents within 500 feet of Beargrass Creek and Ohio River.

5.2 Public Education Programs

MSD has developed a public education program aimed at expanding the public’s knowledge on MSD’s primary business functions of wastewater, stormwater and flood protection, with an emphasis on Project WIN Program elements. The following activities occurred within FY12 or are scheduled to occur in FY13.

FY12 Program

- Continued to re-tool public education efforts to address areas of public knowledge requiring additional effort and attention. Modifications to the public education program were implemented in FY12.
- Facilitated five tours of the waste water treatment process at the Morris Forman WQTC to groups (approximately 80 students) during FY12.

FY13 Program

- Continue to refine public education efforts to address areas of public knowledge requiring additional effort and attention. Enhancements to the Project WIN website related to public education will be updated in FY13.
- Participate in the “Water Wonders” cruise on the Ohio River. Over 500 middle school students are scheduled to attend six sessions, in which waste water treatment and non-point source pollution will be presented.

-
- Develop questions and possible responses to the 2013 public information survey to enhance the public education programs and initiatives to respond to gaps in public awareness on Consent Decree issues.

5.2.1 Radio and Television Activities

FY12 Program

- Coordinated with Metro TV (Channel 25) to develop and broadcast the **Project WIN IOAP Public Input video series** – a series of five (5) videos of project review and request for input meetings to encourage the public for input and education. The five videos were shown 48 times from September 27, 2011, to June 12, 2012.
- Coordinated with Metro TV (Channel 25) to develop and broadcast the **Downspout Disconnection Video**- a short video about how to properly disconnect your downspout and install a rain barrel. This video has aired 72 times.

FY13 Program

- Continue to utilize various media outlets, including television, radio and the newspaper, to serve as a conduit for disseminating information to the public.
- Continue coordination with MetroTV to show IOAP public input meetings and special interest material.

5.2.2 Printed Media Activities

FY12 Program

- Developed an informational flyer that provides a general overview and awareness to the public on health impacts associated with sewer overflows under the heading: “Know Where it Goes”. The flyer provides information to encourage water conservation during rain events, and proper grease disposal. This information was distributed via a 2-page full slick insert in the Sunday April 22, 2012.
- Advertised to inform the public on Project WIN activities in *Business First*, and *Louisville* magazines.
- Provided the MSD *Crosscurrents* to all elected officials, internal staff, and customers that have contacted MSD with either drainage or a back-up problem. The majority of the articles relate to Project WIN. On-line copies of *Crosscurrents* can be viewed at http://www.msdlouky.org/aboutmsd/cross/cc_spring10web.pdf.
- Provided the MSD *Update* to customers and staff each month. Project WIN related articles are contained in each issue. These publications are available on the MSD Web site. On-line versions of *Update* can be viewed at <http://www.msdlouky.org/aboutmsd/updatenews.htm>.
- Continued distribution of Rain Garden Manuals to customers.
- Published and distributed the MSD’s Annual Report to customers and staff. The Annual Report can be downloaded at <http://www.msdlouky.org/aboutmsd/annual.htm>

Reporting Period July 1 – June 30	“Update” Number of Households Reached	“Crosscurrents” Number of Households Reached	“MSD Annual Report” Number of Households Reached	Courier- Journal Number of Households Reached
2010-11	155	~9,000 (+ 200 internal)	~6,000	~700,000
2011-12	165	23,668	-	~700,000-

FY13 Program

- Continue to send the MSD *Update* to customers and staff each month.
- Continue to send the MSD *Crosscurrents* to customers and staff.
- Continue to send MSD’s Annual Report to customers and staff each year.

5.2.3 Project WIN Website

FY12 Program

- Continued 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. This website can be found at www.msdpwin.org.
- Deployed a new page titled *How you can help*. This new page includes information on how individuals can help reduce sewer overflows and make a positive impact on stream water quality during their daily activities. This page was made available in May, 2012, at <http://www.msdpwin.org/How-You-Can-Help.aspx>.
- Initiated planning for a new Project WIN website to provide more user friendly format. The new web page will include educational and regulatory materials, information on behavioral changes, a page for children, and information on Project WIN programmatic activities.
- Initiated planning of an IOAP project interactive map application for public use. Mapping will be programmed to show IOAP projects, status, and project fact sheets.



FY13 Program

- Continue to post Project WIN information on the website.
- Finalize and deploy the enhanced and updated Project WIN website.
- Develop content and format for a Green Infrastructure Program web site.
- Deploy the interactive IOAP project map application.

5.3 Public Outreach Programs

MSD has developed a public outreach program aimed at involving the public on MSD's primary business functions with emphasis on wastewater, storm water and flood protection. The following activities occurred within FY12 or are scheduled to occur in FY13.

5.3.1 Green Infrastructure Workshops and Activities

FY12 Program

Presented, attended, and/or facilitated the following meetings/workshops related to Green Infrastructure:

- July 14, 2011 – Old Louisville Property Improvement Committee Mtg. – Discussed green program, IOAP, flooding. 20 people.
- August 15th, 2011 - Germantown Neighborhood – Rain Garden topic – 35 people
- August 22, 2011 – Federal Building Green Roof/Green Parking Lot Press Conference – 20 people, shown on Metro TV.
- September 9th, 2011 – Presentation to the Spalding University Board of Directors – green program topic, 30 people.
- October 5, 2011 – Sustainability Forum, 25 people, green program, IOAP
- October 11th, 2011 - Green Convene – 15 people, discussed green program, How you can help.
- October 18, 2011 – Sustainable Clifton – Rain barrels/green – 25 people
- October 27, 2011 – Tyler Park Neighborhood Meeting – IOAP/Green - 30 people
- November 15, 2011 – UPS Green Team Meeting – Green, 40 people
- December 5, 2011 – East Market Street Meeting – green, 25 people
- January 25th, 2012 - WEA Watershed Seminar - Green – 60 people
- January 25, 2012 – Louisville Green Building Presentation – IOAP/Green – 40 people
- January 30, 2012 - Old Louisville Property Improvement Committee Mtg. – Discussed green program, IOAP, flooding. 20 people.
- February 1st, 2012 - Butchertown Neighborhood Association – Green/IOAP – 15 people
- February 21st, 2012 - Payne St. Rain Barrel Pilot Public Meeting – 30 people
- February 29th, 2012 - University of Louisville Sustainable Infrastructure Class – IOAP/Green Program, 30 people

- March 19th, 2012 - Paris Germantown Neighborhood Association – Green Program/Rain Garden – 30 people
- March 21st, 2012 - Stormwater Mgmt Seminar @ Girl Scouts Headquarters – IOAP/Green - 70 people
- March 31, 2012 – Rain Barrel Installation Event – Rain Barrels/Green – 30 people
- April 4th, 2012 - Metro TV—Paris Germantown – IOAP/Green - 5 people, Metro TV coverage
- April 12th, 2012 - Construction Specification. Institute Presentation – IOAP/Green – 25 people
- April 24, 2012 – Payne Street Rain Barrel Event – Green/Rain Barrels – 15 people
- April 25th, 2012 - Metro TV Demo—Rain Barrels – Green /Rain Barrels – 5 people – Metro TV coverage
- May 9, 2012 – Louisville Loop Bus Tour – IOAP/Green – 30 people
- May 10, 2012 – Presentation to the Louisville Metro Council Sustainability Committee – IOAP/Green/Rain Barrels – 15 people, Metro TV coverage
- May 17, 2012 – NULU Stakeholder Meeting – Green/IOAP – 25 people
- May 21, 2012 – Ascension School – storm water, IOAP, green, enviroscape – 100 students
- May 30, 2012 – Green Panel Discussion – Green/IOAP – 20 people
- May 31st, 2012 - EWB Outreach – downspout disconnection – 15 students
- June 20, 2012 – Green Workshop to Louisville Metro Staff – Green/IOAP – 15 people
- June 28, 2012 – Sustainable Living Fair – Green/Rain Barrels – 5 people – Aired live on WDRB TV Morning Show.
- June 29, 2012 – Sustainable Living Fair – Rain Barrels – 25 people

FY13 Program

- Schedule rain garden workshops at various times throughout the year.
- Begin planning for additional signage for green demonstration sites and green partnership locations in FY13.
- Continue planning of internal and external workshops explaining the Green Infrastructure Program.

5.3.2 Clean Streams Workshops and Activities

FY12 Program

- Assisted Living Lands and Waters with an Ohio River Clean Sweep on May 12, 2012.
- Facilitated the Ohio River Sweep at the Louisville riverfront on June 16, 2012.

FY13 Program

- Continue to facilitate stream cleanup events and workshops
- Work with Beargrass Creek Alliance to mark catch basins in critical areas.

5.3.3 Outreach Activities for Students

FY12 Program

Attended or presented at the following student based events:

- KY Construction Career Day (1 day) – MSD presented (green house, booth materials on multiple MSD departments). 20-25 MSD staff involved and several hundreds of high school students to showcase construction careers.
- Earth Day at Indian Trail Elementary (1 day) – MSD used the Enviroscape model to teach kids about key messages. 2 MSD staff involved and approx. 200 students attended.
- Spirit of Jefferson Water Wonders Field Trips- (8 days) MSD used the Enviroscape model to teach kids about key messages. 2-3 MSD staff per day and approx. 780 students attended.
- Adventures in Water- (3 days) MSD presented to school kids about benefitting stormwater quality, pollution and other key messages. 1 MSD staff per day and approx. 375 students attended.

FY13 Program

- Work with partners to maintain the outdoor classrooms at: Brandeis Elementary, Jeffersontown Elementary, DuPont Manual High School, and the Floyds Fork WQTC.
- Assist, as requested, the Environmental Magnet School program development for Portland and Cane Run Elementary Schools.
- Continue support for Eastern High School's Environmental Program at Floyds Fork WQTC.
- Coordinate with Parklands of Floyds Fork on possible educational partnerships at the Floyds Fork WQTC.
- Continue working with Fairdale High School to design and construct a green infrastructure project on campus.

5.3.4 IOAP Project and Program Meetings

FY12 Program

- Provided information to the WWT through the Project WIN website, at www.msdlouky.org/projectwin.
- Conducted Stakeholders Group meetings on November 29, 2011, and May 8, 2012. At these meetings MSD provided updates on capital projects, green initiatives and public outreach efforts. The implementation schedule was reviewed, and the status of current and upcoming projects discussed.
- Conducted a sewer overflow abatement project review and input meeting on Tuesday, September 27, 2011. Staff was available to speak about specific projects and programs. Presentations were given on the Integrated Overflow Abatement Program (IOAP) progress to date and status of three IOAP projects currently in design.

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- Presentations were given on the following topics:
 - IOAP Program Overview
 - Logan Street CSO Basin
 - Jeffersontown Water Quality Treatment Center Elimination
 - Prospect Water Quality Treatment Centers Eliminations
 - These video presentations were also shown:
 - Billtown Road Interceptor and Pump Station
 - Derek R. Guthrie Water Quality Treatment Center Expansion
 - Federal Building/GSA Green Infrastructure Partnership
 - Facilitated a sewer overflow abatement project review and input public meeting on January 24, 2012. The meeting included formal presentations on these topics:
 - Proposed IOAP 2012 modification, including specific combined sewer overflow (CSO) and sanitary sewer overflow (SSO) project modifications;
 - I-64 and Grinstead Drive storage basin project update and request for public input; and
 - Individual issues and/or concerns with DRG WQTC and Hite Creek Action Plans and other sewer overflow abatement projects currently in planning, design, construction and drainage.
 - Facilitated IOAP meetings to discuss the proposed IOAP 2012 modification and select project updates. Meetings were held across the community on the following dates and locations:
 - May 10, 2012 – NIA Center – 2900 West Broadway – Discussed IOAP Overview, 18th and Northwestern Parkway Basin, Paddy’s Run High Rate Treatment Project, and SOR1 and SOR2 Projects.
 - May 15, 2012 – Jeffersontown Community Center – 10617 Taylorsville Road – Discussed IOAP Overview, Billtown Road Project, and the Jeffersontown WQTC Elimination Project.
 - May 17, 2012 – Harrods Creek Fire Department – 8905 US Hwy 42 – Discussed IOAP Overview, and the Prospect WQTC Elimination Plans.

FY13 Program

- Inform the WWT on the progress of the IOAP by hosting two WWT meetings per year. A WWT meeting will be held prior to December 31, 2012, and a second meeting will be held prior to June 30, 2013.
- Continue to provide information to the WWT on the Project WIN website, at www.msdpjprojectwin.org
- Continue to facilitate and document IOAP Project Review and Public Input Meetings

SECTION 6: Capacity Management Operations and Maintenance (CMOM) Annual Report

6.1 Capacity Management Operations and Maintenance Program Activities

Per Paragraph 24.c of the Amended 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 during FY12 are outlined below.

6.1.1 Management Programs

6.1.1.1 Table of Organization - *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.*

M-A-1 Organizational Chart

M-A-2 Relationship to other Departments

FY12 Program

- Updated the MSD Organizational Chart on a quarterly basis and posted to the MSD Intranet. See **Appendix H** for the latest version.
- Carried 652 approved positions at the beginning of FY12 and 656 approved positions at the end of FY12. This is an increase of 4 full time positions.
- Carried 25 vacant positions at the beginning of FY12 and 24 vacant positions at the end of FY12.

FY13 Program

- Continue to hire staff to fill vacant positions.

6.1.1.2 Training Programs - *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.*

M-B-1 Technical Training

M-B-2 Skills Training

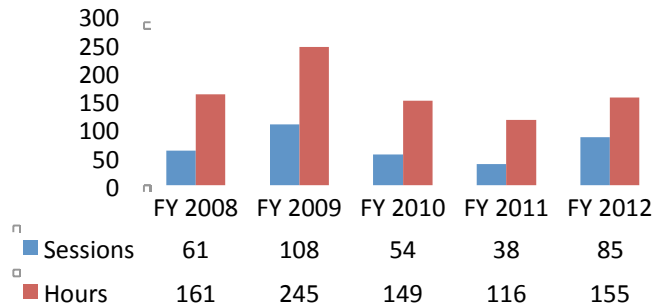
M-B-3 Safety Training

FY12 Program

Performed training on the following initiatives through the course of FY08-FY12:

Administrative Training

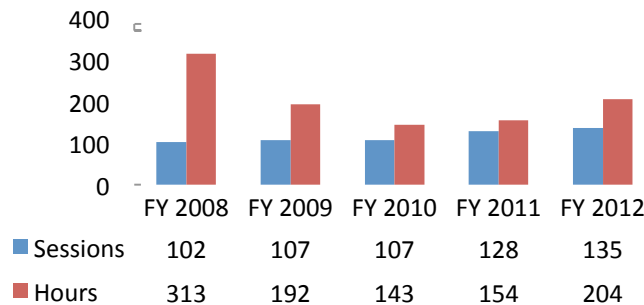
Administrative Training



- Administrative Training sessions include such topics as New Employee Orientation, Organizational Policies, Leadership, and HR related topics. In fiscal year 2009, MSD implemented a new time & attendance system. Training related to this implementation accounts for the unusually high level of training activity in this area.

Collection System Training

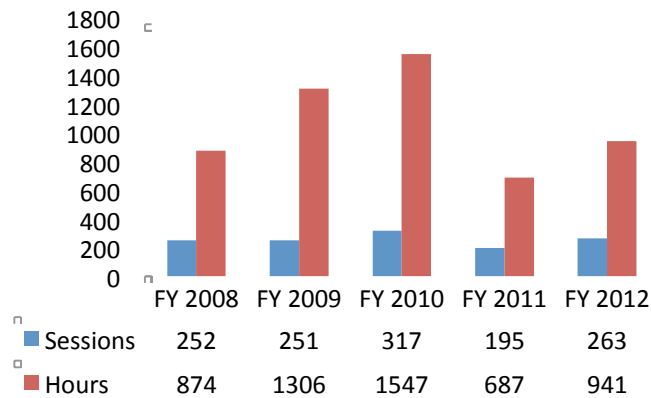
Collection System Related Training



- Collection System Training sessions include areas such as Sewer Overflow Response Protocol, Pump Station Preventive Maintenance, Sewer Clean & Maintenance, and Pipeline Assessment & Certification Program Code training.

Equipment Training

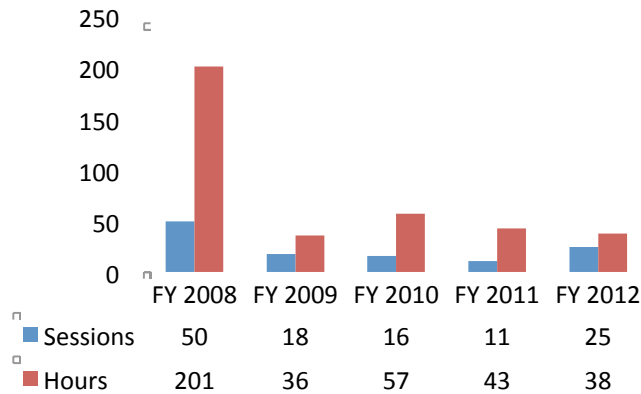
Equipment Training



- Equipment training primarily includes heavy equipment that enables employees to maintain and operate the collection system, pump stations and treatment plants. Examples include training on mini-excavators, sewer cleaners, cranes, forklifts, and backhoes.

Reporting

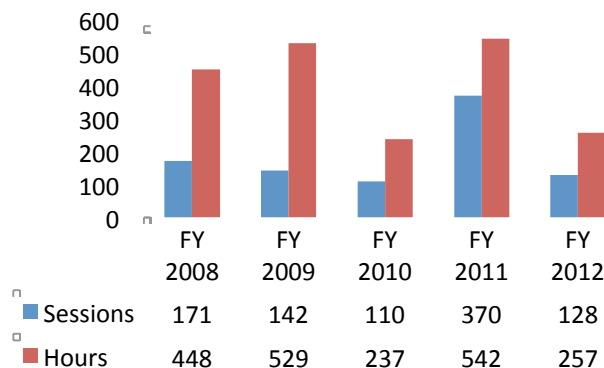
Reporting Related Training



- Training related to reporting includes wastewater operator log book protocol, Hansen data entry, Discharge Monitoring Reporting, Accident reporting and training for software applications that support various types of reporting. In fiscal year 2008 there was an emphasis place on improving employee skill with Microsoft Excel, thus the unusually high number of sessions and hours for that year.

Safety Training

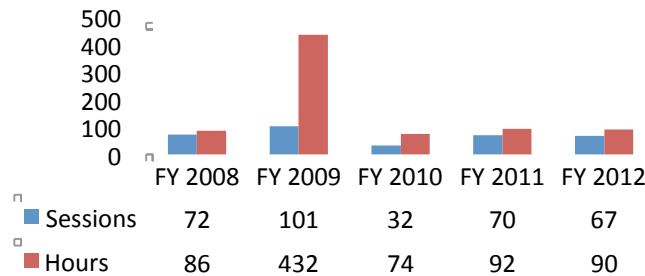
Safety Related Training



- MSD employees receive safety training in such areas as Confined Space Entry, Bloodborne Pathogens, Hazmat, Lock Out Tag Out, to name a few. Safety is also incorporated into all equipment training modules.

Wastewater Operations Training

Wastewater Process Related Training



- This training focuses on knowledge and skills related to wastewater treatment process and control. Topics include Sampling, Operator State License Exam Preparation; Process related Math, and Lab Practices.

FY13 Program:

- Review training modules that are anticipated to be delivered in the coming year to validate that the training content mirrors any upgrades or enhancements made to actual operations or practices.
- Place additional training materials on MSD's intranet to increase access to training content.
- Deliver training to relevant staff as SOP's related to construction of the Derek Guthrie Water Quality Treatment Center are issued.

6.1.1.3 Safety Programs - *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.*

M-C-1 Safety Committee

FY12 Program

- Conducted quarterly meetings with the Safety Committee. This Committee includes three IFP representatives, Morris Forman WQTC representatives, and Metro Operations representatives.
- Performed random job site inspections, inspections at Morris Forman WQTC, and quarterly inspections with Metro Operations of WQTCs and Pump Stations.

FY13 Program

- Continue Safety Committee meetings to perform inspections and review policy and incidents. Address safety concerns presented by safety committee members.

M-C-2 Confined Space Entry

FY12 Program

- Conducted confined space entry training in accordance with the OSHA Confined Space Entry standard 29 CFR 1910.146 for new employees, and on an "as needed" basis for existing employees who have job descriptions requiring confined space entry.
- Maintained entry equipment and personal protective equipment to provide for safe entry conditions and to maintain compliance with 29 CFR 1910.146.
- Contracted with vendor to conduct repeating annual inspections on confined space entry equipment such as tripods, wenches, and harnesses.
- Advised personnel on the purchase of multi-gas monitors to replace older models that will no longer be maintained.
- Ensured that all "Lift Stations" in Metro Ops were correctly labeled as "Confined Spaces" and not "Permit Required Confined Spaces".

FY13 Program

- Continue to administer training and monitor procedures on confined space entry in order to maintain compliance with 29 CFR 1910.146. Health & Safety personnel will spot check confined space entries to determine compliance with company procedure.
- Continue to ensure that all "Lift Stations" in Metro Ops are correctly labeled as "Confined Spaces" and not "Permit Required Confined Spaces" and that all new stations are properly labeled when installed.
- Continue to advise personnel on the purchase of multi-gas monitors to replace older models that will no longer be maintained or manufactured.

M-C-3 General Safety Procedures

FY12 Program

- Established various general safety procedures based on both 1910 & 1926 OSHA regulations, input from internal personnel, and on the specific needs of the district in order to maintain regulatory compliance and provide safe working procedures for employees.

-
- Conducted fire drills at the Main Office, Central Maintenance Facility, and Morris Forman Water Quality Treatment Center.
 - Conducted 8-hour refresher training on Hazardous Materials for the Emergency Response Teams
 - Conducted fire extinguisher training district wide.
 - Conducted annual audiograms district wide.

FY13 Program

- Continue to assess the need to update existing procedures and/or create new procedures as conditions and regulatory requirements dictate.
- Conduct 8-hour refresher training on Hazardous Materials for the Emergency Response Teams
- Conduct fire extinguisher training district wide.
- Conduct annual audiograms district wide.
- Schedule 40hr HAZ-MAT Technician Level training for newly hired employees.
- Conduct training with employees on the new OSHA Hazardous Communications Standard to include Globally Harmonized Systems for material safety data sheets and container labeling.

M-C-4 Traffic Management

FY12 Program

- Purchased and maintained traffic control equipment to reduce hazardous operational exposure. MSD provides training on traffic control through licensing and equipment operating training as employees are hired or their job duties require.

FY13 Program

- Continue to train on traffic control and continue to review existing traffic control equipment to ensure continued compliance with MSD standards.

M-C-5 Lock Out/Tag Out

FY12 Program

- Enhanced lock out and tag out procedures as required by the OSHA Control of Hazardous Energy standard. Procedures are kept, maintained and communicated to employees.

FY13 Program

- Develop lock out/tag out procedures as equipment is added or replaced, or as processes are changed.
- Work with staff at Morris Forman WQTC staff to enhance existing program by reviewing existing procedures and converting the procedures to an electronic database that can be accessed at any time to view procedures as needed prior to performing a lock out.

M-C-6 Safety Equipment

FY12 Program

- Continued to provide required personal protective equipment to employees at no cost to the employees themselves.
- Directed the replacement of Self Contained Breathing Apparatus air cylinders across all divisions based on equipment expiration dates.

FY13 Program

- Maintain safety related equipment or replace the equipment per governing policies or as the need arises.
- Complete the replacement of Self Contained Breathing Apparatus air cylinders across all divisions based on equipment expiration dates.

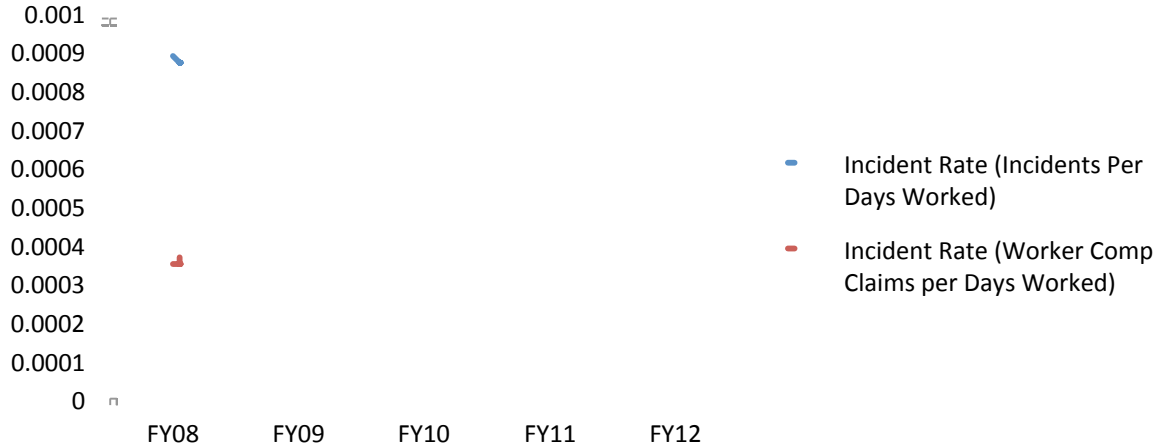
M-C-7 Performance Measures

FY12 Program

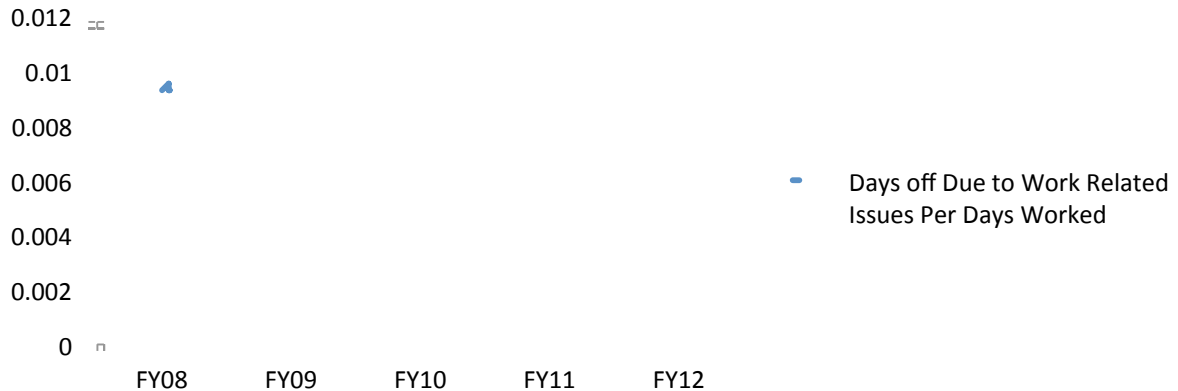
- Assisted with OSHA inspections. There were no MSD construction site visits from OSHA, which resulted in no NOVs. There were no fines assessed.
- Tracked the following safety/worker compensation metrics for MSD employees:

5- Year Safety Performance				
	Days worked (8 Hours)	Safety Incidents	Worker Comp Claims	Days off due to work related issues
FY08	142243	126	47	786
FY09	130943	110	43	1277
FY10	146499	109	40	623
FY11	151272	121	52	1317
FY12	151605	94	58	773

Safety Performance Rate Trends



Days off Due to Work Related Issues (Per Total Days Worked) Trend



- Ensured that appropriate staff attended mandatory training on: Trench Training, Confined Space, First Aid, Hazmat Response and Fire Extinguisher usage.

FY13 Program

- Enhance compliance objectives based on NFPA 70E (Arc Flash) by conducting an initial arc flash study at one of the flood pump stations in service.
- Maintain field inspections conducted to reduce the number of incidents.
- Continue to review existing crane equipment in use at MSD and determine needs in order to ensure compliance with the revised OSHA Crane Standard.

6.1.1.4 Utility Information Management Systems - *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.*

- 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**

FY12 Program

- Provided network availability 24/7, 356 days per year.
- Continued enhancement of The Project WIN website with updated information related to the Amended Consent Decree. Some of the general statistics for these sites include:

Metric	FY11	FY12
Number of Visits :	139,919	89,753
Average Number of Visits per Day:	383	380
Average Visit Duration :	31 Min	20 Min
Number of Unique visitors :	38,371	31,387
One time visitors:	28,822	23,115
Repeat visitors:	9,549	8272
Average Visits per visitor:	3.65	2.85

- The top 5 files downloaded during FY12 (by non-MSD employees) were:
 - Consent Decree Fiscal Year 2010 Annual Report
 - Volume 1 - Integrated Overflow Abatement Plan Approach
 - Louisville and Jefferson County System Capacity Assurance Plan (SCAP)
 - Jeffersontown IOAP Meeting Minutes/Presentation
 - Project WIN Quarterly Report 21
- Maintained a helpdesk system to track and respond to requests from users.
- Utilized a wide variety of software to operate the day to day business activities associated with wastewater collection, conveyance and treatments. The major Utility Information Management (UIM) applications, is shown in the chart below.

Utility Information Management (UIM) Applications
eB
GIS
Crystal Reports
EGIS
Hansen
InfoWorks
LIMS
OneRain
Performance Measures
SAP
SCADA
Telog
GPS

- Upgraded the EGIS application to newer web standards and enhanced the information shown.
- Continued to upgrade/migrate the Hansen management system to the latest release (Version 7.7 to Version 8.2.3)
- Implemented a vehicle tracking system which used GPS and cellular technology for supervisors and dispatch.
- Migrated from Novell’s GroupWise email stem to Microsoft’s Office 365 Exchange/Outlook in the cloud to improve email reliability and availability for disaster recovery.
- Sent notifications to the 286 people requesting information on overflows, and 207 people signed up for meeting notifications.

FY13 Program

- Continue to post information on the Project WIN website and upgrade the look and feel to improve its layout and functionality.
- Continue to upgrade systems and performance with server and network upgrades.
- Continue the Hansen 8 conversion project with an expected “go-live” date near the end of March 2013.
- Continue to enhance the SharePoint site with additional data.

6.1.1.5 Engineering Programs -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 WQTCs. 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 a system capacity assurance plan (SCAP).

M-E-1 Collection and Transmission System Plans

M-E-2 System Inventory

M-E-3 Mapping

FY12 Program

- Scanned construction plan sheets into the eB imaging system. 118 projects were added to eB.
- Captured assets in the GIS and asset management software. Approximately 704 property service connections and 28,484 feet of sewer were added.
- Received data correction sheets from field staff.
- Completed the WQTC equipment inventory in Hansen and trained operations staff on the use of the software.

FY13 Program

- Continue to scan plans and update data in the GIS and asset management software from the collection and transmission plans.
- Continue the development of the HARP application.

M-E-4 Sewer System Design

FY12 Program

- Implemented changes and re-published the design manual.
- Planned training on the green infrastructure review and inspection process.
- Posted the revised Design Manual to the MSD website. Updates to the manual will occur as needed.
- Continued use of new Autocad templates to the MSD public Web page, including new AutoCad 3D templates, for use by private firms as well as in-house design.

FY13 Program

- Continue implementing the program to finance replacement of private sewer service lines at property owner request.
- Continue to review and update the MSD design manual.
- Administer training on the green infrastructure review and inspection process.

M-E-5 Sewer Construction
M-E-6 Construction Inspection
M-E-7 Acquisition Considerations

FY12 Program

- Financed capital expenditures of **\$120,168,551** (includes capitalized project management and administration costs).
- Committed professional services funds of \$13,881,320
- Committed construction funds of \$49,019,587
- Awarded construction contracts valued at \$22,134,505
- Processed total change orders equaling \$578,091
 - MSD-requested scope change – 63%
 - Unforeseen conditions - 28%
 - Design error or omission - 3%
 - Final compensating quantities - 6%
- Prospect WQTC Elimination Projects Easement Status - A total of 49 easements have been identified which includes 17 easements in Norton Commons area; that are necessary to complete the entire suite of projects related to the plant eliminations. Acquired 24 of these easements. Three additional easements are in negotiation.
- Continue the migration to tracking performance measures and project milestones through SharePoint.

M-E-8 Continuing Sewer System Assessment (CSSA)

- Provided details on the CSSA activities for FY12 in **Appendix I: CSSA Annual Report**.

M-E-9 Infrastructure Rehabilitation

- Refer to **Section 4: Program Activities for Discharge Abatement Plans** for more details on infrastructure rehab projects.

M-E-10 System Capacity Assurance Program (SCAP)

FY12 Program

- Continued to collect formula-based defect inspection of significant footage of sewer lines in various sewersheds across the county. This information is being used to prioritize cleaning and rehabilitation efforts that will remove inflow and infiltration from the system and create capacity credits.
- Tracked pump station capacities, reviewed drawdown testing results and identified action items pertaining to deficiencies. Critical results of this effort are being documented on each asset within the Hansen system.

- Continued sewer line inspections in sewer sheds across the county. Refer to the **FY12 CSSA Annual Report in Appendix I** for a progress update.
- Managed the Lateral Extension Program in accordance with the SCAP, with the following details:
 - Approved 190 lateral extension contracts with projected flow of 2,418,244 GPD.
 - Denied approval of 12 lateral extension projects with projected flow of 72,822 GPD due to capacity limitations.
 - Conditionally approved 142 additional lateral extension projects with projected flow of 2,159,634 GPD, contingent upon programmatic activities, such as completion of WQTC.
- Continued to work on the procedures for documentation of rehabilitation and the calculation of SCAP credits.

FY13 Program

- Continue to perform formula-based inspection of sewer lines in various sewer sheds across the county. Refer to the CSSA Annual Report in **Appendix I** of this report for an update on the areas selected for inspection.
- Continue tracking pump station capacities through testing, investigation and capacity evaluations.
- Update water quality treatment center capacities and track new development flows.
- Generate inflow and infiltration reduction projects and calculate related capacity credits.
- Update the SCAP training module and train staff.
- Continue to enhance credit calculation protocols and tracking in Hansen.
- Continue to enhance on the procedures for documentation of rehabilitation and the calculation of SCAP credits.
- Conduct a programmatic gap analysis of implementation processes, procedures, outcomes, and recommend program enhancements/refinements for both the CSSA and SCAP programs.
- Based on gap analysis, improve flow, credit, reporting and training procedures. By the end of FY13, begin updating KDEP and EPA at least quarterly on the credit balance in each catchment within the quarterly report.

6.1.1.6 Sanitary Sewer Overflow Reporting and Notification Program - *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.*

M-F-1 Unauthorized Discharge Reporting
M-F-2 Sanitary Sewer Overflow Notification

M-F-3 Tracking Sanitary Sewer Overflows

- Refer to **Section 3: Sewer Overflow Response Protocols** for detailed information.

6.1.1.7 Financing and Cost Analysis Program - *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.*

M-G-1 Operations Cost

M-G-2 Maintenance Cost

M-G-3 Capital Improvement Funding

M-G-4 Management Programs Cost

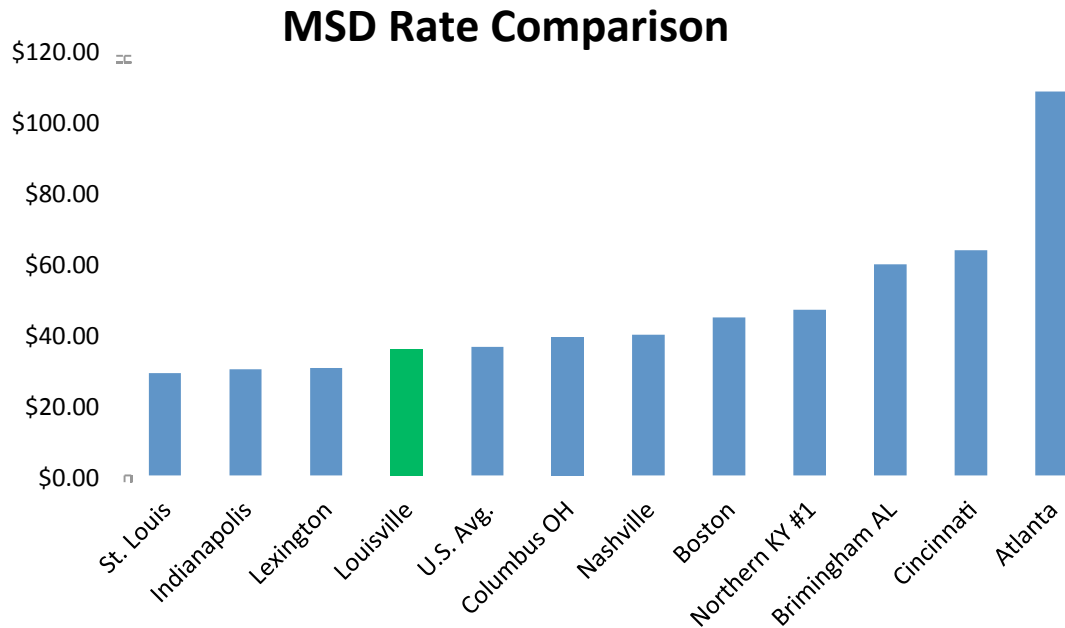
M-G-5 Life Cycle Cost

M-G-6 Budget and Customer Rate Setting

FY12 Program

- Reported Operating Revenues growth of 8.2% in FY12 (\$192.2 million in FY12 vs. \$185.7 million in FY11).
 - Determined FY 2012 operating revenues were \$.8 million more than the budgeted amount (\$193 million).
 - Determined wastewater & storm water revenues were \$2 million more than budgeted & miscellaneous income was \$2.7 million less than budgeted.
 - Reported investment income of \$40.7 million was \$34.1 million more than the budget of \$6.6 million.
- Reported debt service coverage of 177%. This was up from 169% in FY11.
 - Reported total operating expenses of \$135.7 million were \$126,000 more than FY11 and \$5.3 Million less than FY11 budget of \$140.0 million.
 - Increase can be attributed to an increase in depreciation of \$2.0 Million, offset by a decrease in service and administration costs of \$1.9 Million.

□



FY13 Program

- Set the operating budget at \$117,433,000 and the capital budget at \$200,900,000.
- Anticipate no new bond issues for FY13, but \$150 Million bond issue in FY14, to fund the capital program.

6.1.1.8 Equipment and Tools Management and Maintenance Program - *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.*

M-H-1 Spare Parts Inventory Management

FY12 Program

- Identified obsolete inventory from old equipment and began processing these spare parts for removal.
- Achieved cost savings initiatives with reduced labor with annual physical inventories at Morris Forman, CMF and Hite Creek Storerooms.
- Continued monthly manager meetings have improved communication with other divisions.
- Identified areas for improvement through an Internal Customer Service Survey.

-
- Implemented stricter security controls on vendor managed inventory with improved Standard Operating Processes and regular budget reporting for managers of each division.

FY13 Program

- Continue review of security scan control pads access for inventory control measures.
- Continue to work with IFP to reduce the inventory of obsolete materials.
- Continue improvements to annual physical inventories at Morris Forman, CMF and Hite Creek Storerooms. Goal: Cut labor time by 10%.
- Continue monthly manager meetings to improve communication with other divisions in efforts to enhance customer service.
- Prepare Customer Service Survey and distribute for improved performance.
- Enhance security controls on Storeroom processes for improved security, safety and improvements with departmental budget costs.

M-H-2 Equipment and Tools Repair Management

FY12 Program

- Implemented standardized tooling lists and processes for Morris Forman in combination with Metro and Security.
- Prepared inventory spare parts catalogs for Infrastructure and Flood Protection as information guide.
- Began work with Auditor on improved security measures at Morris Forman.
- Established processes for tool check-out and repair to ensure proper usage and controls with internal repair shop

FY13 Program

- Improve tooling lists to cut budget costs and work with Metro and Security to continue tool inspections and prepare Standard Operating Procedures.
- Update spare parts catalogs for all maintenance and support at Morris Forman and Metro for information purposes, and work with IT to develop on-line catalog.
- Continue to assemble the Security Asset group sub-committees to meet on recommendations of Security Asset Policy and SOP for improvements and tighter security.
- Establish set processes for tool check-out and repair to ensure proper usage and controls with internal repair shop.

M-H-3 Vehicle Repair

MSD's vehicle repair maintenance program addresses over 600 pieces of rolling stock, including automobiles, trucks, trailers, construction equipment (backhoes, mobile cranes, etc.) and specialty sewer maintenance equipment. For the purpose of the CMOM program, MSD

established a list of “Mission Critical” (MC) equipment required for sewer inspection and maintenance. “MC” equipment includes:

- Catch Basin Cleaners (mechanical clamshell type)
- High-Pressure Sewer Flusher Trucks
- Tele-Inspection Vehicles
- Vacuum Sewer & Catch Basin Cleaner Trucks
- Sound-Attenuated 6" Trash Pumps

FY12 Program

MSD Fleet Services performed an analysis on critical equipment maintenance and procurement during the reporting period with the following results:

- Evaluated Mission Critical Equipment Availability:
 - Catch Basin Cleaners (clamshell type) – 99.1%
 - Sewer Flushers – 95.2%
 - Tele Inspection Trucks – 98.6%
 - Vacuum Catch Basin / Sewer Cleaner Trucks – 94.4%
 - Sound-Attenuated 6" Trash Pumps – 100%
 - Average availability for all Mission Critical equipment – 97.7%
- Critical Equipment Procured/Repaired:
 - Continued review of fleet data for replacement planning.
 - Vacuum Catch Basin Cleaner Rodder Pump
 - Remove, rebuild, re-install and test pump.
 - Determine root cause of failure to be excessive operation pressure settings.
 - Educate Training Department and equipment operators regarding proper operation.
- Continued Implementation of the Fleet Management Information System (FASTER)
 - Gained hands-on experience with FASTER System and investigating reporting anomalies related to equipment availability/downtime data.
 - Presently identifying problematic areas.
 - Critiquing work processes and FASTER System Settings for relationship to data and reporting anomalies.

FY13 Program

- Continue monitoring and reporting availability of Mission Critical Equipment (MCE).

-
- Target an overall average availability of 95% or higher for all MCE.
 - Investigate training opportunities for creating and modifying FASTER Crystal Reports.
 - Analyze FASTER system settings and relationships to the generation of accurate fleet data in FASTER generated reports.
 - Refine FASTER system settings and/or adjust/modify work processes as required.
 - Identify problematic processes.
 - Critique work processes and FASTER System Settings for relationship to data and reporting anomalies.
 - Develop benchmarks for Key Performance Indicators.
 - Utilize FASTER System reports to analyze and target areas where improvement is needed.
 - Measure certain key fleet performance Indicators to evaluate and enhance department's effectiveness and efficiency. Areas that are frequently measured and evaluated include:
 - Fleet Availability - measured as a function of downtime.
 - Fleet Availability - measured as a function of the average time to complete work orders.
 - Maintenance – measured as a function of preventive maintenance due.
 - Maintenance – measured as a function of PM completion rate.
 - Maintenance – PM Effectiveness measured as a function of fleet work order activity.
 - Maintenance – type of repair, measured as a function of scheduled vs. non-scheduled repairs.
 - Employee Performance - measured as a function of indirect (non-billable) labor hours.
 - Employee Performance - reported as a function of the technician workstation review.

M-H-4 Supplies Management

FY12 Program

- Continued lean manufacturing quality improvements, such as 5-S, in the warehouse non-inventory working area at CMF. 5-S is a system to identify waste and opportunities for improvement, then bring order to the work environment through establishing efficient flow of material, supplies and activities.
- Updated all SOP for Storeroom personnel and work with team to access job description for accuracy.
- Increased recycling services with all division at MSD to increase Global Improvements.

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- Placed odor control measures at CMF drying pit for continuous improvement.
 - Improved pipe yard for better ground filtration and to improve soil erosion and remove all soil contaminations.

FY13 Program

- Continue lean manufacturing quality improvements, such as 5-S, in the warehouse non-inventory working area at CMF. 5-S is a system to identify waste and opportunities for improvement, then bring order to the work environment through establishing efficient flow of material, supplies and activities.
- Update all SOP for Storeroom personnel and work with team to access job description for accuracy.
- Increase recycling efforts to increase Global Improvements.
- Continue to sample “green” products to replace aerosol and maintenance cleaning chemicals.

6.1.1.9 Customer Service Programs - *This section describes MSD’s Customer Service Programs. The goal of this section is to strengthen and maintain a healthy relationship between MSD and the public through service programs which include complaint management, public information, and public education.*

M-I-1 Customer Service

M-I-2 Public Information

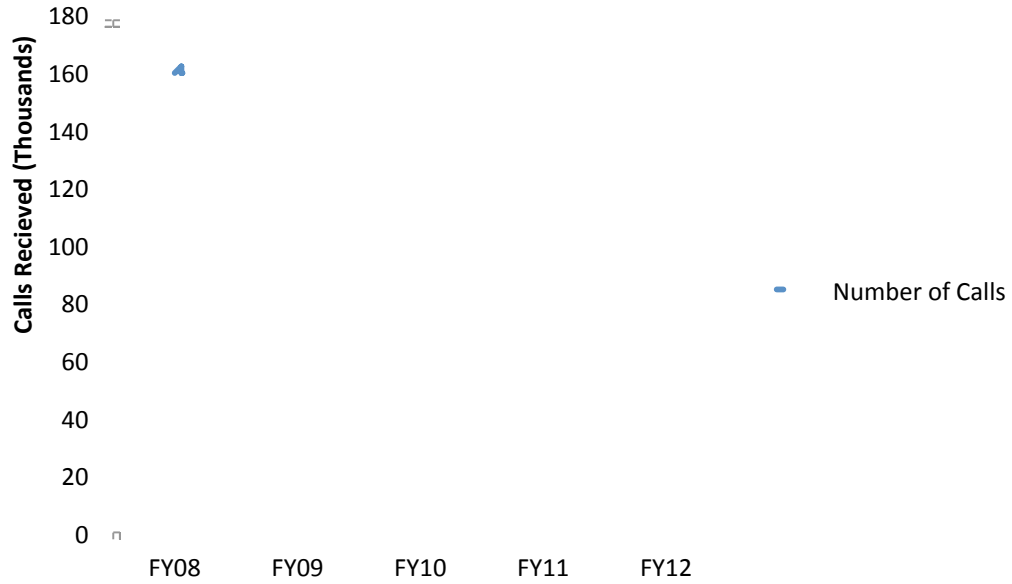
M-I-3 Public Education

FY12 Program

- Received 130,331 calls during this period. The chart below breaks down the calls between MSD and MetroCall. The “311” MetroCall lines are answered by department staff during off-shift and holidays when Metro is closed.

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Customer Relations 5-year Call Trend

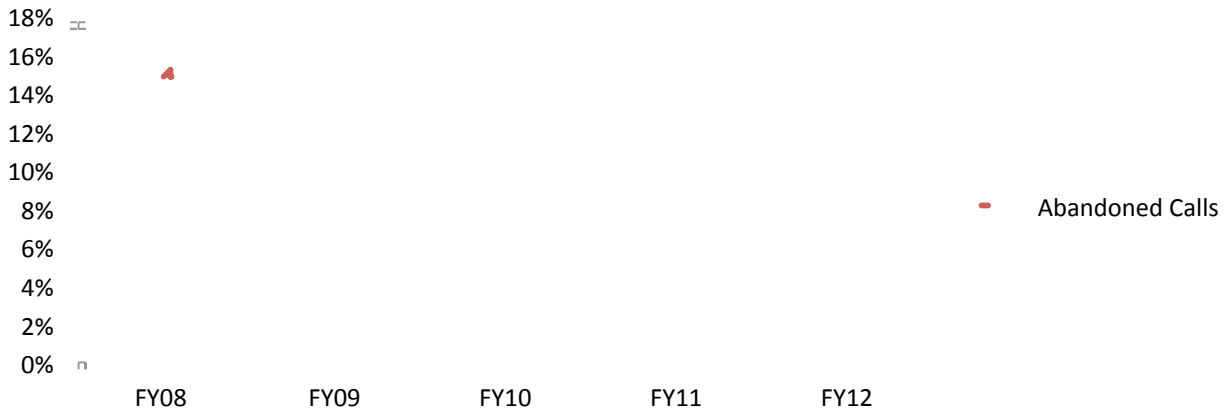


MSD Call Center Reporting							
	MSD				METROCALL		
FY 2012	Call's Rec'd	Calls Abandoned	Avg. Hold Tme (seconds)		Call's Rec'd	Calls Abandoned	Avg. Hold Tme (seconds)
Jul-11	7,513	380	1.1		7,030	1,379	0.5
Aug-11	5,743	146	1.1		7,053	1,518	0.4
Sep-11	4,915	119	1.1		4,896	473	0.5
Oct-11	4,224	84	1.3		4,677	524	1.0
Nov-11	3,920	73	1.2		4,661	341	0.6
Dec-11	3,941	81	1.2		4,231	253	1.1
Jan-12	3,862	115	1.2		6,080	690	0.6
Feb-12	3,643	78	1.2		3,742	343	0.4
Mar-12	4,912	124	1.2		4,713	575	0.5
Apr-12	4,226	101	1.1		5,154	605	0.4
May-12	5,261	152	1.2		6,288	741	0.5
Jun-12	4,381	138	1.2		5,545	687	0.4
Sub-Total Ans.	56,541	1,591	1.1		64,070	8,129	0.5
Sub-Total Rec'd.	58,132				72,199		
Abandoned %		3%				11%	
Total Calls Rec'd.	120,611						
Total Calls Aband.	9,720						
GRAND TOTAL FY12	130,331						

- Continued the effort to reduce the percentage of abandoned calls. The abandoned rate for MetroCalls is significantly higher than for MSD due to differences in Louisville Metro's new telephone system. MetroCall's system does not allow their staff to finish calls in queue before switching lines to MSD. This routes as many as 25-35 calls to our lines at time of switch (7 days each week). MSD has no more than two staff members working off-shift to respond to both MSD and MetroCalls – at times it is a solo shift.

□

Abandoned Call Trend



- Mailed out 4844 ProjectWIN and Plumbing modification program packets of information or applications.

FY13 Program

- Facilitate customer satisfaction call-back program for property owners that have experienced a basement back-up. Survey will identify the level of customer satisfaction with MSD’s response and service.

6.1.1.10 Legal Support Programs – *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.*

M-J-1 Inter-Jurisdictional Agreement

M-J-2 Ordinances

FY12 Program

Over the past fiscal year, the MSD legal department has provided a variety of legal services designed to support MSD in its efforts to implement programs to abate sanitary sewer overflows as required by the Amended Consent Decree. The services most directly related to this effort include:

- Participated in and/or provided legal advice and other functions pertaining to the procurement of construction and professional service contractors to provide services and/or perform work in furtherance of SSO abatement related projects.
- Participated in the acquisition of properties and/or property interests (easements and/or fee simple ownership) critical to the completion of SSO abatement related sewer construction projects. The department's participation has included assisting in the negotiation and structuring of purchase and sale agreements, drafting acquisition related

documents, title research, and performing or providing oversight of the closing of acquisition transactions.

- Participated in the development of MSD's Fats, Oil and Grease (FOG) program, and provided legal advice and assistance in MSD's enforcement of the program, including cost recovery and negotiation of consent decrees with commercial and industrial companies that violated program guidelines.
- Provided legal advice and comments pertaining to compliance functions necessitated by MSD's proposed MS4 NPDES permit.

FY13 Program

- Continue to provide legal services to support MSD.

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"

- Information on these programs is provided in **Section 2.4 NMC 3: Review and Modification of Pretreatment Programs, 6.1.2.2 Pretreatment Program, 6.1.2.4 Grease Trap Inspection and Enforcement Program, 6.1.2.7 Septic Tank Haulers Program, and 6.1.2.8. "Call Before You Dig" Program.**

6.1.1.11 Water Quality Monitoring Programs - *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.*

M-K-1 Routine Water Quality Monitoring Programs

M-K-2 Investigate Water Quality Monitoring

M-K-3 Water Quality Monitoring for Spill Impact

- Information on these programs is provided in **Section 4.5 Post Construction Monitoring Program**, for details on water quality monitoring efforts.

6.1.1.12 Contingency Plan for Sewer and Treatment Plant - *This section describes MSD's Contingency Plan for the Sewer and Treatment System. The goal of this section is to provide a protocol for emergency response and notification. 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 protocol (SORP). The SORP requires training for all MSD employees.*

M-L-1 Contingency Planning Process

M-L-2 Response Flow Diagram

FY12 Program

- Continued implementation of protocols for emergency and disaster response.
- Updated the contact list of names, phone numbers, and responsibilities for emergency and disaster response protocols.
- Continued to administer Emergency Response Pretreatment Inspector (ERPI) training for possible discharges or pollution spill response.

FY13 Program

- Revise the disaster response protocol document to incorporate lessons learned from previous rain events.
- Continue training planning for disaster response protocols and event critiques.
- Continue to administer ERPI training.
- Develop work plans for FY14 program activities.

M-L-3 Public Notification Plan

M-L-4 Agency Notification Plan

FY12 Program

- Maintained as part of the emergency and disaster response protocols, inter and intra Agency Notification Plans.
- Maintained the Public Notification Plan as outlined in the SORP. Refer to **Section 3: Program Activities for Sewer Overflow Response Protocol** for more details.

FY13 Program

- Continue to update protocols and training as outlined in **Section 3: Program Activities for Sewer Overflow Response Protocol**.

M-L-5 Emergency Flow Control Plan

M-L-6 Emergency Operations and Maintenance Plan

FY12 Program

- Updated procedures for Emergency Flow Control and Emergency Operations and Maintenance.

FY13 Program

- Continue to review the Emergency Flow Control and Emergency Operations and Maintenance procedures.

M-L-7 Preparedness Training

FY12 Program

- Administered training for SORP and Emergency Response procedures. For more detail on SORP see **Section 3: Program Activities for Sewer Overflow Response**

Protocol.

- Refer to Section **6.1.1.2 Training Programs** for more details on the number of personnel trained and various preparedness training sessions.

FY13 Program

- Refer to Section **6.1.1.2 Training Programs** for more details on the goals for training in FY12.
- Continue to administer ERPI training for possible discharge or pollution spill response.

M-L-8 Water Quality Monitoring Plan

- Refer to **Section 4.5 Post Construction Monitoring Program** for more details on the MSD Water Quality Monitoring Plan

M-L-9 Sewer Overflow Response Protocol (SORP)

- Refer to **Section 3: Program Activities for Sewer Overflow Response Protocol** for more details on the SORP.

6.1.2 Operations Programs

6.1.2.1 Pump Station Operations Programs - *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.*

O-A-1 Routine Operating Programs

FY12 Program

- Continued to review and update of the U.S. Army Corps of Engineers (USACE) Flood Operations and Maintenance Manual based on USACOE and staff review comments. The manual will continuously be under review as MSD complete both LTCP and NMC programmatic activities.
- Continued to review SOPs for the Flood Pump Stations to reflect ongoing operational changes that occur as LTCP and NMC programmatic activities are completed.
- Determined capital project priorities and the budgetary needs during regular meetings with Metro Operations and Regulatory Services staff.
- Continued assessment of the sanitary pump stations based on the previous 2007 draw down deficiency priorities. The new draw down data was compared against the 2007 results to update the baseline operations of each pump station. From November 2009 to June 30, 2012, MSD staff completed new draw down tests on 165 pump stations. The testing continues to include an assessment of the mechanical and electrical equipment at each station by the Drawdown Investigation Evaluation (DIET) Team. The team consists of two mechanics, electrician, operations supervisor and an engineering technician. During this reporting period, staff completed repairs at 26 sites. After the

repairs, drawdown tests were completed at each site showing the pump stations were operating at or above their design. The following table lists the repair activities completed.

FY12 Sanitary PS Repair Activities	Count	Cost
Pump Replacement	12	\$190,547.00
Valve Replacement	1	\$1,138.00
Pump and Valve Replacement	1	\$8,734.00
Electrical Work	9	\$37,153.00
Generator Installation	13	\$414,750.00
Generator Repair	2	\$8,262.00
Pump Repair	4	\$23,360.00
Miscellaneous	10	\$125,971.00
Total:		\$810,095.00

- Continued to enhance operations and maintenance (O&M) manuals for existing sanitary pump stations that do not have formal O&M manuals. A draft template was created outlining equipment and information requirements needed to standardize O&M manuals for the district. Existing O&M manual inventory was completed and determined MSD has only 87 manuals for the 386 pump stations in the district. Staff prioritized pump stations for the first round of manuals to be created from the Greenline Program. New manual were created for 6 pump station sites as draft templates.
- Developed a level gauge from PVC piping to install inside pump station wet wells as a field reference to ensure pump station tilt bulbs are maintained at the proper operating levels. The gauge has surveyed level markers for the operating levels for each station. Sites were selected from the Greenline program for the first installations. Modifications were needed because of current wet well configurations. Staff is reviewing other alternative to the gauge option. During the next reporting period, it will be determined if the gauge modifications can easily be configured various wet well configurations or if another technology can be utilized to confirm tilt bulb elevations in the field.

FY13 Program

- Continue the review of the USACE Flood Operations and Maintenance Manual, getting final approval from USACE. Once final approval is obtained, begin planning training staff on the new O&M manuals. Have a plan in place by June 30, 2013, to complete training documents. The training documents will concentrate on the revised SOP schematics recommending operating conditions at different river elevations for the combination flood/sanitary pump stations to eliminate dry weather overflows.
- Continue regular meetings with operations and maintenance staff to determine capital project priorities and advise on the budgetary needs on a quarterly basis.

-
- Continue sanitary pump station assessments based on the previous draw down deficiency priorities with the Diet Team. The data collected will be used to prioritize rehabilitation and replacement projects.
 - Continue review of SOPs and job aides for Regional Pump Stations. These are sites with design capacities at two MGD or greater and typically have a building. This will include the development of SOPs for wet/dry weather capacity issues at pump stations and conducting annual pump station field training. Draft SOPs and training documents are to be completed during the next reporting period.
 - Continue the planning to enhance operations and maintenance (O&M) manuals for existing sanitary pump stations that do not have formal O&M manuals. Staff will prioritize pump stations in the Greenline Program. A template O&M manual will be created to standardize equipment O&M requirements for various types of pump station configurations in the district. Once the template is finalized, staff will have a goal to complete 12 new O&M manuals during FY13.
 - Complete pump station level gauge modifications and complete initial installations at the East Region Greenline pump station sites.
 - Continue to provide backup power at critical pump stations based upon the previously performed prioritization, as described in Section O-A-2 Emergency Operating Programs.

O-A-2 Emergency Operating Programs

FY12 Program

- Emergency Generator Program (Budget ID H09337) – Continued MSD's emergency generator program by collecting operational and maintenance data for MSD's 280+ pump stations to prioritize sites for generator installation. Data collection included frequency of power outages, over flows (including basement back-ups) and hauling events. This data was graphed with pump station horsepower requirements for the selection process. The list was narrowed down further by looking at site access, how far a pump station is from a maintenance facility, generator installation costs and whether a pump station could be eliminated. To date, MSD has installed 32 new generators under this program and have addressed the pump stations with the most significant power failure issues. During the next reporting period, staff will review the program to see if additional permanently installed generators are still needed. The existing mobile generator inventory will be reviewed and a plan created to repair or replacement generators as needed
- East Region Emergency Generator Project Phase V (Budget ID H11438) – Awarded this project to install permanent stand-by generators at the following MSD pump stations: Ballantrae, Deep Creek, River Creek and Stannye. A notice-to-proceed for construction was issued August 15, 2011 and all construction activities were completed May 1, 2012. The generators have been accepted by MSD and all training has occurred.
- Central Region Emergency Generator Project Phase V (Budget ID H11440) – Awarded this project to install permanent stand-by generators at the following MSD pump stations: Creel Lodge, Diode Court and Edsel Lane. A notice-to-proceed for construction was

issued October 17, 2011 and all construction activities were completed June 28, 2012. The generators have been accepted by MSD and all training has occurred.

- West Region Emergency Generator Project Phase V (Budget ID H11078) – Continued construction of this project to install permanent stand-by generators at the following MSD pump stations: Shady Villa, Villa Ana and Wathen. A notice-to-proceed for construction was issued July 6, 2011, and all construction activities were completed June 28, 2012. The generators have been accepted by MSD and all training has occurred.
- Caven Avenue Emergency Generator Project (Budget ID H11077) – Created this Central Region Phase V project to install permanent stand-by generators at the Caven Avenue Pump Station. The project was advertised on November 12, 2011, and bids were received on December 6, 2011. A notice-to-proceed for construction was issued on February 4, 2011, and all construction activities were completed February 20, 2012. The generator was accepted by MSD and all training has occurred.
- Trinity Homes Emergency Generator and Access Road Project (Budget ID H11440) – Completed design and obtained the easement to install permanent stand-by generator and a new access road at the Trinity Homes Pump Station site. Project was awarded on June 25, 2012. The existing site is located behind a private property and access is through a grass field. The project will install a new paved access driveway and a generator. During the next reporting period, MSD will complete all construction activities.
- Greenline Analysis - Continued to evaluate the Greenline technical memo's documentation of the lowest home opening elevations and confirmed pump station as-constructed information. Greenline pump stations were prioritized under the program to complete new draw down tests and pump station site assessments. The data from this effort has been collected and will be used to plan future rehabilitation projects. The future rehabilitation work will also correct any pump station operation level settings to prevent line surcharging.

FY13 Program

- Emergency Generator Program (Budget ID H09337) – Continued MSD's emergency generator program by collecting operational and maintenance data for MSD's 280+ pump stations to prioritize sites for generator installation. Data collection included frequency of power outages, over flows (including basement back-ups) and hauling events. This data was graphed with pump station horsepower requirements for the selection process. The list was narrowed down further by looking at site access, how far a pump station is from a maintenance facility, generator installation costs and whether a pump station could be eliminated. To date, MSD has installed 32 new generators under this program and have addressed the pump stations with the most significant power failure issues. During the next reporting period, staff will review the program to see if additional permanently installed generators are still needed. The existing mobile generator inventory will be reviewed and a plan created to repair or replacement generators as needed
- Trinity Homes Emergency Generator and Access Road Project (Budget ID H11440) – Complete all construction activities to install permanent stand-by generators at Trinity

Homes Pump Stations. Once start-up testing has been completed and all sites accepted, staff training will be completed at each site.

- Greenline Analysis – Complete the review lowest home opening elevations and confirmed pump station as-constructed information for the West and Central Region. Select other sites not included under the original Greenline Analysis. Staff will prioritize which of these sites shall be included in the analysis. Begin planning and implement field corrections, based on the field information obtained from the lowest home elevations and the as-constructed information, to prevent future home back-ups. Adjust pump station operating levels and install level sensors. Continue evaluation a wet well level gauge for each pump station site to help in O&M.

6.1.2.2 Pretreatment Program - *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.*

O-B-1 Industrial User Permit

O-B-2 Inspection

O-B-3 Sampling Enforcement

Administered pretreatment limitations at 5 of its 6 regional WQTCs, 1 of which is in the combined sewer system – Morris Forman WQTC. Additional information related to the MSD Pretreatment Program for the combined sewer system can be found in **Section 2.4 NMC 3: Review and Modification of Pretreatment Requirements.**

6.1.2.3 Corrosion Controls Program - *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.*

O-C-1 Inspection

O-C-2 Control Measures

O-C-3 Monitoring

O-C-4 Performance Measures

FY12 Program

- Continued to clean MSD facilities to reduce odors.
- Recorded service requests for Operations into two groups: those that are associated with the Morris Forman WQTC will use the code of MFF and those associated with the remaining WQTCs and Pump Stations will use the code of MOP.
- Continued program development with the following activities:
 - Facilitated project team meeting schedule to investigate corrosion.
 - Researched corrosion programs in other cities.
 - Researched technologies for corrosion abatement.

-
- Collected and reviewed system information from: ARV/force main inspections, SSES/ICA results, and IWD knowledge.
 - Continued to assess the system with the following activities:
 - Defined corrosion inspection areas.
 - Performed a GIS exercise to determine “hot spots” for corrosion.
 - Trained CCTV Inspection Staff on the coding associated with corrosion issues to remain in compliance with the PACP standards.
 - Performed inspection pilot areas.
 - Enhanced asset review and documentation with the following activities:
 - Captured data in PACP format.
 - Produced a report detailing corrosion activities in FY12.
 - Determined that the logic for determination of hotspots does not appear to yield impaired pipe segments.

FY13 Program

- Document pilot project findings and path forward in a technical memo, including a review of the current process and a proposal for enhancement going forward.
- Determine the next inspection areas for corrosion based on revised hotspot location logic.
- Continue to clean MSD facilities to reduce odors.
- Continue to enhance asset review and documentation.

6.1.2.4 Grease Trap Inspection and Enforcement Program - *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.*

O-D-1 Permitting

O-D-2 Inspection

O-D-3 Enforcement

O-D-4 Performance Measures

O-D-5 FOG

FY 12 Program

- Issued 288 enforcement actions against Food Service Establishments for FOG violations found during reconnaissance and follow-up inspections conducted at Food Service Establishments that recently failed certification by an approved MSD Certified Grease Waste Hauler, as well as collection system grease blockage incidents.
- Conducted a total of 309 inspections. Inspection types are: follow-up inspections at Food Service Establishments recently receiving failed grease control equipment certifications from approved MSD Certified Grease Waste Haulers, inspections at online Food Service

Establishments during biannual recon activities, inspections of new Food Service Establishments and those that have installed new Grease Control Equipment and inspections conducted during investigation of collection system grease blockage incidents.

- Sent 1,019 FOG residential public outreach letters to residents in neighborhoods in the MSD service area that had FOG issues.
- MSD Certified Grease Waste Haulers conducted 495 Certification Inspections at Food Service Establishments.
- MSD Certified Grease Waste Haulers removed 2,616,390 gallons of FOG from Grease Control Equipment at Food Service Establishments in the MSD service area.
- Conducted 32 Certified Grease Waste Hauler audits.
- Conducted FOG Hot Spot Reconnaissance in December 2011.
- Conducted a Certified Grease Waste Hauler training classes in September 2011 and May 2012.
- Continued to track and report FOG Program performance measures.
- Continued pilot project to dose public sewer with chemicals to breakup and liquefy FOG blockages.

FY13 Program

- Continue to conduct inspections at Food Service Establishments and issue enforcements actions as appropriate for violations of the MSD Wastewater/Stormwater Discharge Regulations.
- Continue to send FOG residential public outreach letters to residents in neighborhoods in the MSD service area that had FOG issues.
- Continue to host a public education and outreach booth at the Annual Kentucky Restaurant Association Day at the Races Exposition.
- Continue to host at least two Certified Grease Waste Hauler training classes.
- Continue to conduct Certified Grease Waste Hauler audits.
- Conduct two FOG Hot Spot Reconnaissance inspections.
- Continue to track and report FOG Program performance measures.
- Continue the grease liquefaction dosing pilot project.
- Develop a residential grease drop off program, in which drop off locations are identified, and small containers are distributed to homeowners to capture grease before it enters the sewer system.
- Review 5-year trends in FOG related blockages and compare to similar performance metrics from other cities.

6.1.2.5. New Connection Tap-In Program - *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 of the receiving treatment plant. The program is implemented using a new service taps approval process, inspection, enforcement, and performance measures.*

O-E-1 Installation of New Service Taps

O-E-1 Inspection

O-E-1 Enforcement

O-E-1 Performance Measures

O-E-5 Other

FY12 Program

- Received plans for 303 projects in FY12. Treatment plant capacity is reviewed prior to approval of any plans based on the SCAP.
- Inspected sewer installations. 73 new property service connections were installed.

FY13Program

- Continue to review projects for capacity availability.

6.1.2.6 Flow Monitoring Field Operation Programs - *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.*

O-F-1 Permanent Stations

O-F-2 Temp Stations

- Refer to **Section 4.5 Post Construction Monitoring Program** for details on water quality monitoring efforts.

6.1.2.7 Septic Tank Haulers Program - *MSD does not accept septic tank waste. This is handled through private contractors in Jefferson County.*

6.1.2.8. "Call Before You Dig" Program - *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.*

O-H-1 Permitting

O-H-2 Inspection

O-H-3 Enforcement

O-H-4 Performance Measures

FY12Program

- Contracted \$456,960.93 to process 64,023 locate requests to mark MSD facilities.
- Contracted the KY 811 (BUD Center) \$85,156.36 to participate in this program.
- Requested 3,737 (1,365 via web) and (2,372 via phone) to the BUD Center for the marking of other utilities during this time period.

FY13 Program

- Continue to contract for this service.

6.1.3 Maintenance Programs

6.1.3.1 Pump Station Preventive Maintenance - *This section describes MSD's Pump Station 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 pump station maintenance. Electrical, mechanical, and physical maintenance are included in this section.*

S-A-1 Electrical

S-A-2 Mechanical

S-A-3 Physical

FY12 Program

- Continued the process of updating the preventive maintenance and inspection plan for flood pump stations based on a review of the USACE Inspection Guide. Staff is using the Hansen asset management system to track Flood Pump Station work orders as well as associated flood pump station assets such as station related floodgates.
- Continued the inspections on pump station sites that have deficiencies determined during the Draw Down and Greenline Programs. To date, 165 pump stations have been inspected since January 1, 2009. These two programs identify deficiencies in pump performance and evaluate potential improvements possible by modifying set-points in the level controls. Staff proactively inspected critical equipment on site during these inspections. Check lists were created to document the inspection and list corrective actions needed. Corrective work orders were issued as needed.
- Reviewed the existing Preventative Maintenance training materials used for pump station operator training. Training materials were updated and being utilized by staff.
- Performed inspections on pump station sites that have deficiencies determined during the Draw Down and Greenline Programs. These two programs relate only to pump performance and level controls. Staff will proactively inspect critical equipment on site during the inspections. Check lists will be created to document the inspection and list corrective actions needed. Corrective work orders will be issued as needed.
- Completed the process for using Hansen for preventive maintenance task and corrective work orders for sewer lift stations and WQTCs.
- Conducted additional Hansen training for Metro Operations staff on the new PM processes converted to Hansen.

FY13 Program

- Continue the process of updating the preventive maintenance and inspection plan for flood pump stations based on a review of the USACE Inspection Guide. Train staff to

use the Hansen asset management system to track Flood Pump Station work orders as well as associated flood pump station assets such as station related floodgates.

- Implement the process for using Hansen for preventive maintenance task and corrective work orders for sewer lift stations and WQTCs.
- Perform inspections on pump station sites that have deficiencies determined during the Draw Down and Greenline Programs. These two programs relate only to pump performance and level controls. Staff will proactively inspect critical equipment on site during the inspections. Check lists will be created to document the inspection and list corrective actions needed. Corrective work orders will be issued as needed.

6.1.3.2 Force Main Preventive Maintenance - *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.*

**S-B-1 Air Release Valves
S-B-2 Valve Exercise Program**

FY12 Program

- Completed inspections on the following force mains:

Beckley Station	Six Mile Ln	Raintree	Stony Brook	Marian Ct
West Co Sludge	Rubbertown	St. Rene	Vintage	Valley Park
Rockview	Meadowstream	Eastwood-Fisherville	Stanley Gault	Cedar Forest
ORFM	34th Street	Belvedere	Riverside	Riverfront
Fox Harbor #1	Fox Harbor #2	Westover	Prospect Point	Star Point
Deep Creek	Floyd & Hill	Sonne	Wathen	Mockingbird
Mill Creek	5th & Lee	Glengregor	John Hancock	Hazelwood
Parkwood	Sanders	Shobe	Plantside	Terrier Ln
Newburg	Magnolia View	Winton	St. Matthews Village	Mellwood
Griffytown #1	St. Clair	Woodland Hills	Cypress Springs	

- Created valve repair work orders on identified problems.
- Conducted the annual force main program evaluation on December 9, 2011.

FY13 Program

- Schedule the following force mains for inspection:

ORFM	West Co. Sludge Main
Rubbertown	Beckley Station
Chamberlain	Covered Cove
Cypress Springs	Eastwood-Fisherville
Freeway	John Hancock
Mockingbird	Reality Trail

- Complete the annual force main evaluation by December 31, 2012. Adjustments to the inspection schedule will be made based on conditions observed during the inspection cycle.
- Review 5-year trends in activities and performance metrics, comparing to targets established in 2006.

6.1.3.3 Gravity Line Preventive Maintenance - *This section describes MSD’s Gravity Line Preventive 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 preventive maintenance.*

- S-C-1 Routine Hydraulic Cleaning**
- S-C-2 Routine Mechanical Cleaning**
- S-C-3 Root Control Program**
- S-C- 4 Manhole Preventive Maintenance**

- Refer to **Appendix I – FY12 CSSA Annual Report** for more details on the Gravity Line Preventive Maintenance Program.

6.1.3.4 Equipment and Collection System Maintenance - *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 equipment.*

S-D-1 Equipment Maintenance

FY12 Program

- Scheduled preventive maintenance on mobile trash pumps during periods when no rain was forecast for an extended period of time, maintaining 100% availability when needed for wet weather pumping.
- Developed performance metrics and tracking systems to ensure critical equipment is available when needed.

FY13 Program

- Continue to implement FASTER to report on performance metrics to ensure the critical equipment is available when needed.

6.2 Comprehensive Performance Evaluations and Composite Correction Plans (CPE/CCP)

Per requirements of MSD's 2009 Amended Consent Decree, MSD implemented a Comprehensive Performance Evaluation (CPE) and Composite Correction Plan (CCP) program for the District's water quality treatment centers (WQTCs). This program defined specific WQTC improvements to be completed by December 31, 2011. These improvements under this program will be discussed under **Section 6.2.1**. Although the IOAP CPE/CCP improvements will be completed by December 31, 2011, MSD will continue to implement CPE/CCP activities as part of the District's CMOM Program. **Section 6.2.2** will list such activities per WQTC as they occur each reporting period and a comprehensive project schedule for CPE/CCP related capital projects is provided in **Section 6.3 – CMOM Activity Schedule**.

6.2.1 Amended Consent Decree CPE/CCP Program This section describes CPE/CCP activities completed during FY12. All activities under this program were completed by December 31, 2011, as required per the IOAP.

6.2.1.1 Timberlake Water Quality Treatment Center

FY12 Program

- Bid and completed all construction activities for the elimination of the polishing pond. The project was substantially complete November 4, 2011 prior to the December 31, 2011 IOAP required date.

FY13 Program

- Monitor performance of the WQTC, post elimination of the polishing pond.

6.2.2 CMOM CPE/CCP Program *This section describes CMOM CPE/CCP activities active during FY11 and being planned for FY12. Schedules for CPE/CCP related capital projects are provided in **Section 6.3 – CMOM Activity Schedule**.*

6.2.2.1 Hite Creek Water Quality Treatment Center

FY12 Program

- Continued working on the Facilities Plan Update, establishing the study area and projecting the flow and loads from the service area. Completed the sewershed alternative analysis for both the collection and treatment systems for flows in Jefferson County and finalize a 50% draft action plan document for staff review. MSD has put the Facilities Plan Update on hold pending determination if areas beyond the Jefferson County boundary will be included in the future service area. Once confirmed, the alternative analysis for both the collection and treatment systems will be finalized and MSD will begin scheduling public outreach meetings.

FY13 Program

- Complete the alternative analysis for both the collection and treatment systems for the Facilities Plan Update, begin scheduling public outreach meetings and finalize a 50% draft action plan document for staff review. Complete the public input and hearing comments phases and submit a final draft for KDEP approval.

6.2.2.2 Floyds Fork Water Quality Treatment Center

FY12 Program

- Continued construction of the Floyds Fork WQTC Phase 2 expansion. The expansion will provide an average daily design capacity of 7.5 MGD at the current site.

FY13 Program

- Complete construction of the Phase 2 expansion. During the next reporting period, work should be completed to place two of the three new clarifiers in service while the installation of the collector mechanisms will be underway in the third clarifier. Work on the outer ring of the oxidation ditch will continue and the influent pumps in the south wet well will be installed. All project equipment start-up testing and staff training will be completed. The expansion will provide an average daily design capacity of 7.5 MGD with the addition of the third clarifier at the current site. The anticipated project completion date is April 2013.

6.2.2.3 Derek R. Guthrie Water Quality Treatment Center

FY12 Program

- Continued the Facilities Plan Update, revisiting the flow and load projections based on recalibration of collection system models. System alternatives and treatment plant rerating were modified to account for the new data. The proposed facility plan update information was made available to the public for review at two IOAP public meetings. During the next reporting period, the alternative analysis will be finalized and public outreach meetings will be scheduled.

FY13 Program

- Complete the alternative treatment and collection system analysis and schedule public outreach meetings. Finalize and submit a draft for KDEP review.

6.2.2.4 Timberlake Water Quality Treatment Center

FY12 Program

- Completed design drawings and specifications for flow pacing equipment to optimize the disinfection process at the plant. The equipment will ensure a consent feed of chlorine (CL2) and sulfur dioxide (SO2) regulated by effluent flow rates. This will reduce operating costs by preventing chemical over dosing and regulating potable water use. The equipment will also include automatic vacuum valves drawing from redundant chemical sources and telemetry notification to ensure the process does not run out of

chemicals. MSD staff installed similar equipment during FY11 at Chenoweth Hills and Silver Heights WQTCs, finishing up the final programming during FY12. Staff began collecting data at the two sites to see if the operational savings achieved justifies the estimated installation cost of \$40,000 at each site. Data will be collected through December 31, 2011.

FY13 Program

- Complete the data review of the disinfection chemicals and potable water usage to confirm the efficacy of the flow pacing equipment installed at Chenoweth Hills and Silver Heights WQTCs. If costs savings are achieved and as budget allows, bid the construction of the flow pacing equipment at this site.

6.2.2.5 Hunting Creek North Water Quality Treatment Center

FY12 Program

- Completed design drawings and specifications for flow pacing equipment to optimize the disinfection process at the plant. The equipment will ensure a consent feed of chlorine (CL2) and sulfur dioxide (SO2) regulated by effluent flow rates. This will reduce operating costs by preventing chemical over dosing and regulating potable water use. The equipment will also include automatic vacuum valves drawing from redundant chemical sources and telemetry notification to ensure the process does not run out of chemicals. MSD staff installed similar equipment during FY11 at Chenoweth Hills and Silver Heights WQTCs, finishing up the final programming during FY12. Staff began collecting data at the two sites to see if the operational savings achieved justifies the estimated installation cost of \$40,000 at each site. Data will be collected through December 31, 2011.

FY13 Program

- Complete the data review of the disinfection chemicals and potable water usage to confirm the efficacy of the flow pacing equipment installed at Chenoweth Hills and Silver Heights WQTCs. If costs savings are achieved and as budget allows, bid the construction of the flow pacing equipment at this site.

6.2.2.6 Hunting Creek South Water Quality Treatment Center

FY12 Program

- Bid and completed all construction activities for the elimination of the polishing pond. The project was substantially complete November 18, 2011.
- Completed design drawings and specifications for flow pacing equipment to optimize the disinfection process at the plant. The equipment will ensure a consent feed of chlorine (CL2) and sulfur dioxide (SO2) regulated by effluent flow rates. This will reduce operating costs by preventing chemical over dosing and regulating potable water use. The equipment will also include automatic vacuum valves drawing from redundant chemical sources and telemetry notification to ensure the process does not run out of chemicals. MSD staff installed similar equipment during FY11 at Chenoweth Hills and

Silver Heights WQTCs, finishing up the final programming during FY12. Staff began collecting data at the two sites to see if the operational savings achieved justifies the estimated installation cost of \$40,000 at each site. Data will be collected through December 31, 2011.

FY13 Program

- Complete the data review of the disinfection chemicals and potable water usage to confirm the efficacy of the flow pacing equipment installed at Chenoweth Hills and Silver Heights WQTCs. If costs savings are achieved and as budget allows, bid the construction of the flow pacing equipment at this site.

6.2.2.7 Shadow Wood Water Quality Treatment Center

FY12 Program

- Completed design drawings and specifications for flow pacing equipment to optimize the disinfection process at the plant. The equipment will ensure a consent feed of chlorine (CL2) and sulfur dioxide (SO2) regulated by effluent flow rates. This will reduce operating costs by preventing chemical over dosing and regulating potable water use. The equipment will also include automatic vacuum valves drawing from redundant chemical sources and telemetry notification to ensure the process does not run out of chemicals. MSD staff installed similar equipment during FY11 at Chenoweth Hills and Silver Heights WQTCs, finishing up the final programming during FY12. Staff began collecting data at the two sites to see if the operational savings achieved justifies the estimated installation cost of \$40,000 at each site. Data will be collected through December 31, 2011.

FY13 Program

- Complete the data review of the disinfection chemicals and potable water usage to confirm the efficacy of the flow pacing equipment installed at Chenoweth Hills and Silver Heights WQTCs. If costs savings are achieved and as budget allows, bid the construction of the flow pacing equipment at this site.

6.2.2.8 Starview Water Quality Treatment Center

FY12 Program

- Completed design drawings and specifications for flow pacing equipment to optimize the disinfection process at the plant. The equipment will ensure a consent feed of chlorine (CL2) and sulfur dioxide (SO2) regulated by effluent flow rates. This will reduce operating costs by preventing chemical over dosing and regulating potable water use. The equipment will also include automatic vacuum valves drawing from redundant chemical sources and telemetry notification to ensure the process does not run out of chemicals. MSD staff installed similar equipment during FY11 at Chenoweth Hills and Silver Heights WQTCs, finishing up the final programming during FY12. Staff began collecting data at the two sites to see if the operational savings achieved justifies the estimated installation cost of \$40,000 at each site. Data will be collected through

December 31, 2011.

FY13 Program

- Complete the data review of the disinfection chemicals and potable water usage to confirm the efficacy of the flow pacing equipment installed at Chenoweth Hills and Silver Heights WQTCs. If costs savings are achieved and as budget allows, bid the construction of the flow pacing equipment at this site.

6.2.2.9 Berrytown Water Quality Treatment Center

FY12 Program

- Completed design drawings and specifications for flow pacing equipment to optimize the disinfection process at the plant. The equipment will ensure a consent feed of chlorine (CL2) and sulfur dioxide (SO2) regulated by effluent flow rates. This will reduce operating costs by preventing chemical over dosing and regulating potable water use. The equipment will also include automatic vacuum valves drawing from redundant chemical sources and telemetry notification to ensure the process does not run out of chemicals. MSD staff installed similar equipment during FY11 at Chenoweth Hills and Silver Heights WQTCs, finishing up the final programming during FY12. Staff began collecting data at the two sites to see if the operational savings achieved justifies the estimated installation cost of \$40,000 at each site. Data will be collected through December 31, 2011.

FY13 Program

- Complete the data review of the disinfection chemicals and potable water usage to confirm the efficacy of the flow pacing equipment installed at Chenoweth Hills and Silver Heights WQTCs. If costs savings are achieved and as budget allows, bid the construction of the flow pacing equipment at this site.

6.2.2.10 McNeely Lake Water Quality Treatment Center

FY12 Program

- Received final construction drawings for the gravity elimination of the plant. The plant flows will be diverted to the existing Washington Green Pump Station which will require expansion. The pump station expansion and plant elimination costs are not currently in the approved MSD budget. A developer is proposing to expand this pump station as part of a future development project. If the development occurs, MSD will review the current budget for funds to eliminate the plant.

FY 13 Program

- Continue discussions with the developer to coordinate the plant elimination. MSD will also continue to monitor the structural condition of the plant and perform remedial activities as needed, coordinating with the proposed elimination schedule. The anticipated elimination date is December 31, 2014.

6.2.2.11 Silver Heights Water Quality Treatment Center

FY12 Program

- Began final design of the Mud Creek Interceptor Project (Budget ID H12022) which will allow the elimination of the Silver Heights plant. The anticipated elimination date is December 31, 2014.

FY13 Program

- Complete final design of the Mud Creek Interceptor Project (Budget ID H12022) which will allow the elimination of the Silver Heights plant. The anticipated elimination date is December 31, 2014.

6.2.2.12 Bancroft Water Quality Treatment Center

FY12 Program

- Completed design drawings and specifications for flow pacing equipment to optimize the disinfection process at the plant. The equipment will ensure a consent feed of chlorine (CL2) and sulfur dioxide (SO2) regulated by effluent flow rates. This will reduce operating costs by preventing chemical over dosing and regulating potable water use. The equipment will also include automatic vacuum valves drawing from redundant chemical sources and telemetry notification to ensure the process does not run out of chemicals. MSD staff installed similar equipment during FY11 at Chenoweth Hills and Silver Heights WQTCs, finishing up the final programming during FY12. Staff began collecting data at the two sites to see if the operational savings achieved justifies the estimated installation cost of \$40,000 at each site. Data will be collected through December 31, 2011.

FY13 Program

- Complete the data review of the disinfection chemicals and potable water usage to confirm the efficacy of the flow pacing equipment installed at Chenoweth Hills and Silver Heights WQTCs. If costs savings are achieved and as budget allows, bid the construction of the flow pacing equipment at this site.

6.2.2.13 Glenview Bluff Water Quality Treatment Center

FY12 Program

- Bid and completed all construction activities for the elimination of the polishing pond. The project was substantially complete November 18, 2011.
- Completed design drawings and specifications for flow pacing equipment to optimize the disinfection process at the plant. The equipment will ensure a consent feed of chlorine (CL2) and sulfur dioxide (SO2) regulated by effluent flow rates. This will reduce operating costs by preventing chemical over dosing and regulating potable water use. The equipment will also include automatic vacuum valves drawing from redundant chemical sources and telemetry notification to ensure the process does not run out of

chemicals. MSD staff installed similar equipment during FY11 at Chenoweth Hills and Silver Heights WQTCs, finishing up the final programming during FY12. Staff began collecting data at the two sites to see if the operational savings achieved justifies the estimated installation cost of \$40,000 at each site. Data will be collected through December 31, 2011.

FY13 Program

- Complete the data review of the disinfection chemicals and potable water usage to confirm the efficacy of the flow pacing equipment installed at Chenoweth Hills and Silver Heights WQTCs. If costs savings are achieved and as budget allows, bid the construction of the flow pacing equipment at this site.

6.3 CMOM Activity Schedule

CMOM capital project milestones for the period of July 1, 2010, through June 30, 2011, as well as a look-ahead for the period of July 1, 2011, through March 31, 2011, are provided in the schedule below.

MSD CMOM Annual Commitments Schedule (FY2012-FY2013)				Date: 23-Nov-12																													
Activity ID	Activity Name	Start	Finish	2011												2012												2013					
				Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun						
CMOM FY ANNUAL REPORT COMMITMENTS FINAL																																	
M-E-9 Infrastructure Rehabilitation																																	
Shadow Wood I/I Rehabilitation																																	
A2690	Ad	05-Jul-11 A	01-Nov-11 A																														
A2700	Bid Opening	05-Jul-11 A	01-Nov-11 A																														
A2710	Construction	02-Aug-11 A	01-Nov-11 A																														
A2720	Complete	01-Sep-11 A	01-Nov-11 A																														
Lee Ann Way Pump Station Grinder Installation Project (F07069)																																	
A2080	Warranty Period	22-Sep-11 A	22-Sep-12 A																														
Shively Pump Station Grinder Replacement Project Planning (H10151)																																	
A2150	Warranty	21-Sep-11 A	21-Sep-12 A																														
Fairmount Road Pump Station Expansion Project (E00303)																																	
A2280	Warranty	24-Apr-12 A	24-Apr-13																														
Annual I/I Project (H09205)																																	
A2540	Ad	15-Aug-11 A	01-Nov-12																														
A2550	Bid Opening	22-Sep-11 A	01-Nov-12																														
A2890	Award	17-Oct-11 A	01-Nov-12																														
A2560	Construction	01-Nov-11 A	01-Nov-12																														
A4540	Camp Taylor 5 - Construction	15-Feb-12 A	01-Nov-12																														
A4530	Camp Taylor 4 - Construction	04-Apr-12 A	01-Nov-12																														
A4550	Dolphin Rd - Construction	01-Aug-12 A	01-Nov-12																														
A4560	Heller St - Construction	01-Aug-12 A	01-Sep-12 A																														
A4570	Macon Rd - Construction	01-Aug-12 A	01-Sep-12 A																														
A4580	Fegenbush Ln - Construction	01-Aug-12 A	01-Sep-12 A																														
A4590	Jenlee - Construction	01-Aug-12 A	01-Sep-12 A																														
A4600	Edgehill Rd - Construction	01-Sep-12 A	01-Oct-12 A																														
4th and Oak CIPP Project (H09205)																																	
A4360	Design	01-Apr-12 A	01-May-12 A																														
A4370	Ad	30-Jun-12 A	01-May-12 A																														
A4380	Bid Open	10-Jul-12 A	01-May-12 A																														
A4390	Award	15-Aug-12 A	01-May-12 A																														
A4400	Construction	01-Oct-12 A	01-Nov-12																														
St Matthews Interceptor I/I Rehabilitation Project (H12059)																																	
A2900	Ad	17-Oct-11 A	23-Aug-13																														
A2910	Bid Opening	14-Nov-11 A	23-Aug-13																														
A2920	Award	28-Nov-11 A	23-Aug-13																														
A2930	Construction	01-Feb-12 A	31-Aug-12 A																														
A2980	Warranty	23-Aug-12 A	23-Aug-13																														
Lea Ann Way Interceptor I/I Rehabilitation Project (H12064)																																	
A3030	Planning	01-Aug-11 A	01-Oct-11 A																														
A2940	Ad	09-Nov-11 A	01-Oct-11 A																														
A2950	Bid Opening	13-Dec-11 A	01-Oct-11 A																														
A3000	Award	30-Dec-11 A	01-Oct-11 A																														
A3010	Construction	15-Feb-12 A	30-Sep-12 A																														
Lake Forest Sanitary Sewer Rehabilitation Project (H11303)																																	
A3150	Planning	01-Nov-11 A	02-Apr-12 A																														
A3160	Ad	31-Aug-12 A	02-Apr-12 A																														
A3170	Bid Opening	25-Sep-12 A	02-Apr-12 A																														

SECTION 7: Supplemental Environmental Projects (SEPs) Annual Report

The program activities performed during the FY12 (**July 1, 2011, through June 30, 2012**) and activities planned for the FY13 (July 1, 2012, through June 30, 2013) are included in this section.

7.1 SEP Requirements

The original SEP requirements (August 2005) were outlined in paragraph 28 of the Consent Decree, with the specific SEPs described in Exhibit A of the Consent Decree. In April 2009 an Amended Consent Decree was filed and contained additional SEP requirements. These were outlined in paragraph 34 of the Amended Consent Decree, with the specific SEPS described in Exhibit H of the Amended 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 KDEP and MSD to organize and conduct community health screenings with results, follow-up and referrals. The scope was revised and the Louisville Metro Department of Health & Wellness continues to progress toward completion.

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 and completed prior to December 31, 2008.**
 - Sustainable Landscaping - Education, planning and plant material for implementing sustainable landscaping for urban areas. Specifically, schools and low-income housing were targeted. These activities were completed prior to the deadline of August 12, 2007. **Funding level: \$100,000 and completed prior to August 12, 2007.**
 - Outdoor Classroom - Continued support of the Outdoor Classroom program with Jefferson County Public Schools. These activities will be completed prior to the deadline of August 12, 2010. **Funding level: \$100,000 and to be completed by August 12, 2010.**
 - Kentucky Personal Responsibility in a Desirable Environment (PRIDE) – Implementation and/or expansion of PRIDE into the local and regional area. These activities were completed prior to the deadline of February 12, 2006. **Funding level: \$200,000 and completed prior to February 12, 2006.**
 - Environmental Education Certification – Continued support for the existing Certification Program. These activities will be completed prior to the deadline of August 12, 2010. **Funding level: \$50,000 and completed prior to August 12, 2010.**

- Watershed Focused Environmental Groups - Provide funding to assist these groups with environmental education and public outreach activities. 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. **Completed prior to August 12, 2010.**
- Bicycle and Pedway Connections along K&I Railroad Bridge and Metro Park System - These activities were completed prior to the deadline of August 12, 2010. **Funding level: \$100,000 and Completed prior to February 12, 2007.**
- **Property Reclamation and Community Connectivity** - The original scope of work was amended to direct the funding from the Lee's Lane Landfill to the Public Health Screenings and to the Watershed Focused Environmental Groups.
- **Stream Restoration Project** – The project provides one-time restoration work for various stretches of Jefferson County streams. As required, MSD submitted a stream restoration plan to EPA and KDEP within 30 days of the entry of the Amended Consent Decree. Approval of this plan was received on September 25, 2009. Within six months of approval by EPA, MSD must begin construction on the project and the work is to be complete one year from the beginning of the work. **Funding level: \$400,000 for construction, and completed prior to March 25, 2011.**

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 the SEPs with continuing activities, describing the completed tasks, current status during FY12, and work planned during FY13. For SEPS activities completed within FY12, copies of the SEP Completion Reports are included in **Appendix K**. This documentation from MSD is considered by MSD to fulfill the commitment as stated in paragraph 34 of the Amended Consent Decree.

7.2 Public Health Screening – Western Louisville (Budget ID J06248)

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, 2007, to November 9, 2007, 2,407 people participated. The Community Health Screenings Project Report, with the statistical data and demographical information, was included as Section 8 of the FY09 Consent Decree Annual Report, dated December 30, 2009.

The originally 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 subsection) the budget for this SEP was increased to \$1,200,000. The health screening was originally scheduled for completion by December 31, 2007, subject to the approval of the Health Department. A subsequent Memorandum of Understanding between MSD and the Health Department amended the completion date to June 30, 2008, but was extended as part of the Amended Consent Decree.

The Louisville Metro Department of Public Health & Wellness (LMPHW) with approval from the state agreed upon two asthma projects. The University of Louisville School of Public Health & Information Sciences assisted the LMPHW and Jefferson County Public Schools by collecting data and providing a data analysis and technical assistance to identify the prevalence of children with asthma in 13 elementary schools located in the Rubbertown area. The cost of this contract was \$15,684. The second project was a grant to the Jefferson County Public Education Foundation to provide asthma-related activities at Gutermuth Elementary School. A grant was awarded in the amount of \$4,224. An additional contract with Norton Healthcare was executed in FY12 for \$125,860 to improve cancer research and screenings. In **Appendix K**, a report is provided from the LMPHW that summarizes Program accomplishments to date.

In FY13, The Louisville Metro Public Health and Wellness has proposals for three projects that will use the remaining funding. The projects are in line with the goal of 2009 Consent Decree that provides services to the residents in specific West Louisville neighborhoods.

The FY13 projects are as follows:

- Norton Healthcare system project will augment its clinical outreach services to provide screening for breast, cervical, and other cancers.
- University of Louisville Pediatrics Clinic project will provide enhanced community services from a nurse to contact the Clinic's asthmatic children and their families to assure appropriate compliance with medications and avoidance of environmental triggers.

Funding amount: \$1,200,000

Status: Continuing. A status report from the Louisville Metro Department of Public Health & Wellness is included in **Appendix K**.

APPENDIX A – CSO108 EFFICACY REPORT



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

June 29, 2012

Joyce Bender
Nature Preserves and Natural Areas Branch Manager
Kentucky State Nature Preserve Commission
801 Schenkel Lane
Frankfort, KY 40601

Subject: CSO 108 Semi-Annual Report #8

Dear Ms. Bender:

As required in Paragraph #10 of the document titled "Memorandum of Understanding by and between the Kentucky State Nature Preserve Commission and the Louisville and Jefferson County Metropolitan Sewer District", MSD submits to you the MOU Semi-Annual Report #8. This report summarizes activities at the CSO 108 CDS Site during the reporting period of January 1, 2012 to June 30, 2012.

Should you have any questions or comments, please feel free to contact me via email at potempa@msdlouky.org or phone at (502) 540-6112.

Hope you have a great summer!

Sincerely,

A handwritten signature in black ink that reads "Julie L. Potempa". The signature is written in a cursive style with a large, prominent initial "J".

Julie L. Potempa
Project WIN Project Manager

JLP:jlj

cc: J. Loechle

A. Akridge

J. Muller

File



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

INTRODUCTION

The Louisville and Jefferson County Metropolitan Sewer District (MSD) has entered into a Memorandum of Understanding (MOU) with the Kentucky State Nature Preserve Commission (Commission). The MOU was signed by MSD on July 30, 2008, and by the Commission on September 17, 2008. This MOU is effective for the period starting September 1, 2008, and ending on September 1, 2018.

This is the eighth Semi-Annual Report submitted in accordance with Paragraph 10 of the MOU. This report covers the time period of January 1, 2012 through June 30, 2012.

This Semi-Annual Report will address only those requirements considered ongoing. The initial Semi-Annual Report, MOU Semi-Annual Report #1, was comprehensive and included a response to each requirement addressed within the MOU. Please refer to the initial Semi-Annual Report should you need additional information not found within this document.

Work and activities undertaken by MSD and relating to the MOU are outlined in the paragraphs below:

Paragraph #8 of the MOU:

During construction, MSD shall implement an Erosion Control Plan. Following completion of construction and installation of the pavers in the access road, MSD shall implement a Site Remediation Plan, sowing the disturbed areas with wild rye grass. Following construction of the Real Time Control Phase 2 project, MSD will replace the 7-inch dbh sycamore that will be destroyed by the pipe installation with four (4) of the largest container tree stock available (no less than 1.75 inches) at the time of restoration, using a mix of similar sized white, shumard, and chinquapin oak trees at the point designated on the map in Exhibit A. MSD shall monitor and maintain the tree for the first two (2) years to ensure establishment and shall replace any of the tree trees that do not survive the two years.

- MSD Response: The construction area was seeded with River Oats (*Chasmanthium latiforium*) in spring of 2009. Please refer to MOU Semi-Annual Report #4 (January 1, 2010 to June 30, 2010) for additional information.

MSD ordered three one-gallon White Oaks in the fall of 2008, with the intent to plant these trees in the spring of 2009, to coincide with seeding of the disturbed site.

Unfortunately all three of the White Oaks died during the 2008/2009 winter. In an effort to replace the White Oaks that died, nine trees were planted and mulched within the restoration site during November of 2009. The plantings consisted of three White Oaks (*Quercus alba*), three Shingle Oaks (*Quercus imbricaria*) and three Chinquapin Oaks (*Quercus muehlenbergii*). All trees were in 15-gallon pots. MSD monitored the trees during the year following the initial planting.

Though the site has rebounded well after the construction period, six of the trees did not survive the drought conditions of the late 2010 summer and the extreme cold temperatures during the winter. In an effort to replace the trees that perished, MSD will plant additional trees – a combination of oaks, sycamore and sweet gum – during the Fall of 2012. MSD, working with the Kentucky State Nature Preserve Commission, will determine the location of the plantings.

Paragraph #10 of the MOU:

MSD shall be diligent of this ten year period in more timely supplying the Commission with semi-annual reports on the efficacy of the CDS unit, water quality monitoring data, and any other such pertinent information. Said reports shall be provided to the Commission by June 30 and December 31 of each year.

- MSD Response: This document is the eighth semi-annual report to the Commission since the completion of the Project.

The CSO 108 CDS Unit is inspected weekly and cleaned on an as-needed basis. Between the dates of January 1, 2012, and June 30, 2012, MSD cleaned the CDS Unit twice, on May 16 and on May 30, 2012. In both instances, the bar racks were cleaned. The Crystal Report, shown in Table 1, is generated from work orders initiated whenever the CDS Unit is inspected and needs to be cleaned. Cleaning consists of either washing debris off of the bar racks or hauling the solids and floatables from the site. Both operations result in removing debris that would otherwise overflow into Beargrass Creek. When cleaning the bar racks, the debris is reintroduced into the sewer system, and as a result, is difficult to accurately estimate the amount removed during the maintenance process. The Crystal Report indicates the quantity removed as “unknown”.

TABLE 1: CSO 108 CDS Unit Debris Removal

<u>ACTCO</u>	<u>UNITID</u>	<u>FAILCODE</u>	<u>WONO</u>	<u>QTY</u>	<u>COMMENTS</u>	<u>COMPDTM</u>
Debris	CSO 108	Rack	1488972	Unknown	Cleaned heavy debris from rack bars (Thomas Raley / Marcus Sparks)	05/16/2012 10:21 am
Debris	CSO 108	Rack	1496955	Unknown	Cleaned heavy debris from rack bars (Thomas Raley)	05/30/2012 2:27 pm
Total				Unknown	Cubic Yards	

In addition to the weekly inspections, MSD has initiated a preventative maintenance program to insure that the CDS Unit and respective pumps are performing optimally. During these quarterly preventative maintenance activities MSD staff also cleans the CDS Unit and rack bars, washing the debris into the interceptor. The CDS Unit's pumps are removed from the facility twice yearly to more closely inspect and to perform any needed maintenance. The work orders associated with the preventative maintenance activities are shown in Attachment "B".

ATTACHMENT “A”

PHOTOS

OF AREA ADJACENT TO

CSO 108 AND THE CDS UNIT

(dated June 12, 2012)



Figure 1 - Entrance to CDS Unit

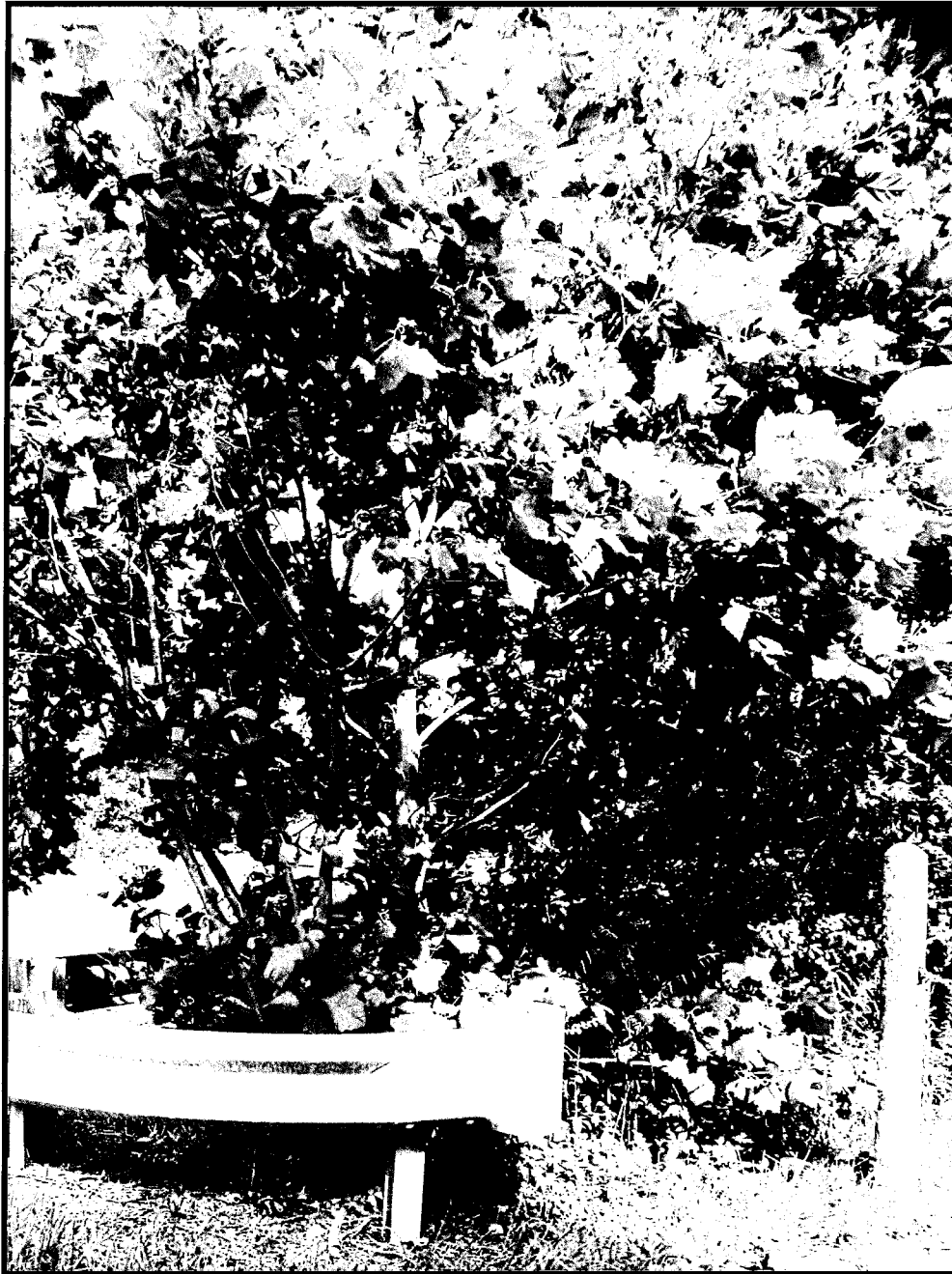


Figure 2 - At Entrance to CDS Unit
Location of removed 7-inch dbh Sycamore



Figure 3 - Adjacent to CDS Unit
Area well established

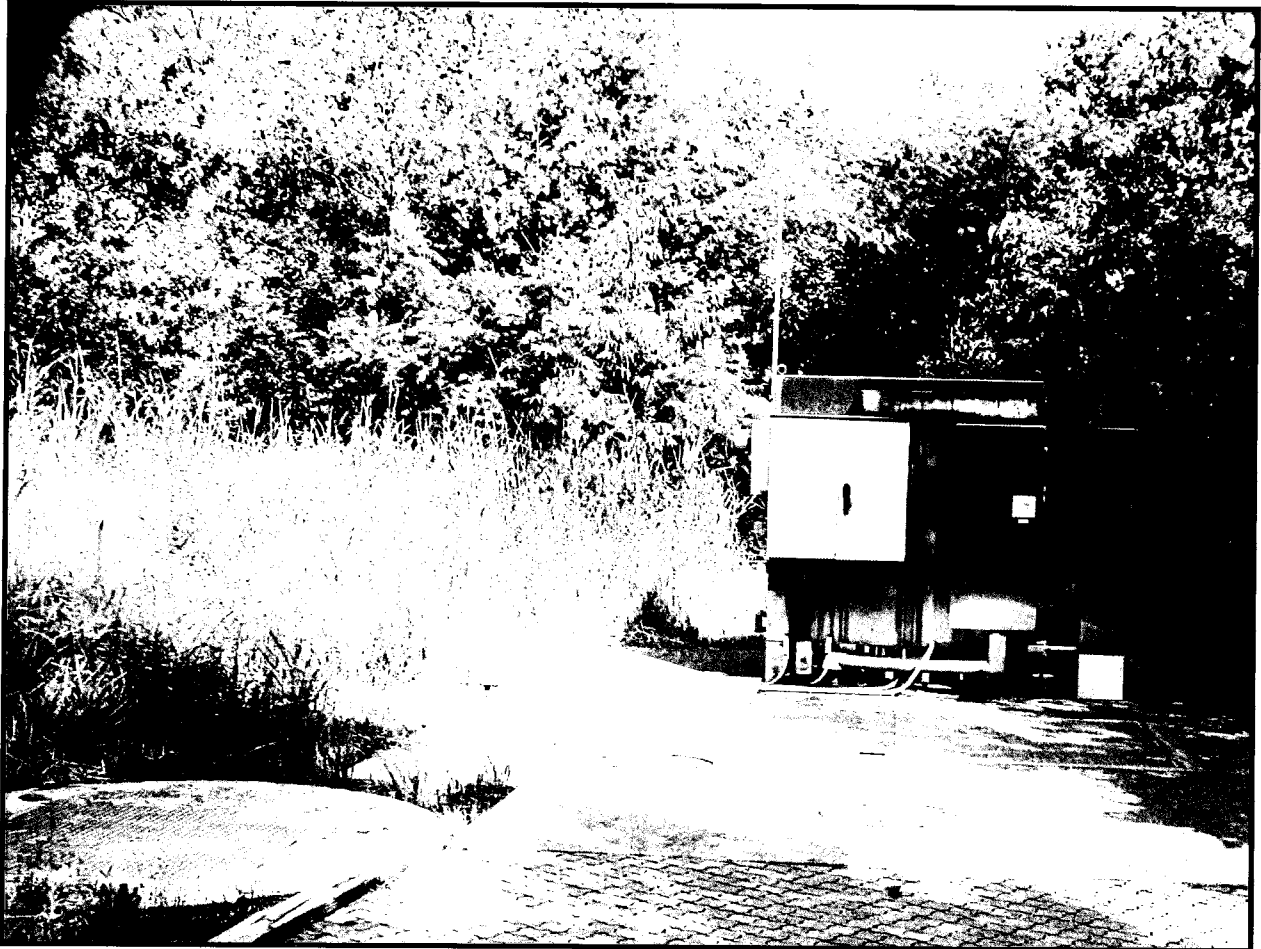


Figure 4 - CDS Unit



Figure 5 - Location of Manhole

Area adjacent to stream – possible location of future plantings

ATTACHMENT “B”

PREVENTATIVE MAINTENANCE WORK ORDERS

Report Date 06/29/2012 06:53 AM

Submitted By DAREN THOMPSON

Page 1

Work Order # 1254147 Activity SREPR SEWAGE FACILITY REPAIR ITEMS

Pump ID CDS-PMP-03
Address 2324 NEWBURG RD
LOUISVILLE KY 40205-0000

Qualifier CDS UNDERFLOW PUMP

Area BC ENG WEST-DRI ADMINISTRATION District
Sub-area 10 NEIGHBORHOOD 10 Location EM EASEMENT IN OPEN AREA
Map #

Site SLS MSD1204-PS CDS UNIT
Pump Type SUB SUBMERSIBLE Trim
Serial # RPMs Ttl Dynamic Head
Model # Flow 0.00 Usage Total 0.00
Service Status I IN SERVICE
X Coord
Y Coord As Built 12966-4 Parcel
Z Coord Date Installed 04/10/1998
Manufacturer KSB KSB PUMPS Source ID
Outl Pres Zone Source Type
Sewer Main To
Budget # Ownership MSD MSD OWNED AND OPERATED

Initiated By 00298 DAREN THOMPSON Initiated Date 10/01/2011 Scheduled
Assigned To 00298 DAREN THOMPSON Service # Due

Authorization
Budget # 7478123 FLOOD PROTECTION MAINTENANCE
Crew
Maint Type UM UNPLANNED MAINT - CORRECTIVE
Priority
Problem
Project Out of Service
Source Potential Service Request
Last Activity SREPR SEWAGE FACILITY REPAIR ITEMS Last Activity Completed 11/30/2011

Work Order Comments
pump 3 was getting several alarms. need to investigate. reset breaker. pump ran fine. nfan

Logs					
Log Type	Description	Log Date	To	Entered By	Comments
There are no logs for this work order					

Spot Inspections			
Spot Insp	UM	Completed	Description
There are no spot inspections for this work order			

Completed on 8/19/12

Report Date 06/29/2012 06:56 AM Submitted By DAREN THOMPSON Page 1

Work Order # 1323525 Activity SREPR SEWAGE FACILITY REPAIR ITEMS

Lift Station ID MSD1204-PS Description CDS UNIT
Address 2324 NEWBURG RD
LOUISVILLE KY 40205-0000

Qualifier Area BC ENG WEST-DRI ADMINISTRATION District CENT MSD CENTRAL OPERATION MAINT TM
Sub-area 10 NEIGHBORHOOD 10 Location EM EASEMENT IN OPEN AREA
Map # MAM20-A

Lift Station Type SUBM SUBMERSIBLE PUMP STATION Wet Well Vol 0.00 # of Pumps 3
Serial # Wet Well Elev 0.00 Pump Capacity 0.0
Model # Overflow Elev 0.00 Pump Discharge Size 0.00
Service Status I IN SERVICE
X Coord
Y Coord As Built 12966-4 Date Installed 04/10/1998
Z Coord Parcel
Budget # Ownership MSD MSD OWNED AND OPERATED

Initiated By 00298 DAREN THOMPSON Initiated Date 08/19/2011 Scheduled
Assigned To 00298 DAREN THOMPSON Service # Due

Authorization Budget # 7478123 FLOOD PROTECTION MAINTENANCE
Crew
Maint Type UM UNPLANNED MAINT - CORRECTIVE
Priority
Problem
Project
Source Out of Service
Potential Service Request
Last Activity TELEM6 TELEMETRY CONTROLS 6 MO PM Last Activity Completed 04/30/2012

Work Order Comments
facility still does not have power from recent storm event. need to investigate and restore power

Found that the UPS was not on. We reset the ups and the facility can back up. nfan

Logs						
Log Type	Description	Log Date	To	Entered By	Comments	
There are no logs for this work order						

Spot Inspections			
Spot Insp	UM	Completed	Description
There are no spot inspections for this work order			

Started				Completed			
Date	Time	By	Hours	Date	Time	By	Hours
08/19/2011	10:00	00543		08/19/2011	15:00		

Result	Condition	Quantity	Unit of Meas

Data Group	Sign-off

Completed on 3/30/12

Report Date 06/29/2012 06:53 AM

Submitted By DAREN THOMPSON

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Work Order #	1400156	Activity	FPSA19	CDS UNIT QUARTERLY
Equipment ID	CDS-01	Description	CDS UNIT - CREEK	
Address	2324 NEWBURG RD LOUISVILLE KY 40205-0000			
Site	SLS	MSD1204-PS		
Subunit Of				
Area			Sub-area	
District			Loc	EM
Loc Qualifier	EASEMENT IN OPEN AREA			
Complex				
Operator License				
Ownership			Parcel	MSD
Warranty Usage				0.00
X Coord			Y Coord	
Z Coord			Map #	
Equipment Type	CDS	CDS UNIT	Manufacturer	
Building			Building Level	
Service Status	1	IN SERVICE	Expected Life	0
Avg Monthly Usage	0.00		Total Usage	0.00
Model #			Warranty Expires	
Serial #			Purchase Date	
Budget #			MTBF	0
			Purchase Cost	0.00
Initiated By			Initiated Date	12/29/2011
Assigned To	FLOODPS-SUP METRO	OPS FLOOD PS	Service #	
			Scheduled	01/02/2012 00:00
			Due	05/07/2012 00:00
Authorization	RFLYNN	ROY FLYNN		
Budget #	7478123	FLOOD PROTECTION MAINTENANCE		
Crew	FLOPS	MSD METRO OPS - FLOOD PS		
Maint Type	PM	PLANNED MAINT - PREVENTIVE		
Priority			Group Proj #	11114
Problem			Out of Service	<input type="checkbox"/>
Project			Potential Service Request	<input type="checkbox"/>
Source			Last Activity Completed	03/30/2012
Last Activity	FPSA19	CDS UNIT QUARTERLY		

Logs

Log Type	Description	Log Date	To	Entered By	Comments
There are no logs for this work order					

Task FPS160 PUMP DOWN GDS UNIT

Task FPS161 INSPECT FOR SCREEN DAMAGE

Task FPS162 SPRAY OFF SCREENS

Task FPS163 CHECK SPRAY DOWN PIPING

Report Date 06/29/2012 06:53 AM

Submitted By DAREN THOMPSON

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Work Order # 1400156 Activity FPSA19 CDS UNIT QUARTERLY

Task FPS164 CK SPRAY NOZZLE FOR CLOG/DRCTN

Task FPS165 CK CDS SUMP FOR DEBRIS

Spot Inspections

Spot Insp	UM	Completed	Description
-----------	----	-----------	-------------

There are no spot inspections for this work order

Started **Completed**

Date	Time	By	Date	Time	Hours
		15393	03/30/2012	08:07	

Result	Condition	Quantity	Unit of Meas
WOCOM			

Total Usage

Data Group	Sign-off

PM COMPLETED ON 3/30/12

Report Date 06/29/2012 06:54 AM

Submitted By DAREN THOMPSON

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Work Order # 1400157 Activity FPSA19 CDS UNIT QUARTERLY

Equipment ID CDS-02
Description CDS UNIT - STREET

Address 2324 NEWBURG RD
LOUISVILLE KY 40205-0000

Site SLS MSD1204-PS
Subunit Of
Area Sub-area
District Loc EM EASEMENT IN OPEN AREA
Loc Qualifier

Complex
Operator License
Ownership Parcel MSD
Warranty Usage 0.00
X Coord Y Coord
Z Coord Map #

Equipment Type CDS CDS UNIT Manufacturer
Building Building Level
Service Status I IN SERVICE Expected Life 0
Avg Monthly Usage 0.00 Total Usage 0.00
Model # Warranty Expires MTBF 0
Serial # Purchase Date Purchase Cost 0.00
Budget #

Initiated By Assigned To FLOODPS-SUP METRO OPS FLOOD PS Initiated Date 12/29/2011 Scheduled 01/02/2012 00:00
Service # Due 05/07/2012 00:00

Authorization RFLYNN ROY FLYNN
Budget # 7478123 FLOOD PROTECTION MAINTENANCE
Crew FLDOPS MSD METRO OPS - FLOOD PS
Maint Type PM PLANNED MAINT - PREVENTIVE
Priority
Problem Group Proj # 11114
Project Out of Service
Source Potential Service Request
Last Activity FPSA19 CDS UNIT QUARTERLY Last Activity Completed 03/30/2012

Logs

Log Type	Description	Log Date	To	Entered By	Comments
----------	-------------	----------	----	------------	----------

There are no logs for this work order

Task FPS160 PUMP DOWN CDS UNIT

Task FPS161 INSPECT FOR SCREEN DAMAGE

Task FPS162 SPRAY OFF SCREENS

Task FPS163 CHECK SPRAY DOWN PIPING

Report Date 06/29/2012 06:54 AM

Submitted By DAREN THOMPSON

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Work Order # 1400157 Activity FPSA19 CDS UNIT QUARTERLY

Task FPS164 CK SPRAY NOZZLE FOR CLOG/DRCTN

Task FPS165 CK CDS SUMP FOR DEBRIS

Spot Inspections

Spot Insp	UM	Completed	Description
-----------	----	-----------	-------------

There are no spot inspections for this work order

Started **Completed**

Date	Time	By	Date	Time	Hours
		15393	03/30/2012	08:07	

Result	Condition	Quantity	Unit of Meas
WOCOM			

Total Usage

Data Group	Sign-off
------------	----------

PM completed on 3/29/12

Report Date 06/29/2012 06:54 AM

Submitted By DAREN THOMPSON

Page 1

Work Order # 1400158 Activity FPSA37 CDS FLOW REGULATOR BOX QUARTER

Equipment ID CDS-REG-00
Description CDS FLOW REGULATOR BOX

Address 2324 NEWBURG RD
LOUISVILLE KY 40205-0000

Site SLS MSD1204-PS
Subunit Of Area Sub-area
District Loc EM EASEMENT IN OPEN AREA
Loc Qualifier

Complex Operator License Ownership Parcel MSD
Warranty Usage 0.00
X Coord Y Coord
Z Coord Map #

Equipment Type REG REGULATOR BOX Manufacturer
Building Building Level
Service Status I IN SERVICE Expected Life 0
Avg Monthly Usage 0.00 Total Usage 0.00
Model # Warranty Expires MTBF 0
Serial # Purchase Date Purchase Cost 0.00
Budget #

Initiated By Assigned To FLOODPS-SUP METRO OPS FLOOD PS Initiated Date 12/29/2011 Scheduled 01/02/2012 00:00
Service # Due 05/07/2012 00:00

Authorization RFLYNN ROY FLYNN
Budget # 7478123 FLOOD PROTECTION MAINTENANCE
Crew FLDOPS MSD METRO OPS - FLOOD PS
Maint Type PM PLANNED MAINT - PREVENTIVE
Priority Problem Group Proj # 11115
Project Out of Service
Source Potential Service Request
Last Activity FPSA37 CDS FLOW REGULATOR BOX QUARTER Last Activity Completed 03/29/2012

Logs

Log Type	Description	Log Date	To	Entered By	Comments
There are no logs for this work order					

Task FPS166 CK FOR DEBRIS

Task FPS167 CK FLOAT OPERATION

Task FPS168 CK GATE OPERATION

Task FPS169 LUBRICATE UNIT

Spot Inspections

Report Date 06/29/2012 06:54 AM

Submitted By DAREN THOMPSON

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Work Order # 1400158 Activity FPSA37 CDS FLOW REGULATOR BOX QUARTER

Spot Inspections			
Spot Insp	UM	Completed	Description
There are no spot inspections for this work order			

Started		Completed			
Date	Time	By	Date	Time	Hours
		15393	03/29/2012	12:39	

Result	Condition	Quantity	Unit of Meas
WOCOM			

Total Usage

Data Group	Sign-off

*COMPLETING FOLL
PM OF PUMP TODAY 6/29/12*

Report Date 06/29/2012 06:53 AM Submitted By DAREN THOMPSON Page 1

Work Order #	1400460	Activity	FPSA16	SUBMERSIBLE PUMP SEMI-ANNUAL	
Pump ID	CDS-PMP-01				
Address	2324 NEWBURG RD LOUISVILLE KY 40205-0000				
Qualifier	CDS PUMP #1				
Area	BC	ENG WEST-DRI ADMINISTRATION	District	EM	EASEMENT IN OPEN AREA
Sub-area	10	NEIGHBORHOOD 10	Location		
Map #					
Site	SLS	MSD1204-PS	CDS UNIT		
Pump Type	SUB	SUBMERSIBLE	Trim	Ttl Dynamic Head	
Serial #			RPMs	Avg Monthly Usage 0.00	
Model #			Flow	0.00	Usage Total 0.00
Service Status	I	IN SERVICE			
X Coord					
Y Coord					
Z Coord					
Manufacturer	KSB	KSB PUMPS	As Built	12986-4	Parcel
Outl Pres Zone					
Sewer Main	To				
Budget #			Ownership	MSD	MSD OWNED AND OPERATED
Initiated By			Initiated Date	12/29/2011	Scheduled 01/02/2012 00:00
Assigned To	FLOODPS-SUP METRO	OPS FLOOD PS	Service #		Due 09/10/2012 00:00
Authorization	RFLYNN	ROY FLYNN			
Budget #	7478123	FLOOD PROTECTION MAINTENANCE			
Crew	FLDOPS	MSD METRO OPS - FLOOD PS			
Maint Type	PM	PLANNED MAINT - PREVENTIVE			
Priority					
Problem					Group Proj # 11147
Project					Out of Service <input type="checkbox"/>
Source					Potential Service Request <input type="checkbox"/>
Last Activity	SREPR	SEWAGE FACILITY REPAIR ITEMS	Last Activity Completed 05/10/2011		

Logs					
Log Type	Description	Log Date	To	Entered By	Comments
There are no logs for this work order					

Task	FPS054	CK JUNCTION BOX
Comments		
Check for dryness and cleanliness. Replace O-Rings.		

Task	FPS055	CHECK TERMINAL BOARD
Comments		
Check that electrical connections are properly tightened.		

Task	FPS056	ISOLATION CHECK
Comments		
Check that resistance between earth and phase lead is more than 5 MO		

Report Date 06/29/2012 06:53 AM

Submitted By DAREN THOMPSON

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Work Order # 1400460 Activity FPSA16 SUBMERSIBLE PUMP SEMI-ANNUAL

Task FPS057 CHECK OIL HOISING

Comments

Check oil for water, fill to correct oil level, replace filling plug O-Rings.

Task FPS058 CHECK STATOR HOUSING

Comments

Check that it is clean and dry.

Task FPS059 CHECK SENSORS

Comments

Check stator temperature, bearing temperature, FLS sensors.

Task FPS060 CK IMPEL/PROPEL WEAR RING

Comments

General check and wear ring inspection.

Task FPS061 CK ZING ANODES

Comments

Check & change if necessary.

Task FPS062 CK SCREW JOINTS

Comments

Check externally accessible screw joints, tighten to specified torque.

Task FPS063 CK LIFTING HANDLE

Comments

Check & change if necessary.

Task FPS064 CK IMPEL/PROPEL ROTATION DIR

Task FPS065 CK CABLE

Comments

Check that rubber sheathing is undamaged.

Task FPS066 INSPECT BEARINGS

Comments

Inspect.

Report Date 06/29/2012 06:53 AM

Submitted By DAREN THOMPSON

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Work Order # 1400460 Activity FPSA16 SUBMERSIBLE PUMP SEMI-ANNUAL

Task FPS067 CK ORINGS & RUBBER SEALING PTS

Task FPS068 INSPECT SEALS

Comments

Replace if needed.

Task FPS030 CHANGE OIL / SYSTEM FLUID

Task FPS070 INSPECT IMPELLER/PROPELLER

Task FPS071 CHECK RUNNING V&A VALUES

Task FPS072 MEGGER TESTING ON PUMP MOTOR

Spot Inspections

Spot Insp	UM	Completed	Description
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There are no spot inspections for this work order

Started				Completed			
Date	Time	By		Date	Time	Hours	

Result	Condition	Quantity	Unit of Meas
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Data Group	Sign-off
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*Completing Full
PM OF Pump TODAY 6/29/12*

Report Date 06/29/2012 06:53 AM

Submitted By DAREN THOMPSON

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Work Order # 1400461 Activity FPSA16 SUBMERSIBLE PUMP SEMI-ANNUAL

Pump ID CDS-PMP-02
Address 2324 NEWBURG RD
LOUISVILLE KY 40205-0000

Qualifier CDS PUMP #2

Area BC ENG WEST-DRI ADMINISTRATION District
Sub-area 10 NEIGHBORHOOD 10 Location EM EASEMENT IN OPEN AREA
Map #

Site SLS MSD1204-PS CDS UNIT
Pump Type SUB SUBMERSIBLE Trim
Serial # RPMs Ttl Dynamic Head
Model # Flow 0.00 Avg Monthly Usage 0.00
Service Status I IN SERVICE Usage Total 0.00
X Coord
Y Coord As Built 12966-4 Parcel
Z Coord Date Installed 04/10/1998
Manufacturer KSB KSB PUMPS Source ID
Outl Pres Zone Source Type
Sewer Main To
Budget # Ownership MSD MSD OWNED AND OPERATED

Initiated By Assigned To FLOODPS-SUP METRO OPS FLOOD PS Initiated Date 12/29/2011 Scheduled 01/02/2012 00:00
Service # Due 09/10/2012 00:00

Authorization RFLYNN ROY FLYNN
Budget # 7478123 FLOOD PROTECTION MAINTENANCE
Crew FLDOPS MSD METRO OPS - FLOOD PS
Maint Type PM PLANNED MAINT - PREVENTIVE
Priority
Problem Group Proj # 11147
Project Out of Service
Source Potential Service Request
Last Activity SREPR SEWAGE FACILITY REPAIR ITEMS Last Activity Completed 05/10/2011

Logs					
Log Type	Description	Log Date	To	Entered By	Comments
There are no logs for this work order					

Task	FPS054	CK JUNCTION BOX
Comments		
Check for dryness and cleanliness. Replace O-Rings.		

Task	FPS055	CHECK TERMINAL BOARD
Comments		
Check that electrical connections are properly tightened.		

Task	FPS056	ISOLATION CHECK
Comments		
Check that resistance between earth and phase lead is more than 5 MO		

Report Date 06/29/2012 06:53 AM

Submitted By DAREN THOMPSON

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Work Order # 1400461 Activity FPSA16 SUBMERSIBLE PUMP SEMI-ANNUAL

Task FPS057 CHECK OIL HOISING

Comments

Check oil for water, fill to correct oil level, replace filling plug O-Rings.

Task FPS058 CHECK STATOR HOUSING

Comments

Check that it is clean and dry.

Task FPS059 CHECK SENSORS

Comments

Check stator temperature, bearing temperature, FLS sensors.

Task FPS060 CK IMPEL/PROPEL WEAR RING

Comments

General check and wear ring inspection.

Task FPS061 OK ZING ANODES

Comments

Check & change if necessary.

Task FPS062 CK SCREW JOINTS

Comments

Check externally accessible screw joints, tighten to specified torque.

Task FPS063 CK LIFTING HANDLE

Comments

Check & change if necessary.

Task FPS064 CK IMPEL/PROPEL ROTATION DIR

Task FPS065 CK CABLE

Comments

Check that rubber sheathing is undamaged.

Task FPS066 INSPECT BEARINGS

Comments

Inspect.

Report Date 06/29/2012 06:53 AM

Submitted By DAREN THOMPSON

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Work Order # 1400461 Activity FPSA16 SUBMERSIBLE PUMP SEMI-ANNUAL

Task FPS067 CK ORINGS & RUBBER SEALING PTS

Task FPS068 INSPECT SEALS

Comments

Replace if needed.

Task FPS030 CHANGE OIL / SYSTEM FLUID

Task FPS070 INSPECT IMPELLER/PROPELLER

Task FPS071 CHECK RUNNING V&A VALUES

Task FPS072 MEGGER TESTING ON PUMP MOTOR

Spot Inspections

Spot Insp	UM	Completed	Description
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There are no spot inspections for this work order

Started				Completed			
Date	Time	By		Date	Time	Hours	

--	--	--	--	--	--	--	--

Result	Condition	Quantity	Unit of Meas
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Data Group	Sign-off
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*Completing Full PM of
Pump TODAY 6/29/12*

Report Date 06/29/2012 06:53 AM

Submitted By DAREN THOMPSON

Work Order #	1400462	Activity	FPSA16	SUBMERSIBLE PUMP SEMI-ANNUAL	
Pump ID	CDS-PMP-03				
Address	2324 NEWBURG RD LOUISVILLE KY 40205-0000				
Qualifier	CDS UNDERFLOW PUMP				
Area	BC	ENG WEST-DRI ADMINISTRATION	District	EM	EASEMENT IN OPEN AREA
Sub-area	10	NEIGHBORHOOD 10	Location		
Map #					
Site	SLS	MSD1204-PS	CDS UNIT		
Pump Type	SUB	SUBMERSIBLE	Trim	Ttl Dynamic Head	
Serial #			RPMs	Avg Monthly Usage 0.00	
Model #			Flow	0.00	Usage Total 0.00
Service Status	I	IN SERVICE			
X Coord			As Built	12066-4	Parcel
Y Coord			Date Installed	04/10/1998	
Z Coord			Source ID		
Manufacturer	KSB	KSB PUMPS	Source Type		
Outl Pres Zone			To		
Sewer Main			Ownership	MSD	MSD OWNED AND OPERATED
Budget #					
Initiated By			Initiated Date	12/29/2011	Scheduled 01/02/2012 00:00
Assigned To	FLOODPS-SUP METRO	OPS FLOOD PS	Service #		Due 09/10/2012 00:00
Authorization	RFLYNN	ROY FLYNN			
Budget #	7478123	FLOOD PROTECTION MAINTENANCE			
Crew	FLDOPS	MSD METRO OPS - FLOOD PS			
Maint Type	PM	PLANNED MAINT - PREVENTIVE			
Priority					
Problem					
Project					
Source					
Last Activity	SREPR	SEWAGE FACILITY REPAIR ITEMS	Group Proj #	11147	
			Out of Service	<input type="checkbox"/>	
			Potential Service Request	<input type="checkbox"/>	
			Last Activity Completed	11/30/2011	

Log Type	Description	Log Date	To	Entered By	Comments
There are no logs for this work order					

Task	FPS054	GK JUNCTION BOX
Comments	Check for dryness and cleanliness. Replace O-Rings.	

Task	FPS055	CHECK TERMINAL BOARD
Comments	Check that electrical connections are properly tightened.	

Task	FPS056	ISOLATION CHECK
Comments	Check that resistance between earth and phase lead is more than 5 MO	

Report Date 06/29/2012 06:53 AM

Submitted By DAREN THOMPSON

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Work Order # 1400462 Activity FPSA16 SUBMERSIBLE PUMP SEMI-ANNUAL

Task FPS057 CHECK OIL HOISING

Comments

Check oil for water, fill to correct oil level, replace filling plug O-Rings.

Task FPS058 CHECK STATOR HOUSING

Comments

Check that it is clean and dry.

Task FPS059 CHECK SENSORS

Comments

Check stator temperature, bearing temperature, FLS sensors.

Task FPS060 CK IMPEL/PROPEL WEAR RING

Comments

General check and wear ring inspection.

Task FPS061 CK ZING ANODES

Comments

Check & change if necessary.

Task FPS062 CK SCREW JOINTS

Comments

Check externally accessible screw joints, tighten to specified torque.

Task FPS063 CK LIFTING HANDLE

Comments

Check & change if necessary.

Task FPS064 CK IMPEL/PROPEL ROTATION DIR

Task FPS065 CK CABLE

Comments

Check that rubber sheathing is undamaged.

Task FPS066 INSPECT BEARINGS

Comments

Inspect.

Report Date 06/29/2012 06:53 AM

Submitted By DAREN THOMPSON

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Work Order # 1400462 Activity FPSA16 SUBMERSIBLE PUMP SEMI-ANNUAL

Task FPS067 CK ORINGS & RUBBER SEALING PTS

Task FPS068 INSPECT SEALS

Comments

Replace if needed.

Task FPS030 CHANGE OIL / SYSTEM FLUID

Task FPS070 INSPECT IMPELLER/PROPELLER

Task FPS071 CHECK RUNNING V&A VALUES

Task FPS072 MEGGER TESTING ON PUMP MOTOR

Spot Inspections

Spot Insp	UM	Completed	Description
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There are no spot inspections for this work order

Started

Completed

Date	Time	By	Date	Time	Hours
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Result	Condition	Quantity	Unit of Meas
--------	-----------	----------	--------------

Data Group	Sign-off
------------	----------

Report Date 06/29/2012 06:52 AM

Submitted By DAREN THOMPSON

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Work Order # 1460113 Activity SREPR SEWAGE FACILITY REPAIR ITEMS

Pump ID CDS-PMP-01
Address 2324 NEWBURG RD
LOUISVILLE KY 40205-0000

Qualifier CDS PUMP #1

Area BC ENG WEST-DRI ADMINISTRATION District
Sub-area 10 NEIGHBORHOOD 10 Location EM EASEMENT IN OPEN AREA
Map #

Site SLS MSD1204-PS CDS UNIT
Pump Type SUB SUBMERSIBLE Trim
Serial # RPMs Ttl Dynamic Head
Model # Flow 0.00 Avg Monthly Usage 0.00
Service Status I IN SERVICE Usage Total 0.00
X Coord
Y Coord As Built 12066-4 Parcel
Z Coord Date installed 04/10/1998
Manufacturer KSB KSB PUMPS Source ID
Outl Pres Zone Source Type
Sewer Main To
Budget # Ownership MSD MSD OWNED AND OPERATED

Initiated By 00298 DAREN THOMPSON Initiated Date 03/30/2012 Scheduled
Assigned To FLOODPS-SUP METRO OPS FLOOD PS Service # Due

Authorization
Budget # 7478123 FLOOD PROTECTION MAINTENANCE
Crew
Maint Type UM UNPLANNED MAINT - CORRECTIVE
Priority
Problem
Project
Source

Out of Service
Potential Service Request
Last Activity Completed 05/10/2011

Last Activity SREPR SEWAGE FACILITY REPAIR ITEMS

Work Order Comments
pump 1 pump failed on the moisture sensor. need to make repairs as necessary.

*WE RESET THE ALARM & WARNING
WENT AWAY.*

Logs					
Log Type	Description	Log Date	To	Entered By	Comments
There are no logs for this work order					

Spot Inspections			
Spot Insp	UM	Completed	Description
There are no spot inspections for this work order			

*Full PM was completed
on 6/28/12*

Report Date 06/29/2012 06:53 AM

Submitted By DAREN THOMPSON

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Work Order # 1460602 Activity FPSA19 CDS UNIT QUARTERLY

Equipment ID CDS-01
Description CDS UNIT - CREEK

Address 2324 NEWBURG RD
LOUISVILLE KY 40205-0000

Site SLS MSD1204-PS

Subunit Of

Area

District

Loc Qualifier

Sub-area

Loc

EM

EASEMENT IN OPEN AREA

Complex

Operator License

Ownership

Warranty Usage

X Coord

Z Coord

Parcel

MSD

0.00

Y Coord

Map #

Equipment Type CDS CDS UNIT

Building

Service Status 1

IN SERVICE

Avg Monthly Usage 0.00

Model #

Serial #

Budget #

Manufacturer

Building Level

Expected Life 0

Total Usage 0.00

Warranty Expires

Purchase Date

MTBF

0

Purchase Cost

0.00

Initiated By

Assigned To

FLOODPS-SUP METRO

OPS FLOOD PS

Initiated Date 04/02/2012

Service #

Scheduled 04/02/2012 00:00

Due 08/06/2012 00:00

Authorization RFLYNN

Budget # 7478123

Crew FLDOPS

Maint Type PM

Priority

Problem

Project

Source

Last Activity FPSA19

ROY FLYNN

FLOOD PROTECTION MAINTENANCE

MSD METRO OPS - FLOOD PS

PLANNED MAINT - PREVENTIVE

Group Proj # 11873

Out of Service

Potential Service Request

Last Activity Completed 03/30/2012

Logs

Log Type	Description	Log Date	To	Entered By	Comments
There are no logs for this work order					

Task FPS160 PUMP DOWN CDS UNIT

Task FPS161 INSPECT FOR SCREEN DAMAGE

Task FPS162 SPRAY OFF SCREENS

Task FPS163 CHECK SPRAY DOWN PIPING

Report Date 06/29/2012 06:53 AM

Submitted By DAREN THOMPSON

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Work Order # 1460602 Activity FPSA19 CDS UNIT QUARTERLY

Task FPS164 CK SPRAY NOZZLE FOR CLOG/DRCTN

Task FPS165 CK CDS SUMP FOR DEBRIS

Spot Inspections

Spot Insp	UM	Completed	Description
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There are no spot inspections for this work order

Started				Completed			
Date	Time	By		Date	Time	Hours	

Date	Time	By	Date	Time	Hours
------	------	----	------	------	-------

Result	Condition	Quantity	Unit of Meas
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Total Usage

Data Group	Sign-off
------------	----------

*PM completed on
06/25/12*

Report Date 06/29/2012 06:54 AM

Submitted By DAREN THOMPSON

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Work Order # 1460603 Activity FPSA19 CDS UNIT QUARTERLY

Equipment ID CDS-02
Description CDS UNIT - STREET

Address 2324 NEWBURG RD
LOUISVILLE KY 40205-0000

Site SLS MSD1204-PS

Subunit Of

Area

District

Loc Qualifier

Sub-area

Loc

EM

EASEMENT IN OPEN AREA

Complex

Operator License

Ownership

Warranty Usage

X Coord

Z Coord

Parcel

MSD

0.00

Y Coord

Map #

Equipment Type CDS CDS UNIT

Building

Service Status 1 IN SERVICE

Avg Monthly Usage 0.00

Model #

Serial #

Budget #

Manufacturer

Building Level

Expected Life 0

Total Usage 0.00

Warranty Expires

Purchase Date

MTBF

0

Purchase Cost

0.00

Initiated By

Assigned To

FLOODPS-SUP METRO

OPS FLOOD PS

Initiated Date

04/02/2012

Service #

Scheduled

04/02/2012 00:00

Due

08/06/2012 00:00

Authorization RFLYNN

Budget # 7478123

Crew FLDOPS

Maint Type PM

Priority

Problem

Project

Source

Last Activity FPSA19

ROY FLYNN

FLOOD PROTECTION MAINTENANCE

MSD METRO OPS - FLOOD PS

PLANNED MAINT - PREVENTIVE

CDS UNIT QUARTERLY

Group Proj #

11873

Out of Service

Potential Service Request

Last Activity Completed

03/30/2012

Logs

Log Type	Description	Log Date	To	Entered By	Comments
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There are no logs for this work order

Task FPS160 PUMP DOWN CDS UNIT

Task FPS161 INSPECT FOR SCREEN DAMAGE

Task FPS162 SPRAY OFF SCREENS

Task FPS163 CHECK SPRAY DOWN PIPING

Report Date 06/29/2012 08:54 AM

Submitted By DAREN THOMPSON

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Work Order # 1460603 Activity FPSA19 CDS UNIT QUARTERLY

Task FPS164 CK SPRAY NOZZLE FOR CLOG/DRCTN

Task FPS165 CK CDS SUMP FOR DEBRIS

Spot Inspections

Spot Insp	UM	Completed	Description
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There are no spot inspections for this work order

Started				Completed			
Date	Time	By		Date	Time	Hours	

Date	Time	By	Date	Time	Hours
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Result	Condition	Quantity	Unit of Meas
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Total Usage

Data Group	Sign-off
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P.M. Completed on 6/28/12

Report Date 06/29/2012 06:54 AM

Submitted By DAREN THOMPSON

Page 1

Work Order # 1460604 Activity FPSA37 CDS FLOW REGULATOR BOX QUARTER

Equipment ID CDS-REG-00
Description CDS FLOW REGULATOR BOX

Address 2324 NEWBURG RD
LOUISVILLE KY 40205-0000

Site SLS MSD1204-PS
Subunit Of
Area
District Sub-area
Loc EM EASEMENT IN OPEN AREA
Loc Qualifier

Complex
Operator License
Ownership Parcel MSD
Warranty Usage 0.00
X Coord Y Coord
Z Coord Map #

Equipment Type REG REGULATOR BOX Manufacturer
Building Building Level
Service Status 1 IN SERVICE Expected Life 0
Avg Monthly Usage 0.00 Total Usage 0.00
Model # Warranty Expires MTBF 0
Serial # Purchase Date Purchase Cost 0.00
Budget #

Initiated By Assigned To FLOODPS-SUP METRO OPS FLOOD PS Initiated Date 04/02/2012 Scheduled 04/02/2012 00:00
Service # Due 08/06/2012 00:00

Authorization RFLYNN ROY FLYNN
Budget # 7478123 FLOOD PROTECTION MAINTENANCE
Crew FLDOPS MSD METRO OPS - FLOOD PS
Maint Type PM PLANNED MAINT - PREVENTIVE
Priority
Problem Group Proj # 11874
Project Out of Service
Source Potential Service Request
Last Activity FPSA37 CDS FLOW REGULATOR BOX QUARTER Last Activity Completed 03/29/2012

Logs					
Log Type	Description	Log Date	To	Entered By	Comments
There are no logs for this work order					

Task FPS166 CK FOR DEBRIS

Task FPS167 CK FLOAT OPERATION

Task FPS168 CK GATE OPERATION

Task FPS169 LUBRICATE UNIT

Spot Inspections

Report Date 06/29/2012 06:54 AM

Submitted By DAREN THOMPSON

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Work Order # 1460604

Activity

FPSA37

CDS FLOW REGULATOR BOX QUARTER

Spot Inspections

Spot Insp	UM	Completed	Description
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There are no spot inspections for this work order

Started

Completed

Date	Time	By	Date	Time	Hours
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Result	Condition	Quantity	Unit of Meas
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Total Usage

Data Group	Sign-off
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PM TO BE COMPLETED TODAY 6/29/12

Report Date 06/29/2012 06:55 AM

Submitted By DAREN THOMPSON

Page 1

Work Order #	1460605	Activity	FPSA38	CURTAIN WALL QUARTERLY
Equipment ID	CDS-CTN-00	Description	CSO108 CURTAIN WALL	
Address	2324 NEWBURG RD LOUISVILLE KY 40205-0000			

Site	SLS	MSD1204-PS		
Subunit Of				
Area			Sub-area	
District			Loc	EM
Loc Qualifier				EASEMENT IN OPEN AREA
Complex				
Operator License				
Ownership			Parcel	MSD
Warranty Usage				0.00
X Coord			Y Coord	
Z Coord			Map #	

Equipment Type		Manufacturer		
Building		Building Level		
Service Status	1	Expected Life	0	
Avg Monthly Usage	0.00	Total Usage	0.00	
Model #		Warranty Expires		MTBF 0
Serial #		Purchase Date		Purchase Cost 0.00
Budget #				

Initiated By		Initiated Date	04/02/2012	Scheduled	04/02/2012 00:00
Assigned To	FLOODPS-SUP METRO	Service #		Due	08/06/2012 00:00

Authorization	RFLYNN	ROY FLYNN		
Budget #	7478123	FLOOD PROTECTION MAINTENANCE		
Crew	FLDOPS	MSD METRO OPS - FLOOD PS		
Maint Type	PM	PLANNED MAINT - PREVENTIVE		
Priority				
Problem			Group Proj #	11875
Project			Out of Service	<input type="checkbox"/>
Source			Potential Service Request	<input type="checkbox"/>
Last Activity	FPSA38	CURTAIN WALL QUARTERLY	Last Activity Completed	06/28/2012

Logs					
Log Type	Description	Log Date	To	Entered By	Comments
There are no logs for this work order					

Task FPS170 INSP CURTAIN WALLS FOR DEFECTS

Spot Inspections			
Spot Insp	UM	Completed	Description
There are no spot inspections for this work order			

PM completed on 4/25/12

Report Date 06/29/2012 06:55 AM

Submitted By DAREN THOMPSON

Page 1

Work Order # 1460745 Activity FPSA04 LEVEL SENSORS MONTHLY (SNTRY)

Equipment ID CDS-LVL-02
Description CDS PUMP LEVEL SENSOR #2 (WETWELL HYDROSTAT)

Address 2324 NEWBURG RD
LOUISVILLE KY 40205-0000

Site SLS MSD1204-PS
Subunit Of
Area
District Sub-area
Loc EM EASEMENT IN OPEN AREA
Loc Qualifier
Complex
Operator License
Ownership Parcel MSD
Warranty Usage 0.00
X Coord Y Coord
Z Coord Map #

Equipment Type LVL. LEVEL CONTROLLER/INDICATOR Manufacturer
Building Building Level
Service Status I IN SERVICE Expected Life 0
Avg Monthly Usage 0.00 Total Usage 0.00
Model # Warranty Expires MTBF 0
Serial # Purchase Date Purchase Cost 0.00
Budget #

Initiated By Assigned To FLOODPS-SUP METRO OPS FLOOD PS Initiated Date 04/02/2012 Scheduled 04/02/2012 00:00
Service # Due 08/08/2012 00:00

Authorization RFLYNN ROY FLYNN
Budget # 7478123 FLOOD PROTECTION MAINTENANCE
Crew FLDOPS MSD METRO OPS - FLOOD PS
Maint Type PM PLANNED MAINT - PREVENTIVE
Priority
Problem Group Proj # 11891
Project Out of Service
Source Potential Service Request
Last Activity FPSA04 LEVEL SENSORS MONTHLY (SNTRY) Last Activity Completed 04/25/2012

Logs

Log Type	Description	Log Date	To	Entered By	Comments
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There are no logs for this work order

Task FPS095 CK FOR PROPER OPERATION

Spot Inspections

Spot Insp	UM	Completed	Description
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There are no spot inspections for this work order

Report Date 06/29/2012 06:55 AM

Submitted By DAREN THOMPSON

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Work Order # 1460745

Activity FPSA04

LEVEL SENSORS MONTHLY (SNTRY)

Started				Completed				
Date	Time	By		Date	Time	Hours		
		00543		04/25/2012	08:41			

Result	Condition	Quantity	Unit of Meas
WOCOM			

Total Usage

Data Group	Sign-off

PM completed on 4/25/12

Report Date 06/29/2012 06:55 AM

Submitted By DAREN THOMPSON

Page 1

Work Order # 1460746 Activity FPSA04 LEVEL SENSORS MONTHLY (SNTRY)

Equipment ID CDS-LVL-03
Description CDS PUMP LEVEL SENSOR #3 (UNDERFLOW SUMP/CDS UNIT HYDROSTAT)

Address 2324 NEWBURG RD
LOUISVILLE KY 40205-0000

Site SLS MSD1204-PS
Subunit Of Area Sub-area
District Loc EM EASEMENT IN OPEN AREA
Loc Qualifier
Complex
Operator License
Ownership Parcel MSD
Warranty Usage 0.00
X Coord Y Coord
Z Coord Map #

Equipment Type LVL LEVEL CONTROLLER/INDICATOR Manufacturer
Building Building Level
Service Status I IN SERVICE Expected Life 0
Avg Monthly Usage 0.00 Total Usage 0.00
Model # Warranty Expires MTBF 0
Serial # Purchase Date Purchase Cost 0.00
Budget #

Initiated By Assigned To FLOODPS-SUP METRO OPS FLOOD PS Initiated Date 04/02/2012 Scheduled 04/02/2012 00:00
Service # Due 08/06/2012 00:00

Authorization RFLYNN ROY FLYNN
Budget # 7478123 FLOOD PROTECTION MAINTENANCE
Crew FLDOPS MSD METRO OPS - FLOOD PS
Maint Type PM PLANNED MAINT - PREVENTIVE
Priority
Problem Group Proj # 11891
Project Out of Service
Source Potential Service Request
Last Activity FPSA04 LEVEL SENSORS MONTHLY (SNTRY) Last Activity Completed 04/25/2012

Logs

Log Type	Description	Log Date	To	Entered By	Comments
There are no logs for this work order					

Task FPS095 CK-FOR PROPER OPERATION

Spot Inspections

Spot Insp	UM	Completed	Description
There are no spot inspections for this work order			

Report Date 06/29/2012 06:55 AM

Submitted By DAREN THOMPSON

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Work Order # 1460746

Activity FPSA04

LEVEL SENSORS MONTHLY (SNTY)

Started		Completed						
Date	Time	By		Date	Time	Hours		
		00543		04/25/2012	08:40			

Result	Condition	Quantity	Unit of Meas
WOCOM			

Total Usage

Data Group	Sign-off

PM completed on 4/25/12

Report Date 06/29/2012 06:55 AM

Submitted By DAREN THOMPSON

Page 1

Work Order # 1460747 Activity FPSA04 LEVEL SENSORS MONTHLY (SNTRY)

Equipment ID CDS-LVL-04
Description CDS PUMP FLOW SENSOR #4 (SIGMA 2410 UNDERFLOW FORCEMAIN ULTRASONIC METER)

Address 2324 NEWBURG RD
LOUISVILLE KY 40205-0000

Site SLS MSD1204-PS
Subunit Of
Area Sub-area
District Loc EM EASEMENT IN OPEN AREA
Loc Qualifier
Complex
Operator License
Ownership Parcel MSD
Warranty Usage 0.00
X Coord Y Coord
Z Coord Map #

Equipment Type LVL LEVEL CONTROLLER/INDICATOR Manufacturer
Building Building Level
Service Status I IN SERVICE Expected Life 0
Avg Monthly Usage 0.00 Total Usage 0.00
Model # Warranty Expires MTBF 0
Serial # Purchase Date Purchase Cost 0.00
Budget #

Initiated By Assigned To FLOODPS-SUP METRO OPS FLOOD PS Initiated Date 04/02/2012 Scheduled 04/02/2012 00:00
Service # Due 08/06/2012 00:00

Authorization RFLYNN ROY FLYNN
Budget # 7478123 FLOOD PROTECTION MAINTENANCE
Crew FLDOPS MSD METRO OPS - FLOOD PS
Maint Type PM PLANNED MAINT - PREVENTIVE
Priority
Problem Group Proj # 11891
Project Out of Service
Source Potential Service Request
Last Activity FPSA04 LEVEL SENSORS MONTHLY (SNTRY) Last Activity Completed 04/25/2012

Logs					
Log Type	Description	Log Date	To	Entered By	Comments
There are no logs for this work order					

Task	FPS096	CK FOR PROPER OPERATION
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Spot Inspections			
Spot Insp	UM	Completed	Description
There are no spot inspections for this work order			

Report Date 06/29/2012 06:55 AM

Submitted By DAREN THOMPSON

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Work Order # 1460747

Activity

FPSA04

LEVEL SENSORS MONTHLY (SNTY)

Started			Completed					
Date	Time	By	Date	Time	Hours			
		00543	04/25/2012	08:39				

Result	Condition	Quantity	Unit of Meas
WOCOM			

Total Usage

Data Group	Sign-off

APPENDIX B-1 - DISCHARGE WORK ORDERS-WATERS OF THE UNITED STATES

**APPENDIX B-1
UNAUTHORIZED DISCHARGES
TO WATERS OF UNITED STATES
JULY 1, 2011 THROUGH JUNE 30, 2012**

Associated Wastewater Treatment Plant Name	Associated Treatment Plant KPDES #	Overflow Location	Overflow Start Date & Time	Overflow Stop Date & Time	Volume of Overflow	Source Asset Type	Source Asset ID	Facility Discharges To	Receiving Stream	Cause of Overflow	Due To	Weather	WO #	Cleanup Efforts by MSD	Repair Efforts by MSD
MORRIS FORMAN	MSD0278	804 N ARBOR DR	11/22/11 12:00: PM	11/22/11 05:20 PM	2,750 GAL	Sewer Manhole	00056-W	GROUND	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1383760	NO DEBRIS	SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR
MORRIS FORMAN	MSD0278	804 N ARBOR DR	11/28/11 5:24: PM	11/29/11 12:52 PM	5,840 GAL	Sewer Manhole	00056-W	GROUND	MIDDLE FORK BEARGRASS CREEK	RAIN EVENT CAUSED A LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1385331	NO DEBRIS	SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR
MORRIS FORMAN	MSD0278	804 N ARBOR DR	12/05/11 11:10: AM	12/06/11 12:10 PM	37,500 GAL	Sewer Manhole	00056-W	GROUND	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1388754	MSD CLEANED & SANITIZED THE AREA	SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR
MORRIS FORMAN	MSD0278	804 N ARBOR DR	05/13/12 4:23: PM	05/14/12 01:00 AM	12,925 GAL	Sewer Manhole	00056-W	GROUND	MIDDLE FORK BEARGRASS CREEK	RAIN EVENT CAUSED A LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1487917	NO CLEANUP; MANHOLE IN THE MIDDLE OF THE STREET.	THIS SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR
MORRIS FORMAN	MSD0278	804 N ARBOR DR	12/23/11 2:20: AM	12/23/11 03:05 AM	1,125 GAL	Sewer Manhole	00056-W	GROUND	MIDDLE FORK BEARGRASS CREEK	DURING RAINEVENT #2 PUMP NOT WORKING AND #1 PUMP CLOGGED CAUSING A DISCHARGE	MECHANICAL FAILURE	DISREV RAIN EVENT DISCHARGE	1398381	MSD CLEANED AND SANITIZED AREA	MAINTENANCE RESET #2 PUMP AND UNCLOGGED #1 PUMP
MORRIS FORMAN	MSD0278	804 N ARBOR DR	12/23/11 2:20: AM	12/23/11 03:05 AM	450 GAL	Sewer Manhole	00746	DITCH	MIDDLE FORK BEARGRASS CREEK	OPERATOR REPORTED DISCHARGE AT MANHOLE BY STATION FLOW RATE 10 GPM #2 PUMP NOT RUNNING #1 PUMP CLOGGED DURING A RAIN EVENT	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1398387	MSD CLEANED AND SANITIZED AREA	MAINTENANCE RESET #2 PUMP AND UNCLOGGED #1 PUMP
MORRIS FORMAN	MSD0278	804 N ARBOR DR	05/13/12 4:23: PM	05/14/12 01:00 AM	38,775 GAL	Sewer Manhole	00746	DITCH	MIDDLE FORK BEARGRASS CREEK	RAIN EVENT CAUSED A LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1487915	MSD CLEANED & SANITIZED THE AREA	SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR
MORRIS FORMAN	MSD0278	806 PINE WAY	12/05/11 5:00: PM	12/06/11 03:45 AM	16,125 GAL	Sewer Manhole	00817	GROUND	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1389063	MSD CLEANED & SANITIZED THE AREA	STATION IS BEING HAULED #1388533
MORRIS FORMAN	MSD0278	202 ROUNDSTONE CT	03/24/12 9:16: AM	03/24/12 09:46 AM	25 GAL	Sewer Manhole	01971	GROUND	HURSTBOURNE CREEK	OBSTRUCTION IN MAIN SEWER	OBSTRUCTION-NOT GREASE OR ROOT	DISDW DRY WEATHER DISCHARGE	1456268	MSD PERSONNEL CLEANED AND SANITIZED THE IMPACTED AREA	WORK ORDER 1456803 - FLUSHED THE MAIN SEWER
MORRIS FORMAN	MSD0278	8021 CHRISTIAN CT	12/05/11 11:53: AM	12/06/11 03:30 PM	21,000 GAL	Sewer Manhole	02932	GROUND	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1388787	DISCLN WO# 1389212	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	8021 CHRISTIAN CT	01/26/12 11:49: PM	01/27/12 06:32 AM	27,000 GAL	Sewer Manhole	02932	GROUND	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1415921	DISCLN WO# 1416081	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	8021 CHRISTIAN CT	05/29/12 12:32: PM	05/29/12 04:54 PM	6,000 GAL	Sewer Manhole	02932	GROUND	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1496330	DISCLN WO# 1496614	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	7900 SHELBYVILLE RD	11/29/11 2:53: AM	11/29/11 10:21 AM	6,100 GAL	Sewer Manhole	02933	STREAM	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1385425	NONE NEEDED DUE TO MAGNITUDE OF STORM	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	7900 SHELBYVILLE RD	12/05/11 11:40: AM	12/07/11 03:30 PM	24,000 GAL	Sewer Manhole	02933	STREAM	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1388784	DISCLN WO# 1389219	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	7900 SHELBYVILLE RD	01/26/12 11:12: PM	01/27/12 06:13 AM	7,200 GAL	Sewer Manhole	02933	STREAM	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1415919	DISCLN WO# 1416074	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	7900 SHELBYVILLE RD	05/29/12 12:22: PM	05/29/12 04:52 PM	32,000 GAL	Sewer Manhole	02933	STREAM	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1496326	DISCLN WO# 1496606	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	7900 SHELBYVILLE RD	11/29/11 2:50: AM	11/29/11 10:15 AM	6,100 GAL	Sewer Manhole	02935	STREAM	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1385424	NO DISCLN NEEDED DUE TO MAGNITUDE OF STORM	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	7900 SHELBYVILLE RD	12/05/11 11:40: AM	12/07/11 03:30 PM	27,500 GAL	Sewer Manhole	02935	STREAM	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1388783	DISCLN WO# 1389215	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	7900 SHELBYVILLE RD	01/26/12 11:12: PM	01/27/12 06:11 AM	18,000 GAL	Sewer Manhole	02935	STREAM	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1415917	DISCLN WO# 1416070	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	7900 SHELBYVILLE RD	05/29/12 12:17: PM	05/29/12 04:49 PM	36,000 GAL	Sewer Manhole	02935	STREAM	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1496328	DISCLN WO# 1496610	LOCATION INCLUDED IN THE IOAP

APPENDIX B-1
UNAUTHORIZED DISCHARGES
TO WATERS OF UNITED STATES
JULY 1, 2011 THROUGH JUNE 30, 2012

Associated Wastewater Treatment Plant Name	Associated Treatment Plant KPDES #	Overflow Location	Overflow Start Date & Time	Overflow Stop Date & Time	Volume of Overflow	Source Asset Type	Source Asset ID	Facility Discharges To	Receiving Stream	Cause of Overflow	Due To	Weather	WO #	Cleanup Efforts by MSD	Repair Efforts by MSD
DEREK R. GUTHRIE	MSD0277	1714 LAMKINS CT	09/26/11 3:30: AM	09/26/11 07:45 AM	9,999 GAL	Sewer Manhole	04699-W	GROUND	MILL CREEK	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1345233	MSD CLEANED & SANITIZED THE AREA	SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR
MORRIS FORMAN	MSD0278	4315 PRUITT CT	11/28/11 3:00: PM	11/29/11 12:00 PM	62,000 GAL	Sewer Manhole	08426	GROUND	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1385431	DISCLN WO# 1385677	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	4315 PRUITT CT	12/05/11 8:36: AM	12/09/11 03:30 PM	92,500 GAL	Sewer Manhole	08426	GROUND	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1388818	DISCLN WO# 1389633	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	4313 PRUITT CT	11/28/11 4:15: PM	11/29/11 11:58 AM	66,500 GAL	Sewer Manhole	08427	GROUND	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1385433	DISCLN WO# 1385679	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	4313 PRUITT CT	12/05/11 8:34: AM	12/09/11 03:30 PM	95,000 GAL	Sewer Manhole	08427	GROUND	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1388815	DISCLN WO# 1389631	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	4341 PRUITT CT	11/28/11 4:30: PM	11/29/11 12:04 PM	52,000 GAL	Sewer Manhole	08430	GROUND	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1385434	DISCLN WO# 1385685	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	4341 PRUITT CT	12/05/11 8:40: AM	12/09/11 03:30 PM	74,000 GAL	Sewer Manhole	08430	GROUND	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1388819	DISCLN WO# 1389635	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	4341 PRUITT CT	01/27/12 12:48: AM	01/30/12 04:00 PM	17,500 GAL	Sewer Manhole	08430	GROUND	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1415925	DISCLN WO# 1416154	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	4332 PRUITT CT	12/05/11 2:44: PM	12/09/11 03:30 PM	52,000 GAL	Sewer Service Line	085100290046 A	GROUND	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1389046	DISCLN WO# 1389649	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	3726 FINCASTLE RD	01/26/12 10:34: PM	01/30/12 04:00 PM	6,300 GAL	Sewer Manhole	08717	GROUND	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1415943	DISCLN WO# 1416137	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	3726 FINCASTLE RD	05/29/12 8:33: AM	05/31/12 05:00 PM	15,000 GAL	Sewer Manhole	08717	GROUND	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1496351	DISCLN WO# 1496722	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	1001 BRECKENRIDGE LN	08/07/11 4:57: AM	08/07/11 05:10 AM	1,147 GAL	Sewer Manhole	08935-SM	STREAM	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1312716	CLEANUP NOT POSSIBLE, DISCHARGE PIPE SUBMERGED	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	1001 BRECKENRIDGE LN	09/26/11 6:13: AM	09/26/11 11:16 AM	452,913 GAL	Sewer Manhole	08935-SM	STREAM	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1345243	NO CLEAN UP POSSIBLE, PIPE DISCHARGE SUBMERGED	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	1001 BRECKENRIDGE LN	10/27/11 2:52: AM	10/28/11 03:31 AM	3,071 GAL	Sewer Manhole	08935-SM	STREAM	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1365109	NO CLEANUP REQUIRED, PIPE DISCHARGE IS SUBMERGED	LOCATION INCLUDED IN THE INTERIM SANITARY SEWER DISCHARGE PLAN
MORRIS FORMAN	MSD0278	1001 BRECKENRIDGE LN	11/22/11 9:22: AM	11/22/11 04:45 PM	684,854 GAL	Sewer Manhole	08935-SM	STREAM	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1383695	NO CLEANUP REQUIRED, PIPE DISCHARGE SUBMERGED.	LOCATION INCLUDED IN THE INTERIM SANITARY SEWER DISCHARGE PLAN
MORRIS FORMAN	MSD0278	1001 BRECKENRIDGE LN	11/28/11 2:42: AM	11/30/11 01:54 AM	10,071,059 GAL	Sewer Manhole	08935-SM	STREAM	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1384879	NO CLEANUP REQUIRED, PIPE DISCHARGE SUBMERGED.	LOCATION INCLUDED IN THE INTERIM SANITARY SEWER DISCHARGE PLAN
MORRIS FORMAN	MSD0278	1001 BRECKENRIDGE LN	12/05/11 5:24: AM	12/07/11 12:27 AM	10,245,414 GAL	Sewer Manhole	08935-SM	STREAM	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1388341	NO CLEANUP REQUIRED, DISCHARGE PIPE SUBMERGED.	LOCATION INCLUDED IN THE INTERIM SANITARY SEWER DISCHARGE PLAN
MORRIS FORMAN	MSD0278	1001 BRECKENRIDGE LN	01/26/12 8:34: PM	01/28/12 03:00 AM	253,569 GAL	Sewer Manhole	08935-SM	STREAM	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1415846	NO CLEAN UP PERFORMED, PIPE DISCHARGE SUBMERGED.	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	1001 BRECKENRIDGE LN	04/01/12 12:04: PM	04/01/12 05:14 PM	303,355 GAL	Sewer Manhole	08935-SM	STREAM	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1460088	NO CLEANUP REQUIRED, PIPE DISCHARGE SUBMERGED	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	1001 BRECKENRIDGE LN	05/13/12 8:03: AM	05/13/12 02:15 PM	1,368,241 GAL	Sewer Manhole	08935-SM	STREAM	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1487891	NO CLEANUP OCCURRED, PIPE DISCHARGE SUBMERGED.	LOCATION INCLUDED IN THE IOAP

**APPENDIX B-1
UNAUTHORIZED DISCHARGES
TO WATERS OF UNITED STATES
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Associated Wastewater Treatment Plant Name	Associated Treatment Plant KPDES #	Overflow Location	Overflow Start Date & Time	Overflow Stop Date & Time	Volume of Overflow	Source Asset Type	Source Asset ID	Facility Discharges To	Receiving Stream	Cause of Overflow	Due To	Weather	WO #	Cleanup Efforts by MSD	Repair Efforts by MSD
MORRIS FORMAN	MSD0278	1001 BRECKENRIDGE LN	05/29/12 9:46: AM	05/29/12 11:27 PM	1,621,039 GAL	Sewer Manhole	08935-SM	STREAM	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1496107	NO CLEANUP REQUIRED, PIPE DISCHARGE SUBMERGED	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	1001 BRECKENRIDGE LN	06/01/12 5:36: PM	06/01/12 06:45 PM	92,118 GAL	Sewer Manhole	08935-SM	STREAM	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1500446	NO CLEANUP REQUIRED, PIPE DISCHARGE SUBMERGED	LOCATION INCLUDED IN THE IOAP
DEREK R. GUTHRIE	MSD0277	9715 EL PRADO ST	05/30/12 4:35: AM	05/30/12 04:55 AM	1,000 GAL	Sewer Manhole	09730	GROUND	PONDER CREEK	DURING RAIN EVENT BOTH PUMPS TRIPPED AT STATION	MECHANICAL FAILURE	DISREV RAIN EVENT DISCHARGE	1496551	MSD CLEANED & SANITIZED THE AREA	SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR
DEREK R. GUTHRIE	MSD0277	4914 ANDALUSIA LN	09/22/11 5:18: PM	09/22/11 05:18 PM	100 GAL	Sewer Main	09738	GROUND	PONDER CREEK	ROOTS IN MAIN SEWER	ROOTS	DISDW DRY WEATHER DISCHARGE	1344663	VACTORED OUT DRAINAGE MAIN	WORK ORDERS 1344574 & 1344702 - VACTORED AND ROOT CUT THE MAIN SEWER
DEREK R. GUTHRIE	MSD0277	13908 PETWOOD BLVD	03/01/12 9:30: AM	03/01/12 11:00 AM	1,000 GAL	Sewer Node	10060-AG	GROUND	WEAVER RUN	STRUCTURAL FAILURE OF THE FORCEMAIN	STRUCTURAL FAILURE	DISDW DRY WEATHER DISCHARGE	1437645	MSD CLEANED & SANITIZED THE AREA	CONTRACTORS REPAIRING FORCE MAIN & HAULING.
HITE CREEK	MSD0202	6316 CHERRY LN	11/29/11 3:03: PM	11/29/11 03:05 PM	250 GAL	Sewer Main	102610-V	DITCH	FLOYDS FORK	STRUCTRIAL FAILURE OF FORCE MAIN	STRUCTURAL FAILURE	DISREV RAIN EVENT DISCHARGE	1385760	MSD CLEANED AND SANITIZED AREA	STATION HAULED AND MSD CONTRACTOR MAKING REPAIRS
MORRIS FORMAN	MSD0278	4103 LEE AVE	01/23/12 4:09: AM	01/24/12 05:36 PM	5,100 GAL	Sewer Manhole	104223	GROUND	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1413641	DISCLN WO# 1413642	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	4119 LEE AVE	07/20/11 12:07: AM	08/09/11 03:36 PM	4,500 GAL	Sewer Manhole	104231	GROUND	CAMP TAYLOR DITCH	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1302852	DISCLN WO# 1302859	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	4119 LEE AVE	08/07/11 5:48: AM	09/01/11 01:24 PM	18,000 GAL	Sewer Manhole	104231	GROUND	CAMP TAYLOR DITCH	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1312705	DISCLN WO# 1312754	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	4119 LEE AVE	09/26/11 2:15: AM	09/28/11 11:52 AM	4,800 GAL	Sewer Manhole	104231	GROUND	CAMP TAYLOR DITCH	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1345417	DISCLN WO# 1346299	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	4119 LEE AVE	11/22/11 11:01: AM	11/22/11 05:20 PM	27,000 GAL	Sewer Manhole	104231	GROUND	CAMP TAYLOR DITCH	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1383834	DISCLN WO# 1384150	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	4119 LEE AVE	11/28/11 11:34: AM	11/29/11 03:21 PM	39,000 GAL	Sewer Manhole	104231	GROUND	CAMP TAYLOR DITCH	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1385288	DISCLN WO# 1385789	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	4119 LEE AVE	12/05/11 4:43: AM	12/12/11 03:29 PM	399,000 GAL	Sewer Manhole	104231	GROUND	CAMP TAYLOR DITCH	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1388360	DISCLN WO# 1389562	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	4119 LEE AVE	01/26/12 11:46: PM	01/30/12 04:00 PM	12,600 GAL	Sewer Manhole	104231	GROUND	CAMP TAYLOR DITCH	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1415950	DISCLN WO# 1416223	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	4119 LEE AVE	03/17/12 8:31: PM	03/19/12 12:32 PM	16,800 GAL	Sewer Manhole	104231	GROUND	CAMP TAYLOR DITCH	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1447975	DISCLN WO# 1447976	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	4119 LEE AVE	03/23/12 3:30: PM	03/27/12 05:51 PM	1,000 GAL	Sewer Manhole	104231	GROUND	CAMP TAYLOR DITCH	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1456205	DISCLN WO# 1456320	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	4119 LEE AVE	04/01/12 11:08: AM	04/04/12 06:14 AM	54,000 GAL	Sewer Manhole	104231	GROUND	CAMP TAYLOR DITCH	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1460089	DISCLN WO# 1460104	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	4119 LEE AVE	05/13/12 6:45: AM	05/13/12 12:31 PM	72,000 GAL	Sewer Manhole	104231	GROUND	CAMP TAYLOR DITCH	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1487948	DISCLN WO# 1487994	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	4119 LEE AVE	05/29/12 8:13: AM	05/31/12 05:02 PM	140,000 GAL	Sewer Manhole	104231	GROUND	CAMP TAYLOR DITCH	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1496353	DISCLN WO# 1496530	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	4119 LEE AVE	05/31/12 9:43: PM	06/04/12 03:55 PM	11,500 GAL	Sewer Manhole	104231	GROUND	CAMP TAYLOR DITCH	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1498844	DISCLN WO# 1500068	LOCATION INCLUDED IN THE IOAP

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JULY 1, 2011 THROUGH JUNE 30, 2012**

Associated Wastewater Treatment Plant Name	Associated Treatment Plant KPDES #	Overflow Location	Overflow Start Date & Time	Overflow Stop Date & Time	Volume of Overflow	Source Asset Type	Source Asset ID	Facility Discharges To	Receiving Stream	Cause of Overflow	Due To	Weather	WO #	Cleanup Efforts by MSD	Repair Efforts by MSD
HITE CREEK	MSD0202	7302 FLOYDSBURG RD	11/28/11 11:15: PM	11/29/11 04:30 AM	7,875 GAL	Sewer Manhole	108953	DITCH	FLOYDS FORK	RAIN EVENT CAUSED A LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1385423	MSD CLEANED, SANITIZED & LIMED THE AREA	SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR
HITE CREEK	MSD0202	7302 FLOYDSBURG RD	11/28/11 11:15: PM	11/29/11 04:30 AM	7,875 GAL	Sewer Manhole	108957	DITCH	FLOYDS FORK	RAIN EVENT CAUSED A LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1385420	MSD CLEANED, SANITIZED & LIMED THE AREA	SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR
HITE CREEK	MSD0202	7302 FLOYDSBURG RD	12/05/11 8:50: AM	12/06/11 12:20 AM	19,600 GAL	Sewer Manhole	108957	DITCH	FLOYDS FORK	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1388537	MSD CLEANED, SANITIZED & LIMED THE AREA	SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR
HITE CREEK	MSD0202	13104 CAIN LN	02/20/12 4:00: PM	02/21/12 11:00 AM	10,000 GAL	Sewer Manhole	112572	DITCH	HITE CREEK	OBSTRUCION IN THE MSD MAIN SEWER	OBSTRUCTION-NOT GREASE OR ROOT	DISDW DRY WEATHER DISCHARGE	1428005	MSD PERSONNEL CLEANED AND SANITIZED THE AREA	WORK ORDERS 1428015 AND 1428076 - FLUSHED AND OPEN THE MAIN SEWER
MORRIS FORMAN	MSD0278	208 BRUNSWICK RD	12/05/11 6:04: PM	12/07/11 03:30 PM	13,500 GAL	Sewer Manhole	115183	DITCH	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1389080	DISCLN WO# 1389238	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	208 BRUNSWICK RD	12/05/11 6:04: PM	12/06/11 05:37 AM	100 GAL	Sewer Manhole	115184	GROUND	SINKING FORK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1389081	NONE NEEDED - DUE TO MAGNITUDE OF STORM	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	207 BRUNSWICK RD	12/05/11 8:36: PM	12/06/11 05:37 AM	100 GAL	Sewer Manhole	115185	DITCH	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1389082	NONE NEEDED DUE TO MAGNITUDE OF STORM	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	1562 MCKAY AVE	05/29/12 8:16: AM	05/29/12 06:05 PM	1,200 GAL	Sewer Manhole	13931	GROUND	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1499927	NONE NEEDED-MSD CLEANED AND SANITIZED AREA	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	4119 LEE AVE	07/20/11 12:08: AM	08/09/11 03:38 PM	420 GAL	Sewer Manhole	13943	GROUND	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1302854	DISCLN WO# 1302861	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	4119 LEE AVE	08/07/11 5:30: AM	09/02/11 08:46 AM	1,500 GAL	Sewer Manhole	13943	GROUND	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1312711	DISCLN WO# 1312752	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	4119 LEE AVE	09/26/11 2:14: AM	09/28/11 11:53 AM	1,100 GAL	Sewer Manhole	13943	GROUND	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1345420	DISCLN WO# 1346304	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	4119 LEE AVE	11/28/11 11:35: AM	11/29/11 04:43 AM	31,000 GAL	Sewer Manhole	13943	GROUND	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1385299	DISCLN WO# 1385597	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	4119 LEE AVE	12/05/11 4:40: AM	12/08/11 06:05 PM	21,000 GAL	Sewer Manhole	13943	GROUND	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1388419	DISCLN WO# 1389249	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	4119 LEE AVE	01/27/12 12:43: AM	01/30/12 04:00 PM	21,000 GAL	Sewer Manhole	13943	GROUND	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1415952	DISCLN WO# 1416142	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	4119 LEE AVE	03/17/12 11:04: PM	03/19/12 12:33 PM	1,800 GAL	Sewer Manhole	13943	GROUND	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1447977	DISCLN WO# 1447980	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	4119 LEE AVE	04/01/12 11:09: AM	04/04/12 06:15 AM	720 GAL	Sewer Manhole	13943	GROUND	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1460090	DISCLN WO# 1460105	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	4119 LEE AVE	05/13/12 6:46: AM	05/13/12 12:32 PM	1,800 GAL	Sewer Manhole	13943	GROUND	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1487949	DISCLN WO# 1487996	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	4119 LEE AVE	05/29/12 8:14: AM	05/31/12 05:03 PM	27,500 GAL	Sewer Manhole	13943	GROUND	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1496444	DISCLN WO# 1496531	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	4119 LEE AVE	05/31/12 9:44: PM	06/04/12 03:53 PM	3,500 GAL	Sewer Manhole	13943	GROUND	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1498845	DISCLN WO# 1500071	LOCATION INCLUDED IN THE IOAP
DEREK R. GUTHRIE	MSD0277	6023 COOPER CHAPEL RD	11/15/11 5:30: PM	11/15/11 06:30 PM	1,200 GAL	Sewer Service Line	160264	GROUND	FISHPOOL CREEK	RAIN EVENT LED TO LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1381343	MSD CLEANED & SANITIZED THE AREA	SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR

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Associated Wastewater Treatment Plant Name	Associated Treatment Plant KPDES #	Overflow Location	Overflow Start Date & Time	Overflow Stop Date & Time	Volume of Overflow	Source Asset Type	Source Asset ID	Facility Discharges To	Receiving Stream	Cause of Overflow	Due To	Weather	WO #	Cleanup Efforts by MSD	Repair Efforts by MSD
DEREK R. GUTHRIE	MSD0277	6023 COOPER CHAPEL RD	11/16/11 12:05: PM	11/16/11 07:00 PM	6,600 GAL	Sewer Service Line	160264	GROUND	FISHPOOL CREEK	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1381574	MSD CLEANED & SANITIZED THE AREA	SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR
DEREK R. GUTHRIE	MSD0277	6023 COOPER CHAPEL RD	01/26/12 8:40: PM	01/27/12 02:45 PM	10,850 GAL	Sewer Service Line	160264	GROUND	FISHPOOL CREEK	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1415865	MSD CLEANED & SANITIZED THE AREA	SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR
MORRIS FORMAN	MSD0278	1726 FRASER DR	07/30/11 8:17: PM	07/30/11 10:00 PM	21,254 GAL	Sewer Manhole	16649	DITCH	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPCITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1309931	DISCLN WO# 1311556	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	1726 FRASER DR	08/07/11 5:02: AM	08/07/11 10:00 AM	33,386 GAL	Sewer Manhole	16649	DITCH	SOUTH FORK BEARGRASS CREEK	LACK OF CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1312712	DISCLN WO# 1315899	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	1726 FRASER DR	08/13/11 5:30: PM	08/13/11 05:45 PM	2,625 GAL	Sewer Manhole	16649	DITCH	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY -HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1321401	DISCLN WO# 1321404	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	1726 FRASER DR	09/26/11 1:47: AM	09/29/11 04:00 PM	11,885 GAL	Sewer Manhole	16649	DITCH	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1345193	DISCLN WO# 1346492	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	1726 FRASER DR	11/15/11 1:45: PM	11/21/11 04:10 PM	133,223 GAL	Sewer Manhole	16649	DITCH	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPCITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1381380	DISCLN WO# 1382170	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	1726 FRASER DR	11/22/11 7:33: AM	11/23/11 12:00 PM	219,000 GAL	Sewer Manhole	16649	DITCH	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1383621	NO CLEANUP NEEDED DUE TO CONSECUTIVE RAIN EVENTS.	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	1726 FRASER DR	11/27/11 11:32: AM	12/01/11 11:00 PM	944,998 GAL	Sewer Manhole	16649	DITCH	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1384804	DISCLN WO# 1387877	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	1726 FRASER DR	12/05/11 3:15: AM	12/09/11 03:30 PM	675,369 GAL	Sewer Manhole	16649	DITCH	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1389611	DISCLN WO# 1390242	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	1726 FRASER DR	12/27/11 10:40: AM	12/27/11 11:30 PM	71,260 GAL	Sewer Manhole	16649	DITCH	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1399113	DISCLN WO# 1399608	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	1726 FRASER DR	01/26/12 6:47: AM	01/29/12 09:00 PM	734,325 GAL	Sewer Manhole	16649	DITCH	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1415332	DISCLN WO# 1417427	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	1726 FRASER DR	03/08/12 5:17: PM	03/08/12 11:00 PM	22,543 GAL	Sewer Manhole	16649	DITCH	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1441961	DISCLN WO# 1442254	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	1726 FRASER DR	03/16/12 3:47: AM	03/17/12 03:45 AM	2,400 GAL	Sewer Manhole	16649	DITCH	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1447315	NO DISCLN NEEDED	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	1726 FRASER DR	03/17/12 8:03: PM	03/21/12 12:00 PM	1,500 GAL	Sewer Manhole	16649	DITCH	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1447768	MSD CLEANED AND SANATIZED DISCHARGE AREA	LOCATION INCLUCED IN THE IOAP
MORRIS FORMAN	MSD0278	1726 FRASER DR	03/23/12 11:03: AM	03/27/12 06:59 AM	1,353,678 GAL	Sewer Manhole	16649	DITCH	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1456032	DISCLN WO# 1456324	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	1726 FRASER DR	05/29/12 9:30: AM	05/29/12 06:40 PM	32,000 GAL	Sewer Manhole	16649	DITCH	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1496466	DISCLN WO# 1496918	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	1726 FRASER DR	03/27/12 7:00: AM	03/28/12 11:00 AM	215,790 GAL	Sewer Manhole	16649	DITCH	SOUTH FORK BEARGRASS CREEK	A ROOT BLOCKAGE WAS IDENTIFIED IN THE DOWNSTREAM 10" SEWER LINE.	ROOTS	DISDW DRY WEATHER DISCHARGE	1458964	MSD PERSONNEL WILL CLEAN AND SANITIZE THE IMPACTED AREA.	I&FP CREW ROOT CUTTING THE SEWER LINE TO ELIMINATE THE ROOT ISSUE.
MORRIS FORMAN	MSD0278	3604 DOWNING WAY	12/05/11 3:50: PM	12/07/11 03:30 PM	54,500 GAL	Sewer Manhole	18134	CATCH BASIN	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1389052	DISCLN WO# 1389654	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	2201 GERALD CT	11/28/11 4:22: PM	11/30/11 02:34 PM	63,000 GAL	Sewer Manhole	18298	STREAM	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1385375	DISCLN WO# 1385794	LOCATION INCLUDED IN THE IOAP

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Associated Wastewater Treatment Plant Name	Associated Treatment Plant KPDES #	Overflow Location	Overflow Start Date & Time	Overflow Stop Date & Time	Volume of Overflow	Source Asset Type	Source Asset ID	Facility Discharges To	Receiving Stream	Cause of Overflow	Due To	Weather	WO #	Cleanup Efforts by MSD	Repair Efforts by MSD
MORRIS FORMAN	MSD0278	2201 GERALD CT	12/05/11 10:30: AM	12/09/11 03:30 PM	33,000 GAL	Sewer Manhole	18298	STREAM	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1389062	DISCLN WO# 1389356	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	2201 GERALD CT	01/26/12 10:24: PM	01/30/12 04:00 PM	9,500 GAL	Sewer Manhole	18298	STREAM	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1415935	DISCLN WO# 1416213	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	2201 GERALD CT	05/29/12 12:54: PM	05/29/12 06:53 PM	45,000 GAL	Sewer Manhole	18298	STREAM	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1496474	DISCLN WO# 1496773	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	2201 GERALD CT	11/28/11 4:28: PM	11/29/11 10:18 AM	55,000 GAL	Sewer Manhole	18299	STREAM	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1385377	DISCLN WO# 1385578	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	2201 GERALD CT	01/26/12 10:26: PM	01/30/12 04:00 PM	6,200 GAL	Sewer Manhole	18299	STREAM	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1415941	DISCLN WO# 1416217	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	2201 GERALD CT	05/29/12 12:53: PM	05/29/12 06:57 PM	45,000 GAL	Sewer Manhole	18299	STREAM	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1496502	DISCLN WO# 1496909	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	2240 LIVERPOOL LN	11/28/11 4:25: PM	11/30/11 02:28 PM	37,500 GAL	Sewer Manhole	18302	CATCH BASIN	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1385372	DISCLN WO# 1385792	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	2240 LIVERPOOL LN	12/05/11 10:10: AM	12/09/11 03:30 PM	81,000 GAL	Sewer Manhole	18302	CATCH BASIN	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1389056	DISCLN WO# 1389349	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	3107 DELL BROOKE AVE	09/26/11 6:38: AM	09/26/11 10:41 AM	309,800 GAL	Sewer Manhole	18471	CATCH BASIN	SOUTH FORK BEARGRASS CREEK	SET PUMPS TO ALLEVIATE PROPERTY DAMAGE AND FLOODING DURING A SIGNIFICANT RAIN EVENT	PUMPED OVERFLOW	DISREV RAIN EVENT DISCHARGE	1345194	MSD PERSONNEL CLEANED AND SANITIZED THE IMPACTED AREA	THIS LOCATION IS IN THE INTERIM SANITARY SEWER DISCHARGE PLAN
MORRIS FORMAN	MSD0278	3107 DELL BROOKE AVE	11/22/11 10:00: AM	11/22/11 02:48 PM	387,600 GAL	Sewer Manhole	18471	CATCH BASIN	SOUTH FORK BEARGRASS CREEK	SET PUMPS TO ALLEVIATE PROPERTY DAMAGE AND FLOODING DURING A SIGNIFICANT RAIN EVENT	PUMPED OVERFLOW	DISREV RAIN EVENT DISCHARGE	1383683	MSD PERSONNEL CLEANED AND SANITIZED THE AREA ONCE PUMP WAS TURNED OFF	THIS LOCATION IS IN THE INTERIM SANITARY SEWER DISCHARGE PLAN
MORRIS FORMAN	MSD0278	3107 DELL BROOKE AVE	11/28/11 4:51: AM	11/30/11 04:21 AM	4,618,300 GAL	Sewer Manhole	18471	CATCH BASIN	SOUTH FORK BEARGRASS CREEK	SET PUMPS TO ALLEVIATE PROPERTY DAMAGE AND FLOODING DURING A SIGNIFICANT RAIN EVENT	PUMPED OVERFLOW	DISREV RAIN EVENT DISCHARGE	1384713	MSD PERSONEL CLEANED AND SANITIZED THE IMPACTED AREA	THIS LOCATION IS IN THE INTERIM SANITARY SEWER DISCHARGE PLAN
MORRIS FORMAN	MSD0278	3107 DELL BROOKE AVE	12/05/11 6:14: AM	12/07/11 12:05 AM	4,399,800 GAL	Sewer Manhole	18471	CATCH BASIN	SOUTH FORK BEARGRASS CREEK	SET PUMPS TO ALLEVIATE PROPERTY DAMAGE AND FLOODING DURING A SIGNIFICANT RAIN EVENT	PUMPED OVERFLOW	DISREV RAIN EVENT DISCHARGE	1388282	MSD PERSONNEL CLEANED AND SANITIZED THE IMPACTED AREA	THIS LOCATION IS IN THE INTERIM SANITARY SEWER DISCHARGE PLAN
MORRIS FORMAN	MSD0278	3107 DELL BROOKE AVE	01/26/12 8:45: PM	01/27/12 01:00 PM	926,200 GAL	Sewer Manhole	18471	CATCH BASIN	SOUTH FORK BEARGRASS CREEK	SET PUMPS TO ALLEVIATE PROPERTY DAMAGE AND FLOODING DURING A SIGNIFICANT RAIN EVENT	PUMPED OVERFLOW	DISREV RAIN EVENT DISCHARGE	1415854	MSD PERSONNEL CLEANED AND SANITIZED THE IMPACTED AREA	THIS LOCATION IS IN THE INTERIM SANITARY SEWER DISCHARGE PLAN
MORRIS FORMAN	MSD0278	3107 DELL BROOKE AVE	05/13/12 12:50: PM	05/13/12 09:47 PM	619,500 GAL	Sewer Manhole	18471	CATCH BASIN	SOUTH FORK BEARGRASS CREEK	SET PUMPS TO ALLEVIATE PROPERTY DAMAGE AND FLOODING DURING A SIGNIFICANT RAIN EVENT	PUMPED OVERFLOW	DISREV RAIN EVENT DISCHARGE	1487877	MSD PERSONNEL CLEANED AND SANITIZED THE IMPACTED AREA	THIS LOCATION IS IN THE INTERIM SANITARY SEWER DISCHARGE PLAN
MORRIS FORMAN	MSD0278	3107 DELL BROOKE AVE	05/29/12 9:58: AM	05/29/12 05:07 PM	822,600 GAL	Sewer Manhole	18471	CATCH BASIN	SOUTH FORK BEARGRASS CREEK	SET PUMPS TO ALLEVIATE PROPERTY DAMAGE AND FLOODING DURING A SIGNIFICANT RAIN EVENT	PUMPED OVERFLOW	DISREV RAIN EVENT DISCHARGE	1496183	MSD PERSONNEL CLEANED AND SANITIZED THE IMPACTED AREA	THIS LOCATION IS IN THE INTERIM SANITARY SEWER DISCHARGE PLAN
MORRIS FORMAN	MSD0278	3015 BOAIRES LN	09/26/11 7:34: AM	09/26/11 09:14 AM	95,000 GAL	Sewer Manhole	18483	CATCH BASIN	SOUTH FORK BEARGRASS CREEK	SET PUMPS TO ALLEVIATE PROPERTY DAMAGE AND FLOODING DURING A SIGNIFICANT RAIN EVENT	PUMPED OVERFLOW	DISREV RAIN EVENT DISCHARGE	1345261	MSD PERSONNEL CLEANED AND SANITIZED THE IMPACTED AREA	THIS LOCATION IS IN THE INTERIM SANITARY SEWER DISCHARGE PLAN
MORRIS FORMAN	MSD0278	3015 BOAIRES LN	11/22/11 10:09: AM	11/22/11 03:15 PM	290,700 GAL	Sewer Manhole	18483	CATCH BASIN	SOUTH FORK BEARGRASS CREEK	SET PUMPS TO ALLEVIATE PROPERTY DAMAGE AND FLOODING DURING A SIGNIFICANT RAIN EVENT	PUMPED OVERFLOW	DISREV RAIN EVENT DISCHARGE	1383687	MED PERSONNEL CLEANED AND SANITIZED THE AREA AFTER PUMP WAS TURNED OFF	THIS LOCATION IS IN THE INTERIM SANITARY SEWER DISCHARGE PLAN
MORRIS FORMAN	MSD0278	3015 BOAIRES LN	11/28/11 9:13: AM	11/30/11 12:17 AM	2,288,200 GAL	Sewer Manhole	18483	CATCH BASIN	SOUTH FORK BEARGRASS CREEK	SET PUMPS TO ALLEVIATE PROPERTY DAMAGE AND FLOODING DURING A SIGNIFICANT RAIN EVENT	PUMPED OVERFLOW	DISREV RAIN EVENT DISCHARGE	1384911	MSD PERSONNEL CLEANED AND SANITIZED THE IMPACTED AREA	THIS LOCATION IS IN THE INTERIM SANITARY SEWER DISCHARGE PLAN
MORRIS FORMAN	MSD0278	3015 BOAIRES LN	12/05/11 6:36: AM	12/06/11 09:27 PM	3,374,700 GAL	Sewer Manhole	18483	CATCH BASIN	SOUTH FORK BEARGRASS CREEK	SET PUMPS TO ALLEVIATE PROPERTY DAMAGE AND FLOODING DURING A SIGNIFICANT RAIN EVENT	PUMPED OVERFLOW	DISREV RAIN EVENT DISCHARGE	1388283	MSD PERSONNEL CLEANED AND SANITIZED THE IMPACTED AREA	THIS LOCATION IS IN THE INTERIM SANITARY SEWER DISCHARGE PLAN
MORRIS FORMAN	MSD0278	3015 BOAIRES LN	01/26/12 8:40: PM	01/27/12 10:00 AM	852,100 GAL	Sewer Manhole	18483	CATCH BASIN	SOUTH FORK BEARGRASS CREEK	SET PUMPS TO ALLEVIATE PROPERTY DAMAGE AND FLOODING DURING A SIGNIFICANT RAIN EVENT	PUMPED OVERFLOW	DISREV RAIN EVENT DISCHARGE	1415855	MSD PERSONNEL CLEANED AND SANITIZED THE IMPACTED AREA	THIS LOCATION IS IN THE INTERIM SANITARY SEWER DISCHARGE PLAN

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Associated Wastewater Treatment Plant Name	Associated Treatment Plant KPDES #	Overflow Location	Overflow Start Date & Time	Overflow Stop Date & Time	Volume of Overflow	Source Asset Type	Source Asset ID	Facility Discharges To	Receiving Stream	Cause of Overflow	Due To	Weather	WO #	Cleanup Efforts by MSD	Repair Efforts by MSD
MORRIS FORMAN	MSD0278	3015 BOAIRES LN	05/13/12 1:08: PM	05/13/12 08:37 PM	492,100 GAL	Sewer Manhole	18483	CATCH BASIN	SOUTH FORK BEARGRASS CREEK	SET PUMPS TO ALLEVIATE PROPERTY DAMAGE AND FLOODING DURING A SIGNIFICANT RAIN EVENT	PUMPED OVERFLOW	DISREV RAIN EVENT DISCHARGE	1487886	MSD PERSONNEL CLEANED AND SANITIZED THE IMPACTED AREA	THIS LOCATION IS IN THE INTERIM SANITARY SEWER DISCHARGE PLAN
MORRIS FORMAN	MSD0278	3015 BOAIRES LN	05/29/12 10:07: AM	05/29/12 07:35 PM	986,800 GAL	Sewer Manhole	18483	CATCH BASIN	SOUTH FORK BEARGRASS CREEK	SET PUMPS TO ALLEVIATE PROPERTY DAMAGE AND FLOODING DURING A SIGNIFICANT RAIN EVENT	PUMPED OVERFLOW	DISREV RAIN EVENT DISCHARGE	1496186	MSD PERSONNEL CLEANED AND SANITIZED AFFECTED AREA	THIS LOCATION IS IN THE INTERIM SANITARY SEWER DISCHARGE PLAN
MORRIS FORMAN	MSD0278	3540 RAMONA AVE	11/28/11 1:07: PM	11/29/11 04:45 PM	2,078,300 GAL	Sewer Manhole	18505	CATCH BASIN	SOUTH FORK BEARGRASS CREEK	SET PUMPS TO ALLEVIATE PROPERTY DAMAGE AND FLOODING DURING A SIGNIFICANT RAIN EVENT	PUMPED OVERFLOW	DISREV RAIN EVENT DISCHARGE	1385136	MSD PERSONNEL CLEANED AND SANITIZED THE OVERFLOW SITE ONCE THE RAIN SUBSIDED	THIS LOCATION IS IN THE INTERIM SANITARY SEWER DISCHARGE PLAN
MORRIS FORMAN	MSD0278	3540 RAMONA AVE	12/05/11 7:40: AM	12/06/11 01:00 PM	1,999,500 GAL	Sewer Manhole	18505	CATCH BASIN	SOUTH FORK BEARGRASS CREEK	SET PUMPS TO ALLEVIATE PROPERTY DAMAGE AND FLOODING DURING A SIGNIFICANT RAIN EVENT	PUMPED OVERFLOW	DISREV RAIN EVENT DISCHARGE	1388343	MSD PERSONNEL CLEANED AND SANITIZED THE IMPACTED AREA	THIS LOCATION IS IN THE INTERIM SANITARY SEWER DISCHARGE PLAN
MORRIS FORMAN	MSD0278	3540 RAMONA AVE	05/29/12 10:13: AM	05/29/12 02:17 PM	295,700 GAL	Sewer Manhole	18505	CATCH BASIN	SOUTH FORK BEARGRASS CREEK	SET PUMPS TO ALLEVIATE PROPERTY DAMAGE AND FLOODING DURING A SIGNIFICANT RAIN EVENT	PUMPED OVERFLOW	DISREV RAIN EVENT DISCHARGE	1496189	MSD PERSONNEL CLEANED AND SANITIZED THE IMPACTED AREA	THIS LOCATION IS IN THE INTERIM SANITARY SEWER DISCHARGE PLAN
MORRIS FORMAN	MSD0278	3101 WEDGEWOOD WAY	09/26/11 7:00: AM	09/26/11 09:26 AM	138,700 GAL	Sewer Manhole	18595	DITCH	WEDGEWOOD DITCH	SET PUMPS TO ALLEVIATE PROPERTY DAMAGE AND FLOODING DURING A SIGNIFICANT RAIN EVENT	PUMPED OVERFLOW	DISREV RAIN EVENT DISCHARGE	1345238	MSD PERSONNEL CLEANED AND SANITIZED THE IMPACTED AREA	THIS LOCATION IS IN THE INTERIM SANITARY SEWER DISCHARGE PLAN
MORRIS FORMAN	MSD0278	3101 WEDGEWOOD WAY	11/22/11 10:05: AM	11/22/11 12:43 PM	150,100 GAL	Sewer Manhole	18595	DITCH	WEDGEWOOD DITCH	SET PUMPS TO ALLEVIATE PROPERTY DAMAGE AND FLOODING DURING A SIGNIFICANT RAIN EVENT	PUMPED OVERFLOW	DISREV RAIN EVENT DISCHARGE	1383685	MSD PERSONNEL CLEANED AND SANITIZED THE AREA AFTER PUMP WAS TURNED OFF	THIS LOCATION IS IN THE INTERIM SANITARY SEWER DISCHARGE PLAN
MORRIS FORMAN	MSD0278	3101 WEDGEWOOD WAY	11/28/11 6:58: AM	11/29/11 04:35 PM	1,922,800 GAL	Sewer Manhole	18595	DITCH	WEDGEWOOD DITCH	SET PUMPS TO ALLEVIATE PROPERTY DAMAGE AND FLOODING DURING A SIGNIFICANT RAIN EVENT	PUMPED OVERFLOW	DISREV RAIN EVENT DISCHARGE	1384722	MSD PERSONNEL CLEANED AND SANITIZED THE OVERFLOW SITE ONCE THE RAIN SUBSIDED	THIS LOCATION IS IN THE INTERIM SANITARY SEWER DISCHARGE PLAN
MORRIS FORMAN	MSD0278	3101 WEDGEWOOD WAY	12/05/11 5:58: AM	12/06/11 12:48 PM	2,097,600 GAL	Sewer Manhole	18595	DITCH	WEDGEWOOD DITCH	SET PUMPS TO ALLEVIATE PROPERTY DAMAGE AND FLOODING DURING A SIGNIFICANT RAIN EVENT	PUMPED OVERFLOW	DISREV RAIN EVENT DISCHARGE	1388284	MSD PERSONNEL CLEANED AND SANITIZED THE IMPACTED AREA	THIS LOCATION IS IN THE INTERIM SANITARY SEWER DISCHARGE PLAN
MORRIS FORMAN	MSD0278	3101 WEDGEWOOD WAY	01/26/12 9:02: PM	01/27/12 03:00 AM	381,300 GAL	Sewer Manhole	18595	DITCH	WEDGEWOOD DITCH	SET PUMPS TO ALLEVIATE PROPERTY DAMAGE AND FLOODING DURING A SIGNIFICANT RAIN EVENT	PUMPED OVERFLOW	DISREV RAIN EVENT DISCHARGE	1415857	MSD PERSONNEL CLEANED AND SANITIZED THE OVERFLOW SITE ONCE THE RAIN SUBSIDED	THIS LOCATION IS IN THE INTERIM SANITARY SEWER DISCHARGE PLAN
MORRIS FORMAN	MSD0278	4912 DELAWARE DR	12/05/11 4:30: PM	12/09/11 03:30 PM	69,000 GAL	Sewer Manhole	18654	GROUND	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1389054	DISCLN WO# 1389657	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	110 FAIRMEADE RD	05/31/12 8:30: AM	05/31/12 09:15 AM	40 GAL	Sewer Manhole	21151	CATCH BASIN	MIDDLE FORK BEARGRASS CREEK	BAD O RING AT PIPE JOINT	MECHANICAL FAILURE	DISDW DRY WEATHER DISCHARGE	1497246	NO DEBRIS	REPAIRED THE O RING
MORRIS FORMAN	MSD0278	7404 ARROWWOOD RD	11/28/11 6:53: PM	11/29/11 01:33 PM	28,000 GAL	Sewer Manhole	21628-W	DITCH	GOOSE CREEK	RAIN EVENT CAUSED A LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1385340	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR
MORRIS FORMAN	MSD0278	7404 ARROWWOOD RD	12/05/11 7:30: AM	12/06/11 12:00 PM	85,500 GAL	Sewer Manhole	21628-W	DITCH	GOOSE CREEK	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT IN THE AREA	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1388357	MSD CLEANED, SANITIZED & LIMED THE AREA	SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR
MORRIS FORMAN	MSD0278	7404 ARROWWOOD RD	05/13/12 10:50: AM	05/13/12 11:20 AM	1,500 GAL	Sewer Manhole	21628-W	DITCH	GOOSE CREEK	RAIN EVENT CAUSED A LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1487884	MSD CLEANED & SANITIZED THE AREA	SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR
HITE CREEK	MSD0202	3651 COLLINS LN	12/21/11 3:00: PM	12/21/11 06:58 PM	29,750 GAL	Sewer Manhole	22117	STREAM	HITE CREEK	MAIN SEWER BROKE DOWN	STRUCTURAL FAILURE	DISDW DRY WEATHER DISCHARGE	1398053	MSD PERSONNEL CLEANED AND SANITIZED THE IMPACTED AREA	REFERRED TO CONTRACT (EZ CONST) FOR EMERGENCY REPAIR
MORRIS FORMAN	MSD0278	3302 TROUT CREEK DR	09/26/11 5:53: AM	09/26/11 05:31 PM	56,500 GAL	Sewer Manhole	23211	STREAM	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1345438	DISCLN WO# 1345903	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	3302 TROUT CREEK DR	11/22/11 11:24: AM	11/23/11 06:05 AM	9,000 GAL	Sewer Manhole	23211	STREAM	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1383821	DISCLN WO# 1384143	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	3302 TROUT CREEK DR	11/28/11 12:13: PM	11/30/11 05:12 AM	504,000 GAL	Sewer Manhole	23211	STREAM	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1385321	DISCLN WO# 1386646	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	3302 TROUT CREEK DR	12/05/11 11:28: AM	12/09/11 03:30 PM	72,000 GAL	Sewer Manhole	23211	STREAM	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1389058	DISCLN WO# 1389596	LOCATION INCLUDED IN THE IOAP

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JULY 1, 2011 THROUGH JUNE 30, 2012

Associated Wastewater Treatment Plant Name	Associated Treatment Plant KPDES #	Overflow Location	Overflow Start Date & Time	Overflow Stop Date & Time	Volume of Overflow	Source Asset Type	Source Asset ID	Facility Discharges To	Receiving Stream	Cause of Overflow	Due To	Weather	WO #	Cleanup Efforts by MSD	Repair Efforts by MSD
MORRIS FORMAN	MSD0278	3302 TROUT CREEK DR	01/26/12 11:50: PM	01/30/12 04:00 PM	14,500 GAL	Sewer Manhole	23211	STREAM	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1415931	DISCLN WO# 1416212	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	3302 TROUT CREEK DR	05/13/12 4:47: PM	05/13/12 08:12 PM	4,500 GAL	Sewer Manhole	23211	STREAM	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1488209	DISCLN WO# 1488209	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	3302 TROUT CREEK DR	05/29/12 10:51: AM	05/29/12 05:03 PM	105,000 GAL	Sewer Manhole	23211	STREAM	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1496464	DISCLN WO# 1496762	LOCATION INCLUDED IN THE IOAP
DEREK R. GUTHRIE	MSD0277	6006 COOPER CHAPEL RD	11/18/11 12:40: PM	11/18/11 01:41 PM	61 GAL	Sewer Manhole	25478	GROUND	FISHPOOL CREEK	CAP ON CLEAN OUT CAME OFF	MECHANICAL FAILURE	DISDW DRY WEATHER DISCHARGE	1382400	MSD CLEANED & SANITIZED THE AREA	CAP REPLACED
DEREK R. GUTHRIE	MSD0277	6102 COOPER CHAPEL RD	11/22/11 10:27: AM	11/22/11 04:45 PM	150 GAL	Sewer Manhole	25479	CATCH BASIN	PENNSYLVANIA RUN	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1383723	MSD CLEANED & SANITIZED THE AREA	SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR
DEREK R. GUTHRIE	MSD0277	6102 COOPER CHAPEL RD	11/28/11 11:55: AM	11/29/11 01:15 PM	1,200 GAL	Sewer Manhole	25479	CATCH BASIN	PENNSYLVANIA RUN	LACK OF CAPACITY DUE TO RAIN EVENT	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1385158	MSD CLEANED & SANITIZED THE AREA	SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR. HAULING STATION WO#1384994
DEREK R. GUTHRIE	MSD0277	6102 COOPER CHAPEL RD	12/05/11 5:58: AM	12/06/11 01:15 AM	30,000 GAL	Sewer Manhole	25479	CATCH BASIN	PENNSYLVANIA RUN	RAIN EVENT CAUSED A LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1388279	MSD CLEANED, SANITIZED & LIMED THE AREA	SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR
DEREK R. GUTHRIE	MSD0277	6102 COOPER CHAPEL RD	12/27/11 3:45: PM	12/27/11 04:15 PM	750 GAL	Sewer Manhole	25479	CATCH BASIN	PENNSYLVANIA RUN	RAINEVENT CAUSED A LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1399222	MSD PERSONNEL CLEANED AND SANITIZED THE IMPACTED AREA	MSD HAULED STATION TO PREVENT DISCHARGE
DEREK R. GUTHRIE	MSD0277	6102 COOPER CHAPEL RD	05/05/12 3:40: AM	05/05/12 06:00 AM	3,500 GAL	Sewer Manhole	25479	CATCH BASIN	PENNSYLVANIA RUN	RAINEVENT CAUSED LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1484019	MSD CLEANED & SANITIZED THE AREA	SITE FOUND DURING RAIN EVENT RECON- WILL OBSERVE & MONITOR FOR REPAIR
DEREK R. GUTHRIE	MSD0277	6102 COOPER CHAPEL RD	05/13/12 1:30: PM	05/14/12 12:00 AM	48,375 GAL	Sewer Manhole	25479	CATCH BASIN	PENNSYLVANIA RUN	RAIN EVENT CAUSED A LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1487899	MSD CLEANED & SANITIZED THE AREA	SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR
DEREK R. GUTHRIE	MSD0277	9317 LANTANA DR	11/22/11 10:36: AM	11/22/11 11:13 AM	2,590 GAL	Sewer Manhole	25484	STREAM	PENNSYLVANIA RUN	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1383721	MSD CLEANED & SANITIZED THE AREA	SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUTE FOR REPAIR
DEREK R. GUTHRIE	MSD0277	9317 LANTANA DR	11/28/11 8:10: PM	11/29/11 08:20 AM	14,600 GAL	Sewer Manhole	25484	STREAM	PENNSYLVANIA RUN	RAIN EVENT CAUSED A LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1385356	MSD CLEANED & SANITIZED THE AREA	SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR
DEREK R. GUTHRIE	MSD0277	9317 LANTANA DR	12/05/11 8:24: AM	12/06/11 04:30 AM	60,000 GAL	Sewer Manhole	25484	STREAM	PENNSYLVANIA RUN	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1388642	MSD CLEANED, SANITIZED & LIMED THE AREA	SITE FOUND DURING RAIN EVENT RECON-WILL MONITOR & EVALUATE FOR REPAIR
MORRIS FORMAN	MSD0278	3703 ALCONA LN	11/29/11 4:00: AM	11/29/11 12:31 PM	22,000 GAL	Sewer Manhole	25676	GROUND	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1385438	DISCLN WO# 1385498	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	3703 ALCONA LN	12/05/11 9:19: AM	12/09/11 03:30 PM	57,000 GAL	Sewer Manhole	25676	GROUND	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1388822	DISCLN WO# 1389641	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	3715 BRIARBRIDGE LN	11/29/11 3:52: AM	11/29/11 12:10 PM	46,000 GAL	Sewer Manhole	26650	STREAM	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1385437	DISCLN WO# 1385692	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	3715 BRIARBRIDGE LN	12/05/11 3:00: PM	12/07/11 03:30 PM	78,500 GAL	Sewer Manhole	26650	STREAM	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1389047	DISCLN WO# 1389650	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	3618 KLONDIKE LN	12/05/11 3:00: PM	12/07/11 03:30 PM	49,500 GAL	Sewer Manhole	26651	STREAM	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1389048	DISCLN WO# 1389651	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	3317 BROWNSBORO RD	09/26/11 12:59: AM	09/26/11 12:34 PM	156,000 GAL	Sewer Manhole	26752	DITCH	MUDDY FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1345192	DISCLN WO# 1345883	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	3317 BROWNSBORO RD	11/22/11 9:03: AM	11/24/11 05:50 PM	32,000 GAL	Sewer Manhole	26752	DITCH	MUDDY FORK BEARGRASS CREEK	LACK OF SYSTEM CAPCITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1383630	DISCLN WO WILL BE CREATED FOR CONSECUTIVE RAIN EVENTS	LOCATION INCLUDED IN THE IOAP

APPENDIX B-1
UNAUTHORIZED DISCHARGES
TO WATERS OF UNITED STATES
JULY 1, 2011 THROUGH JUNE 30, 2012

Associated Wastewater Treatment Plant Name	Associated Treatment Plant KPDES #	Overflow Location	Overflow Start Date & Time	Overflow Stop Date & Time	Volume of Overflow	Source Asset Type	Source Asset ID	Facility Discharges To	Receiving Stream	Cause of Overflow	Due To	Weather	WO #	Cleanup Efforts by MSD	Repair Efforts by MSD
MORRIS FORMAN	MSD0278	3317 BROWNSBORO RD	11/28/11 5:40: AM	12/01/11 01:35 AM	758,000 GAL	Sewer Manhole	26752	DITCH	MUDDY FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1384919	DISCLN WO# 1387876	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	3317 BROWNSBORO RD	12/05/11 3:40: AM	12/08/11 07:45 AM	504,000 GAL	Sewer Manhole	26752	DITCH	MUDDY FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1388350	DISCLN WO# 1390254	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	3317 BROWNSBORO RD	01/26/12 7:22: PM	01/28/12 01:30 AM	67,500 GAL	Sewer Manhole	26752	DITCH	MUDDY FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1415843	DISCLN WO# 1416569	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	3317 BROWNSBORO RD	04/01/12 10:19: AM	04/01/12 11:35 AM	2,025 GAL	Sewer Manhole	26752	DITCH	MUDDY FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1460087	DISCLN WO# 1461479	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	3317 BROWNSBORO RD	05/29/12 8:56: AM	05/29/12 05:20 PM	35,000 GAL	Sewer Manhole	26752	DITCH	MUDDY FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1496109	DISCLN WO# 1496951	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	1012 ALTA CIR	09/26/11 4:45: AM	09/26/11 12:10 PM	172,000 GAL	Sewer Manhole	27005	GROUND	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1345249	DISCLN WO# 1345888	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	1012 ALTA CIR	11/22/11 9:16: AM	11/22/11 01:35 PM	52,000 GAL	Sewer Manhole	27005	GROUND	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1383677	DISCLN WO# 1384135	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	1012 ALTA CIR	11/28/11 5:04: AM	11/30/11 08:18 AM	72,500 GAL	Sewer Manhole	27005	GROUND	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1384915	DISCLN WO# 1386613	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	1012 ALTA CIR	12/05/11 9:20: AM	12/07/11 05:39 AM	245,000 GAL	Sewer Manhole	27005	GROUND	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1388698	DISCLN WO# 1389782	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	1012 ALTA CIR	12/27/11 12:20: PM	12/27/11 01:40 PM	1,900 GAL	Sewer Manhole	27005	GROUND	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1399143	DISCLN WO# 1399305	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	1012 ALTA CIR	01/26/12 10:08: PM	01/28/12 10:06 AM	72,000 GAL	Sewer Manhole	27005	GROUND	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1415906	DISCLN WO# 1416567	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	1012 ALTA CIR	03/17/12 11:00: PM	03/17/12 11:50 PM	13,500 GAL	Sewer Manhole	27005	GROUND	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1447981	DISCLN WO# 1447982	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	1012 ALTA CIR	04/01/12 12:03: PM	04/02/12 12:00 PM	90,000 GAL	Sewer Manhole	27005	GROUND	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1460079	DISCLN WO# 1460109	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	1012 ALTA CIR	05/13/12 11:56: AM	05/13/12 06:16 PM	105,000 GAL	Sewer Manhole	27005	GROUND	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1487954	DISCLN WO# 1488081	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	1012 ALTA CIR	05/29/12 11:42: AM	05/29/12 09:04 PM	82,000 GAL	Sewer Manhole	27005	GROUND	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1496511	DISCLN WO# 1496647	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	1012 ALTA CIR	05/31/12 10:39: PM	06/01/12 10:35 AM	7,200 GAL	Sewer Manhole	27005	GROUND	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1498843	DISCLN WO# 1500065	LOCATION INCLUDED IN THE IOAP
DEREK R. GUTHRIE	MSD0277	10304 CAVEN AVE	11/15/11 4:27: PM	11/16/11 03:00 AM	103,500 GAL	Sewer Manhole	27116	STREAM	MUD CREEK	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1381336	MSD TO CLEAN AND SANITIZE	THIS LOCATION IS INCLUDED IN THE IOAP
DEREK R. GUTHRIE	MSD0277	10304 CAVEN AVE	11/22/11 10:00: AM	11/23/11 05:00 AM	135,000 GAL	Sewer Manhole	27116	STREAM	MUD CREEK	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1383729	MSD CLEANED AND SANITIZED AFFECTED AREA	AREA INCLUDED IN THE IOAP
DEREK R. GUTHRIE	MSD0277	10304 CAVEN AVE	11/28/11 6:50: AM	11/29/11 06:00 PM	212,225 GAL	Sewer Manhole	27116	STREAM	MUD CREEK	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1384970	MSD TO CLEAN AND SANITIZE AFFECTED AREA UNDER WORK ORDER#1385784	AREA PART OF IOAP
DEREK R. GUTHRIE	MSD0277	10304 CAVEN AVE	12/05/11 7:52: AM	12/06/11 06:40 PM	217,000 GAL	Sewer Manhole	27116	STREAM	MUD CREEK	LACK OF SYSTEM CAPACITY - HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1388347	MSD PERSONNEL WILL CLEAN THE AFFECTED AREA UNDER WORK ORDER#1389522	A SOLUTION FOR THIS LOCATION IS INCLUDED IN THE IOAP SUBMITTED 12/08.

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Associated Wastewater Treatment Plant Name	Associated Treatment Plant KPDES #	Overflow Location	Overflow Start Date & Time	Overflow Stop Date & Time	Volume of Overflow	Source Asset Type	Source Asset ID	Facility Discharges To	Receiving Stream	Cause of Overflow	Due To	Weather	WO #	Cleanup Efforts by MSD	Repair Efforts by MSD
DEREK R. GUTHRIE	MSD0277	10304 CAVEN AVE	12/27/11 12:50: PM	12/27/11 07:30 PM	20,000 GAL	Sewer Manhole	27116	STREAM	MUD CREEK	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1399092	MSD WILL CLEAN AND SANITIZE AFFECTED AREA	THIS LOCATION INCLUDED IN THE IOAP
DEREK R. GUTHRIE	MSD0277	10304 CAVEN AVE	01/26/12 8:20: PM	01/27/12 12:00 PM	125,000 GAL	Sewer Manhole	27116	STREAM	MUD CREEK	LACK OF SYSTEM CAPACITY - HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1415885	MSD PERSONNEL CLEANED AND SANITIZED THE AREA	A SOLUTION FOR THIS LOCATION IS INCLUDED IN THE SANITARY SEWER DISCHARGE PLAN
DEREK R. GUTHRIE	MSD0277	10304 CAVEN AVE	03/18/12 12:45: AM	03/18/12 06:25 AM	17,000 GAL	Sewer Manhole	27116	STREAM	MUD CREEK	LACK OF SYSTEM CAPACITY- HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1447776	MSD PERSONNEL CLEANED AND SANITIZED THE IMPACTED AREA	AREA INCLUDED IN IOAP
DEREK R. GUTHRIE	MSD0277	10304 CAVEN AVE	03/23/12 4:05: PM	03/23/12 10:00 PM	17,750 GAL	Sewer Manhole	27116	STREAM	MUD CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1456181	MSD PERSONNEL WILL CLEAN AND SAITIZED THE IMPACTED AREA	THIS LOCATION WILL BE IN THE SANITARY SEWER DISCHARGE PLAN TO BE SUBMITTED
DEREK R. GUTHRIE	MSD0277	10304 CAVEN AVE	03/23/12 11:45: PM	03/24/12 03:20 AM	5,375 GAL	Sewer Manhole	27116	STREAM	MUD CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1456219	ADVISED PROPERTY OWNER ON SITE TO AVOID CONTACT WITH SEWAGE AND PLACED TEMPORARY SIGN	THIS LOCATION WILL BE IN THE SANITARY SEWER DISCHARGE PLAN TO BE SUBMITTED
DEREK R. GUTHRIE	MSD0277	10304 CAVEN AVE	04/01/12 12:05: PM	04/01/12 08:05 PM	24,000 GAL	Sewer Manhole	27116	STREAM	MUD CREEK	HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1460033	MSD'S PERSONNEL CLEANED AND SANITIZED THE IMPACTED AREA	AREA INCLUDED IN THE IOAP
DEREK R. GUTHRIE	MSD0277	10304 CAVEN AVE	05/05/12 6:20: AM	05/05/12 04:30 PM	22,500 GAL	Sewer Manhole	27116	STREAM	MUD CREEK	LACK OF CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1484002	MSD CLEANED AND SANITIZED AFFECTED AREA	AREA INCLUDED IN THE IOAP
DEREK R. GUTHRIE	MSD0277	10304 CAVEN AVE	05/13/12 8:40: AM	05/14/12 05:00 AM	61,000 GAL	Sewer Manhole	27116	STREAM	MUD CREEK	LACK OF SYSTEM CAPACITY - HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1487867	MSD PERSONNEL CLEANED AND SANITIZED THE IMPACTED AREA	A SOLUTION FOR THIS LOCATION IS INCLUDED IN THE IOAP.□
JEFFERSONTOWN	MSD0255	3258 RUCKRIEGEL PKY	11/22/11 10:31: AM	11/23/11 06:47 AM	6,500 GAL	Sewer Manhole	28173	GROUND	CHENOWETH RUN	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1383747	DISCHARGE CLEANUP WO# 1384102, MSD PERSONNEL WILL CLEAN AND SANITIZE THE IMPACTED AREA	LOCATION INCLUDED IN THE IOAP
JEFFERSONTOWN	MSD0255	3258 RUCKRIEGEL PKY	11/28/11 9:30: AM	11/29/11 10:40 AM	94,500 GAL	Sewer Manhole	28173	GROUND	CHENOWETH RUN	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1385170	DISCLN WO# 1386639	LOCATION INCLUDED IN THE IOAP
JEFFERSONTOWN	MSD0255	3258 RUCKRIEGEL PKY	12/05/11 8:25: AM	12/09/11 03:30 PM	142,000 GAL	Sewer Manhole	28173	GROUND	CHENOWETH RUN	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1388649	DISCLN WO# 1389364	LOCATION INCLUDED IN THE IOAP
JEFFERSONTOWN	MSD0255	3258 RUCKRIEGEL PKY	01/26/12 9:55: PM	01/30/12 04:00 PM	48,000 GAL	Sewer Manhole	28173	GROUND	CHENOWETH RUN	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1415909	DISCLN WO# 1416167	LOCATION INCLUDED IN THE IOAP
JEFFERSONTOWN	MSD0255	3258 RUCKRIEGEL PKY	04/01/12 11:48: AM	04/02/12 03:00 PM	31,500 GAL	Sewer Manhole	28173	GROUND	CHENOWETH RUN	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1460084	DISCLN WO# 1460112	LOCATION INCLUDED IN THE IOAP
JEFFERSONTOWN	MSD0255	3258 RUCKRIEGEL PKY	05/13/12 11:12: AM	05/13/12 07:08 PM	36,000 GAL	Sewer Manhole	28173	GROUND	CHENOWETH RUN	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1487893	DISCLN WO# 1488192	LOCATION INCLUDED IN THE IOAP
JEFFERSONTOWN	MSD0255	3258 RUCKRIEGEL PKY	05/29/12 10:47: AM	05/29/12 05:30 PM	16,910 GAL	Sewer Manhole	28173	GROUND	CHENOWETH RUN	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1496298	DISCLN WO# 1496946	LOCATION INCLUDED IN THE IOAP
JEFFERSONTOWN	MSD0255	3500 ST EDWARDS DR	12/05/11 4:09: PM	12/09/11 03:30 PM	21,500 GAL	Sewer Manhole	28249	DITCH	CHENOWETH RUN	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1389037	DISCLN WO# 1389627	LOCATION INCLUDED IN THE IOAP
JEFFERSONTOWN	MSD0255	9707 WILLOWWOOD WAY	11/22/11 11:20: AM	11/29/11 03:00 PM	6,100 GAL	Sewer Manhole	28336	DITCH	CHENOWETH RUN	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1383750	DISCLN WO# 1384112	LOCATION INCLUDED IN THE IOAP
JEFFERSONTOWN	MSD0255	9707 WILLOWWOOD WAY	11/28/11 1:05: PM	11/29/11 03:00 PM	33,000 GAL	Sewer Manhole	28336	DITCH	CHENOWETH RUN	LACK OF SYSTEM CAPCAITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1385173	DISCLN WO# 1385478	LOCATION INCLUDED IN THE IOAP
JEFFERSONTOWN	MSD0255	9707 WILLOWWOOD WAY	12/05/11 9:21: AM	12/09/11 03:30 PM	64,000 GAL	Sewer Manhole	28336	DITCH	CHENOWETH RUN	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1388684	DISCLN WO# 1389558	LOCATION INCLUDED IN THE IOAP
JEFFERSONTOWN	MSD0255	9707 WILLOWWOOD WAY	01/26/12 11:15: PM	01/30/12 04:00 PM	12,000 GAL	Sewer Manhole	28336	DITCH	CHENOWETH RUN	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1415914	DISCLN WO# 1416190	LOCATION INCLUDED IN THE IOAP

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Associated Wastewater Treatment Plant Name	Associated Treatment Plant KPDES #	Overflow Location	Overflow Start Date & Time	Overflow Stop Date & Time	Volume of Overflow	Source Asset Type	Source Asset ID	Facility Discharges To	Receiving Stream	Cause of Overflow	Due To	Weather	WO #	Cleanup Efforts by MSD	Repair Efforts by MSD
JEFFERSONTOWN	MSD0255	9707 WILLOWWOOD WAY	05/13/12 11:56: AM	05/13/12 07:00 PM	19,500 GAL	Sewer Manhole	28336	DITCH	CHENOWETH RUN	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1487947	DISCLN WO# 1488204	LOCATION INCLUDED IN THE IOAP
JEFFERSONTOWN	MSD0255	3620 CHARLANE PKY	12/05/11 9:25: AM	12/06/11 06:52 AM	30,000 GAL	Sewer Manhole	28340	GROUND	CHENOWETH RUN	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1388680	DISCLN WO# 1389551	LOCATION INCLUDED IN THE IOAP
JEFFERSONTOWN	MSD0255	3620 CHARLANE PKY	01/26/12 11:15: PM	01/30/12 04:00 PM	31,500 GAL	Sewer Manhole	28340	GROUND	CHENOWETH RUN	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1415913	DISCLN WO# 1416183	LOCATION INCLUDED IN THE IOAP
JEFFERSONTOWN	MSD0255	3620 CHARLANE PKY	05/13/12 11:56: AM	05/13/12 07:00 PM	9,750 GAL	Sewer Manhole	28340	GROUND	CHENOWETH RUN	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1487945	DISCLN WO# 1488201	LOCATION INCLUDED IN THE IOAP
JEFFERSONTOWN	MSD0255	2901 LIVINGSTON AVE	12/05/11 9:41: AM	12/09/11 03:30 PM	33,000 GAL	Sewer Manhole	28395	STREAM	CHENOWETH RUN	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1388688	DISCLN WO# 1389616	LOCATION INCLUDED IN THE IOAP
JEFFERSONTOWN	MSD0255	3400 DELL RD	11/22/11 10:56: AM	11/22/11 01:24 PM	4,100 GAL	Sewer Manhole	28414	GROUND	CHENOWETH RUN	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1383748	DISCLN WO# 1384109	LOCATION INCLUDED IN THE IOAP
JEFFERSONTOWN	MSD0255	3400 DELL RD	11/28/11 4:35: PM	11/29/11 03:00 PM	3,000 GAL	Sewer Manhole	28414	GROUND	CHENOWETH RUN	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1385472	DISCLN WO# 1385498	LOCATION INCLUDED IN THE IOAP
JEFFERSONTOWN	MSD0255	3406 DELL RD	12/05/11 8:59: AM	12/07/11 03:30 PM	48,000 GAL	Sewer Manhole	28415	GROUND	CHENOWETH RUN	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1388667	DISCLN WO# 1389520	LOCATION INCLUDED IN THE IOAP
JEFFERSONTOWN	MSD0255	3406 DELL RD	01/26/12 10:41: PM	01/30/12 04:00 PM	6,000 GAL	Sewer Manhole	28415	GROUND	CHENOWETH RUN	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1415912	DISCLN WO# 1416180	LOCATION INCLUDED IN THE IOAP
JEFFERSONTOWN	MSD0255	3501 MARLIN DR	12/05/11 9:00: AM	12/09/11 03:30 PM	36,000 GAL	Sewer Manhole	28416	GROUND	CHENOWETH RUN	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1388665	DISCLN WO# 1389518	LOCATION INCLUDED IN THE IOAP
JEFFERSONTOWN	MSD0255	3506 DELL RD	12/05/11 3:47: PM	12/09/11 03:30 PM	22,500 GAL	Sewer Manhole	28417	GROUND	CHENOWETH RUN	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1389034	DISCLN WO# 1389625	LOCATION INCLUDED IN THE IOAP
JEFFERSONTOWN	MSD0255	11401 GRAND AVE	11/22/11 10:26: AM	11/22/11 02:30 PM	12,500 GAL	Sewer Manhole	28551	STREAM	CHENOWETH RUN	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1383745	DISCLN WO# 1384089	LOCATION INCLUDED IN THE IOAP
JEFFERSONTOWN	MSD0255	11401 GRAND AVE	11/28/11 12:40: PM	11/29/11 03:00 PM	65,000 GAL	Sewer Manhole	28551	STREAM	CHENOWETH RUN	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1385167	DISCLN WO# 1385167	LOCATION INCLUDED IN THE IOAP
JEFFERSONTOWN	MSD0255	11401 GRAND AVE	12/05/11 8:36: AM	12/07/11 03:30 PM	157,000 GAL	Sewer Manhole	28551	STREAM	CHENOWETH RUN	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1388661	DISCLN WO# 1389502	LOCATION INCLUDED IN THE IOAP
JEFFERSONTOWN	MSD0255	11401 GRAND AVE	01/26/12 10:20: PM	01/30/12 04:00 PM	24,000 GAL	Sewer Manhole	28551	STREAM	CHENOWETH RUN	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1415911	DISCLN WO# 1416177	LOCATION INCLUDED IN THE IOAP
JEFFERSONTOWN	MSD0255	11401 GRAND AVE	04/01/12 12:06: PM	04/01/12 03:00 PM	7,500 GAL	Sewer Manhole	28551	STREAM	CHENOWETH RUN	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1460086	DISCLN WO# 1461104	LOCATION INCLUDED IN THE IOAP
JEFFERSONTOWN	MSD0255	11401 GRAND AVE	05/13/12 9:02: AM	05/13/12 04:35 PM	7,500 GAL	Sewer Manhole	28551	STREAM	CHENOWETH RUN	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1487892	DISCLN WO# 1488186	LOCATION INCLUDED IN THE IOAP
JEFFERSONTOWN	MSD0255	11401 GRAND AVE	05/29/12 10:42: AM	05/29/12 05:50 PM	27,000 GAL	Sewer Manhole	28551	STREAM	CHENOWETH RUN	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1496507	DISCLN WO# 1496621	LOCATION INCLUDED IN THE IOAP
DEREK R. GUTHRIE	MSD0277	8304 CLOVERPORT DR	12/05/11 3:15: PM	12/05/11 07:30 PM	6,375 GAL	Sewer Manhole	29239	GROUND	PENNSYLVANIA RUN	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1389001	MSD TO CLEAN AND SANITIZE AFFECTED AREA	PART OF THE IOAP
DEREK R. GUTHRIE	MSD0277	6810 SANDSTONE BLVD	11/22/11 9:00: AM	11/22/11 02:50 PM	15,250 GAL	Sewer Manhole	29948	GROUND	FERN CREEK	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1383938	MSD CLEANED & SANITIZED AREA	AREA INCLUDED IN THE IOAP

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Associated Wastewater Treatment Plant Name	Associated Treatment Plant KPDES #	Overflow Location	Overflow Start Date & Time	Overflow Stop Date & Time	Volume of Overflow	Source Asset Type	Source Asset ID	Facility Discharges To	Receiving Stream	Cause of Overflow	Due To	Weather	WO #	Cleanup Efforts by MSD	Repair Efforts by MSD
DEREK R. GUTHRIE	MSD0277	6810 SANDSTONE BLVD	11/28/11 6:45: AM	11/29/11 11:29 AM	87,310 GAL	Sewer Manhole	29948	GROUND	FERN CREEK	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1384945	MSD TO CLEAN AND SANITIZE AFFECTED AREA	INCLUDED IN THE IOAP
DEREK R. GUTHRIE	MSD0277	6810 SANDSTONE BLVD	12/05/11 8:50: AM	12/06/11 05:00 AM	67,740 GAL	Sewer Manhole	29948	GROUND	FERN CREEK	LACK OF SYSTEM CAPACITY - HEAVY RAIN □	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1388475	MSD PERSONNEL CLEANED AND SANITIZED THE IMPACTED AREA	A SOLUTION FOR THIS LOCATION IS INCLUDED IN IOAP SUBMITTED 12/08. □
DEREK R. GUTHRIE	MSD0277	6810 SANDSTONE BLVD	01/26/12 9:00: PM	01/27/12 06:00 AM	13,500 GAL	Sewer Manhole	29948	GROUND	FERN CREEK	LACK OF SYSTEM CAPACITY - HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1415888	MSD CLEANED AND SANITIZED AFFECTED AREA	A SOLUTION FOR THIS LOCATION IS INCLUDED IN THE SANITARY SEWER DISCHARGE PLAN
DEREK R. GUTHRIE	MSD0277	6810 SANDSTONE BLVD	04/01/12 11:55: AM	04/01/12 12:45 PM	1,250 GAL	Sewer Manhole	29948	GROUND	FERN CREEK	LACK OF CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1460045	MSD CLEANED AND SANITIZED AFFECTED AREA	SCHEDULE A CLEANUP. AREA INCLUDED IN IOAP
DEREK R. GUTHRIE	MSD0277	6810 SANDSTONE BLVD	05/13/12 12:45: PM	05/13/12 06:35 PM	11,125 GAL	Sewer Manhole	29948	GROUND	FERN CREEK	LACK OF CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1487872	MSD CLEANED AND SANITIZED AFFECTED AREA	A SOLUTION FOR THIS LOCATION IS INCLUDED IN THE IOAP. □
MORRIS FORMAN	MSD0278	8111 SHELBYVILLE RD	11/29/11 3:05: AM	11/29/11 10:32 AM	52,500 GAL	Sewer Manhole	30376	STREAM	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1385429	DISCLN WO# 1385563	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	8111 SHELBYVILLE RD	12/05/11 12:12: PM	12/07/11 03:30 PM	132,000 GAL	Sewer Manhole	30376	STREAM	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1388791	DISCLN WO# 1389198	LOCATION INCLUDED IN THE IOAP
DEREK R. GUTHRIE	MSD0277	6808 SANDSTONE BLVD	11/22/11 12:00: AM	11/22/11 04:45 PM	30,015 GAL	Sewer Manhole	31073	DITCH	FERN CREEK	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1383945	MSD TO CLEAN AND SANITIZE AFFECTED AREA	INCLUDED IN THE IOAP
DEREK R. GUTHRIE	MSD0277	6808 SANDSTONE BLVD	11/28/11 6:50: AM	11/29/11 11:40 AM	43,755 GAL	Sewer Manhole	31073	DITCH	FERN CREEK	LACK OF CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1384907	MSD CLEANED AND SANITIZED AFFECTED AREA	A SOLUTION FOR THIS LOCATION IS INCLUDED IN THE IOAP.
DEREK R. GUTHRIE	MSD0277	6808 SANDSTONE BLVD	12/05/11 8:42: AM	12/06/11 05:00 AM	33,870 GAL	Sewer Manhole	31073	DITCH	FERN CREEK	LACK OF SYSTEM CAPACITY - HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1388375	MSD PERSONNEL CLEANED AND SANITIZED THE IMPACTED AREA	A SOLUTION FOR THIS LOCATION IS INCLUDED IN IOAP SUBMITTED 12/08. □
DEREK R. GUTHRIE	MSD0277	6808 SANDSTONE BLVD	01/26/12 9:20: PM	01/27/12 06:05 AM	13,000 GAL	Sewer Manhole	31073	DITCH	FERN CREEK	LACK OF SYSTEM CAPACITY - HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1415890	MSD CLEANED AND SANITIZED AFFECTED AREA	A SOLUTION FOR THIS LOCATION IS INCLUDED IN THE SANITARY SEWER DISCHARGE PLAN
DEREK R. GUTHRIE	MSD0277	6808 SANDSTONE BLVD	03/17/12 10:45: PM	03/18/12 01:00 AM	3,375 GAL	Sewer Manhole	31073	DITCH	FERN CREEK	LACK OF SYSTEM CAPACITY- HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1447772	MSD PERSONNEL CLEANED AND SANITIZED THE IMPACTED AREA	AREA INCLUDED IN THE IOAP
DEREK R. GUTHRIE	MSD0277	6808 SANDSTONE BLVD	04/01/12 11:59: AM	04/01/12 12:55 PM	1,425 GAL	Sewer Manhole	31073	DITCH	FERN CREEK	LACK OF CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1460026	MSD CREW CLEANED AND SANITIZED AFFECTED AREA	NEED A WEED CREW TO CUT GRASS, SCHEDULE A CLEANUP AREA INCLUDED IN IOAP
DEREK R. GUTHRIE	MSD0277	6808 SANDSTONE BLVD	05/13/12 12:24: PM	05/13/12 07:45 PM	24,990 GAL	Sewer Manhole	31073	DITCH	FERN CREEK	LACK OF CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1487868	MSD CLEANED AND SANITIZED AFFECTED AREA	A SOLUTION FOR THIS LOCATION IS INCLUDED IN THE IOAP.
DEREK R. GUTHRIE	MSD0277	6808 SANDSTONE BLVD	11/22/11 12:00: AM	11/22/11 04:45 PM	10,005 GAL	Sewer Manhole	31074	DITCH	FERN CREEK	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1383961	MSD CLEANED AND SANITIZED AFFECTED AREA	INCLUDED IN THE IOAP
DEREK R. GUTHRIE	MSD0277	6808 SANDSTONE BLVD	11/28/11 6:50: AM	11/29/11 11:40 AM	87,310 GAL	Sewer Manhole	31074	DITCH	FERN CREEK	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1384961	MSD TO CLEAN AND SANITIZE AFFECTED AREA	AREA INCLUDED IN IOAP
DEREK R. GUTHRIE	MSD0277	6808 SANDSTONE BLVD	12/05/11 8:47: AM	12/06/11 05:00 AM	67,740 GAL	Sewer Manhole	31074	DITCH	FERN CREEK	LACK OF SYSTEM CAPACITY - HEAVY RAIN □	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1388449	MSD PERSONNEL CLEANED AND SANITIZED THE IMPACTED AREA	A SOLUTION FOR THIS LOCATION IS INCLUDED IN IOAP SUBMITTED 12/08. □
DEREK R. GUTHRIE	MSD0277	6808 SANDSTONE BLVD	01/26/12 9:30: PM	01/27/12 06:10 AM	13,125 GAL	Sewer Manhole	31074	DITCH	FERN CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1415886	MSD CLEAN AND SANITIZED AFFECTED AREA	A SOLUTION FOR THIS LOCATION IS INCLUDED IN THE SANITARY SEWER DISCHARGE PLAN
DEREK R. GUTHRIE	MSD0277	6808 SANDSTONE BLVD	03/17/12 10:45: PM	03/18/12 01:00 AM	3,375 GAL	Sewer Manhole	31074	DITCH	FERN CREEK	LACK OF SYSTEM CAPACITY- HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1447774	MSD PERSONNEL CLEANED AND SANITIZED THE IMPACTED AREA	AREA INCLUDED IN THE IOAP
DEREK R. GUTHRIE	MSD0277	6808 SANDSTONE BLVD	04/01/12 11:58: AM	04/01/12 12:55 PM	2,850 GAL	Sewer Manhole	31074	DITCH	FERN CREEK	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1460058	MSD CLEANED AND SANITIZED AFFECTED AREA	INCLUDED IN IOAP

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Associated Wastewater Treatment Plant Name	Associated Treatment Plant KPDES #	Overflow Location	Overflow Start Date & Time	Overflow Stop Date & Time	Volume of Overflow	Source Asset Type	Source Asset ID	Facility Discharges To	Receiving Stream	Cause of Overflow	Due To	Weather	WO #	Cleanup Efforts by MSD	Repair Efforts by MSD
DEREK R. GUTHRIE	MSD0277	6808 SANDSTONE BLVD	05/13/12 12:41: PM	05/13/12 06:45 PM	25,260 GAL	Sewer Manhole	31074	DITCH	FERN CREEK	LACK OF CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1487869	MSD CLEANED AND SANITIZED AFFECTED AREA	A SOLUTION FOR THIS LOCATION IS INCLUDED IN THE IOAP.
JEFFERSONTOWN	MSD0255	2711 GRASSLAND DR	12/05/11 9:51: AM	12/09/11 03:30 PM	66,000 GAL	Sewer Manhole	31733	DITCH	BEATTY BROOK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1388692	DISCLN WO# 1389619	LOCATION INCLUDED IN THE IOAP
DEREK R. GUTHRIE	MSD0277	6707 W ORELL RD	11/28/11 7:42: AM	01/06/12 12:00 AM	410,000 GAL	Sewer Manhole	32682	STREAM	ALVEY DITCH	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1385351	DISCLN WO# 1386669	LOCATION INCLUDED IN THE IOAP
DEREK R. GUTHRIE	MSD0277	6707 W ORELL RD	12/05/11 2:39: PM	01/06/12 12:00 AM	565,000 GAL	Sewer Manhole	32682	STREAM	ALVEY DITCH	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1389609	DISCLN WO# 1390272	LOCATION INCLUDED IN THE IOAP
FLOYDS FORK	MSD0294	815 TUCKER STATION RD	12/05/11 3:51: PM	12/05/11 07:57 PM	20,300 GAL	Sewer Manhole	33003	STREAM	POPE LICK	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1389006	MSD TO CLEAN AND SANITIZE AFFECTED AREA	PART OF IOAP
DEREK R. GUTHRIE	MSD0277	6903 CHARLES LINDSEY CT	11/29/11 12:20: AM	11/29/11 12:51 AM	775 GAL	Sewer Manhole	36419	GROUND	PENNSYLVANIA RUN	SEAL LEAK ON PUMP 1 AT STATION PUMP 2 O/S	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1385428	NO DEBRIS	RESET PUMP 1 SEAL LEAK AT STATION
JEFFERSONTOWN	MSD0255	11524 MAGNOLIA VIEW CT	08/31/11 7:00: PM	08/31/11 07:05 PM	50 GAL	Sewer Main	36603-AG	GROUND	CHENOWETH RUN	FORCE MAIN PIPE BROKE	STRUCTURAL FAILURE	DISDW DRY WEATHER DISCHARGE	1331604	MSD CLEANED & SANITIZED THE AREA	SHUT OFF PUMP STATION & HAVING B&H HAUL UNTIL CHEROKEE CAN COMPLETE REPAIRS
MORRIS FORMAN	MSD0278	900 GAGEL AVE	07/26/11 4:45: PM	07/26/11 07:49 PM	150 GAL	Sewer Manhole	37466	DITCH	UPPER MILL CREEK	OBSTRUCTION IN MSD MAIN SEWER	OBSTRUCTION-NOT GREASE OR ROOT	DISDW DRY WEATHER DISCHARGE	1308033	MSD PERSONNEL CLEANED AND SANITIZED THE IMPACTED AREA	WORK ORDERS 1308045, 1308046, 1308115 & 1308117 - ROOT CUT THE MAIN SEWER
MORRIS FORMAN	MSD0278	900 GAGEL AVE	07/27/11 9:00: AM	07/27/11 12:10 PM	600 GAL	Sewer Manhole	37466	DITCH	UPPER MILL CREEK	BROKEN MANHOLE COVER IN THE MAIN SEWER	OBSTRUCTION-NOT GREASE OR ROOT	DISDW DRY WEATHER DISCHARGE	1308233	MSD PERSONNEL CLEANED AND SANITIZED THE IMPACTED AREA	MSD PULLED THE BROKEN MANHOLE OUT OF THE CHANNEL
MORRIS FORMAN	MSD0278	1012 ALTA CIR	11/28/11 8:55: AM	11/30/11 02:36 PM	78,500 GAL	Sewer Manhole	40559	STREAM	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1385798	DISCLN WO# 1385799	LOCATION IS INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	1012 ALTA CIR	12/05/11 11:20: AM	12/09/11 05:47 AM	79,500 GAL	Sewer Manhole	40559	STREAM	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1388737	DISCLN WO# 1389702	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	1012 ALTA CIR	01/26/12 10:30: PM	01/30/12 02:14 PM	15,000 GAL	Sewer Manhole	40559	STREAM	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1415908	DISCLN WO# 1416152	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	1012 ALTA CIR	04/01/12 11:58: AM	04/01/12 05:30 PM	43,000 GAL	Sewer Manhole	40559	STREAM	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1460083	DISCLN WO# 1460111	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	1012 ALTA CIR	05/13/12 11:40: AM	05/13/12 06:14 PM	59,000 GAL	Sewer Manhole	40559	STREAM	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1487956	DISCLN WO# 1488087	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	1012 ALTA CIR	05/29/12 11:48: AM	05/29/12 09:08 PM	126,000 GAL	Sewer Manhole	40559	STREAM	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1496322	DISCLN WO# 1496669	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	2120 INDIAN HILLS TRL	09/26/11 3:30: AM	09/26/11 02:40 PM	10,050 GAL	Sewer Manhole	40871	DITCH	MUDDY FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1345237	RAKED & LIMED AREA	SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR
MORRIS FORMAN	MSD0278	2120 INDIAN HILLS TRL	11/16/11 1:25: PM	11/16/11 09:25 PM	11,750 GAL	Sewer Manhole	40871	DITCH	MUDDY FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT IN THE AREA	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1381604	MSD CLEANED & SPREAD LIME	SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR FOR REPAIR
MORRIS FORMAN	MSD0278	2120 INDIAN HILLS TRL	11/22/11 10:20: AM	11/23/11 01:50 AM	232,500 GAL	Sewer Manhole	40871	DITCH	MUDDY FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1383700	MSD CLEANED, SANITIZED & SPREAD LIME	SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR
MORRIS FORMAN	MSD0278	2120 INDIAN HILLS TRL	11/28/11 6:00: AM	11/30/11 07:00 PM	549,000 GAL	Sewer Manhole	40871	DITCH	MUDDY FORK BEARGRASS CREEK	RAIN EVENT CAUSED A LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1384716	NO DEBRIS	SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR
MORRIS FORMAN	MSD0278	2120 INDIAN HILLS TRL	12/05/11 9:05: AM	12/08/11 01:15 AM	962,500 GAL	Sewer Manhole	40871	DITCH	MUDDY FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1388560	CONTRACTOR CLEANED & SANITIZED THE AREA	SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR

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Associated Wastewater Treatment Plant Name	Associated Treatment Plant KPDES #	Overflow Location	Overflow Start Date & Time	Overflow Stop Date & Time	Volume of Overflow	Source Asset Type	Source Asset ID	Facility Discharges To	Receiving Stream	Cause of Overflow	Due To	Weather	WO #	Cleanup Efforts by MSD	Repair Efforts by MSD
MORRIS FORMAN	MSD0278	2105 INDIAN HILLS TRL	09/26/11 3:30: AM	09/26/11 02:40 PM	33,500 GAL	Sewer Manhole	40872	GROUND	MUDDY FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1345236	RAKED & LIMED THE AREA	SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR
MORRIS FORMAN	MSD0278	2105 INDIAN HILLS TRL	11/16/11 1:25: PM	11/16/11 09:15 PM	11,750 GAL	Sewer Manhole	40872	GROUND	MUDDY FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT IN THE AREA	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1381601	MSD CLEANED & SPREAD LIME	SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR FOR REPAIR
MORRIS FORMAN	MSD0278	2105 INDIAN HILLS TRL	11/22/11 10:20: AM	11/23/11 01:50 AM	232,500 GAL	Sewer Manhole	40872	GROUND	MUDDY FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1383698	MSD CLEANED, SANITIZED & SPREAD LIME	SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUTE FOR REPAIR
MORRIS FORMAN	MSD0278	2105 INDIAN HILLS TRL	11/28/11 6:00: AM	11/30/11 07:00 PM	549,000 GAL	Sewer Manhole	40872	GROUND	MUDDY FORK BEARGRASS CREEK	RAIN EVENT CAUSED A LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1384717	NO DEBRIS	SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR
MORRIS FORMAN	MSD0278	2105 INDIAN HILLS TRL	12/05/11 9:05: AM	12/08/11 01:15 AM	962,500 GAL	Sewer Manhole	40872	GROUND	MUDDY FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1388564	CONTRACTOR CLEANED & SANITIZED THE AREA	SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR
MORRIS FORMAN	MSD0278	5 RIO VISTA DR	01/27/12 8:25: AM	01/28/12 04:35 AM	181,500 GAL	Sewer Manhole	40879	STREAM	MUDDY FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT.	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1416056	CONTRACTOR CLEANED & SANITIZED THE AREA	SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR
MORRIS FORMAN	MSD0278	5 RIO VISTA DR	03/18/12 1:10: AM	03/19/12 07:44 AM	183,400 GAL	Sewer Manhole	40879	STREAM	MUDDY FORK BEARGRASS CREEK	MUDDY FORK : RAIN EVENT CAUSED A LACK OF SYSTEM CAPACITY THAT LED TO A DISCHARGE	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1447780	CONTRACTOR CLEANED & SANITIZED	SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & REPAIR AS NEEDED
MORRIS FORMAN	MSD0278	5 RIO VISTA DR	03/24/12 1:05: AM	03/25/12 07:00 AM	271,250 GAL	Sewer Manhole	40879	STREAM	MUDDY FORK BEARGRASS CREEK	RAIN EVENT CAUSED A LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1456232	CONTRACTOR CLEANED & SANITIZED THE AREA	SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR
MORRIS FORMAN	MSD0278	5 RIO VISTA DR	04/01/12 1:00: PM	04/02/12 02:15 AM	227,250 GAL	Sewer Manhole	40879	STREAM	MUDDY FORK BEARGRASS CREEK	RAIN EVENT CAUSED LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1460056	MSD CLEANED & SANITIZED THE AREA	SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR
MORRIS FORMAN	MSD0278	5 RIO VISTA DR	05/13/12 11:35: AM	05/14/12 08:30 AM	94,125 GAL	Sewer Manhole	40879	STREAM	MUDDY FORK BEARGRASS CREEK	RAIN EVENT CAUSED A LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1487883	CONTRACTORS CLEANED & SANITIZED THE AREA	SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR
MORRIS FORMAN	MSD0278	5 RIO VISTA DR	05/29/12 12:15: PM	05/29/12 06:15 PM	1,800 GAL	Sewer Manhole	40879	STREAM	MUDDY FORK BEARGRASS CREEK	RAIN EVENT CAUSED A LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1496325	MSD CLEANED AND SANITIZED AREA	MSD WILL MONOTOR LOCATION DURING RAIN EVENTS
MORRIS FORMAN	MSD0278	2 RIO VISTA DR	01/27/12 8:31: AM	01/28/12 04:35 AM	6,020 GAL	Sewer Manhole	40880	GROUND	MUDDY FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT.	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1416061	CONTRACTOR CLEANED & SANITIZED THE AREA	SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR
MORRIS FORMAN	MSD0278	2 RIO VISTA DR	03/18/12 1:10: AM	03/19/12 07:44 AM	183,400 GAL	Sewer Manhole	40880	GROUND	MUDDY FORK BEARGRASS CREEK	MUDDY FORK : RAIN EVENT CAUSED A LACK OF SYSTEM CAPACITY THAT LED TO A DISCHARGE	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1447779	CONTRACTOR CLEANED & SANITIZED	SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR
MORRIS FORMAN	MSD0278	2 RIO VISTA DR	03/24/12 1:05: AM	03/24/12 04:50 PM	95,500 GAL	Sewer Manhole	40880	GROUND	MUDDY FORK BEARGRASS CREEK	RAINEVENT CAUSED A LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1456233	CONTRACTOR CLEANED & SANITIZED THE AREA	SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR
MORRIS FORMAN	MSD0278	2 RIO VISTA DR	04/01/12 1:00: PM	04/02/12 02:15 AM	530,250 GAL	Sewer Manhole	40880	GROUND	MUDDY FORK BEARGRASS CREEK	RAIN EVENT CAUSED A LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1460057	MSD CLEANED & SANITIZED THE AREA	SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR
MORRIS FORMAN	MSD0278	2 RIO VISTA DR	05/13/12 11:35: AM	05/14/12 08:30 AM	313,750 GAL	Sewer Manhole	40880	GROUND	MUDDY FORK BEARGRASS CREEK	RAINEVENT CAUSED A LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1487881	CONTRACTORS CLEANED & SANITIZED THE AREA	SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR
MORRIS FORMAN	MSD0278	2 RIO VISTA DR	05/29/12 12:17: PM	05/29/12 06:15 PM	47,800 GAL	Sewer Manhole	40880	GROUND	MUDDY FORK BEARGRASS CREEK	RAIN EVENT CAUSED A LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1496331	MSD CLEANED AND SANITIZED AREA	MSD WILL MONITOR SITE DURING RAIN EVENT
MORRIS FORMAN	MSD0278	300 MOCKINGBIRD VALLEY RD	09/26/11 2:57: AM	09/26/11 12:34 PM	126,500 GAL	Sewer Manhole	41374	DITCH	MUDDY FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1345255	DISCLN WO# 1345891	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	300 MOCKINGBIRD VALLEY RD	11/28/11 3:08: PM	12/06/11 03:30 PM	504,000 GAL	Sewer Manhole	41374	DITCH	MUDDY FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1385347	DISCLN WO# 1387885	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	3503 MOUNT RAINIER DR	06/05/12 12:35: PM	06/05/12 03:12 PM	7,850 GAL	Sewer Manhole	42922	STREAM	GOOSE CREEK	UNKNOWN OBSTRUCTION IN MAIN SEWER	OBSTRUCTION-NOT GREASE OR ROOT	DISDW DRY WEATHER DISCHARGE	1501612	MSD PERSONNEL WILL CLEAN AND SANITIZE THE IMPACTED AREA AROUND THE MANHOLE	MSD PERSONNEL FLUSHED THE MAIN SEWER TO REMOVE THE OBSTRUCTION.

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Associated Wastewater Treatment Plant Name	Associated Treatment Plant KPDES #	Overflow Location	Overflow Start Date & Time	Overflow Stop Date & Time	Volume of Overflow	Source Asset Type	Source Asset ID	Facility Discharges To	Receiving Stream	Cause of Overflow	Due To	Weather	WO #	Cleanup Efforts by MSD	Repair Efforts by MSD
MORRIS FORMAN	MSD0278	8409 SABERDEE DR	11/22/11 12:48: PM	11/22/11 05:00 PM	2,520 GAL	Sewer Manhole	43472	DITCH	GOOSE CREEK	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1383826	MSD CLEANED, SANITIZED & LIMED THE AREA	SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR
MORRIS FORMAN	MSD0278	8409 SABERDEE DR	11/28/11 2:00: AM	11/29/11 05:00 PM	58,500 GAL	Sewer Manhole	43472	DITCH	GOOSE CREEK	RAIN EVENT CAUSED A LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1384710	MSD CLEANED, SANITIZED & LIMED THE AREA	HAULING TO PREVENT DISCHARGE
MORRIS FORMAN	MSD0278	8409 SABERDEE DR	12/05/11 5:30: AM	12/06/11 11:30 AM	9,000 GAL	Sewer Manhole	43472	DITCH	GOOSE CREEK	RAIN EVENT CAUSED A LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1388278	MSD CLEANED & SANITIZED THE AREA	SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR
MORRIS FORMAN	MSD0278	1635 BELMAR DR	09/26/11 5:41: AM	09/28/11 12:05 PM	5,550 GAL	Sewer Manhole	44396	GROUND	MUDDY FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1345432	DISCLN WO# 1346320	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	1635 BELMAR DR	04/01/12 11:02: AM	04/04/12 06:16 AM	3,600 GAL	Sewer Manhole	44396	GROUND	MUDDY FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1460092	DISCLN WO# 1461008	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	1635 BELMAR DR	05/29/12 8:29: AM	05/31/12 04:59 PM	30,000 GAL	Sewer Manhole	44396	GROUND	MUDDY FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1496472	DISCLN WO# 1496767	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	2002 MILLVALE RD	05/29/12 4:18: PM	05/29/12 09:02 PM	66,000 GAL	Sewer Manhole	45829	GROUND	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1496509	DISCLN WO# 1496641	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	1132 ROSTREVOR CIR	09/26/11 4:15: AM	09/26/11 12:00 PM	155,000 GAL	Sewer Manhole	45835	GROUND	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1345247	DISCLN WO# 1345887	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	1132 ROSTREVOR CIR	11/22/11 9:10: AM	11/22/11 01:33 PM	6,000 GAL	Sewer Manhole	45835	GROUND	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1383644	DISCLN WO# 1384134	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	1132 ROSTREVOR CIR	11/28/11 11:15: AM	11/30/11 08:16 AM	91,000 GAL	Sewer Manhole	45835	GROUND	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1385140	DISCLN FOR 11-22-11 COMPLETED ON 11-30-11	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	1132 ROSTREVOR CIR	12/05/11 9:25: AM	12/07/11 05:34 AM	345,500 GAL	Sewer Manhole	45835	GROUND	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1388699	DISCLN WO# 1389790	LOCARION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	1132 ROSTREVOR CIR	12/27/11 12:09: PM	12/27/11 01:30 PM	2,100 GAL	Sewer Manhole	45835	GROUND	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1399116	DISCLN WO# 1399300	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	1132 ROSTREVOR CIR	01/26/12 10:30: PM	01/28/12 10:08 AM	64,000 GAL	Sewer Manhole	45835	GROUND	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1415905	DISCLN WO# 1416568	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	1132 ROSTREVOR CIR	04/01/12 12:03: PM	04/02/12 01:40 PM	63,000 GAL	Sewer Manhole	45835	GROUND	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1460077	DISCLN WO# 1460108	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	1132 ROSTREVOR CIR	05/29/12 4:14: PM	05/29/12 09:03 PM	81,500 GAL	Sewer Manhole	45835	GROUND	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1496508	DISCLN WO# 1496628	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	1904 EMBASSY SQUARE BLVD	06/07/12 5:00: PM	06/07/12 06:38 PM	20 GAL	Sewer Manhole	46161	CATCH BASIN	SOUTH FORK BEARGRASS CREEK	OBSTRUCTION IN MAIN SEWER	OBSTRUCTION-NOT GREASE OR ROOT	DISDW DRY WEATHER DISCHARGE	1502376	MSD PERSONNEL CLEANED AND SANITIZED THE IMPACTED AREA	WORK ORDER 1502402- FLUSHED AND REMOVED OBSTRUCTION FROM MAIN SEWER
MORRIS FORMAN	MSD0278	7800 WESTPORT RD	05/29/12 10:30: AM	05/29/12 12:30 PM	1,800 GAL	Sewer Manhole	46891	DITCH	GOOSE CREEK	RAIN EVENT CAUSED A LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1496337	MSD CLEANED AND SANTIZED AREA	MSD MONOTORED AREA DURING RAIN EVENT
MORRIS FORMAN	MSD0278	232 STONEHENGE DR	11/22/11 10:48: AM	11/22/11 11:15 AM	650 GAL	Sewer Manhole	47034	DITCH	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1383812	DISCLN WO# 1384130	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	201 BULLITT LN	12/05/11 11:38: AM	12/06/11 11:38 AM	145,000 GAL	Sewer Manhole	47582	STREAM	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1388779	MSD PERSONNEL CLEANED AND SANITIZED THE IMPACTED AREA	LOCATION INCLUDED IN THE IOPA
MORRIS FORMAN	MSD0278	201 BULLITT LN	01/26/12 11:08: PM	01/27/12 06:09 AM	82,000 GAL	Sewer Manhole	47582	STREAM	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1415916	DISCLN WO# 1416068	LOCATION INCLUDED IN THE IOAP

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Associated Wastewater Treatment Plant Name	Associated Treatment Plant KPDES #	Overflow Location	Overflow Start Date & Time	Overflow Stop Date & Time	Volume of Overflow	Source Asset Type	Source Asset ID	Facility Discharges To	Receiving Stream	Cause of Overflow	Due To	Weather	WO #	Cleanup Efforts by MSD	Repair Efforts by MSD
MORRIS FORMAN	MSD0278	8021 CHRISTIAN CT	11/28/11 12:41: PM	11/29/11 10:28 AM	3,300 GAL	Sewer Manhole	47593	GROUND	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1385426	DISCLN WO# 1385588	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	8021 CHRISTIAN CT	12/05/11 12:07: PM	12/06/11 05:14 AM	97,500 GAL	Sewer Manhole	47593	GROUND	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1388790	DISCLN WO# 1389223	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	8021 CHRISTIAN CT	01/26/12 11:49: PM	01/27/12 06:28 AM	27,500 GAL	Sewer Manhole	47593	GROUND	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1415924	DISCLN WO# 1416120	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	8021 CHRISTIAN CT	05/29/12 12:43: PM	05/29/12 04:59 PM	72,000 GAL	Sewer Manhole	47593	GROUND	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1496338	DISCLN WO# 1496620	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	8703 POINTE ARBOR LN	04/25/12 8:00: PM	04/25/12 10:00 PM	3,000 GAL	Sewer Manhole	48661	GROUND	SOUTH FORK BEARGRASS CREEK	OBSTRUCTION IN MAIN SEWER	OBSTRUCTION-NOT GREASE OR ROOT	DISDW DRY WEATHER DISCHARGE	1479487	MSD PERSONNEL CLEANED AND SANITIZED THE IMPACTED AREA	WORKORDER 1479496 - FLUSHED THE MANHOLE
MORRIS FORMAN	MSD0278	2201 GERALD CT	11/28/11 1:02: PM	11/29/11 10:17 AM	58,500 GAL	Sewer Manhole	48885	STREAM	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1385322	DISCLN WO# 1385651	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	2201 GERALD CT	12/05/11 10:32: AM	12/09/11 03:30 PM	33,000 GAL	Sewer Manhole	48885	STREAM	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1389064	DISCLN WO# 1389358	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	2201 GERALD CT	01/26/12 10:25: PM	01/30/12 04:00 PM	10,500 GAL	Sewer Manhole	48885	STREAM	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1415937	DISCLN WO# 1416135	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	2201 GERALD CT	05/29/12 12:55: PM	05/29/12 06:54 PM	9,000 GAL	Sewer Manhole	48885	STREAM	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1496483	DISCLN WO# 1496798	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	2209 GERALD CT	11/28/11 4:25: PM	11/29/11 10:15 AM	55,800 GAL	Sewer Manhole	48886	STREAM	MILL CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1385373	DISCLN WO# 1385566	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	2209 GERALD CT	12/05/11 10:19: AM	12/09/11 03:30 PM	46,000 GAL	Sewer Manhole	48886	STREAM	MILL CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1389059	DISCLN WO# 1384352	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	2209 GERALD CT	01/26/12 10:28: PM	01/30/12 04:00 PM	12,500 GAL	Sewer Manhole	48886	STREAM	MILL CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1415938	DISCLN WO# 1416215	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	2500 WYETH CT	12/05/11 3:33: PM	12/06/11 04:10 AM	59,500 GAL	Sewer Manhole	49513	GROUND	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1389051	DISCLN WO# 1389655	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	3603 BARDSTOWN RD	12/05/11 2:30: PM	12/07/11 03:30 PM	61,000 GAL	Sewer Manhole	49672	GROUND	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1389041	DISCLN WO# 1389643	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	3623 BARDSTOWN RD	11/28/11 4:00: PM	11/29/11 01:45 AM	54,500 GAL	Sewer Manhole	49673	CATCH BASIN	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1385436	DISCLN WO# 1385689	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	3623 BARDSTOWN RD	12/05/11 9:04: AM	12/07/11 03:30 PM	54,500 GAL	Sewer Manhole	49673	CATCH BASIN	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1388821	DISCLN WO# 1389637	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	3623 BARDSTOWN RD	05/29/12 10:20: AM	05/29/12 02:15 PM	12,000 GAL	Sewer Manhole	49673	CATCH BASIN	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1496300	DISCLN WO# 1496564	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	3305 INDIAN CREEK CT	09/26/11 6:03: AM	09/26/11 05:23 PM	17,200 GAL	Sewer Manhole	51160	GROUND	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1345430	DISCLN WO# 1345895	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	3305 INDIAN CREEK CT	11/22/11 11:41: AM	11/23/11 06:30 AM	27,000 GAL	Sewer Manhole	51160	GROUND	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1383824	DISCLN WO# 1384145	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	3305 INDIAN CREEK CT	11/28/11 12:15: PM	11/30/11 05:10 AM	76,500 GAL	Sewer Manhole	51160	GROUND	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1385301	DISCLN WO# 1386643	LOCATION INCLUDED IN THE IOAP

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Associated Wastewater Treatment Plant Name	Associated Treatment Plant KPDES #	Overflow Location	Overflow Start Date & Time	Overflow Stop Date & Time	Volume of Overflow	Source Asset Type	Source Asset ID	Facility Discharges To	Receiving Stream	Cause of Overflow	Due To	Weather	WO #	Cleanup Efforts by MSD	Repair Efforts by MSD
MORRIS FORMAN	MSD0278	3305 INDIAN CREEK CT	12/05/11 11:25: AM	12/09/11 03:30 PM	346,000 GAL	Sewer Manhole	51160	GROUND	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1389057	DISCLN WO# 1389591	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	3305 INDIAN CREEK CT	01/27/12 12:09: AM	01/30/12 04:00 PM	22,000 GAL	Sewer Manhole	51160	GROUND	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1415930	DISCLN WO# 1416566	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	3305 INDIAN CREEK CT	04/01/12 1:20: PM	04/01/12 05:20 PM	1,800 GAL	Sewer Manhole	51160	GROUND	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1460091	DISCLN WO# 1460999	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	3305 INDIAN CREEK CT	05/13/12 12:58: PM	05/13/12 08:14 PM	4,500 GAL	Sewer Manhole	51160	GROUND	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1487952	DISCLN WO# 1488053	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	3305 INDIAN CREEK CT	05/29/12 10:58: AM	05/29/12 05:00 PM	96,000 GAL	Sewer Manhole	51160	GROUND	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1496457	DISCLN WO# 1496748	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	2008 DAVID GRAVES DR	09/26/11 5:59: AM	09/26/11 05:27 PM	71,000 GAL	Sewer Manhole	51161	GROUND	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1345738	DISCLN WO# 1345902	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	2008 DAVID GRAVES DR	11/22/11 11:55: AM	11/23/11 06:00 AM	9,000 GAL	Sewer Manhole	51161	GROUND	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1383820	DISCLN WO# 1384141	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	2008 DAVID GRAVES DR	11/28/11 12:52: PM	11/30/11 05:14 AM	504,000 GAL	Sewer Manhole	51161	GROUND	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1385323	DISCLN WO# 1386649	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	2008 DAVID GRAVES DR	12/05/11 11:10: AM	12/09/11 03:30 PM	780,000 GAL	Sewer Manhole	51161	GROUND	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1389067	DISCLN WO# 1389600	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	2008 DAVID GRAVES DR	01/26/12 11:50: PM	01/27/12 11:59 AM	13,000 GAL	Sewer Manhole	51161	GROUND	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1415945	DISCLN WO# 1416219	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	2008 DAVID GRAVES DR	05/29/12 11:08: AM	05/29/12 07:05 PM	75,000 GAL	Sewer Manhole	51161	GROUND	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1496561	DISCLN WO# 1496920	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	2011 TERRIL LN	12/05/11 11:32: AM	12/09/11 03:30 PM	432,000 GAL	Sewer Manhole	51180	GROUND	BROOKLAWN TRIBUTARY	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1389055	DISCLN WO# 1389567	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	2011 TERRIL LN	05/29/12 11:02: AM	05/29/12 07:13 PM	1,200 GAL	Sewer Manhole	51180	GROUND	BROOKLAWN TRIBUTARY	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1496529	DISCLN WO# 1496915	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	1418 TREVILIAN WAY	07/19/11 11:50: PM	07/20/11 01:15 AM	900 GAL	Sewer Manhole	51594	DITCH	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1302856	DISCLN WO# 1302910	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	1418 TREVILIAN WAY	08/07/11 5:30: AM	08/07/11 10:10 AM	4,800 GAL	Sewer Manhole	51594	DITCH	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1312708	DISCLN WO# 1312753	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	1418 TREVILIAN WAY	09/26/11 2:00: AM	09/26/11 09:52 AM	4,400 GAL	Sewer Manhole	51594	DITCH	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1345401	DISCLN WO# 1346292	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	1418 TREVILIAN WAY	11/22/11 10:30: AM	11/22/11 05:15 PM	9,000 GAL	Sewer Manhole	51594	DITCH	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1383847	DISCLN WO# 1384160	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	1418 TREVILIAN WAY	11/27/11 10:55: PM	11/29/11 03:00 PM	24,000 GAL	Sewer Manhole	51594	DITCH	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1384912	DISCLN WO# 1385591	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	1418 TREVILIAN WAY	12/05/11 5:30: AM	12/09/11 03:30 PM	144,000 GAL	Sewer Manhole	51594	DITCH	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1388352	DISCLN WO# 1389245	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	1418 TREVILIAN WAY	12/27/11 10:50: AM	12/27/11 12:52 PM	1,350 GAL	Sewer Manhole	51594	DITCH	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1399144	DISCLN WO# 1399312	LOCATION INCLUDED IN THE IOAP

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Associated Wastewater Treatment Plant Name	Associated Treatment Plant KPDES #	Overflow Location	Overflow Start Date & Time	Overflow Stop Date & Time	Volume of Overflow	Source Asset Type	Source Asset ID	Facility Discharges To	Receiving Stream	Cause of Overflow	Due To	Weather	WO #	Cleanup Efforts by MSD	Repair Efforts by MSD
MORRIS FORMAN	MSD0278	1418 TREVILIAN WAY	01/23/12 4:01: AM	01/23/12 05:03 AM	2,100 GAL	Sewer Manhole	51594	DITCH	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1413638	DISCLN WO# 1413639	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	1418 TREVILIAN WAY	01/26/12 11:22: PM	01/27/12 05:45 AM	52,500 GAL	Sewer Manhole	51594	DITCH	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1415947	DISCLN WO# 1416139	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	1418 TREVILIAN WAY	03/17/12 8:00: PM	03/18/12 07:50 AM	7,200 GAL	Sewer Manhole	51594	DITCH	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1447973	DISCLN WO# 1447974	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	1418 TREVILIAN WAY	03/23/12 9:02: PM	03/24/12 12:05 PM	1,000 GAL	Sewer Manhole	51594	DITCH	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1456204	DISCLN WO# 1456321	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	1418 TREVILIAN WAY	04/01/12 10:52: AM	04/01/12 03:10 PM	9,000 GAL	Sewer Manhole	51594	DITCH	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1460093	DISCLN WO# 1461030	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	1418 TREVILIAN WAY	05/05/12 5:05: AM	05/05/12 10:07 AM	600 GAL	Sewer Manhole	51594	DITCH	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1484038	DISCLN WO# 1484039	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	1418 TREVILIAN WAY	05/13/12 5:32: AM	05/13/12 12:41 PM	12,600 GAL	Sewer Manhole	51594	DITCH	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1487951	DISCLN WO# 1488048	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	1418 TREVILIAN WAY	05/29/12 8:44: AM	05/29/12 06:30 PM	60,000 GAL	Sewer Manhole	51594	DITCH	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1496498	DISCLN WO# 1496903	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	1418 TREVILIAN WAY	05/31/12 9:39: PM	06/01/12 11:10 AM	10,500 GAL	Sewer Manhole	51594	DITCH	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1499919	DISCLN WO# 1500081	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	4510 BELLS LN	10/05/11 11:00: AM	10/05/11 03:15 PM	24,000 GAL	Sewer Valve	52841-V	GROUND	OHIO RIVER	BROKEN AIR RELEASE VALVE FROM FORCE MAIN	STRUCTURAL FAILURE	DISDW DRY WEATHER DISCHARGE	1350931	OPERATIONS TO CLEAN AND SANITIZE	OPERATIONS TO REPAIR AND CLEAN AFFECTED AREA
DEREK R. GUTHRIE	MSD0277	9114 CINDERELLA LN	11/28/11 8:05: AM	11/29/11 01:40 PM	17,750 GAL	Sewer Manhole	60679	DITCH	FISHPOOL CREEK	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1384903	MSD CLEANED & SANITIZED THE AREA	SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR
DEREK R. GUTHRIE	MSD0277	9114 CINDERELLA LN	12/05/11 8:37: AM	12/06/11 08:55 AM	145,800 GAL	Sewer Manhole	60679	DITCH	FISHPOOL CREEK	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1388638	MSD LIMED, CLEANED & SANITIZED THE AREA	SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR
DEREK R. GUTHRIE	MSD0277	9114 CINDERELLA LN	05/13/12 12:50: PM	05/14/12 12:30 AM	70,000 GAL	Sewer Manhole	60679	DITCH	FISHPOOL CREEK	RAINEVENT CAUSED A LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1487890	MSD CLEANED & SANITIZED THE AREA	SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR
SILVER HEIGHTS	MSD0258	9718 TITAN DR	11/22/11 10:00: AM	11/22/11 02:45 PM	14,250 GAL	Sewer Manhole	61667	GROUND	MUD CREEK	LACK OF CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1383705	MSD CLEANED AND SANITIZED AFFECTED AREA	LOCATION INCLUDED IN THE IOAP
SILVER HEIGHTS	MSD0258	9718 TITAN DR	11/28/11 1:35: PM	11/29/11 05:45 PM	84,500 GAL	Sewer Manhole	61667	GROUND	MUD CREEK	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1385276	MSD TO CLEAN AND SANITIZE AFFECTED AREA	THIS AREA IS INCLUDED IN THE IOAP
SILVER HEIGHTS	MSD0258	9718 TITAN DR	12/05/11 10:30: AM	12/06/11 04:07 AM	105,700 GAL	Sewer Manhole	61667	GROUND	MUD CREEK	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1388728	MSD CLEANED AND SANITIZED AFFECTED AREA	INCLUDED IN THE IOAP
SILVER HEIGHTS	MSD0258	9718 TITAN DR	05/13/12 12:55: PM	05/13/12 09:00 PM	10,625 GAL	Sewer Manhole	61667	GROUND	MUD CREEK	LACK OF SYSTEM CAPACITY - HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1487980	MSD CLEANED AND SANITIZED AFFECTED AREA	A SOLUTION FOR THIS LOCATION IS INCLUDED IN THE IOAP. □
SILVER HEIGHTS	MSD0258	3501 GRISSOM WAY	09/26/11 12:00: AM	09/26/11 04:45 AM	9,000 GAL	Sewer Manhole	61687	GROUND	MUD CREEK	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1345846	MSD CLEANED AND SANITIZED AREA	LOCATION IS INCLUDED IN THE IOAP
SILVER HEIGHTS	MSD0258	3501 GRISSOM WAY	11/22/11 10:00: AM	11/22/11 02:00 PM	6,000 GAL	Sewer Manhole	61687	GROUND	MUD CREEK	LACK OF CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1383711	MSD CREWS TO CLEAN AND SANITIZE AREA	AREA INCLUDED IN THE IOAP
SILVER HEIGHTS	MSD0258	3501 GRISSOM WAY	11/28/11 1:30: PM	11/29/11 05:40 PM	42,250 GAL	Sewer Manhole	61687	GROUND	MUD CREEK	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1385278	MSD CLEANED AND SANITIZED AFFECTED AREA	AREA INCLUDED IN THE IOAP

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Associated Wastewater Treatment Plant Name	Associated Treatment Plant KPDES #	Overflow Location	Overflow Start Date & Time	Overflow Stop Date & Time	Volume of Overflow	Source Asset Type	Source Asset ID	Facility Discharges To	Receiving Stream	Cause of Overflow	Due To	Weather	WO #	Cleanup Efforts by MSD	Repair Efforts by MSD
SILVER HEIGHTS	MSD0258	3501 GRISSOM WAY	12/05/11 10:45: AM	12/06/11 04:12 AM	26,175 GAL	Sewer Manhole	61687	GROUND	MUD CREEK	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1388723	MSD CLEANED AND SANITIZED AFFECTED AREA	INCLUDED IN IOAP
SILVER HEIGHTS	MSD0258	3501 GRISSOM WAY	03/23/12 3:45: PM	03/23/12 09:45 PM	18,000 GAL	Sewer Manhole	61687	GROUND	MUD CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1456194	MSD CLEANED AND SANITIZED AFFECTED AREA	THIS LOCATION WILL BE IN THE SANITARY SEWER DISCHARGE PLAN
SILVER HEIGHTS	MSD0258	3501 GRISSOM WAY	05/13/12 1:22: PM	05/13/12 11:10 PM	31,000 GAL	Sewer Manhole	61687	GROUND	MUD CREEK	LACK OF SYSTEM CAPACITY - HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1487982	RAKE AND BAG/ NO LIME	A SOLUTION FOR THIS LOCATION IS INCLUDED IN THE IOAP.
CEDAR CREEK	MSD0289	9517 PLUMWOOD RD	12/05/11 3:10: PM	12/05/11 08:40 PM	5,300 GAL	Sewer Manhole	63094	STREAM	CEDAR CREEK	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1388926	MSD SANITIZED AND CLEAN AFFECTED AREA	PART OF IOAP
CEDAR CREEK	MSD0289	9517 PLUMWOOD RD	05/13/12 2:27: PM	05/13/12 03:05 PM	2,000 GAL	Sewer Manhole	63094	STREAM	CEDAR CREEK	WET WEATHER EVENT LACK OF CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1487898	NO DEBRIS; MSD CLEANED AND SANITIZED AFFECTED AREA	A SOLUTION FOR THIS LOCATION IS INCLUDED IN THE IOAP.
CEDAR CREEK	MSD0289	9300 HAYES AVE	12/05/11 3:30: PM	12/05/11 07:25 PM	10,375 GAL	Sewer Manhole	63095	STREAM	CEDAR CREEK	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1389007	MSD TO CLEAN AND SANITIZE AFFECTED AREA	INCLUDED IN THE IOAP
JEFFERSONTOWN	MSD0255	3200 RUCKRIEGEL PKY	12/05/11 8:34: AM	12/07/11 03:30 PM	31,500 GAL	Sewer Manhole	64505	STREAM	CHENOWETH RUN	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1388654	DISCLN WO# 1389375	LOCATION INCLUDED IN THE IOAP
JEFFERSONTOWN	MSD0255	3200 RUCKRIEGEL PKY	01/26/12 10:08: PM	01/30/12 04:00 PM	7,500 GAL	Sewer Manhole	64505	STREAM	CHENOWETH RUN	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1415910	DISCLN WO# 1416172	LOCATION INCLUDED IN THE IOAP
JEFFERSONTOWN	MSD0255	3200 RUCKRIEGEL PKY	04/01/12 12:00: PM	04/01/12 04:46 PM	9,000 GAL	Sewer Manhole	64505	STREAM	CHENOWETH RUN	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1460085	DISCLN WO# 1461096	LOCATION INCLUDED IN THE IOAP
JEFFERSONTOWN	MSD0255	3200 RUCKRIEGEL PKY	05/13/12 11:23: AM	05/13/12 07:07 PM	10,500 GAL	Sewer Manhole	64505	STREAM	CHENOWETH RUN	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1487944	DISCLN WO# 1488197	LOCATION INCLUDED IN THE IOAP
JEFFERSONTOWN	MSD0255	3200 RUCKRIEGEL PKY	05/29/12 11:02: AM	05/29/12 01:03 PM	47,000 GAL	Sewer Manhole	64505	STREAM	CHENOWETH RUN	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1496562	DISCLN WO# 1496924	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	1804 ROUND RIDGE RD	11/22/11 11:34: AM	11/22/11 02:02 PM	4,100 GAL	Sewer Manhole	65623	STREAM	MUDDY FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1383793	DISCLN WO# 1384130	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	1804 ROUND RIDGE RD	11/28/11 3:28: PM	11/29/11 04:43 AM	18,000 GAL	Sewer Manhole	65623	STREAM	MUDDY FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1385343	DISCLN WO# 1385496	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	1804 ROUND RIDGE RD	12/05/11 1:31: PM	12/06/11 03:20 PM	123,000 GAL	Sewer Manhole	65623	STREAM	MUDDY FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1388828	DISCLN WO# 1389693	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	1804 ROUND RIDGE RD	01/27/12 12:39: AM	01/27/12 06:44 AM	6,200 GAL	Sewer Manhole	65623	STREAM	MUDDY FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1415928	DISCLN WO# 1416126	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	1804 ROUND RIDGE RD	05/13/12 1:35: PM	05/15/12 10:00 AM	10,500 GAL	Sewer Manhole	65623	STREAM	MUDDY FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1487957	DISCLN WO# 1488363	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	4640 BARBOUR LN	09/14/11 9:55: PM	09/14/11 10:15 PM	4,000 GAL	Sewer Manhole	65633	STREAM	LITTLE GOOSE CREEK	CONTROL PANEL BREAKER TRIPPED	ELECTRICAL PROBLEMS AT MSD	DISREV RAIN EVENT DISCHARGE	1339022	MSD CLEANED & LIMED THE AREA	MSD PERSONNEL REPAIRED THE CONTROL PANEL BREAKER
MORRIS FORMAN	MSD0278	4640 BARBOUR LN	12/05/11 5:30: PM	12/06/11 05:00 AM	70,500 GAL	Sewer Manhole	65633	STREAM	LITTLE GOOSE CREEK	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1389123	MSD CLEANED, SANITIZED & LIMED THE AREA	SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR
MORRIS FORMAN	MSD0278	2504 WYETH CT	12/05/11 3:08: PM	12/06/11 03:58 AM	62,000 GAL	Sewer Manhole	66232	STREAM	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1389049	DISCLN WO# 1389653	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	9 MUIRFIELD PL	12/05/11 4:57: PM	12/07/11 03:30 PM	82,500 GAL	Sewer Manhole	67535	GROUND	HURSTBOURNE CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1389025	DISCLN WO# 1389230	LOCATION INCLUDED IN THE IOAP

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Associated Wastewater Treatment Plant Name	Associated Treatment Plant KPDES #	Overflow Location	Overflow Start Date & Time	Overflow Stop Date & Time	Volume of Overflow	Source Asset Type	Source Asset ID	Facility Discharges To	Receiving Stream	Cause of Overflow	Due To	Weather	WO #	Cleanup Efforts by MSD	Repair Efforts by MSD
MORRIS FORMAN	MSD0278	2501 ALEXANDER RD	08/20/11 12:00: PM	08/20/11 05:40 PM	7,000 GAL	Sewer Manhole	72267	GROUND	MIDDLE FORK BEARGRASS CREEK	OBSTRUCTION IN DOWNSTREAM SEWER	OBSTRUCTION-NOT GREASE OR ROOT	DISDW DRY WEATHER DISCHARGE	1324054	DIRECTLY INTO CREEK WILL NOT BE ABLE TO CLEAN	BOLT DOWN FRAME AND LID INSTALLED WO1324047
MORRIS FORMAN	MSD0278	1604 CHEROKEE RD	11/28/11 6:32: PM	11/30/11 02:35 PM	87,000 GAL	Sewer Manhole	72288	GROUND	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1385464	DISCLN WO# 1385795	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	1604 CHEROKEE RD	12/05/11 11:19: AM	12/09/11 05:46 AM	135,000 GAL	Sewer Manhole	72288	GROUND	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1388734	DISCLN WO# 1389708	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	1604 CHEROKEE RD	01/26/12 10:19: PM	01/27/12 05:46 AM	18,000 GAL	Sewer Manhole	72288	GROUND	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1415907	DISCLN WO# 1416150	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	1604 CHEROKEE RD	03/23/12 3:00: AM	03/24/12 12:00 PM	250 GAL	Sewer Manhole	72288	GROUND	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1456201	DISCLN WO# 1456322	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	1604 CHEROKEE RD	04/01/12 11:48: AM	04/01/12 05:25 PM	55,000 GAL	Sewer Manhole	72288	GROUND	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1460080	DISCLN WO# 1460110	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	1604 CHEROKEE RD	05/13/12 11:24: AM	05/13/12 06:09 PM	64,000 GAL	Sewer Manhole	72288	GROUND	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1487955	DISCLN WO# 1488086	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	1604 CHEROKEE RD	05/29/12 8:25: AM	05/29/12 04:22 PM	126,000 GAL	Sewer Manhole	72288	GROUND	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1496059	DISCLN WO# 1496589	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	1604 CHEROKEE RD	05/31/12 8:55: PM	06/04/12 12:00 PM	9,500 GAL	Sewer Manhole	72288	GROUND	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1498711	DISCLN WO# 1500062	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	1700 SULGRAVE RD	05/29/12 11:48: AM	05/29/12 04:24 PM	60,000 GAL	Sewer Manhole	72289	GROUND	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1496323	DISCLN WO# 1496585	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	4600 CHAMPIONS TRACE LN	07/17/11 8:28: PM	07/17/11 09:31 PM	96,362 GAL	Sewer Manhole	72571-X	STREAM	SOUTH FORK BEARGRASS CREEK	HEAVY RAINFALL FROM SPOTTY AFTERNOON RAIN SHOWERS	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1302043	NO CLEANUP REQUIRED, PIPE DISCHARGE SUBMERGED	A SOLUTION FOR THIS LOCATION IS INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	4600 CHAMPIONS TRACE LN	09/26/11 2:34: AM	09/26/11 11:04 AM	268,696 GAL	Sewer Manhole	72571-X	STREAM	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1345195	CLEAN UP NOT POSSIBLE, PIPE DISCHARGE SUBMERGED	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	4600 CHAMPIONS TRACE LN	11/20/11 4:07: PM	11/20/11 04:39 PM	22,095 GAL	Sewer Manhole	72571-X	STREAM	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1383056	NO CLEANUP REQUIRED, PIPE DISCHARGE SUBMERGED	LOCATION INCLUDED IN THE INTERIM SANITARY SEWER DISCHARGE PLAN
MORRIS FORMAN	MSD0278	4600 CHAMPIONS TRACE LN	11/22/11 9:12: AM	11/22/11 01:26 PM	108,564 GAL	Sewer Manhole	72571-X	STREAM	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1383637	NO CLEANUP REQUIRED, PIPE DISCHARGE SUBMERGED	LOCATION INCLUDED IN THE INTERIM SANITARY SEWER DISCHARGE PLAN
MORRIS FORMAN	MSD0278	4600 CHAMPIONS TRACE LN	11/28/11 2:32: AM	11/29/11 11:25 AM	1,606,767 GAL	Sewer Manhole	72571-X	STREAM	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1384868	NO CLEANUP REQUIRED, PIPE DISCHARGE SUBMERGED.	LOCATION INCLUDED IN THE INTERIM SANITARY SEWER DISCHARGE PLAN
MORRIS FORMAN	MSD0278	4600 CHAMPIONS TRACE LN	12/05/11 7:10: AM	12/06/11 06:36 AM	2,046,000 GAL	Sewer Manhole	72571-X	STREAM	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY- HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1388338	NO CLEANUP REQUIRED, DISCHARGE PIPE SUBMERGED.	LOCATION INCLUDED IN THE INTERIM SANITARY SEWER DISCHARGE PLAN
MORRIS FORMAN	MSD0278	3705 BARDSTOWN RD	12/05/11 2:52: PM	12/07/11 03:30 PM	110,000 GAL	Sewer Manhole	73111	CATCH BASIN	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1389044	DISCLN WO# 1389648	LOCATION INCLUDED IN THE IOAP
CHENOWETH RUN	MSD0403	605 WOODLAKE DR	07/02/11 11:15: PM	07/02/11 11:50 PM	35 GAL	Sewer Main	80377B-AG	STREAM	CHENOWETH RUN,UPPER	STRUCTURE FAILURE, FORCE MAIN PIPE BROKEN UNDER GROUND	STRUCTURAL FAILURE	DISDW DRY WEATHER DISCHARGE	1292638	TO BE CLEANED & SANITIZED BY CONTRACTOR WHEN REPAIRS ARE MADE	SHUT OFF ONE OF DUAL FORCE MAINS AT BECKLEY STATION PS
MORRIS FORMAN	MSD0278	2012 PEABODY LN	12/15/11 1:00: PM	12/15/11 01:55 PM	10 GAL	Sewer Service Line	81009	GROUND	SOUTH FORK BEARGRASS CREEK	MAIN SEWER WAS STOPPED DUE TO A GREASE BLOCKAGE.	GREASE BLOCKAGE	DISREV RAIN EVENT DISCHARGE	1396055	MSD PERSONNEL CLEANED AND SANITIZED THE IMPACTED AREA	WORK ORDER 1396052 - FLUSHED THE MAIN SEWER
MORRIS FORMAN	MSD0278	6114 ASHBY LN	07/12/11 8:00: PM	07/13/11 10:37 AM	880 GAL	Sewer Valve	81405-V	GROUND	MILL CREEK	MECHANICAL FAILURE OF ARV	MECHANICAL FAILURE	DISREV RAIN EVENT DISCHARGE	1298252	CLEANED & SANITIZED BY CONTRACTOR	SHUT OFF WASTE SLUDGE PUMPS @ DRG TO STOP FLOW, & REPLACED ARV VALVE

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Associated Wastewater Treatment Plant Name	Associated Treatment Plant KPDES #	Overflow Location	Overflow Start Date & Time	Overflow Stop Date & Time	Volume of Overflow	Source Asset Type	Source Asset ID	Facility Discharges To	Receiving Stream	Cause of Overflow	Due To	Weather	WO #	Cleanup Efforts by MSD	Repair Efforts by MSD
MORRIS FORMAN	MSD0278	6114 ASHBY LN	07/12/11 8:00: PM	07/13/11 09:52 AM	630 GAL	Sewer Valve	81406-V	GROUND	MILL CREEK	MECHANICAL FAILURE OF ARV	MECHANICAL FAILURE	DISREV RAIN EVENT DISCHARGE	1298248	CLEANED & SANITIZED BY CONTRACTOR	SHUT OFF WASTE SLUDGE PUMPS @ DRG TO STOP FLOW. ARV WAS REPLACED.
MORRIS FORMAN	MSD0278	7913 SHELBYVILLE RD	12/05/11 5:20: PM	12/06/11 05:29 AM	33,000 GAL	Sewer Manhole	84155	GROUND	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1389027	DISCLN WO# 1389234	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	7913 SHELBYVILLE RD	01/26/12 11:49: PM	01/27/12 06:16 AM	40,500 GAL	Sewer Manhole	84155	GROUND	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1415923	DISCLN WO# 1416086	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	7913 SHELBYVILLE RD	05/29/12 12:48: PM	05/29/12 04:59 PM	60,000 GAL	Sewer Manhole	84155	GROUND	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1496318	DISCLN WO# 1496505	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	4307 PRUITT CT	12/05/11 2:30: PM	12/10/11 10:27 AM	42,500 GAL	Sewer Service Line	85065	GROUND	BUECHEL BRANCH	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1389043	DISCLN WO# 1389646	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	4 RIVER BLUFF RD	12/27/11 4:50: PM	12/28/11 07:30 AM	91,500 GAL	Sewer Manhole	89646	GROUND	MUDDY FORK BEARGRASS CREEK	RAINEVENT CAUSED A LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1399225	CONTRACTOR CLEANED & SANITIZED THE AREA	SITE FOUND DURING RAIN EVENT RECON- WILL MONITR & EVALUATE FOR REPAIR.
MORRIS FORMAN	MSD0278	37 ARROWHEAD RD	09/26/11 3:11: AM	09/26/11 12:25 PM	1,400 GAL	Sewer Manhole	89791	GROUND	MUDDY FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1345253	MSD SANITIZED AND CLEANED THE AREA	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	37 ARROWHEAD RD	11/28/11 2:58: PM	11/29/11 09:28 AM	18,000 GAL	Sewer Manhole	89791	GROUND	MUDDY FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1385345	NO DISCLN NEEDED DUE TO THE MAGNITUDE OF THE STORM	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	37 ARROWHEAD RD	12/05/11 1:40: PM	12/06/11 03:30 PM	52,000 GAL	Sewer Manhole	89791	GROUND	MUDDY FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1388830	DISCLN WO# 1389226	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	37 ARROWHEAD RD	01/27/12 12:40: AM	01/27/12 06:53 AM	7,400 GAL	Sewer Manhole	89791	GROUND	MUDDY FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1415929	DISCLN WO# 1416130	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	37 ARROWHEAD RD	05/29/12 10:40: AM	05/29/12 05:49 PM	48,000 GAL	Sewer Manhole	89791	GROUND	MUDDY FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1496319	DISCLN WO# 1496582	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	8021 CHRISTIAN CT	11/29/11 2:58: AM	11/29/11 10:25 AM	12,000 GAL	Sewer Manhole	90700	CATCH BASIN	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1385427	NONE NEEDED DUE TO MAGNITUDE OF STORM	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	8021 CHRISTIAN CT	12/05/11 11:49: AM	12/06/11 05:10 AM	46,500 GAL	Sewer Manhole	90700	CATCH BASIN	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1388788	DISCLN WO# 1389221	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	8021 CHRISTIAN CT	01/26/12 11:50: PM	01/27/12 06:44 AM	36,000 GAL	Sewer Manhole	90700	CATCH BASIN	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1415922	DISCLN WO# 1416077	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	8021 CHRISTIAN CT	05/29/12 12:43: PM	05/29/12 04:56 PM	24,000 GAL	Sewer Manhole	90700	CATCH BASIN	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1496334	DISCLN WO# 1496616	LOCATION INCLUDED IN THE IOAP
HITE CREEK	MSD0202	7510 MEADOW STREAM CT	11/28/11 4:05: PM	11/29/11 03:45 PM	6,400 GAL	Sewer Manhole	91087	STREAM	SOUTH FORK HARRODS CREEK	RAIN EVENT CAUSED A LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1385303	MSD CLEANED, SANITIZED & LIMED THE AREA	SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR
HITE CREEK	MSD0202	7510 MEADOW STREAM CT	12/05/11 8:30: AM	12/06/11 10:40 AM	78,500 GAL	Sewer Manhole	91087	STREAM	SOUTH FORK HARRODS CREEK	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1388513	MSD CLEANED, SANITIZED & LIMED THE AREA	SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR
HITE CREEK	MSD0202	7510 MEADOW STREAM CT	05/13/12 12:35: PM	05/13/12 10:30 PM	14,875 GAL	Sewer Manhole	91087	STREAM	SOUTH FORK HARRODS CREEK	RAIN EVENT CAUSED LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1487888	MSD CLEANED & SANITIZED THE AREA	SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR
JEFFERSONTOWN	MSD0255	11804 CHIPPEWA RIDGE LN	12/05/11 9:37: PM	12/05/11 10:45 PM	680 GAL	Sewer Manhole	92061	GROUND	CHENOWETH RUN	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1389127	MSD CLEANED & SANITIZED THE AREA	SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR. HAULING #1389127
JEFFERSONTOWN	MSD0255	11804 CHIPPEWA RIDGE LN	05/13/12 3:20: PM	05/14/12 02:30 AM	16,750 GAL	Sewer Manhole	92061	GROUND	CHENOWETH RUN	RAIN EVENT CAUSED A LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1487912	PIPE DISCHARGE SUBMERGED- NO CLEANUP	SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR

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Associated Wastewater Treatment Plant Name	Associated Treatment Plant KPDES #	Overflow Location	Overflow Start Date & Time	Overflow Stop Date & Time	Volume of Overflow	Source Asset Type	Source Asset ID	Facility Discharges To	Receiving Stream	Cause of Overflow	Due To	Weather	WO #	Cleanup Efforts by MSD	Repair Efforts by MSD
FLOYDS FORK	MSD0294	1100 BLUE HERON RD	12/05/11 4:40: PM	12/06/11 04:45 AM	18,125 GAL	Sewer Manhole	97807	GROUND	FLOYDS FORK	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1389068	MSD CLEANED, SANITIZED & LIMED THE AREA	SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR
MORRIS FORMAN	MSD0278	3305 BENT CREEK CT	11/28/11 12:17: PM	11/30/11 02:26 PM	27,500 GAL	Sewer Service Line	BU05074039	GROUND	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1385334	DISCLN WO# 1385790	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	3305 BENT CREEK CT	12/05/11 11:40: AM	12/09/11 03:30 PM	96,000 GAL	Sewer Service Line	BU05074039	GROUND	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1389069	DISCLN WO# 1389602	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	3305 BENT CREEK CT	01/26/12 11:54: PM	01/27/12 05:22 AM	21,000 GAL	Sewer Service Line	BU05074039	GROUND	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1415933	DISCLN WO# 1416134	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	3305 BENT CREEK CT	05/29/12 10:55: AM	05/29/12 07:14 PM	1,200 GAL	Sewer Service Line	BU05074039	GROUND	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1496500	DISCLN WO# 1496904	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	3303 TROUT CREEK DR	09/26/11 5:58: AM	09/26/11 10:31 AM	750 GAL	Sewer Service Line	BU05091039	GROUND	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1345441	DISCLN WO# 1346325	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	3303 TROUT CREEK DR	05/29/12 10:53: AM	05/29/12 07:10 PM	18,000 GAL	Sewer Service Line	BU05091039	GROUND	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1496504	DISCLN WO# 1496914	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	816 N 34TH ST	09/07/11 1:15: AM	09/07/11 02:19 AM	48,000 GAL	Sewer Manhole	CSO019	STREAM	OHIO RIVER	STATION LOST 1 PHASE OF LGE POWER, GENERATOR CAME ON, CONTROLS CIRCUIT BREAKER TRIPPED, CONTROLS DID NOT ALLOW PUMPS TO COME ONLINE.	ELECTRICAL PROBLEMS AT MSD	DISREV RAIN EVENT DISCHARGE	1335873	NO CLEANUP REQUIRED, PIPE DISCHARGE OUTLET SUBMERGED	MSD PERSONNEL RESET CONTROL POWER, STARTED PUMPS
MORRIS FORMAN	MSD0278	147 BUCHANAN ST	04/04/12 9:19: AM	04/04/12 10:03 AM	2,225,000 GAL	Sewer Manhole	CSO020	STREAM	OHIO RIVER	PUMP ONE WENT TO GROUND TRIPPING OUT SUBSTATION	ELECTRICAL PROBLEMS AT MSD	DISDW DRY WEATHER DISCHARGE	1462563	NONE, OUTLET SUBMERGED IN THE OHIO RIVER.	ISOLATED PUMP ONE AND RESET STATION.
MORRIS FORMAN	MSD0278	147 BUCHANAN ST	03/17/12 3:02: PM	03/17/12 03:47 PM	1,987,908 GAL	Sewer Manhole	CSO020	STREAM	OHIO RIVER	MECHANICAL FAILURE OF THE HYDROSTATIC LEVEL INDICATOR. THAT SHUT THE STATION DOWN	MECHANICAL FAILURE	DISDW DRY WEATHER DISCHARGE	1447741	PIPE DISCHARGE SUBMERGED - NO CLEANUP	SWITCHED LEVEL INDICATOR SYSTEMS. #2 SYSTEM IS THE PRIMARY SYSTEM UNTIL REPAIRS ARE COMPLETED .
MORRIS FORMAN	MSD0278	342 W MAIN ST	03/14/12 11:37: AM	03/14/12 01:57 PM	280 GAL	Sewer Manhole	CSO022	STREAM	OHIO RIVER	STRUCTURAL FAILURE-1/2 INCH HOLE IN THE METAL DAM (WIER)	STRUCTURAL FAILURE	DISDW DRY WEATHER DISCHARGE	1446837	NO CLEAN UP OVERFLOW WENT STRIGHT TO OHIO RIVER	REPAIRED DAM- PLUGED & SEALED 1/2 INCH HOLE
MORRIS FORMAN	MSD0278	1174 CASTLEVALE DR	01/30/12 12:35: PM	01/30/12 02:42 PM	1,905 GAL	Sewer Manhole	CSO097	STREAM	SOUTH FORK BEARGRASS CREEK	LACK OF CAPACITY IN THE BGI AFTER RAIN EVENT DUE TO UNKNOWN RESTRICTION, TO BE DETERMINED.	MECHANICAL FAILURE	DISDW DRY WEATHER DISCHARGE	1417499	MSD PERSONNEL CLEANED AND SANITIZED THE AREA	FLOW DIVERTED TO THE UPPER DRY RUN INTERCEPTOR
MORRIS FORMAN	MSD0278	1215 ELLISON AVE	08/17/11 12:08: PM	08/17/11 12:30 PM	22 GAL	Sewer Manhole	CSO113	STREAM	SOUTH FORK BEARGRASS CREEK	OBSTRUCTION IN MAIN SEWER	OBSTRUCTION-NOT GREASE OR ROOT	DISDW DRY WEATHER DISCHARGE	1322426	NO CLEAN UP PERFORMED- PIPE DISCHARGES DIRECTLY INTO STREAM	FLUSHED/VACTORED THE OBSTRUCTION/DEBRIS FROM SEWER
MORRIS FORMAN	MSD0278	1215 ELLISON AVE	11/30/11 10:42: AM	11/30/11 11:18 AM	180 GAL	Sewer Manhole	CSO113	STREAM	SOUTH FORK BEARGRASS CREEK	OBSTRUCTION IN MAIN SEWER	OBSTRUCTION-NOT GREASE OR ROOT	DISDW DRY WEATHER DISCHARGE	1387045	NO CLEAN UP PERFORMED- PIPE DISCHARGES DIRECTLY INTO STREAM	FLUSHED/VACTORED THE OBSTRUCTION/DEBRIS FROM SEWER
MORRIS FORMAN	MSD0278	1215 ELLISON AVE	06/08/12 9:09: AM	06/08/12 10:22 AM	365 GAL	Sewer Manhole	CSO113	STREAM	SOUTH FORK BEARGRASS CREEK	OBSTRUCTION IN MAIN SEWER	OBSTRUCTION-NOT GREASE OR ROOT	DISDW DRY WEATHER DISCHARGE	1502459	NO CLEAN UP PERFORMED- PIPE DISCHARGES DIRECTLY INTO STREAM	FLUSHED/VACTORED THE OBSTRUCTION/DEBRIS FROM SEWER
MORRIS FORMAN	MSD0278	1400 STORY AVE	10/04/11 10:37: AM	10/04/11 11:25 AM	2,291 GAL	Sewer Manhole	CSO130	STREAM	SOUTH FORK BEARGRASS CREEK	LINE OBSTRUCTION DUE TO BRICKS IN SEWER	OBSTRUCTION-NOT GREASE OR ROOT	DISDW DRY WEATHER DISCHARGE	1350359	NONE NEEDED-MSD CREWS ARE ON LOCATION	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	984 SWAN ST	08/11/11 8:15: PM	08/12/11 03:15 AM	551,760 GAL	Sewer Manhole	CSO146	STREAM	SOUTH FORK BEARGRASS CREEK	LWC WATER MAIN BREAK AT EASTERN PKY & CRITTENDEN DR CAUSED A SUBSTANTIAL INCREASE IN SEWER FLOW	UTILITY DAMAGED MSD ASSET	DISDW DRY WEATHER DISCHARGE	1320617	NO CLEANUP REQUIRED	LWC REPAIRING WATER MAIN
MORRIS FORMAN	MSD0278	1169 EASTERN PKY	02/13/12 11:16: AM	02/13/12 11:25 AM	1,250 GAL	Sewer Manhole	CSO148	STREAM	SOUTH FORK BEARGRASS CREEK	BLOCKAGE IN LINE UPSTREAM OF SIPHON AND DOWNSTREAM OF CSO	OBSTRUCTION-NOT GREASE OR ROOT	DISDW DRY WEATHER DISCHARGE	1424997	NO CLEAN UP OVERFLOW WENT STRIGHT TO BEARGRASS CREEK	WORK ORDER 1425089 - FLUSHED THE PIPE AND REMOVED DEBRIS
MORRIS FORMAN	MSD0278	1169 EASTERN PKY	03/07/12 2:05: PM	03/07/12 02:10 PM	15 GAL	Sewer Manhole	CSO148	STREAM	SOUTH FORK BEARGRASS CREEK	BLOCKAGE IN LINE UPSTREAM OF SIPHON AND DOWNSTREAM OF CSO	OBSTRUCTION-NOT GREASE OR ROOT	DISDW DRY WEATHER DISCHARGE	1441470	NO CLEAN UP OVERFLOW WENT STRIGHT TO BEARGRASS CREEK	LINE WAS FLUSHED AND CLEARED BLOCKAGE
MORRIS FORMAN	MSD0278	933 GOSS AVE	08/11/11 8:00: PM	08/11/11 09:15 PM	133,708 GAL	Sewer Manhole	CSO174	STREAM	SOUTH FORK BEARGRASS CREEK	LWC WATER MAIN BREAK AT EASTERN PKY & CRITTENDEN DR CAUSED A SUBSTANTIAL INCREASE IN SEWER FLOW	UTILITY DAMAGED MSD ASSET	DISDW DRY WEATHER DISCHARGE	1320616	NO CLEANUP REQUIRED	LWC REPAIRING WATER MAIN

APPENDIX B-1
UNAUTHORIZED DISCHARGES
TO WATERS OF UNITED STATES
JULY 1, 2011 THROUGH JUNE 30, 2012

Associated Wastewater Treatment Plant Name	Associated Treatment Plant KPDES #	Overflow Location	Overflow Start Date & Time	Overflow Stop Date & Time	Volume of Overflow	Source Asset Type	Source Asset ID	Facility Discharges To	Receiving Stream	Cause of Overflow	Due To	Weather	WO #	Cleanup Efforts by MSD	Repair Efforts by MSD
MORRIS FORMAN	MSD0278	1397 S 3RD ST	06/21/12 7:15: PM	06/22/12 08:15 AM	1,560 GAL	Sewer Manhole	CSO200	STREAM	OHIO RIVER	GRIT AND DEBRIS BUILD UP IN LINE	OBSTRUCTION-NOT GREASE OR ROOT	DISDW DRY WEATHER DISCHARGE	1507021	NO CLEAN UP PERFORMED - DISCHARGE INTO THE CENTRAL RELIEF DRAIN	WORK ORDER 1507059 - VACTOR DRAIN
MORRIS FORMAN	MSD0278	1700 SPRING DR	11/30/11 12:55: PM	11/30/11 01:08 PM	100 GAL	Sewer Manhole	CSO206	STREAM	MIDDLE FORK BEARGRASS CREEK	DISCHARGE WAS CAUSED BY A STOPPED UP STORM LINE THAT CAUSED TOO MUCH STORM WATER TO ENTER THE CSO.	OBSTRUCTION-NOT GREASE OR ROOT	DISDW DRY WEATHER DISCHARGE	1387212	NO CLEAN UP PERFORMED- PIPE DISCHARGES DIRECTLY INTO STREAM	REMOVED HEAVY LEAVES/DEBRIS FROM NECK OF STORM PIPE AND RELIEVED THE OVERFLOW
MORRIS FORMAN	MSD0278	1400 CECIL AVE	07/11/11 9:30 PM	07/11/11 11:45 PM	202,188 GAL	Sewer Manhole	CSO211	STREAM	OHIO RIVER	LWC 48" WATER MAIN BREAK CAUSED A SUBSTANTIAL INCREASE IN SEWER FLOW, RESULTING IN A DRY WEATHER CSO AT THE MAIN DIVERSION	UTILITY DAMAGED MSD ASSET	DISDW DRY WEATHER DISCHARGE	1297841	NO CLEANUP REQUIRED, PIPE DISCHARGE SUBMERGED	LWC WORKING ON REPAIRS TO WATER MAIN
MORRIS FORMAN	MSD0278	4108 LEE AVE	08/07/11 5:47 AM	08/07/11 10:17 AM	1,500 GAL	Sewer Service Line	KK14815019	GROUND	CAMP TAYLOR DITCH	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1312715	MSD PERSONNEL CLEANED AND SANITIZED THE IMPACTED AREA	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	4108 LEE AVE	09/26/11 2:13 AM	09/28/11 11:55 AM	925 GAL	Sewer Service Line	KK14815019	GROUND	CAMP TAYLOR DITCH	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1345425	DISCLN WO# 1346307	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	4108 LEE AVE	11/22/11 11:03 AM	11/22/11 05:22 PM	1,500 GAL	Sewer Service Line	KK14815019	GROUND	CAMP TAYLOR DITCH	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1383815	DISCLN WO# 1384140	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	4108 LEE AVE	11/28/11 11:36 AM	11/30/11 05:15 AM	3,600 GAL	Sewer Service Line	KK14815019	GROUND	CAMP TAYLOR DITCH	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1385336	DISCLN WO# 1385496	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	4108 LEE AVE	12/05/11 4:46 AM	12/08/11 06:06 PM	6,000 GAL	Sewer Service Line	KK14815019	GROUND	CAMP TAYLOR DITCH	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1388445	DISCLN WO# 1389256	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	4108 LEE AVE	01/27/12 12:43 AM	01/30/12 04:00 PM	2,100 GAL	Sewer Service Line	KK14815019	GROUND	CAMP TAYLOR DITCH	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1415954	DISCLN WO# 1416147	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	4108 LEE AVE	04/01/12 11:43 AM	04/04/12 06:17 AM	360 GAL	Sewer Service Line	KK14815019	GROUND	CAMP TAYLOR DITCH	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1460095	DISCLN WO# 1461032	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	4108 LEE AVE	05/13/12 8:37 AM	05/13/12 12:33 PM	360 GAL	Sewer Service Line	KK14815019	GROUND	CAMP TAYLOR DITCH	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1487950	DISCLN WO# 1487998	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	4108 LEE AVE	05/29/12 8:12 AM	05/31/12 05:04 PM	600 GAL	Sewer Service Line	KK14815019	GROUND	CAMP TAYLOR DITCH	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1496503	DISCLN WO# 1496532	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	4108 LEE AVE	05/31/12 9:45 PM	06/04/12 03:53 PM	4,500 GAL	Sewer Service Line	KK14815019	GROUND	CAMP TAYLOR DITCH	LACK OF SYSTEM CAPACITY-HEAVY RAIN	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1499916	DISCLN WO# 1500075	LOCATION INCLUDED IN THE IOAP
MORRIS FORMAN	MSD0278	6003 TWO SPRINGS LN	12/28/11 1:00 PM	12/28/11 03:07 PM	50 GAL	Sewer Service Line	LL13049039	GROUND	MUDDY FORK BEARGRASS CREEK	MAIN SEWER BROKE DOWN	STRUCTURAL FAILURE	DISDW DRY WEATHER DISCHARGE	1399449	MSD PERSONNEL CLEANED AND SANITIZED THE IMPACTED AREA	WORK ORDER 1399451 - REPAIRED THE MAIN SEWER
	MSD0000	2853 HIKES LN	11/28/11 12:53 AM	12/01/11 09:52 PM	2,783,916 GAL	Sewer Lift Station	MSD0012-PS	STREAM	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1384695	PIPE DISCHARGE SUBMERGED- NO CLEAN UP	THIS LOCATION IS IN THE INTERIM SANITARY SEWER DISCHARGE PLAN FOR ABATEMENT.
	MSD0000	2853 HIKES LN	01/26/12 7:36 PM	01/28/12 08:22 PM	2,767,245 GAL	Sewer Lift Station	MSD0012-PS	STREAM	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1415840	PIPE DISCHARGE SUBMERGED- NO CLEANUP	THIS LOCATION IS IN THE INTERIM SANITARY DISCHARGE PLAN.
	MSD0000	2853 HIKES LN	03/17/12 10:57 PM	03/18/12 11:06 PM	829,169 GAL	Sewer Lift Station	MSD0012-PS	STREAM	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1447770	PIPE DISCHARGE SUBMERGED- NO CLEANUP	THIS LOCATION IS IN THE INTERIM SANITARY DISCHARGE PLAN.
	MSD0000	2853 HIKES LN	04/01/12 10:47 AM	04/01/12 04:00 PM	109,243 GAL	Sewer Lift Station	MSD0012-PS	STREAM	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1460011	PIPE DISCHARGE SUBMERGED- NO CLEANUP	THIS LOCATION IS IN THE INTERIM SANITARY DISCHARGE PLAN.
	MSD0000	2853 HIKES LN	05/13/12 9:15 AM	05/14/12 09:30 AM	557,347 GAL	Sewer Lift Station	MSD0012-PS	STREAM	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1487876	PIPE DISCHARGE SUBMERGED- NO CLEANUP	THIS LOCATION IS IN THE INTERIM SANITARY DISCHARGE PLAN.
	MSD0000	2853 HIKES LN	05/29/12 9:24 AM	05/30/12 08:22 PM	524,307 GAL	Sewer Lift Station	MSD0012-PS	STREAM	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1496242	PIPE SUBMERGED- NO CLEANUP	THIS LOCATION IS IN THE INTERIM SANITARY DISCHARGE PLAN

**APPENDIX B-1
UNAUTHORIZED DISCHARGES
TO WATERS OF UNITED STATES
JULY 1, 2011 THROUGH JUNE 30, 2012**

Associated Wastewater Treatment Plant Name	Associated Treatment Plant KPDES #	Overflow Location	Overflow Start Date & Time	Overflow Stop Date & Time	Volume of Overflow	Source Asset Type	Source Asset ID	Facility Discharges To	Receiving Stream	Cause of Overflow	Due To	Weather	WO #	Cleanup Efforts by MSD	Repair Efforts by MSD
	MSD0000	2853 HIKES LN	05/31/12 9:54 PM	06/02/12 01:32 AM	1,146,953 GAL	Sewer Lift Station	MSD0012-PS	STREAM	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1498724	PIPE SUBMERGED- NO CLEANUP	THIS LOCATION IS IN THE INTERIM SANITARY DISCHARGE PLAN
	MSD0000	2853 HIKES LN	09/26/11 2:03 AM	09/26/11 12:48 PM	90,630 GAL	Sewer Lift Station	MSD0012-PS	STREAM	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY - HEAVY RAIN IN AREA	PUMPED OVERFLOW	DISREV RAIN EVENT DISCHARGE	1345239	NO CLEAN UP PERFORMED: PIPES DISCHARGE UNDERWATER, DIRECTLY INTO STREAM	THIS LOCATION IS IN THE INTERIM SANITARY SEWER DISCHARGE PLAN FOR ABATEMENT
	MSD0000	2853 HIKES LN	11/15/11 8:37 PM	11/17/11 07:16 AM	28,601 GAL	Sewer Lift Station	MSD0012-PS	STREAM	SOUTH FORK BEARGRASS CREEK	RAIN EVENT CAUSED LACK OF SYSTEM CAPACITY	PUMPED OVERFLOW	DISREV RAIN EVENT DISCHARGE	1381367	NO CLEAN UP PERFORMED: PIPES DISCHARGE UNDERWATER, DIRECTLY INTO STREAM	THIS LOCATION IS IN THE INTERIM SANITARY SEWER DISCHARGE PLAN FOR ABATEMENT
	MSD0000	2853 HIKES LN	11/22/11 8:50 AM	11/23/11 02:50 AM	102,895 GAL	Sewer Lift Station	MSD0012-PS	STREAM	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	PUMPED OVERFLOW	DISREV RAIN EVENT DISCHARGE	1383606	PIPE DISCHARGE SUBMERGED- NO CLEAN UP	THIS LOCATION IS IN THE INTERIM SANITARY SEWER DISCHARGE PLAN FOR ABATEMENT.
	MSD0000	2853 HIKES LN	12/05/11 5:08 AM	12/08/11 10:23 PM	3,124,766 GAL	Sewer Lift Station	MSD0012-PS	STREAM	SOUTH FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	PUMPED OVERFLOW	DISREV RAIN EVENT DISCHARGE	1388353	PIPE DISCHARGE SUBMERGED- NO CLEAN UP	THIS LOCATION IS IN THE INTERIM SANITARY DISCHARGE PLAN FOR ABATEMENT
	MSD0000	2853 HIKES LN	12/22/11 7:12 PM	12/22/11 10:04 PM	75,944 GAL	Sewer Lift Station	MSD0012-PS	STREAM	SOUTH FORK BEARGRASS CREEK	LACK OF CAPACITY DUE TO RAIN EVENT	PUMPED OVERFLOW	DISREV RAIN EVENT DISCHARGE	1398353	PIPE DISCHARGE SUBMERGED- NO CLEANUP	THIS LOCATION IS IN THE INTERIM SANITARY SEWER DISCHARGE PLAN.
	MSD0000	2853 HIKES LN	12/28/11 9:52 AM	12/28/11 11:12 AM	556 GAL	Sewer Lift Station	MSD0012-PS	STREAM	SOUTH FORK BEARGRASS CREEK	BAD TILT BULB	PUMPED OVERFLOW	DISREV RAIN EVENT DISCHARGE	1399357	PIPE DISCHARGE SUBMERGED- NO CLEANUP	THIS LOCATION IS IN THE INTERIM SANITARY SEWER DISCHARGE PLAN. TILT BULB REPLACED
MORRIS FORMAN	MSD0278	501 MOCKINGBIRD VALLEY RD	11/29/11 9:30 AM	12/02/11 01:53 PM	9,999 GAL	Sewer Lift Station	MSD0023-PS	STREAM	MUDDY FORK BEARGRASS CREEK	OHIO RIVER @ FLOOD STAGE; STATION FLOODED DUE TO RAIN EVENT	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1385539	MSD CLEANED & SANITIZED THE AREA	A SOLUTION FOR THIS PLANT IS IN THE IAOP PLAN
MORRIS FORMAN	MSD0278	501 MOCKINGBIRD VALLEY RD	04/01/12 5:30 PM	04/02/12 01:15 AM	74,250 GAL	Sewer Lift Station	MSD0023-PS	STREAM	MUDDY FORK BEARGRASS CREEK	RAIN EVENT CAUSED STATION TO TAKE ON WATER WAS REPORTED BY OPERATOR. PROBLEM WITH STATION SUMP PUMP REPORTED	MECHANICAL FAILURE	DISREV RAIN EVENT DISCHARGE	1460078	MSD CLEANED & SANITIZED THE AREA	A SOLUTION FOR THIS PLANT IS IN IAOP PLAN
MORRIS FORMAN	MSD0278	7404 ARROWWOOD RD	01/26/12 11:39 PM	01/27/12 04:45 PM	51,750 GAL	Sewer Lift Station	MSD0040-PS	DITCH	GOOSE CREEK	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1415889	MSD CLEANED & SANITIZED THE AREA	SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & OBSERVE FOR REPAIR
MORRIS FORMAN	MSD0278	1701 SONNE AVE	09/26/11 2:55 AM	09/26/11 08:00 AM	6,100 GAL	Sewer Lift Station	MSD0042-PS	GROUND	PADDY RUN	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT IN THE AREA.	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1345478	MSD CLEANED & SANITIZED THE AREA	SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR
MORRIS FORMAN	MSD0278	1701 SONNE AVE	05/29/12 11:50 AM	05/29/12 02:00 PM	1,950 GAL	Sewer Lift Station	MSD0042-PS	GROUND	PADDY RUN	LACK OF CAPACITY DUE TO RAIN EVENT	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1496291	MSD CLEANED & SANITIZED THE AREA	SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR
DEREK R. GUTHRIE	MSD0277	3706 NOBEL CT	09/26/11 3:00 AM	09/26/11 08:10 AM	9,999 GAL	Sewer Lift Station	MSD0049-PS	GROUND	MILL CREEK	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1345235	MSD CLEANED & SANITIZED THE AREA	SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR
DEREK R. GUTHRIE	MSD0277	3706 NOBEL CT	05/29/12 11:40 AM	05/29/12 04:00 PM	9,999 GAL	Sewer Lift Station	MSD0049-PS	GROUND	MILL CREEK	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT IN THE AREA	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1496289	MSD CLEANED & SANITIZED THE AREA	SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & OBSERVE FOR REPAIRS
DEREK R. GUTHRIE	MSD0277	3706 NOBEL CT	08/29/11 10:00 AM	08/29/11 04:00 PM	100 GAL	Sewer Lift Station	MSD0049-PS	GROUND	MILL CREEK	FORCE MAIN BREAK	STRUCTURAL FAILURE	DISDW DRY WEATHER DISCHARGE	1330516	MSD CLEANED & SANITIZED THE AREA	CONTRACTOR REPAIRED FORCE MAIN & HAULING STATION.
MORRIS FORMAN	MSD0278	806 PINE WAY	11/28/11 3:45 AM	11/29/11 12:52 PM	9,945 GAL	Sewer Lift Station	MSD0057-LS	STREAM	MIDDLE FORK BEARGRASS CREEK	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1384711	NO DEBRIS	SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR
MORRIS FORMAN	MSD0278	6600 SEMINARY WOODS PL	08/03/11 10:43 AM	08/03/11 10:46 AM	2,100 GAL	Sewer Lift Station	MSD0123-PS	DITCH	GOOSE CREEK	ELECTRICAL ISSUES WITH THE PHASE MONITOR	ELECTRICAL PROBLEMS AT MSD	DISDW DRY WEATHER DISCHARGE	1311582	MSD CLEANED & SANITIZED THE AREA	MSD CREW REPAIRING THE PHASE MONITOR
FLOYDS FORK	MSD0294	17009 OLDE COPPER CT	05/13/12 1:40 PM	05/13/12 11:55 PM	3,650 GAL	Sewer Lift Station	MSD0165-PS	DITCH	FLOYDS FORK	RAIN EVENT CUAUSED A LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1487909	MSD CLEANED & SANITIZED THE AREA	SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR
MORRIS FORMAN	MSD0278	2120 INDIAN HILLS TRL	01/27/12 4:15 PM	01/28/12 04:35 AM	37,000 GAL	Sewer Lift Station	MSD0186-PS	DITCH	MUDDY FORK BEARGRASS CREEK	RAIN EVENT CAUSED A LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1416448	CONTRACTOR CLEANED & SANITIZED THE AREA	SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIRS
MORRIS FORMAN	MSD0278	2120 INDIAN HILLS TRL	03/24/12 5:00 PM	03/25/12 07:00 AM	21,000 GAL	Sewer Lift Station	MSD0186-PS	DITCH	MUDDY FORK BEARGRASS CREEK	RAIN EVENT CAUSED A LACK OF SYSTEM CAPACITY LEADING TO A DISCHARGE	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1456295	CONTRACTOR CLEANED & SANITIZED THE AREA	SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR

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Associated Wastewater Treatment Plant Name	Associated Treatment Plant KPDES #	Overflow Location	Overflow Start Date & Time	Overflow Stop Date & Time	Volume of Overflow	Source Asset Type	Source Asset ID	Facility Discharges To	Receiving Stream	Cause of Overflow	Due To	Weather	WO #	Cleanup Efforts by MSD	Repair Efforts by MSD
MORRIS FORMAN	MSD0278	2120 INDIAN HILLS TRL	04/01/12 5:45 PM	04/02/12 02:15 AM	13,200 GAL	Sewer Lift Station	MSD0186-PS	DITCH	MUDDY FORK BEARGRASS CREEK	RAIN EVENT CAUSED LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1460074	MSD CLEANED & SANITIZED THE AREA	SITE FOUND DURING RAIN EVENT RECON- WLL MONITOR & EVALUATE FOR REPAIR
MORRIS FORMAN	MSD0278	2120 INDIAN HILLS TRL	05/13/12 11:35 AM	05/14/12 08:30 AM	62,750 GAL	Sewer Lift Station	MSD0186-PS	DITCH	MUDDY FORK BEARGRASS CREEK	RAIN EVENT CAUSED LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1487880	CONTRACTORS CLEANED & SANITIZED THE AREA	SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR
MORRIS FORMAN	MSD0278	2120 INDIAN HILLS TRL	05/29/12 12:27 PM	05/29/12 06:07 PM	1,700 GAL	Sewer Lift Station	MSD0186-PS	DITCH	MUDDY FORK BEARGRASS CREEK	RAIN EVENT CAUSED A LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1496320	MSD CLEANED AND SANITIZED AREA	MSD MONITORED AREA DURING RAIN EVENT
HITE CREEK	MSD0202	5500 HITT RD	05/29/12 11:15 AM	05/29/12 11:20 AM	2 GAL	Sewer Treatment Plant	MSD0202	STREAM	HITE CREEK	RAIN EVENT CAUSED SUDDEN PLANT FLOW INCREASE	BYPASS AT WQTC	DISREV RAIN EVENT DISCHARGE	1496224	MSD CLEANED AND SANITIZED AREA	MSD MONITORED STATION TO PREVENT FURTHER OVERFLOW OF SCUM
BERRYTOWN	MSD0209	1203 HEAFER RD	12/05/11 12:10 PM	12/07/11 10:40 AM	139,500 GAL	Sewer Treatment Plant	MSD0209	STREAM	FLOYDS FORK	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	BYPASS AT WQTC	DISREV RAIN EVENT DISCHARGE	1388761	MSD CLEANED & SANITIZED THE AREA	SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR
BERRYTOWN	MSD0209	1203 HEAFER RD	03/18/12 10:30 AM	03/18/12 06:00 PM	11,250 GAL	Sewer Treatment Plant	MSD0209	STREAM	FLOYDS FORK	OVERFLOW AT CLARIFIER DUE TO INCREASED WET WEATHER FLOW	BYPASS AT WQTC	DISREV RAIN EVENT DISCHARGE	1447794	MSD PERSONNEL CLEANED AND SANITIZED THE AREA AROUND THE CLARIFIER	HAULED WQTC UNTIL CLARIFIER WATER LEVELS RETURNED TO NORMAL
BERRYTOWN	MSD0209	1203 HEAFER RD	03/18/12 10:30 AM	03/18/12 10:35 AM	2,000 GAL	Sewer Treatment Plant	MSD0209	STREAM	FLOYDS FORK	RAIN EVENT CAUSED HIGH PLANT FLOW	BYPASS AT WQTC	DISREV RAIN EVENT DISCHARGE	1447800	MSD PERSONNEL CLEANED AND SANITIZED THE AREA AROUND THE PLANT	PLANT AIR TURNED OFF AND HAULING OCCURRED UNTIL FLOW RETURNED TO NORMAL LEVELS
MCNEELY LAKE	MSD0228	10300 ROD N REEL RD	03/23/12 4:00 PM	03/23/12 04:33 PM	825 GAL	Sewer Treatment Plant	MSD0228	STREAM	PENNSYLVANIA RUN	RAIN EVENT LEAD TO LG&E POWERFAIL CAUSING A PLANT BYPASS	BYPASS AT WQTC	DISREV RAIN EVENT DISCHARGE	1456189	MSD CLEANED & SANITIZED THE AREA.	PLANT PUT ON PORTABLE GENERATOR UNTIL LG&E POWER RESTORED.
STARVIEW	MSD0247	423 BERMUDA WAY	08/13/11 10:05 PM	08/13/11 10:40 PM	175 GAL	Sewer Treatment Plant	MSD0247	STREAM	CHENOWETH RUN	LG&E POWERFAIL	BYPASS AT WQTC	DISREV RAIN EVENT DISCHARGE	1321027	NO CLEANUP	PORTABLE GENERATORS WERE INSTALLED
STARVIEW	MSD0247	423 BERMUDA WAY	05/29/12 10:00 AM	05/29/12 10:15 AM	375 GAL	Sewer Treatment Plant	MSD0247	STREAM	CHENOWETH RUN	POWER OUTAGE DUE TO STORM EVENT	BYPASS AT WQTC	DISREV RAIN EVENT DISCHARGE	1496181	MSD CLEANED & SANITIZED THE AREA	HOOKED UP GENERATOR TO STOP OVERFLOW
JEFFERSONTOWN	MSD0255	10725 OLD TAYLORSVILLE RD	09/26/11 5:47 AM	09/26/11 11:31 AM	349,988 GAL	Sewer Treatment Plant	MSD0255	STREAM	CHENOWETH RUN	LACK OF SYSTEM CAPACITY - HEAVY RAIN IN AREA	BLENDING AT JTOWN WQTC	DISREV RAIN EVENT DISCHARGE	1345232	NO CLEAN UP PERFORMED: PIPES DISCHARGE UNDERWATER, DIRECTLY INTO STREAM	NEGOTIATIONS ARE UNDERWAY TO ALLOW TEMPORARY BLENDING AT THIS LOCATION
JEFFERSONTOWN	MSD0255	10725 OLD TAYLORSVILLE RD	11/15/11 2:05 PM	11/15/11 09:29 PM	177,661 GAL	Sewer Treatment Plant	MSD0255	STREAM	CHENOWETH RUN	LACK OF SYSTEM CAPACITY DUE TO HEAVY RAIN.	BLENDING AT JTOWN WQTC	DISREV RAIN EVENT DISCHARGE	1381213	PIPE DISCHARGE SUBMERGED; NO CLEANUP	NEGOTIATIONS ARE UNDERWAY TO ALLOW TEMPORARY BLENDING AT THIS LOCATION.
JEFFERSONTOWN	MSD0255	10725 OLD TAYLORSVILLE RD	11/16/11 8:41 AM	11/16/11 05:07 PM	385,858 GAL	Sewer Treatment Plant	MSD0255	STREAM	CHENOWETH RUN	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	BLENDING AT JTOWN WQTC	DISREV RAIN EVENT DISCHARGE	1381587	PIPE DISCHARGE SUBMERGED- NO CLEANUP	NEGOTIATIONS ARE UNDERWAY TO ALLOW TEMPORARY BLENDING AT THIS LOCATION
JEFFERSONTOWN	MSD0255	10725 OLD TAYLORSVILLE RD	11/22/11 8:55 AM	11/22/11 11:36 AM	1,459,476 GAL	Sewer Treatment Plant	MSD0255	STREAM	CHENOWETH RUN	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	BLENDING AT JTOWN WQTC	DISREV RAIN EVENT DISCHARGE	1383610	PIPE DISCHARGE SUBMERGED- NO CLEANUP	NEGOTIATIONS ARE UNDERWAY TO ALLOW TEMPORARY BLENDING AT THIS LOCATION.
JEFFERSONTOWN	MSD0255	10725 OLD TAYLORSVILLE RD	11/27/11 11:23 PM	11/30/11 05:14 AM	8,900,996 GAL	Sewer Treatment Plant	MSD0255	STREAM	CHENOWETH RUN	RAINEVENT CAUSED A LACK OF SYSTEM CAPACITY	BLENDING AT JTOWN WQTC	DISREV RAIN EVENT DISCHARGE	1384694	NO CLEAN UP PERFORMED PIPE DISCHARGE UNDERWATER DIRECTLY INTO STREAM	NEGOTIATIONS ARE UNDERWAY TO ALLOW TEMPORARY BLENDING AT THIS LOCATION
JEFFERSONTOWN	MSD0255	10725 OLD TAYLORSVILLE RD	12/05/11 4:33 AM	12/06/11 11:03 PM	6,060,240 GAL	Sewer Treatment Plant	MSD0255	STREAM	CHENOWETH RUN	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	BLENDING AT JTOWN WQTC	DISREV RAIN EVENT DISCHARGE	1388349	PIPE DISCHARGE SUBMERGED	NEGOTIATIONS ARE UNDERWAY TO ALLOW TEMPORARY BLENDING AT THIS LOCATION
JEFFERSONTOWN	MSD0255	10725 OLD TAYLORSVILLE RD	12/22/11 5:26 PM	12/23/11 01:29 AM	372,989 GAL	Sewer Treatment Plant	MSD0255	STREAM	CHENOWETH RUN	LACK OF SYSTEM CAPACITY	BLENDING AT JTOWN WQTC	DISREV RAIN EVENT DISCHARGE	1398346	PIPE DISCHARGE SUBMERGED	NEGOTIATIONS ARE UNDERWAY TO ALLOW TEMPORARY BLENDING AT THIS LOCATION.
JEFFERSONTOWN	MSD0255	10725 OLD TAYLORSVILLE RD	12/27/11 11:18 AM	12/27/11 10:13 PM	683,551 GAL	Sewer Treatment Plant	MSD0255	STREAM	CHENOWETH RUN	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	BLENDING AT JTOWN WQTC	DISREV RAIN EVENT DISCHARGE	1399071	PIPE DISCHARGE SUBMERGED- NO CLEANUP	NEGOTIATIONS ARE UNDERWAY TO ALLOW TEMPORARY BLENDING AT THIS LOCATION.
JEFFERSONTOWN	MSD0255	10725 OLD TAYLORSVILLE RD	01/26/12 7:36 PM	01/27/12 09:00 PM	4,044,173 GAL	Sewer Treatment Plant	MSD0255	STREAM	CHENOWETH RUN	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	BLENDING AT JTOWN WQTC	DISREV RAIN EVENT DISCHARGE	1415841	PIPE DISCHARGE SUBMERGED- NO CLEANUP	NEGOTIATIONS ARE UNDERWAY TO ALLOW TEMPORARY BLENDING AT THIS LOCATION.
JEFFERSONTOWN	MSD0255	10725 OLD TAYLORSVILLE RD	03/08/12 4:59 PM	03/09/12 01:22 AM	559,144 GAL	Sewer Treatment Plant	MSD0255	STREAM	CHENOWETH RUN	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	BLENDING AT JTOWN WQTC	DISREV RAIN EVENT DISCHARGE	1441959	PIPE SUBMERGED NO CLEANUP REQUIRED	NEGOTIATIONS ARE UNDERWAY TO ALLOW TEMPORARY BLENDING AT THIS LOCATION.

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Associated Wastewater Treatment Plant Name	Associated Treatment Plant KPDES #	Overflow Location	Overflow Start Date & Time	Overflow Stop Date & Time	Volume of Overflow	Source Asset Type	Source Asset ID	Facility Discharges To	Receiving Stream	Cause of Overflow	Due To	Weather	WO #	Cleanup Efforts by MSD	Repair Efforts by MSD
JEFFERSONTOWN	MSD0255	10725 OLD TAYLORSVILLE RD	03/16/12 3:37 AM	03/16/12 07:37 PM	1,058,730 GAL	Sewer Treatment Plant	MSD0255	STREAM	CHENOWETH RUN	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	BLENDING AT JTOWN WQTC	DISREV RAIN EVENT DISCHARGE	1447316	PIPE SUBMERGED NO CLEANUP REQUIRED	NEGOTIATIONS ARE UNDERWAY TO ALLOW TEMPORARY BLENDING AT THIS LOCATION
JEFFERSONTOWN	MSD0255	10725 OLD TAYLORSVILLE RD	03/17/12 11:08 PM	03/18/12 05:52 AM	238,197 GAL	Sewer Treatment Plant	MSD0255	STREAM	CHENOWETH RUN	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	BLENDING AT JTOWN WQTC	DISREV RAIN EVENT DISCHARGE	1447771	PIPE SUBMERGED NO CLEANUP REQUIRED	NEGOTIATIONS ARE UNDERWAY TO ALLOW TEMPORARY BLENDING AT THIS LOCATION
JEFFERSONTOWN	MSD0255	10725 OLD TAYLORSVILLE RD	04/01/12 10:47 AM	04/02/12 01:20 AM	1,345,076 GAL	Sewer Treatment Plant	MSD0255	STREAM	CHENOWETH RUN	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	BLENDING AT JTOWN WQTC	DISREV RAIN EVENT DISCHARGE	1460013	PIPE SUBMERGED NO CLEANUP REQUIRED	NEGOTIATIONS ARE UNDERWAY TO ALLOW TEMPORARY BLENDING AT THIS LOCATION
JEFFERSONTOWN	MSD0255	10725 OLD TAYLORSVILLE RD	05/13/12 8:06 AM	05/14/12 09:17 AM	4,152,668 GAL	Sewer Treatment Plant	MSD0255	STREAM	CHENOWETH RUN	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	BLENDING AT JTOWN WQTC	DISREV RAIN EVENT DISCHARGE	1487852	PIPE SUBMERGED NO CLEANUP REQUIRED	NEGOTIATIONS ARE UNDERWAY TO ALLOW TEMPORARY BLENDING AT THIS LOCATION
JEFFERSONTOWN	MSD0255	10725 OLD TAYLORSVILLE RD	05/29/12 9:54 AM	05/29/12 06:30 PM	839,349 GAL	Sewer Treatment Plant	MSD0255	STREAM	CHENOWETH RUN	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	BLENDING AT JTOWN WQTC	DISREV RAIN EVENT DISCHARGE	1496094	PIPE DISCHARGE SUBMERGED- NO CLEAN UP	NEGOTIATIONS ARE UNDERWAY TO ALLOW TEMPORARY BLENDING AT THIS LOCATION.
JEFFERSONTOWN	MSD0255	10725 OLD TAYLORSVILLE RD	05/31/12 10:57 PM	06/01/12 06:02 PM	899,028 GAL	Sewer Treatment Plant	MSD0255	STREAM	CHENOWETH RUN	LACK OF SYSTEM CAPACITY	BLENDING AT JTOWN WQTC	DISREV RAIN EVENT DISCHARGE	1498717	PIPE DISCHARGE SUBMERGED- NO CLEANUP	NEGOTIATIONS ARE UNDERWAY TO ALLOW TEMPORARY BLENDING AT THIS LOCATION.
JEFFERSONTOWN	MSD0255	10725 OLD TAYLORSVILLE RD	10/15/11 11:39 PM	10/16/11 01:10 AM	72,607 GAL	Sewer Treatment Plant	MSD0255	STREAM	CHENOWETH RUN	ELETRICAL PROBLEMS AT THE INFLUENT PUMP STATION	BYPASS AT WQTC	DISDW DRY WEATHER DISCHARGE	1358396	NO CLEAN UP SUBMERGED DISCHARGE PIPE	MSD MAINTENANCE MADE REPAIRS TO PUMP STATION .
JEFFERSONTOWN	MSD0255	10725 OLD TAYLORSVILLE RD	06/25/12 12:58 AM	06/25/12 01:08 AM	10,633 GAL	Sewer Treatment Plant	MSD0255	STREAM	CHENOWETH RUN	POWER BLIP AT THE STATION	BYPASS AT WQTC	DISDW DRY WEATHER DISCHARGE	1508255	NO CLEAN UP SUBMERGED DISCHARGE PIPE	RESET AND PUT SYSTEMS ON LINE
CHENOWETH HILLS	MSD0263	4305 ST RENE CT	12/05/11 7:04 PM	12/05/11 09:04 PM	1,200 GAL	Sewer Treatment Plant	MSD0263	STREAM	CHENOWETH RUN	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	BYPASS AT WQTC	DISREV RAIN EVENT DISCHARGE	1389076	MSD CLEANED & SANITIZED THE AREA	SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR
CHENOWETH HILLS	MSD0263	4305 ST RENE CT	12/05/11 7:04 PM	12/05/11 09:04 PM	12,000 GAL	Sewer Treatment Plant	MSD0263	STREAM	CHENOWETH RUN	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	BYPASS AT WQTC	DISREV RAIN EVENT DISCHARGE	1389077	MSD CLEANED & SANITIZED THE AREA	SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR
DEREK R. GUTHRIE	MSD0277	11621 LOWER RIVER RD	10/13/11 6:22 PM	10/13/11 07:00 PM	824,099 GAL	Sewer Treatment Plant	MSD0277	STREAM	OHIO RIVER	DRG : DURING WET WEATHER EVENT DRG LOST POWER DUE TO LG&E ISSUES. EFFLUENT RECIEVED FULL TREATMENT.EXCEPT CHLORINATION AND DECHLORINATION.	BYPASS AT WQTC	DISREV RAIN EVENT DISCHARGE	1357433	NO CLEANUP REQUIRED, PIPE DISCHARGE SUBMERGED.	SWITCHED LGE POWER FEEDS AND BROUGHT PLANT BACK ONLINE.
MORRIS FORMAN	MSD0278	4522 ALGONQUIN PKY	07/11/11 8:38 PM	07/12/11 07:00 AM	1,700,000 GAL	Sewer Treatment Plant	MSD0278	STREAM	OHIO RIVER	LWC 48" WATER MAIN BREAK CAUSED A SUBSTANTIAL INCREASE IN SEWER FLOW, REQUIRING MFWQTC TO BYPASS SECONDARY	BYPASS AT WQTC	DISDW DRY WEATHER DISCHARGE	1297907	NO CLEANUP REQUIRED, TOTAL BYPASSED FLOW RECEIVED PRELIMINARY, PRIMARY, DISINFECTION AND DECHLORINATION AS PART OF THE TREATMENT PROCESS	LWC WORKING ON REPAIRS TO WATER MAIN
MORRIS FORMAN	MSD0278	4522 ALGONQUIN PKY	08/11/11 11:03 PM	08/12/11 12:16 AM	1,500,000 GAL	Sewer Treatment Plant	MSD0278	STREAM	OHIO RIVER	LWC WATER MAIN BREAK AT EASTERN PKY & CRITTENDEN DR CAUSED A SUBSTANTIAL INCREASE IN SEWER FLOW, REQUIRING MFWQTC TO BYPASS SECONDARY	BYPASS AT WQTC	DISDW DRY WEATHER DISCHARGE	1320542	NO CLEANUP REQUIRED, TOTAL BYPASSED FLOW RECEIVED PRELIMINARY, PRIMARY, DISINFECTION AND DECHLORINATION AS PART OF THE TREATMENT PROCESS	LWC REPAIRING WATER MAIN
MORRIS FORMAN	MSD0278	4522 ALGONQUIN PKY	11/30/11 1:00 PM	11/30/11 01:30 PM	1,500 GAL	Sewer Treatment Plant	MSD0278	STREAM	OHIO RIVER	BIOTOWER PUMPS 1&2 FAILURE	BYPASS AT WQTC	DISREV RAIN EVENT DISCHARGE	1387346	PIPE DISCHARGE SUBMERGED - NO CLEANUP	GROUNDWATER PUMPS NUMBER 9&10 TURNED OFF TO STOP DISCHARGING TO THE RIVER WHILE REPAIRS ARE MADE TO BIOTOWER PUMPS 1&2
CEDAR CREEK	MSD0289	8605 CEDAR CREEK RD	08/11/11 3:50 AM	08/11/11 03:56 AM	4,209 GAL	Sewer Treatment Plant	MSD0289	GROUND	CEDAR CREEK	UV3000 PLUS SHUT DOWN	BYPASS AT WQTC	DISDW DRY WEATHER DISCHARGE	1316305	NO CLEAN UP PERFORMED - PIPES DISCHARGE UNDERWATER, DIRECTLY INTO STREAM	MANUALLY STARTED UV 3000 PLUS
CEDAR CREEK	MSD0289	8605 CEDAR CREEK RD	02/05/12 7:25 AM	02/05/12 07:30 AM	6,446 GAL	Sewer Treatment Plant	MSD0289	GROUND	CEDAR CREEK	UV BANK LIGHTS NOT ON AND #2 UV CHANNEL GATE FAILED TO CLOSE.	BYPASS AT WQTC	DISREV RAIN EVENT DISCHARGE	1421441	PIPE DISCHARGE SUBMERGED	TURNED ON UV BANK AND CLOSED INFLUENT GATE
FLOYDS FORK	MSD0294	1100 BLUE HERON RD	08/08/11 11:55 PM	08/09/11 12:15 AM	49,884 GAL	Sewer Treatment Plant	MSD0294	STREAM	FLOYDS FORK	UV SYSTEM FAILURE, COOLANT HOSE BURST & SYSTEM OVERHEATED & SHUT DOWN	BYPASS AT WQTC	DISDW DRY WEATHER DISCHARGE	1315318	NO CLEAN UP PERFORMED - PIPE DISCHARGING UNDERWATER, DIRECTLY INTO STREAM	RESTARTED UV SYSTEM MANUALLY
CHENOWETH RUN	MSD0403	14000 BECKLEY TRCE	06/02/12 1:15 PM	06/02/12 02:30 PM	14,198 GAL	Sewer Treatment Plant	MSD0403	GROUND	CHENOWETH RUN	CONTRATOR CUT WATER LINE TO PLANT	BYPASS AT WQTC	DISDW DRY WEATHER DISCHARGE	1500585	NO CLEAN UP REQUIRED ONLY DECHLORINATION BYPASS AT PLANT	FEEDING POWDER CHLORINE TO DISINFECT UNTILL REPAIRS ARE MADE. NO DECHLORINATION.
SHADOW WOOD	MSD0404	5489 FOREST LAKE DR	07/27/11 12:15 PM	07/27/11 04:39 PM	1,832 GAL	Sewer Treatment Plant	MSD0404	GROUND	HARRODS CREEK	EROSION OF THE LAGOON WALL	BYPASS AT WQTC	DISDW DRY WEATHER DISCHARGE	1308246	DISCHARGING DIRECTLY TO STREAM, NO CLEANUP POSSIBLE	CHEROKEE CALLED TO MAKE REPAIRS
DEREK R. GUTHRIE	MSD0277	5006 LEA ANN WAY	01/26/12 9:45 PM	01/27/12 04:20 AM	1,040,500 GAL	Sewer Lift Station	MSD1010-PS	STREAM	NORTHERN DITCH	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1415873	MSD CLEANED & SANITIZED THE AREA	AUXILLARY PUMPS STARTED

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DEREK R. GUTHRIE	MSD0277	5006 LEA ANN WAY	11/28/11 1:40 PM	11/29/11 09:40 AM	3,756,000 GAL	Sewer Lift Station	MSD1010-PS	STREAM	NORTHERN DITCH	LACK OF SYSTEM CAPACITY	PUMPED OVERFLOW	DISREV RAIN EVENT DISCHARGE	1385208	MSD CLEANED & SANITIZED THE AREA	SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR
DEREK R. GUTHRIE	MSD0277	5006 LEA ANN WAY	12/05/11 10:00 AM	12/06/11 05:00 AM	2,964,000 GAL	Sewer Lift Station	MSD1010-PS	STREAM	NORTHERN DITCH	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	PUMPED OVERFLOW	DISREV RAIN EVENT DISCHARGE	1388765	MSD CLEANED, SANITIZED & LIMED THE AREA	SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR
DEREK R. GUTHRIE	MSD0277	9114 CINDERELLA LN	01/27/12 1:15 AM	01/27/12 05:10 AM	4,700 GAL	Sewer Lift Station	MSD1013-PS	DITCH	FISHPOOL CREEK	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1415927	MSD CLEANED & SANITIZED THE AREA	SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR
DEREK R. GUTHRIE	MSD0277	9114 CINDERELLA LN	05/05/12 3:50 AM	05/05/12 12:30 PM	10,400 GAL	Sewer Lift Station	MSD1013-PS	DITCH	FISHPOOL CREEK	RAIN EVENT CAUSED A LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1484021	MSD CLEANED & SANITIZED THE AREA	SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR
DEREK R. GUTHRIE	MSD0277	10601 LEVEN BLVD	11/29/11 12:20 AM	11/29/11 12:29 AM	150 GAL	Sewer Lift Station	MSD1019-PS	STREAM	PENNSYLVANIA RUN	SEAL LEAK #1 PUMP AND #2 PUMP O/S DURING RAIN EVENT	ELECTRICAL PROBLEMS AT MSD	DISREV RAIN EVENT DISCHARGE	1385414	NO DEBRIS	RESET PUMP 1 SEAL LEAK
MORRIS FORMAN	MSD0278	8410 SAUREL DR	01/26/12 11:52 PM	01/27/12 05:30 PM	52,500 GAL	Sewer Lift Station	MSD1024-PS	DITCH	GOOSE CREEK	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1415891	MSD CLEANED & SANITIZED THE AREA	SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR
HUNTING CREEK NORTH	MSD0291	6709 GUNPOWDER LN	09/26/11 2:20 AM	09/26/11 09:54 AM	267,000 GAL	Sewer Lift Station	MSD1055-LS	DITCH	HARRODS CREEK	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1345412	RAKED & LIMED AREA	SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR
HUNTING CREEK NORTH	MSD0291	7501 HUNTING CREEK DR	12/05/11 8:00 PM	12/06/11 01:00 AM	7,500 GAL	Sewer Lift Station	MSD1060-LS	DITCH	HARRODS CREEK	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT IN THE AREA	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1389124	MSD CLEANED, SANITIZED & LIMED THE AREA	SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR
HUNTING CREEK NORTH	MSD0291	7501 HUNTING CREEK DR	01/27/12 5:00 AM	01/27/12 09:50 AM	7,250 GAL	Sewer Lift Station	MSD1060-LS	DITCH	HARRODS CREEK	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1417279	MSD CLEANED & SANITIZED THE AREA	SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR
HUNTING CREEK SOUTH	MSD0292	6210 DEEP CREEK CT	09/26/11 3:55 AM	09/26/11 01:45 PM	26,250 GAL	Sewer Lift Station	MSD1063-PS	DITCH	HARRODS CREEK	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1345410	RAKED & LIMED AREA	SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR
HUNTING CREEK SOUTH	MSD0292	6210 DEEP CREEK CT	11/22/11 10:20 AM	11/22/11 04:16 PM	7,080 GAL	Sewer Lift Station	MSD1063-PS	DITCH	HARRODS CREEK	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1383710	MSD CLEANED, SANITIZED & LIMED THE AREA	SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR
HUNTING CREEK SOUTH	MSD0292	6210 DEEP CREEK CT	11/28/11 2:00 AM	11/29/11 07:30 PM	62,250 GAL	Sewer Lift Station	MSD1063-PS	DITCH	HARRODS CREEK	RAIN EVENT CAUSED A LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1384709	MSD CLEANED, SANITIZED & LIMED	STATION IS BEING HAULED TO PREVENT DISCHARGE
HUNTING CREEK SOUTH	MSD0292	6210 DEEP CREEK CT	12/05/11 7:00 AM	12/06/11 06:10 AM	34,750 GAL	Sewer Lift Station	MSD1063-PS	DITCH	HARRODS CREEK	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1388334	MSD CLEANED, SANITIZED & LIMED THE AREA	SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR
HUNTING CREEK SOUTH	MSD0292	6210 DEEP CREEK CT	01/26/12 9:35 PM	01/27/12 09:50 AM	36,375 GAL	Sewer Lift Station	MSD1063-PS	DITCH	HARRODS CREEK	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1415875	MSD CLEANED & SANITIZED	SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR
HITE CREEK	MSD0202	7511 MEADOW STREAM CT	01/27/12 4:00 AM	01/29/12 03:30 PM	159,750 GAL	Sewer Lift Station	MSD1082-PS	GROUND	FLOYDS FORK	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1415915	MSD CLEANED & SANITIZED THE AREA	SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR
HITE CREEK	MSD0202	7520 KAVANAUGH RD	04/30/12 9:15 PM	04/30/12 09:20 PM	50 GAL	Sewer Lift Station	MSD1085-PS	GROUND	HITE CREEK	LG&E POWER FAIL IN AREA. LG&E HAD THE ONLY ROAD TO STATION BLOCKED. BY THE TIME GENERATOR ARRIVED STATION WET WELL DISCHARGED 50 GALLONS OF SEWAGE.	POWER OUTAGE (LG&E)	DISREV RAIN EVENT DISCHARGE	1482394	MSD CLEANED & SANITIZED THE AREA	TEMPORARY GENERATOR INSTALLED UNTIL POWER RESTORED

APPENDIX B-2 - DISCHARGE WORK ORDERS-BYPASS

APPENDIX B-2
BYPASS EVENTS AT WQTC'S
JULY 1, 2011 THROUGH JUNE 30, 2012

Associated Wastewater Treatment Plant Name	Associated Treatment Plant KPDES #	Overflow Location	Overflow Start Date & Time	Overflow Stop Date & Time	Volume of Overflow	Source Asset Type	Source Asset ID	Facility Discharges To	Receiving Stream	Cause of Overflow	Due To	Weather	WO #	Cleanup Efforts by MSD	Repair Efforts by MSD
HITE CREEK	MSD0202	5500 HITT RD	05/29/12 11:15: AM	05/29/12 11:20 AM	2 GAL	Sewer Treatment Plant	MSD0202	STREAM	HITE CREEK	RAIN EVENT CAUSED SUDDEN PLANT FLOW INCREASE	BYPASS AT WQTC	DISREV RAIN EVENT DISCHARGE	1496224	MSD CLEANED AND SANITIZED AREA	MSD MONITORED STATION TO PREVENT FURTHER OVERFLOW OF SCUM
BERRYTOWN	MSD0209	1203 HEAFER RD	12/05/11 12:10: PM	12/07/11 10:40 AM	139,500 GAL	Sewer Treatment Plant	MSD0209	STREAM	FLOYDS FORK	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	BYPASS AT WQTC	DISREV RAIN EVENT DISCHARGE	1388761	MSD CLEANED & SANITIZED THE AREA	SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR
BERRYTOWN	MSD0209	1203 HEAFER RD	03/18/12 10:30: AM	03/18/12 06:00 PM	11,250 GAL	Sewer Treatment Plant	MSD0209	STREAM	FLOYDS FORK	OVERFLOW AT CLARIFIER DUE TO INCREASED WET WEATHER FLOW	BYPASS AT WQTC	DISREV RAIN EVENT DISCHARGE	1447794	MSD PERSONNEL CLEANED AND SANITIZED THE AREA AROUND THE CLARIFIER	HAULED WQTC UNTIL CLARIFIER WATER LEVELS RETURNED TO NORMAL
BERRYTOWN	MSD0209	1203 HEAFER RD	03/18/12 10:30: AM	03/18/12 10:35 AM	2,000 GAL	Sewer Treatment Plant	MSD0209	STREAM	FLOYDS FORK	RAIN EVENT CAUSED HIGH PLANT FLOW	BYPASS AT WQTC	DISREV RAIN EVENT DISCHARGE	1447800	MSD PERSONNEL CLEANED AND SANITIZED THE AREA AROUND THE PLANT	PLANT AIR TURNED OFF AND HAULING OCCURRED UNTIL FLOW RETURNED TO NORMAL LEVELS
MCNEELY LAKE	MSD0228	10300 ROD N REEL RD	03/23/12 4:00: PM	03/23/12 04:33 PM	825 GAL	Sewer Treatment Plant	MSD0228	STREAM	PENNSYLVANIA RUN	RAIN EVENT LEAD TO LG&E POWERFAIL CAUSING A PLANT BYPASS	BYPASS AT WQTC	DISREV RAIN EVENT DISCHARGE	1456189	MSD CLEANED & SANITIZED THE AREA.	PLANT PUT ON PORTABLE GENERATOR UNTIL LG&E POWER RESTORED.
STARVIEW	MSD0247	423 BERMUDA WAY	08/13/11 10:05: PM	08/13/11 10:40 PM	175 GAL	Sewer Treatment Plant	MSD0247	STREAM	CHENOWETH RUN	LG&E POWERFAIL	BYPASS AT WQTC	DISREV RAIN EVENT DISCHARGE	1321027	NO CLEANUP	PORTABLE GENERATORS WERE INSTALLED
STARVIEW	MSD0247	423 BERMUDA WAY	05/29/12 10:00: AM	05/29/12 10:15 AM	375 GAL	Sewer Treatment Plant	MSD0247	STREAM	CHENOWETH RUN	POWER OUTAGE DUE TO STORM EVENT	BYPASS AT WQTC	DISREV RAIN EVENT DISCHARGE	1496181	MSD CLEANED & SANITIZED THE AREA	HOOKED UP GENERATOR TO STOP OVERFLOW
JEFFERSONTOWN	MSD0255	10725 OLD TAYLORSVILLE RD	10/15/11 11:39: PM	10/16/11 01:10 AM	72,607 GAL	Sewer Treatment Plant	MSD0255	STREAM	CHENOWETH RUN	ELETRICAL PROBLEMS AT THE INFLUENT PUMP STATION	BYPASS AT WQTC	DISDW DRY WEATHER DISCHARGE	1358396	NO CLEAN UP SUBMERGED DISCHARGE PIPE	MSD MAINTENANCE MADE REPAIRS TO PUMP STATION .
JEFFERSONTOWN	MSD0255	10725 OLD TAYLORSVILLE RD	06/25/12 12:58: AM	06/25/12 01:08 AM	10,633 GAL	Sewer Treatment Plant	MSD0255	STREAM	CHENOWETH RUN	POWER BLIP AT THE STATION	BYPASS AT WQTC	DISDW DRY WEATHER DISCHARGE	1508255	NO CLEAN UP SUBMERGED DISCHARGE PIPE	RESET AND PUT SYSTEMS ON LINE
CHENOWETH HILLS	MSD0263	4305 ST RENE CT	12/05/11 7:04: PM	12/05/11 09:04 PM	1,200 GAL	Sewer Treatment Plant	MSD0263	STREAM	CHENOWETH RUN	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	BYPASS AT WQTC	DISREV RAIN EVENT DISCHARGE	1389076	MSD CLEANED & SANITIZED THE AREA	SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR
CHENOWETH HILLS	MSD0263	4305 ST RENE CT	12/05/11 7:04: PM	12/05/11 09:04 PM	12,000 GAL	Sewer Treatment Plant	MSD0263	STREAM	CHENOWETH RUN	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	BYPASS AT WQTC	DISREV RAIN EVENT DISCHARGE	1389077	MSD CLEANED & SANITIZED THE AREA	SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR
DEREK R. GUTHRIE	MSD0277	11621 LOWER RIVER RD	10/13/11 6:22: PM	10/13/11 07:00 PM	824,099 GAL	Sewer Treatment Plant	MSD0277	STREAM	OHIO RIVER	DRG : DURING WET WEATHER EVENT DRG LOST POWER DUE TO LG&E ISSUES. EFFLUENT RECIEVED FULL TREATMENT, EXCEPT CHLORINATION AND DECHLORINATION.	BYPASS AT WQTC	DISREV RAIN EVENT DISCHARGE	1357433	NO CLEANUP REQUIRED, PIPE DISCHARGE SUBMERGED.	SWITCHED LGE POWER FEEDS AND BROUGHT PLANT BACK ONLINE.
MORRIS FORMAN	MSD0278	4522 ALGONQUIN PKY	07/11/11 8:38: PM	07/12/11 07:00 AM	1,700,000 GAL	Sewer Treatment Plant	MSD0278	STREAM	OHIO RIVER	LWC 48" WATER MAIN BREAK CAUSED A SUBSTANTIAL INCREASE IN SEWER FLOW, REQUIRING MFWQTC TO BYPASS SECONDARY	BYPASS AT WQTC	DISDW DRY WEATHER DISCHARGE	1297907	NO CLEANUP REQUIRED, TOTAL BYPASSED FLOW RECEIVED PRELIMINARY, PRIMARY, DISINFECTION AND DECHLORINATION AS PART OF THE TREATMENT PROCESS	LWC WORKING ON REPAIRS TO WATER MAIN
MORRIS FORMAN	MSD0278	4522 ALGONQUIN PKY	08/11/11 11:03: PM	08/12/11 12:16 AM	1,500,000 GAL	Sewer Treatment Plant	MSD0278	STREAM	OHIO RIVER	LWC WATER MAIN BREAK AT EASTERN PKY & CRITTENDEN DR CAUSED A SUBSTANTIAL INCREASE IN SEWER FLOW, REQUIRING MFWQTC TO BYPASS SECONDARY	BYPASS AT WQTC	DISDW DRY WEATHER DISCHARGE	1320542	NO CLEANUP REQUIRED, TOTAL BYPASSED FLOW RECEIVED PRELIMINARY, PRIMARY, DISINFECTION AND DECHLORINATION AS PART OF THE TREATMENT PROCESS	LWC REPAIRING WATER MAIN
MORRIS FORMAN	MSD0278	4522 ALGONQUIN PKY	11/30/11 1:00: PM	11/30/11 01:30 PM	1,500 GAL	Sewer Treatment Plant	MSD0278	STREAM	OHIO RIVER	BIOTOWER PUMPS 1&2 FAILURE	BYPASS AT WQTC	DISREV RAIN EVENT DISCHARGE	1387346	PIPE DISCHARGE SUBMERGED - NO CLEANUP	GROUNDWATER PUMPS NUMBER 9&10 TURNED OFF TO STOP DISCHARGING TO THE RIVER WHILE REPAIRS ARE MADE TO BIOTOWER PUMPS 1&2
CEDAR CREEK	MSD0289	8605 CEDAR CREEK RD	08/11/11 3:50: AM	08/11/11 03:56 AM	4,209 GAL	Sewer Treatment Plant	MSD0289	GROUND	CEDAR CREEK	UV3000 PLUS SHUT DOWN	BYPASS AT WQTC	DISDW DRY WEATHER DISCHARGE	1316305	NO CLEAN UP PERFORMED - PIPES DISCHARGE UNDERWATER, DIRECTLY INTO STREAM	MANUALLY STARTED UV 3000 PLUS
CEDAR CREEK	MSD0289	8605 CEDAR CREEK RD	02/05/12 7:25: AM	02/05/12 07:30 AM	6,446 GAL	Sewer Treatment Plant	MSD0289	GROUND	CEDAR CREEK	UV BANK LIGHTS NOT ON AND #2 UV CHANNEL GATE FAILED TO CLOSE.	BYPASS AT WQTC	DISREV RAIN EVENT DISCHARGE	1421441	PIPE DISCHARGE SUBMERGED	TURNED ON UV BANK AND CLOSED INFLUENT GATE
FLOYDS FORK	MSD0294	1100 BLUE HERON RD	08/08/11 11:55: PM	08/09/11 12:15 AM	49,884 GAL	Sewer Treatment Plant	MSD0294	STREAM	FLOYDS FORK	UV SYSTEM FAILURE, COOLANT HOSE BURST & SYSTEM OVERHEATED & SHUT DOWN	BYPASS AT WQTC	DISDW DRY WEATHER DISCHARGE	1315318	NO CLEAN UP PERFORMED - PIPE DISCHARGING UNDERWATER, DIRECTLY INTO STREAM	RESTARTED UV SYSTEM MANUALLY
CHENOWETH RUN	MSD0403	14000 BECKLEY TRCE	06/02/12 1:15: PM	06/02/12 02:30 PM	14,198 GAL	Sewer Treatment Plant	MSD0403	GROUND	CHENOWETH RUN	CONTRATOR CUT WATER LINE TO PLANT	BYPASS AT WQTC	DISDW DRY WEATHER DISCHARGE	1500585	NO CLEAN UP REQUIRED ONLY DECHLORINATION BYPASS AT PLANT	FEEDING POWDER CHLORINE TO DISINFECT UNTILL REPAIRS ARE MADE. NO DECHLORINATION.
SHADOW WOOD	MSD0404	5489 FOREST LAKE DR	07/27/11 12:15: PM	07/27/11 04:39 PM	1,832 GAL	Sewer Treatment Plant	MSD0404	GROUND	HARRODS CREEK	EROSION OF THE LAGOON WALL	BYPASS AT WQTC	DISDW DRY WEATHER DISCHARGE	1308246	DISCHARGING DIRECTLY TO STREAM, NO CLEANUP POSSIBLE	CHEROKEE CALLED TO MAKE REPAIRS

APPENDIX B-3 - DISCHARGE WORK ORDERS-BLENDING

BLENDING EVENTS AT JEFFERSONTOWN WQTC

JULY 1, 2011 THROUGH JUNE 30, 2012

Associated Wastewater Treatment Plant Name	Associated Treatment Plant KPDES #	Overflow Location	Overflow Start Date & Time	Overflow Stop Date & Time	Volume of Overflow	Source Asset Type	Source Asset ID	Facility Discharges To	Receiving Stream	Cause of Overflow	Due To	Weather	WO #	Cleanup Efforts by MSD	Repair Efforts by MSD
JEFFERSONTOWN	MSD0255	10725 OLD TAYLORSVILLE RD	09/26/11 5:47: AM	09/26/11 11:31 AM	349,988 GAL	Sewer Treatment Plant	MSD0255	STREAM	CHENOWETH RUN	LACK OF SYSTEM CAPACITY - HEAVY RAIN IN AREA	BLENDING AT JTOWN WQTC	DISREV RAIN EVENT DISCHARGE	1345232	NO CLEAN UP PERFORMED; PIPES DISCHARGE UNDERWATER, DIRECTLY INTO STREAM	NEGOTIATIONS ARE UNDERWAY TO ALLOW TEMPORARY BLENDING AT THIS LOCATION
JEFFERSONTOWN	MSD0255	10725 OLD TAYLORSVILLE RD	11/15/11 2:05: PM	11/15/11 09:29 PM	177,661 GAL	Sewer Treatment Plant	MSD0255	STREAM	CHENOWETH RUN	LACK OF SYSTEM CAPACITY DUE TO HEAVY RAIN.	BLENDING AT JTOWN WQTC	DISREV RAIN EVENT DISCHARGE	1381213	PIPE DISCHARGE SUBMERGED; NO CLEANUP	NEGOTIATIONS ARE UNDERWAY TO ALLOW TEMPORARY BLENDING AT THIS LOCATION.
JEFFERSONTOWN	MSD0255	10725 OLD TAYLORSVILLE RD	11/16/11 8:41: AM	11/16/11 05:07 PM	385,858 GAL	Sewer Treatment Plant	MSD0255	STREAM	CHENOWETH RUN	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	BLENDING AT JTOWN WQTC	DISREV RAIN EVENT DISCHARGE	1381587	PIPE DISCHARGE SUBMERGED- NO CLEANUP	NEGOTIATIONS ARE UNDERWAY TO ALLOW TEMPORARY BLENDING AT THIS LOCATION
JEFFERSONTOWN	MSD0255	10725 OLD TAYLORSVILLE RD	11/22/11 8:55: AM	11/22/11 11:36 AM	1,459,476 GAL	Sewer Treatment Plant	MSD0255	STREAM	CHENOWETH RUN	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	BLENDING AT JTOWN WQTC	DISREV RAIN EVENT DISCHARGE	1383610	PIPE DISCHARGE SUBMERGED- NO CLEANUP	NEGOTIATIONS ARE UNDERWAY TO ALLOW TEMPORARY BLENDING AT THIS LOCATION.
JEFFERSONTOWN	MSD0255	10725 OLD TAYLORSVILLE RD	11/27/11 11:23: PM	11/30/11 05:14 AM	8,900,996 GAL	Sewer Treatment Plant	MSD0255	STREAM	CHENOWETH RUN	RAINEVENT CAUSED A LACK OF SYSTEM CAPACITY	BLENDING AT JTOWN WQTC	DISREV RAIN EVENT DISCHARGE	1384694	NO CLEAN UP PERFORMED PIPE DISCHARGE UNDERWATER DIRECTLY INTO STREAM	NEGOTIATIONS ARE UNDERWAY TO ALLOW TEMPORARY BLENDING AT THIS LOCATION
JEFFERSONTOWN	MSD0255	10725 OLD TAYLORSVILLE RD	12/05/11 4:33: AM	12/06/11 11:03 PM	6,060,240 GAL	Sewer Treatment Plant	MSD0255	STREAM	CHENOWETH RUN	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	BLENDING AT JTOWN WQTC	DISREV RAIN EVENT DISCHARGE	1388349	PIPE DISCHARGE SUBMERGED	NEGOTIATIONS ARE UNDERWAY TO ALLOW TEMPORARY BLENDING AT THIS LOCATION
JEFFERSONTOWN	MSD0255	10725 OLD TAYLORSVILLE RD	12/22/11 5:26: PM	12/23/11 01:29 AM	372,989 GAL	Sewer Treatment Plant	MSD0255	STREAM	CHENOWETH RUN	LACK OF SYSTEM CAPACITY	BLENDING AT JTOWN WQTC	DISREV RAIN EVENT DISCHARGE	1398346	PIPE DISCHARGE SUBMERGED	NEGOTIATIONS ARE UNDERWAY TO ALLOW TEMPORARY BLENDING AT THIS LOCATION.
JEFFERSONTOWN	MSD0255	10725 OLD TAYLORSVILLE RD	12/27/11 11:18: AM	12/27/11 10:13 PM	683,551 GAL	Sewer Treatment Plant	MSD0255	STREAM	CHENOWETH RUN	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	BLENDING AT JTOWN WQTC	DISREV RAIN EVENT DISCHARGE	1399071	PIPE DISCHARGE SUBMERGED- NO CLEANUP	NEGOTIATIONS ARE UNDERWAY TO ALLOW TEMPORARY BLENDING AT THIS LOCATION.
JEFFERSONTOWN	MSD0255	10725 OLD TAYLORSVILLE RD	01/26/12 7:36: PM	01/27/12 09:00 PM	4,044,173 GAL	Sewer Treatment Plant	MSD0255	STREAM	CHENOWETH RUN	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	BLENDING AT JTOWN WQTC	DISREV RAIN EVENT DISCHARGE	1415841	PIPE DISCHARGE SUBMERGED- NO CLEANUP	NEGOTIATIONS ARE UNDERWAY TO ALLOW TEMPORARY BLENDING AT THIS LOCATION.
JEFFERSONTOWN	MSD0255	10725 OLD TAYLORSVILLE RD	03/08/12 4:59: PM	03/09/12 01:22 AM	559,144 GAL	Sewer Treatment Plant	MSD0255	STREAM	CHENOWETH RUN	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	BLENDING AT JTOWN WQTC	DISREV RAIN EVENT DISCHARGE	1441959	PIPE SUBMERGED NO CLEANUP REQUIRED	NEGOTIATIONS ARE UNDERWAY TO ALLOW TEMPORARY BLENDING AT THIS LOCATION
JEFFERSONTOWN	MSD0255	10725 OLD TAYLORSVILLE RD	03/16/12 3:37: AM	03/16/12 07:37 PM	1,058,730 GAL	Sewer Treatment Plant	MSD0255	STREAM	CHENOWETH RUN	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	BLENDING AT JTOWN WQTC	DISREV RAIN EVENT DISCHARGE	1447316	PIPE SUBMERGED NO CLEANUP REQUIRED	NEGOTIATIONS ARE UNDERWAY TO ALLOW TEMPORARY BLENDING AT THIS LOCATION
JEFFERSONTOWN	MSD0255	10725 OLD TAYLORSVILLE RD	03/17/12 11:08: PM	03/18/12 05:52 AM	238,197 GAL	Sewer Treatment Plant	MSD0255	STREAM	CHENOWETH RUN	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	BLENDING AT JTOWN WQTC	DISREV RAIN EVENT DISCHARGE	1447771	PIPE SUBMERGED NO CLEANUP REQUIRED	NEGOTIATIONS ARE UNDERWAY TO ALLOW TEMPORARY BLENDING AT THIS LOCATION
JEFFERSONTOWN	MSD0255	10725 OLD TAYLORSVILLE RD	04/01/12 10:47: AM	04/02/12 01:20 AM	1,345,076 GAL	Sewer Treatment Plant	MSD0255	STREAM	CHENOWETH RUN	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	BLENDING AT JTOWN WQTC	DISREV RAIN EVENT DISCHARGE	1460013	PIPE SUBMERGED NO CLEANUP REQUIRED	NEGOTIATIONS ARE UNDERWAY TO ALLOW TEMPORARY BLENDING AT THIS LOCATION
JEFFERSONTOWN	MSD0255	10725 OLD TAYLORSVILLE RD	05/13/12 8:06: AM	05/14/12 09:17 AM	4,152,668 GAL	Sewer Treatment Plant	MSD0255	STREAM	CHENOWETH RUN	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	BLENDING AT JTOWN WQTC	DISREV RAIN EVENT DISCHARGE	1487852	PIPE SUBMERGED NO CLEANUP REQUIRED	NEGOTIATIONS ARE UNDERWAY TO ALLOW TEMPORARY BLENDING AT THIS LOCATION
JEFFERSONTOWN	MSD0255	10725 OLD TAYLORSVILLE RD	05/29/12 9:54: AM	05/29/12 06:30 PM	839,349 GAL	Sewer Treatment Plant	MSD0255	STREAM	CHENOWETH RUN	LACK OF SYSTEM CAPACITY DUE TO RAIN EVENT	BLENDING AT JTOWN WQTC	DISREV RAIN EVENT DISCHARGE	1496094	PIPE DISCHARGE SUBMERGED- NO CLEAN UP	NEGOTIATIONS ARE UNDERWAY TO ALLOW TEMPORARY BLENDING AT THIS LOCATION.
JEFFERSONTOWN	MSD0255	10725 OLD TAYLORSVILLE RD	05/31/12 10:57: PM	06/01/12 06:02 PM	899,028 GAL	Sewer Treatment Plant	MSD0255	STREAM	CHENOWETH RUN	LACK OF SYSTEM CAPACITY	BLENDING AT JTOWN WQTC	DISREV RAIN EVENT DISCHARGE	1498717	PIPE DISCHARGE SUBMERGED- NO CLEANUP	NEGOTIATIONS ARE UNDERWAY TO ALLOW TEMPORARY BLENDING AT THIS LOCATION.

APPENDIX B-4 - DISCHARGE WORK ORDERS-GROUND

**APPENDIX B-4
OVERFLOWS TO GROUND
JULY 1, 2011 THROUGH JUNE 30, 2012**

Associated Wastewater Treatment Plant Name	Associated Treatment Plant KPDES #	Overflow Location	Overflow Start Date & Time	Overflow Stop Date & Time	Volume of Overflow	Source Asset Type	Source Asset ID	Cause of Overflow	Due To	Weather	WO #	Cleanup Efforts by MSD	Repair Efforts by MSD
MORRIS FORMAN	MSD0278	4217 CHURCHILL RD	05/25/12 7:45: PM	05/25/12 08:11 PM	1 GAL	Sewer Service Line	052401110000A	ROOTS IN MSD'S PORTION IF THE PROPERTY SERVICE CONNECTION	ROOTS	DISDW DRY WEATHER DISCHARGE	1495677	CUSTOMER CLEANED THE IMPACTED AREA	WORK ORDER 1495678- CHAIN CUT PROPERTY SERVICE CONNECTION
MORRIS FORMAN	MSD0278	131 WOODMORE AVE	04/21/12 10:07: AM	04/21/12 12:37 PM	15 GAL	Sewer Service Line	062J00070000A	ROOTS IN THE MAIN SEWER	ROOTS	DISDW DRY WEATHER DISCHARGE	1474267	MSD PERSONNEL CLEANED AND SANITIZED THE IMPACTED AREA	WORK ORDER 1474255 - ROOT CUT THE MAIN SEWER
MORRIS FORMAN	MSD0278	2200 MAPLE ST	05/29/12 9:18: AM	05/29/12 09:52 AM	1 GAL	Sewer Manhole	08820-SM	CAPACITY/HEAVY RAINS	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1496462	NO CLEANING	NO FURTHER ACTION NEEDED
MORRIS FORMAN	MSD0278	724 DR W J HODGE ST	05/29/12 9:07: AM	05/29/12 09:48 AM	12,700 GAL	Sewer Manhole	08837	CAPACITY / HEAVY RAINS	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1496381	NO CLEANING	NO FURTHER ACTION NEEDED
		716 DR W J HODGE ST	05/29/12 9:16: AM	05/29/12 09:48 AM	1,600 GAL	Storm Inlet	090406140	CAPACITY/HEAVY RAINS	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1496399	NO CLEANING	NO FURTHER ACTION NEEDED
DEREK R. GUTHRIE	MSD0277	6117 COOPER CHAPEL RD	05/29/12 12:00: PM	05/29/12 12:30 PM	1 GAL	Sewer Service Line	101586117	LACK OF SYSTEM CAPACITY /ROOTS IN MAIN	OBSTRUCTION-NOT GREASE OR ROOT	DISREV RAIN EVENT DISCHARGE	1496447	MSD PERSONNEL CLEANED AND SANITIZED THE IMPACTED AREA	WORK ORDER 1496446 - ROOT CUT THE MAIN
FLOYDS FORK	MSD0294	202 TROON CT	10/19/11 11:45: PM	10/20/11 12:15 AM	2 GAL	Sewer Manhole	102350	GREASE IN MAIN SEWER	GREASE BLOCKAGE	DISDW DRY WEATHER DISCHARGE	1363097	MSD PERSONNEL CLEANED AND SANITIZED THE IMPACTED AREA	WORK ORDER 1363395 - FLUSHED GREASE FROM MAIN SEWER
DEREK R. GUTHRIE	MSD0277	11400 TIERNEY AVE	05/22/12 9:10: AM	05/22/12 09:41 AM	1 GAL	Sewer Service Line	1464916	OBSTRUCTION IN MSD'S PORTION OF THE PROPERTY SERVICE CONNECTION	OBSTRUCTION-NOT GREASE OR ROOT	DISDW DRY WEATHER DISCHARGE	1490592	CUSTOMER CLEANED THE IMPACTED AREA	WORK ORDER 1490579- FLUSHED THE CLEANOUT
MORRIS FORMAN	MSD0278	334 MOCKINGBIRD VALLEY RD	09/23/11 7:05: PM	09/23/11 10:45 PM	5,500 GAL	Sewer Manhole	15518	LG&E POWER FAIL CAUSED THE DISCHARGE	POWER OUTAGE (LG&E)	DISREV RAIN EVENT DISCHARGE	1344996	MSD CLEANED & SANITIZED THE AREA	CALLED CUSTOMER SERVICE TO REPORT TO IF&P AND B&H TO HAUL STATION TILL REPAIRS ARE COMPLETED
DEREK R. GUTHRIE	MSD0277	8013 ANNELLA WAY	06/25/12 10:30: AM	06/25/12 12:20 PM	40 GAL	Sewer Service Line	181463	ROOTS AND ROCKS IN MAIN SEWER AND SECTION OF MAIN SEWER BROKE	ROOTS	DISDW DRY WEATHER DISCHARGE	1508592	MSD CONTRACTOR CLEANED AND SANITIZED THE IMPACTED AREA	WORK ORDERS 1508607, 1508616, 1510358,1508660: FLUSHED AND ROOT CUT THE MAIN SEWER AND POINT REPAIRED THE MAIN SEWER
MORRIS FORMAN	MSD0278	334 MOCKINGBIRD VALLEY RD	09/23/11 7:05: PM	09/23/11 10:45 PM	2,200 GAL	Sewer Main	21435-S	LG&E POWERFAIL	POWER OUTAGE (LG&E)	DISREV RAIN EVENT DISCHARGE	1345001	MSD CLEANED & SANITIZED THE AREA	B&H HAULING STATION TILL POWER IS RESTORED
MORRIS FORMAN	MSD0278	10204 GARLANREID PL	12/21/11 11:30: AM	12/21/11 01:21 PM	250 GAL	Sewer Manhole	24738	OBSTRUCTION IN MAIN SEWER	OBSTRUCTION-NOT GREASE OR ROOT	DISDW DRY WEATHER DISCHARGE	1397956	MSD PERSONNEL CLEANED AND SANITIZED THE IMPACTED AREA	WORK ORDER 1397940 - FLUSHED THE MAIN SEWER AND REMOVED OBSTRUCTION
DEREK R. GUTHRIE	MSD0277	6109 PRICE LANE RD	11/22/11 7:00: PM	11/22/11 09:30 PM	30,050 GAL	Sewer Manhole	25476	MSD PERSONNEL STILL INVESTIGATION. POSSIBLE BLOCKAGE IN THE MAIN SEWER	OBSTRUCTION-NOT GREASE OR ROOT	DISREV RAIN EVENT DISCHARGE	1384014	MSD PERSONNEL WILL CLEAN THE AFFECTED AREA UNDER WORK ORDER NUMBER	MSD PERSONNEL WILL FLUSH & CAMERA MAIN SEWER LINE
CEDAR CREEK	MSD0289	8014 ZELMA FIELDS AVE	05/11/12 8:00: AM	05/11/12 08:10 AM	20 GAL	Sewer Main	26151-V	FORCEMAIN BREAK	STRUCTURAL FAILURE	DISDW DRY WEATHER DISCHARGE	1486207	MSD CLEANED & SANITIZED THE AREA	MSD CONTRACTOR CALLED TO MAKE REPAIRS
JEFFERSONTOWN	MSD0255	9514 TAYLORSVILLE RD	12/05/11 10:02: PM	12/05/11 10:03 PM	0 GAL	Sewer Manhole	28711	CAPACITY ISSUE OF MAIN SEWER	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1389086	MSD PERSONNEL CLEANED AND SANITIZED THE IMPACTED AREA	PLACED DISCHARGE SIGN AND PLACED A CLEAN UP WORK ORDER
MORRIS FORMAN	MSD0278	3000 EASTERN AVE	02/26/12 6:45: PM	02/26/12 10:30 PM	600 GAL	Sewer Manhole	30513	GRASE IN MAIN SEWER/FURTHER INVESTIGATION NEEDED	GREASE BLOCKAGE	DISDW DRY WEATHER DISCHARGE	1431888	MSD PERSONNEL CLEANED AND SANITIZED THE IMPACTED AREA	FLUSHED DEBRIS FROM MAIN SEWER/REFERRED TO CREW FOR TV INSPECTION
MORRIS FORMAN	MSD0278	330 MOCKINGBIRD VALLEY RD	09/23/11 10:16: PM	09/23/11 11:14 PM	1 GAL	Sewer Service Line	3656330	ELECTRICAL FAILURE AT PUMP STATION	STRUCTURAL FAILURE	DISREV RAIN EVENT DISCHARGE	1345003	MSD PERSONNEL CLEANED AND SANITIZED THE IMPACTED AREA	POWER HAS BEEN RESTORED TO LIFT STATION
MORRIS FORMAN	MSD0278	1548 CHEROKEE RD	06/15/12 6:00: PM	06/16/12 01:15 AM	50 GAL	Sewer Manhole	40471A	OBSTRUCTION IN PSC FROM PARK BATHROOM UPSTREAM OF MSD MAIN SEWER	OBSTRUCTION-NOT GREASE OR ROOT	DISDW DRY WEATHER DISCHARGE	1505277	MSD PERSONNEL CLEANED AND SANITIZED THE IMPACTED AREA	FLUSHED FROM PRIVATE MH IN PARK TOWARDS MAIN SEWER AS COURTESY - WORK ORDER 1505280
MORRIS FORMAN	MSD0278	343 MOCKINGBIRD VALLEY RD	09/02/11 11:00: PM	09/02/11 11:27 PM	5 GAL	Sewer Manhole	41159	ROOTS IN MANHOLE	ROOTS	DISDW DRY WEATHER DISCHARGE	1332868	MSD PERSONNEL CLEANED AND SANITIZED THE IMPACTED AREA	WORK ORDERS 1335998 AND 1336036 - ROOT CUT THE MANHOLE

**APPENDIX B-4
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Associated Wastewater Treatment Plant Name	Associated Treatment Plant KPDES #	Overflow Location	Overflow Start Date & Time	Overflow Stop Date & Time	Volume of Overflow	Source Asset Type	Source Asset ID	Cause of Overflow	Due To	Weather	WO #	Cleanup Efforts by MSD	Repair Efforts by MSD
MORRIS FORMAN	MSD0278	343 MOCKINGBIRD VALLEY RD	09/23/11 7:05: PM	09/23/11 10:45 PM	5,500 GAL	Sewer Main	41160	LG&E POWER FAIL	POWER OUTAGE (LG&E)	DISREV RAIN EVENT DISCHARGE	1344999	MSD CLEANED & SANITIZED THE AREA	MSD HAULING STATION TILL POWER IS RESTORED
MORRIS FORMAN	MSD0278	343 MOCKINGBIRD VALLEY RD	09/07/11 2:30: PM	09/07/11 02:37 PM	15 GAL	Sewer Manhole	41160	ROOTS IN MSD'S MAIN SEWER	ROOTS	DISDW DRY WEATHER DISCHARGE	1336001	MSD PESONNELL CLEANED AND SANITIZED THE IMPACTED AREA	WORK ORDERS 1335998 AND 1336036 - ROOT CUT THE MANHOLE
SHADOW WOOD	MSD0404	5713 RIVER RD	05/31/12 12:45: PM	05/31/12 04:00 PM	30 GAL	Sewer Main	41870A-V	STRUCTIAL FAILURE OF FORCE MAIN	STRUCTURAL FAILURE	DISDW DRY WEATHER DISCHARGE	1497376	CONTRACTOR CLEAN AND SANITIZED AREA	MSD CONTRACTOR REPAIRED FORCE MAIN
MORRIS FORMAN	MSD0278	3423 MOUNT RAINIER DR	06/05/12 3:00: PM	06/05/12 03:02 PM	1 GAL	Sewer Manhole	42921	UNKNOWN OBSTRUCTION IN MAIN SEWER	OBSTRUCTION-NOT GREASE OR ROOT	DISDW DRY WEATHER DISCHARGE	1501617	MSD PERSONNEL WILL CLEAN AND SANITIZE THE IMPACTED AREA AROUND THE MANHOLE	MSD PERSONNEL FLUSHED THE MAIN SEWER
MORRIS FORMAN	MSD0278	9520 TAMARISK PKY	05/05/12 2:15: PM	05/05/12 03:56 PM	200 GAL	Sewer Manhole	44968	ROOTS IN MAIN SEWER	ROOTS	DISDW DRY WEATHER DISCHARGE	1484060	MSD PERSONNEL CLEANED AND SANITIZED THE IMPACTED AREA	WORK ORDERS 1484064, 1484415, 1484417 AND 1484492 - ROOT CUT THE MAIN SEWER
MORRIS FORMAN	MSD0278	1802 ROUND RIDGE RD	12/06/11 1:00: PM	12/06/11 02:08 PM	1 GAL	Sewer Manhole	46600	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1389974	MSD PERSONEL CLEANED AND SANITIZED THE IMPACTED AREA	INVESTIGATION INDICATED THAT ADDITIONAL REPAIRS WERE NOT REQUIRED BY MSD
MORRIS FORMAN	MSD0278	4802 CASSIA CT	12/15/11 10:30: AM	12/15/11 11:00 AM	40 GAL	Sewer Manhole	46621	THE SEWER SYSTEM WAS AT CAPCITY AT THE TIME	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1395907	MSD CLEANED THE IMPACTED AREA	NO FURTHER ACTION NEEDED BY MSD PERSONNEL
MORRIS FORMAN	MSD0278	4801 CASSIA CT	12/06/11 1:00: PM	12/06/11 02:08 PM	1 GAL	Sewer Manhole	46623	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1389971	MSD PRESONNEL CLEANED AND SANITIZED THE IMPACTED AREA	INVESTIGATION INDICATED THAT ADDITIONAL REPAIRS WERE NOT REQUIRED BY MSD
MORRIS FORMAN	MSD0278	402 EDINBURGH PL	10/30/11 8:45: AM	10/30/11 08:46 AM	260 GAL	Sewer Manhole	47647	CONTRACTOR DOING I & I REPAIRS WORK SLIP LINING A SEWER, CONTRACTOR CONDUCTING PUMP AROUND, FAILED TO REMOVE D/S MH LID WHICH CAUSED OVERFLOW.	MECHANICAL FAILURE	DISDW DRY WEATHER DISCHARGE	1368641	CONTRACTOR CLEANED AND SANITIZED AREA	CONTRACTOR REMOVED SMH 47647 LID AND CONTINUED PUMP AROUND
MORRIS FORMAN	MSD0278	5901 U S HIGHWAY 42	12/14/11 3:00: PM	12/14/11 06:00 PM	200 GAL	Sewer Manhole	64571A	OBSTRCTION IN MSD MAIN SEWER. TV INSPECTION FOUND THAT THE STATE INSTALLED GUARD RAIL WAS BORED THROUGH THE MSD MAIN SEWER.	UTILITY DAMAGED MSD ASSET	DISDW DRY WEATHER DISCHARGE	1395808	MSD CLEANED THE IMPACTED AREA	REFERRED TO CREW TO MAKE NEEDED REAPIRS
MORRIS FORMAN	MSD0278	5805 BRITTANY WOODS CIR	09/03/11 3:00: PM	09/03/11 03:06 PM	5 GAL	Sewer Valve	67715A-V	MECHANICAL FAILURE OF ARV	MECHANICAL FAILURE	DISDW DRY WEATHER DISCHARGE	1333066	MSD CLEANED AND SANITIZED AREA	MSD REPAIRED ARV
MORRIS FORMAN	MSD0278	4300 SHELBYVILLE RD	05/24/12 11:15: PM	05/24/12 11:16 PM	25 GAL	Sewer Main	71501	COKE COLA TRUCK RAN OVER A HOSE CAUSING IT TO BUST	UTILITY DAMAGED MSD ASSET	DISDW DRY WEATHER DISCHARGE	1495256	MSD PERSONNEL CLEANED AND SANITIZED THE IMPACTED AREA	MSD PERSONNEL REPAIRED HOSE PUT LINE BACK IN SERVICE
MORRIS FORMAN	MSD0278	2901 LAKEHEATH DR	03/15/12 10:15: AM	03/15/12 11:30 AM	5 GAL	Sewer Manhole	73333	ROOTS IN MSD'S PORTION OF THE PROPERTY SERVICE CONNECTION	OBSTRUCTION-NOT GREASE OR ROOT	DISDW DRY WEATHER DISCHARGE	1447132	MSD PERSONNEL CLEANED AND SANITIZED THE IMPACTED AREA	WORK ORDER 1447110 - ROOT CUT MAIN SEWER LINE
MORRIS FORMAN	MSD0278	2561 GRINSTEAD DR	03/08/12 10:15: AM	03/08/12 10:46 AM	100 GAL	Sewer Service Line	75225	A SECTION OF THE MAIN SEWER IS BROKE AT THE PROPERTY SERVICE LINE	STRUCTURAL FAILURE	DISDW DRY WEATHER DISCHARGE	1441704	MSD PERSONNEL CLEANED AND SANITIZED THE IMPACTED AREA	WORK ORDERS 1441722 AND 1453127 - ROOT CUT AND REPAIRED THE PROPERTY SERVICE CONNECTION AND INSTALLED A 2-WAY CLEANOUT
CHENOWETH RUN	MSD0403	611 WOODLAKE DR	09/14/11 8:27: AM	09/14/11 08:27 AM	15 GAL	Sewer Main	80581A-AG	STRUCTURAL FAILURE OF FORCEMAIN	STRUCTURAL FAILURE	DISDW DRY WEATHER DISCHARGE	1338763	MSD CLEANED & SANITIZED THE AREA	CONTRACTOR CALLED TO MAKE REPAIRS
DEREK R. GUTHRIE	MSD0277	6911 TRIANGLE DR	08/19/11 11:05: AM	08/19/11 11:28 AM	8 GAL	Sewer Manhole	81211	OBSTRUCTION IN MAIN SEWER	OBSTRUCTION-NOT GREASE OR ROOT	DISDW DRY WEATHER DISCHARGE	1323662	MSD PERSONNEL CLEANED AND SANITIZED THE IMPACTED AREA	WORK ORDER 1323675 - FLUSHED AND REMOVED OBSTRUCTION IN MAIN SEWER
MORRIS FORMAN	MSD0278	6421 BETHANY LN	07/12/11 5:23: PM	07/12/11 06:08 PM	6 GAL	Sewer Main	81402-V	FURTHER INVESTIGATION REQUIRED	OBSTRUCTION-NOT GREASE OR ROOT	DISDW DRY WEATHER DISCHARGE	1298173	MSD PERSONNEL WILL CLEAN AND SANITIZED THE IMPACTED AREA	REFERRED TO OPERATION
DEREK R. GUTHRIE	MSD0277	5701 LARKGROVE DR	03/08/12 5:00: PM	03/08/12 05:22 PM	2 GAL	Sewer Manhole	82138	OBSTRUCTION IN MAIN SEWER	OBSTRUCTION-NOT GREASE OR ROOT	DISDW DRY WEATHER DISCHARGE	1441923	MSD PERSONNEL CLEANED AND SANITIZED THE IMPACTED AREA	WORK ORDERS 1441925 AND 1456903 - FLUSHED AND ROOT CUT THE MAIN SEWER
HITE CREEK	MSD0202	3406 SAMPLE WAY	04/05/12 8:00: PM	04/05/12 08:41 PM	20 GAL	Sewer Manhole	88009	GREASE BLOCKAGE IN MAIN SEWER	GREASE BLOCKAGE	DISDW DRY WEATHER DISCHARGE	1463349	MSD CONTRACTOR CLEANED AND SANITIZED THE IMPACTED AREA	FLUSHED AND VACTORED GREASE FROM MANHOLE

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Associated Wastewater Treatment Plant Name	Associated Treatment Plant KPDES #	Overflow Location	Overflow Start Date & Time	Overflow Stop Date & Time	Volume of Overflow	Source Asset Type	Source Asset ID	Cause of Overflow	Due To	Weather	WO #	Cleanup Efforts by MSD	Repair Efforts by MSD
HITE CREEK	MSD0202	3406 SAMPLE WAY	04/05/12 9:15: PM	04/05/12 09:30 PM	20 GAL	Sewer Manhole	88009	GREASE BLOCKAGE IN MAIN SEWER	GREASE BLOCKAGE	DISDW DRY WEATHER DISCHARGE	1463368	MSD CONTRACTOR CLEANED AND SANITIZED THE IMPACTED AREA	FLUSHED/VACTORED GREASE FROM MAIN SEWER
HITE CREEK	MSD0202	3406 SAMPLE WAY	04/05/12 9:45: PM	04/05/12 09:55 PM	20 GAL	Sewer Manhole	88009	GREASE BLOCKAGE IN MAIN SEWER	GREASE BLOCKAGE	DISDW DRY WEATHER DISCHARGE	1463363	MSD PERSONNEL CLEANED AND SANITIZED THE IMPACTED AREA	FLUSHED/VACTORED GREASE FROM MAIN
HITE CREEK	MSD0202	3406 SAMPLE WAY	04/05/12 11:30: PM	04/05/12 11:48 PM	20 GAL	Sewer Manhole	88009	GREASE BLOCKAGE IN MAIN SEWER	GREASE BLOCKAGE	DISDW DRY WEATHER DISCHARGE	1463366	MSD PERSONNEL CLEANED AND SANITIZED THE IMPACTED AREA	FLUSHED/VACTORED GREASE FROM THE MAIN
HITE CREEK	MSD0202	3406 SAMPLE WAY	04/05/12 8:00: PM	04/05/12 08:43 PM	1 GAL	Sewer Manhole	88009		OBSTRUCTION-NOT GREASE OR ROOT	DISDW DRY WEATHER DISCHARGE	1463350		
DEREK R. GUTHRIE	MSD0277	5201 COMMERCE CROSSINGS DR	12/14/11 4:00: PM	12/14/11 04:16 PM	10 GAL	Sewer Main	91964	FUTHER INVESTIGATION REQUIRED	OBSTRUCTION-NOT GREASE OR ROOT	DISDW DRY WEATHER DISCHARGE	1395778	NONE BY MSD COULD NOT FINE DISCHARGE	REFERRED TO CREW TO FOR TV INVESTIGATION
DEREK R. GUTHRIE	MSD0277	7309 OSWEGO CIR	03/11/12 6:15: PM	03/11/12 06:30 PM	3 GAL	Sewer Service Line	DE31124039	ROOTS IN MSD'S PORTION OF THE PROPERTY SERVICE CONNECTION	ROOTS	DISDW DRY WEATHER DISCHARGE	1442547	MSD PERSONNEL CLEANED AND SANITIZED THE IMPACTED AREA	REFERRED TO AREA SUPERVISOR TO MAKE NEEDED REPAIRS
MORRIS FORMAN	MSD0278	949 E OAK ST	06/02/12 2:38: PM	06/02/12 02:44 PM	1 GAL	Sewer Service Line	K10072079	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1500587	CUSTOMER CLEANED THE IMPACTED AREA	INVESTIGATION INDICATED THAT ADDITIONAL REPAIRS WERE NOT REQUIRED BY MSD
MORRIS FORMAN	MSD0278	1244 SPRINGDALE DR	10/11/11 7:38: PM	10/11/11 08:22 PM	25 GAL	Sewer Service Line	KK13390319	GREASE OBSTRUCTION IN MAIN SEWER	GREASE BLOCKAGE	DISDW DRY WEATHER DISCHARGE	1356634	MSD PERSONNEL CLEANED AND SANITIZED THE IMPACTED AREA	WORK ORDERS 1356636 AND 1357009 - FLUSHED AND ROOT CUT THE MAIN SEWER
HITE CREEK	MSD0202	5500 HITT RD	11/29/11 5:30: AM	11/29/11 09:00 AM	25 GAL	Sewer Treatment Plant	MSD0202	PLANT FLOW INCREASED AND FOAM CAME OUT OF THE SPLITTER BOX	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1385479	MSD CLEANED & SANITIZED THE AREA	SITE FOUND DURING RAIN EVENT RECON- WILL MONITOR & EVALUATE FOR REPAIR
HITE CREEK	MSD0202	5500 HITT RD	01/20/12 8:00: AM	01/20/12 08:15 AM	20 GAL	Sewer Treatment Plant	MSD0202	LEAKY VALVE ON B & H TRUCK	MECHANICAL FAILURE	DISDW DRY WEATHER DISCHARGE	1413151	MSD CONTRACTOR CLEANED AND SANOTIZED AREA	VALVE REPAIRED
HITE CREEK	MSD0202	5500 HITT RD	01/31/12 2:00: PM	01/31/12 02:01 PM	20 GAL	Sewer Treatment Plant	MSD0202	SCUM STATION PUMP WOULDNT PUMP	MECHANICAL FAILURE	DISDW DRY WEATHER DISCHARGE	1419843	MSD CLEANED & SANITIZED THE AREA	OPENED DRAIN VALVE IN WET WELL TO STOP OVERFLOW
KEN CARLA	MSD0208	8701 LYNNHALL CT	07/24/11 11:30: AM	07/24/11 11:35 AM	2 GAL	Sewer Treatment Plant	MSD0208	LINE CLOGGED BY A RAG	OBSTRUCTION-NOT GREASE OR ROOT	DISDW DRY WEATHER DISCHARGE	1306584	MSD CLEANED, LIMED & SANITIZED THE AREA	
SILVER HEIGHTS	MSD0258	9412 SLAYTON CT	10/05/11 9:20: AM	10/05/11 09:21 AM	1 GAL	Sewer Treatment Plant	MSD0258	WHEN MOVING THE TRASH PUMP SEWAGE THAT WAS IN THE HOSE HIT THE GROUND.	MECHANICAL FAILURE	DISDW DRY WEATHER DISCHARGE	1350822	MSD CLEANED & SANITIZED THE AREA	OPERATOR TO CHECK THE HOSE BEFORE MOVING PUMP
DEREK R. GUTHRIE	MSD0277	11621 LOWER RIVER RD	12/23/11 9:17: AM	12/23/11 09:22 AM	3 GAL	Sewer Treatment Plant	MSD0277	RAINEVENT CAUSED INCREASE PLANT FLOW THAT LEAD TO HEAVY SCUM BUILD UP	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1398379	MSD CLEANED AND SANITIZED AREA	MSD CONTRACTOR VACTORED SCUM THROUGH AND REMOVED HEAVY SCUM
DEREK R. GUTHRIE	MSD0277	11621 LOWER RIVER RD	08/30/11 10:30: AM	08/30/11 11:30 AM	15 GAL	Sewer Treatment Plant	MSD0277	THE HOSE THAT THE CONTRACTOR WAS USING TO PUMP OUT THE INFLUENT CHANNEL HAD A HOLE IN IT.	MECHANICAL FAILURE	DISDW DRY WEATHER DISCHARGE	1331030	CONTRACTOR CLEANED & SANITIZED THE AREA	CONTRACTOR REPAIRED THE DISCHARGE HOSE.
DEREK R. GUTHRIE	MSD0277	11621 LOWER RIVER RD	09/29/11 9:28: AM	09/29/11 09:29 AM	200 GAL	Sewer Treatment Plant	MSD0277	CONTRACTORS DID NOT HAVE THE DISCHARGE HOSE SECURELY ATTACHED	MECHANICAL FAILURE	DISDW DRY WEATHER DISCHARGE	1347373	MSD CLEANED & SANITIZED THE AREA	SHUT DOWN PUMP & SECURED HOSE
DEREK R. GUTHRIE	MSD0277	11621 LOWER RIVER RD	12/16/11 1:30: PM	12/16/11 01:32 PM	30 GAL	Sewer Treatment Plant	MSD0277	LINE CRUSHED	STRUCTURAL FAILURE	DISDW DRY WEATHER DISCHARGE	1396267	CONTRACTOR CLEANED & SANITIZED THE AREA	SHUT OFF PUMP; CONTRACTOR VACTORED SCUM LINE & REPAIRED LINE.
DEREK R. GUTHRIE	MSD0277	11621 LOWER RIVER RD	12/28/11 1:15: PM	12/28/11 1:20 PM	1 GAL	Sewer Treatment Plant	MSD0277		STRUCTURAL FAILURE	DISDW DRY WEATHER DISCHARGE	1399438		
MORRIS FORMAN	MSD0278	4522 ALGONQUIN PKY	03/07/12 10:45: AM	03/07/12 11:45 AM	100 GAL	Sewer Treatment Plant	MSD0278	DIGESTER 3 DISCHARGED CONTENTS OVER THE LID.	MECHANICAL FAILURE	DISDW DRY WEATHER DISCHARGE	1441341	B&H IS VACTORING TO PREVENT ANY FURTHER MATERIAL FROM ENTERING STORM BASIN. ALL STORM BASINS WILL BE CLEANED OUT.	CONTENTS OF DIGESTER ARE BEING PUMPED INTO OTHER DIGESTERS TO PREVENT ANY FURTHER OVERFLOWING ISSUES.

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Associated Wastewater Treatment Plant Name	Associated Treatment Plant KPDES #	Overflow Location	Overflow Start Date & Time	Overflow Stop Date & Time	Volume of Overflow	Source Asset Type	Source Asset ID	Cause of Overflow	Due To	Weather	WO #	Cleanup Efforts by MSD	Repair Efforts by MSD
MORRIS FORMAN	MSD0278	4522 ALGONQUIN PKY	07/24/11 9:00: PM	07/25/11 11:53 AM	50,000 GAL	Sewer Treatment Plant	MSD0278	PLUGGED OUTLET TO DIGESTER.	STRUCTURAL FAILURE	DISREV RAIN EVENT DISCHARGE	1307237	B&H WAS CALLED TO CLEAN AND DISINFECT THE AREA.	MAINTENANCE UNPLUGGED THE BLOCKAGE AT THE DISCHARGE.
CEDAR CREEK	MSD0289	8605 CEDAR CREEK RD	03/16/12 6:10: AM	03/16/12 06:25 AM	25 GAL	Sewer Treatment Plant	MSD0289	CEDAR CREEK NEW OXIDATION DITCH EAST SIDE DRAIN PIT SUMP PUMP GROUND FAULT TRIPPED.	ELECTRICAL PROBLEMS AT MSD	DISREV RAIN EVENT DISCHARGE	1447318	MSD CLEANED & SANITIZED THE AREA	RESET GROUND FAULT BREAKERS
CEDAR CREEK	MSD0289	8605 CEDAR CREEK RD	03/16/12 6:15: AM	03/16/12 06:30 AM	25 GAL	Sewer Treatment Plant	MSD0289	CEDAR CREEK NEW OXID. DITCH WEST SIDE DRAIN PIT SUMP PUMP GROUND FAULT TRIPPED.	ELECTRICAL PROBLEMS AT MSD	DISREV RAIN EVENT DISCHARGE	1447323	MSD CLEANED & SANITIZED THE AREA	RESET GROUND FAULT BREAKERS
CEDAR CREEK	MSD0289	8605 CEDAR CREEK RD	08/30/11 8:25: AM	08/30/11 08:25 AM	5 GAL	Sewer Treatment Plant	MSD0289	B&H TRUCK LEAKED SLUDGE ONTO THE GROUND	MECHANICAL FAILURE	DISDW DRY WEATHER DISCHARGE	1330854	CONTRACTOR CLEANED & SANITIZED	B&H REPAIRED & CLEANED LEAK
TIMBERLAKE	MSD0293	5504 TIMBER RIDGE DR	04/04/12 2:07: PM	04/04/12 03:15 PM	500 GAL	Sewer Treatment Plant	MSD0293	STRUCTURAL FAILURE OF THE #2 DIGESTOR	STRUCTURAL FAILURE	DISDW DRY WEATHER DISCHARGE	1462786	CONTRACTOR CLEANED & SANITIZED THE AREA.	MSD IS REPAIRING THE TANK
FLOYDS FORK	MSD0294	1100 BLUE HERON RD	02/06/12 7:50: AM	02/06/12 07:51 AM	200 GAL	Sewer Treatment Plant	MSD0294	STUCK VALVE	MECHANICAL FAILURE	DISDW DRY WEATHER DISCHARGE	1421540	MSD CLEANED & SANITIZED THE AREA	OPENED VALVE
FLOYDS FORK	MSD0294	1100 BLUE HERON RD	04/11/12 9:28: AM	04/11/12 09:30 AM	50 GAL	Sewer Treatment Plant	MSD0294	DRAIN WAS OPENED TOO FAST	MECHANICAL FAILURE	DISDW DRY WEATHER DISCHARGE	1469473	MSD CLEANED & LIMED	OPERATOR REPAIRED DRAIN
MORRIS FORMAN	MSD0278	8410 SAUREL DR	12/06/11 11:20: AM	12/06/11 11:40 AM	40 GAL	Sewer Lift Station	MSD1024-PS	CONTRACTOR TRUCK LEAK	MECHANICAL FAILURE	DISREV RAIN EVENT DISCHARGE	1389363	CONTRACTOR CLEANED & SANITIZED THE AREA	MECHANIC TO REPAIR TRUCK
HUNTING CREEK SOUTH	MSD0292	6808 FAIRWAY VIEW CT	06/10/12 10:55: AM	06/10/12 11:10 AM	75 GAL	Sewer Lift Station	MSD1065-PS	ELECTRICAL PHASE MONITOR PROBLEM	ELECTRICAL PROBLEMS AT MSD	DISDW DRY WEATHER DISCHARGE	1502941	MSD CLEANED & SANITIZED THE AREA	ELECTRICIAN REPAIRED THE PHASE MONITOR
TIMBERLAKE	MSD0293	1 HARRODS LANDING DR	08/27/11 12:30: PM	08/27/11 01:25 PM	110 GAL	Sewer Lift Station	MSD1071-PS	FORCE MAIN STRUCTURE FAILURE	STRUCTURAL FAILURE	DISDW DRY WEATHER DISCHARGE	1330301	B&H TO VACTOR UP SEWAGE FROM THE GROUND	SHUT PUMPS OFF & HAUL STATION UNTIL REPAIRS CAN BE MADE
DEREK R. GUTHRIE	MSD0277	9801 LANCEWOOD RD	06/14/12 12:00: PM	06/14/12 01:02 PM	2 GAL	Sewer Service Line	PD21430019	ROOTS IN MSD MAIN SEWER	ROOTS	DISDW DRY WEATHER DISCHARGE	1504227	MSD PERSONNEL CLEANED AND SANITIZED THE IMPACTED AREA	WORK ORDER 1504226; ROOT CUT THE MAIN SEWER

APPENDIX B-5 - DISCHARGE WORK ORDERS-INTERIOR

**APPENDIX B-5
OVERFLOWS TO INTERIOR
JULY 1, 2011 THROUGH JUNE 30, 2012**

Associated Wastewater Treatment Plant Name	Associated Treatment Plant KPDES #	Overflow Location	Overflow Start Date & Time	Overflow Stop Date & Time	Volume of Overflow	Source Asset Type	Source Asset ID	Cause of Overflow	Due To	Weather	WO #	Cleanup Efforts by MSD	Repair Efforts by MSD
MORRIS FORMAN	MSD0278	1500 CHRISTY AVE	09/06/11 5:15: PM	09/06/11 06:00 PM	1 GAL	Sewer Service Line	027A01580000A	MSD SERVICING MAIN SEWER	OBSTRUCTION-NOT GREASE OR ROOT	DISDW DRY WEATHER DISCHARGE	1333889	CUSTOMER CLEANED THE IMPACTED AREA	INVESTIGATION INDICATED THAT ADDITIONAL REPAIRS WERE NOT REQUIRED BY MSD
MORRIS FORMAN	MSD0278	4002 BROWNLEE RD	03/26/12 6:54: PM	03/26/12 06:54 PM	3 GAL	Sewer Service Line	052201460000A	MSD CONTRACTOR CLEANING THE MAIN SEWERS	OBSTRUCTION-NOT GREASE OR ROOT	DISDW DRY WEATHER DISCHARGE	1456887	MSD CONTRACTOR CLEANED AND SANITIZED THE IMPACTED AREA	INVESTIGATION INDICATED THAT ADDITIONAL REPAIRS WERE NOT REQUIRED BY MSD
MORRIS FORMAN	MSD0278	4102 GLOUCESTER RD	12/05/11 11:30: AM	12/05/11 11:46 AM	25 GAL	Sewer Service Line	053100490000A	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1388744	MSD CONTRACTOR CLEANED AND SANITIZED THE IMPACTED AREA	WORK ORDERS 1388751 AND 1388889 - FLUSHED AND ROOT CUT THE MAIN SEWER
MORRIS FORMAN	MSD0278	3318 AUTUMN WAY	07/20/11 10:45: AM	07/20/11 11:06 AM	1 GAL	Sewer Service Line	053700130000A	MSD CREWS IN AREA FLUSHING MAIN SEWER LINES	OBSTRUCTION-NOT GREASE OR ROOT	DISDW DRY WEATHER DISCHARGE	1302995	CUSTOMER CLEANED THE IMPACTED AREA	ADVISED CUSTOMER TO CONTACT CUSTOMER SERVICE IF THEY HAVE ANY DAMAGES
MORRIS FORMAN	MSD0278	210 REDDING RD	09/25/11 2:10: PM	09/25/11 02:40 PM	1 GAL	Sewer Service Line	053800510000A	OBSTRUCTION IN MAIN SEWER AND ROOTS IN MSD'S PORTION OF THE PROPERTY SERVICE CONNECTION	OBSTRUCTION-NOT GREASE OR ROOT	DISDW DRY WEATHER DISCHARGE	1345161	CUSTOMER CLEANED THE IMPACTED AREA	WORK ORDERS 1345165, 1345164 - FLUSHED THE MAIN SEWER AND ROOT CUT THE PROPERTY SERVICE LINE
MORRIS FORMAN	MSD0278	3735 ROSEMONT BLVD	05/29/12 3:15: PM	05/29/12 03:15 PM	1 GAL	Sewer Service Line	055701040000A	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1496411	ADVISED CUSTOMER THAT THEY ARE RESPONSIBLE FOR CLEANING THE IMPACTED AREA	ADVISED CUSTOMER TO CALL BACK IF THE BACKUP CONTINUES
MORRIS FORMAN	MSD0278	259 DERBY AVE	02/06/12 7:50: PM	02/06/12 08:08 PM	1 GAL	Sewer Service Line	055800970000A	ROOTS IN MSD'S PORTION OF THE PROPERTY SERVICE CONNECTION AS WELL AS AT REDUCER	ROOTS	DISDW DRY WEATHER DISCHARGE	1423249	CUSTOMER CLEANED THE IMPACTED AREA	REFERRED TO SUPERVISOR TO MAKE THE NEEDED REPAIRS
MORRIS FORMAN	MSD0278	410 W KINGSTON AVE	07/05/11 3:32: PM	07/05/11 03:32 PM	1 GAL	Sewer Service Line	060G00280000A	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1293160	MSD CONTRACTOR CLEANED AND SANITIZED THE IMPACTED AREA	INVESTIGATION INDICATED THAT ADDITIONAL REPAIRS WERE NOT REQUIRED BY MSD
DEREK R. GUTHRIE	MSD0277	5434 SOUTHVIEW DR	02/11/12 12:16: PM	02/11/12 01:15 PM	18 GAL	Sewer Service Line	062P00960000A	OBSTRUCTION IN MAIN SEWER	OBSTRUCTION-NOT GREASE OR ROOT	DISDW DRY WEATHER DISCHARGE	1424813	MSD CONTRACTOR CLEANED AND SANITIZED THE IMPACTED AREA	WORK ORDERS 1424815 AND 1424850 - ROOT CUT AND FLUSHED THE MAIN SEWER
MORRIS FORMAN	MSD0278	1311 CENTRAL AVE	05/29/12 3:47: PM	05/29/12 03:47 PM	1 GAL	Sewer Service Line	063H00220000A	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1496449	ADVISED CUSTOMER THAT THEY ARE RESPONSIBLE FOR CLEANING THE IMPACTED AREA	ADVISED CUSTOMER TO CALL BACK IF THE BACKUP CONTINUES
MORRIS FORMAN	MSD0278	3638 NICHOLS MEADOW CIR	02/25/12 8:15: PM	02/25/12 08:38 PM	1 GAL	Sewer Service Line	065M00790000A	OBSTRUCTION IN MAIN SEWER	OBSTRUCTION-NOT GREASE OR ROOT	DISDW DRY WEATHER DISCHARGE	1431861	MSD CONTRACTOR CLEANED AND SANITIZED THE IMPACTED AREA	WORK ORDER 1437480 - FLUSHED THE MAIN SEWER
MORRIS FORMAN	MSD0278	106 FAIRFAX AVE	01/31/12 10:29: PM	01/31/12 11:31 PM	2 GAL	Sewer Service Line	073M01420000A	GREASE IN MAIN SEWER	GREASE BLOCKAGE	DISDW DRY WEATHER DISCHARGE	1420049	CUSTOMER CLEANED THE IMPACTED AREA	WORK ORDER 1420047 - FLUSHED THE MAIN SEWER AND OPEN THE LINE
MORRIS FORMAN	MSD0278	4019 SPRINGHILL RD	03/27/12 8:45: AM	03/27/12 08:57 AM	1 GAL	Sewer Service Line	080600060000A	MSD CONTRACTOR FLUSHING MAIN SEWER	OBSTRUCTION-NOT GREASE OR ROOT	DISDW DRY WEATHER DISCHARGE	1456952	CUSTOMER CLEANED THE IMPACTED AREA	INVESTIGATION INDICATED THAT ADDITIONAL REPAIRS WERE NOT REQUIRED BY MSD
MORRIS FORMAN	MSD0278	2423 CLARENDON AVE	08/08/11 9:00: AM	08/08/11 09:00 AM	1 GAL	Sewer Service Line	081D01350000A	MSD PERSONNEL CLEANING THE SEWER	OBSTRUCTION-NOT GREASE OR ROOT	DISDW DRY WEATHER DISCHARGE	1315793	MSD CONTRACTOR CLEANED AND SANITIZED THE IMPACTED AREA	INVESTIGATION INDICATED THAT ADDITIONAL REPAIRS WERE NOT REQUIRED BY MSD
MORRIS FORMAN	MSD0278	36 CHAMBERRY CIR	05/25/12 2:42: PM	05/25/12 02:52 PM	3 GAL	Sewer Service Line	082A00960000A	ROOTS IN THE SHARE JOINT OF THE PROPERTY SERVICE CONNECTION	ROOTS	DISDW DRY WEATHER DISCHARGE	1495641	CUSTOMER CLEANED THE IMPACTED AREA	ADVISED CUSTOMER TO CONTACT A PLUMBER; WORK ORDERS 1495718,1495728 - PREPARED THE PROPERTY SERVICE CONNECTION
MORRIS FORMAN	MSD0278	816 CIRCLE HILL RD	02/29/12 11:45: AM	02/29/12 12:58 PM	4 GAL	Sewer Service Line	082B02330000A	ROOTS IN MAIN SEWER	ROOTS	DISDW DRY WEATHER DISCHARGE	1436377	MSD CONTRACTOR CLEANED AND SANITIZED THE IMPACTED AREA	WORK ORDER 1436385 - ROOTCUT AND OPEN THE MAIN SEWER
MORRIS FORMAN	MSD0278	816 CIRCLE HILL RD	03/01/12 2:00: PM	03/01/12 02:59 PM	1 GAL	Sewer Service Line	082B02330000A	WHILE ROOT CUTTING THE MAIN SEWER - BACKED WASHED IN HOME	ROOTS	DISDW DRY WEATHER DISCHARGE	1442777	MSD CONTRACTOR CLEANED AND SANITIZED THE IMPACTED AREA	INVESTIGATION INDICATED THAT ADDITIONAL REPAIRS WERE NOT REQUIRED BY MSD
MORRIS FORMAN	MSD0278	3112 DOGWOOD DR	04/11/12 12:00: PM	04/11/12 12:08 PM	1 GAL	Sewer Service Line	082H00190000A	OBSTRUCTION IN MAIN SEWER	OBSTRUCTION-NOT GREASE OR ROOT	DISDW DRY WEATHER DISCHARGE	1469539	CUSTOMER CLEANED THE IMPACTED AREA	WORK ORDER 1469564 - ROOT CUT THE MAIN SEWER
MORRIS FORMAN	MSD0278	3788 ILLINOIS AVE	12/22/11 3:52: PM	12/22/11 03:53 PM	20 GAL	Sewer Service Line	086A00121026A	ROOTS IN MAIN SEWER AND ROOTS ON PRIVATE PROPERTY	ROOTS	DISDW DRY WEATHER DISCHARGE	1398321	MSD CONTRACTOR CLEANED AND SANITIZED THE IMPACTED AREA	WORK ORDER 1398359 - FLUSHED MAIN SEWER TO REOPEN

**APPENDIX B-5
OVERFLOWS TO INTERIOR
JULY 1, 2011 THROUGH JUNE 30, 2012**

Associated Wastewater Treatment Plant Name	Associated Treatment Plant KPDES #	Overflow Location	Overflow Start Date & Time	Overflow Stop Date & Time	Volume of Overflow	Source Asset Type	Source Asset ID	Cause of Overflow	Due To	Weather	WO #	Cleanup Efforts by MSD	Repair Efforts by MSD
MORRIS FORMAN	MSD0278	3533 KERRY DR	12/05/11 4:15: PM	12/05/11 04:45 PM	1 GAL	Sewer Service Line	087F01680000A	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1389035	CUSTOMER CLEANED THE IMPACTED AREA	INVESTIGATION INDICATED THAT ADDITIONAL REPAIRS WERE NOT REQUIRED BY MSD
MORRIS FORMAN	MSD0278	1604 LOU GENE AVE	12/06/11 3:44: AM	12/06/11 03:45 AM	1 GAL	Sewer Service Line	090A00760000A		LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1389115		
MORRIS FORMAN	MSD0278	2904 NEPPERHAN RD	04/14/12 2:30: PM	04/14/12 02:55 PM	2 GAL	Sewer Service Line	091A00590000A	MSD'S PERSONNEL CLEANING SEWERS CAUSING BACKUP	OBSTRUCTION-NOT GREASE OR ROOT	DISDW DRY WEATHER DISCHARGE	1472192	MSD'S CONTRACTOR CLEANED AND SANITIZED THE IMPACTED AREA	INVESTIGATION INDICATED THAT ADDITIONAL REPAIRS WERE NOT REQUIRED BY MSD
MORRIS FORMAN	MSD0278	2815 POMEROY DR	11/19/11 10:48: AM	11/19/11 11:01 AM	1 GAL	Sewer Service Line	091A01570000A	ROOTS IN MAIN SEWER	ROOTS	DISDW DRY WEATHER DISCHARGE	1383014	CUSTOMER CLEANED THE IMPACTED AREA	WORK ORDER 1383002 - ROOT CUT THE MAIN SEWER
MORRIS FORMAN	MSD0278	3017 MID DALE LN	01/27/12 3:10: AM	01/27/12 03:22 AM	1 GAL	Sewer Service Line	091B00090000A	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1415899	CUSTOMER CLEANED THE IMPACTED AREA	INVESTIGATION INDICATED THAT ADDITIONAL REPAIRS WERE NOT REQUIRED BY MSD
MORRIS FORMAN	MSD0278	6139 PERMA DR	11/30/11 1:30: PM	11/30/11 02:30 PM	1 GAL	Sewer Service Line	091C00860000A	ROOTS IN MAIN SEWER; ROOTS IN MSD PORTION OF THE PROPERTY SERVICE CONNECTION	ROOTS	DISDW DRY WEATHER DISCHARGE	1387338	CUSTOMER CLEANED THE IMPACTED AREA	WORK ORDERS 1387333 AND 1387335 - ROOT CUT THE MAIN SEWER AND THE PROPERTY SERVICE LINE
MORRIS FORMAN	MSD0278	3823 SUNRISE WAY	05/22/12 9:44: PM	05/22/12 10:41 PM	10 GAL	Sewer Service Line	091P00690000A	SECTION OF THE MAIN SEWER BROKE	STRUCTURAL FAILURE	DISDW DRY WEATHER DISCHARGE	1491077	MSD'S CONTRACTOR CLEANED AND SANITIZED THE IMPACTED AREA	WORK ORDERS 1491074, 1491130 AND 1491149- VACTOR, FLUSHED AND REPAIRED THE MAIN SEWER
MORRIS FORMAN	MSD0278	5819 SPICEWOOD LN	02/27/12 11:20: AM	02/27/12 11:45 AM	1 GAL	Sewer Service Line	096202430000A	MSD FLUSHING THE MAIN SEWER	OBSTRUCTION-NOT GREASE OR ROOT	DISDW DRY WEATHER DISCHARGE	1432235	CUSTOMER CLEANED THE IMPACTED AREA	INVESTIGATION INDICATED THAT ADDITIONAL REPAIRS WERE NOT REQUIRED BY MSD
MORRIS FORMAN	MSD0278	3412 ALLISON WAY	05/29/12 3:07: PM	05/29/12 03:10 PM	1 GAL	Sewer Service Line	1001	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1496404	ADVISED CUSTOMER THAT THEY ARE RESPONSIBLE FOR CLEANING THE IMPACTED AREA	ADVISED CUSTOMER TO CALL BACK IF THE BACKUP CONTINUES
MORRIS FORMAN	MSD0278	2032 STRATHMOOR BLVD	05/29/12 3:13: PM	05/29/12 03:13 PM	1 GAL	Sewer Service Line	100505	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1496409	ADVISED CUSTOMER THAT THEY ARE RESPONSIBLE FOR CLEANING THE IMPACTED AREA	ADVISED CUSTOMER TO CALL BACK IF THE BACKUP CONTINUES
MORRIS FORMAN	MSD0278	2032 STRATHMOOR BLVD	05/31/12 11:00: PM	05/31/12 11:15 PM	1 GAL	Sewer Service Line	100505	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1498718	CUSTOMER CLEANED THE IMPACTED AREA	ADVISED CUSTOMER TO CONTACT A PLUMBER OR TO SIGN A WAIVER
DEREK R. GUTHRIE	MSD0277	2302 CRUMS LN	09/26/11 8:30: AM	09/26/11 09:21 AM	5 GAL	Sewer Service Line	101504090000A	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1345495	MSD CONTRACTOR CLEANED AND SANITIZED THE IMPACTED AREA	ADVISED CUSTOMER TO CONTACT PLUMBER IF PROBLEM CONTINUES
DEREK R. GUTHRIE	MSD0277	4622 KIEFER RD	04/05/12 12:10: PM	04/05/12 12:26 PM	1 GAL	Sewer Service Line	102004690000A	MSD ROOT CUTTING THE MAIN SEWER	OBSTRUCTION-NOT GREASE OR ROOT	DISDW DRY WEATHER DISCHARGE	1463204	CUSTOMER CLEANED THE IMPACTED AREA	NO FURTHER ACTION NEEDED BY MSD PERSONNEL
DEREK R. GUTHRIE	MSD0277	13901 DARWIN BLVD	01/05/12 1:30: PM	01/05/12 02:15 PM	1 GAL	Sewer Service Line	1026513901	SEWER SURCHARGED AND CAUSED BACKUP INTO HOME	OBSTRUCTION-NOT GREASE OR ROOT	DISDW DRY WEATHER DISCHARGE	1406990	CUSTOMER CLEANED THE IMPACTED AREA	INVESTIGATION INDICATED THAT ADDITIONAL REPAIRS WERE NOT REQUIRED BY MSD
DEREK R. GUTHRIE	MSD0277	8215 SMYRNA PKY	02/05/12 4:30: PM	02/05/12 05:32 PM	1 GAL	Sewer Service Line	103218215	OBSTRUCTION IN MAIN SEWER (TOWELS & DEBRIS)	OBSTRUCTION-NOT GREASE OR ROOT	DISDW DRY WEATHER DISCHARGE	1421506	CUSTOMER CLEANED THE IMPACTED AREA	WORK ORDER 1421507 - FLUSHED DEBRIS FROM THE MAIN SEWER
DEREK R. GUTHRIE	MSD0277	8215 SMYRNA PKY	06/16/12 4:30: PM	06/16/12 05:37 PM	1 GAL	Sewer Service Line	103218215	OBSTRUCTION IN MAIN SEWER	OBSTRUCTION-NOT GREASE OR ROOT	DISDW DRY WEATHER DISCHARGE	1505305	CUSTOMER CLEANED THE IMPACTED AREA	WORK ORDER 1505306; FLUSHED DEBRIS FROM MAIN SEWER
DEREK R. GUTHRIE	MSD0277	2236 THISTLEDOWN DR	09/14/11 9:30: PM	09/14/11 11:12 PM	3 GAL	Sewer Service Line	103836	OBSTRUCTION IN MAIN SEWER	OBSTRUCTION-NOT GREASE OR ROOT	DISDW DRY WEATHER DISCHARGE	1339023	CUSTOMER CLEANED THE IMPACTED AREA	WORK ORDER 1339024 - FLUSHED THE MAIN SEWER AND REMOVED OBSTRUCTION
DEREK R. GUTHRIE	MSD0277	2219 THISTLEDOWN DR	09/22/11 10:00: PM	09/22/11 11:16 PM	3 GAL	Sewer Service Line	103877	MASSIVE ROOTS IN MAIN SEWER	ROOTS	DISDW DRY WEATHER DISCHARGE	1344583	MSD'S CONTRACTOR CLEANED AND SANITIZED THE IMPACTED AREA	WORK ORDERS 1344898, 1344964 AND 1345774 - ROOT CUT THE MAIN SEWERS
MORRIS FORMAN	MSD0278	3906 VERMONT AVE	05/29/12 3:10: PM	05/29/12 03:10 PM	1 GAL	Sewer Service Line	106265	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1496407	ADVISED CUSTOMER THAT THEY ARE RESPONSIBLE FOR CLEANING THE IMPACTED AREA	ADVISED CUSTOMER TO CALL BACK IF THE BACKUP CONTINUES

**APPENDIX B-5
OVERFLOWS TO INTERIOR
JULY 1, 2011 THROUGH JUNE 30, 2012**

Associated Wastewater Treatment Plant Name	Associated Treatment Plant KPDES #	Overflow Location	Overflow Start Date & Time	Overflow Stop Date & Time	Volume of Overflow	Source Asset Type	Source Asset ID	Cause of Overflow	Due To	Weather	WO #	Cleanup Efforts by MSD	Repair Efforts by MSD
DEREK R. GUTHRIE	MSD0277	3213 VERNA RD	09/26/11 9:30: AM	09/26/11 10:02 AM	1 GAL	Sewer Service Line	106351	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1345537	UNKNOWN AT THIS TIME	NO FURTHER ACTION NEEDED BY MSD PERSONNEL
DEREK R. GUTHRIE	MSD0277	5252 BARDSTOWN RD	10/15/11 7:00: PM	10/15/11 07:28 PM	1 GAL	Sewer Service Line	106565252	GREASE BLOCKAGE IN MAIN SEWER	GREASE BLOCKAGE	DISDW DRY WEATHER DISCHARGE	1358381	MSD CONTRACTOR CLEANED AND SANITIZED THE IMPACTED AREA	ADVISED CUSTOMER TO CONTACT MAIN OFFICE
DEREK R. GUTHRIE	MSD0277	3204 JACKS LN	12/05/11 9:30: AM	12/05/11 09:56 AM	1 GAL	Sewer Service Line	108501620000A	ROOTS IN MAIN SEWER	ROOTS	DISREV RAIN EVENT DISCHARGE	1388599	CUSTOMER CLEANED THE IMPACTED AREA	WORK ORDER 1389394 - ROOT CUT THE MAIN SEWER
DEREK R. GUTHRIE	MSD0277	1834 OLEND AVE	05/29/12 3:21: PM	05/29/12 03:21 PM	1 GAL	Sewer Service Line	109202150000A	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1496421	ADVISED CUSTOMER THAT THEY ARE RESPONSIBLE FOR CLEANING THE IMPACTED AREA	ADVISED CUSTOMER TO CALL BACK IF THE BACKUP CONTINUES
DEREK R. GUTHRIE	MSD0277	3212 WESSEL RD	05/29/12 3:06: PM	05/29/12 03:07 PM	1 GAL	Sewer Service Line	109299	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1496405	ADVISED CUSTOMER THAT THEY ARE RESPONSIBLE FOR CLEANING THE IMPACTED AREA	ADVISED CUSTOMER TO CALL BACK IF THE BACKUP CONTINUES
MORRIS FORMAN	MSD0278	1777 WILSON AVE	09/26/11 4:20: AM	09/26/11 04:36 AM	2 GAL	Sewer Service Line	111512	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1345178	CUSTOMER CLEANED THE IMPACTED AREA	INVESTIGATION INDICATED THAT ADDITIONAL REPAIRS WERE NOT REQUIRED BY MSD
DEREK R. GUTHRIE	MSD0277	9712 CHAPEL HILL RD	12/30/11 8:36: AM	12/30/11 09:29 AM	1 GAL	Sewer Service Line	112139712	OBSTRUCTION IN MAIN SEWER	OBSTRUCTION-NOT GREASE OR ROOT	DISDW DRY WEATHER DISCHARGE	1401102	CUSTOMER CLEANED THE IMPACTED AREA	WORK ORDERS 1401182 AND 1401671 - ROOT CUT AND FLUSHED THE MAIN SEWER
MORRIS FORMAN	MSD0278	3429 YOUNG AVE	09/26/11 3:30: AM	09/26/11 03:57 AM	7 GAL	Sewer Service Line	115534	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1345923	MSD CONTRACTOR CLEANED AND SANITIZED THE IMPACTED AREA	INVESTIGATION INDICATED THAT ADDITIONAL REPAIRS WERE NOT REQUIRED BY MSD
MORRIS FORMAN	MSD0278	1343 S 1ST ST	04/29/12 4:00: PM	04/29/12 04:10 PM	2 GAL	Sewer Service Line	115814	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1480451	CUSTOMER CLEANED THE IMPACTED AREA	INVESTIGATION INDICATED THAT ADDITIONAL REPAIRS WERE NOT REQUIRED BY MSD
MORRIS FORMAN	MSD0278	1242 S BROOK ST	09/26/11 3:35: PM	09/26/11 04:02 PM	5 GAL	Sewer Service Line	11753	LACK OF SEWER CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1345835	MSD CONTRACTOR CLEANED AND SANITIZED THE IMPACTED AREA	INVESTIGATION INDICATED THAT ADDITIONAL REPAIRS WERE NOT REQUIRED BY MSD
MORRIS FORMAN	MSD0278	1242 S BROOK ST	04/28/12 10:15: PM	04/28/12 10:33 PM	1 GAL	Sewer Service Line	11753	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1480359	CUSTOMER CLEANED THE IMPACTED AREA	INVESTIGATION INDICATED THAT ADDITIONAL REPAIRS WERE NOT REQUIRED BY MSD
DEREK R. GUTHRIE	MSD0277	2208 DEVERON DR	12/05/11 11:00: PM	12/05/11 11:17 PM	3 GAL	Sewer Service Line	118900990000A	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1389108	CUSTOMER CLEANED THE IMPACTED AREA	INVESTIGATION INDICATED THAT ADDITIONAL REPAIRS WERE NOT REQUIRED BY MSD
DEREK R. GUTHRIE	MSD0277	7400 CHANT CT	09/26/11 12:30: PM	09/26/11 12:45 PM	1 GAL	Sewer Service Line	1197400	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1345680	CUSTOMER CLEANED THE IMPACTED AREA	INVESTIGATION INDICATED THAT ADDITIONAL REPAIRS WERE NOT REQUIRED BY MSD
MORRIS FORMAN	MSD0278	823 S 15TH ST	05/29/12 12:16: PM	05/29/12 12:25 PM	1 GAL	Sewer Service Line	122343	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1496281	ADVISED CUSTOMER THAT THEY ARE RESPONSIBLE FOR CLEANING THE IMPACTED AREA	ADVISED CUSTOMER TO CALL BACK IF THE BACKUP CONTINUES
DEREK R. GUTHRIE	MSD0277	4904 LIBBY LN	03/23/12 10:30: PM	03/23/12 11:00 PM	1 GAL	Sewer Service Line	122500790000A	GREASE IN MAIN SEWER	GREASE BLOCKAGE	DISDW DRY WEATHER DISCHARGE	1456256	CUSTOMER CLEANED THE IMPACTED AREA	WORK ORDERS 1456257 AND 1456336 - FLUSHED AND ROOT CUT THE MAIN SEWER
DEREK R. GUTHRIE	MSD0277	5224 DIXIE HWY	10/14/11 10:50: AM	10/14/11 11:26 AM	4 GAL	Sewer Service Line	123545300	GREASE IN MSD'S MAIN SEWER	GREASE BLOCKAGE	DISDW DRY WEATHER DISCHARGE	1358023	CUSTOMER ADVISED MSD PERSONNEL THEY WILL CLEAN THE IMPACTED AREA	WORK ORDER 1358024 - FLUSHED AND OPEN THE SEWER LINE
MORRIS FORMAN	MSD0278	313 N 24TH ST	08/01/11 3:10: PM	08/01/11 03:45 PM	1 GAL	Sewer Service Line	124134	SECTION OF MAIN SEWER BROKE/CRACKED	STRUCTURAL FAILURE	DISDW DRY WEATHER DISCHARGE	1310360	CUSTOMER CLEANED THE IMPACTED AREA	WORK ORDER 131160 - REPAIRED THE MAIN SEWER
DEREK R. GUTHRIE	MSD0277	3901 WAYSIDE DR	02/02/12 8:45: AM	02/02/12 09:04 AM	1 GAL	Sewer Service Line	124300270000A	OBSTRUCTION IN MAIN SEWER	OBSTRUCTION-NOT GREASE OR ROOT	DISDW DRY WEATHER DISCHARGE	1420479	MSD CONTRACTOR CLEANED AND SANITIZED THE IMPACTED AREA	WORK ORDERS 1420478 & 1420553 - ROOT CUT THE MAIN SEWER
MORRIS FORMAN	MSD0278	128 N BIRCHWOOD AVE	11/30/11 12:00: PM	11/30/11 12:34 PM	1 GAL	Sewer Service Line	12432	BACKWASH FROM MSD FLUSHING THE MAIN SEWER	OBSTRUCTION-NOT GREASE OR ROOT	DISDW DRY WEATHER DISCHARGE	1387123	CUSTOMER CLEANED THE IMPACTED AREA	NO FURTHER INVESTIGATION NEEDED BY MSD PERSONNEL

**APPENDIX B-5
OVERFLOWS TO INTERIOR
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Associated Wastewater Treatment Plant Name	Associated Treatment Plant KPDES #	Overflow Location	Overflow Start Date & Time	Overflow Stop Date & Time	Volume of Overflow	Source Asset Type	Source Asset ID	Cause of Overflow	Due To	Weather	WO #	Cleanup Efforts by MSD	Repair Efforts by MSD
DEREK R. GUTHRIE	MSD0277	4419 BROADLEAF DR	09/26/11 1:15: PM	09/26/11 02:01 PM	1 GAL	Sewer Service Line	124764419	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1345742	CUSTOMER CLEANED THE IMPACTED AREA	INVESTIGATION INDICATED THAT ADDITIONAL REPAIRS WERE NOT REQUIRED BY MSD
DEREK R. GUTHRIE	MSD0277	4300 BAYBERRY DR	09/26/11 11:30: AM	09/26/11 12:15 PM	15 GAL	Sewer Service Line	124774300	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1345707	MSD CONTRACTOR CLEANED AND SANITIZED THE IMPACTED AREA	INVESTIGATION INDICATED THAT ADDITIONAL REPAIRS WERE NOT REQUIRED BY MSD
DEREK R. GUTHRIE	MSD0277	4305 BAYBERRY DR	09/26/11 12:15: PM	09/26/11 01:00 PM	4 GAL	Sewer Service Line	124774305	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1345711	MSD CONTRACTOR CLEANED AND SANITIZED THE IMPACTED AREA	INVESTIGATION INDICATED THAT ADDITIONAL REPAIRS WERE NOT REQUIRED BY MSD
DEREK R. GUTHRIE	MSD0277	5504 MORNING GLORY LN	05/29/12 2:45: PM	05/29/12 02:58 PM	5 GAL	Sewer Service Line	125605504A	STRUCTURAL FAILURE AT THE SHARE JOINT OF THE PROPERTY SERVICE CONNECTION	STRUCTURAL FAILURE	DISREV RAIN EVENT DISCHARGE	1496395	CUSTOMER CLEANED THE IMPACTED AREA	WORK ORDERS 1496400, 1496797, 1496954 AND 1497061- REPAIRED PROPERTY SERVICE CONNECTION AND INSTALLED 2-WAY CLEANOUT
MORRIS FORMAN	MSD0278	1660 HAROLD AVE	01/11/12 11:00: AM	01/11/12 01:30 PM	10 GAL	Sewer Service Line	1273236	GREASE IN MAIN SEWER	GREASE BLOCKAGE	DISDW DRY WEATHER DISCHARGE	1410468	MSD CONTRACTOR CLEANED AND SANITIZED THE IMPACTED AREA	WORK ORDERS 1410206 AND 1410322 - FLUSHED THE MAIN SEWER
MORRIS FORMAN	MSD0278	1660 HAROLD AVE	03/24/12 1:27: AM	03/24/12 01:34 AM	5 GAL	Sewer Service Line	1273236	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1456224	MSD'S CONTRACTOR CLEANED AND SANITIZED THE IMPACTED AREA	INVESTIGATION INDICATED THAT ADDITIONAL REPAIRS WERE NOT REQUIRED BY MSD
MORRIS FORMAN	MSD0278	123 N 38TH ST	05/29/12 4:41: PM	05/29/12 04:44 PM	1 GAL	Sewer Service Line	127890	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1496567	MSD PERSONNEL ADVISED THE CUSTOMER TO AVOID CONTACT WITH SEWAGE	ADVISED CUSTOMER BY TELEPHONE
MORRIS FORMAN	MSD0278	123 N 38TH ST	05/30/12 7:48: AM	05/30/12 07:49 AM	1 GAL	Sewer Service Line	127890	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1496575	ADVISED CUSTOMER THAT THEY ARE RESPONSIBLE FOR CLEANING THE IMPACTED AREA	ADVISED CUSTOMER TO CALL BACK IF THE BACKUP CONTINUES
MORRIS FORMAN	MSD0278	121 N 39TH ST	05/29/12 2:30: PM	05/29/12 02:34 PM	1 GAL	Sewer Service Line	128198	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1496364	ADVISED CUSTOMER THAT THEY ARE RESPONSIBLE FOR CLEANING THE IMPACTED AREA	ADVISED CUSTOMER TO CALL BACK IF THE BACKUP CONTINUES
MORRIS FORMAN	MSD0278	666 S 40TH ST	05/29/12 2:39: PM	05/29/12 02:40 PM	1 GAL	Sewer Service Line	128660	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1496372	ADVISED CUSTOMER THAT THEY ARE RESPONSIBLE FOR CLEANING THE IMPACTED AREA	ADVISED CUSTOMER TO CALL BACK IF THE BACKUP CONTINUES
MORRIS FORMAN	MSD0278	656 S 41ST ST	05/29/12 2:47: PM	05/29/12 02:48 PM	1 GAL	Sewer Service Line	129064	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1496385	ADVISED CUSTOMER THAT THEY ARE RESPONSIBLE FOR CLEANING THE IMPACTED AREA	ADVISED CUSTOMER TO CALL BACK IF THE BACKUP CONTINUES
MORRIS FORMAN	MSD0278	200 N 46TH ST	05/29/12 2:56: PM	05/29/12 03:04 PM	1 GAL	Sewer Service Line	130515	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1496396	ADVISED CUSTOMER THAT THEY ARE RESPONSIBLE FOR CLEANING THE IMPACTED AREA	ADVISED CUSTOMER TO CALL BACK IF THE BACKUP CONTINUES
MORRIS FORMAN	MSD0278	1733 BARDSTOWN RD	09/26/11 9:57: AM	09/26/11 09:58 AM	1 GAL	Sewer Service Line	130887	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1345533	CUSTOMER CLEANED THE IMPACTED AREA	INVESTIGATION INDICATED THAT ADDITIONAL REPAIRS WERE NOT REQUIRED BY MSD
DEREK R. GUTHRIE	MSD0277	1015 CHESLEY DR	02/16/12 10:30: PM	02/16/12 10:51 PM	2 GAL	Sewer Service Line	136415	ROOTS ON MAIN SEWER	ROOTS	DISDW DRY WEATHER DISCHARGE	1426085	CUSTOMER CLEANED THE IMPACTED AREA	WORK ORDERS 1426762 AND 1426886 - ROOT CUT THE MAIN SEWER
DEREK R. GUTHRIE	MSD0277	5220 FAMOUS WAY	07/26/11 1:45: PM	07/26/11 03:53 PM	1 GAL	Sewer Service Line	137907	ROOTS IN THE MSD MAIN SEWER	OBSTRUCTION-NOT GREASE OR ROOT	DISDW DRY WEATHER DISCHARGE	1307988	CUSTOMER CLEANED THE IMPACTED AREA	WORK ORDERS 1307984, 1307985 & 1307987 - ROOT CUT AND OPEN THE MAIN SEWER
FLOYDS FORK	MSD0294	205 TROON VILLAGE WAY	10/19/11 11:45: PM	10/20/11 12:15 AM	1 GAL	Sewer Service Line	141726A	GREASE IN MAIN SEWER	GREASE BLOCKAGE	DISDW DRY WEATHER DISCHARGE	1363099	MSD CONTRACTOR CLEANED AND SANITIZED THE IMPACTED AREA	WORK ORDER 1363395 - FLUSHED GREASE FROM MAIN
MORRIS FORMAN	MSD0278	101 BULLITT LN	12/05/11 6:57: PM	12/05/11 07:09 PM	4 GAL	Sewer Service Line	144525	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1389110	CUSTOMER CLEANED THE IMPACTED AREA	INVESTIGATION INDICATED THAT ADDITIONAL REPAIRS WERE NOT REQUIRED BY MSD
MORRIS FORMAN	MSD0278	3235 LARKWOOD AVE	05/29/12 3:33: PM	05/29/12 03:33 PM	1 GAL	Sewer Service Line	146366	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1496433	ADVISED CUSTOMER THAT THEY ARE RESPONSIBLE FOR CLEANING THE IMPACTED AREA	ADVISED CUSTOMER TO CALL BACK IF THE BACKUP CONTINUES
MORRIS FORMAN	MSD0278	3613 BROWNSBORO RD	09/26/11 1:07: PM	09/26/11 01:08 PM	1 GAL	Sewer Service Line	14818	SECTION OF THE MAIN SEWER IS BROKE	STRUCTURAL FAILURE	DISDW DRY WEATHER DISCHARGE	1345705	CUSTOMER CLEANED THE IMPACTED AREA	WORK ORDERS 1345732 AND 1345810 - FLUSHED AND REPAIRED THE MAIN SEWER

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MORRIS FORMAN	MSD0278	111 HALDEMAN AVE	09/08/11 1:30: AM	09/08/11 09:22 AM	3 GAL	Sewer Service Line	1498312	GREASE BLOCKAGE IN MSDS MAIN SEWER	GREASE BLOCKAGE	DISDW DRY WEATHER DISCHARGE	1336168	CUSTOMER CLEANED THE IMPACTED AREA	WORK ORDERS 1336176, 1336836 AND 1337085 - FLUSHED AND ROOT CUT THE MAIN SEWER
MORRIS FORMAN	MSD0278	4251 WESTPORT RD	09/12/11 3:30: PM	09/12/11 03:59 PM	1 GAL	Sewer Service Line	151081D	A SECTION OF MAIN SEWER IS DAMAGED	STRUCTURAL FAILURE	DISDW DRY WEATHER DISCHARGE	1338319	MSD CONTRACTOR CLEANED AND SANITIZED THE IMPACTED AREA	WORK ORDER 1338367 - REPAIRED THE MAIN SEWER
JEFFERSONTOWN	MSD0255	9106 MARIAN CT	05/14/12 6:58: PM	05/14/12 07:35 PM	2 GAL	Sewer Service Line	164331	ROOT IN THE SHARE JOINT OF THE PROPERTY SERVICE CONNECTION	ROOTS	DISDW DRY WEATHER DISCHARGE	1488486	CUSTOMER CLEANED THE IMPACTED AREA	WORK ORDERS 148830 AND 1489349-ROOT CUT AND FLUSHED THE PROPERTY SERVICE LINE
MORRIS FORMAN	MSD0278	4802 CASSIA CT	12/06/11 1:00: PM	12/06/11 01:59 PM	1 GAL	Sewer Service Line	164901540000A	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1389415	CUSTOMER CLEANED THE IMPACTED AREA	INVESTIGATION INDICATED THAT ADDITIONAL REPAIRS WERE NOT REQUIRED BY MSD
DEREK R. GUTHRIE	MSD0277	5500 BRANSTON DR	04/02/12 6:16: PM	04/02/12 06:34 PM	4 GAL	Sewer Service Line	17447	MSD CLEANING SEWERS	OBSTRUCTION-NOT GREASE OR ROOT	DISDW DRY WEATHER DISCHARGE	1461629	MSD CONTRACTOR CLEANED AND SANITIZED THE IMPACTED AREA	INVESTIGATION INDICATED THAT ADDITIONAL REPAIRS WERE NOT REQUIRED BY MSD
DEREK R. GUTHRIE	MSD0277	6012 CROSSBEAK CT	10/30/11 9:00: PM	10/30/11 09:26 PM	1 GAL	Sewer Service Line	174489	ROOTS IN MAIN SEWER	ROOTS	DISDW DRY WEATHER DISCHARGE	1368698	CUSTOMER CLEANED THE IMPACTED AREA	WORK ORDERS 1368699 AND 1369127 - ROOT CUT AND FLUSHED THE MAIN SEWER
DEREK R. GUTHRIE	MSD0277	8301 LINDA RD	12/05/11 11:18: PM	12/05/11 11:19 PM	1 GAL	Sewer Service Line	179016	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1389093	CUSTOMER CLEANED THE IMPACTED AREA	ADVISED CUSTOMER TO CALL BACK IF STILL BACKED UP AFTER RAINEVENT
MORRIS FORMAN	MSD0278	2500 MEADOW VALE CT	05/16/12 6:00: PM	05/16/12 06:23 PM	1 GAL	Sewer Service Line	179532	ROOTS IN MAIN SEWER	ROOTS	DISDW DRY WEATHER DISCHARGE	1489236	CUSTOMER CLEANED THE IMPACTED AREA	WORK ORDER 1489389 - ROOT CUT THE MAIN SEWER
MORRIS FORMAN	MSD0278	9708 MEADOW VALE DR	01/21/12 6:45: PM	01/21/12 07:07 PM	1 GAL	Sewer Service Line	179537	ROOTS IN TAP PORTION OF THE PROPERTY SERVICE CONNECTION	ROOTS	DISDW DRY WEATHER DISCHARGE	1413572	CUSTOMER CLEANED THE IMPACTED AREA	WORK ORDER 1413610 - REPAIRED THE PROPERTY SERVICE CONNECTION AND INSTALLED A 2-WAY CLEANOUT
MORRIS FORMAN	MSD0278	2307 CHEROKEE PKY	12/11/11 4:01: PM	12/11/11 04:02 PM	1 GAL	Sewer Service Line	18105	ROOTS ON MSD'S PORTION OF THE PROPERTY SERVICE CONNECTION	ROOTS	DISDW DRY WEATHER DISCHARGE	1390734	CUSTOMER CLEANED THE IMPACTED AREA	WORK ORDERS 1413236 AND 1413385 - ROOT CUT AND REPAIRED THE PROPERTY SERVICE CONNECTION AND INSTALLED A 2-WAY CLEANOUT
DEREK R. GUTHRIE	MSD0277	9002 LAKERIDGE DR	05/05/12 3:00: PM	05/05/12 03:30 PM	1 GAL	Sewer Service Line	181441	MSD CONTRACTOR FLUSHING MAIN SEWER	OBSTRUCTION-NOT GREASE OR ROOT	DISDW DRY WEATHER DISCHARGE	1485190	CUSTOMER CLEANED THE IMPACTED AREA	INVESTIGATION INDICATED THAT ADDITIONAL REPAIRS WERE NOT REQUIRED BY MSD
MORRIS FORMAN	MSD0278	3937 KENNISON CT	11/16/11 11:15: AM	11/16/11 01:32 PM	4 GAL	Sewer Service Line	182338	ROOTS IN THE MAIN SEWER	ROOTS	DISDW DRY WEATHER DISCHARGE	1381586	MSD CONTRACTOR CLEANED AND SANITIZED THE IMPACTED AREA	WORK ORDERS 1381596 AND 1381600 - ROOT CUT AND FLUSHED THE MAIN SEWER
JEFFERSONTOWN	MSD0255	2406 TREGARON AVE	08/25/11 1:00: PM	08/25/11 01:45 PM	1 GAL	Sewer Service Line	182701130000A	BACKWASH FROM MSD CLEANING THE SEWER CLEANING	OBSTRUCTION-NOT GREASE OR ROOT	DISDW DRY WEATHER DISCHARGE	1329608	CUSTOMER CLEANED THE IMPACTED AREA	INVESTIGATION INDICATED THAT ADDITIONAL REPAIRS WERE NOT REQUIRED BY MSD
MORRIS FORMAN	MSD0278	102 BURNSDALE RD	04/14/12 12:01: AM	04/14/12 12:11 AM	1 GAL	Sewer Service Line	184200890000A	GREASE OBSTRUCTION IN MAIN SEWER	GREASE BLOCKAGE	DISDW DRY WEATHER DISCHARGE	1472167	MSD'S CONTRACTOR CLEANED AND SANITIZED THE IMPACTED AREA	WORK ORDER 1472177 - ROOT CUT THE MAIN SEWER
MORRIS FORMAN	MSD0278	10603 SUNDERLAND RD	02/23/12 4:15: PM	02/23/12 05:22 PM	1 GAL	Sewer Service Line	184201200000A	ROOTS IN MAIN SEWER AND IN MSD'S PORTION OF THE PROPERTY SERVICE LINE	ROOTS	DISDW DRY WEATHER DISCHARGE	1431143	MSD CONTRACTOR CLEANED AND SANITIZED THE IMPACTED AREA	WORK ORDERS 1431147, 1431148 AND 1439170 - ROOT CUT THE MAIN SEWER AND ROOT CUT THE PROPERTY SERVICE LINE
MORRIS FORMAN	MSD0278	10603 SUNDERLAND RD	03/05/12 4:15: PM	03/06/12 09:28 PM	2 GAL	Sewer Service Line	184201200000A	ROOTS IN MAIN SEWER	ROOTS	DISDW DRY WEATHER DISCHARGE	1441216	MSD CONTRACTOR CLEANED AND SANITIZED THE IMPACTED AREA	WORK ORDERS 1439170 AND 1441217 - FLUSHED AND ROOT CUT THE MAIN SEWER
MORRIS FORMAN	MSD0278	4103 LANDSIDE DR	01/18/12 1:45: PM	01/18/12 02:04 PM	1 GAL	Sewer Service Line	185102870000A	ROOTS IN THE MAIN SEWER	ROOTS	DISDW DRY WEATHER DISCHARGE	1412744	MSD CONTRACTOR CLEANED AND SANITIZED THE IMPACTED AREA	WORK ORDER 1412769 - ROOT CUT THE MAIN SEWER AND OPENED LINE
MORRIS FORMAN	MSD0278	903 CECIL AVE	05/29/12 3:34: PM	05/29/12 03:35 PM	1 GAL	Sewer Service Line	18554	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1496436	ADVISED CUSTOMER THAT THEY ARE RESPONSIBLE FOR CLEANING THE IMPACTED AREA	INVESTIGATION INDICATED THAT ADDITIONAL REPAIRS WERE NOT REQUIRED BY MSD
MORRIS FORMAN	MSD0278	9100 DENINGTON DR	05/29/12 4:15: PM	05/29/12 04:16 PM	1 GAL	Sewer Service Line	186204070000A	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1496475	ADVISED CUSTOMER THAT THEY ARE RESPONSIBLE FOR CLEANING THE IMPACTED AREA	ADVISED CUSTOMER TO CALL BACK IF THE BACKUP CONTINUES

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OVERFLOWS TO INTERIOR
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Associated Wastewater Treatment Plant Name	Associated Treatment Plant KPDES #	Overflow Location	Overflow Start Date & Time	Overflow Stop Date & Time	Volume of Overflow	Source Asset Type	Source Asset ID	Cause of Overflow	Due To	Weather	WO #	Cleanup Efforts by MSD	Repair Efforts by MSD
MORRIS FORMAN	MSD0278	1049 CECIL AVE	09/26/11 8:15: PM	09/26/11 08:24 PM	7 GAL	Sewer Service Line	19140	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1345913	CUSTOMER CLEANED THE IMPACTED AREA	INVESTIGATION INDICATED THAT ADDITIONAL REPAIRS WERE NOT REQUIRED BY MSD
MORRIS FORMAN	MSD0278	9914 SHELBYVILLE RD	03/09/12 7:00: PM	03/09/12 07:36 PM	2 GAL	Sewer Service Line	191901260000A	OBSTRUCTION IN MSD'S PROPERTY SERVICE LINE AND ON PRIVATE PROPERTY	OBSTRUCTION-NOT GREASE OR ROOT	DISDW DRY WEATHER DISCHARGE	1442403	CUSTOMER CLEANED THE IMPACTED AREA	WORK ORDER 1442406, 1442418 & 1442431 - ROOT CUT THE PROPERTY SERVICE LINE AND THE MAIN SEWER; ADVISED CUSTOMER TO CONTACT A PROBLEM IF PROBLEM CONTIN
MORRIS FORMAN	MSD0278	9103 LANTERN LITE PKY	12/05/11 7:27: PM	12/05/11 07:41 PM	2 GAL	Sewer Service Line	192900030000A	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1389125	CUSTOMER CLEANED THE IMPACTED AREA	INVESTIGATION INDICATED THAT ADDITIONAL REPAIRS WERE NOT REQUIRED BY MSD
MORRIS FORMAN	MSD0278	9103 LANTERN LITE PKY	12/05/11 9:39: PM	12/05/11 09:40 PM	1 GAL	Sewer Service Line	192900030000A		LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1389083		
MORRIS FORMAN	MSD0278	310 BLUE RIDGE RD	06/16/12 6:00: PM	06/16/12 07:24 PM	3 GAL	Sewer Service Line	196605070000A	GREASE IN THE MAIN SEWER	GREASE BLOCKAGE	DISDW DRY WEATHER DISCHARGE	1505309	MSD CONTRACTOR CLEANED AND SANITIZED THE IMPACTED AREA	WORK ORDERS 1505312 & 1505321; FLUSHED AND ROOT CUT MAIN SEWER
MORRIS FORMAN	MSD0278	805 SANDNESS CT	10/30/11 7:15: PM	10/30/11 08:30 PM	1 GAL	Sewer Service Line	196809920000A	ROOTS IN MAIN SEWER	ROOTS	DISDW DRY WEATHER DISCHARGE	1368694	MSD PERSONNEL CLEANED THE IMPACTED AREA	WORK ORDER 1368692 - FLUSHED MAIN SEWER
MORRIS FORMAN	MSD0278	4911 SIMPSON DR	05/18/12 12:00: PM	05/18/12 12:16 PM	1 GAL	Sewer Service Line	210001640000A	ROOTS IN THE SHARED JOINT OF THE PROPERTY SERVICE CONNECTION	ROOTS	DISDW DRY WEATHER DISCHARGE	1489727	CUSTOMER CLEANED THE IMPACTED AREA	WORK ORDERS 1489733 AND 1490045- REPAIRED PROPERTY SERVICE CONNECTION AND INSTALLED 2-WAY CLEANOUT
MORRIS FORMAN	MSD0278	2917 CLEVELAND BLVD	05/06/12 12:00: PM	05/06/12 12:48 PM	3 GAL	Sewer Service Line	21686	GREASE IN MAIN SEWER	GREASE BLOCKAGE	DISDW DRY WEATHER DISCHARGE	1485198	MSD'S CONTRACTOR CLEANED AND SANITIZED THE IMPACTED AREA	WORK ORDERS 1484104, 1484108 AND 1484358 - FLUSHED AND ROOT CUT THE MAIN SEWER
MORRIS FORMAN	MSD0278	2917 CLEVELAND BLVD	05/06/12 12:00: PM	05/06/12 12:41 PM	2 GAL	Sewer Service Line	21686	OBSTRUCTION IN THE MSD MAIN SEWER	OBSTRUCTION-NOT GREASE OR ROOT	DISDW DRY WEATHER DISCHARGE	1484107	CUSTOMER AND MSD CLEANED THE IMPACTED AREA	MSD ROOTCUT AND OPEN THE MAIN SEWER
MORRIS FORMAN	MSD0278	3802 ELMWOOD AVE	03/28/12 5:30: PM	03/28/12 06:02 PM	3 GAL	Sewer Main	21771	OBSTRUCTION IN MAIN SEWER	OBSTRUCTION-NOT GREASE OR ROOT	DISDW DRY WEATHER DISCHARGE	1459484	CUSTOMER CLEANED THE IMPACTED AREA	REFERRED TO AREA SUPERVISOR TO MAKE NEEDED REPAIRS
MORRIS FORMAN	MSD0278	2500 CRITTENDEN DR	08/20/11 4:55: PM	08/20/11 04:58 PM	10 GAL	Sewer Service Line	23657	A SECTION OF THE MAIN SEWER HAS A BEAM THAT IS DROVE THROUGH	STRUCTURAL FAILURE	DISDW DRY WEATHER DISCHARGE	1324058	CUSTOMER CLEANED THE IMPACTED AREA	MAIN SEWER REPAIRED
MORRIS FORMAN	MSD0278	5309 DAHL RD	11/28/11 11:31: PM	11/28/11 11:32 PM	1 GAL	Sewer Service Line	23693	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1385382	CUSTOMER CLEANED THE IMPACTED AREA	INVESTIGATION INDICATED THAT ADDITIONAL REPAIRS WERE NOT REQUIRED BY MSD
MORRIS FORMAN	MSD0278	5309 DAHL RD	12/05/11 10:14: PM	12/05/11 10:17 PM	4 GAL	Sewer Service Line	23693	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1389109	CUSTOMER CLEANED THE IMPACTED AREA	INVESTIGATION INDICATED THAT ADDITIONAL REPAIRS WERE NOT REQUIRED BY MSD
MORRIS FORMAN	MSD0278	710 COMPTON ST	05/29/12 4:11: PM	05/29/12 04:11 PM	1 GAL	Sewer Service Line	24614	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1496473	ADVISED CUSTOMER THAT THEY ARE RESPONSIBLE FOR CLEANING THE IMPACTED AREA	ADVISED CUSTOMER TOCALL BACK IF THE BACKUP CONTINUES
MORRIS FORMAN	MSD0278	721 COMPTON ST	09/26/11 4:11: AM	09/26/11 04:19 AM	5 GAL	Sewer Service Line	24659	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1345181	CUSTOMER CLEANED THE IMPACTED AREA	INVESTIGATION INDICATED THAT ADDITIONAL REPAIRS WERE NOT REQUIRED BY MSD
MORRIS FORMAN	MSD0278	3013 EAGLE PASS	12/05/11 5:57: PM	12/05/11 06:34 PM	6 GAL	Sewer Service Line	26777	ROOTS IN THE MAIN SEWER	ROOTS	DISDW DRY WEATHER DISCHARGE	1389117	MSD'S CONTRACTOR CLEANED AND SANITIZED THE IMPACTED AREA	WORK ORDERS 1389277 AND 1389337 - ROOT CUT THE MAIN SEWER
DEREK R. GUTHRIE	MSD0277	4003 ADDISON LN	12/28/11 11:00: AM	12/28/11 11:48 AM	1 GAL	Sewer Service Line	2737	OBSTRUCTION IN THE MSD PROPERTY SERVICE CONNECTION	OBSTRUCTION-NOT GREASE OR ROOT	DISDW DRY WEATHER DISCHARGE	1399351	CUSTOMER CLEANED UP THE IMPACTED AREA	FLUSH OUT MSD MAIN SEWER
MORRIS FORMAN	MSD0278	3935 DRUID HILLS RD	05/12/12 12:40: PM	05/12/12 02:07 PM	2 GAL	Sewer Service Line	30003	ROOTS IN MSD'S MAIN SEWER	ROOTS	DISDW DRY WEATHER DISCHARGE	1487811	CUSTOMER CLEANED THE IMPACTED AREA	WORK ORDERS 1487813 AND 1488295 - ROOT CUT AND FLUSHED THE MAIN SEWER
MORRIS FORMAN	MSD0278	1901 DUBOURG AVE	09/28/11 3:00: PM	09/28/11 03:44 PM	1 GAL	Sewer Service Line	30515	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1347165	MSD CONTRACTOR CLEANED AND SANITIZED THE IMPACTED AREA	INVESTIGATION INDICATED THAT ADDITIONAL REPAIRS WERE NOT REQUIRED BY MSD

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Associated Wastewater Treatment Plant Name	Associated Treatment Plant KPDES #	Overflow Location	Overflow Start Date & Time	Overflow Stop Date & Time	Volume of Overflow	Source Asset Type	Source Asset ID	Cause of Overflow	Due To	Weather	WO #	Cleanup Efforts by MSD	Repair Efforts by MSD
MORRIS FORMAN	MSD0278	125 S EWING AVE	04/05/12 9:40 AM	04/05/12 10:01 AM	1 GAL	Sewer Service Line	31088	GREASE AT THE SHARED JOINT OF THE PROPERTY SERVICE CONNECTION	GREASE BLOCKAGE	DISDW DRY WEATHER DISCHARGE	1463138	CUSTOMER CLEANED THE IMPACTED AREA	WORK ORDERS 1463231 AND 1463510 - FLUSHED AND REPAIRED THE PROPERTY SERVICE CONNECTION AND INSTALLED A 2-WAY CLEANOUT
MORRIS FORMAN	MSD0278	3014 GREENUP RD	10/10/11 9:00 PM	10/10/11 09:44 PM	2 GAL	Sewer Service Line	32235	SECTION OF MAIN SEWER BROKE AND ROOTS IN MAIN SEWER	STRUCTURAL FAILURE	DISDW DRY WEATHER DISCHARGE	1356195	CUSTOMER CLEANED THE IMPACTED AREA	WORK ORDERS 1356375, 1356378, AND 1356434 - ROOT CUT AND REPAIRED THE MAIN SEWER
DEREK R. GUTHRIE	MSD0277	4807 GRANADA DR	05/23/12 8:00 PM	05/23/12 09:14 PM	1 GAL	Sewer Service Line	32459	ROOTS IN MSD'S PORTION OF THE PROPERTY SERVICE CONNECTION	ROOTS	DISDW DRY WEATHER DISCHARGE	1493693	CUSTOMER CLEANED THE IMPACTED AREA	WORK ORDERS 1493695, 1493699 AND 1495094- REPAIRED PROPERTY SERVICE CONNECTION AND INSTALLED 2-WAY CLEANOUT
MORRIS FORMAN	MSD0278	1911 FRANKFORT AVE	01/26/12 4:15 PM	01/26/12 04:45 PM	1 GAL	Sewer Service Line	32951	CONTRACTOR CLEANING SEWER	OBSTRUCTION-NOT GREASE OR ROOT	DISDW DRY WEATHER DISCHARGE	1415833	CUSTOMER CLEANED THE IMPACTED AREA	INVESTIGATION INDICATED THAT ADDITIONAL REPAIRS WERE NOT REQUIRED BY MSD
MORRIS FORMAN	MSD0278	2840 ELEANOR AVE	05/01/12 3:00 PM	05/01/12 03:22 PM	25 GAL	Sewer Service Line	34988	OBSTRUCTION IN MAIN SEWER	OBSTRUCTION-NOT GREASE OR ROOT	DISDW DRY WEATHER DISCHARGE	1482848	MSD'S CONTRACTOR CLEANED AND SANITIZED THE IMPACTED AREA	WORK ORDER 1482856 - FLUSHED AND OPEN THE MAIN SEWER
MORRIS FORMAN	MSD0278	5306 IROQUOIS CT	02/06/12 9:45 AM	02/06/12 10:23 AM	1 GAL	Sewer Service Line	35665306	OBSTRUCTION IN MAIN SEWER	OBSTRUCTION-NOT GREASE OR ROOT	DISDW DRY WEATHER DISCHARGE	1421616	CUSTOMER CLEANED THE IMPACTED AREA	WORK ORDER 1421625 - ROOTCUT AND OPEN THE MAIN SEWER
MORRIS FORMAN	MSD0278	2531 GRAND AVE	12/05/11 4:19 PM	12/05/11 04:38 PM	7 GAL	Sewer Service Line	36076	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1389122	CUSTOMER CLEANED THE IMPACTED AREA	INVESTIGATION INDICATED THAT ADDITIONAL REPAIRS WERE NOT REQUIRED BY MSD
MORRIS FORMAN	MSD0278	2340 GLADSTONE AVE	05/29/12 4:20 PM	05/29/12 04:20 PM	1 GAL	Sewer Service Line	36620	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1496476	ADVISED CUSTOMER THAT THEY ARE RESPONSIBLE FOR CLEANING THE IMPACTED AREA	ADVISED CUSTOMER TO CALL BACK IF THE BACKUP CONTINUES
DEREK R. GUTHRIE	MSD0277	4606 ATTERBERRY CT	09/26/11 8:45 AM	09/26/11 09:16 AM	1 GAL	Sewer Service Line	377	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1345481	CUSTOMER ADVISED THEY WILL CLEAN THE IMPACTED AREA	INVESTIGATION INDICATED THAT ADDITIONAL REPAIRS WERE NOT REQUIRED BY MSD
DEREK R. GUTHRIE	MSD0277	10004 GANDY RD	02/18/12 1:45 PM	02/18/12 03:00 PM	1 GAL	Sewer Service Line	38940	HEAVY ROOTS IN MAIN SEWER	ROOTS	DISDW DRY WEATHER DISCHARGE	1427133	CUSTOMER CLEANED THE IMPACTED AREA	WORK ORDER 1427186 - ROOT CUT THE MAIN SEWER
MORRIS FORMAN	MSD0278	4202 FORDSON WAY	09/26/11 5:30 PM	09/26/11 05:47 PM	1 GAL	Sewer Service Line	39081	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1345871	MSD CONTRACTOR CLEANED AND SANITIZED THE IMPACTED AREA	INVESTIGATION INDICATED THAT ADDITIONAL REPAIRS WERE NOT REQUIRED BY MSD
MORRIS FORMAN	MSD0278	3519 HERMAN ST	05/29/12 2:24 PM	05/29/12 02:24 PM	1 GAL	Sewer Service Line	40150	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1496359	ADVISED CUSTOMER THAT THEY ARE RESPONSIBLE FOR CLEANING THE IMPACTED AREA	ADVISED CUSTOMER TO CALL BACK IF THE BACKUP CONTINUES
MORRIS FORMAN	MSD0278	3428 HERMAN ST	09/26/11 3:33 AM	09/26/11 03:41 AM	5 GAL	Sewer Service Line	40193	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1345185	CUSTOMER CLEANED THE IMPACTED AREA	INVESTIGATION INDICATED THAT ADDITIONAL REPAIRS WERE NOT REQUIRED BY MSD
MORRIS FORMAN	MSD0278	3609 HERMAN ST	05/29/12 4:32 PM	05/29/12 04:32 PM	1 GAL	Sewer Service Line	40820	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1496485	ADVISED CUSTOMER THAT THEY ARE RESPONSIBLE FOR CLEANING THE IMPACTED AREA	ADVISED CUSTOMER TO CALL BACK IF THE BACKUP CONTINUES
MORRIS FORMAN	MSD0278	623 HEYWOOD AVE	05/29/12 4:21 PM	05/29/12 04:21 PM	1 GAL	Sewer Service Line	42096	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1496477	ADVISED CUSTOMER THAT THEY ARE RESPONSIBLE FOR CLEANING THE IMPACTED AREA	ADVISED CUSTOMER TO CALL BACK IF THE BACKUP CONTINUES
MORRIS FORMAN	MSD0278	520 E CHESTNUT ST	05/29/12 11:00 AM	05/29/12 11:25 AM	5 GAL	Sewer Service Line	44328	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1496219	CUSTOMER CLEANED THE IMPACTED AREA	WORK ORDER 1496738- FLUSHED AND VACTORED THE MAIN SEWER
MORRIS FORMAN	MSD0278	3106 GRANT AVE	05/29/12 4:23 PM	05/29/12 04:24 PM	1 GAL	Sewer Service Line	44425	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1496478	ADVISED CUSTOMER THAT THEY ARE RESPONSIBLE FOR CLEANING THE IMPACTED AREA	ADVISED CUSTOMER TO CALL BACK IF THE BACKUP CONTINUES
MORRIS FORMAN	MSD0278	3223 GRANT AVE	09/28/11 1:25 PM	09/28/11 01:35 PM	1 GAL	Sewer Service Line	44476	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1347268	MSD CONTRACTOR CLEANED AND SANITIZED THE IMPACTED AREA	INVESTIGATION INDICATED THAT ADDITIONAL REPAIRS WERE NOT REQUIRED BY MSD
MORRIS FORMAN	MSD0278	1602 GROVE AVE	11/29/11 5:25 PM	11/29/11 05:25 PM	2 GAL	Sewer Service Line	44667	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1385781	CUSTOMER CLEANED THE IMPACTED AREA	INVESTIGATION INDICATED THAT ADDITIONAL REPAIRS WERE NOT REQUIRED BY MSD

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MORRIS FORMAN	MSD0278	1481 ST JAMES CT	09/26/11 11:45 AM	09/26/11 12:08 PM	5 GAL	Sewer Service Line	4551481	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1345650	MSD CONTRACTOR CLEANED AND SANITIZED THE IMPACTED AREA - WORK ORDER 1345907	INVESTIGATION INDICATED THAT ADDITIONAL REPAIRS WERE NOT REQUIRED BY MSD
MORRIS FORMAN	MSD0278	1214 CENTRAL AVE	05/29/12 3:43 PM	05/29/12 03:43 PM	1 GAL	Sewer Service Line	49276	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1496443	ADVISED CUSTOMER THAT THEY ARE RESPONSIBLE FOR CLEANING THE IMPACTED AREA	ADVISED CUSTOMER TO CALL BACK IF THE BACKUP CONTINUES
MORRIS FORMAN	MSD0278	4601 CASPIAN DR	05/29/12 3:12 PM	05/29/12 03:13 PM	1 GAL	Sewer Service Line	54544601	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1496408	ADVISED CUSTOMER THAT THEY ARE RESPONSIBLE FOR CLEANING THE IMPACTED AREA	ADVISED CUSTOMER TO CALL BACK IF BACKUP CONTINUES
MORRIS FORMAN	MSD0278	4601 CASPIAN DR	05/29/12 3:29 PM	05/29/12 03:30 PM	1 GAL	Sewer Service Line	54544601	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1496431	ADVISED CUSTOMER THAT THEY ARE RESPONSIBLE FOR CLEANING THE IMPACTED AREA	ADVISED CUSTOMER TO CALL BACK IF BACKUP CONTINUES
MORRIS FORMAN	MSD0278	4005 HYCLIFFE AVE	04/12/12 9:00 AM	04/12/12 09:32 AM	1 GAL	Sewer Service Line	54709	MSD CONTRACTOR CLEANING THE SEWERS	OBSTRUCTION-NOT GREASE OR ROOT	DISDW DRY WEATHER DISCHARGE	1470118	CUSTOMER CLEANED THE IMPACTED AREA	INVESTIGATION INDICATED THAT ADDITIONAL REPAIRS WERE NOT REQUIRED BY MSD
DEREK R. GUTHRIE	MSD0277	3203 KINGSWOOD WAY	12/19/11 6:47 PM	12/19/11 07:37 PM	3 GAL	Sewer Service Line	54981	OBSTRUCTION IN MAIN SEWER	OBSTRUCTION-NOT GREASE OR ROOT	DISDW DRY WEATHER DISCHARGE	1396890	CUSTOMER CLEANED THE IMPACTED AREA	WORK ORDERS 1396892 - FLUSHED THE MAIN SEWER
MORRIS FORMAN	MSD0278	4408 KINLOCH RD	05/29/12 3:39 PM	05/29/12 03:39 PM	1 GAL	Sewer Service Line	55124	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1496440	ADVISED CUSTOMER THAT THEY ARE RESPONSIBLE FOR CLEANING THE IMPACTED AREA	ADVISED CUSTOMER TO CALL BACK IF THE BACKUP CONTINUES
MORRIS FORMAN	MSD0278	3407 INGLE AVE	05/08/12 1:30 PM	05/08/12 02:45 PM	1 GAL	Sewer Service Line	56350	OBSTRUCTION IN MAIN SEWER	OBSTRUCTION-NOT GREASE OR ROOT	DISDW DRY WEATHER DISCHARGE	1485111	MSD CONTRACTOR CLEANED AND SANITIZED THE IMPACTED AREA	WORK ORDERS 1485114, 1485115 AND 1485116 - ROOT CUT AND FLUSHED THE MAIN SEWER
MORRIS FORMAN	MSD0278	1200 LARCHMONT AVE	05/29/12 3:36 PM	05/29/12 03:36 PM	1 GAL	Sewer Service Line	57642	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1496438	ADVISED CUSTOMER THAT THEY ARE RESPONSIBLE FOR CLEANING THE IMPACTED AREA	ADVISED CUSTOMER TO CALL BACK IF THE BACKUP CONTINUES
MORRIS FORMAN	MSD0278	310 W LEE ST	12/05/11 8:09 PM	12/05/11 08:13 PM	3 GAL	Sewer Service Line	58558	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1389113	CUSTOMER CLEANED THE IMPACTED AREA	INVESTIGATION INDICATED THAT ADDITIONAL REPAIRS WERE NOT REQUIRED BY MSD
MORRIS FORMAN	MSD0278	2345 LEXINGTON RD	07/25/11 2:00 PM	07/25/11 02:57 PM	1 GAL	Sewer Service Line	59474	OBSTRUCTION IN MAIN SEWER	OBSTRUCTION-NOT GREASE OR ROOT	DISDW DRY WEATHER DISCHARGE	1307378	CUSTOMER CLEANED THE IMPACTED AREA	WORK ORDER 1307382 - FLUSHED THE MAIN SEWER
DEREK R. GUTHRIE	MSD0277	4902 LIBBY LN	03/23/12 10:30 PM	03/23/12 11:01 PM	3 GAL	Sewer Service Line	59899	GREASE IN MAIN SEWER	GREASE BLOCKAGE	DISDW DRY WEATHER DISCHARGE	1456206	MSD CONTRACTOR CLEANED AND SANITIZED THE IMPACTED AREA	WORK ORDERS 1456257 AND 1456336 - FLUSHED AND ROOT CUT THE MAIN SEWER
MORRIS FORMAN	MSD0278	916 LOGAN ST	04/29/12 2:30 AM	04/29/12 02:45 AM	1 GAL	Sewer Service Line	61244	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1480375	CUSTOMER CLEANED THE IMPACTED AREA	INVESTIGATION INDICATED THAT ADDITIONAL REPAIRS WERE NOT REQUIRED BY MSD
DEREK R. GUTHRIE	MSD0277	4023 LOMOND DR	09/26/11 10:15 AM	09/26/11 10:59 AM	15 GAL	Sewer Service Line	61519	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1345596	MSD CONTRACTOR CLEANED AND SANITIZED THE IMPACTED AREA	INVESTIGATION INDICATED THAT ADDITIONAL REPAIRS WERE NOT REQUIRED BY MSD
MORRIS FORMAN	MSD0278	2100 LOWELL AVE	05/29/12 3:24 PM	05/29/12 03:24 PM	1 GAL	Sewer Service Line	62668	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1496424	ADVISED CUSTOMER THAT THEY ARE RESPONSIBLE FOR CLEANING THE IMPACTED AREA	ADVISED CUSTOMER TO CALL BACK IF THE BACKUP CONTINUES
MORRIS FORMAN	MSD0278	6615 MANSCLICK RD	12/13/11 2:00 PM	12/13/11 02:30 PM	1 GAL	Sewer Service Line	66813	MASSIVE ROOTS IN MAIN SEWER	ROOTS	DISDW DRY WEATHER DISCHARGE	1395350	CUSTOMER CLEANED THE IMPACTED AREA	WORK ORDER 1395442 - ROOT CUT THE MAIN SEWER
MORRIS FORMAN	MSD0278	2717 MASEMURE CT	12/23/11 11:40 PM	12/23/11 11:59 PM	1 GAL	Sewer Service Line	69522	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1398508	CUSTOMER CLEANED THE IMPACTED AREA	INVESTIGATION INDICATED THAT ADDITIONAL REPAIRS WERE NOT REQUIRED BY MSD
MORRIS FORMAN	MSD0278	3020 MELBOURNE AVE	06/01/12 6:30 PM	06/01/12 07:07 PM	1 GAL	Sewer Service Line	70197	ROOTS IN MAIN SEWER	ROOTS	DISDW DRY WEATHER DISCHARGE	1500433	MSD CONTRACTOR CLEANED AND SANITIZED THE IMPACTED AREA	WORK ORDERS 1500829 AND 1500436 - ROOT CUT AND FLUSHED MAIN SEWER TO CLEAR THE OBSTRUCTION
MORRIS FORMAN	MSD0278	2013 BASHFORD MANOR LN	02/05/12 11:30 AM	02/05/12 12:38 PM	2 GAL	Sewer Service Line	7176	GREASE IN MAIN SEWER	GREASE BLOCKAGE	DISDW DRY WEATHER DISCHARGE	1421474	CUSTOMER CLEANED THE IMPACTED AREA	WORK ORDER 1424205 - FLUSHED THE MAIN SEWER IN A RESIDENTIAL AREA

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MORRIS FORMAN	MSD0278	2013 BASHFORD MANOR LN	12/25/11 12:00 PM	12/25/11 12:39 PM	1 GAL	Sewer Service Line	7176	OBSTRUCTION IN MAIN SEWER	ROOTS	DISDW DRY WEATHER DISCHARGE	1398566	CUSTOMER CLEANED THE IMPACTED AREA	WORK ORDER 1398565 - ROOT CUT MAIN SEWER
MORRIS FORMAN	MSD0278	505 W ORMSBY AVE	09/26/11 4:39 PM	09/26/11 04:50 PM	3 GAL	Sewer Service Line	79133	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1345915	CUSTOMER CLEANED THE IMPACTED AREA	INVESTIGATION INDICATED THAT ADDITIONAL REPAIRS WERE NOT REQUIRED BY MSD
MORRIS FORMAN	MSD0278	2212 PARIS DR	01/28/12 10:09 AM	01/28/12 10:42 AM	2 GAL	Sewer Service Line	80596	ROOTS IN MAIN SEWER	ROOTS	DISDW DRY WEATHER DISCHARGE	1416538	CUSTOMER CLEANED THE IMPACTED AREA	WORK ORDER 1417176 - ROOT CUT THE MAIN SEWER
MORRIS FORMAN	MSD0278	2012 PEABODY LN	12/14/11 7:00 PM	12/14/11 09:01 PM	1 GAL	Sewer Service Line	81009	GREASE OBSTRUCTION IN THE MAIN SEWER	GREASE BLOCKAGE	DISDW DRY WEATHER DISCHARGE	1395813	CUSTOMER CLEANED THE IMPACTED AREA	WORK ORDER 1396052 - FLUSHED THE MAIN SEWER
MORRIS FORMAN	MSD0278	7516 NORBOURNE AVE	12/05/11 2:45 PM	12/05/11 03:17 PM	1 GAL	Sewer Service Line	84117516	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1388925	CUSTOMER CLEANED THE IMPACTED AREA	INVESTIGATION INDICATED THAT ADDITIONAL REPAIRS WERE NOT REQUIRED BY MSD
MORRIS FORMAN	MSD0278	3301 ALLISON WAY	01/25/12 10:00 AM	01/25/12 10:48 AM	2 GAL	Sewer Service Line	846	CLEANING MAIN SEWER AND BACKWASH FROM FLOOR DRAIN	OBSTRUCTION-NOT GREASE OR ROOT	DISDW DRY WEATHER DISCHARGE	1415586	MSD CONTRACTOR CLEANED AND SANITIZED THE IMPACTED AREA	INVESTIGATION INDICATED THAT ADDITIONAL REPAIRS WERE NOT REQUIRED BY MSD - OFFERED AND ACCEPTED A COURTESY CLEAN
MORRIS FORMAN	MSD0278	3103 RADIANCE RD	07/29/11 6:40 PM	07/29/11 06:47 PM	1 GAL	Sewer Service Line	85950	ROOTS IN MSD'S PORTION OF THE PROPERTY SERVICE CONNECTION	ROOTS	DISDW DRY WEATHER DISCHARGE	1309806	CUSTOMER CLEANED THE IMPACTED AREA	REFERRED TO A SUPERVISOR TO MAKE NEEDED REPAIRS
DEREK R. GUTHRIE	MSD0277	2009 LEAHURST CT	05/29/12 3:31 PM	05/29/12 03:31 PM	1 GAL	Sewer Service Line	86642009	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1496432	ADVISED CUSTOMER THAT THEY ARE RESPONSIBLE FOR CLEANING THE IMPACTED AREA	ADVISED CUSTOMER TO CALL BACK IF THE BACKUP CONTINUES
MORRIS FORMAN	MSD0278	2810 RIO RITA AVE	12/05/11 5:45 PM	12/05/11 06:05 PM	1 GAL	Sewer Service Line	88302	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1389053	CUSTOMER STATED SHE WAS CLEANING THE IMPACTED AREA	INVESTIGATION INDICATED THAT ADDITIONAL REPAIRS WERE NOT REQUIRED BY MSD
MORRIS FORMAN	MSD0278	2807 RIO RITA AVE	12/05/11 5:45 PM	12/05/11 06:05 PM	1 GAL	Sewer Service Line	88314	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1389042	CUSTOMER CLEANED THE IMPACTED AREA	INVESTIGATION INDICATED THAT ADDITIONAL REPAIRS WERE NOT REQUIRED BY MSD
DEREK R. GUTHRIE	MSD0277	5112 MARYVIEW DR	09/26/11 2:00 PM	09/26/11 02:16 PM	1 GAL	Sewer Service Line	90405112	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1345745	CUSTOMER CLEANED THE IMPACTED AREA	INVESTIGATION INDICATED THAT ADDITIONAL REPAIRS WERE NOT REQUIRED BY MSD
DEREK R. GUTHRIE	MSD0277	4433 SAVAGE DR	11/01/11 2:30 PM	11/01/11 03:30 PM	1 GAL	Sewer Service Line	92369	OBSTRUCTION IN MAIN SEWER	OBSTRUCTION-NOT GREASE OR ROOT	DISDW DRY WEATHER DISCHARGE	1371556	CUSTOMER CLEANED THE IMPACTED AREA	WORK ORDER 1371553 - ROOT CUT THE MAIN SEWER
MORRIS FORMAN	MSD0278	105 ALVINA WAY	12/27/11 7:30 PM	12/27/11 08:10 PM	1 GAL	Sewer Service Line	9379	OBSTRUCTION IN MSD MAIN SEWER	OBSTRUCTION-NOT GREASE OR ROOT	DISDW DRY WEATHER DISCHARGE	1399213	CUSTOMER CLEANED THE IMPACTED AREA	WORK ORDERS 1399214 AND 1399215 - ROOT CTU THE MAIN SEWER
MORRIS FORMAN	MSD0278	116 S SHERRIN AVE	04/04/12 11:30 AM	04/04/12 12:02 PM	1 GAL	Sewer Service Line	94872	MSD'S CONTRACTOR CLEANING THE SEWERS - BACKWASH INTO HOME	OBSTRUCTION-NOT GREASE OR ROOT	DISDW DRY WEATHER DISCHARGE	1462708	MSD CONTRACTOR CLEANED AND SANITIZED THE IMPACTED AREA	INVESTIGATION INDICATED THAT ADDITIONAL REPAIRS WERE NOT REQUIRED BY MSD
MORRIS FORMAN	MSD0278	3411 CHAUNCEY AVE	09/16/11 10:00 AM	09/16/11 10:28 AM	1 GAL	Sewer Service Line	97170	FUTHER INVESTIGATION REQUIRED	OBSTRUCTION-NOT GREASE OR ROOT	DISDW DRY WEATHER DISCHARGE	1339599	CUSTOMER CLEANED IMPACTED AREA	REFERED TV CREW FOR INSPECTION
MORRIS FORMAN	MSD0278	4020 SPRINGHILL RD	03/30/12 9:55 AM	03/30/12 10:04 AM	3 GAL	Sewer Service Line	98598D	MSD PERSONNEL CLEANING THE SEWERS	OBSTRUCTION-NOT GREASE OR ROOT	DISDW DRY WEATHER DISCHARGE	1459724	CUSTOMER CLEANED THE IMPACTED AREA	INVESTIGATION INDICATED THAT ADDITIONAL REPAIRS WERE NOT REQUIRED BY MSD
MORRIS FORMAN	MSD0278	144 N 38TH ST	05/29/12 2:20 PM	05/29/12 02:27 PM	1 GAL	Sewer Service Line	A08040029	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1496358	ADVISED CUSTOMER THAT THEY ARE RESPONSIBLE FOR CLEANING THE IMPACTED AREA	ADVISED CUSTOMER TO CALL BACK IF THEY BACKUP CONTINUES
MORRIS FORMAN	MSD0278	130 N 38TH ST	05/29/12 11:59 AM	05/29/12 12:08 PM	1 GAL	Sewer Service Line	A08047029	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1496262	ADVISED CUSTOMER THAT THEY ARE RESPONSIBLE FOR CLEANING THE AREA	ADVISED CUSTOMER TO CALL BACK IF THE BACKUP CONTINUES
DEREK R. GUTHRIE	MSD0277	9012 ROYAL OAK DR	05/03/12 11:00 AM	05/03/12 11:22 AM	1 GAL	Sewer Service Line	AU12186019	MSD CONTRACTOR FLUSHING MAIN SEWER	OBSTRUCTION-NOT GREASE OR ROOT	DISDW DRY WEATHER DISCHARGE	1483551	MSD CONTRACTOR CLEANED AND SANITIZED THE IMPACTED AREA	INVESTIGATION INDICATED THAT ADDITIONAL REPAIRS WERE NOT REQUIRED BY MSD

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MORRIS FORMAN	MSD0278	3504 HERMAN ST	05/29/12 4:27 PM	05/29/12 04:28 PM	1 GAL	Sewer Service Line	B07842049	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1496480	ADVISED CUSTOMER THAT THEY ARE RESPONSIBLE FOR CLEANING THE IMPACTED AREA	ADVISED CUSTOMER TO CALL BACK IF THE BACKUP CONTINUES
		664 LOUIS COLEMAN JR DR	09/26/11 5:09 PM	09/26/11 05:14 PM	7 GAL	Sewer Service Line	B11385081	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1347627	MSD CONTRACTOR CLEANED AND SANITIZED THE IMPACTED AREA	INVESTIGATION INDICATED THAT ADDITIONAL REPAIRS WERE NOT REQUIRED BY MSD
CEDAR CREEK	MSD0289	6808 LAKE BUCKHORN CT	12/16/11 11:30 AM	12/16/11 12:15 PM	1 GAL	Sewer Service Line	BE02348489	ROOTS IN MSD'S PORTION OF THE PROPERTY SERVICE CONNECTION	ROOTS	DISDW DRY WEATHER DISCHARGE	1396346	CUSTOMER CLEANED THE IMPACTED AREA	WORK ORDER 1396348 - ROOTCUT THE PROPERTY SERVICE LINE
CHENOWETH HILLS	MSD0263	10308 LARK PARK DR	05/13/12 10:59 AM	05/13/12 11:53 AM	8 GAL	Sewer Service Line	BE07749239	FLUSHING THE MAIN SEWER	OBSTRUCTION-NOT GREASE OR ROOT	DISDW DRY WEATHER DISCHARGE	1487938	MSD CONTRACTOR CLEANED AND SANITIZED THE IMPACTED AREA	WORK ORDER 1487935 - FLUSHED THE MAIN SEWER
DEREK R. GUTHRIE	MSD0277	8603 EMRICH AVE	11/26/11 1:22 PM	11/26/11 02:12 PM	3 GAL	Sewer Service Line	BE08943839	GREASE IN MAIN SEWER	GREASE BLOCKAGE	DISDW DRY WEATHER DISCHARGE	1384457	CUSTOMER CLEANED THE IMPACTED AREA	WORK ORDER 1385289 - FLUSHED THE MAIN SEWER
DEREK R. GUTHRIE	MSD0277	3528 KIRBY LN	04/23/12 7:40 PM	04/23/12 09:14 PM	2 GAL	Sewer Service Line	BJ23147029	OBSTRUCTION IN MAIN SEWER	ROOTS	DISDW DRY WEATHER DISCHARGE	1475136	CUSTOMER CLEANED THE IMPACTED AREA	WORK ORDERS 1475139, 1475277 & 1478250 - ROOT CUT AND FLUSHED THE MAIN SEWER AND ROOT CUT PROPERTY SERVICE LINE
DEREK R. GUTHRIE	MSD0277	8820 TRANQUIL VALLEY LN	04/01/12 12:29 PM	04/01/12 01:35 PM	5 GAL	Sewer Service Line	BJ24225029	OBSTRUCTION IN MAIN SEWER	OBSTRUCTION-NOT GREASE OR ROOT	DISDW DRY WEATHER DISCHARGE	1460008	CUSTOMER CLEANED THE IMPACTED AREA	WORK ORDER 1460073 - ROOT CUT MAIN SEWER
DEREK R. GUTHRIE	MSD0277	8204 SPRINT CT	09/12/11 12:00 PM	09/12/11 12:40 PM	1 GAL	Sewer Service Line	BW04072029		OBSTRUCTION-NOT GREASE OR ROOT	DISDW DRY WEATHER DISCHARGE	1338341		
CEDAR CREEK	MSD0289	8312 AUTUMNWOOD WAY	04/01/12 1:46 PM	04/01/12 03:50 PM	1 GAL	Sewer Service Line	BW05448049	ROOTS AND GREASE IN THE MAIN SEWER	ROOTS	DISDW DRY WEATHER DISCHARGE	1460054	ADVISED CUSTOMER TO CONTACT MSD IF CLEANING IS NEEDED	WORK ORDER 1460068 - FLUSHED THE MAIN SEWER
DEREK R. GUTHRIE	MSD0277	7904 BROADFERN DR	06/12/12 9:00 AM	06/12/12 09:35 AM	1 GAL	Sewer Service Line	BW06645059	GREASE OBSTRUCTION AT MSD'S PUMP STATION	GREASE BLOCKAGE	DISDW DRY WEATHER DISCHARGE	1503369	NO CLEANUP NECESSARY, MSD PUMP STATION	OPERATIONS PERSONNEL VACTORED THE PUMP STATION
CEDAR CREEK	MSD0289	8608 MCKENNA WAY	09/27/11 11:00 AM	09/27/11 11:25 AM	1 GAL	Sewer Service Line	BW07548029	ROOTS IN MSD'S PORTION OF THE CONNECTION	ROOTS	DISDW DRY WEATHER DISCHARGE	1346114	CUSTOMER CLEANED THE IMPACTED AREA	REFERRED TO SUPERVISOR TO MAKE NEEDED REPAIRS
DEREK R. GUTHRIE	MSD0277	7213 WATSON LN	09/20/11 10:40 AM	09/20/11 11:00 AM	1 GAL	Sewer Service Line	DD71682019	ROOTS AT MAIN SEWER	ROOTS	DISDW DRY WEATHER DISCHARGE	1341920	CUSTOMER CLEANED THE IMPACTED AREA	WORK ORDERS 1342223, 1342291, 1342562 AND 1342689 - ROOT CUT, FLUSHED THE MAIN SEWER AND REMOVED ROOTS FROM THE MAIN SEWER AT THE TAP
MORRIS FORMAN	MSD0278	7706 CIRCLE CREST RD	07/25/11 11:15 AM	07/25/11 11:35 AM	1 GAL	Sewer Service Line	EP36440019	MAY HAVE BEEN CAUSED BY MSD CONTRACTOR CLEANING SEWERS	OBSTRUCTION-NOT GREASE OR ROOT	DISDW DRY WEATHER DISCHARGE	1307254	CUSTOMER CLEANED THE IMPACTED AREA	ADVISED TO CALL BACK IF THEY HAVE ANY MORE TROUBLE
HUNTING CREEK NORTH	MSD0291	7400 HADDINGTON CT	02/19/12 3:00 PM	02/19/12 03:50 PM	1 GAL	Sewer Service Line	EP54290519A	MSD MAIN SEWER HAS DROPPED AND IN NEED OF REPAIR	STRUCTURAL FAILURE	DISDW DRY WEATHER DISCHARGE	1427209	CUSTOMER CLEANED THE IMPACTED AREA	WORK ORDER 1427827 - REPAIRED MSD'S MAIN SEWER
MORRIS FORMAN	MSD0278	835 E MAIN ST	09/26/11 11:30 AM	09/26/11 11:32 AM	1 GAL	Sewer Service Line	F21380019	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1345629	CUSTOMER CLEANED THE IMPACTED AREA	INVESTIGATION INDICATED THAT ADDITIONAL REPAIRS WERE NOT REQUIRED BY MSD
MORRIS FORMAN	MSD0278	211 S SPRING ST	07/25/11 4:26 PM	07/25/11 04:52 PM	1 GAL	Sewer Service Line	G09077029	MAIN SEWER DAMAGED	STRUCTURAL FAILURE	DISDW DRY WEATHER DISCHARGE	1307469	CUSTOMER CLEANED THE IMPACTED AREA	WORK ORDER 1307976 - REPAIRED THE MAIN SEWER
MORRIS FORMAN	MSD0278	2405 COLONEL DR	12/05/11 3:30 PM	12/05/11 04:01 PM	1 GAL	Sewer Service Line	HP12183019	OBSTRUCTION IN MAIN SEWER	OBSTRUCTION-NOT GREASE OR ROOT	DISREV RAIN EVENT DISCHARGE	1388992	CUSTOMER CLEANED THE IMPACTED AREA	WORK ORDER 1389008 - ROOTCUT AND OPEN THE MAIN SEWER
MORRIS FORMAN	MSD0278	9728 BOXFORD WAY	11/06/11 2:58 PM	11/06/11 03:56 PM	7 GAL	Sewer Service Line	HP15820019	ROOTS IN MAIN SEWER	ROOTS	DISDW DRY WEATHER DISCHARGE	1375953	MSD CONTRACTOR CLEANED AND SANITIZED THE IMPACTED AREA	WORK ORDERS 1375955 AND 1376247 - FLUSHED AND ROOT CUT THE MAIN SEWER
MORRIS FORMAN	MSD0278	1709 MILLGATE RD	01/09/12 7:35 PM	01/09/12 09:20 PM	2 GAL	Sewer Service Line	HP16339029	OBSTRUCTION IN MAIN SEWER	OBSTRUCTION-NOT GREASE OR ROOT	DISDW DRY WEATHER DISCHARGE	1408014	CUSTOMER CLEANED THE IMPACTED AREA	WORK ORDERS 1408017 AND 1408122 - FLUSHED THE MAIN SEWER

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Associated Wastewater Treatment Plant Name	Associated Treatment Plant KPDES #	Overflow Location	Overflow Start Date & Time	Overflow Stop Date & Time	Volume of Overflow	Source Asset Type	Source Asset ID	Cause of Overflow	Due To	Weather	WO #	Cleanup Efforts by MSD	Repair Efforts by MSD
MORRIS FORMAN	MSD0278	9531 WESSEX PL	03/22/12 6:30 PM	03/22/12 07:00 PM	1 GAL	Sewer Service Line	HU16794019	OBSTRUCTION IN MAIN SEWER	OBSTRUCTION-NOT GREASE OR ROOT	DISDW DRY WEATHER DISCHARGE	1455679	CUSTOMER CLEANED THE IMPACTED AREA	WORK ORDER 1455956 - ROOT CUT THE MAIN SEWER
MORRIS FORMAN	MSD0278	9501 WESSEX PL	04/23/12 10:30 AM	04/23/12 10:56 AM	10 GAL	Sewer Service Line	HU16824039	OBSTRUCTION IN MAIN SEWER	OBSTRUCTION-NOT GREASE OR ROOT	DISDW DRY WEATHER DISCHARGE	1474906	CUSTOMER CLEANED THE IMPACTED AREA	WORK ORDERS 1474896 AND 1475218 - ROOT CUT AND FLUSHED THE MAIN SEWER
MORRIS FORMAN	MSD0278	9989 VIEUX CARRE DR	12/23/11 3:56 PM	12/23/11 05:35 PM	5 GAL	Sewer Service Line	HU20266029	OBSTRUCTION IN MAIN SEWER	ROOTS	DISDW DRY WEATHER DISCHARGE	1398502	CUSTOMER CLEANED THE IMPACTED AREA	WORK ORDER 1398500 - ROOT CUT MAIN SEWER
MORRIS FORMAN	MSD0278	1237 CHEROKEE RD	05/29/12 3:53 PM	05/29/12 03:53 PM	1 GAL	Sewer Service Line	J07576049	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1496458	ADVISED CUSTOMER THAT THEY ARE RESPONSIBLE FOR CLEANING THE IMPACTED AREA	ADVISED CUSTOMER TO CALL BACK IF THE BACKUP CONTINUES
MORRIS FORMAN	MSD0278	1237 CHEROKEE RD	05/29/12 3:57 PM	05/29/12 03:59 PM	1 GAL	Sewer Service Line	J07576049	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1496463	ADVISED CUSTOMER THAT THEY ARE RESPONSIBLE FOR CLEANING THE IMPACTED AREA	ADVISED CUSTOMER TO CALL BACK IF THE BACKUP CONTINUES
JEFFERSONTOWN	MSD0255	9601 GALENE DR	01/27/12 12:15 PM	01/27/12 12:32 PM	2 GAL	Sewer Service Line	JT00505019	ROOTS IN MAIN SEWER	OBSTRUCTION-NOT GREASE OR ROOT	DISDW DRY WEATHER DISCHARGE	1416211	MSD CONTRACTOR CLEANED AND SANITIZED THE IMPACTED AREA	WORK ORDER 1416209 - ROOT CUT THE MAIN SEWER
JEFFERSONTOWN	MSD0255	3301 CALAIS DR	07/12/11 1:30 PM	07/12/11 01:45 PM	10 GAL	Sewer Service Line	JT00884829	OBSTRUCTION IN MSD MAIN SEWER	OBSTRUCTION-NOT GREASE OR ROOT	DISDW DRY WEATHER DISCHARGE	1297957	MSD CONTRACTOR CLEANED AND SANITIZED THE IMPACTED AREA	WORK ORDER 1297963 - FLUSHED AND OPEN THE MAIN SEWER
JEFFERSONTOWN	MSD0255	3610 DELL RD	08/07/11 9:59 AM	08/07/11 12:14 PM	10 GAL	Sewer Service Line	JT00944239	ROOTS IN THE MAIN SEWER AND ON MSD'S PORTION OF THE PROPERTY SERVICE LINE	ROOTS	DISDW DRY WEATHER DISCHARGE	1312706	MSD CONTRACTOR CLEANED AND SANITIZED THE IMPACTED AREA	WORK ORDERS 1315690, 1316175 AND 1317070 - ROOT CUT AND REPAIRED THE MAIN SEWER AND REPAIRED THE PROPERTY SERVICE LINE AND INSTALLED A 2-WAY CLEANOUT
JEFFERSONTOWN	MSD0255	3307 COLLEGE DR	10/19/11 6:35 PM	10/19/11 06:53 PM	1 GAL	Sewer Service Line	JT00976019	BACKWASH WHILE FLUSHING THE SEWERS	OBSTRUCTION-NOT GREASE OR ROOT	DISDW DRY WEATHER DISCHARGE	1363380	MSD'S CONTRACTOR CLEANED AND SANITIZED THE IMPACTED AREA	INVESTIGATION INDICATED THAT ADDITIONAL REPAIRS WERE NOT REQUIRED BY MSD
JEFFERSONTOWN	MSD0255	3701 CANDLEWOOD WAY	09/26/11 8:50 PM	09/26/11 08:51 PM	1 GAL	Sewer Service Line	JT13761029	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1345906	ADVISED CUSTOMER THEY ARE RESPONSIBLE FOR CLEANING THE IMPACTED AREA	ADVISED CUSTOMER TO CALL BACK IF STILL HAVIN PROBLEMS
JEFFERSONTOWN	MSD0255	2912 LIVINGSTON AVE	12/05/11 3:40 PM	12/05/11 04:00 PM	1 GAL	Sewer Service Line	JT19902539	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1389040	CUSTOMER CLEANED THE IMPACTED AREA	INVESTIGATION INDICATED THAT ADDITIONAL REPAIRS WERE NOT REQUIRED BY MSD
MORRIS FORMAN	MSD0278	1605 RUSSELL AVE	05/19/12 1:32 PM	05/19/12 02:19 PM	2 GAL	Sewer Service Line	KK09613019	ROOTS IN MAIN SEWER	ROOTS	DISDW DRY WEATHER DISCHARGE	1489996	CUSTOMER CLEANED THE IMPACTED AREA	WORK ORDERS 1490549 AND 1491020 - FLUSHED MAIN SEWER
MORRIS FORMAN	MSD0278	3925 POPLAR LEVEL RD	05/20/12 12:30 AM	05/20/12 01:44 AM	1 GAL	Sewer Service Line	KK09620019	ROOTS IN MAIN SEWER	ROOTS	DISDW DRY WEATHER DISCHARGE	1490009	MSD CONTRACTOR CLEANED AND SANITIZED THE IMPACTED AREA	WORK ORDER # 1490009-FLUSHED DEBRIS FROM MAIN
MORRIS FORMAN	MSD0278	3822 ILLINOIS AVE	11/10/11 10:15 PM	11/10/11 10:25 PM	1 GAL	Sewer Service Line	KK09657019	MSD FLUSHING SEWERS AND BACKUP INTO HOME	OBSTRUCTION-NOT GREASE OR ROOT	DISDW DRY WEATHER DISCHARGE	1378351	MSD CONTRACTOR CLEANED AND SANITIZED THE IMPACTED AREA	INVESTIGATION INDICATED THAT ADDITIONAL REPAIRS WERE NOT REQUIRED BY MSD
MORRIS FORMAN	MSD0278	3822 ILLINOIS AVE	11/29/11 10:45 AM	11/29/11 11:49 AM	2 GAL	Sewer Service Line	KK09657019	OBSTRUCTION IN THE MAIN SEWER	OBSTRUCTION-NOT GREASE OR ROOT	DISDW DRY WEATHER DISCHARGE	1385609	MSD PERSONNEL CLEANED AND SANITIZED THE IMPACTED AREA	WORK ORDER 1385599 - FLUSHED THE MAIN SEWER
MORRIS FORMAN	MSD0278	3824 ILLINOIS AVE	10/23/11 9:30 AM	10/23/11 10:30 AM	1 GAL	Sewer Service Line	KK09658019	GREASE IN THE MSD MAIN SEWER	GREASE BLOCKAGE	DISDW DRY WEATHER DISCHARGE	1363890	CUSTOMER CLEANED THE IMPACTED AREA	WORK ORDER 1363889 - FLUSHED AND OPEN MAIN SEWER
MORRIS FORMAN	MSD0278	3824 ILLINOIS AVE	02/12/12 12:03 PM	02/12/12 01:03 PM	2 GAL	Sewer Service Line	KK09658019	OBSTRUCTION IN MAIN SEWER	OBSTRUCTION-NOT GREASE OR ROOT	DISDW DRY WEATHER DISCHARGE	1424879	MSD CONTRACTOR CLEANED AND SANITIZED THE IMPACTED AREA	WORK ORDERS 1424861 & 1425104 - FLUSHED THE MAIN SEWER
MORRIS FORMAN	MSD0278	3298 ILLINOIS AVE	05/13/12 3:21 PM	05/13/12 03:59 PM	7 GAL	Sewer Service Line	KK09875019	OBSTRUCTION IN MAIN SEWER	OBSTRUCTION-NOT GREASE OR ROOT	DISDW DRY WEATHER DISCHARGE	1487921	MSD CONTRACTOR CLEANED AND SANITIZED THE IMPACTED AREA	WORK ORDER 1487922 - FLUSHED THE MAIN SEWER
MORRIS FORMAN	MSD0278	1265 SPRINGDALE DR	03/24/12 12:32 PM	03/24/12 01:59 PM	7 GAL	Sewer Service Line	KK13382439	OBSTRUCTION IN MAIN SEWER	OBSTRUCTION-NOT GREASE OR ROOT	DISDW DRY WEATHER DISCHARGE	1456281	CUSTOMER CLEANED THE IMPACTED AREA	WORK ORDER 1456283 - FLUSHED THE MAIN SEWER

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Associated Wastewater Treatment Plant Name	Associated Treatment Plant KPDES #	Overflow Location	Overflow Start Date & Time	Overflow Stop Date & Time	Volume of Overflow	Source Asset Type	Source Asset ID	Cause of Overflow	Due To	Weather	WO #	Cleanup Efforts by MSD	Repair Efforts by MSD
MORRIS FORMAN	MSD0278	1244 SPRINGDALE DR	10/11/11 7:38 PM	10/11/11 08:22 PM	15 GAL	Sewer Service Line	KK13390319	GREASE OBSTRUCTION IN MAIN SEWER	GREASE BLOCKAGE	DISDW DRY WEATHER DISCHARGE	1356633	CUSTOMER CLEANED THE IMPACTED AREA	WORK ORDERS 1356636 AND 1357009 - FLUSHED AND ROOT CUT THE MAIN SEWER
MORRIS FORMAN	MSD0278	1401 CARDINAL DR	02/17/12 6:30 PM	02/17/12 07:41 PM	1 GAL	Sewer Service Line	KK15076019	OBSTRUCTION IN MSD'S MAIN SEWER	OBSTRUCTION-NOT GREASE OR ROOT	DISDW DRY WEATHER DISCHARGE	1427098	CUSTOMER CLEANED THE IMPACTED AREA	WORK ORDER 1432441 - FLUSHED MAIN SEWER
MORRIS FORMAN	MSD0278	1208 S PRESTON ST	05/29/12 3:17 PM	05/29/12 03:17 PM	1 GAL	Sewer Service Line	L13911039	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1496416	ADVISED CUSTOMER THAT THEY ARE RESPONSIBLE FOR CLEANING THE IMPACTED AREA	ADVISED CUSTOMER TO CALL BACK IF THE BACKUP CONTINUES
MORRIS FORMAN	MSD0278	3804 ELMWOOD AVE	11/10/11 11:00 AM	11/10/11 11:44 AM	2 GAL	Sewer Service Line	LL11201019	OBSTRUCTION IN MSD MAIN SEWER	OBSTRUCTION-NOT GREASE OR ROOT	DISDW DRY WEATHER DISCHARGE	1378167	MSD CONTRACTOR CLEANED AND SANITIZED THE IMPACTED AREA	WORK ORDER 1378149 - ROOTCUT AND OPEN THE MAIN SEWER
MORRIS FORMAN	MSD0278	4012 PLYMOUTH RD	07/13/11 6:30 PM	07/13/11 06:43 PM	1 GAL	Sewer Service Line	MA11342029	ROOTS IN MAIN SEWER	ROOTS	DISDW DRY WEATHER DISCHARGE	1298555	CUSTOEMR CLEANED THE IMPACTED AREA	WORK ORDERS 1300997, 1300998, 1300999, AND 1301296 - ROOT CUT MAIN SEWER; PLUMBER GOT CUSTOMER OPEN
FLOYDS FORK	MSD0294	715 TUCKER STATION RD	12/06/11 1:39 AM	12/06/11 01:40 AM	1 GAL	Sewer Service Line	MT12450559	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1389099	CUSTOMER CLEANED THE IMPACTED AREA	INVESTIGATION INDICATED THAT ADDITIONAL REPAIRS WERE NOT REQUIRED BY MSD
FLOYDS FORK	MSD0294	15028 BIRCHAM RD	03/05/12 10:15 AM	03/05/12 10:53 AM	1 GAL	Sewer Service Line	MT16773619	GREASE AND TOWELS IN THE MAIN SEWER	OBSTRUCTION-NOT GREASE OR ROOT	DISDW DRY WEATHER DISCHARGE	1438715	CUSTOMER CLEANED THE IMPACTED AREA	WORK ORDERS 1438699 AND 1438712 - FLUSHED AND ROOT CUT THE MAIN SEWER
MORRIS FORMAN	MSD0278	2326 W OAK ST	05/17/12 8:45 PM	05/17/12 09:07 PM	1 GAL	Sewer Service Line	O02971739	OBSTRUCTION IN MAIN SEWER	OBSTRUCTION-NOT GREASE OR ROOT	DISDW DRY WEATHER DISCHARGE	1489568	CUSTOMER CLEANED THE IMPACTED AREA	WORK ORDER 1489569 - FLUSHED THE MAIN SEWER
MORRIS FORMAN	MSD0278	1315 CECIL AVE	05/29/12 3:39 PM	05/29/12 03:39 PM	1 GAL	Sewer Service Line	P07603019	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1496441	ADVISED CUSTOMER THAT THEY ARE RESPONSIBLE FOR CLEANING THE IMPACTED AREA	ADVISED CUSTOMER TO CALL BACK IF THE BACKUP CONTINUES
DEREK R. GUTHRIE	MSD0277	7101 BILLIE LN	04/01/12 8:00 PM	04/01/12 09:01 PM	3 GAL	Sewer Service Line	PB16183019	ROOTS IN MAIN SEWER	ROOTS	DISDW DRY WEATHER DISCHARGE	1460096	MSD CONTRACTOR CLEANED AND SANITIZED THE IMPACTED AREA	WORK ORDERS 1460098 AND 1460100 - ROOT CUT AND FLUSHED THE MAIN SEWER
DEREK R. GUTHRIE	MSD0277	3804 BRITT LN	02/04/12 9:00 PM	02/04/12 09:37 PM	2 GAL	Sewer Service Line	PC06259019	ROOTS IN MSD'S MAIN SEWER	ROOTS	DISDW DRY WEATHER DISCHARGE	1421417	MSD CONTRACTOR CLEANED AND SANTIZED THE IMPACTED AREA	WORK ORDERS 1421421 AND 1423597 - ROOT CUT AND FLUSHED THE MAIN SEWER
DEREK R. GUTHRIE	MSD0277	905 HIGH SCHOOL DR	03/18/12 9:30 PM	03/18/12 10:08 PM	3 GAL	Sewer Service Line	PC07858019	OBSTRUCTION IN MSD'S MAIN SEWER	ROOTS	DISDW DRY WEATHER DISCHARGE	1447994	MSD'S CONTRACTOR CLEANED AND SANITIZED THE IMPACTED AREA	WORK ORDERS 1451599 AND 1451601 - ROOT CUT THE MAIN SEWER
DEREK R. GUTHRIE	MSD0277	8218 ROCHELLE RD	01/27/12 2:15 PM	01/27/12 03:30 PM	2 GAL	Sewer Service Line	PC09885029	OBSTRUCTION IN MAIN SEWER	OBSTRUCTION-NOT GREASE OR ROOT	DISDW DRY WEATHER DISCHARGE	1416442	MSD CONTRACTOR CLEANED AND SANITIZED THE IMPACTED AREA	WORK ORDERS 1416439, 1416440 AND 1416441 - FLUSHED AND ROOT CUT THE MAIN SEWER
DEREK R. GUTHRIE	MSD0277	8203 SIESTA WAY	11/28/11 8:14 PM	11/28/11 08:18 PM	2 GAL	Sewer Service Line	PC12116029	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1385390	CUSTOMER CLEANED THE IMPACTED AREA	INVESTIGATION INDICATED THAT ADDITIONAL REPAIRS WERE NOT REQUIRED BY MSD
DEREK R. GUTHRIE	MSD0277	4020 CARBINE LN	05/26/12 5:30 PM	05/26/12 06:37 PM	1 GAL	Sewer Service Line	PD04920079	ROOTS AT THE SHARE JOINT OF THE PROPERTY SERVICE CONNECTION	ROOTS	DISDW DRY WEATHER DISCHARGE	1495710	CUSTOMER CLEANED THE IMPACTED AREA	WORK ORDER 1495712 - REPAIRED PROPERTY SERVICE CONNECTION
DEREK R. GUTHRIE	MSD0277	5803 CARMELWOOD CIR	06/17/12 11:50 PM	06/18/12 12:28 AM	3 GAL	Sewer Service Line	PD20246019	ROOTS IN MAIN SEWER	ROOTS	DISDW DRY WEATHER DISCHARGE	1505349	MSD CONTRACTOR CLEANED AND SANITIZED THE IMPACTED AREA	WORK ORDERS 1505351, 1505353; FLUSHED AND ROOT CUT ROOTS FROM MAIN SEWER
DEREK R. GUTHRIE	MSD0277	9214 MAPLE RD	11/04/11 11:57 AM	11/04/11 01:34 PM	2 GAL	Sewer Service Line	PD23172039	ROOTS IN MAIN SEWER	ROOTS	DISDW DRY WEATHER DISCHARGE	1375791	CUSTOMER CLEANED THE IMPACTED AREA	WORK ORDER 1375794 - ROOT CUT THE MAIN SEWER
DEREK R. GUTHRIE	MSD0277	5710 TOEBBE LN	03/16/12 7:30 PM	03/16/12 08:09 PM	3 GAL	Sewer Service Line	PD25002059	OBSTRUCTION IN MAIN SEWER	OBSTRUCTION-NOT GREASE OR ROOT	DISDW DRY WEATHER DISCHARGE	1447684	MSD'S CONTRACTOR CLEANED AND SANITIZED THE IMPACTED AREA	WORK ORDER 1447686 - FLUSHED DEBRIS FROM MAIN SEWER
DEREK R. GUTHRIE	MSD0277	9506 WOOD HOLLOW RD	09/05/11 4:11 PM	09/05/11 06:22 PM	50 GAL	Sewer Service Line	PD26130019	OBSTRUCTION IN MAIN SEWER	OBSTRUCTION-NOT GREASE OR ROOT	DISDW DRY WEATHER DISCHARGE	1333139	MSD CONTRACTOR CLEANED AND SANITIZED THE IMPACTED AREA	WORK ORDER 1333141 - ROOT CUT THE MAIN SEWER AND REMOVED OBSTRUCTION

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Associated Wastewater Treatment Plant Name	Associated Treatment Plant KPDES #	Overflow Location	Overflow Start Date & Time	Overflow Stop Date & Time	Volume of Overflow	Source Asset Type	Source Asset ID	Cause of Overflow	Due To	Weather	WO #	Cleanup Efforts by MSD	Repair Efforts by MSD
MORRIS FORMAN	MSD0278	507 CREEL AVE	09/26/11 10:30 AM	09/26/11 10:56 AM	1 GAL	Sewer Service Line	R05242039	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1345591	MSD CONTRACTOR CLEANED AND SANITIZED THE IMPACTED AREA	INVESTIGATION INDICATED THAT ADDITIONAL REPAIRS WERE NOT REQUIRED BY MSD
DEREK R. GUTHRIE	MSD0277	2196 PEASLEE RD	05/29/12 3:19 PM	05/29/12 03:19 PM	1 GAL	Sewer Service Line	RR13544019	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1496419	ADVISED CUSTOMER THAT THEY ARE RESPONSIBLE FOR CLEANING THE IMPACTED AREA	ADVISED CUSTOMER TO CALL BACK IF THE BACKUP CONTINUES
MORRIS FORMAN	MSD0278	2900 RODMAN ST	09/26/11 2:45 PM	09/26/11 03:17 PM	1 GAL	Sewer Service Line	T06546029	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1345793	MSD CONTRACTOR CLEANED AND SANITIZED THE IMPACTED AREA	INVESTIGATION INDICATED THAT ADDITIONAL REPAIRS WERE NOT REQUIRED BY MSD
MORRIS FORMAN	MSD0278	2826 TAYLOR BLVD	02/20/12 3:00 PM	02/20/12 03:49 PM	3 GAL	Sewer Service Line	T07357019	OBSTRUCTION IN THE MAIN SEWER	OBSTRUCTION-NOT GREASE OR ROOT	DISDW DRY WEATHER DISCHARGE	1427889	MSD CONTRACTOR CLEANED AND SANITIZED THE IMPACTED AREA	WORK ORDER 1427886 - FLUSHED AND OPEN THE MAIN SEWER
MORRIS FORMAN	MSD0278	1520 WURTELE AVE	05/29/12 7:50 PM	05/29/12 08:18 PM	10 GAL	Sewer Service Line	T07685089	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1496527	ADVISED CUSTOMER THEY ARE RESPONSIBLE FOR CLEANING THE IMPACTED AREA	ADVISED CUSTOMER TO CONTACT A PLUMBER
MORRIS FORMAN	MSD0278	1526 CENTRAL AVE	05/29/12 4:41 PM	05/29/12 04:41 PM	1 GAL	Sewer Service Line	T07859029	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1496489	ADVISED CUSTOMER THAT THEY ARE RESPONSIBLE FOR CLEANING THE IMPACTED AREA	ADVISED CUSTOMER TO CALL BACK IF THE BACKUP CONTINUES
MORRIS FORMAN	MSD0278	2909 ASPENDALE CT	11/29/11 9:15 AM	11/29/11 10:33 AM	30 GAL	Sewer Service Line	T197A169	HEAVY ROOTS IN THE MAIN SEWER	ROOTS	DISREV RAIN EVENT DISCHARGE	1385550	MSD CONTRACTOR CLEANED AND SANITIZED THE IMPACTED AREA	WORK ORDERS 1385537, 1385785, & 1386606 - FLUSHED AND ROOT CUT THE MAIN SEWER
CHENOWETH RUN	MSD0403	14302 GLENSFORD PL	05/29/12 4:24 PM	05/29/12 04:24 PM	1 GAL	Sewer Service Line	T314E14302	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1496479	ADVISED CUSTOMER THAT THEY ARE RESPONSIBLE FOR CLEANING THE IMPACTED AREA	ADVISED CUSTOMER CALL BACK IF BACKUP CONTINUES
CHENOWETH RUN	MSD0403	405 LAKE POINTE TRCE	12/14/11 9:15 PM	12/14/11 09:35 PM	1 GAL	Sewer Service Line	T314E405A	HEAVY SOLIDS AND WATER HOLDING	OBSTRUCTION-NOT GREASE OR ROOT	DISDW DRY WEATHER DISCHARGE	1395816	CUSTOMER CLEAN UP IMPACTED AREA	REFERRED TO SUPERVISOR TO MAKE THE NEEDED REPAIRS
MORRIS FORMAN	MSD0278	3834 SOUTHERN PKY	03/12/12 11:15 AM	03/12/12 11:35 AM	1 GAL	Sewer Service Line	U08329019	OBSTRUCTION IN MAIN SEWER AND GREASE & OBSTRUCTION IN MSD'S PORTION OF THE PROPERTY SERVICE CONNECTION AND ON PRIVATE PROPERTY	GREASE BLOCKAGE	DISDW DRY WEATHER DISCHARGE	1442717	CUSTOMER CLEANED THE IMPACTED AREA	WORK ORDERS 1446521, 1446542, 1446809 & 1447672 - FLUSHED, ROOT CUT MAIN SEWER AND VACTORED AND REPAIRED THE PROPERTY SERVICE LINE
MORRIS FORMAN	MSD0278	331 W KENWOOD WAY	04/01/12 3:48 PM	04/01/12 03:49 PM	1 GAL	Sewer Service Line	V08648039	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1460060	CUSTOMER CLEANED THE IMPACTED AREA	INVESTIGATION INDICATED THAT ADDITIONAL REPAIRS WERE NOT REQUIRED BY MSD
MORRIS FORMAN	MSD0278	4906 SOUTHERN PKY	07/05/11 3:20 PM	07/05/11 03:20 PM	1 GAL	Sewer Service Line	W12298029	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1293158	MSD CONTRACTOR CLEANED AND SANITIZED THE IMPACTED AREA	INVESTIGATION INDICATED THAT ADDITIONAL REPAIRS WERE NOT REQUIRED BY MSD
MORRIS FORMAN	MSD0278	1836 EASTERN PKY	08/15/11 12:45 PM	08/15/11 01:29 PM	1 GAL	Sewer Service Line	X00381099	ROOTS IN THE MAIN SEWER	ROOTS	DISDW DRY WEATHER DISCHARGE	1321399	CUSTOMER CLEANED THE IMPACTED AREA	WORK ORDER 1321396 - ROOTCUT AND OPEN THE MAIN SEWER
MORRIS FORMAN	MSD0278	2368 ASHWOOD DR	05/29/12 10:31 AM	05/29/12 11:41 AM	1 GAL	Sewer Service Line	X02903149	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1496229	ADVISED CUSTOMER THAT THEY ARE RESPONSIBLE FOR CLEANING THE IMPACTED AREA	ADVISED CUSTOMER TO CALL BACK IF THE BACKUP CONTINUES
MORRIS FORMAN	MSD0278	2138 ALTA AVE	09/26/11 9:11 AM	09/26/11 09:12 AM	10 GAL	Sewer Service Line	X06917029	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1345477	MSD CONTRACTOR CLEANED AND SANITIZED THE IMPACTED AREA	INVESTIGATION INDICATED THAT ADDITIONAL REPAIRS WERE NOT REQUIRED BY MSD
MORRIS FORMAN	MSD0278	2567 WOODBOURNE AVE	02/01/12 6:30 PM	02/01/12 07:03 PM	1 GAL	Sewer Service Line	X08192059	ROOTS IN 8 INCH LINE COMING INTO MANHOLE	ROOTS	DISDW DRY WEATHER DISCHARGE	1420398	CUSTOMER CLEANED THE IMPACTED AREA	WORK ORDER 1420566 - ROOT CUT LINE TO REMOVE ROOTS
MORRIS FORMAN	MSD0278	228 CUMBERLAND AVE	12/05/11 10:39 PM	12/05/11 10:44 PM	1 GAL	Sewer Service Line	Y10743029		LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1389105		
MORRIS FORMAN	MSD0278	228 CUMBERLAND AVE	12/05/11 10:39 PM	12/05/11 10:44 PM	3 GAL	Sewer Service Line	Y10743029	LACK OF SYSTEM CAPACITY	LACK OF SYSTEM CAPACITY	DISREV RAIN EVENT DISCHARGE	1389107	CUSTOMER CLEANED THE IMPACTED AREA	INVESTIGATION INDICATED THAT ADDITIONAL REPAIRS WERE NOT REQUIRED BY MSD

APPENDIX C – ANNUAL AVERAGE OVERFLOW VOLUME

CSO	CSO Name	Associated Project	Drainage Area	Model Gauged Link	May 2012 Existing Conditions		May 2012 Baseline Conditions		May 2012 LTCP Conditions	
					Total Overflow = 3576.15 MG		Total Overflow = 2542.47 MG		Total Overflow = 269.60 MG	
					Overflow Vol. (MG)	# of Overflows	Overflow Vol. (MG)	# of Overflows	Overflow Vol. (MG)	# of Overflows
023	ORI @ 4th ST PS	13th Street and Rowan Street Storage Basin		12062-T.w	3.95	6	16.15	15	0.26	3
050	12th STREET	13th Street and Rowan Street Storage Basin	36.31771456	CSO050.w	8.58	30	15.13	32	0.00	0
051	11th STREET	13th Street and Rowan Street Storage Basin	6.342302325	CSO051.w	1.18	13	1.89	15	0.00	0
052	10th STREET	13th Street and Rowan Street Storage Basin	8.696665223	CSO052.w	2.51	18	4.31	25	0.00	0
053	8th STREET	13th Street and Rowan Street Storage Basin	34.11635731	CSO053.w	4.62	38	4.62	38	0.00	0
054	7th STREET	13th Street and Rowan Street Storage Basin	7.062018731	CSO054.w	0.72	12	1.54	18	0.00	0
055	6th STREET	13th Street and Rowan Street Storage Basin	18.02658939	CSO055.w	2.66	14	6.53	21	0.00	0
056	5th STREET	13th Street and Rowan Street Storage Basin	22.03123683	CSO056.w	1.41	11	1.96	13	0.00	0
058	PRESTON ST OVFL WEIR	13th Street and Rowan Street Storage Basin	105.4135181	CSO058.w	1.29	13	69.55	51	1.88	8
150	8th ST @ COMMON PLACE	13th Street and Rowan Street Storage Basin	1.791606332	088308.w	0.86	14	1.88	21	0.00	0
155	ROWAN ST @ 12th ST	13th Street and Rowan Street Storage Basin	11.93113707	CSO155.w	2.36	38	2.36	38	0.00	0
156	6th & WASHINGTON SAN DIV	13th Street and Rowan Street Storage Basin	Eliminated							
190	SEVENTEENTH ST SAN DIV	18th and Northwestern Pky Storage Basin	145.4136674	CSO190.w	35.40	54	35.40	54	0.68	3
172	ADAMS STREET	Adams Street Storage Basin	13.67276469	CSO172.w	1.13	25	1.11	25	SEPARATED	
088	MELLWOOD AVE INT	Clifton Heights Storage Basin	18.79825404	CSO088.3	21.25	38	19.36	36	0.00	0
131	REG NO 33 - MELWD & FRANKFORT	Clifton Heights Storage Basin	50.33037228	CSO131.2	2.42	20	2.42	20	0.16	4
132	REG NO 35 - BROWNSBORO	Clifton Heights Storage Basin	674.0089022	CSO132.w	30.97	36	25.41	34	0.00	0
154	MELLWOOD @ SCHOEFFEL	Clifton Heights Storage Basin	31.02201447	CSO154.w	26.33	40	27.32	38	10.20	4
167	BROWNSBORO LAT NO 2	Clifton Heights Storage Basin	10.99668682	CSO167.w	0.00	1	0.00	0	0.00	0
027	CRD 7th & BROADWAY	CRD	10.08139865	CSO027.w	0.00	0	0.00	0	0.00	0
028	CRD 6th & YORK	CRD	6.112378862	028D7A-T.	1.28	26	1.28	26	0.18	7
029	CRD 8th & YORK	CRD	34.77828012	CSO029.w	5.30	37	5.30	37	0.66	7
034	CRD 4th & YORK	CRD	5.086646611	CSO034.w	0.29	21	0.29	21	0.06	7
035	CRD 2nd & BROADWAY NO 1	CRD	14.26256793	CSO035.w	0.00	0	0.00	0	0.00	0
036	CRD 3rd & BROADWAY	CRD	23.07943605	CSO036.w + 08897-T.w	0.00	0	0.00	0	0.01	2
038	CRD 5th & BROADWAY	CRD	9.488545039	CSO038.w	0.00	0	0.00	0	0.00	1
178	CRD 9th & YORK "B"	CRD	58.01577947	CSO178.w	18.58	48	18.58	48	0.00	0
181	CRD 2nd & BROADWAY NO 2	CRD	22.63461249	CSO181.w	15.70	61	15.70	61	0.00	0
192	CRD S 6th & GARLAND	CRD	8.995601465	CSO192.w						
193	CRD S 6th & KENTUCKY	CRD	22.68954203	CSO193.w	0.02	4	0.02	4	0.02	4
195	CRD S 4th & OAK	CRD	7.276513689	CSO195.w	1.55	42	1.55	42	0.09	7
196	CRD S 3rd & OAK	CRD	2.17983999	CSO196.w	0.00	1	0.00	1	0.11	7
197	CRD S 3rd S OF OAK	CRD	4.542123874	CSO197.w	1.87	45	1.87	45	0.07	7
198	CRD S 3rd & ORMSBY	CRD	4.401552247	CSO198.w	0.00	0	0.00	0	0.00	1
199	CRD S 3rd N OF MAGNOLIA	CRD	8.63723449	CSO199.w	0.19	27	0.19	27	0.00	0
200	CRD S 3rd & MAGNOLIA	CRD	10.28062625	CSO200.w	2.54	57	2.54	57	0.04	7
201	CRD S 5th & KENTUCKY	CRD	8.326720171	CSO201.w	0.00	0	0.00	0	0.00	0
202	CRD S ORMSBY W OF 3rd	CRD	5.320325248	CSO202.w	0.05	9	0.05	9	0.02	6
203	CRD S 4th & ORMSBY	CRD	14.23979232	CSO203.w	0.00	0	0.00	0	0.00	0
022	FOURTH ST PS	CSO022	100.8906683	CSO022.w	3.13	7	3.13	7	3.13	7
093	SPRING STREET	CSO093 Sewer Separation	20.79456112	CSO093.1	0.00	0	0.00	0	0.00	0
108	REG NO 1 - NEWBURG	CSO108 Dam Modification	485.218558	CSO108.W + 73225D-S-1.1	43.86	33	15.13	34	7.01	8
123	REG NO 20 - RUTH-SULGRV	CSO123 Downspout Disconnection	Eliminated							
140	LOCUST STREET	CSO140 Sewer Separation	75.53630952	CSO140.w	0.98	21	0.96	21	0.00	0
160	SEWER IN ALLEY SAN DIV	CSO160 Sewer Separation	1.978120222	CSO160.w	0.07	2	0.09	4	0.00	0
206	CHEROKEE PARK @ SPRING DR	CSO206 Sewer Separation	464.6445402	CSO206.w	27.73	55	27.73	55	SEPARATED	
125	REG NO 24 - GRINSTEAD DR	I-64 and Grinstead Drive Storage Basin	391.0275138	CSO125.w	201.71	57	200.36	57	7.72	4
126	REG NO 26 - RAYMOND AVE	I-64 and Grinstead Drive Storage Basin	35.28982845	CSO126.w	5.55	27	3.93	24	0.36	3
127	ETLEY AVENUE	I-64 and Grinstead Drive Storage Basin	192.2620645	CSO127.w	9.71	30	9.40	30	0.00	0
166	BEALS BRANCH SAN DIV	I-64 and Grinstead Drive Storage Basin	696.6489116	CSO166.w	64.66	36	62.36	36	0.00	0
082	BGI AT BGC	Lexington Road and Payne Street Storage Basin		CSO082.1	25.31	31	7.11	31	0.00	0
083	BRENT ST & BROADWAY CONNECT	Lexington Road and Payne Street Storage Basin	38.08825864	CSO083a.2	0.00	0	0.00	0	0.00	0
084	BRENT ST @ BGC	Lexington Road and Payne Street Storage Basin	125.0682088	CSO084.w	3.27	18	3.26	18	0.00	0
118	REG NO 15 - E BRDWAY	Lexington Road and Payne Street Storage Basin	354.1247387	CSO118.W	41.27	33	38.88	33	0.00	0
119	BRENT STREET SEWER	Lexington Road and Payne Street Storage Basin	7.575511553	CSO119.2	4.24	29	4.02	29	0.00	0
120	PHOENIX HILL SEWER	Lexington Road and Payne Street Storage Basin	16.51229246	CSO120.w	15.51	51	15.36	52	0.00	0
121	REG NO 18 - GREEN ST	Lexington Road and Payne Street Storage Basin	107.1932904	CSO121b.2	1.06	6	0.92	6	0.00	0
141	BAXTER AVE @ BGC	Lexington Road and Payne Street Storage Basin	7.724780409	CSO141.2	0.36	38	0.36	38	0.00	0
153	COOPER STREET	Lexington Road and Payne Street Storage Basin	41.65392015	CSO153.2	9.72	47	8.63	46	0.00	0
091	SCHILLER AVE OVFL	Logan Street and Breckinridge Street Storage Basin	14.98754293	CSO091.4	2.83	55	2.83	55	0.00	0
097	CANTONMENT SIPHON NO 2	Logan Street and Breckinridge Street Storage Basin		CSO097.1	10.50	34	6.74	33	0.10	2
106	ROYAL - NEFF	Logan Street and Breckinridge Street Storage Basin	11.79867684	CSO106.w	0.28	12	0.27	12	0.53	6

CSO	CSO Name	Associated Project	Drainage Area	Model Gauged Link	May 2012 Existing Conditions		May 2012 Baseline Conditions		May 2012 LTCP Conditions	
					Total Overflow = 3576.15 MG		Total Overflow = 2542.47 MG		Total Overflow = 269.60 MG	
					Overflow Vol. (MG)	# of Overflows	Overflow Vol. (MG)	# of Overflows	Overflow Vol. (MG)	# of Overflows
109	REG NO 2 - DEER PARK	Logan Street and Breckinridge Street Storage Basin	95.3611616	CSO109.4	1.12	9	0.88	8	0.46	6
110	REG NO 3 - GOSS AVE	Logan Street and Breckinridge Street Storage Basin	73.03980533	CSO110.w	9.56	33	7.45	33	0.18	1
111	EMERSON STREET SEWER	Logan Street and Breckinridge Street Storage Basin	99.35151045	CSO111b.w	9.27	34	9.00	33	0.00	0
113	ELLISON AVENUE SEWER	Logan Street and Breckinridge Street Storage Basin	67.61728787	CSO113.w	4.79	19	4.71	18	0.00	0
117	REG NO 11 - DRY RUN	Logan Street and Breckinridge Street Storage Basin	74.16658609	CSO117a.W	47.87	35	46.66	35	29.31	6
137	CALVARY CEMETARY	Logan Street and Breckinridge Street Storage Basin	26.65485941	CSO137.w	2.33	23	2.28	23	0.11	3
146	SNEADS BRANCH DIVERSION	Logan Street and Breckinridge Street Storage Basin	112.595509	CSO146.w	57.83	34	57.29	34	0.00	0
148	EASTERN PKWY DIVERSION	Logan Street and Breckinridge Street Storage Basin	24.89233894	CSO148.w	1.11	22	1.10	22	0.00	0
149	DRY RUN DIVERSION	Logan Street and Breckinridge Street Storage Basin	226.5290192	CSO149.w	45.77	29	44.82	29	2.68	4
151	REG NO 5 - CASTLEWOOD	Logan Street and Breckinridge Street Storage Basin	219.7449966	CSO151.4	81.39	54	67.35	52	0.09	1
152	REG NO 7 - SOUTHEASTERN	Logan Street and Breckinridge Street Storage Basin	260.5646513	CSO152.1	175.41	57	173.90	57	0.00	0
018	NIGHTINGALE PS	Nightingale PS Replacement		CSO018.s	107.04	23	18.70	16	0.00	0
015	SOUTHWESTERN PS	Paddy's Run Wet Weather Treatment Facility	7496.69774	85205-T.w	1249.68	56	722.13	46	133.72	6
191	ALGONQUIN PKWY SAN DIV	Paddy's Run Wet Weather Treatment Facility	339.7457303	CSO191.w	31.71	27	20.27	22	7.86	6
019	34th STREET PS	Portland Wharf Storage Basin	1094.016842	CSO019.w + CSO019a.1	57.73	42	57.76	43	0.00	0
016	MILES PARK BYPASS	SOR1/SOR2 Inline Storage		CSO016.w	47.90	28	13.86	29	4.75	7
210	45th STREET-GREENWOOD	SOR1/SOR2 Inline Storage	166.6655441	CSO210a.1	71.45	50	61.89	50	15.30	8
211	MAIN DIVERSION STRUCTURE	SOR1/SOR2 Inline Storage	3554.887563	CSO211b.w	348.50	24	283.12	22	30.54	7
104	SW PKWY SEWER @ BROADWAY	Southwestern Parkway Storage Basin	62.0371304	CSO104.w	3.90	16	3.90	16	0.00	0
105	WESTERN OUTFALL @ BROADWAY	Southwestern Parkway Storage Basin	1881.197944	CSO105a.w	59.69	30	59.67	30	0.00	0
189	NORTHWESTERN SAN DIV	Southwestern Parkway Storage Basin	1148.654084	CSO189.w	51.19	28	43.98	28	0.00	0
020	BUCHANAN PS	Story Avenue and Main Street Storage Basin	86.58897793	CSO020.w	436.87	51	143.94	37	8.30	4
130	WEBSTER STREET	Story Avenue and Spring Street Storage Basin	28.40978343	CSO130.w	6.87	34	1.96	20	0.40	8
026	CRD 6th & BROADWAY	Eliminated								
030	CRD 9th & YORK "A"	Eliminated								
031	CRD 6th & BRECKINRIDGE	3.745034877								
032	CRD 4th & BRECKINRIDGE	Eliminated								
033	CRD ON YORK E OF 4th	Eliminated								
049	PRESTON ST	Eliminated								
057	FIRST STREET OVFL WEIR			057R1.c	0.00	0	0.00	0	0.00	5
062	LOGAN COMPANY			CSO062.w	0.37	6	0.00	0	0.00	0
065	LAMPTON STREET	Eliminated								
080	PAYNE STREET	Eliminated								
081	LETTERLE	Eliminated								
086	PAYNE AT SPRING	6.06945134								
087	BLUEHORSE	Eliminated								
092	ST CATHERINE @ BGC	7.651995194		CSO092.2	0.00	0	0.00	0	2.45	7
143	KENTUCKY ST BLOW-OFF	Eliminated								
144	VANCE ST REGULATOR	16.39850226		CSO144.w	0.00	3	0.00	3	0.004	3
145	POINT PUMP STATION	Eliminated								
147	SWAN STREET DIVERSION	Eliminated								
161	MARKET ST SAN DIV	2.542477421		CSO161.w	0.02	5	0.02	5	0.08	5
162	BEALS BRANCH HW REG	Eliminated								
179	KENTUCKY ST SEWER OVFL	456.1744137		CSO179.w	0.00	0	0.00	0	0.00	0
194	CRD S OAK W OF 4th	Eliminated								
204	CRD S FIFTH & BRECKINRIDGE	Eliminated								
207	2nd & JEFFERSON	2.3265958		CSO207.w	0.01	1	0.03	1	0.05	2
208	12th & JEFFERSON	11.19325774		CSO208.w	0.00	0	0.00	0	0.00	0
209	CHEROKEE PK @ PARK BD RD	Eliminated								
142	SBR LOGAN ST @ ST CATHERINE	157.4715509		CSO142.w	0.00	0	0.00	0	0.00	0
174	SBR GOSS & BOYLE	6.812111762		CSO174.w	13.13	30	13.13	30	12.95	30
180	SBR ORMSBY AVE RELIEF	221.6460209		CSO180.w	0.00	0	0.00	0	0.00	0
182	SBR SHELBY & BURNETT	3.616482622		CSO182.w	5.50	17	5.50	17	5.96	17
183	SBR ALEXANDER & KESWICK	104.8432367		CSO183.3	0.00	0	0.00	0	0.00	0
184	SBR FETTER & ALEXANDER	108.1899299		CSO184.w	0.00	0	0.00	0	0.00	0
185	SBR SHELBY & KESWICK	4.691178544		CSO185.w	0.03	4	0.03	4	0.03	4
186	SBR LOGAN & OAK	7.194726867		CSO186.w	0.00	0	0.00	0	0.00	0
187	SBR SHELBY & CAMP	13.10988709		CSO187.w	0.00	0	0.00	0	0.00	0
188	SBR SHELBY & CLAY	11.51571508		CSO188.w	0.00	0	0.00	0	0.00	0
205	SBR MORGAN STREET RELIEF	9.49		CSO205.2	0.00	0	0.00	0	0.00	0

CSO	CSO Name	Associated Project	Drainage Area	Model Gauged Link	May 2012 Existing Conditions		May 2012 Baseline Conditions		May 2012 LTCP Conditions	
					Overflow Vol. (MG)	# of Overflows	Overflow Vol. (MG)	# of Overflows	Overflow Vol. (MG)	# of Overflows
					Total Overflow = 3576.15 MG		Total Overflow = 2542.47 MG		Total Overflow = 269.60 MG	
	Snead's Branch Overflow Volume			71909B-Aga.w	0.00	0	0.00	0	0.00	0

APPENDIX D – CSO FLOW MONITORING DATA

UnitID	Overflow Start Date	Overflow End Date	Overflow Duration (Days)	Volume (Gallons)	Overflow Event Rain Inches)	Volume Per Inch	Overflow Antecedent Rain	Frequency (Years)	Period	Standard
CSO016	7/12/2011 18:15	7/12/2011 22:45	0.19	64,375.00	0.22	292,613.63	0.89	0.12	6 hr	Cloudburst
CSO016	7/19/2011 22:45	7/29/2011 6:30	9.32	4,857,604.13	1.21	4,014,548.87	0.44	1.42	1 hr	Cloudburst
CSO016	8/7/2011 3:15	8/8/2011 6:00	1.11	10,571,354.21	1.43	7,392,555.39	0.82	0.82	3 hr	Atlas 14
CSO016	8/8/2011 16:15	8/11/2011 10:00	2.74	165,937.50	0.49	338,647.95	1.71	0.17	3 hr	Atlas 14
CSO016	8/13/2011 17:30	8/22/2011 6:45	8.55	4,735,625.03	0.84	5,637,648.85	2.49	0.50	1 hr	Cloudburst
CSO016	9/19/2011 7:45	9/23/2011 11:30	4.16	11,637,395.86	1.33	8,749,921.70	0.62	0.27	24 hr	Cloudburst
CSO016	9/25/2011 23:15	9/26/2011 11:00	0.49	17,528,749.93	3.61	4,855,609.40	2.78	9.17	12 hr	Atlas 14
CSO016	10/13/2011 8:30	10/13/2011 10:00	0.06	170,729.16	0.33	517,361.10	0.27	0.21	12 hr	Cloudburst
CSO016	10/27/2011 0:15	10/27/2011 3:15	0.13	2,089,166.70	0.8	2,611,458.38	1.06	0.41	12 hr	Cloudburst
CSO016	11/14/2011 22:15	12/1/2011 14:15	16.67	61,431,458.30	6.67	9,210,113.69	0.39	0.61	48 hr	Atlas 14
CSO016	12/4/2011 17:00	12/12/2011 10:15	7.72	35,908,541.71	3.23	11,117,195.58	2.96	1.38	48 hr	Cloudburst
CSO016	12/15/2011 7:15	12/19/2011 12:30	4.22	776,979.17	0.53	1,465,998.44	0.42	0.24	6 hr	Cloudburst
CSO016	12/21/2011 6:30	12/29/2011 6:30	8.00	17,428,437.44	1.74	10,016,343.36	1.25	0.33	12 hr	Cloudburst
CSO016	1/11/2012 5:45	1/17/2012 14:00	6.34	7,771,875.04	1.38	5,631,793.51	0.37	0.37	12 hr	Cloudburst
CSO016	1/23/2012 3:45	1/23/2012 7:00	0.14	2,121,145.80	0.59	3,595,162.38	0.85	0.31	3 hr	Atlas 14
CSO016	1/26/2012 6:00	1/30/2012 6:45	4.03	7,974,270.84	1.54	5,178,097.95	1.27	0.59	24 hr	Cloudburst
CSO016	2/4/2012 10:45	2/7/2012 16:30	3.24	65,208.33	0.36	181,134.26	0.37	0.20	3 hr	Atlas 14
CSO016	2/28/2012 12:00	2/28/2012 12:00	0.00	7,187.50			0.14			
CSO016	2/29/2012 10:00	3/5/2012 7:15	4.89	318,854.16	0.62	514,280.90	0.65	0.28	1 hr	Cloudburst
CSO016	3/8/2012 13:00	3/8/2012 17:00	0.17	2,423,333.32	0.67	3,616,915.40	0.81	0.33	6 hr	Cloudburst
CSO016	3/16/2012 1:45	3/16/2012 5:00	0.14	1,995,937.50	0.86	2,320,857.56	1.01	0.46	12 hr	Cloudburst
CSO016	3/17/2012 21:15	3/21/2012 4:45	3.31	635,937.51	0.54	1,177,662.05	1.68	0.29	3 hr	Atlas 14
CSO016	3/23/2012 13:00	3/24/2012 7:30	0.77	7,817,395.87	1.38	5,664,779.61	1.26	0.60	24 hr	Cloudburst
CSO016	4/1/2012 9:15	4/1/2012 13:45	0.19	4,554,211.68	1.3	3,503,239.76	1.13	0.73	3 hr	Atlas 14
CSO016	4/28/2012 19:30	4/28/2012 22:30	0.13	2,775,291.10	0.64	4,336,392.34	0.77	0.54	1 hr	Cloudburst
CSO016	4/30/2012 20:15	4/30/2012 20:30	0.01	1,339.44	0.39	3,434.46	1.28	0.26	3 hr	Atlas 14
CSO016	5/5/2012 0:30	5/5/2012 6:00	0.23	4,994,651.72	1.44	3,468,508.14	1.56	0.77	6 hr	Cloudburst
CSO016	5/13/2012 2:30	5/13/2012 18:00	0.65	16,168,982.56	2	8,084,491.28	1.19	0.81	12 hr	Cloudburst
CSO016	5/29/2012 6:45	5/29/2012 14:45	0.33	11,247,708.45	3.17	3,548,173.01	1.92	29.79	3 hr	Cloudburst
CSO016	5/31/2012 19:30	6/1/2012 3:15	0.32	2,767,502.10	1.12	2,470,984.02	3.63	0.55	12 hr	Cloudburst
CSO018	4/1/2012 9:30	4/1/2012 16:45	0.30	277,573.48	1.67	166,211.66	1.48	0.92	6 hr	Cloudburst
CSO018	5/5/2012 1:15	5/5/2012 3:15	0.08	111,071.71	1.17	94,933.09	2.21	0.73	6 hr	Cloudburst
CSO018	5/13/2012 7:00	5/14/2012 2:30	0.81	1,572,685.33	2.01	782,430.51	2.05	0.97	12 hr	Cloudburst
CSO018	5/29/2012 7:00	5/29/2012 22:45	0.66	803,815.68	3.2	251,192.40	1.08	18.57	3 hr	Atlas 14
CSO018	5/31/2012 18:45	6/1/2012 17:15	0.94	1,215,231.09	1.42	855,796.54	3.64	0.62	12 hr	Cloudburst
CSO019	7/1/2011 3:00	7/1/2011 3:00	0.00	40,320.86			0.37			
CSO019	7/8/2011 4:15	7/8/2011 5:15	0.04	352,724.42	0.28	1,259,730.09	3.34	0.15	6 hr	Cloudburst
CSO019	7/12/2011 17:45	7/12/2011 18:00	0.01	95,822.63	0.05	1,916,452.57	2.38	0.08	6 hr	Cloudburst
CSO019	7/16/2011 3:45	7/16/2011 3:45	0.00	5,405.47			0.16			
CSO019	7/19/2011 15:45	7/20/2011 1:15	0.40	10,482,561.14	1.26	8,319,492.97	0.17	1.61	1 hr	Cloudburst
CSO019	8/7/2011 3:15	8/7/2011 7:30	0.18	5,112,056.01	1.48	3,454,091.90	0.76	0.86	1 hr	Cloudburst
CSO019	8/8/2011 14:15	8/8/2011 16:15	0.08	383,554.06	0.28	1,369,835.93	1.71	0.19	3 hr	Atlas 14
CSO019	8/13/2011 17:15	8/13/2011 18:15	0.04	379,494.88	0.34	1,116,161.42	2.15	0.28	1 hr	Cloudburst
CSO019	8/18/2011 9:00	8/18/2011 9:00	0.00	9,085.87	0.46	19,751.89	0.86	0.35	1 hr	Cloudburst
CSO019	8/19/2011 23:15	8/19/2011 23:15	0.00	1,159.92			0.87			
CSO019	9/19/2011 7:45	9/19/2011 7:45	0.00	88,718.48	0.24	369,660.35	0.64	0.29	24 hr	Cloudburst
CSO019	9/25/2011 23:30	9/26/2011 10:30	0.46	13,048,406.70	3.19	4,090,409.63	3.02	4.71	12 hr	Cloudburst
CSO019	10/9/2011 8:45	10/9/2011 8:45	0.00	47,893.91						

UnitID	Overflow Start Date	Overflow End Date	Overflow Duration (Days)	Volume (Gallons)	Overflow Event Rain Inches)	Volume Per Inch	Overflow Antecedent Rain	Frequency (Years)	Period	Standard
CSO019	10/13/2011 7:00	10/13/2011 9:00	0.08	286,921.10	0.25	1,147,684.39	0.06	0.19	12 hr	Cloudburst
CSO019	10/18/2011 20:00	10/18/2011 21:30	0.06	226,734.19	0.15	1,511,561.29	0.56	0.10	1 hr	Cloudburst
CSO019	10/20/2011 7:15	10/20/2011 7:45	0.02	153,764.39	0.2	768,821.97	0.93	0.16	24 hr	Cloudburst
CSO019	10/27/2011	10/27/2011 9:45	0.41	1,837,839.40	0.78	2,356,204.36	0.81	0.36	6 hr	Cloudburst
CSO019	11/3/2011 9:15	11/3/2011 11:45	0.10	139,891.62	0.37	378,085.47	0.27	0.24	3 hr	Atlas 14
CSO019	11/14/2011 21:30	11/15/2011 14:30	0.71	1,814,695.00	1.13	1,605,924.78	0.24	0.50	48 hr	Atlas 14
CSO019	11/16/2011 6:15	11/16/2011 13:30	0.30	455,622.62	0.39	1,168,263.12	1.37	0.50	48 hr	Atlas 14
CSO019	11/20/2011 17:15	11/20/2011 19:00	0.07	92,921.08	0.3	309,736.95	1.86	0.22	24 hr	Cloudburst
CSO019	11/21/2011 4:00	11/21/2011 13:30	0.40	615,710.55	0.23	2,677,002.39	2.04	0.22	24 hr	Cloudburst
CSO019	11/22/2011 1:00	11/22/2011 23:30	0.94	2,112,408.52	0.88	2,400,464.22	1.84	0.38	12 hr	Cloudburst
CSO019	11/27/2011 6:45	11/27/2011 9:45	0.13	280,172.07	0.49	571,779.74	1.89	0.91	48 hr	Atlas 14
CSO019	11/27/2011 22:15	11/29/2011 4:15	1.25	3,882,214.89	2.27	1,710,226.82	2.02	0.91	48 hr	Atlas 14
CSO019	12/4/2011 16:00	12/5/2011 20:00	1.17	9,603,890.80	3.47	2,767,691.87	2.77	1.75	48 hr	Cloudburst
CSO019	12/15/2011 3:30	12/15/2011 13:00	0.40	443,245.38	0.38	1,166,435.20	0.13	0.19	6 hr	Cloudburst
CSO019	12/21/2011 3:15	12/21/2011 9:00	0.24	1,234,021.39	0.7	1,762,887.69	0.77	0.32	12 hr	Cloudburst
CSO019	12/22/2011 14:45	12/23/2011 0:30	0.41	765,548.34	0.46	1,664,235.53	0.97	0.21	12 hr	Cloudburst
CSO019	12/27/2011 3:30	12/27/2011 12:15	0.36	225,427.17	0.62	363,592.21	1.42	0.26	12 hr	Cloudburst
CSO019	1/11/2012 5:15	1/11/2012 12:15	0.29	1,420,941.24	0.76	1,869,659.53	0.25	0.36	12 hr	Cloudburst
CSO019	1/17/2012 4:45	1/17/2012 13:15	0.35	254,467.69	0.33	771,114.22	1.16	0.15	12 hr	Cloudburst
CSO019	1/23/2012 2:45	1/23/2012 5:45	0.13	1,341,069.84	0.63	2,128,682.29	0.73	0.32	3 hr	Atlas 14
CSO019	1/25/2012 17:15	1/27/2012 2:45	1.40	7,254,936.80	1.56	4,650,600.51	0.87	0.52	48 hr	Atlas 14
CSO019	2/4/2012 10:15	2/4/2012 11:45	0.06	289,849.05	0.35	828,140.13	0.41	0.21	3 hr	Atlas 14
CSO019	2/21/2012 9:15	2/21/2012 9:15	0.00	791.1	0.1	7,911.03	0.42	0.06	6 hr	Cloudburst
CSO019	2/22/2012 22:45	2/23/2012	0.05	87,553.27	0.13	673,486.68	0.4	0.10	1 hr	Cloudburst
CSO019	2/23/2012 13:00	2/23/2012 13:00	0.00	1,171.85			0.25			
CSO019	2/29/2012 8:30	2/29/2012 11:00	0.10	554,883.19	0.42	1,321,150.46	0.52	0.20	12 hr	Cloudburst
CSO019	3/2/2012 16:30	3/2/2012 18:30	0.08	7,908.87	0.14	56,491.91	0.61	0.08	1 hr	Cloudburst
CSO019	3/8/2012 9:45	3/8/2012 16:00	0.26	668,220.69	0.57	1,172,317.00	0.55	0.31	6 hr	Cloudburst
CSO019	3/15/2012 18:30	3/16/2012 4:30	0.42	1,437,400.73	0.78	1,842,821.45	0.49	0.36	12 hr	Cloudburst
CSO019	3/17/2012 18:30	3/17/2012 23:00	0.19	1,728,008.89	0.43	4,018,625.32	1.35	0.28	1 hr	Cloudburst
CSO019	3/23/2012 5:45	3/23/2012 23:45	0.75	2,998,357.09	1.48	2,025,916.96	0.69	0.57	24 hr	Cloudburst
CSO019	3/30/2012 23:45	3/31/2012 0:45	0.04	3,484.79	0.18	19,359.94	0.19	0.12	1 hr	Cloudburst
CSO019	4/1/2012 8:30	4/1/2012 12:15	0.16	3,907,818.19	1.21	3,229,601.81	0.77	0.67	6 hr	Cloudburst
CSO019	4/14/2012 12:45	4/14/2012 12:45	0.00	1,165.02	0.06	19,416.93	0.08			
CSO019	4/28/2012 19:15	4/29/2012 2:30	0.30	2,812,033.16	0.65	4,326,204.86	0.62	0.45	1 hr	Cloudburst
CSO019	4/30/2012 17:45	4/30/2012 21:15	0.15	1,485,352.25	0.23	6,458,053.27	0.91	0.15	3 hr	Atlas 14
CSO019	5/4/2012 23:30	5/5/2012 5:30	0.25	389,978.95	1.18	330,490.64	1.37	0.61	6 hr	Cloudburst
CSO019	5/13/2012 2:00	5/13/2012 15:45	0.57	3,229,718.14	1.8	1,794,287.85	0.94	0.73	12 hr	Cloudburst
CSO019	5/16/2012 17:30	5/16/2012 18:45	0.05	411,932.66	0.13	3,168,712.75	1.98	0.10	1 hr	Cloudburst
CSO019	5/29/2012 6:15	5/29/2012 6:30	0.01	23,609.81	1.55	15,232.14	0.95	10.52	1 hr	Atlas 14
CSO020	7/19/2011 23:45	7/20/2011 1:30	0.07	5,276,160.46	1.72	3,067,535.15	1.74	3.71	1 hr	Cloudburst
CSO020	8/1/2011 9:30	8/1/2011 9:30	0.00	1			0.17			
CSO020	8/7/2011 4:00	8/7/2011 8:45	0.20	6,377,675.13	1.62	3,936,836.50	1.16	0.95	3 hr	Atlas 14
CSO020	9/19/2011 8:30	9/19/2011 9:45	0.05	929,371.28	0.34	2,733,444.93	0.61	0.29	12 hr	Cloudburst
CSO020	9/23/2011 4:15	9/23/2011 10:15	0.25	3,622,234.00	0.74	4,894,910.81	1.13	0.34	12 hr	Cloudburst
CSO020	9/26/2011 0:30	9/26/2011 15:45	0.64	49,800,886.72	3.56	13,989,013.12	3.45	8.89	12 hr	Atlas 14
CSO020	10/13/2011 8:00	10/13/2011 9:30	0.06	1,085,714.43	0.38	2,857,143.25	0.32	0.25	3 hr	Atlas 14
CSO020	10/27/2011 0:15	10/27/2011 6:30	0.26	8,752,229.15	0.98	8,930,846.07	1.17	0.47	3 hr	Atlas 14

UnitID	Overflow Start Date	Overflow End Date	Overflow Duration (Days)	Volume (Gallons)	Overflow Event Rain Inches)	Volume Per Inch	Overflow Antecedent Rain	Frequency (Years)	Period	Standard
CSO020	11/3/2011 10:00	11/3/2011 12:15	0.09	2,322,096.74	0.39	5,954,094.20	0.35	0.24	3 hr	Atlas 14
CSO020	11/14/2011 22:00	11/15/2011 17:30	0.81	21,426,128.15	1.48	14,477,113.62	0.39	0.67	48 hr	Atlas 14
CSO020	11/16/2011 5:45	11/16/2011 14:00	0.34	13,840,700.49	0.59	23,458,814.39	1.77	0.67	48 hr	Atlas 14
CSO020	11/20/2011 17:45	11/20/2011 21:30	0.16	1,614,699.24	0.47	3,435,530.29	2.55	0.28	24 hr	Cloudburst
CSO020	11/22/2011 0:30	11/22/2011 14:45	0.59	11,987,008.39	0.93	12,889,256.33	2.46	0.42	6 hr	Cloudburst
CSO020	11/27/2011 6:30	11/30/2011 9:15	3.11	351,604,306.73	3	117,201,435.58	2.17	0.94	48 hr	Atlas 14
CSO020	12/4/2011 16:30	12/7/2011 14:00	2.90	152,778,388.42	3.19	47,892,911.73	2.87	1.34	48 hr	Cloudburst
CSO020	12/8/2011 13:15	12/8/2011 22:45	0.40	5,602,933.56			3.23			
CSO020	12/15/2011 5:00	12/15/2011 10:00	0.21	2,509,019.63	0.39	6,433,383.66	0.26	0.22	12 hr	Cloudburst
CSO020	12/21/2011 6:15	12/21/2011 9:15	0.13	4,686,607.16	0.65	7,210,164.86	1.14	0.31	12 hr	Cloudburst
CSO020	12/22/2011 14:30	12/22/2011 20:30	0.25	10,436,710.39	0.53	19,691,906.40	1	0.25	12 hr	Cloudburst
CSO020	12/27/2011 3:30	12/27/2011 16:00	0.52	17,234,955.32	0.7	24,621,364.75	1.54	0.28	12 hr	Cloudburst
CSO020	1/11/2012 5:30	1/11/2012 23:00	0.73	15,308,789.07	0.77	19,881,544.24	0.28	0.30	12 hr	Cloudburst
CSO020	1/17/2012 12:15	1/17/2012 14:00	0.07	2,294,642.18	0.24	9,561,009.09	1.29	0.19	12 hr	Cloudburst
CSO020	1/23/2012 3:15	1/23/2012 6:45	0.15	7,982,557.97	0.64	12,472,746.83	0.86	0.33	3 hr	Atlas 14
CSO020	1/25/2012 17:15	1/25/2012 21:30	0.18	11,397,639.08	0.26	43,837,073.39	0.92	0.53	48 hr	Atlas 14
CSO020	1/26/2012 5:45	1/29/2012 3:30	2.91	297,832,895.84	1.37	217,396,274.33	1.33	0.53	48 hr	Atlas 14
CSO020	2/4/2012 10:15	2/4/2012 13:15	0.13	2,892,983.59	0.38	7,613,114.70	0.39	0.22	3 hr	Atlas 14
CSO020	2/23/2012	2/23/2012 0:15	0.01	19,731.06	0.15	131,540.43	0.41	0.11	1 hr	Cloudburst
CSO020	2/29/2012 9:15	2/29/2012 10:30	0.05	1,147,666.95	0.42	2,732,540.35	0.66	0.32	12 hr	Cloudburst
CSO020	3/5/2012 16:30	3/5/2012 16:45	0.01	599,882.46			1.03			
CSO020	3/8/2012 13:00	3/8/2012 18:30	0.23	11,591,617.86	0.76	15,252,128.76	1.01	0.38	6 hr	Cloudburst
CSO020	3/15/2012 20:00	3/16/2012 5:00	0.38	9,456,770.32	0.93	10,168,570.24	0.65	0.42	12 hr	Cloudburst
CSO020	3/17/2012 14:00	3/17/2012 23:45	0.41	6,777,373.55	0.68	9,966,725.81	1.15	0.39	3 hr	Atlas 14
CSO020	3/23/2012 6:00	3/24/2012 1:00	0.79	9,122,887.46	1.45	6,291,646.52	0.99	0.56	24 hr	Cloudburst
CSO020	4/1/2012 8:45	4/1/2012 14:30	0.24	11,743,891.91	1.36	8,635,214.64	0.95	0.74	6 hr	Cloudburst
CSO020	4/4/2012 8:30	4/4/2012 8:45	0.01	464,702.67	0.06	7,745,044.43	1.61			
CSO020	4/4/2012 17:30	4/4/2012 18:15	0.03	127,534.96	0.1	1,275,349.61	1.68	0.11	12 hr	Cloudburst
CSO020	4/28/2012 19:30	4/29/2012 2:00	0.27	5,030,697.26	0.75	6,707,596.34	0.77	0.56	1 hr	Cloudburst
CSO020	4/30/2012 18:30	4/30/2012 19:30	0.04	569,219.31	0.29	1,962,825.19	1.07	0.25	3 hr	Atlas 14
CSO020	5/4/2012 23:45	5/5/2012 7:00	0.30	18,665,207.09	1.35	13,826,079.33	1.8	0.73	3 hr	Atlas 14
CSO020	5/13/2012 2:15	5/13/2012 18:00	0.66	44,152,289.09	2.15	20,535,948.41	1.2	0.87	12 hr	Cloudburst
CSO020	5/16/2012 18:00	5/16/2012 19:45	0.07	2,131,116.93	0.22	9,686,895.16	2.44	0.19	1 hr	Cloudburst
CSO020	5/29/2012 7:00	5/30/2012	0.71	68,645,768.40	2.48	27,679,745.32	1.25	8.10	3 hr	Atlas 14
CSO020	5/31/2012 18:30	6/1/2012 15:15	0.86	33,498,236.00	1.28	26,170,496.88	2.83	0.56	12 hr	Cloudburst
CSO029	12/5/2011 15:00	12/5/2011 15:45	0.03	39,367.12	1.27	30,997.73	3.64	1.22	48 hr	Cloudburst
CSO029	12/21/2011 6:30	12/21/2011 6:45	0.01	66,911.36	0.57	117,388.35	1.15	0.28	12 hr	Cloudburst
CSO029	1/11/2012 6:30	1/11/2012 6:30	0.00	5,637.07	0.34	16,579.63	0.35	0.25	24 hr	Cloudburst
CSO029	1/23/2012 2:45	1/23/2012 4:15	0.06	49,026.14	0.58	84,527.83	0.67	0.33	3 hr	Atlas 14
CSO029	1/26/2012 5:45	1/26/2012 6:00	0.01	105,442.17	0.48	219,671.19	1.32	0.57	24 hr	Cloudburst
CSO029	1/26/2012 19:45	1/26/2012 20:45	0.04	89,542.90	0.75	119,390.54	1.93	0.57	24 hr	Cloudburst
CSO029	2/29/2012 8:45	2/29/2012 8:45	0.00	18,601.89	0.5	37,203.78	0.69	0.25	12 hr	Cloudburst
CSO029	3/8/2012 12:45	3/8/2012 12:45	0.00	9,899.01	0.67	14,774.64	1.02	0.39	6 hr	Cloudburst
CSO029	3/23/2012 13:30	3/23/2012 13:30	0.00	23,256.97	0.42	55,373.73	1.3	0.64	3 hr	Atlas 14
CSO029	4/1/2012 8:30	4/1/2012 10:15	0.07	53,735.70	1.46	36,805.28	0.97	0.83	6 hr	Cloudburst
CSO029	4/28/2012 19:15	4/28/2012 19:15	0.00	326,386.41	0.76	429,455.81	0.89	0.67	1 hr	Cloudburst
CSO029	5/4/2012 23:45	5/5/2012 1:30	0.07	104,122.68	1.12	92,966.68	1.96	0.75	6 hr	Cloudburst
CSO029	5/13/2012 2:30	5/13/2012 8:15	0.24	16,147.99	1.82	8,872.52	1.28	0.82	12 hr	Cloudburst

UnitID	Overflow Start Date	Overflow End Date	Overflow Duration (Days)	Volume (Gallons)	Overflow Event Rain Inches)	Volume Per Inch	Overflow Antecedent Rain	Frequency (Years)	Period	Standard
CSO029	5/29/2012 7:00	5/29/2012 9:30	0.10	4,258,644.66	2.91	1,463,451.77	1.47	3.80	1 hr	Cloudburst
CSO029	5/31/2012 18:30	5/31/2012 20:30	0.08	35,477.27	0.64	55,433.23	3.34	0.56	12 hr	Cloudburst
CSO029	6/9/2012 5:45	6/9/2012 5:45	0.00	13,072.22			0.21			
CSO050	7/8/2011 3:00	7/8/2011 5:00	0.08	20,440.17	0.37	55,243.71	0.89	0.20	3 hr	Atlas 14
CSO050	7/12/2011 17:00	7/12/2011 20:30	0.15	28,026.40	0.2	140,131.98	0.95	0.12	6 hr	Cloudburst
CSO050	7/19/2011 22:45	7/20/2011 1:00	0.09	790,718.11	1.5	527,145.41	0.86	3.89	1 hr	Cloudburst
CSO050	8/7/2011 3:00	8/7/2011 8:30	0.23	1,038,662.28	1.54	674,456.02	0.48	0.88	3 hr	Atlas 14
CSO050	8/8/2011 13:45	8/8/2011 15:15	0.06	76,660.35	0.41	186,976.45	1.84	0.27	3 hr	Atlas 14
CSO050	8/10/2011 2:30	8/10/2011 2:45	0.01	13,284.25	0.06	221,404.10	2.03			
CSO050	8/13/2011 17:00	8/13/2011 17:30	0.02	38,246.84	0.76	50,324.79	2.8	0.66	1 hr	Cloudburst
CSO050	8/18/2011 8:00	8/18/2011 8:30	0.02	18,346.16	0.24	76,442.34	1.07	0.20	1 hr	Cloudburst
CSO050	9/4/2011 20:30	9/4/2011 20:45	0.01	13,224.11	0.09	146,934.56	0.18	0.07	12 hr	Cloudburst
CSO050	9/11/2011 19:30	9/11/2011 20:30	0.04	40,932.76	0.28	146,188.43	0.55	0.22	1 hr	Cloudburst
CSO050	9/13/2011 19:00	9/13/2011 19:00	0.00	4,677.68			0.36			
CSO050	9/14/2011 22:00	9/14/2011 22:15	0.01	1,747.23	0.13	13,440.24	0.47	0.10	3 hr	Atlas 14
CSO050	9/18/2011 21:30	9/18/2011 21:30	0.00	5,697.79	0.08	71,222.33	0.3	0.32	12 hr	Cloudburst
CSO050	9/19/2011 7:00	9/19/2011 7:45	0.03	97,890.54	0.32	305,907.95	0.59	0.32	12 hr	Cloudburst
CSO050	9/19/2011 22:45	9/19/2011 22:45	0.00	117.26	0.01	11,725.76	1.02			
CSO050	9/21/2011 12:15	9/21/2011 12:30	0.01	9,229.81	0.07	131,854.40	1.09			
CSO050	9/23/2011 0:30	9/23/2011 8:15	0.32	153,744.10	0.72	213,533.47	1.03	0.33	12 hr	Cloudburst
CSO050	9/25/2011 19:30	9/26/2011 6:15	0.45	3,024,957.51	3.97	761,954.03	2.16	9.58	6 hr	Cloudburst
CSO050	10/13/2011 7:00	10/13/2011 8:00	0.04	40,537.47	0.28	144,776.67	0.13	0.22	3 hr	Atlas 14
CSO050	10/13/2011 17:30	10/13/2011 17:30	0.00	2,713.01	0.11	24,663.77	0.45	0.22	3 hr	Atlas 14
CSO050	10/18/2011 20:00	10/18/2011 20:30	0.02	31,945.25	0.15	212,968.34	0.61	0.11	1 hr	Cloudburst
CSO050	10/19/2011 17:45	10/19/2011 17:45	0.00	1,037.20	0.12	8,643.34	0.75	0.14	24 hr	Cloudburst
CSO050	10/20/2011 6:00	10/20/2011 6:30	0.02	3,077.76	0.21	14,655.99	0.93	0.14	24 hr	Cloudburst
CSO050	10/26/2011 22:30	10/27/2011 5:00	0.27	177,536.03	0.9	197,262.26	0.56	0.42	3 hr	Atlas 14
CSO050	11/3/2011 9:00	11/3/2011 21:45	0.53	52,316.20	0.52	100,608.09	0.23	0.28	3 hr	Atlas 14
CSO050	12/4/2011 15:15	12/5/2011 19:00	1.16	2,353,759.29	3.31	711,105.53	2.67	1.53	48 hr	Cloudburst
CSO050	12/15/2011 3:30	12/15/2011 11:45	0.34	63,159.44	0.48	131,582.17	0.13	0.23	6 hr	Cloudburst
CSO050	12/20/2011 23:00	12/21/2011 7:00	0.33	72,367.18	0.76	95,219.98	0.64	0.35	12 hr	Cloudburst
CSO050	12/22/2011 11:30	12/22/2011 17:45	0.26	75,081.00	0.48	156,418.75	0.91	0.24	12 hr	Cloudburst
CSO050	12/27/2011 2:00	12/27/2011 11:30	0.40	61,793.47	0.74	83,504.69	1.47	0.32	12 hr	Cloudburst
CSO050	1/11/2012 4:15	1/11/2012 11:15	0.29	168,331.72	0.61	275,953.63	0.12	0.29	6 hr	Cloudburst
CSO050	1/11/2012 19:45	1/11/2012 20:15	0.02	2,444.13	0.11	22,219.39	0.71	0.29	6 hr	Cloudburst
CSO050	1/17/2012 2:15	1/17/2012 12:15	0.42	64,377.74	0.37	173,993.88	0.92	0.17	12 hr	Cloudburst
CSO050	1/22/2012 22:15	1/23/2012 4:45	0.27	121,285.75	0.57	212,782.02	0.49	0.31	3 hr	Atlas 14
CSO050	1/25/2012 16:15	1/25/2012 18:45	0.10	5,344.73	0.26	20,556.64	0.8	0.56	24 hr	Cloudburst
CSO050	1/26/2012 4:45	1/26/2012 6:45	0.08	121,988.33	0.45	271,085.18	1.05	0.56	24 hr	Cloudburst
CSO050	1/26/2012 17:15	1/26/2012 23:30	0.26	498,178.86	0.98	508,345.78	1.52	0.56	24 hr	Cloudburst
CSO050	2/4/2012 9:15	2/4/2012 11:30	0.09	29,736.55	0.34	87,460.43	0.2	0.21	3 hr	Atlas 14
CSO050	2/15/2012 23:30	2/15/2012 23:30	0.00	131.66	0.15	877.76	0.38	0.15	12 hr	Cloudburst
CSO050	2/16/2012 8:00	2/16/2012 8:00	0.00	1,168.38	0.19	6,149.36	0.57	0.15	12 hr	Cloudburst
CSO050	2/21/2012 9:30	2/21/2012 9:30	0.00	1,597.95	0.14	11,413.96	0.49	0.08	6 hr	Cloudburst
CSO050	2/22/2012 22:45	2/22/2012 23:00	0.01	15,963.17	0.19	84,016.67	0.55	0.15	1 hr	Cloudburst
CSO050	2/29/2012 4:00	2/29/2012 9:00	0.21	135,006.89	0.61	221,322.78	0.41	0.34	1 hr	Cloudburst
CSO050	3/2/2012 16:45	3/2/2012 16:45	0.00	1,728.56	0.1	17,285.63	0.82	0.07	12 hr	Cloudburst
CSO050	3/5/2012 3:45	3/5/2012 4:00	0.01	292.42	0.24	1,218.44	1.06	0.12	6 hr	Cloudburst

UnitID	Overflow Start Date	Overflow End Date	Overflow Duration (Days)	Volume (Gallons)	Overflow Event Rain Inches)	Volume Per Inch	Overflow Antecedent Rain	Frequency (Years)	Period	Standard
CSO050	3/8/2012 9:45	3/8/2012 15:45	0.25	252,669.02	0.66	382,831.84	0.68	0.36	6 hr	Cloudburst
CSO050	3/9/2012 21:15	3/9/2012 21:15	0.00	3,791.94			1			
CSO050	3/10/2012 8:45	3/10/2012 8:45	0.00	6,117.84			1			
CSO050	3/12/2012 11:15	3/12/2012 11:30	0.01	4,119.64	0.1	41,196.42	0.9	0.07	12 hr	Cloudburst
CSO050	3/15/2012 17:45	3/16/2012 3:15	0.40	290,812.76	0.89	326,755.91	0.39	0.40	12 hr	Cloudburst
CSO050	3/17/2012 18:15	3/17/2012 23:00	0.20	226,672.01	0.5	453,344.01	1.35	0.28	3 hr	Atlas 14
CSO050	3/23/2012 5:00	3/24/2012	0.79	648,331.40	1.57	412,949.93	0.77	0.60	24 hr	Cloudburst
CSO050	3/30/2012 23:30	3/31/2012	0.02	13,020.60	0.17	76,591.77	0.18	0.11	3 hr	Atlas 14
CSO050	4/1/2012 8:30	4/1/2012 12:45	0.18	933,280.89	1.41	661,901.34	0.88	0.77	6 hr	Cloudburst
CSO050	4/4/2012 16:30	4/4/2012 16:30	0.00	2,861.34	0.04	71,533.46	1.68	0.11	12 hr	Cloudburst
CSO050	4/14/2012 8:45	4/14/2012 9:00	0.01	13,021.82	0.11	118,380.20	0.13	0.11	6 hr	Cloudburst
CSO050	4/16/2012 6:45	4/16/2012 6:45	0.00	3,756.37	0.07	53,662.39	0.28	0.11	3 hr	Atlas 14
CSO050	4/26/2012 4:45	4/26/2012 4:45	0.00	85.98	0.06	1,433.06	0.36			
CSO050	4/28/2012 19:00	4/29/2012 0:15	0.22	265,279.08	0.7	378,970.11	0.69	0.52	1 hr	Cloudburst
CSO050	4/30/2012 17:45	4/30/2012 20:15	0.10	172,125.18	0.41	419,817.50	1.04	0.27	3 hr	Atlas 14
CSO050	5/4/2012 23:30	5/5/2012 4:45	0.22	687,007.72	1.37	501,465.49	1.77	0.74	3 hr	Atlas 14
CSO050	5/13/2012 1:45	5/13/2012 20:30	0.78	843,214.46	2.09	403,451.89	0.88	0.83	24 hr	Cloudburst
CSO050	5/16/2012 17:30	5/16/2012 18:15	0.03	40,361.41	0.22	183,460.94	2.35	0.19	1 hr	Cloudburst
CSO050	5/29/2012 6:30	5/29/2012 10:30	0.17	1,854,870.44	2.73	679,439.72	0.89	4.96	1 hr	Cloudburst
CSO050	5/31/2012 18:15	6/1/2012 4:45	0.44	307,891.62	1.11	277,379.84	2.98	0.51	12 hr	Cloudburst
CSO050	6/4/2012 16:30	6/4/2012 16:30	0.00	379.59	0.11	3,450.85	4.04	0.08	12 hr	Cloudburst
CSO050	6/17/2012 11:15	6/17/2012 12:00	0.03	186,681.04	0.18	1,037,116.91	0.19	0.16	1 hr	Cloudburst
CSO050	6/20/2012 18:45	6/20/2012 19:30	0.03	2,898.24			0.21			
CSO053	12/15/2011 12:45	12/16/2011 20:45	1.33	425,124.55	0.23	1,848,367.61	0.47	0.22	6 hr	Cloudburst
CSO053	12/21/2011 3:00	12/21/2011 7:00	0.17	99,641.12	0.85	117,224.85	0.9	0.39	12 hr	Cloudburst
CSO053	12/21/2011 19:15	12/21/2011 20:30	0.05	10,298.19			1.32			
CSO053	12/22/2011 14:15	12/22/2011 15:45	0.06	13,535.61	0.44	30,762.76	1.16	0.24	12 hr	Cloudburst
CSO053	12/27/2011 3:00	12/27/2011 11:15	0.34	20,248.36	0.71	28,518.81	1.68	0.32	12 hr	Cloudburst
CSO053	1/11/2012 5:00	1/11/2012 9:45	0.20	76,572.78	0.48	159,526.62	0.19	0.27	24 hr	Cloudburst
CSO053	1/17/2012 11:30	1/17/2012 12:15	0.03	32,904.96	0.25	131,619.84	1.23	0.21	12 hr	Cloudburst
CSO053	1/23/2012 2:45	1/23/2012 4:30	0.07	127,803.08	0.56	228,219.79	0.74	0.31	3 hr	Atlas 14
CSO053	1/26/2012 5:30	1/26/2012 6:30	0.04	199,521.34	0.52	383,694.89	1.27	0.60	24 hr	Cloudburst
CSO053	1/26/2012 18:30	1/26/2012 22:00	0.15	223,278.19	0.89	250,874.37	1.67	0.60	24 hr	Cloudburst
CSO053	2/4/2012 9:30	2/4/2012 10:15	0.03	17,016.78	0.32	53,177.43	0.23	0.21	3 hr	Atlas 14
CSO053	2/22/2012 22:45	2/22/2012 23:00	0.01	19,048.90	0.18	105,827.22	0.53	0.15	1 hr	Cloudburst
CSO053	2/29/2012 4:15	2/29/2012 9:00	0.20	99,340.38	0.57	174,281.37	0.39	0.30	1 hr	Cloudburst
CSO053	3/8/2012 10:00	3/8/2012 14:45	0.20	73,181.45	0.67	109,226.04	0.65	0.36	6 hr	Cloudburst
CSO053	3/12/2012 11:30	3/12/2012 11:30	0.00	73.79	0.11	670.83	0.92	0.07	12 hr	Cloudburst
CSO053	3/15/2012 18:00	3/16/2012 3:00	0.38	134,780.01	0.92	146,500.01	0.44	0.41	12 hr	Cloudburst
CSO053	3/17/2012 18:30	3/17/2012 22:00	0.15	98,977.54	0.52	190,341.43	1.41	0.29	6 hr	Cloudburst
CSO053	3/23/2012 5:15	3/23/2012 22:30	0.72	519,428.29	1.58	328,752.08	0.8	0.61	3 hr	Atlas 14
CSO053	3/30/2012 23:45	3/31/2012 0:15	0.02	14,612.06	0.17	85,953.27	0.21	0.11	3 hr	Atlas 14
CSO053	4/1/2012 8:30	4/1/2012 11:00	0.10	450,431.12	1.62	278,043.90	1.12	0.90	6 hr	Cloudburst
CSO053	4/4/2012 16:45	4/4/2012 16:45	0.00	1,550.70	0.06	25,845.01	1.94	0.11	12 hr	Cloudburst
CSO053	4/14/2012 9:00	4/14/2012 9:00	0.00	11,278.61	0.15	75,190.73	0.17	0.14	6 hr	Cloudburst
CSO053	4/16/2012 7:00	4/16/2012 7:00	0.00	802.86	0.09	8,920.70	0.35	0.11	3 hr	Atlas 14
CSO053	4/28/2012 19:15	4/29/2012 0:15	0.21	318,676.24	0.72	442,605.90	0.73	0.54	1 hr	Cloudburst
CSO053	4/30/2012 18:00	4/30/2012 20:15	0.09	129,008.51	0.46	280,453.29	1.06	0.30	3 hr	Atlas 14

UnitID	Overflow Start Date	Overflow End Date	Overflow Duration (Days)	Volume (Gallons)	Overflow Event Rain Inches)	Volume Per Inch	Overflow Antecedent Rain	Frequency (Years)	Period	Standard
CSO053	5/4/2012 23:45	5/5/2012 4:30	0.20	423,694.45	1.38	307,024.97	1.87	0.75	3 hr	Atlas 14
CSO053	5/13/2012 1:45	5/13/2012 13:45	0.50	504,342.70	2.12	237,897.50	0.88	0.84	24 hr	Cloudburst
CSO053	5/16/2012 17:45	5/16/2012 18:15	0.02	43,376.83	0.26	166,833.98	2.45	0.23	1 hr	Cloudburst
CSO053	5/29/2012 6:30	5/29/2012 9:15	0.11	966,931.27	2.82	342,883.43	0.87	4.70	1 hr	Cloudburst
CSO053	5/31/2012 18:30	6/1/2012 4:45	0.43	207,711.76	1.16	179,061.87	3.27	0.54	12 hr	Cloudburst
CSO053	6/17/2012 11:30	6/17/2012 12:00	0.02	82,855.89	0.21	394,551.86	0.26	0.18	1 hr	Cloudburst
CSO054	1/12/2012 12:45	1/12/2012 15:00	0.09	10,325.86	0.08	129,073.31	0.77			
CSO054	1/12/2012 23:15	1/13/2012 2:15	0.13	70	0.02	3,499.76	0.8			
CSO054	1/17/2012 2:15	1/17/2012 15:45	0.56	23,402.00	0.46	50,873.92	0.89	0.21	12 hr	Cloudburst
CSO054	1/18/2012 0:15	1/18/2012 0:45	0.02	56.23			1.27			
CSO054	1/22/2012 22:45	1/23/2012 15:45	0.71	38,643.47	0.57	67,795.55	0.58	0.31	3 hr	Atlas 14
CSO054	1/25/2012 15:45	1/25/2012 19:30	0.16	4,262.80	0.26	16,395.38	0.77	0.60	24 hr	Cloudburst
CSO054	1/26/2012 5:00	1/26/2012 23:45	0.78	54,107.73	1.53	35,364.53	1.12	0.60	24 hr	Cloudburst
CSO054	2/4/2012 9:00	2/4/2012 11:15	0.09	12,861.81	0.35	36,748.03	0.14	0.21	3 hr	Atlas 14
CSO054	2/14/2012 6:00	2/14/2012 13:15	0.30	13,901.17	0.19	73,164.05	0.26	0.10	6 hr	Cloudburst
CSO054	2/15/2012 23:45	2/16/2012 8:45	0.38	6,769.01	0.35	19,340.02	0.41	0.16	12 hr	Cloudburst
CSO054	2/21/2012 9:45	2/21/2012 14:00	0.18	372.91	0.13	2,868.53	0.5	0.07	6 hr	Cloudburst
CSO054	2/22/2012 22:45	2/22/2012 23:45	0.04	1,226.80	0.19	6,456.85	0.53	0.15	1 hr	Cloudburst
CSO054	2/23/2012 14:00	2/23/2012 16:00	0.08	57.22			0.32			
CSO054	2/29/2012 2:00	2/29/2012 9:30	0.31	5,353.23	0.57	9,391.63	0.35	0.30	1 hr	Cloudburst
CSO054	3/4/2012 23:00	3/5/2012 4:00	0.21	1,145.47	0.22	5,206.70	0.83	0.12	6 hr	Cloudburst
CSO054	3/5/2012 13:30	3/5/2012 14:45	0.05	631.02			1			
CSO054	3/6/2012 11:15	3/6/2012 17:45	0.27	261.92			1			
CSO054	3/12/2012 7:15	3/12/2012 12:15	0.21	1,256.95	0.16	7,855.91	0.89	0.07	12 hr	Cloudburst
CSO054	3/15/2012 17:45	3/16/2012 3:45	0.42	8,162.13	0.92	8,871.88	0.43	0.41	12 hr	Cloudburst
CSO054	3/17/2012 18:30	3/17/2012 22:45	0.18	11,667.64	0.52	22,437.78	1.41	0.29	6 hr	Cloudburst
CSO054	3/22/2012 15:30	3/23/2012 23:30	1.33	105,617.39	1.69	62,495.50	1.56	0.61	3 hr	Atlas 14
CSO054	3/30/2012 23:30	3/31/2012 0:45	0.05	1,554.40	0.17	9,143.52	0.19	0.11	3 hr	Atlas 14
CSO054	4/1/2012 6:30	4/1/2012 11:45	0.22	78,521.97	1.63	48,172.99	0.37	0.90	6 hr	Cloudburst
CSO054	4/4/2012 16:30	4/4/2012 17:15	0.03	1,212.45	0.08	15,155.66	1.93	0.11	12 hr	Cloudburst
CSO054	4/9/2012 9:15	4/9/2012 9:30	0.01	52.5			0.33			
CSO054	4/13/2012 8:30	4/13/2012 9:30	0.04	132.81			0.01			
CSO054	4/14/2012 8:30	4/14/2012 10:00	0.06	2,547.27	0.17	14,983.92	0.16	0.14	6 hr	Cloudburst
CSO054	4/16/2012 6:45	4/16/2012 6:45	0.00	254.43	0.08	3,180.40	0.34	0.11	3 hr	Atlas 14
CSO054	4/20/2012 23:15	4/20/2012 23:15	0.00	998.21	0.08	12,477.67	0.51	0.11	12 hr	Cloudburst
CSO054	4/26/2012 4:30	4/26/2012 4:45	0.01	710.69	0.06	11,844.90	0.34			
CSO054	4/28/2012 19:15	4/29/2012 1:00	0.24	97,364.54	0.72	135,228.53	0.73	0.54	1 hr	Cloudburst
CSO054	4/30/2012 18:00	4/30/2012 20:30	0.10	18,693.34	0.46	40,637.70	1.06	0.30	3 hr	Atlas 14
CSO054	5/4/2012 16:15	5/5/2012 4:30	0.51	76,235.80	1.38	55,243.33	1.24	0.75	3 hr	Atlas 14
CSO054	5/13/2012	5/13/2012 20:30	0.85	50,177.75	2.12	23,668.75	0.32	0.84	24 hr	Cloudburst
CSO054	5/16/2012 17:30	5/16/2012 18:30	0.04	4,194.70	0.26	16,133.47	2.44	0.23	1 hr	Cloudburst
CSO054	5/24/2012 9:00	5/24/2012 9:15	0.01	238.42			0.02			
CSO054	5/25/2012 8:30	5/25/2012 8:30	0.00	93.51			0.02			
CSO054	5/29/2012 6:15	5/29/2012 9:45	0.15	287,799.18	2.84	101,337.74	0.37	4.70	1 hr	Cloudburst
CSO054	5/31/2012 18:15	6/1/2012 5:15	0.46	15,592.11	1.16	13,441.47	3.21	0.54	12 hr	Cloudburst
CSO054	6/4/2012 14:00	6/4/2012 18:00	0.17	850.7	0.15	5,671.36	4.19	0.09	12 hr	Cloudburst
CSO054	6/5/2012 10:15	6/5/2012 10:15	0.00	96.71			1.46			
CSO054	6/17/2012 11:15	6/17/2012 12:15	0.04	6,157.78	0.21	29,322.78	0.22	0.18	1 hr	Cloudburst

UnitID	Overflow Start Date	Overflow End Date	Overflow Duration (Days)	Volume (Gallons)	Overflow Event Rain Inches)	Volume Per Inch	Overflow Antecedent Rain	Frequency (Years)	Period	Standard
CSO054	6/25/2012 2:15	6/25/2012 2:15	0.00	817.97	0.01	81,797.11	0.04			
CSO055	7/19/2011 22:45	7/20/2011 1:00	0.09	339,575.76	1.61	210,916.62	1	4.23	1 hr	Cloudburst
CSO055	8/7/2011 3:00	8/7/2011 8:15	0.22	346,439.59	1.54	224,960.77	0.44	0.89	3 hr	Atlas 14
CSO055	8/8/2011 13:45	8/8/2011 13:45	0.00	14,283.70	0.25	57,134.81	1.83	0.24	3 hr	Atlas 14
CSO055	8/13/2011 17:15	8/13/2011 17:15	0.00	22,669.64	0.74	30,634.65	2.73	0.63	1 hr	Cloudburst
CSO055	8/18/2011 8:00	8/18/2011 8:00	0.00	16,750.11	0.34	49,265.04	1.16	0.30	1 hr	Cloudburst
CSO055	9/4/2011 20:30	9/4/2011 20:30	0.00	2,894.29	0.09	32,158.82	0.16	0.07	24 hr	Cloudburst
CSO055	9/19/2011 7:00	9/19/2011 7:30	0.02	17,716.67	0.27	65,617.28	0.54	0.30	12 hr	Cloudburst
CSO055	9/23/2011 2:15	9/23/2011 7:45	0.23	43,917.23	0.73	60,160.59	1.08	0.34	12 hr	Cloudburst
CSO055	9/25/2011 23:30	9/26/2011 6:00	0.27	1,203,522.77	4.48	268,643.48	3.06	36.19	12 hr	Atlas 14
CSO055	9/27/2011 8:15	9/27/2011 15:00	0.28	3,274.15			5.47			
CSO055	9/28/2011 14:00	9/28/2011 17:00	0.13	2,690.27			5.42			
CSO055	9/29/2011 9:45	9/29/2011 9:45	0.00	1,510.21			5.42			
CSO055	10/13/2011 7:15	10/13/2011 7:45	0.02	25,726.85	0.22	116,940.23	0.12	0.19	3 hr	Atlas 14
CSO055	10/18/2011 20:15	10/18/2011 20:15	0.00	5,855.84	0.21	27,884.94	0.62	0.16	1 hr	Cloudburst
CSO055	10/27/2011	10/27/2011 0:30	0.02	53,443.89	0.72	74,227.63	1.02	0.46	6 hr	Cloudburst
CSO055	11/14/2011 21:30	11/14/2011 21:30	0.00	34,545.93	0.26	132,868.95	0.3	0.65	48 hr	Atlas 14
CSO055	11/21/2011 4:00	11/21/2011 4:00	0.00	18,523.07	0.1	185,230.66	2.57	0.24	24 hr	Cloudburst
CSO055	11/22/2011 3:00	11/22/2011 11:15	0.34	349,945.82	1	349,945.82	2.29	0.49	6 hr	Cloudburst
CSO055	11/28/2011 11:00	11/29/2011 1:45	0.61	740,301.80	1.66	445,964.94	2.79	0.93	48 hr	Atlas 14
CSO055	12/5/2011 2:45	12/5/2011 19:00	0.68	1,161,716.92	2.55	455,575.26	2.86	1.43	48 hr	Cloudburst
CSO055	12/21/2011 6:30	12/21/2011 6:30	0.00	22,173.37	0.77	28,796.58	1.32	0.39	12 hr	Cloudburst
CSO055	1/11/2012 4:30	1/11/2012 4:30	0.00	5,457.59	0.13	41,981.46	0.14	0.27	24 hr	Cloudburst
CSO055	1/23/2012 2:45	1/23/2012 4:15	0.06	40,323.85	0.56	72,006.88	0.74	0.31	3 hr	Atlas 14
CSO055	1/26/2012 5:45	1/26/2012 6:00	0.01	39,896.32	0.5	79,792.63	1.3	0.60	24 hr	Cloudburst
CSO055	1/26/2012 18:45	1/26/2012 22:00	0.14	146,751.00	0.89	164,888.77	1.72	0.60	24 hr	Cloudburst
CSO055	2/14/2012 13:30	2/14/2012 13:30	0.00	1,096.39	0.01	109,638.55	0.26			
CSO055	2/22/2012 22:45	2/22/2012 22:45	0.00	3,524.94	0.17	20,734.95	0.53	0.15	1 hr	Cloudburst
CSO055	2/29/2012 8:45	2/29/2012 8:45	0.00	16,228.66	0.55	29,506.65	0.76	0.30	1 hr	Cloudburst
CSO055	3/1/2012 4:45	3/1/2012 4:45	0.00	548.95			0.65			
CSO055	3/8/2012 12:15	3/13/2012 13:30	5.05	671,436.43	0.92	729,822.21	0.95	0.36	6 hr	Cloudburst
CSO055	3/16/2012 2:30	3/16/2012 3:15	0.03	16,014.35	0.65	24,637.47	1.11	0.41	12 hr	Cloudburst
CSO055	3/17/2012 18:30	3/17/2012 22:30	0.17	8,045.21	0.52	15,471.55	1.41	0.29	6 hr	Cloudburst
CSO055	3/23/2012 5:15	3/23/2012 23:30	0.76	42,093.23	1.58	26,641.28	0.8	0.61	3 hr	Atlas 14
CSO055	4/1/2012 8:30	4/1/2012 12:30	0.17	111,760.40	1.63	68,564.66	1.12	0.90	6 hr	Cloudburst
CSO055	4/28/2012 19:15	4/28/2012 19:30	0.01	146,523.68	0.62	236,328.52	0.73	0.54	1 hr	Cloudburst
CSO055	4/30/2012 18:00	4/30/2012 18:00	0.00	115,860.70	0.22	526,639.55	1.06	0.30	3 hr	Atlas 14
CSO055	5/4/2012 23:45	5/5/2012 2:00	0.09	263,099.59	1.17	224,871.44	1.87	0.75	3 hr	Atlas 14
CSO055	5/13/2012 2:00	5/13/2012 15:30	0.56	384,741.00	2.12	181,481.60	1.02	0.84	24 hr	Cloudburst
CSO055	5/16/2012 17:45	5/16/2012 17:45	0.00	1,376.00	0.26	5,292.32	2.45	0.23	1 hr	Cloudburst
CSO055	5/29/2012 6:30	5/29/2012 10:30	0.17	907,371.86	2.88	315,059.67	0.87	4.70	1 hr	Cloudburst
CSO055	5/31/2012 18:30	5/31/2012 20:30	0.08	44,214.66	0.63	70,182.01	3.27	0.54	12 hr	Cloudburst
CSO055	6/17/2012 11:30	6/17/2012 11:30	0.00	2,019.27	0.2	10,096.36	0.26	0.18	1 hr	Cloudburst
CSO058	7/8/2011 3:00	7/8/2011 4:15	0.05	2,206.84	0.32	6,896.38	0.45	0.20	3 hr	Atlas 14
CSO058	8/7/2011 3:00	8/7/2011 6:30	0.15	210,664.91	1.89	111,462.92	0.57	2.72	3 hr	Cloudburst
CSO058	8/8/2011 13:45	8/8/2011 15:00	0.05	1,560.70	0.19	8,214.21	2.05	0.13	3 hr	Atlas 14
CSO058	8/10/2011 2:30	8/10/2011 2:45	0.01	897.35	0.09	9,970.58	2.22	0.08	1 hr	Cloudburst
CSO058	8/13/2011 17:00	8/13/2011 17:15	0.01	4,188.71	0.64	6,544.86	2.86	0.57	1 hr	Cloudburst

UnitID	Overflow Start Date	Overflow End Date	Overflow Duration (Days)	Volume (Gallons)	Overflow Event Rain Inches)	Volume Per Inch	Overflow Antecedent Rain	Frequency (Years)	Period	Standard
CSO058	8/18/2011 8:00	8/18/2011 8:15	0.01	1,516.47	0.38	3,990.71	1.09	0.32	1 hr	Cloudburst
CSO058	9/11/2011 19:30	9/11/2011 21:45	0.09	3,346.12	0.29	11,538.35	0.56	0.19	1 hr	Cloudburst
CSO058	9/19/2011 6:45	9/19/2011 15:30	0.36	4,673.17	0.6	7,788.61	0.42	0.27	12 hr	Cloudburst
CSO058	9/23/2011 0:45	9/23/2011 7:30	0.28	7,486.20	0.77	9,722.34	0.91	0.36	12 hr	Cloudburst
CSO058	9/25/2011 19:45	9/26/2011 5:00	0.39	1,921,326.52	3.78	508,287.44	2.09	4.79	24 hr	Cloudburst
CSO058	10/13/2011 7:15	10/13/2011 7:45	0.02	4,481.43	0.21	21,340.14	0.12	0.18	3 hr	Atlas 14
CSO058	10/18/2011 20:15	10/18/2011 20:30	0.01	884.68	0.17	5,204.00	0.56	0.12	1 hr	Cloudburst
CSO058	10/20/2011 0:30	10/20/2011 6:00	0.23	354.73	0.31	1,144.28	0.68	0.17	12 hr	Cloudburst
CSO058	10/26/2011 22:30	10/27/2011 4:45	0.26	6,432.21	0.92	6,991.54	0.72	0.43	12 hr	Cloudburst
CSO058	11/3/2011 9:00	11/3/2011 21:30	0.52	3,339.04	0.52	6,421.22	0.16	0.25	3 hr	Atlas 14
CSO058	11/14/2011 21:30	11/15/2011 13:15	0.66	6,662.55	1.33	5,009.44	0.27	0.65	48 hr	Atlas 14
CSO058	11/16/2011 4:45	11/16/2011 10:15	0.23	4,912.27	0.49	10,025.05	1.61	0.65	48 hr	Atlas 14
CSO058	11/20/2011 14:00	11/21/2011 8:15	0.76	3,649.02	0.68	5,366.20	2.23	0.54	48 hr	Atlas 14
CSO058	11/21/2011 23:30	11/22/2011 10:45	0.47	6,779.35	0.95	7,136.15	2.45	0.54	48 hr	Atlas 14
CSO058	11/27/2011 3:15	11/29/2011 1:15	1.92	53,321.89	2.98	17,893.25	2.03	0.93	48 hr	Atlas 14
CSO058	11/29/2011 12:45	11/29/2011 12:45	0.00	422.65			3.07			
CSO058	12/4/2011 15:15	12/5/2011 20:45	1.23	44,520.63	3.23	13,783.48	2.65	1.38	48 hr	Cloudburst
CSO058	12/15/2011 3:45	12/15/2011 8:30	0.20	5,097.37	0.39	13,070.19	0.17	0.22	6 hr	Cloudburst
CSO058	12/20/2011 23:30	12/21/2011 6:45	0.30	18,462.40	0.69	26,757.10	0.65	0.32	12 hr	Cloudburst
CSO058	12/22/2011 11:15	12/22/2011 18:45	0.31	7,390.22	0.51	14,490.62	0.92	0.25	12 hr	Cloudburst
CSO058	12/27/2011 2:00	12/27/2011 15:15	0.55	7,880.43	0.69	11,420.91	1.43	0.27	12 hr	Cloudburst
CSO058	1/11/2012 4:30	1/11/2012 22:15	0.74	28,830.03	0.71	40,605.68	0.17	0.28	24 hr	Cloudburst
CSO058	1/17/2012 3:45	1/17/2012 13:45	0.42	37,049.49	0.34	108,969.10	1	0.16	12 hr	Cloudburst
CSO058	1/23/2012 2:30	1/23/2012 5:45	0.14	15,123.73	0.56	27,006.66	0.56	0.32	3 hr	Atlas 14
CSO058	1/25/2012 16:30	1/25/2012 20:15	0.16	2,678.74	0.28	9,566.94	0.82	0.55	48 hr	Atlas 14
CSO058	1/26/2012 4:45	1/27/2012 2:45	0.92	56,773.11	1.41	40,264.62	1.04	0.55	48 hr	Atlas 14
CSO058	2/4/2012 8:45	2/4/2012 11:30	0.11	3,574.87	0.38	9,407.55	0.13	0.23	3 hr	Atlas 14
CSO058	2/14/2012 6:45	2/14/2012 6:45	0.00	1,193.67	0.19	6,282.47	0.28	0.10	6 hr	Cloudburst
CSO058	2/15/2012 23:30	2/16/2012 8:00	0.35	26,074.84	0.33	79,014.67	0.4	0.14	12 hr	Cloudburst
CSO058	2/22/2012 22:45	2/23/2012 0:15	0.06	6,032.87	0.13	46,406.73	0.44	0.10	1 hr	Cloudburst
CSO058	2/29/2012 2:00	2/29/2012 9:00	0.29	51,624.57	0.55	93,862.86	0.28	0.28	12 hr	Cloudburst
CSO058	3/3/2012 11:00	3/3/2012 14:30	0.15	73,867.53			0.72			
CSO058	3/4/2012 22:45	3/5/2012 4:15	0.23	19,504.35	0.22	88,656.14	0.78	0.12	6 hr	Cloudburst
CSO058	3/6/2012 23:15	3/6/2012 23:15	0.00	21,442.28			0.94			
CSO058	3/8/2012 9:30	3/8/2012 16:45	0.30	29,068.51	0.75	38,758.01	0.59	0.39	6 hr	Cloudburst
CSO058	3/12/2012 7:15	3/12/2012 12:15	0.21	12,191.04	0.17	71,711.99	0.93	0.08	12 hr	Cloudburst
CSO058	3/15/2012 18:00	3/16/2012 4:30	0.44	52,047.73	0.95	54,787.09	0.48	0.43	12 hr	Cloudburst
CSO058	3/17/2012 18:30	3/18/2012 1:45	0.30	33,942.43	0.63	53,876.87	1.51	0.33	3 hr	Atlas 14
CSO058	3/23/2012 5:00	3/23/2012 22:30	0.73	105,182.77	1.47	71,552.91	0.87	0.57	3 hr	Atlas 14
CSO058	4/1/2012 8:15	4/1/2012 10:45	0.10	488,910.15	1.57	311,407.74	0.97	0.87	6 hr	Cloudburst
CSO058	4/14/2012 8:45	4/14/2012 8:45	0.00	92.31	0.09	1,025.70	0.1	0.12	6 hr	Cloudburst
CSO058	4/28/2012 19:15	4/29/2012	0.20	7,989.36	0.76	10,512.31	0.79	0.58	1 hr	Cloudburst
CSO058	4/30/2012 18:00	4/30/2012 18:00	0.00	320.15	0.22	1,455.21	1.13	0.34	3 hr	Atlas 14
CSO058	5/4/2012 23:30	5/5/2012 1:15	0.07	117,889.78	1.13	104,327.24	1.75	0.73	6 hr	Cloudburst
CSO058	5/13/2012 1:45	5/13/2012 7:45	0.25	4,447.16	1.86	2,390.95	0.91	0.85	12 hr	Cloudburst
CSO058	5/16/2012 17:30	5/16/2012 17:45	0.01	3,055.97	0.22	13,890.75	2.36	0.19	1 hr	Cloudburst
CSO058	5/29/2012 6:30	5/29/2012 8:45	0.09	700,787.74	2.7	259,551.01	0.74	3.67	1 hr	Cloudburst
CSO058	5/31/2012 18:15	5/31/2012 18:15	0.00	1,135.01	0.25	4,540.02	3.09	0.54	12 hr	Cloudburst

UnitID	Overflow Start Date	Overflow End Date	Overflow Duration (Days)	Volume (Gallons)	Overflow Event Rain Inches)	Volume Per Inch	Overflow Antecedent Rain	Frequency (Years)	Period	Standard
CSO058	6/17/2012 11:15	6/17/2012 11:45	0.02	1,994.50	0.23	8,671.73	0.23	0.23	3 hr	Atlas 14
CSO084	7/19/2011 23:30	7/19/2011 23:30	0.00	760.42	1.58	481.28	1.64	1.76	1 hr	Cloudburst
CSO084	8/7/2011 5:15	8/7/2011 5:30	0.01	1,409.60	1.72	819.54	1.7	2.61	3 hr	Cloudburst
CSO084	8/13/2011 17:30	8/13/2011 17:30	0.00	1,364.89	0.66	2,068.01	2.9	0.57	1 hr	Cloudburst
CSO084	9/4/2011 20:30	9/4/2011 20:30	0.00	594.72	0.08	7,433.96	0.1	0.05	1 hr	Cloudburst
CSO084	9/19/2011 6:45	9/19/2011 6:45	0.00	1,580.45	0.11	14,367.68	0.41	0.28	12 hr	Cloudburst
CSO084	9/23/2011 7:00	9/23/2011 7:15	0.01	1,845.41	0.77	2,396.63	1.49	0.37	12 hr	Cloudburst
CSO084	9/25/2011 19:45	9/26/2011 5:00	0.39	15,078.03	3.63	4,153.73	2.09	9.38	12 hr	Atlas 14
CSO084	10/13/2011 7:45	10/13/2011 7:45	0.00	831.14	0.24	3,463.08	0.24	0.19	3 hr	Atlas 14
CSO084	10/27/2011 0:30	10/27/2011 0:45	0.01	1,463.07	0.82	1,784.23	1.25	0.48	12 hr	Cloudburst
CSO084	11/14/2011 21:45	11/14/2011 21:45	0.00	1,339.50	0.2	6,697.51	0.23	0.66	48 hr	Atlas 14
CSO084	11/15/2011 12:00	11/15/2011 12:00	0.00	415.29	0.65	638.91	1.14	0.66	48 hr	Atlas 14
CSO084	11/20/2011 17:30	11/20/2011 17:30	0.00	791.79	0.45	1,759.52	2.57	0.31	24 hr	Cloudburst
CSO084	11/22/2011	11/22/2011 9:30	0.40	7,440.13	0.97	7,670.23	2.7	0.50	12 hr	Cloudburst
CSO084	11/28/2011 13:30	11/28/2011 23:00	0.40	3,498.93	1.6	2,186.83	3.29	0.98	48 hr	Atlas 14
CSO084	12/4/2011 16:45	12/4/2011 17:00	0.01	1,682.35	0.51	3,298.72	3.04	1.15	48 hr	Cloudburst
CSO084	12/5/2011 3:15	12/5/2011 17:30	0.59	30,204.22	2.35	12,852.86	3	1.15	48 hr	Cloudburst
CSO084	12/15/2011 3:45	12/15/2011 7:30	0.16	1,782.54	0.38	4,690.90	0.16	0.22	6 hr	Cloudburst
CSO084	12/21/2011 6:15	12/21/2011 6:15	0.00	1,790.85	0.58	3,087.67	1.07	0.29	12 hr	Cloudburst
CSO084	12/27/2011 11:00	12/27/2011 11:00	0.00	354.15	0.3	1,180.52	1.77	0.26	12 hr	Cloudburst
CSO084	1/11/2012 4:30	1/11/2012 6:45	0.09	4,339.26	0.41	10,583.56	0.2	0.28	24 hr	Cloudburst
CSO084	1/17/2012 11:30	1/17/2012 12:00	0.02	3,572.35	0.23	15,531.98	1.12	0.15	12 hr	Cloudburst
CSO084	1/23/2012 3:00	1/23/2012 4:15	0.05	7,136.05	0.49	14,563.37	0.63	0.29	3 hr	Atlas 14
CSO084	1/26/2012 6:00	1/26/2012 6:15	0.01	34,786.27	0.43	80,898.31	1.22	0.56	48 hr	Atlas 14
CSO084	1/26/2012 18:45	1/26/2012 21:15	0.10	6,858.15	0.81	8,466.85	1.53	0.56	48 hr	Atlas 14
CSO084	2/22/2012 22:45	2/22/2012 23:00	0.01	3,184.80	0.16	19,904.99	0.42	0.12	1 hr	Cloudburst
CSO084	2/29/2012 8:45	2/29/2012 8:45	0.00	851.86	0.59	1,443.83	0.78	0.31	12 hr	Cloudburst
CSO084	3/8/2012 13:00	3/8/2012 14:45	0.07	2,753.74	0.71	3,878.51	1.04	0.39	6 hr	Cloudburst
CSO084	3/15/2012 19:00	3/16/2012 2:30	0.31	8,542.82	0.91	9,387.72	0.56	0.42	12 hr	Cloudburst
CSO084	3/23/2012 5:00	3/23/2012 10:00	0.21	898.98	0.37	2,429.68	1.3	0.58	24 hr	Cloudburst
CSO084	4/1/2012 10:45	4/1/2012 10:45	0.00	1,616.35	1.57	1,029.52	1.74	0.87	6 hr	Cloudburst
CSO084	4/29/2012 0:15	4/29/2012 0:15	0.00	966.01	0.77	1,254.56	0.91	0.59	1 hr	Cloudburst
CSO084	4/30/2012 18:15	4/30/2012 18:15	0.00	290.6	0.16	1,816.27	1.08	0.23	3 hr	Atlas 14
CSO084	5/4/2012 23:30	5/5/2012 1:45	0.09	2,568.09	1.42	1,808.51	1.69	0.90	3 hr	Atlas 14
CSO084	5/13/2012 1:45	5/13/2012 8:45	0.29	9,014.78	1.88	4,795.10	0.91	0.85	12 hr	Cloudburst
CSO084	5/16/2012 18:00	5/16/2012 18:00	0.00	1,264.90	0.19	6,657.36	2.29	0.17	1 hr	Cloudburst
CSO084	5/29/2012 7:30	5/29/2012 9:15	0.07	6,159.07	2.62	2,350.79	1.45	9.92	3 hr	Cloudburst
CSO084	5/31/2012 18:45	6/1/2012 1:15	0.27	4,499.93	1.06	4,245.22	3.12	0.53	12 hr	Cloudburst
CSO088	7/19/2011 22:30	7/19/2011 23:45	0.05	204,541.12	1.78	114,910.74	0.99	3.63	1 hr	Cloudburst
CSO088	7/19/2011 22:30	7/19/2011 23:45	0.05	204,541.12	1.78	114,910.74	0.99	3.63	1 hr	Cloudburst
CSO088	7/19/2011 22:30	7/19/2011 23:45	0.05	204,541.12	1.78	114,910.74	0.99	3.63	1 hr	Cloudburst
CSO088	7/19/2011 22:30	7/19/2011 23:45	0.05	204,541.12	1.78	114,910.74	0.99	3.63	1 hr	Cloudburst
CSO088	7/19/2011 22:30	7/19/2011 23:45	0.05	490,389.99	1.78	275,499.99	0.99	3.63	1 hr	Cloudburst
CSO088	7/19/2011 22:30	7/19/2011 23:45	0.05	490,389.99	1.78	275,499.99	0.99	3.63	1 hr	Cloudburst
CSO088	7/19/2011 22:30	7/19/2011 23:45	0.05	490,389.99	1.78	275,499.99	0.99	3.63	1 hr	Cloudburst
CSO088	7/19/2011 22:30	7/19/2011 23:45	0.05	490,389.99	1.78	275,499.99	0.99	3.63	1 hr	Cloudburst
CSO088	7/19/2011 22:30	7/19/2011 23:45	0.05	490,389.99	1.78	275,499.99	0.99	3.63	1 hr	Cloudburst
CSO088	7/27/2011 19:15	8/16/2011 23:45	20.19	315,243.02	3.21	98,206.55	0.39			
CSO088	7/27/2011 19:15	8/16/2011 23:45	20.19	315,243.02	3.21	98,206.55	0.39			

UnitID	Overflow Start Date	Overflow End Date	Overflow Duration (Days)	Volume (Gallons)	Overflow Event Rain Inches)	Volume Per Inch	Overflow Antecedent Rain	Frequency (Years)	Period	Standard
CSO088	7/27/2011 19:15	8/16/2011 23:45	20.19	196,009.31	3.21	61,062.09	0.39			
CSO088	7/27/2011 19:15	8/16/2011 23:45	20.19	196,009.31	3.21	61,062.09	0.39			
CSO088	9/5/2011 21:30	9/6/2011 6:30	0.38	16.6	0.15	110.67	0.14	0.08	12 hr	Cloudburst
CSO088	9/5/2011 21:30	9/6/2011 6:30	0.38	16.6	0.15	110.67	0.14	0.08	12 hr	Cloudburst
CSO088	9/5/2011 21:30	9/6/2011 6:30	0.38	16.6	0.15	110.67	0.14	0.08	12 hr	Cloudburst
CSO088	9/5/2011 21:30	9/6/2011 6:30	0.38	16.6	0.15	110.67	0.14	0.08	12 hr	Cloudburst
CSO088	9/5/2011 21:30	9/6/2011 6:30	0.38	98.91	0.15	659.39	0.14	0.08	12 hr	Cloudburst
CSO088	9/5/2011 21:30	9/6/2011 6:30	0.38	98.91	0.15	659.39	0.14	0.08	12 hr	Cloudburst
CSO088	9/5/2011 21:30	9/6/2011 6:30	0.38	98.91	0.15	659.39	0.14	0.08	12 hr	Cloudburst
CSO088	9/5/2011 21:30	9/6/2011 6:30	0.38	98.91	0.15	659.39	0.14	0.08	12 hr	Cloudburst
CSO088	9/11/2011 19:30	9/11/2011 19:45	0.01	58.52	0.27	216.74	0.55	0.20	3 hr	Atlas 14
CSO088	9/11/2011 19:30	9/11/2011 19:45	0.01	58.52	0.27	216.74	0.55	0.20	3 hr	Atlas 14
CSO088	9/11/2011 19:30	9/11/2011 19:45	0.01	58.52	0.27	216.74	0.55	0.20	3 hr	Atlas 14
CSO088	9/11/2011 19:30	9/11/2011 19:45	0.01	58.52	0.27	216.74	0.55	0.20	3 hr	Atlas 14
CSO088	9/11/2011 19:30	9/11/2011 19:45	0.01	728.84	0.27	2,699.40	0.55	0.20	3 hr	Atlas 14
CSO088	9/11/2011 19:30	9/11/2011 19:45	0.01	728.84	0.27	2,699.40	0.55	0.20	3 hr	Atlas 14
CSO088	9/11/2011 19:30	9/11/2011 19:45	0.01	728.84	0.27	2,699.40	0.55	0.20	3 hr	Atlas 14
CSO088	9/11/2011 19:30	9/11/2011 19:45	0.01	728.84	0.27	2,699.40	0.55	0.20	3 hr	Atlas 14
CSO088	9/19/2011 7:15	9/19/2011 7:45	0.02	39,400.58	0.29	135,864.06	0.58	0.28	12 hr	Cloudburst
CSO088	9/19/2011 7:15	9/19/2011 7:45	0.02	39,400.58	0.29	135,864.06	0.58	0.28	12 hr	Cloudburst
CSO088	9/19/2011 7:15	9/19/2011 7:45	0.02	39,400.58	0.29	135,864.06	0.58	0.28	12 hr	Cloudburst
CSO088	9/19/2011 7:15	9/19/2011 7:45	0.02	39,400.58	0.29	135,864.06	0.58	0.28	12 hr	Cloudburst
CSO088	9/19/2011 7:15	9/19/2011 7:45	0.02	3,517.36	0.29	12,128.83	0.58	0.28	12 hr	Cloudburst
CSO088	9/19/2011 7:15	9/19/2011 7:45	0.02	3,517.36	0.29	12,128.83	0.58	0.28	12 hr	Cloudburst
CSO088	9/19/2011 7:15	9/19/2011 7:45	0.02	3,517.36	0.29	12,128.83	0.58	0.28	12 hr	Cloudburst
CSO088	9/19/2011 7:15	9/19/2011 7:45	0.02	3,517.36	0.29	12,128.83	0.58	0.28	12 hr	Cloudburst
CSO088	9/23/2011 7:15	9/23/2011 7:30	0.01	1,472.72	0.79	1,864.20	1.52	0.37	12 hr	Cloudburst
CSO088	9/23/2011 7:15	9/23/2011 7:30	0.01	1,472.72	0.79	1,864.20	1.52	0.37	12 hr	Cloudburst
CSO088	9/23/2011 7:15	9/23/2011 7:30	0.01	1,472.72	0.79	1,864.20	1.52	0.37	12 hr	Cloudburst
CSO088	9/23/2011 7:15	9/23/2011 7:30	0.01	1,472.72	0.79	1,864.20	1.52	0.37	12 hr	Cloudburst
CSO088	9/23/2011 7:15	9/23/2011 7:30	0.01	27.48	0.79	34.79	1.52	0.37	12 hr	Cloudburst
CSO088	9/23/2011 7:15	9/23/2011 7:30	0.01	27.48	0.79	34.79	1.52	0.37	12 hr	Cloudburst
CSO088	9/23/2011 7:15	9/23/2011 7:30	0.01	27.48	0.79	34.79	1.52	0.37	12 hr	Cloudburst
CSO088	9/23/2011 7:15	9/23/2011 7:30	0.01	27.48	0.79	34.79	1.52	0.37	12 hr	Cloudburst
CSO088	9/25/2011 20:00	9/26/2011 6:15	0.43	1,638,689.59	3.46	473,609.71	2.09	8.19	12 hr	Atlas 14
CSO088	9/25/2011 20:00	9/26/2011 6:15	0.43	1,638,689.59	3.46	473,609.71	2.09	8.19	12 hr	Atlas 14
CSO088	9/25/2011 20:00	9/26/2011 6:15	0.43	1,638,689.59	3.46	473,609.71	2.09	8.19	12 hr	Atlas 14
CSO088	9/25/2011 20:00	9/26/2011 6:15	0.43	1,638,689.59	3.46	473,609.71	2.09	8.19	12 hr	Atlas 14
CSO088	9/25/2011 20:00	9/26/2011 6:30	0.44	734,561.03	3.46	212,300.88	2.09	8.19	12 hr	Atlas 14
CSO088	9/25/2011 20:00	9/26/2011 6:30	0.44	734,561.03	3.46	212,300.88	2.09	8.19	12 hr	Atlas 14
CSO088	9/25/2011 20:00	9/26/2011 6:30	0.44	734,561.03	3.46	212,300.88	2.09	8.19	12 hr	Atlas 14
CSO088	9/25/2011 20:00	9/26/2011 6:30	0.44	734,561.03	3.46	212,300.88	2.09	8.19	12 hr	Atlas 14
CSO088	10/13/2011 7:45	10/13/2011 7:45	0.00	40.18	0.29	138.55	0.29	0.25	3 hr	Atlas 14
CSO088	10/13/2011 7:45	10/13/2011 7:45	0.00	40.18	0.29	138.55	0.29	0.25	3 hr	Atlas 14
CSO088	10/13/2011 7:45	10/13/2011 7:45	0.00	40.18	0.29	138.55	0.29	0.25	3 hr	Atlas 14
CSO088	10/13/2011 7:45	10/13/2011 7:45	0.00	40.18	0.29	138.55	0.29	0.25	3 hr	Atlas 14
CSO088	10/13/2011 7:45	10/13/2011 7:45	0.00	2,049.68	0.29	7,067.87	0.29	0.25	3 hr	Atlas 14
CSO088	10/13/2011 7:45	10/13/2011 7:45	0.00	2,049.68	0.29	7,067.87	0.29	0.25	3 hr	Atlas 14

UnitID	Overflow Start Date	Overflow End Date	Overflow Duration (Days)	Volume (Gallons)	Overflow Event Rain Inches)	Volume Per Inch	Overflow Antecedent Rain	Frequency (Years)	Period	Standard
CSO088	10/13/2011 7:45	10/13/2011 7:45	0.00	2,049.68	0.29	7,067.87	0.29	0.25	3 hr	Atlas 14
CSO088	10/13/2011 7:45	10/13/2011 7:45	0.00	2,049.68	0.29	7,067.87	0.29	0.25	3 hr	Atlas 14
CSO088	10/27/2011 0:15	10/27/2011 1:15	0.04	43,168.49	0.73	59,134.92	1.08	0.42	3 hr	Atlas 14
CSO088	10/27/2011 0:15	10/27/2011 1:15	0.04	43,168.49	0.73	59,134.92	1.08	0.42	3 hr	Atlas 14
CSO088	10/27/2011 0:15	10/27/2011 1:15	0.04	43,168.49	0.73	59,134.92	1.08	0.42	3 hr	Atlas 14
CSO088	10/27/2011 0:15	10/27/2011 1:15	0.04	43,168.49	0.73	59,134.92	1.08	0.42	3 hr	Atlas 14
CSO088	10/27/2011 0:15	10/27/2011 1:15	0.04	104,879.66	0.73	143,670.77	1.08	0.42	3 hr	Atlas 14
CSO088	10/27/2011 0:15	10/27/2011 1:15	0.04	104,879.66	0.73	143,670.77	1.08	0.42	3 hr	Atlas 14
CSO088	10/27/2011 0:15	10/27/2011 1:15	0.04	104,879.66	0.73	143,670.77	1.08	0.42	3 hr	Atlas 14
CSO088	10/27/2011 0:15	10/27/2011 1:15	0.04	104,879.66	0.73	143,670.77	1.08	0.42	3 hr	Atlas 14
CSO088	10/27/2011 0:15	10/27/2011 1:15	0.04	104,879.66	0.73	143,670.77	1.08	0.42	3 hr	Atlas 14
CSO088	11/14/2011 21:45	11/14/2011 21:45	0.00	3,280.79	0.31	10,583.19	0.35	0.67	48 hr	Atlas 14
CSO088	11/14/2011 21:45	11/14/2011 21:45	0.00	3,280.79	0.31	10,583.19	0.35	0.67	48 hr	Atlas 14
CSO088	11/14/2011 21:45	11/14/2011 21:45	0.00	3,280.79	0.31	10,583.19	0.35	0.67	48 hr	Atlas 14
CSO088	11/14/2011 21:45	11/14/2011 21:45	0.00	3,280.79	0.31	10,583.19	0.35	0.67	48 hr	Atlas 14
CSO088	11/14/2011 21:45	11/14/2011 21:45	0.00	994.46	0.31	3,207.95	0.35	0.67	48 hr	Atlas 14
CSO088	11/14/2011 21:45	11/14/2011 21:45	0.00	994.46	0.31	3,207.95	0.35	0.67	48 hr	Atlas 14
CSO088	11/14/2011 21:45	11/14/2011 21:45	0.00	994.46	0.31	3,207.95	0.35	0.67	48 hr	Atlas 14
CSO088	11/14/2011 21:45	11/14/2011 21:45	0.00	994.46	0.31	3,207.95	0.35	0.67	48 hr	Atlas 14
CSO088	11/16/2011 6:45	11/16/2011 6:45	0.00	71.41	0.34	210.03	1.84	0.67	48 hr	Atlas 14
CSO088	11/16/2011 6:45	11/16/2011 6:45	0.00	71.41	0.34	210.03	1.84	0.67	48 hr	Atlas 14
CSO088	11/16/2011 6:45	11/16/2011 6:45	0.00	71.41	0.34	210.03	1.84	0.67	48 hr	Atlas 14
CSO088	11/16/2011 6:45	11/16/2011 6:45	0.00	71.41	0.34	210.03	1.84	0.67	48 hr	Atlas 14
CSO088	11/16/2011 6:45	11/16/2011 6:45	0.00	26.45	0.34	77.79	1.84	0.67	48 hr	Atlas 14
CSO088	11/16/2011 6:45	11/16/2011 6:45	0.00	26.45	0.34	77.79	1.84	0.67	48 hr	Atlas 14
CSO088	11/16/2011 6:45	11/16/2011 6:45	0.00	26.45	0.34	77.79	1.84	0.67	48 hr	Atlas 14
CSO088	11/16/2011 6:45	11/16/2011 6:45	0.00	26.45	0.34	77.79	1.84	0.67	48 hr	Atlas 14
CSO088	11/21/2011 4:00	11/21/2011 4:15	0.01	46.04	0.1	460.4	2.75	0.54	48 hr	Atlas 14
CSO088	11/21/2011 4:00	11/21/2011 4:15	0.01	46.04	0.1	460.4	2.75	0.54	48 hr	Atlas 14
CSO088	11/21/2011 4:00	11/21/2011 4:15	0.01	46.04	0.1	460.4	2.75	0.54	48 hr	Atlas 14
CSO088	11/21/2011 4:00	11/21/2011 4:15	0.01	46.04	0.1	460.4	2.75	0.54	48 hr	Atlas 14
CSO088	11/21/2011 4:00	11/21/2011 4:15	0.01	2,235.99	0.1	22,359.87	2.75	0.54	48 hr	Atlas 14
CSO088	11/21/2011 4:00	11/21/2011 4:15	0.01	2,235.99	0.1	22,359.87	2.75	0.54	48 hr	Atlas 14
CSO088	11/21/2011 4:00	11/21/2011 4:15	0.01	2,235.99	0.1	22,359.87	2.75	0.54	48 hr	Atlas 14
CSO088	11/21/2011 4:00	11/21/2011 4:15	0.01	2,235.99	0.1	22,359.87	2.75	0.54	48 hr	Atlas 14
CSO088	11/22/2011 3:00	11/22/2011 9:15	0.26	15,033.42	0.86	17,480.72	2.47	0.54	48 hr	Atlas 14
CSO088	11/22/2011 3:00	11/22/2011 9:15	0.26	15,033.42	0.86	17,480.72	2.47	0.54	48 hr	Atlas 14
CSO088	11/22/2011 3:00	11/22/2011 9:15	0.26	15,033.42	0.86	17,480.72	2.47	0.54	48 hr	Atlas 14
CSO088	11/22/2011 3:00	11/22/2011 9:15	0.26	15,033.42	0.86	17,480.72	2.47	0.54	48 hr	Atlas 14
CSO088	11/22/2011 3:00	11/22/2011 9:15	0.26	73,371.10	0.86	85,315.23	2.47	0.54	48 hr	Atlas 14
CSO088	11/22/2011 3:00	11/22/2011 9:15	0.26	73,371.10	0.86	85,315.23	2.47	0.54	48 hr	Atlas 14
CSO088	11/22/2011 3:00	11/22/2011 9:15	0.26	73,371.10	0.86	85,315.23	2.47	0.54	48 hr	Atlas 14
CSO088	11/22/2011 3:00	11/22/2011 9:15	0.26	73,371.10	0.86	85,315.23	2.47	0.54	48 hr	Atlas 14
CSO088	11/27/2011 8:15	11/27/2011 9:15	0.04	56.83	0.4	142.08	2.26	0.95	48 hr	Atlas 14
CSO088	11/27/2011 8:15	11/27/2011 9:15	0.04	56.83	0.4	142.08	2.26	0.95	48 hr	Atlas 14
CSO088	11/27/2011 8:15	11/27/2011 9:15	0.04	56.83	0.4	142.08	2.26	0.95	48 hr	Atlas 14
CSO088	11/27/2011 8:15	11/27/2011 9:15	0.04	56.83	0.4	142.08	2.26	0.95	48 hr	Atlas 14
CSO088	11/27/2011 8:15	11/27/2011 9:15	0.04	209.19	0.4	522.96	2.26	0.95	48 hr	Atlas 14
CSO088	11/27/2011 8:15	11/27/2011 9:15	0.04	209.19	0.4	522.96	2.26	0.95	48 hr	Atlas 14

UnitID	Overflow Start Date	Overflow End Date	Overflow Duration (Days)	Volume (Gallons)	Overflow Event Rain Inches)	Volume Per Inch	Overflow Antecedent Rain	Frequency (Years)	Period	Standard
CSO088	11/27/2011 8:15	11/27/2011 9:15	0.04	209.19	0.4	522.96	2.26	0.95	48 hr	Atlas 14
CSO088	11/27/2011 8:15	11/27/2011 9:15	0.04	209.19	0.4	522.96	2.26	0.95	48 hr	Atlas 14
CSO088	11/27/2011 23:00	11/29/2011 10:45	1.49	1,328,539.03	2.43	546,723.88	2.21	0.95	48 hr	Atlas 14
CSO088	11/27/2011 23:00	11/29/2011 10:45	1.49	1,328,539.03	2.43	546,723.88	2.21	0.95	48 hr	Atlas 14
CSO088	11/27/2011 23:00	11/29/2011 10:45	1.49	1,328,539.03	2.43	546,723.88	2.21	0.95	48 hr	Atlas 14
CSO088	11/27/2011 23:00	11/29/2011 10:45	1.49	1,328,539.03	2.43	546,723.88	2.21	0.95	48 hr	Atlas 14
CSO088	11/27/2011 23:00	11/29/2011 10:45	1.49	577,911.66	2.43	237,823.73	2.21	0.95	48 hr	Atlas 14
CSO088	11/27/2011 23:00	11/29/2011 10:45	1.49	577,911.66	2.43	237,823.73	2.21	0.95	48 hr	Atlas 14
CSO088	11/27/2011 23:00	11/29/2011 10:45	1.49	577,911.66	2.43	237,823.73	2.21	0.95	48 hr	Atlas 14
CSO088	11/27/2011 23:00	11/29/2011 10:45	1.49	577,911.66	2.43	237,823.73	2.21	0.95	48 hr	Atlas 14
CSO088	11/29/2011 20:00	11/30/2011 4:15	0.34	21,978.95	0.07	313,985.03	3.13			
CSO088	11/29/2011 20:00	11/30/2011 4:15	0.34	21,978.95	0.07	313,985.03	3.13			
CSO088	11/29/2011 20:00	11/30/2011 4:15	0.34	341.87	0.07	4,883.88	3.13			
CSO088	11/29/2011 20:00	11/30/2011 4:15	0.34	341.87	0.07	4,883.88	3.13			
CSO088	11/30/2011 16:15	12/1/2011 12:00	0.82	24,611.71			3.14			
CSO088	12/5/2011 3:15	12/6/2011 4:15	1.04	2,061,739.27	2.41	855,493.47	2.98	1.18	48 hr	Cloudburst
CSO088	12/5/2011 3:15	12/6/2011 4:15	1.04	2,061,739.27	2.41	855,493.47	2.98	1.18	48 hr	Cloudburst
CSO088	12/5/2011 3:15	12/6/2011 4:15	1.04	2,061,739.27	2.41	855,493.47	2.98	1.18	48 hr	Cloudburst
CSO088	12/5/2011 3:15	12/6/2011 4:15	1.04	2,061,739.27	2.41	855,493.47	2.98	1.18	48 hr	Cloudburst
CSO088	12/5/2011 3:15	12/6/2011 4:15	1.04	3,535,140.76	2.41	1,466,863.38	2.98	1.18	48 hr	Cloudburst
CSO088	12/5/2011 3:15	12/6/2011 4:15	1.04	3,535,140.76	2.41	1,466,863.38	2.98	1.18	48 hr	Cloudburst
CSO088	12/5/2011 3:15	12/6/2011 4:15	1.04	3,535,140.76	2.41	1,466,863.38	2.98	1.18	48 hr	Cloudburst
CSO088	12/5/2011 3:15	12/6/2011 4:15	1.04	3,535,140.76	2.41	1,466,863.38	2.98	1.18	48 hr	Cloudburst
CSO088	12/21/2011 6:30	12/21/2011 6:45	0.01	23,448.70	0.57	41,138.06	1.1	0.28	12 hr	Cloudburst
CSO088	12/21/2011 6:30	12/21/2011 6:45	0.01	23,448.70	0.57	41,138.06	1.1	0.28	12 hr	Cloudburst
CSO088	12/21/2011 6:30	12/21/2011 6:45	0.01	23,448.70	0.57	41,138.06	1.1	0.28	12 hr	Cloudburst
CSO088	12/21/2011 6:30	12/21/2011 6:45	0.01	23,448.70	0.57	41,138.06	1.1	0.28	12 hr	Cloudburst
CSO088	12/21/2011 6:30	12/21/2011 6:45	0.01	127,429.88	0.57	223,561.19	1.1	0.28	12 hr	Cloudburst
CSO088	12/21/2011 6:30	12/21/2011 6:45	0.01	127,429.88	0.57	223,561.19	1.1	0.28	12 hr	Cloudburst
CSO088	12/21/2011 6:30	12/21/2011 6:45	0.01	127,429.88	0.57	223,561.19	1.1	0.28	12 hr	Cloudburst
CSO088	12/21/2011 6:30	12/21/2011 6:45	0.01	127,429.88	0.57	223,561.19	1.1	0.28	12 hr	Cloudburst
CSO088	12/27/2011 11:30	12/27/2011 11:30	0.00	85.37	0.34	251.08	1.8	0.27	12 hr	Cloudburst
CSO088	12/27/2011 11:30	12/27/2011 11:30	0.00	85.37	0.34	251.08	1.8	0.27	12 hr	Cloudburst
CSO088	12/27/2011 11:30	12/27/2011 11:30	0.00	85.37	0.34	251.08	1.8	0.27	12 hr	Cloudburst
CSO088	12/27/2011 11:30	12/27/2011 11:30	0.00	85.37	0.34	251.08	1.8	0.27	12 hr	Cloudburst
CSO088	12/27/2011 11:30	12/27/2011 11:30	0.00	50.2	0.34	147.64	1.8	0.27	12 hr	Cloudburst
CSO088	12/27/2011 11:30	12/27/2011 11:30	0.00	50.2	0.34	147.64	1.8	0.27	12 hr	Cloudburst
CSO088	12/27/2011 11:30	12/27/2011 11:30	0.00	50.2	0.34	147.64	1.8	0.27	12 hr	Cloudburst
CSO088	12/27/2011 11:30	12/27/2011 11:30	0.00	50.2	0.34	147.64	1.8	0.27	12 hr	Cloudburst
CSO088	1/23/2012 2:45	1/23/2012 4:30	0.07	21,312.62	0.63	33,829.56	0.78	0.33	3 hr	Atlas 14
CSO088	1/23/2012 2:45	1/23/2012 4:30	0.07	21,312.62	0.63	33,829.56	0.78	0.33	3 hr	Atlas 14
CSO088	1/23/2012 2:45	1/23/2012 4:30	0.07	21,312.62	0.63	33,829.56	0.78	0.33	3 hr	Atlas 14
CSO088	1/23/2012 2:45	1/23/2012 4:30	0.07	21,312.62	0.63	33,829.56	0.78	0.33	3 hr	Atlas 14
CSO088	1/23/2012 2:45	1/23/2012 4:30	0.07	62,054.09	0.63	98,498.56	0.78	0.33	3 hr	Atlas 14
CSO088	1/23/2012 2:45	1/23/2012 4:30	0.07	62,054.09	0.63	98,498.56	0.78	0.33	3 hr	Atlas 14
CSO088	1/23/2012 2:45	1/23/2012 4:30	0.07	62,054.09	0.63	98,498.56	0.78	0.33	3 hr	Atlas 14
CSO088	1/23/2012 2:45	1/23/2012 4:30	0.07	62,054.09	0.63	98,498.56	0.78	0.33	3 hr	Atlas 14
CSO088	1/26/2012 5:45	1/26/2012 6:30	0.03	42,698.67	0.43	99,299.24	1.37	0.55	48 hr	Atlas 14

UnitID	Overflow Start Date	Overflow End Date	Overflow Duration (Days)	Volume (Gallons)	Overflow Event Rain Inches)	Volume Per Inch	Overflow Antecedent Rain	Frequency (Years)	Period	Standard
CSO088	1/26/2012 5:45	1/26/2012 6:30	0.03	42,698.67	0.43	99,299.24	1.37	0.55	48 hr	Atlas 14
CSO088	1/26/2012 5:45	1/26/2012 6:30	0.03	42,698.67	0.43	99,299.24	1.37	0.55	48 hr	Atlas 14
CSO088	1/26/2012 5:45	1/26/2012 6:30	0.03	42,698.67	0.43	99,299.24	1.37	0.55	48 hr	Atlas 14
CSO088	1/26/2012 5:45	1/26/2012 6:30	0.03	174,656.47	0.43	406,177.85	1.37	0.55	48 hr	Atlas 14
CSO088	1/26/2012 5:45	1/26/2012 6:30	0.03	174,656.47	0.43	406,177.85	1.37	0.55	48 hr	Atlas 14
CSO088	1/26/2012 5:45	1/26/2012 6:30	0.03	174,656.47	0.43	406,177.85	1.37	0.55	48 hr	Atlas 14
CSO088	1/26/2012 5:45	1/26/2012 6:30	0.03	174,656.47	0.43	406,177.85	1.37	0.55	48 hr	Atlas 14
CSO088	1/26/2012 5:45	1/26/2012 6:30	0.03	174,656.47	0.43	406,177.85	1.37	0.55	48 hr	Atlas 14
CSO088	1/26/2012 19:00	1/27/2012 3:30	0.35	285,132.00	0.97	293,950.52	1.79	0.55	48 hr	Atlas 14
CSO088	1/26/2012 19:00	1/27/2012 3:30	0.35	285,132.00	0.97	293,950.52	1.79	0.55	48 hr	Atlas 14
CSO088	1/26/2012 19:00	1/27/2012 3:30	0.35	285,132.00	0.97	293,950.52	1.79	0.55	48 hr	Atlas 14
CSO088	1/26/2012 19:00	1/27/2012 3:30	0.35	285,132.00	0.97	293,950.52	1.79	0.55	48 hr	Atlas 14
CSO088	1/26/2012 19:00	1/27/2012 3:30	0.35	883,051.27	0.97	910,362.14	1.79	0.55	48 hr	Atlas 14
CSO088	1/26/2012 19:00	1/27/2012 3:30	0.35	883,051.27	0.97	910,362.14	1.79	0.55	48 hr	Atlas 14
CSO088	1/26/2012 19:00	1/27/2012 3:30	0.35	883,051.27	0.97	910,362.14	1.79	0.55	48 hr	Atlas 14
CSO088	1/26/2012 19:00	1/27/2012 3:30	0.35	883,051.27	0.97	910,362.14	1.79	0.55	48 hr	Atlas 14
CSO088	3/8/2012 12:45	3/8/2012 14:30	0.07	3,473.51	0.67	5,184.34	0.98	0.37	6 hr	Cloudburst
CSO088	3/8/2012 12:45	3/8/2012 14:30	0.07	3,473.51	0.67	5,184.34	0.98	0.37	6 hr	Cloudburst
CSO088	3/8/2012 12:45	3/8/2012 14:30	0.07	3,473.51	0.67	5,184.34	0.98	0.37	6 hr	Cloudburst
CSO088	3/8/2012 12:45	3/8/2012 14:30	0.07	3,473.51	0.67	5,184.34	0.98	0.37	6 hr	Cloudburst
CSO088	3/8/2012 12:45	3/8/2012 14:30	0.07	72.13	0.67	107.66	0.98	0.37	6 hr	Cloudburst
CSO088	3/8/2012 12:45	3/8/2012 14:30	0.07	72.13	0.67	107.66	0.98	0.37	6 hr	Cloudburst
CSO088	3/8/2012 12:45	3/8/2012 14:30	0.07	72.13	0.67	107.66	0.98	0.37	6 hr	Cloudburst
CSO088	3/8/2012 12:45	3/8/2012 14:30	0.07	72.13	0.67	107.66	0.98	0.37	6 hr	Cloudburst
CSO088	3/16/2012 1:30	3/16/2012 1:45	0.01	7.8	0.67	11.64	0.95	0.43	12 hr	Cloudburst
CSO088	3/16/2012 1:30	3/16/2012 1:45	0.01	7.8	0.67	11.64	0.95	0.43	12 hr	Cloudburst
CSO088	3/16/2012 1:30	3/16/2012 1:45	0.01	7.8	0.67	11.64	0.95	0.43	12 hr	Cloudburst
CSO088	3/16/2012 1:30	3/16/2012 1:45	0.01	7.8	0.67	11.64	0.95	0.43	12 hr	Cloudburst
CSO088	3/16/2012 1:30	3/16/2012 1:45	0.01	412.73	0.67	616.02	0.95	0.43	12 hr	Cloudburst
CSO088	3/16/2012 1:30	3/16/2012 1:45	0.01	412.73	0.67	616.02	0.95	0.43	12 hr	Cloudburst
CSO088	3/16/2012 1:30	3/16/2012 1:45	0.01	412.73	0.67	616.02	0.95	0.43	12 hr	Cloudburst
CSO088	3/16/2012 1:30	3/16/2012 1:45	0.01	412.73	0.67	616.02	0.95	0.43	12 hr	Cloudburst
CSO088	3/17/2012 18:45	3/17/2012 18:45	0.00	1.19	0.58	2.06	1.76	0.50	1 hr	Cloudburst
CSO088	3/17/2012 18:45	3/17/2012 18:45	0.00	1.19	0.58	2.06	1.76	0.50	1 hr	Cloudburst
CSO088	3/17/2012 18:45	3/17/2012 18:45	0.00	1.19	0.58	2.06	1.76	0.50	1 hr	Cloudburst
CSO088	3/17/2012 18:45	3/17/2012 18:45	0.00	1.19	0.58	2.06	1.76	0.50	1 hr	Cloudburst
CSO088	3/17/2012 18:45	3/17/2012 18:45	0.00	18.18	0.58	31.34	1.76	0.50	1 hr	Cloudburst
CSO088	3/17/2012 18:45	3/17/2012 18:45	0.00	18.18	0.58	31.34	1.76	0.50	1 hr	Cloudburst
CSO088	3/17/2012 18:45	3/17/2012 18:45	0.00	18.18	0.58	31.34	1.76	0.50	1 hr	Cloudburst
CSO088	3/17/2012 18:45	3/17/2012 18:45	0.00	18.18	0.58	31.34	1.76	0.50	1 hr	Cloudburst
CSO088	3/23/2012 5:30	3/23/2012 22:45	0.72	37,281.47	1.46	25,535.25	1.12	0.57	24 hr	Cloudburst
CSO088	3/23/2012 5:30	3/23/2012 22:45	0.72	37,281.47	1.46	25,535.25	1.12	0.57	24 hr	Cloudburst
CSO088	3/23/2012 5:30	3/23/2012 22:45	0.72	37,281.47	1.46	25,535.25	1.12	0.57	24 hr	Cloudburst
CSO088	3/23/2012 5:30	3/23/2012 22:45	0.72	37,281.47	1.46	25,535.25	1.12	0.57	24 hr	Cloudburst
CSO088	3/23/2012 5:30	3/23/2012 22:45	0.72	338,174.80	1.46	231,626.57	1.12	0.57	24 hr	Cloudburst
CSO088	3/23/2012 5:30	3/23/2012 22:45	0.72	338,174.80	1.46	231,626.57	1.12	0.57	24 hr	Cloudburst
CSO088	3/23/2012 5:30	3/23/2012 22:45	0.72	338,174.80	1.46	231,626.57	1.12	0.57	24 hr	Cloudburst
CSO088	3/23/2012 5:30	3/23/2012 22:45	0.72	338,174.80	1.46	231,626.57	1.12	0.57	24 hr	Cloudburst
CSO088	4/1/2012 8:30	4/1/2012 11:00	0.10	285,496.80	1.25	228,397.44	0.88	0.69	6 hr	Cloudburst

UnitID	Overflow Start Date	Overflow End Date	Overflow Duration (Days)	Volume (Gallons)	Overflow Event Rain Inches)	Volume Per Inch	Overflow Antecedent Rain	Frequency (Years)	Period	Standard
CSO088	4/1/2012 8:30	4/1/2012 11:00	0.10	285,496.80	1.25	228,397.44	0.88	0.69	6 hr	Cloudburst
CSO088	4/1/2012 8:30	4/1/2012 11:00	0.10	285,496.80	1.25	228,397.44	0.88	0.69	6 hr	Cloudburst
CSO088	4/1/2012 8:30	4/1/2012 11:00	0.10	285,496.80	1.25	228,397.44	0.88	0.69	6 hr	Cloudburst
CSO088	4/1/2012 8:30	4/1/2012 11:00	0.10	757,978.35	1.25	606,382.68	0.88	0.69	6 hr	Cloudburst
CSO088	4/1/2012 8:30	4/1/2012 11:00	0.10	757,978.35	1.25	606,382.68	0.88	0.69	6 hr	Cloudburst
CSO088	4/1/2012 8:30	4/1/2012 11:00	0.10	757,978.35	1.25	606,382.68	0.88	0.69	6 hr	Cloudburst
CSO088	4/1/2012 8:30	4/1/2012 11:00	0.10	757,978.35	1.25	606,382.68	0.88	0.69	6 hr	Cloudburst
CSO088	4/28/2012 19:15	4/28/2012 19:45	0.02	98,112.61	0.62	158,246.14	0.74	0.54	1 hr	Cloudburst
CSO088	4/28/2012 19:15	4/28/2012 19:45	0.02	98,112.61	0.62	158,246.14	0.74	0.54	1 hr	Cloudburst
CSO088	4/28/2012 19:15	4/28/2012 19:45	0.02	98,112.61	0.62	158,246.14	0.74	0.54	1 hr	Cloudburst
CSO088	4/28/2012 19:15	4/28/2012 19:45	0.02	98,112.61	0.62	158,246.14	0.74	0.54	1 hr	Cloudburst
CSO088	4/28/2012 19:15	4/28/2012 19:45	0.02	23,225.93	0.62	37,461.18	0.74	0.54	1 hr	Cloudburst
CSO088	4/28/2012 19:15	4/28/2012 19:45	0.02	23,225.93	0.62	37,461.18	0.74	0.54	1 hr	Cloudburst
CSO088	4/28/2012 19:15	4/28/2012 19:45	0.02	23,225.93	0.62	37,461.18	0.74	0.54	1 hr	Cloudburst
CSO088	4/28/2012 19:15	4/28/2012 19:45	0.02	23,225.93	0.62	37,461.18	0.74	0.54	1 hr	Cloudburst
CSO088	4/30/2012 10:30	4/30/2012 18:00	0.31	14,284.13	0.24	59,517.20	0.87	0.32	3 hr	Atlas 14
CSO088	4/30/2012 10:30	4/30/2012 18:00	0.31	14,284.13	0.24	59,517.20	0.87	0.32	3 hr	Atlas 14
CSO088	4/30/2012 10:30	4/30/2012 18:00	0.31	14,284.13	0.24	59,517.20	0.87	0.32	3 hr	Atlas 14
CSO088	4/30/2012 10:30	4/30/2012 18:00	0.31	14,284.13	0.24	59,517.20	0.87	0.32	3 hr	Atlas 14
CSO088	4/30/2012 10:30	4/30/2012 18:00	0.31	67,265.15	0.24	280,271.44	0.87	0.32	3 hr	Atlas 14
CSO088	4/30/2012 10:30	4/30/2012 18:00	0.31	67,265.15	0.24	280,271.44	0.87	0.32	3 hr	Atlas 14
CSO088	4/30/2012 10:30	4/30/2012 18:00	0.31	67,265.15	0.24	280,271.44	0.87	0.32	3 hr	Atlas 14
CSO088	4/30/2012 10:30	4/30/2012 18:00	0.31	67,265.15	0.24	280,271.44	0.87	0.32	3 hr	Atlas 14
CSO088	5/4/2012 23:45	5/5/2012 1:45	0.08	430,286.26	1.17	367,766.03	1.86	0.73	3 hr	Atlas 14
CSO088	5/4/2012 23:45	5/5/2012 1:45	0.08	430,286.26	1.17	367,766.03	1.86	0.73	3 hr	Atlas 14
CSO088	5/4/2012 23:45	5/5/2012 1:45	0.08	430,286.26	1.17	367,766.03	1.86	0.73	3 hr	Atlas 14
CSO088	5/4/2012 23:45	5/5/2012 1:45	0.08	430,286.26	1.17	367,766.03	1.86	0.73	3 hr	Atlas 14
CSO088	5/4/2012 23:45	5/5/2012 1:45	0.08	132,667.79	1.17	113,391.27	1.86	0.73	3 hr	Atlas 14
CSO088	5/4/2012 23:45	5/5/2012 1:45	0.08	132,667.79	1.17	113,391.27	1.86	0.73	3 hr	Atlas 14
CSO088	5/4/2012 23:45	5/5/2012 1:45	0.08	132,667.79	1.17	113,391.27	1.86	0.73	3 hr	Atlas 14
CSO088	5/4/2012 23:45	5/5/2012 1:45	0.08	132,667.79	1.17	113,391.27	1.86	0.73	3 hr	Atlas 14
CSO088	5/13/2012 2:15	5/13/2012 14:15	0.50	483,253.39	2.01	240,424.57	1.07	0.81	12 hr	Cloudburst
CSO088	5/13/2012 2:15	5/13/2012 14:15	0.50	483,253.39	2.01	240,424.57	1.07	0.81	12 hr	Cloudburst
CSO088	5/13/2012 2:15	5/13/2012 14:15	0.50	483,253.39	2.01	240,424.57	1.07	0.81	12 hr	Cloudburst
CSO088	5/13/2012 2:15	5/13/2012 14:15	0.50	483,253.39	2.01	240,424.57	1.07	0.81	12 hr	Cloudburst
CSO088	5/13/2012 2:15	5/13/2012 14:15	0.50	224,716.58	2.01	111,799.29	1.07	0.81	12 hr	Cloudburst
CSO088	5/13/2012 2:15	5/13/2012 14:15	0.50	224,716.58	2.01	111,799.29	1.07	0.81	12 hr	Cloudburst
CSO088	5/13/2012 2:15	5/13/2012 14:15	0.50	224,716.58	2.01	111,799.29	1.07	0.81	12 hr	Cloudburst
CSO088	5/13/2012 2:15	5/13/2012 14:15	0.50	224,716.58	2.01	111,799.29	1.07	0.81	12 hr	Cloudburst
CSO088	5/16/2012 17:45	5/16/2012 18:00	0.01	43,950.93	0.24	183,128.86	2.31	0.20	1 hr	Cloudburst
CSO088	5/16/2012 17:45	5/16/2012 18:00	0.01	43,950.93	0.24	183,128.86	2.31	0.20	1 hr	Cloudburst
CSO088	5/16/2012 17:45	5/16/2012 18:00	0.01	43,950.93	0.24	183,128.86	2.31	0.20	1 hr	Cloudburst
CSO088	5/16/2012 17:45	5/16/2012 18:00	0.01	43,950.93	0.24	183,128.86	2.31	0.20	1 hr	Cloudburst
CSO088	5/16/2012 17:45	5/16/2012 18:00	0.01	90,666.22	0.24	377,775.91	2.31	0.20	1 hr	Cloudburst
CSO088	5/16/2012 17:45	5/16/2012 18:00	0.01	90,666.22	0.24	377,775.91	2.31	0.20	1 hr	Cloudburst
CSO088	5/16/2012 17:45	5/16/2012 18:00	0.01	90,666.22	0.24	377,775.91	2.31	0.20	1 hr	Cloudburst
CSO088	5/16/2012 17:45	5/16/2012 18:00	0.01	90,666.22	0.24	377,775.91	2.31	0.20	1 hr	Cloudburst
CSO088	5/29/2012 6:45	5/29/2012 16:15	0.40	2,064,107.08	2.34	882,097.04	0.84	6.98	3 hr	Atlas 14

UnitID	Overflow Start Date	Overflow End Date	Overflow Duration (Days)	Volume (Gallons)	Overflow Event Rain Inches)	Volume Per Inch	Overflow Antecedent Rain	Frequency (Years)	Period	Standard
CSO088	5/29/2012 6:45	5/29/2012 16:15	0.40	2,064,107.08	2.34	882,097.04	0.84	6.98	3 hr	Atlas 14
CSO088	5/29/2012 6:45	5/29/2012 16:15	0.40	2,064,107.08	2.34	882,097.04	0.84	6.98	3 hr	Atlas 14
CSO088	5/29/2012 6:45	5/29/2012 16:15	0.40	2,064,107.08	2.34	882,097.04	0.84	6.98	3 hr	Atlas 14
CSO088	5/29/2012 6:45	5/29/2012 16:15	0.40	1,615,620.86	2.34	690,436.27	0.84	6.98	3 hr	Atlas 14
CSO088	5/29/2012 6:45	5/29/2012 16:15	0.40	1,615,620.86	2.34	690,436.27	0.84	6.98	3 hr	Atlas 14
CSO088	5/29/2012 6:45	5/29/2012 16:15	0.40	1,615,620.86	2.34	690,436.27	0.84	6.98	3 hr	Atlas 14
CSO088	5/29/2012 6:45	5/29/2012 16:15	0.40	1,615,620.86	2.34	690,436.27	0.84	6.98	3 hr	Atlas 14
CSO088	5/31/2012 19:00	5/31/2012 19:00	0.00	26.85	0.46	58.38	2.8	0.54	12 hr	Cloudburst
CSO088	5/31/2012 19:00	5/31/2012 19:00	0.00	26.85	0.46	58.38	2.8	0.54	12 hr	Cloudburst
CSO088	5/31/2012 19:00	5/31/2012 19:00	0.00	26.85	0.46	58.38	2.8	0.54	12 hr	Cloudburst
CSO088	5/31/2012 19:00	5/31/2012 19:00	0.00	26.85	0.46	58.38	2.8	0.54	12 hr	Cloudburst
CSO088	5/31/2012 19:00	5/31/2012 19:00	0.00	2.66	0.46	5.78	2.8	0.54	12 hr	Cloudburst
CSO088	5/31/2012 19:00	5/31/2012 19:00	0.00	2.66	0.46	5.78	2.8	0.54	12 hr	Cloudburst
CSO088	5/31/2012 19:00	5/31/2012 19:00	0.00	2.66	0.46	5.78	2.8	0.54	12 hr	Cloudburst
CSO088	5/31/2012 19:00	5/31/2012 19:00	0.00	2.66	0.46	5.78	2.8	0.54	12 hr	Cloudburst
CSO091	11/14/2011 21:30	11/14/2011 21:45	0.01	8,767.07	0.25	35,068.28	0.28	0.72	48 hr	Atlas 14
CSO091	11/20/2011 17:15	11/20/2011 17:15	0.00	46.19	0.51	90.56	2.83	0.34	24 hr	Cloudburst
CSO091	11/21/2011 23:45	11/22/2011 9:30	0.41	1,982.47	1.05	1,888.07	2.94	0.54	12 hr	Cloudburst
CSO091	11/28/2011 13:30	11/28/2011 20:00	0.27	1,442.23	1.26	1,144.63	3.38	0.98	48 hr	Atlas 14
CSO091	12/4/2011 16:45	12/4/2011 17:00	0.01	540.38	0.48	1,125.79	3.03	0.95	48 hr	Atlas 14
CSO091	12/5/2011 3:30	12/5/2011 17:45	0.59	12,201.15	2.21	5,520.88	2.95	0.95	48 hr	Atlas 14
CSO091	12/15/2011 3:45	12/15/2011 7:30	0.16	1,254.64	0.37	3,390.92	0.16	0.22	6 hr	Cloudburst
CSO091	12/21/2011 5:00	12/21/2011 6:45	0.07	11,308.44	0.58	19,497.31	0.85	0.28	12 hr	Cloudburst
CSO091	12/27/2011 10:45	12/27/2011 11:00	0.01	256.75	0.38	675.65	1.72	0.28	12 hr	Cloudburst
CSO091	1/11/2012 4:30	1/11/2012 6:45	0.09	3,198.86	0.43	7,439.20	0.2	0.29	6 hr	Cloudburst
CSO091	1/17/2012 11:30	1/17/2012 12:00	0.02	1,829.77	0.21	8,713.19	1.11	0.14	12 hr	Cloudburst
CSO091	1/23/2012 2:45	1/23/2012 4:30	0.07	21,355.20	0.51	41,872.94	0.55	0.29	3 hr	Atlas 14
CSO091	1/26/2012 5:45	1/26/2012 6:00	0.01	33,081.69	0.35	94,519.12	1.17	0.54	48 hr	Atlas 14
CSO091	1/26/2012 19:00	1/26/2012 22:45	0.16	27,501.36	0.91	30,221.27	1.55	0.54	48 hr	Atlas 14
CSO091	2/4/2012 9:45	2/4/2012 9:45	0.00	84.06	0.29	289.86	0.34	0.25	3 hr	Atlas 14
CSO091	2/22/2012 22:45	2/22/2012 23:00	0.01	1,739.17	0.14	12,422.62	0.4	0.10	1 hr	Cloudburst
CSO091	2/29/2012 8:45	2/29/2012 9:00	0.01	10,940.48	0.55	19,891.78	0.71	0.27	12 hr	Cloudburst
CSO091	3/8/2012 12:45	3/8/2012 14:45	0.08	7,836.89	0.69	11,357.80	1	0.37	6 hr	Cloudburst
CSO091	3/15/2012 19:00	3/16/2012 2:30	0.31	3,822.23	1.03	3,710.90	0.67	0.48	12 hr	Cloudburst
CSO091	3/17/2012 18:30	3/17/2012 21:45	0.14	813.59	0.98	830.19	1.93	0.58	1 hr	Cloudburst
CSO091	3/23/2012 5:00	3/23/2012 22:30	0.73	76,322.98	1.48	51,569.58	1.25	0.57	24 hr	Cloudburst
CSO091	4/1/2012 8:30	4/1/2012 10:45	0.09	73,586.40	1.84	39,992.61	1.18	3.50	3 hr	Atlas 14
CSO091	4/16/2012 6:45	4/16/2012 6:45	0.00	688.7	0.05	13,773.99	0.26	0.09	3 hr	Atlas 14
CSO091	4/28/2012 19:15	4/29/2012 0:15	0.21	45,871.77	0.76	60,357.59	0.77	0.57	1 hr	Cloudburst
CSO091	4/30/2012 18:00	4/30/2012 18:15	0.01	17,844.13	0.17	104,965.45	1.06	0.18	3 hr	Atlas 14
CSO091	5/4/2012 23:45	5/5/2012 1:30	0.07	60,902.61	1.12	54,377.33	1.57	0.72	6 hr	Cloudburst
CSO091	5/13/2012 1:45	5/13/2012 8:15	0.27	43,093.32	1.93	22,328.14	0.95	0.87	12 hr	Cloudburst
CSO091	5/16/2012 18:00	5/16/2012 18:00	0.00	414.22	0.21	1,972.46	2.33	0.18	1 hr	Cloudburst
CSO091	5/29/2012 6:30	5/29/2012 9:00	0.10	206,788.19	2.87	72,051.63	0.58	4.00	6 hr	Atlas 14
CSO091	5/31/2012 18:30	6/1/2012 1:15	0.28	39,168.79	1.06	36,951.69	3.34	0.53	12 hr	Cloudburst
CSO093	12/20/2011 23:15	12/21/2011 7:15	0.33	21,564.20	0.62	34,780.96	0.66	0.29	12 hr	Cloudburst
CSO093	12/22/2011 11:15	12/22/2011 17:45	0.27	27,633.01	0.54	51,172.24	0.85	0.26	12 hr	Cloudburst
CSO093	12/27/2011 2:15	12/27/2011 11:45	0.40	22,409.77	0.67	33,447.42	1.42	0.29	12 hr	Cloudburst

UnitID	Overflow Start Date	Overflow End Date	Overflow Duration (Days)	Volume (Gallons)	Overflow Event Rain Inches)	Volume Per Inch	Overflow Antecedent Rain	Frequency (Years)	Period	Standard
CSO093	1/11/2012 4:30	1/11/2012 11:15	0.28	29,778.08	0.64	46,528.24	0.21	0.31	6 hr	Cloudburst
CSO093	1/11/2012 19:45	1/11/2012 21:15	0.06	2,939.23	0.14	20,994.53	0.74	0.31	6 hr	Cloudburst
CSO093	1/12/2012 12:45	1/12/2012 12:45	0.00	415.94	0.05	8,318.77	0.85			
CSO093	1/17/2012 2:15	1/17/2012 12:30	0.43	12,033.66	0.4	30,084.14	0.92	0.18	12 hr	Cloudburst
CSO093	1/22/2012 22:30	1/23/2012 4:45	0.26	55,845.90	0.66	84,615.00	0.56	0.35	3 hr	Atlas 14
CSO093	1/25/2012 15:30	1/25/2012 19:15	0.16	7,048.69	0.28	25,173.90	0.88	0.61	48 hr	Atlas 14
CSO093	1/26/2012 5:00	1/26/2012 6:45	0.07	31,314.03	0.48	65,237.57	1.24	0.61	48 hr	Atlas 14
CSO093	1/26/2012 17:15	1/27/2012 1:00	0.32	54,149.76	1.06	51,084.68	1.61	0.61	48 hr	Atlas 14
CSO093	2/4/2012 8:45	2/4/2012 11:45	0.13	7,909.27	0.37	21,376.39	0.13	0.21	3 hr	Atlas 14
CSO093	2/15/2012 23:30	2/16/2012 8:15	0.36	3,073.50	0.32	9,604.68	0.41	0.14	12 hr	Cloudburst
CSO093	2/22/2012 22:45	2/22/2012 23:15	0.02	3,734.01	0.16	23,337.56	0.44	0.12	1 hr	Cloudburst
CSO093	2/29/2012 4:00	2/29/2012 9:00	0.21	10,991.38	0.51	21,551.72	0.39	0.27	12 hr	Cloudburst
CSO093	3/4/2012 23:00	3/5/2012 4:30	0.23	2,598.02	0.21	12,371.53	0.73	0.11	6 hr	Cloudburst
CSO093	3/8/2012 9:45	3/8/2012 17:15	0.31	31,636.94	0.76	41,627.55	0.59	0.39	6 hr	Cloudburst
CSO093	3/12/2012 4:00	3/12/2012 13:00	0.38	75,052.32	0.18	416,957.36	0.86	0.08	12 hr	Cloudburst
CSO093	3/15/2012 18:30	3/16/2012 3:15	0.36	24,876.83	0.94	26,464.71	0.53	0.42	12 hr	Cloudburst
CSO093	3/17/2012 18:30	3/17/2012 22:15	0.16	22,448.92	0.99	22,675.68	1.89	0.64	1 hr	Cloudburst
CSO093	3/23/2012 4:45	3/23/2012 22:45	0.75	104,286.26	1.55	67,281.46	1.19	0.60	24 hr	Cloudburst
CSO093	3/28/2012 14:15	3/28/2012 14:30	0.01	1,707.01	0.05	34,140.18	1.63			
CSO093	3/30/2012 23:30	3/31/2012 0:15	0.03	4,515.35	0.15	30,102.32	0.16	0.10	3 hr	Atlas 14
CSO093	4/1/2012 7:15	4/1/2012 11:15	0.17	178,576.32	1.5	119,050.88	0.61	0.83	6 hr	Cloudburst
CSO093	4/4/2012 16:00	4/4/2012 17:30	0.06	6,385.70	0.1	63,857.02	1.82	0.11	12 hr	Cloudburst
CSO093	4/14/2012 9:00	4/14/2012 9:00	0.00	892.52	0.08	11,156.55	0.09	0.13	6 hr	Cloudburst
CSO093	4/16/2012 6:45	4/16/2012 7:00	0.01	2,014.42	0.07	28,777.46	0.3	0.10	3 hr	Atlas 14
CSO093	4/28/2012 19:15	4/29/2012 0:15	0.21	26,750.09	0.73	36,643.97	0.75	0.54	1 hr	Cloudburst
CSO093	4/30/2012 18:00	4/30/2012 19:00	0.04	4,170.04	0.39	10,692.42	1.13	0.33	3 hr	Atlas 14
CSO093	5/4/2012 23:30	5/5/2012 4:45	0.22	159,324.21	1.39	114,621.73	1.74	0.75	3 hr	Atlas 14
CSO093	5/13/2012	5/13/2012 14:15	0.59	100,689.41	1.89	53,274.82	0.31	0.78	12 hr	Cloudburst
CSO093	5/16/2012 17:45	5/16/2012 18:15	0.02	93,283.05	0.23	405,578.48	2.17	0.19	1 hr	Cloudburst
CSO093	5/29/2012 6:30	5/29/2012 9:30	0.13	228,438.93	2.31	98,891.31	0.57	7.33	3 hr	Atlas 14
CSO093	5/31/2012 18:15	6/1/2012 5:15	0.46	59,301.66	1.09	54,405.20	2.65	0.51	12 hr	Cloudburst
CSO093	6/4/2012 16:30	6/4/2012 17:30	0.04	1,253.62	0.16	7,835.11	3.72	0.10	12 hr	Cloudburst
CSO093	6/17/2012 11:30	6/17/2012 12:00	0.02	6,242.49	0.25	24,969.95	0.45	0.32	3 hr	Atlas 14
CSO097	7/12/2011 17:15	7/12/2011 22:15	0.21	36,250.00	0.57	63,596.49	0.98	0.31	6 hr	Cloudburst
CSO097	7/12/2011 17:15	7/12/2011 22:15	0.21	36,250.00	0.57	63,596.49	0.98	0.31	6 hr	Cloudburst
CSO097	7/12/2011 17:15	7/12/2011 22:15	0.21	36,250.00	0.57	63,596.49	0.98	0.31	6 hr	Cloudburst
CSO097	7/12/2011 17:15	7/12/2011 22:15	0.21	36,250.00	0.57	63,596.49	0.98	0.31	6 hr	Cloudburst
CSO097	7/12/2011 17:15	7/12/2011 22:30	0.22	25,208,854.58	0.57	44,226,060.67	0.98	0.31	6 hr	Cloudburst
CSO097	7/12/2011 17:15	7/12/2011 22:30	0.22	25,208,854.58	0.57	44,226,060.67	0.98	0.31	6 hr	Cloudburst
CSO097	7/12/2011 17:15	7/12/2011 22:30	0.22	25,208,854.58	0.57	44,226,060.67	0.98	0.31	6 hr	Cloudburst
CSO097	7/12/2011 17:15	7/12/2011 22:30	0.22	25,208,854.58	0.57	44,226,060.67	0.98	0.31	6 hr	Cloudburst
CSO097	7/19/2011 22:30	7/20/2011 0:45	0.09	46,345,519.92	1.41	32,869,163.07	0.93	0.91	1 hr	Cloudburst
CSO097	7/19/2011 22:30	7/20/2011 0:45	0.09	46,345,519.92	1.41	32,869,163.07	0.93	0.91	1 hr	Cloudburst
CSO097	7/19/2011 22:30	7/20/2011 0:45	0.09	46,345,519.92	1.41	32,869,163.07	0.93	0.91	1 hr	Cloudburst
CSO097	7/19/2011 22:30	7/20/2011 0:45	0.09	46,345,519.92	1.41	32,869,163.07	0.93	0.91	1 hr	Cloudburst
CSO097	7/19/2011 22:30	7/20/2011 0:30	0.08	66,770.83	1.41	47,355.20	0.93	0.91	1 hr	Cloudburst
CSO097	7/19/2011 22:30	7/20/2011 0:30	0.08	66,770.83	1.41	47,355.20	0.93	0.91	1 hr	Cloudburst
CSO097	7/19/2011 22:30	7/20/2011 0:30	0.08	66,770.83	1.41	47,355.20	0.93	0.91	1 hr	Cloudburst

UnitID	Overflow Start Date	Overflow End Date	Overflow Duration (Days)	Volume (Gallons)	Overflow Event Rain Inches)	Volume Per Inch	Overflow Antecedent Rain	Frequency (Years)	Period	Standard
CSO097	7/19/2011 22:30	7/20/2011 0:30	0.08	66,770.83	1.41	47,355.20	0.93	0.91	1 hr	Cloudburst
CSO097	7/30/2011 21:00	7/31/2011	0.13	21,038,541.48	0.51	41,252,042.12	0.64	0.40	1 hr	Cloudburst
CSO097	7/30/2011 21:15	7/30/2011 23:45	0.10	30,208.33	0.51	59,232.03	0.64	0.40	1 hr	Cloudburst
CSO097	8/7/2011 3:00	8/7/2011 8:45	0.24	197,395.83	1.94	101,750.43	0.74	2.28	3 hr	Cloudburst
CSO097	8/7/2011 3:00	8/7/2011 8:45	0.24	197,395.83	1.94	101,750.43	0.74	2.28	3 hr	Cloudburst
CSO097	8/7/2011 3:00	8/7/2011 8:45	0.24	197,395.83	1.94	101,750.43	0.74	2.28	3 hr	Cloudburst
CSO097	8/7/2011 3:00	8/7/2011 8:45	0.24	197,395.83	1.94	101,750.43	0.74	2.28	3 hr	Cloudburst
CSO097	8/7/2011 3:00	8/7/2011 8:45	0.24	197,395.83	1.94	101,750.43	0.74	2.28	3 hr	Cloudburst
CSO097	8/7/2011 3:00	8/7/2011 9:00	0.25	136,892,079.48	1.94	70,562,927.56	0.74	2.28	3 hr	Cloudburst
CSO097	8/7/2011 3:00	8/7/2011 9:00	0.25	136,892,079.48	1.94	70,562,927.56	0.74	2.28	3 hr	Cloudburst
CSO097	8/7/2011 3:00	8/7/2011 9:00	0.25	136,892,079.48	1.94	70,562,927.56	0.74	2.28	3 hr	Cloudburst
CSO097	8/7/2011 3:00	8/7/2011 9:00	0.25	136,892,079.48	1.94	70,562,927.56	0.74	2.28	3 hr	Cloudburst
CSO097	8/8/2011 14:45	8/8/2011 15:45	0.04	4,004,062.56	0.2	20,020,312.79	2.16	0.13	3 hr	Atlas 14
CSO097	8/8/2011 15:00	8/8/2011 15:45	0.03	5,729.17	0.2	28,645.83	2.17	0.13	3 hr	Atlas 14
CSO097	8/13/2011 16:45	8/13/2011 22:45	0.25	118,645.83	0.79	150,184.60	2.57	0.67	1 hr	Cloudburst
CSO097	8/13/2011 16:45	8/13/2011 22:45	0.25	118,645.83	0.79	150,184.60	2.57	0.67	1 hr	Cloudburst
CSO097	8/13/2011 16:45	8/13/2011 22:45	0.25	118,645.83	0.79	150,184.60	2.57	0.67	1 hr	Cloudburst
CSO097	8/13/2011 16:45	8/13/2011 22:45	0.25	118,645.83	0.79	150,184.60	2.57	0.67	1 hr	Cloudburst
CSO097	8/13/2011 16:45	8/13/2011 23:15	0.27	82,510,728.75	0.79	104,443,960.44	2.57	0.67	1 hr	Cloudburst
CSO097	8/13/2011 16:45	8/13/2011 23:15	0.27	82,510,728.75	0.79	104,443,960.44	2.57	0.67	1 hr	Cloudburst
CSO097	8/13/2011 16:45	8/13/2011 23:15	0.27	82,510,728.75	0.79	104,443,960.44	2.57	0.67	1 hr	Cloudburst
CSO097	8/13/2011 16:45	8/13/2011 23:15	0.27	82,510,728.75	0.79	104,443,960.44	2.57	0.67	1 hr	Cloudburst
CSO097	8/18/2011 7:45	8/18/2011 9:45	0.08	31,307,396.10	0.38	82,387,884.48	1.06	0.33	1 hr	Cloudburst
CSO097	8/18/2011 8:00	8/18/2011 9:30	0.06	45,104.17	0.38	118,695.17	1.24	0.33	1 hr	Cloudburst
CSO097	9/19/2011 7:00	9/19/2011 8:15	0.05	7,083.33	0.38	18,640.35	0.57	0.32	12 hr	Cloudburst
CSO097	9/19/2011 7:00	9/19/2011 8:15	0.05	7,083.33	0.38	18,640.35	0.57	0.32	12 hr	Cloudburst
CSO097	9/19/2011 7:00	9/19/2011 8:15	0.05	7,083.33	0.38	18,640.35	0.57	0.32	12 hr	Cloudburst
CSO097	9/19/2011 7:00	9/19/2011 8:15	0.05	7,083.33	0.38	18,640.35	0.57	0.32	12 hr	Cloudburst
CSO097	9/19/2011 7:00	9/19/2011 8:30	0.06	4,926,770.84	0.38	12,965,186.42	0.57	0.32	12 hr	Cloudburst
CSO097	9/19/2011 7:00	9/19/2011 8:30	0.06	4,926,770.84	0.38	12,965,186.42	0.57	0.32	12 hr	Cloudburst
CSO097	9/19/2011 7:00	9/19/2011 8:30	0.06	4,926,770.84	0.38	12,965,186.42	0.57	0.32	12 hr	Cloudburst
CSO097	9/19/2011 7:00	9/19/2011 8:30	0.06	4,926,770.84	0.38	12,965,186.42	0.57	0.32	12 hr	Cloudburst
CSO097	9/23/2011 2:45	9/23/2011 8:45	0.25	85,520.83	0.83	103,037.15	1.16	0.38	12 hr	Cloudburst
CSO097	9/23/2011 2:45	9/23/2011 8:45	0.25	85,520.83	0.83	103,037.15	1.16	0.38	12 hr	Cloudburst
CSO097	9/23/2011 2:45	9/23/2011 8:45	0.25	85,520.83	0.83	103,037.15	1.16	0.38	12 hr	Cloudburst
CSO097	9/23/2011 2:45	9/23/2011 8:45	0.25	85,520.83	0.83	103,037.15	1.16	0.38	12 hr	Cloudburst
CSO097	9/23/2011 2:45	9/23/2011 9:00	0.26	59,504,687.61	0.83	71,692,394.71	1.16	0.38	12 hr	Cloudburst
CSO097	9/23/2011 2:45	9/23/2011 9:00	0.26	59,504,687.61	0.83	71,692,394.71	1.16	0.38	12 hr	Cloudburst
CSO097	9/23/2011 2:45	9/23/2011 9:00	0.26	59,504,687.61	0.83	71,692,394.71	1.16	0.38	12 hr	Cloudburst
CSO097	9/23/2011 2:45	9/23/2011 9:00	0.26	59,504,687.61	0.83	71,692,394.71	1.16	0.38	12 hr	Cloudburst
CSO097	9/25/2011 19:45	9/26/2011 19:15	0.98	347,854,783.23	3.48	99,958,271.04	2.12	8.13	12 hr	Atlas 14
CSO097	9/25/2011 19:45	9/26/2011 19:15	0.98	347,854,783.23	3.48	99,958,271.04	2.12	8.13	12 hr	Atlas 14
CSO097	9/25/2011 19:45	9/26/2011 19:15	0.98	347,854,783.23	3.48	99,958,271.04	2.12	8.13	12 hr	Atlas 14
CSO097	9/25/2011 19:45	9/26/2011 19:15	0.98	347,854,783.23	3.48	99,958,271.04	2.12	8.13	12 hr	Atlas 14
CSO097	9/25/2011 19:45	9/26/2011 18:00	0.93	501,875.00	3.48	144,216.95	2.12	8.13	12 hr	Atlas 14
CSO097	9/25/2011 19:45	9/26/2011 18:00	0.93	501,875.00	3.48	144,216.95	2.12	8.13	12 hr	Atlas 14
CSO097	9/25/2011 19:45	9/26/2011 18:00	0.93	501,875.00	3.48	144,216.95	2.12	8.13	12 hr	Atlas 14
CSO097	9/25/2011 19:45	9/26/2011 18:00	0.93	501,875.00	3.48	144,216.95	2.12	8.13	12 hr	Atlas 14
CSO097	10/13/2011 7:15	10/13/2011 8:30	0.05	12,593,958.42	0.3	41,979,861.40	0.17	0.22	3 hr	Atlas 14

UnitID	Overflow Start Date	Overflow End Date	Overflow Duration (Days)	Volume (Gallons)	Overflow Event Rain Inches)	Volume Per Inch	Overflow Antecedent Rain	Frequency (Years)	Period	Standard
CSO097	10/13/2011 7:30	10/13/2011 8:30	0.04	18,125.00	0.3	60,416.67	0.24	0.22	3 hr	Atlas 14
CSO097	10/20/2011 6:30	10/20/2011 7:30	0.04	2,708.33	0.35	7,738.10	1	0.19	24 hr	Cloudburst
CSO097	10/20/2011 6:30	10/20/2011 7:30	0.04	2,708.33	0.35	7,738.10	1	0.19	24 hr	Cloudburst
CSO097	10/20/2011 6:30	10/20/2011 7:30	0.04	2,708.33	0.35	7,738.10	1	0.19	24 hr	Cloudburst
CSO097	10/20/2011 6:30	10/20/2011 7:30	0.04	2,708.33	0.35	7,738.10	1	0.19	24 hr	Cloudburst
CSO097	10/20/2011 6:30	10/20/2011 7:45	0.05	1,801,562.48	0.35	5,147,321.37	1	0.19	24 hr	Cloudburst
CSO097	10/20/2011 6:30	10/20/2011 7:45	0.05	1,801,562.48	0.35	5,147,321.37	1	0.19	24 hr	Cloudburst
CSO097	10/20/2011 6:30	10/20/2011 7:45	0.05	1,801,562.48	0.35	5,147,321.37	1	0.19	24 hr	Cloudburst
CSO097	10/20/2011 6:30	10/20/2011 7:45	0.05	1,801,562.48	0.35	5,147,321.37	1	0.19	24 hr	Cloudburst
CSO097	10/26/2011 23:45	10/27/2011 6:15	0.27	120,208.33	1.06	113,404.09	1	0.49	12 hr	Cloudburst
CSO097	10/26/2011 23:45	10/27/2011 6:15	0.27	120,208.33	1.06	113,404.09	1	0.49	12 hr	Cloudburst
CSO097	10/26/2011 23:45	10/27/2011 6:15	0.27	120,208.33	1.06	113,404.09	1	0.49	12 hr	Cloudburst
CSO097	10/26/2011 23:45	10/27/2011 6:15	0.27	120,208.33	1.06	113,404.09	1	0.49	12 hr	Cloudburst
CSO097	10/26/2011 23:45	10/27/2011 6:30	0.28	83,351,874.01	1.06	78,633,843.40	1	0.49	12 hr	Cloudburst
CSO097	10/26/2011 23:45	10/27/2011 6:30	0.28	83,351,874.01	1.06	78,633,843.40	1	0.49	12 hr	Cloudburst
CSO097	10/26/2011 23:45	10/27/2011 6:30	0.28	83,351,874.01	1.06	78,633,843.40	1	0.49	12 hr	Cloudburst
CSO097	10/26/2011 23:45	10/27/2011 6:30	0.28	83,351,874.01	1.06	78,633,843.40	1	0.49	12 hr	Cloudburst
CSO097	11/14/2011 21:15	11/15/2011 17:15	0.83	118,993,125.36	1.51	78,803,394.28	0.21	0.71	48 hr	Atlas 14
CSO097	11/14/2011 21:15	11/15/2011 17:15	0.83	118,993,125.36	1.51	78,803,394.28	0.21	0.71	48 hr	Atlas 14
CSO097	11/14/2011 21:15	11/15/2011 17:15	0.83	118,993,125.36	1.51	78,803,394.28	0.21	0.71	48 hr	Atlas 14
CSO097	11/14/2011 21:15	11/15/2011 17:15	0.83	118,993,125.36	1.51	78,803,394.28	0.21	0.71	48 hr	Atlas 14
CSO097	11/14/2011 21:15	11/15/2011 16:45	0.81	171,250.00	1.51	113,410.60	0.21	0.71	48 hr	Atlas 14
CSO097	11/14/2011 21:15	11/15/2011 16:45	0.81	171,250.00	1.51	113,410.60	0.21	0.71	48 hr	Atlas 14
CSO097	11/14/2011 21:15	11/15/2011 16:45	0.81	171,250.00	1.51	113,410.60	0.21	0.71	48 hr	Atlas 14
CSO097	11/14/2011 21:15	11/15/2011 16:45	0.81	171,250.00	1.51	113,410.60	0.21	0.71	48 hr	Atlas 14
CSO097	11/16/2011 5:30	11/16/2011 16:30	0.46	145,625.00	0.66	220,643.94	1.84	0.71	48 hr	Atlas 14
CSO097	11/16/2011 5:30	11/16/2011 16:30	0.46	145,625.00	0.66	220,643.94	1.84	0.71	48 hr	Atlas 14
CSO097	11/16/2011 5:30	11/16/2011 16:30	0.46	145,625.00	0.66	220,643.94	1.84	0.71	48 hr	Atlas 14
CSO097	11/16/2011 5:30	11/16/2011 16:30	0.46	145,625.00	0.66	220,643.94	1.84	0.71	48 hr	Atlas 14
CSO097	11/16/2011 5:30	11/16/2011 17:00	0.48	101,535,727.78	0.66	153,842,011.79	1.84	0.71	48 hr	Atlas 14
CSO097	11/16/2011 5:30	11/16/2011 17:00	0.48	101,535,727.78	0.66	153,842,011.79	1.84	0.71	48 hr	Atlas 14
CSO097	11/16/2011 5:30	11/16/2011 17:00	0.48	101,535,727.78	0.66	153,842,011.79	1.84	0.71	48 hr	Atlas 14
CSO097	11/20/2011 13:45	11/20/2011 21:30	0.32	42,305,416.39	0.67	63,142,412.52	2.51	0.33	24 hr	Cloudburst
CSO097	11/20/2011 14:00	11/20/2011 21:30	0.31	61,041.67	0.67	91,106.96	2.53	0.33	24 hr	Cloudburst
CSO097	11/21/2011 9:15	11/21/2011 11:45	0.10	13,035,520.95	0.21	62,073,909.31	3.09	0.33	24 hr	Cloudburst
CSO097	11/21/2011 9:30	11/21/2011 11:30	0.08	18,750.00	0.21	89,285.71	3.09	0.33	24 hr	Cloudburst
CSO097	11/22/2011	11/22/2011 23:00	0.96	341,979.17	1.35	253,317.90	2.96	0.57	12 hr	Cloudburst
CSO097	11/22/2011	11/22/2011 23:00	0.96	341,979.17	1.35	253,317.90	2.96	0.57	12 hr	Cloudburst
CSO097	11/22/2011	11/22/2011 23:00	0.96	341,979.17	1.35	253,317.90	2.96	0.57	12 hr	Cloudburst
CSO097	11/22/2011	11/22/2011 23:00	0.96	341,979.17	1.35	253,317.90	2.96	0.57	12 hr	Cloudburst
CSO097	11/22/2011	11/22/2011 23:45	0.99	237,280,105.33	1.35	175,763,040.99	2.96	0.57	12 hr	Cloudburst
CSO097	11/22/2011	11/22/2011 23:45	0.99	237,280,105.33	1.35	175,763,040.99	2.96	0.57	12 hr	Cloudburst
CSO097	11/22/2011	11/22/2011 23:45	0.99	237,280,105.33	1.35	175,763,040.99	2.96	0.57	12 hr	Cloudburst
CSO097	11/22/2011	11/22/2011 23:45	0.99	237,280,105.33	1.35	175,763,040.99	2.96	0.57	12 hr	Cloudburst
CSO097	11/27/2011 4:15	12/1/2011 16:00	4.49	1,490,201,129.21	3.37	442,196,180.78	2.53	1.25	48 hr	Cloudburst
CSO097	11/27/2011 4:30	12/1/2011 15:45	4.47	2,147,916.66	3.37	637,363.99	2.55	1.25	48 hr	Cloudburst
CSO097	12/4/2011 15:30	12/8/2011 10:30	3.79	2,128,958.33	2.84	749,633.21	2.99	0.93	48 hr	Atlas 14

UnitID	Overflow Start Date	Overflow End Date	Overflow Duration (Days)	Volume (Gallons)	Overflow Event Rain Inches)	Volume Per Inch	Overflow Antecedent Rain	Frequency (Years)	Period	Standard
CSO097	12/4/2011 15:30	12/8/2011 10:30	3.79	2,128,958.33	2.84	749,633.21	2.99	0.93	48 hr	Atlas 14
CSO097	12/4/2011 15:30	12/8/2011 10:30	3.79	2,128,958.33	2.84	749,633.21	2.99	0.93	48 hr	Atlas 14
CSO097	12/4/2011 15:30	12/8/2011 10:30	3.79	2,128,958.33	2.84	749,633.21	2.99	0.93	48 hr	Atlas 14
CSO097	12/4/2011 15:30	12/8/2011 10:30	3.79	1,477,057,172.43	2.84	520,090,553.67	2.99	0.93	48 hr	Atlas 14
CSO097	12/4/2011 15:30	12/8/2011 10:30	3.79	1,477,057,172.43	2.84	520,090,553.67	2.99	0.93	48 hr	Atlas 14
CSO097	12/4/2011 15:30	12/8/2011 10:30	3.79	1,477,057,172.43	2.84	520,090,553.67	2.99	0.93	48 hr	Atlas 14
CSO097	12/4/2011 15:30	12/8/2011 10:30	3.79	1,477,057,172.43	2.84	520,090,553.67	2.99	0.93	48 hr	Atlas 14
CSO097	12/15/2011 4:00	12/15/2011 10:15	0.26	42,118,853.99	0.44	95,724,668.15	0.24	0.24	6 hr	Cloudburst
CSO097	12/15/2011 4:15	12/15/2011 10:00	0.24	60,416.67	0.44	137,310.61	0.26	0.24	6 hr	Cloudburst
CSO097	12/21/2011 5:00	12/21/2011 9:00	0.17	70,625.00	0.56	126,116.07	0.85	0.26	12 hr	Cloudburst
CSO097	12/21/2011 5:00	12/21/2011 9:00	0.17	70,625.00	0.56	126,116.07	0.85	0.26	12 hr	Cloudburst
CSO097	12/21/2011 5:00	12/21/2011 9:00	0.17	70,625.00	0.56	126,116.07	0.85	0.26	12 hr	Cloudburst
CSO097	12/21/2011 5:00	12/21/2011 9:00	0.17	70,625.00	0.56	126,116.07	0.85	0.26	12 hr	Cloudburst
CSO097	12/21/2011 5:00	12/21/2011 9:30	0.19	49,104,583.26	0.56	87,686,755.83	0.85	0.26	12 hr	Cloudburst
CSO097	12/21/2011 5:00	12/21/2011 9:30	0.19	49,104,583.26	0.56	87,686,755.83	0.85	0.26	12 hr	Cloudburst
CSO097	12/21/2011 5:00	12/21/2011 9:30	0.19	49,104,583.26	0.56	87,686,755.83	0.85	0.26	12 hr	Cloudburst
CSO097	12/21/2011 5:00	12/21/2011 9:30	0.19	49,104,583.26	0.56	87,686,755.83	0.85	0.26	12 hr	Cloudburst
CSO097	12/22/2011 11:15	12/22/2011 22:00	0.45	115,864,166.01	0.64	181,037,759.39	0.76	0.29	12 hr	Cloudburst
CSO097	12/22/2011 11:30	12/22/2011 21:30	0.42	167,083.33	0.64	261,067.71	0.75	0.29	12 hr	Cloudburst
CSO097	12/27/2011 2:00	12/27/2011 16:30	0.60	283,645.83	0.8	354,557.29	1.39	0.33	12 hr	Cloudburst
CSO097	12/27/2011 2:00	12/27/2011 16:30	0.60	283,645.83	0.8	354,557.29	1.39	0.33	12 hr	Cloudburst
CSO097	12/27/2011 2:00	12/27/2011 16:30	0.60	283,645.83	0.8	354,557.29	1.39	0.33	12 hr	Cloudburst
CSO097	12/27/2011 2:00	12/27/2011 16:30	0.60	283,645.83	0.8	354,557.29	1.39	0.33	12 hr	Cloudburst
CSO097	12/27/2011 2:00	12/27/2011 17:15	0.64	196,800,209.45	0.8	246,000,261.81	1.39	0.33	12 hr	Cloudburst
CSO097	12/27/2011 2:00	12/27/2011 17:15	0.64	196,800,209.45	0.8	246,000,261.81	1.39	0.33	12 hr	Cloudburst
CSO097	12/27/2011 2:00	12/27/2011 17:15	0.64	196,800,209.45	0.8	246,000,261.81	1.39	0.33	12 hr	Cloudburst
CSO097	12/27/2011 2:00	12/27/2011 17:15	0.64	196,800,209.45	0.8	246,000,261.81	1.39	0.33	12 hr	Cloudburst
CSO097	1/11/2012 4:30	1/11/2012 22:45	0.76	125,398,126.16	0.75	167,197,501.55	0.23	0.29	6 hr	Cloudburst
CSO097	1/11/2012 4:45	1/11/2012 22:30	0.74	180,729.17	0.75	240,972.22	0.26	0.29	6 hr	Cloudburst
CSO097	1/12/2012 13:00	1/12/2012 14:45	0.07	899,062.50	0.08	11,238,281.29	0.84			
CSO097	1/12/2012 13:15	1/12/2012 14:30	0.05	1,250.00	0.08	15,625.00	0.84			
CSO097	1/17/2012 3:45	1/17/2012 13:30	0.41	48,229.17	0.37	130,349.09	1.05	0.17	12 hr	Cloudburst
CSO097	1/17/2012 3:45	1/17/2012 13:30	0.41	48,229.17	0.37	130,349.09	1.05	0.17	12 hr	Cloudburst
CSO097	1/17/2012 3:45	1/17/2012 13:30	0.41	48,229.17	0.37	130,349.09	1.05	0.17	12 hr	Cloudburst
CSO097	1/17/2012 3:45	1/17/2012 13:30	0.41	48,229.17	0.37	130,349.09	1.05	0.17	12 hr	Cloudburst
CSO097	1/17/2012 3:45	1/17/2012 13:45	0.42	33,556,770.47	0.37	90,693,974.23	1.05	0.17	12 hr	Cloudburst
CSO097	1/17/2012 3:45	1/17/2012 13:45	0.42	33,556,770.47	0.37	90,693,974.23	1.05	0.17	12 hr	Cloudburst
CSO097	1/17/2012 3:45	1/17/2012 13:45	0.42	33,556,770.47	0.37	90,693,974.23	1.05	0.17	12 hr	Cloudburst
CSO097	1/17/2012 3:45	1/17/2012 13:45	0.42	33,556,770.47	0.37	90,693,974.23	1.05	0.17	12 hr	Cloudburst
CSO097	1/23/2012 2:30	1/23/2012 6:15	0.16	95,000.00	0.56	169,642.86	0.65	0.30	3 hr	Atlas 14
CSO097	1/23/2012 2:30	1/23/2012 6:15	0.16	95,000.00	0.56	169,642.86	0.65	0.30	3 hr	Atlas 14
CSO097	1/23/2012 2:30	1/23/2012 6:15	0.16	95,000.00	0.56	169,642.86	0.65	0.30	3 hr	Atlas 14
CSO097	1/23/2012 2:30	1/23/2012 6:15	0.16	95,000.00	0.56	169,642.86	0.65	0.30	3 hr	Atlas 14
CSO097	1/23/2012 2:30	1/23/2012 6:30	0.17	66,052,708.75	0.56	117,951,265.62	0.65	0.30	3 hr	Atlas 14
CSO097	1/23/2012 2:30	1/23/2012 6:30	0.17	66,052,708.75	0.56	117,951,265.62	0.65	0.30	3 hr	Atlas 14
CSO097	1/23/2012 2:30	1/23/2012 6:30	0.17	66,052,708.75	0.56	117,951,265.62	0.65	0.30	3 hr	Atlas 14
CSO097	1/23/2012 2:30	1/23/2012 6:30	0.17	66,052,708.75	0.56	117,951,265.62	0.65	0.30	3 hr	Atlas 14
CSO097	1/25/2012 15:30	1/25/2012 20:30	0.21	72,850,624.84	0.28	260,180,802.99	0.75	0.65	24 hr	Cloudburst

UnitID	Overflow Start Date	Overflow End Date	Overflow Duration (Days)	Volume (Gallons)	Overflow Event Rain Inches)	Volume Per Inch	Overflow Antecedent Rain	Frequency (Years)	Period	Standard
CSO097	1/25/2012 15:30	1/25/2012 20:30	0.21	72,850,624.84	0.28	260,180,802.99	0.75	0.65	24 hr	Cloudburst
CSO097	1/25/2012 15:30	1/25/2012 20:30	0.21	72,850,624.84	0.28	260,180,802.99	0.75	0.65	24 hr	Cloudburst
CSO097	1/25/2012 15:30	1/25/2012 20:30	0.21	72,850,624.84	0.28	260,180,802.99	0.75	0.65	24 hr	Cloudburst
CSO097	1/25/2012 15:30	1/25/2012 20:15	0.20	105,000.00	0.28	375,000.00	0.75	0.65	24 hr	Cloudburst
CSO097	1/25/2012 15:30	1/25/2012 20:15	0.20	105,000.00	0.28	375,000.00	0.75	0.65	24 hr	Cloudburst
CSO097	1/25/2012 15:30	1/25/2012 20:15	0.20	105,000.00	0.28	375,000.00	0.75	0.65	24 hr	Cloudburst
CSO097	1/25/2012 15:30	1/25/2012 20:15	0.20	105,000.00	0.28	375,000.00	0.75	0.65	24 hr	Cloudburst
CSO097	1/26/2012 5:00	1/29/2012 22:30	3.73	1,099,375.00	1.69	650,517.75	1.09	0.65	24 hr	Cloudburst
CSO097	1/26/2012 5:00	1/29/2012 22:30	3.73	1,099,375.00	1.69	650,517.75	1.09	0.65	24 hr	Cloudburst
CSO097	1/26/2012 5:00	1/29/2012 22:30	3.73	1,099,375.00	1.69	650,517.75	1.09	0.65	24 hr	Cloudburst
CSO097	1/26/2012 5:00	1/29/2012 22:30	3.73	1,099,375.00	1.69	650,517.75	1.09	0.65	24 hr	Cloudburst
CSO097	1/26/2012 5:00	1/30/2012 14:00	4.38	764,508,534.63	1.69	452,371,913.98	1.09	0.65	24 hr	Cloudburst
CSO097	1/26/2012 5:00	1/30/2012 14:00	4.38	764,508,534.63	1.69	452,371,913.98	1.09	0.65	24 hr	Cloudburst
CSO097	1/26/2012 5:00	1/30/2012 14:00	4.38	764,508,534.63	1.69	452,371,913.98	1.09	0.65	24 hr	Cloudburst
CSO097	1/26/2012 5:00	1/30/2012 14:00	4.38	764,508,534.63	1.69	452,371,913.98	1.09	0.65	24 hr	Cloudburst
CSO097	1/30/2012 8:30	1/30/2012 12:30	0.17	1,666.67			1.99			
CSO097	2/4/2012 8:45	2/4/2012 13:00	0.18	102,916.67	0.39	263,888.89	0.16	0.22	3 hr	Atlas 14
CSO097	2/4/2012 8:45	2/4/2012 13:00	0.18	102,916.67	0.39	263,888.89	0.16	0.22	3 hr	Atlas 14
CSO097	2/4/2012 8:45	2/4/2012 13:00	0.18	102,916.67	0.39	263,888.89	0.16	0.22	3 hr	Atlas 14
CSO097	2/4/2012 8:45	2/4/2012 13:00	0.18	102,916.67	0.39	263,888.89	0.16	0.22	3 hr	Atlas 14
CSO097	2/4/2012 8:45	2/4/2012 13:15	0.19	71,344,479.41	0.39	182,934,562.59	0.16	0.22	3 hr	Atlas 14
CSO097	2/4/2012 8:45	2/4/2012 13:15	0.19	71,344,479.41	0.39	182,934,562.59	0.16	0.22	3 hr	Atlas 14
CSO097	2/4/2012 8:45	2/4/2012 13:15	0.19	71,344,479.41	0.39	182,934,562.59	0.16	0.22	3 hr	Atlas 14
CSO097	2/4/2012 8:45	2/4/2012 13:15	0.19	71,344,479.41	0.39	182,934,562.59	0.16	0.22	3 hr	Atlas 14
CSO097	2/22/2012 22:45	2/23/2012	0.05	832,916.67	0.15	5,552,777.78	0.36	0.11	1 hr	Cloudburst
CSO097	2/22/2012 23:00	2/22/2012 23:45	0.03	1,145.83	0.15	7,638.89	0.35	0.11	1 hr	Cloudburst
CSO097	2/29/2012 5:45	2/29/2012 10:15	0.19	20,985,625.35	0.62	33,847,782.82	0.5	0.30	12 hr	Cloudburst
CSO097	2/29/2012 5:45	2/29/2012 10:15	0.19	20,985,625.35	0.62	33,847,782.82	0.5	0.30	12 hr	Cloudburst
CSO097	2/29/2012 5:45	2/29/2012 10:15	0.19	20,985,625.35	0.62	33,847,782.82	0.5	0.30	12 hr	Cloudburst
CSO097	2/29/2012 5:45	2/29/2012 10:15	0.19	20,985,625.35	0.62	33,847,782.82	0.5	0.30	12 hr	Cloudburst
CSO097	2/29/2012 5:45	2/29/2012 10:00	0.18	30,312.50	0.62	48,891.13	0.5	0.30	12 hr	Cloudburst
CSO097	2/29/2012 5:45	2/29/2012 10:00	0.18	30,312.50	0.62	48,891.13	0.5	0.30	12 hr	Cloudburst
CSO097	2/29/2012 5:45	2/29/2012 10:00	0.18	30,312.50	0.62	48,891.13	0.5	0.30	12 hr	Cloudburst
CSO097	2/29/2012 5:45	2/29/2012 10:00	0.18	30,312.50	0.62	48,891.13	0.5	0.30	12 hr	Cloudburst
CSO097	3/8/2012 10:00	3/8/2012 20:45	0.45	121,917,186.53	0.83	146,888,176.54	0.74	0.38	12 hr	Cloudburst
CSO097	3/8/2012 10:15	3/8/2012 20:00	0.41	175,729.17	0.83	211,721.89	0.78	0.38	12 hr	Cloudburst
CSO097	3/12/2012 7:30	3/12/2012 8:00	0.02	520.83	0.16	3,255.21	0.99	0.08	12 hr	Cloudburst
CSO097	3/12/2012 7:30	3/12/2012 8:00	0.02	520.83	0.16	3,255.21	0.99	0.08	12 hr	Cloudburst
CSO097	3/12/2012 7:30	3/12/2012 8:00	0.02	520.83	0.16	3,255.21	0.99	0.08	12 hr	Cloudburst
CSO097	3/12/2012 7:30	3/12/2012 8:00	0.02	520.83	0.16	3,255.21	0.99	0.08	12 hr	Cloudburst
CSO097	3/12/2012 7:30	3/12/2012 8:15	0.03	415,833.34	0.16	2,598,958.38	0.99	0.08	12 hr	Cloudburst
CSO097	3/12/2012 7:30	3/12/2012 8:15	0.03	415,833.34	0.16	2,598,958.38	0.99	0.08	12 hr	Cloudburst
CSO097	3/12/2012 7:30	3/12/2012 8:15	0.03	415,833.34	0.16	2,598,958.38	0.99	0.08	12 hr	Cloudburst
CSO097	3/12/2012 7:30	3/12/2012 8:15	0.03	415,833.34	0.16	2,598,958.38	0.99	0.08	12 hr	Cloudburst
CSO097	3/15/2012 19:00	3/16/2012 7:45	0.53	90,839,166.45	1.04	87,345,352.35	0.69	0.47	12 hr	Cloudburst
CSO097	3/15/2012 19:15	3/16/2012 6:00	0.45	130,729.17	1.04	125,701.12	0.7	0.47	12 hr	Cloudburst
CSO097	3/17/2012 18:15	3/19/2012 14:00	1.82	313,769,686.63	1.14	275,236,567.22	1.87	0.69	1 hr	Cloudburst
CSO097	3/17/2012 18:15	3/19/2012 14:00	1.82	313,769,686.63	1.14	275,236,567.22	1.87	0.69	1 hr	Cloudburst

UnitID	Overflow Start Date	Overflow End Date	Overflow Duration (Days)	Volume (Gallons)	Overflow Event Rain Inches)	Volume Per Inch	Overflow Antecedent Rain	Frequency (Years)	Period	Standard
CSO097	3/17/2012 18:15	3/19/2012 14:00	1.82	313,769,686.63	1.14	275,236,567.22	1.87	0.69	1 hr	Cloudburst
CSO097	3/17/2012 18:15	3/19/2012 14:00	1.82	313,769,686.63	1.14	275,236,567.22	1.87	0.69	1 hr	Cloudburst
CSO097	3/17/2012 18:15	3/19/2012 1:15	1.29	451,145.83	1.14	395,741.96	1.87	0.69	1 hr	Cloudburst
CSO097	3/17/2012 18:15	3/19/2012 1:15	1.29	451,145.83	1.14	395,741.96	1.87	0.69	1 hr	Cloudburst
CSO097	3/17/2012 18:15	3/19/2012 1:15	1.29	451,145.83	1.14	395,741.96	1.87	0.69	1 hr	Cloudburst
CSO097	3/17/2012 18:15	3/19/2012 1:15	1.29	451,145.83	1.14	395,741.96	1.87	0.69	1 hr	Cloudburst
CSO097	3/17/2012 18:15	3/19/2012 1:15	1.29	451,145.83	1.14	395,741.96	1.87	0.69	1 hr	Cloudburst
CSO097	3/23/2012 4:45	3/24/2012 21:45	1.71	436,979.17	1.58	276,569.09	1.32	0.61	24 hr	Cloudburst
CSO097	3/23/2012 4:45	3/24/2012 21:45	1.71	436,979.17	1.58	276,569.09	1.32	0.61	24 hr	Cloudburst
CSO097	3/23/2012 4:45	3/24/2012 21:45	1.71	436,979.17	1.58	276,569.09	1.32	0.61	24 hr	Cloudburst
CSO097	3/23/2012 4:45	3/24/2012 21:45	1.71	436,979.17	1.58	276,569.09	1.32	0.61	24 hr	Cloudburst
CSO097	3/23/2012 4:45	3/24/2012 23:30	1.78	303,723,018.99	1.58	192,229,758.86	1.32	0.61	24 hr	Cloudburst
CSO097	3/23/2012 4:45	3/24/2012 23:30	1.78	303,723,018.99	1.58	192,229,758.86	1.32	0.61	24 hr	Cloudburst
CSO097	3/23/2012 4:45	3/24/2012 23:30	1.78	303,723,018.99	1.58	192,229,758.86	1.32	0.61	24 hr	Cloudburst
CSO097	3/23/2012 4:45	3/24/2012 23:30	1.78	303,723,018.99	1.58	192,229,758.86	1.32	0.61	24 hr	Cloudburst
CSO097	4/1/2012 8:15	4/2/2012	0.66	195,965,308.63	1.87	104,794,282.69	0.99	3.56	3 hr	Cloudburst
CSO097	4/1/2012 8:30	4/2/2012	0.65	290,904.98	1.87	155,564.16	1.16	3.56	3 hr	Cloudburst
CSO097	4/4/2012 17:30	4/4/2012 18:00	0.02	160,000.00	0.08	2,000,000.03	2.11	0.11	12 hr	Cloudburst
CSO097	4/4/2012 17:45	4/4/2012 18:00	0.01	250.13	0.08	3,126.64	2.11	0.11	12 hr	Cloudburst
CSO097	4/28/2012 19:15	4/29/2012 1:15	0.25	35,447,667.30	0.78	45,445,727.30	0.8	0.58	1 hr	Cloudburst
CSO097	4/28/2012 19:15	4/29/2012 1:15	0.25	35,447,667.30	0.78	45,445,727.30	0.8	0.58	1 hr	Cloudburst
CSO097	4/28/2012 19:15	4/29/2012 1:15	0.25	35,447,667.30	0.78	45,445,727.30	0.8	0.58	1 hr	Cloudburst
CSO097	4/28/2012 19:15	4/29/2012 1:15	0.25	35,447,667.30	0.78	45,445,727.30	0.8	0.58	1 hr	Cloudburst
CSO097	4/28/2012 19:15	4/29/2012 1:15	0.25	50,986.34	0.78	65,367.10	0.8	0.58	1 hr	Cloudburst
CSO097	4/28/2012 19:15	4/29/2012 1:15	0.25	50,986.34	0.78	65,367.10	0.8	0.58	1 hr	Cloudburst
CSO097	4/28/2012 19:15	4/29/2012 1:15	0.25	50,986.34	0.78	65,367.10	0.8	0.58	1 hr	Cloudburst
CSO097	4/28/2012 19:15	4/29/2012 1:15	0.25	50,986.34	0.78	65,367.10	0.8	0.58	1 hr	Cloudburst
CSO097	4/30/2012 18:00	4/30/2012 20:00	0.08	16,842,392.39	0.32	52,632,476.23	1.18	0.22	1 hr	Cloudburst
CSO097	4/30/2012 18:00	4/30/2012 20:00	0.08	16,842,392.39	0.32	52,632,476.23	1.18	0.22	1 hr	Cloudburst
CSO097	4/30/2012 18:00	4/30/2012 20:00	0.08	16,842,392.39	0.32	52,632,476.23	1.18	0.22	1 hr	Cloudburst
CSO097	4/30/2012 18:00	4/30/2012 20:00	0.08	16,842,392.39	0.32	52,632,476.23	1.18	0.22	1 hr	Cloudburst
CSO097	4/30/2012 18:00	4/30/2012 20:00	0.08	24,299.45	0.32	75,935.80	1.18	0.22	1 hr	Cloudburst
CSO097	4/30/2012 18:00	4/30/2012 20:00	0.08	24,299.45	0.32	75,935.80	1.18	0.22	1 hr	Cloudburst
CSO097	4/30/2012 18:00	4/30/2012 20:00	0.08	24,299.45	0.32	75,935.80	1.18	0.22	1 hr	Cloudburst
CSO097	4/30/2012 18:00	4/30/2012 20:00	0.08	24,299.45	0.32	75,935.80	1.18	0.22	1 hr	Cloudburst
CSO097	5/4/2012 23:45	5/5/2012 6:30	0.28	92,001,212.49	1.39	66,187,922.65	1.55	0.72	6 hr	Cloudburst
CSO097	5/4/2012 23:45	5/5/2012 6:30	0.28	92,001,212.49	1.39	66,187,922.65	1.55	0.72	6 hr	Cloudburst
CSO097	5/4/2012 23:45	5/5/2012 6:30	0.28	92,001,212.49	1.39	66,187,922.65	1.55	0.72	6 hr	Cloudburst
CSO097	5/4/2012 23:45	5/5/2012 6:30	0.28	92,001,212.49	1.39	66,187,922.65	1.55	0.72	6 hr	Cloudburst
CSO097	5/4/2012 23:45	5/5/2012 6:30	0.28	132,613.64	1.39	95,405.50	1.55	0.72	6 hr	Cloudburst
CSO097	5/4/2012 23:45	5/5/2012 6:30	0.28	132,613.64	1.39	95,405.50	1.55	0.72	6 hr	Cloudburst
CSO097	5/4/2012 23:45	5/5/2012 6:30	0.28	132,613.64	1.39	95,405.50	1.55	0.72	6 hr	Cloudburst
CSO097	5/4/2012 23:45	5/5/2012 6:30	0.28	132,613.64	1.39	95,405.50	1.55	0.72	6 hr	Cloudburst
CSO097	5/13/2012 2:00	5/13/2012 15:15	0.55	205,050,437.80	2.14	95,817,961.59	1.1	0.91	12 hr	Cloudburst
CSO097	5/13/2012 2:00	5/13/2012 15:15	0.55	205,050,437.80	2.14	95,817,961.59	1.1	0.91	12 hr	Cloudburst
CSO097	5/13/2012 2:00	5/13/2012 15:15	0.55	205,050,437.80	2.14	95,817,961.59	1.1	0.91	12 hr	Cloudburst
CSO097	5/13/2012 2:00	5/13/2012 15:15	0.55	205,050,437.80	2.14	95,817,961.59	1.1	0.91	12 hr	Cloudburst
CSO097	5/13/2012 2:00	5/13/2012 15:15	0.55	295,194.63	2.14	137,941.42	1.1	0.91	12 hr	Cloudburst
CSO097	5/13/2012 2:00	5/13/2012 15:15	0.55	295,194.63	2.14	137,941.42	1.1	0.91	12 hr	Cloudburst

UnitID	Overflow Start Date	Overflow End Date	Overflow Duration (Days)	Volume (Gallons)	Overflow Event Rain Inches)	Volume Per Inch	Overflow Antecedent Rain	Frequency (Years)	Period	Standard
CSO097	5/13/2012 2:00	5/13/2012 15:15	0.55	295,194.63	2.14	137,941.42	1.1	0.91	12 hr	Cloudburst
CSO097	5/13/2012 2:00	5/13/2012 15:15	0.55	295,194.63	2.14	137,941.42	1.1	0.91	12 hr	Cloudburst
CSO097	5/16/2012 18:15	5/16/2012 18:30	0.01	2,825.26	0.29	9,742.29	2.49	0.25	1 hr	Cloudburst
CSO097	5/16/2012 18:15	5/16/2012 18:30	0.01	2,825.26	0.29	9,742.29	2.49	0.25	1 hr	Cloudburst
CSO097	5/16/2012 18:15	5/16/2012 18:30	0.01	2,825.26	0.29	9,742.29	2.49	0.25	1 hr	Cloudburst
CSO097	5/16/2012 18:15	5/16/2012 18:30	0.01	2,825.26	0.29	9,742.29	2.49	0.25	1 hr	Cloudburst
CSO097	5/16/2012 18:15	5/16/2012 18:30	0.01	2,041,275.43	0.29	7,038,880.80	2.49	0.25	1 hr	Cloudburst
CSO097	5/16/2012 18:15	5/16/2012 18:30	0.01	2,041,275.43	0.29	7,038,880.80	2.49	0.25	1 hr	Cloudburst
CSO097	5/16/2012 18:15	5/16/2012 18:30	0.01	2,041,275.43	0.29	7,038,880.80	2.49	0.25	1 hr	Cloudburst
CSO097	5/16/2012 18:15	5/16/2012 18:30	0.01	2,041,275.43	0.29	7,038,880.80	2.49	0.25	1 hr	Cloudburst
CSO097	5/29/2012 9:00	5/30/2012 9:00	1.00	520,913.65	3.11	167,496.35	2.98	9.58	6 hr	Cloudburst
CSO097	5/29/2012 9:00	5/30/2012 9:00	1.00	520,913.65	3.11	167,496.35	2.98	9.58	6 hr	Cloudburst
CSO097	5/29/2012 9:00	5/30/2012 9:00	1.00	520,913.65	3.11	167,496.35	2.98	9.58	6 hr	Cloudburst
CSO097	5/29/2012 9:00	5/30/2012 9:00	1.00	520,913.65	3.11	167,496.35	2.98	9.58	6 hr	Cloudburst
CSO097	5/29/2012 9:00	5/30/2012 9:45	1.03	361,652,218.56	3.11	116,286,887.00	2.98	9.58	6 hr	Cloudburst
CSO097	5/29/2012 9:00	5/30/2012 9:45	1.03	361,652,218.56	3.11	116,286,887.00	2.98	9.58	6 hr	Cloudburst
CSO097	5/29/2012 9:00	5/30/2012 9:45	1.03	361,652,218.56	3.11	116,286,887.00	2.98	9.58	6 hr	Cloudburst
CSO097	5/29/2012 9:00	5/30/2012 9:45	1.03	361,652,218.56	3.11	116,286,887.00	2.98	9.58	6 hr	Cloudburst
CSO097	5/31/2012 18:30	6/1/2012 5:45	0.47	209,050.87	1.28	163,320.99	3.49	0.59	12 hr	Cloudburst
CSO097	5/31/2012 18:30	6/1/2012 5:45	0.47	209,050.87	1.28	163,320.99	3.49	0.59	12 hr	Cloudburst
CSO097	5/31/2012 18:30	6/1/2012 5:45	0.47	209,050.87	1.28	163,320.99	3.49	0.59	12 hr	Cloudburst
CSO097	5/31/2012 18:30	6/1/2012 5:45	0.47	209,050.87	1.28	163,320.99	3.49	0.59	12 hr	Cloudburst
CSO097	5/31/2012 18:30	6/1/2012 5:45	0.47	145,210,621.69	1.28	113,445,798.20	3.49	0.59	12 hr	Cloudburst
CSO097	5/31/2012 18:30	6/1/2012 5:45	0.47	145,210,621.69	1.28	113,445,798.20	3.49	0.59	12 hr	Cloudburst
CSO097	5/31/2012 18:30	6/1/2012 5:45	0.47	145,210,621.69	1.28	113,445,798.20	3.49	0.59	12 hr	Cloudburst
CSO097	5/31/2012 18:30	6/1/2012 5:45	0.47	145,210,621.69	1.28	113,445,798.20	3.49	0.59	12 hr	Cloudburst
CSO105	7/19/2011 23:00	7/20/2011 1:45	0.11	9,588,792.08	1.36	7,050,582.41	1.1	1.89	1 hr	Cloudburst
CSO105	8/7/2011 3:45	8/7/2011 7:00	0.14	4,261,701.59	1.2	3,551,418.00	0.84	0.69	3 hr	Atlas 14
CSO105	8/8/2011 15:00	8/8/2011 16:00	0.04	125,316.63	0.36	348,101.75	1.58	0.24	3 hr	Atlas 14
CSO105	8/13/2011 17:45	8/13/2011 18:45	0.04	328,135.90	0.43	763,106.74	2.16	0.35	1 hr	Cloudburst
CSO105	9/19/2011 7:30	9/19/2011 8:45	0.05	446,343.86	0.22	2,028,835.71	0.59	0.25	24 hr	Cloudburst
CSO105	9/23/2011 2:00	9/23/2011 8:45	0.28	336,230.81	0.64	525,360.64	0.97	0.30	12 hr	Cloudburst
CSO105	9/25/2011 23:30	9/26/2011 7:00	0.31	33,287,932.32	3.08	10,807,770.23	2.59	3.57	6 hr	Cloudburst
CSO105	10/27/2011 0:15	10/27/2011 2:30	0.09	1,822,390.45	0.71	2,566,747.11	1	0.38	12 hr	Cloudburst
CSO105	11/14/2011 22:00	11/14/2011 23:15	0.05	371,321.91	0.36	1,031,449.76	0.32	0.57	48 hr	Atlas 14
CSO105	11/16/2011 7:00	11/16/2011 8:00	0.04	41,332.17	0.3	137,773.90	1.6	0.57	48 hr	Atlas 14
CSO105	11/22/2011 7:00	11/22/2011 10:45	0.16	1,519,420.63	0.81	1,875,827.94	2.22	0.47	48 hr	Atlas 14
CSO105	11/27/2011 8:45	11/27/2011 9:00	0.01	6,585.84	0.47	14,012.42	2.1	0.93	48 hr	Atlas 14
CSO105	11/28/2011 0:30	11/28/2011 2:00	0.06	44,936.73	0.51	88,111.23	2.31	0.93	48 hr	Atlas 14
CSO105	11/28/2011 12:15	11/29/2011 1:45	0.56	612,988.90	1.65	371,508.42	2.74	0.93	48 hr	Atlas 14
CSO105	12/4/2011 16:45	12/5/2011 19:15	1.10	14,988,454.26	3.46	4,331,923.20	2.91	1.74	48 hr	Cloudburst
CSO105	12/21/2011 6:30	12/21/2011 7:45	0.05	397,174.61	0.64	620,585.33	1.15	0.32	12 hr	Cloudburst
CSO105	12/22/2011 15:30	12/22/2011 17:00	0.06	75,239.97	0.43	174,976.68	1.1	0.22	12 hr	Cloudburst
CSO105	1/11/2012 6:15	1/11/2012 7:30	0.05	176,029.79	0.58	303,499.64	0.45	0.39	12 hr	Cloudburst
CSO105	1/17/2012 12:15	1/17/2012 12:30	0.01	7,127.36	0.24	29,697.34	1.49	0.20	12 hr	Cloudburst
CSO105	1/23/2012 3:15	1/23/2012 5:15	0.08	637,360.20	0.69	923,710.43	0.93	0.35	3 hr	Atlas 14
CSO105	1/26/2012 5:45	1/26/2012 7:30	0.07	1,672,631.51	0.45	3,716,958.92	1.32	0.27	3 hr	Atlas 14
CSO105	1/26/2012 19:00	1/26/2012 23:30	0.19	2,996,135.42	1.08	2,774,199.47	1.83	0.51	12 hr	Cloudburst

UnitID	Overflow Start Date	Overflow End Date	Overflow Duration (Days)	Volume (Gallons)	Overflow Event Rain Inches)	Volume Per Inch	Overflow Antecedent Rain	Frequency (Years)	Period	Standard
CSO105	2/29/2012 9:00	2/29/2012 9:45	0.03	74,794.48	0.35	213,698.53	0.59	0.20	1 hr	Cloudburst
CSO105	3/8/2012 13:15	3/8/2012 14:00	0.03	66,276.98	0.63	105,201.56	0.9	0.34	6 hr	Cloudburst
CSO105	3/15/2012 18:45	3/16/2012 3:30	0.36	300,076.62	0.92	326,170.24	0.53	0.42	12 hr	Cloudburst
CSO105	3/17/2012 18:30	3/17/2012 19:30	0.04	298,028.87	0.3	993,429.56	1.44	0.29	3 hr	Atlas 14
CSO105	3/23/2012 13:15	3/23/2012 23:00	0.41	2,348,846.73	1.28	1,835,036.51	1.12	0.55	24 hr	Cloudburst
CSO105	4/1/2012 8:45	4/1/2012 12:00	0.14	3,604,669.86	1.35	2,670,125.82	0.93	0.74	6 hr	Cloudburst
CSO105	4/28/2012 19:15	4/28/2012 20:45	0.06	494,237.96	0.6	823,729.93	0.73	0.52	1 hr	Cloudburst
CSO105	5/5/2012 1:00	5/5/2012 1:00	0.00	541,700.01	0.87	622,643.68	2.14	0.77	6 hr	Cloudburst
CSO105	5/29/2012 6:15	5/29/2012 12:30	0.26	25,979,702.91	2.73	9,516,374.69	0.71	4.57	1 hr	Cloudburst
CSO105	5/31/2012 18:15	6/1/2012 6:45	0.52	6,519,912.66	1.05	6,209,440.63	3.03	0.45	12 hr	Cloudburst
CSO105	6/4/2012 14:00	6/4/2012 18:15	0.18	4,213.69	0.18	23,409.40	3.87	0.10	6 hr	Cloudburst
CSO105	6/17/2012 11:15	6/17/2012 13:30	0.09	193,496.07	0.13	1,488,431.29	0.11	0.11	1 hr	Cloudburst
CSO106	11/3/2011 11:15	11/3/2011 11:15	0.00	0.33	0.34	0.97	0.41	0.23	3 hr	Atlas 14
CSO106	12/4/2011 16:45	12/4/2011 17:45	0.04	901.81	0.5	1,803.63	3.1	0.93	48 hr	Atlas 14
CSO106	12/5/2011 3:15	12/6/2011 5:30	1.09	146,636.84	2.25	65,171.93	2.93	0.93	48 hr	Atlas 14
CSO106	12/27/2011 10:00	12/27/2011 12:00	0.08	3,361.38	0.6	5,602.30	1.67	0.33	12 hr	Cloudburst
CSO106	1/11/2012 4:30	1/11/2012 7:45	0.14	1,397.41	0.45	3,105.35	0.23	0.29	6 hr	Cloudburst
CSO106	1/26/2012 5:15	1/26/2012 8:45	0.15	4,398.26	0.47	9,357.99	1.15	0.65	24 hr	Cloudburst
CSO106	1/26/2012 18:45	1/27/2012 6:45	0.50	87,305.80	1.21	72,153.56	1.67	0.65	24 hr	Cloudburst
CSO106	1/30/2012 16:15	1/30/2012 16:30	0.01	5.83			1.97			
CSO106	2/2/2012 11:45	2/3/2012 9:45	0.92	74,088.30			1.26			
CSO106	2/22/2012 23:00	2/22/2012 23:00	0.00	501.48	0.15	3,343.23	0.35	0.11	1 hr	Cloudburst
CSO106	2/29/2012 6:00	2/29/2012 8:45	0.11	4,180.61	0.62	6,742.92	0.5	0.30	12 hr	Cloudburst
CSO106	3/8/2012 13:00	3/8/2012 14:45	0.07	1,617.91	0.72	2,247.10	1.09	0.38	12 hr	Cloudburst
CSO106	3/16/2012 0:45	3/16/2012 3:00	0.09	3,100.65	0.92	3,370.27	0.95	0.47	12 hr	Cloudburst
CSO106	3/17/2012 18:30	3/17/2012 22:30	0.17	17,716.14	1.09	16,253.34	2.01	0.69	1 hr	Cloudburst
CSO106	3/23/2012 5:00	3/23/2012 23:00	0.75	43,824.07	1.58	27,736.75	1.35	0.61	24 hr	Cloudburst
CSO106	4/1/2012 8:45	4/1/2012 14:30	0.24	31,758.05	1.87	16,982.91	1.21	3.56	3 hr	Cloudburst
CSO106	4/28/2012 19:15	4/29/2012 0:15	0.21	6,138.39	0.78	7,869.73	0.8	0.58	1 hr	Cloudburst
CSO106	4/30/2012 18:00	4/30/2012 18:00	0.00	5,328.67	0.24	22,202.81	1.18	0.22	1 hr	Cloudburst
CSO106	5/5/2012	5/5/2012 1:45	0.07	25,536.00	1.09	23,427.53	1.64	0.72	6 hr	Cloudburst
CSO106	5/13/2012 2:00	5/13/2012 9:30	0.31	29,072.13	2.01	14,463.75	1.1	0.91	12 hr	Cloudburst
CSO106	5/29/2012 6:45	5/29/2012 17:45	0.46	232,225.22	3.11	74,670.49	0.86	9.58	6 hr	Cloudburst
CSO106	5/31/2012 18:30	5/31/2012 21:15	0.11	6,580.93	0.87	7,564.29	3.49	0.59	12 hr	Cloudburst
CSO108	8/7/2011 3:15	8/7/2011 7:00	0.16	546,203.77	1.9	287,475.67	1.19	2.33	3 hr	Cloudburst
CSO108	8/13/2011 17:15	8/13/2011 17:30	0.01	18,768.08	0.63	29,790.61	3.02	0.54	1 hr	Cloudburst
CSO108	8/18/2011 8:30	8/18/2011 8:30	0.00	104.23	0.34	306.55	1.03	0.29	1 hr	Cloudburst
CSO108	9/26/2011 0:15	9/26/2011 9:15	0.38	3,271,295.69	3.35	976,506.18	3.39	7.22	12 hr	Atlas 14
CSO108	10/13/2011 9:30	10/13/2011 9:30	0.00	36,053.08	0.33	109,251.75	0.33	0.21	3 hr	Atlas 14
CSO108	10/27/2011 5:45	10/27/2011 5:45	0.00	38,452.74	0.81	47,472.52	1.24	0.45	12 hr	Cloudburst
CSO108	11/22/2011 9:30	11/22/2011 13:15	0.16	327,256.56	0.99	330,562.18	3.17	0.54	12 hr	Cloudburst
CSO108	11/28/2011 12:30	11/29/2011 8:30	0.83	58,260.29	1.87	31,155.23	3.52	1.44	48 hr	Cloudburst
CSO108	12/5/2011 6:30	12/6/2011 11:00	1.19	10,638,740.41	2.4	4,432,808.50	3.35	1.22	48 hr	Cloudburst
CSO108	12/21/2011 7:00	12/21/2011 7:00	0.00	48,692.44	0.6	81,154.07	1.19	0.34	12 hr	Cloudburst
CSO108	1/23/2012 3:00	1/23/2012 3:15	0.01	87,979.99	0.5	175,959.97	0.84	0.40	3 hr	Atlas 14
CSO108	1/26/2012 6:15	1/26/2012 6:15	0.00	26,929.15	0.38	70,866.19	1.39	0.63	24 hr	Cloudburst
CSO108	1/26/2012 19:30	1/27/2012 9:30	0.58	3,660,547.40	1.25	2,928,437.92	1.94	0.63	24 hr	Cloudburst
CSO108	2/26/2012 2:45	2/26/2012 8:15	0.23	162,356.92			0.24			

UnitID	Overflow Start Date	Overflow End Date	Overflow Duration (Days)	Volume (Gallons)	Overflow Event Rain Inches)	Volume Per Inch	Overflow Antecedent Rain	Frequency (Years)	Period	Standard
CSO108	2/29/2012 9:00	2/29/2012 9:00	0.00	42,419.78	0.57	74,420.67	0.76	0.29	12 hr	Cloudburst
CSO108	2/29/2012 21:45	2/29/2012 21:45	0.00	134.24			0.77			
CSO108	3/4/2012 3:00	3/4/2012 9:15	0.26	51,254.49	0.01	5,125,449.44	0.81			
CSO108	3/4/2012 22:00	3/4/2012 23:00	0.04	9,123.65	0.06	152,060.79	0.86	0.12	6 hr	Cloudburst
CSO108	3/6/2012 11:00	3/6/2012 11:30	0.02	2,907.52			1.05			
CSO108	3/9/2012 2:45	3/9/2012 8:30	0.24	53,014.48	0.02	2,650,723.90	1.26	0.38	12 hr	Cloudburst
CSO108	3/17/2012 18:45	3/18/2012 2:15	0.31	746,274.42	1.22	611,700.35	2.01	0.65	3 hr	Atlas 14
CSO108	3/23/2012 13:45	3/23/2012 23:00	0.39	553,502.39	1.14	485,528.41	1.93	0.52	24 hr	Cloudburst
CSO108	3/25/2012 5:00	3/26/2012 4:45	0.99	180,500.96			1.34			
CSO108	3/26/2012 14:00	3/26/2012 17:45	0.16	14,811.34			1.34			
CSO108	4/1/2012 8:45	4/1/2012 14:15	0.23	1,031,049.71	1.53	673,888.70	1.01	0.83	6 hr	Cloudburst
CSO108	4/11/2012 13:30	4/11/2012 21:00	0.31	189,453.88			0.23			
CSO108	4/15/2012 19:30	4/16/2012 6:30	0.46	757,023.64	0.05	15,140,472.86	0.14			
CSO108	4/17/2012 0:30	4/24/2012 6:00	7.23	9,530,949.01	0.34	28,032,202.97	0.3			
CSO108	5/5/2012 0:15	5/5/2012 3:15	0.13	119,687.21	1.2	99,739.34	1.76	0.74	6 hr	Cloudburst
CSO108	5/13/2012 3:00	5/13/2012 17:00	0.58	829,858.33	2.36	351,634.89	1.58	1.00	12 hr	Cloudburst
CSO108	5/29/2012 7:00	5/29/2012 18:15	0.47	3,765,743.21	3.12	1,206,968.98	0.98	9.58	6 hr	Cloudburst
CSO108	5/31/2012 19:15	6/1/2012 0:30	0.22	441,469.55	1.01	437,098.56	3.65	0.63	12 hr	Cloudburst
CSO108	6/1/2012 9:00	6/3/2012 10:00	2.04	564,193.50	0.25	2,256,774.00	4.56	0.63	12 hr	Cloudburst
CSO110	7/12/2011 16:45	7/12/2011 18:00	0.05	25,497.62	0.35	72,850.34	1.01	0.29	6 hr	Cloudburst
CSO110	7/19/2011 22:45	7/20/2011	0.05	110,335.70	1.41	78,252.27	1.2	0.98	1 hr	Cloudburst
CSO110	8/7/2011 3:00	8/7/2011 7:15	0.18	465,074.59	1.81	256,947.29	0.65	2.94	3 hr	Cloudburst
CSO110	8/8/2011 15:00	8/8/2011 15:00	0.00	1,723.80	0.17	10,140.01	2.01	0.11	3 hr	Atlas 14
CSO110	8/13/2011 17:00	8/13/2011 18:30	0.06	233,337.96	0.88	265,156.77	3.03	0.75	1 hr	Cloudburst
CSO110	8/18/2011 8:00	8/18/2011 9:00	0.04	116,558.76	0.45	259,019.47	1.39	0.38	1 hr	Cloudburst
CSO110	9/19/2011 7:00	9/19/2011 7:45	0.03	42,312.40	0.32	132,226.25	0.54	0.29	12 hr	Cloudburst
CSO110	9/23/2011 3:00	9/23/2011 8:15	0.22	74,740.40	0.81	92,272.10	1.11	0.38	12 hr	Cloudburst
CSO110	9/25/2011 20:00	9/26/2011 8:45	0.53	3,572,808.17	3.87	923,206.25	2.36	5.11	12 hr	Cloudburst
CSO110	10/13/2011 7:30	10/13/2011 8:15	0.03	64,567.65	0.29	222,647.08	0.24	0.21	3 hr	Atlas 14
CSO110	10/26/2011 23:45	10/27/2011 5:30	0.24	561,139.38	1.06	529,376.78	1.03	0.49	12 hr	Cloudburst
CSO110	11/3/2011 10:00	11/3/2011 11:15	0.05	19,951.77	0.36	55,421.58	0.34	0.24	3 hr	Atlas 14
CSO110	11/14/2011 21:30	11/14/2011 23:30	0.08	202,434.99	0.34	595,397.03	0.26	0.71	48 hr	Atlas 14
CSO110	11/15/2011 8:15	11/15/2011 15:15	0.29	149,796.90	1.13	132,563.63	0.79	0.71	48 hr	Atlas 14
CSO110	11/16/2011 5:30	11/16/2011 11:45	0.26	116,552.63	0.64	182,113.48	1.84	0.71	48 hr	Atlas 14
CSO110	11/20/2011 17:15	11/20/2011 20:30	0.14	71,562.46	0.69	103,713.70	2.79	0.67	48 hr	Atlas 14
CSO110	11/21/2011 10:30	11/21/2011 10:30	0.00	400.79	0.18	2,226.60	3.15	0.67	48 hr	Atlas 14
CSO110	11/22/2011	11/22/2011 12:00	0.50	303,804.85	1.17	259,662.27	3	0.67	48 hr	Atlas 14
CSO110	11/27/2011 5:45	11/29/2011 5:30	1.99	1,106,909.02	3.06	361,734.97	2.53	0.98	48 hr	Atlas 14
CSO110	11/29/2011 18:30	11/29/2011 20:00	0.06	7,665.44	0.06	127,757.41	3.21			
CSO110	12/4/2011 16:00	12/6/2011 8:45	1.70	2,600,689.60	2.88	903,017.22	2.9	0.95	48 hr	Atlas 14
CSO110	12/15/2011 4:00	12/15/2011 8:45	0.20	70,360.43	0.41	171,610.80	0.2	0.23	6 hr	Cloudburst
CSO110	12/21/2011 5:15	12/21/2011 7:45	0.10	246,518.02	0.54	456,514.85	0.83	0.25	12 hr	Cloudburst
CSO110	12/22/2011 12:00	12/22/2011 18:00	0.25	112,258.80	0.57	196,945.26	0.76	0.27	12 hr	Cloudburst
CSO110	12/27/2011 2:30	12/27/2011 12:15	0.41	112,113.49	0.66	169,868.93	1.37	0.28	12 hr	Cloudburst
CSO110	1/11/2012 5:00	1/11/2012 11:15	0.26	285,777.47	0.64	446,527.30	0.29	0.30	6 hr	Cloudburst
CSO110	1/11/2012 20:15	1/11/2012 20:15	0.00	5,284.99	0.11	48,045.35	0.76	0.30	6 hr	Cloudburst
CSO110	1/17/2012 3:45	1/17/2012 12:45	0.38	176,405.47	0.35	504,015.62	1.03	0.16	12 hr	Cloudburst
CSO110	1/23/2012 2:45	1/23/2012 5:15	0.10	306,706.67	0.52	589,820.51	0.61	0.27	3 hr	Atlas 14

UnitID	Overflow Start Date	Overflow End Date	Overflow Duration (Days)	Volume (Gallons)	Overflow Event Rain Inches)	Volume Per Inch	Overflow Antecedent Rain	Frequency (Years)	Period	Standard
CSO110	1/25/2012 17:00	1/25/2012 19:15	0.09	8,982.12	0.3	29,940.41	0.8	0.63	48 hr	Atlas 14
CSO110	1/26/2012 5:15	1/26/2012 7:15	0.08	128,429.00	0.5	256,858.01	1.15	0.63	48 hr	Atlas 14
CSO110	1/26/2012 18:30	1/27/2012 3:00	0.35	922,259.52	1.12	823,446.00	1.59	0.63	48 hr	Atlas 14
CSO110	2/4/2012 9:15	2/4/2012 12:00	0.11	88,209.67	0.42	210,023.03	0.24	0.24	3 hr	Atlas 14
CSO110	2/22/2012 23:00	2/22/2012 23:15	0.01	8,297.45	0.15	55,316.34	0.37	0.11	1 hr	Cloudburst
CSO110	2/29/2012 6:00	2/29/2012 9:30	0.15	45,237.83	0.64	70,684.11	0.49	0.31	12 hr	Cloudburst
CSO110	3/8/2012 10:00	3/8/2012 17:30	0.31	304,430.32	0.79	385,354.84	0.74	0.38	6 hr	Cloudburst
CSO110	3/15/2012 19:15	3/16/2012 3:45	0.35	253,234.08	1.04	243,494.31	0.7	0.47	12 hr	Cloudburst
CSO110	3/17/2012 18:30	3/18/2012 1:30	0.29	221,984.27	1.05	211,413.59	1.92	0.59	1 hr	Cloudburst
CSO110	3/23/2012 5:00	3/24/2012	0.79	671,066.42	1.63	411,697.19	1.28	0.63	24 hr	Cloudburst
CSO110	4/1/2012 8:30	4/1/2012 13:15	0.20	614,229.18	1.86	330,230.74	1.19	3.39	3 hr	Cloudburst
CSO110	4/28/2012 19:15	4/29/2012 0:30	0.22	154,619.22	0.77	200,804.19	0.81	0.58	1 hr	Cloudburst
CSO110	4/30/2012 18:00	4/30/2012 18:45	0.03	43,714.35	0.23	190,062.38	1.1	0.18	3 hr	Atlas 14
CSO110	5/4/2012 23:45	5/5/2012 4:45	0.21	273,005.82	1.33	205,267.53	1.49	0.70	6 hr	Cloudburst
CSO110	5/13/2012 1:45	5/13/2012 14:45	0.54	782,123.09	2.06	379,671.40	0.98	0.88	12 hr	Cloudburst
CSO110	5/29/2012 6:30	5/29/2012 16:45	0.43	2,332,669.19	3.15	740,529.90	0.65	13.17	6 hr	Cloudburst
CSO110	5/31/2012 18:30	6/1/2012 5:15	0.45	275,323.68	1.16	237,348.00	3.54	0.54	12 hr	Cloudburst
CSO117	7/5/2011 18:15	7/5/2011 18:15	0.00	3,373.86	0.23	14,668.98	0.28	0.17	3 hr	Atlas 14
CSO117	7/8/2011 4:00	7/8/2011 5:30	0.06	148,712.06	0.42	354,076.34	0.67	0.23	3 hr	Atlas 14
CSO117	7/12/2011 17:15	7/12/2011 18:30	0.05	356,273.29	0.16	2,226,708.09	0.74	0.19	6 hr	Cloudburst
CSO117	7/19/2011 23:00	7/20/2011 0:30	0.06	2,205,292.35	1.56	1,413,648.94	1.5	3.71	1 hr	Cloudburst
CSO117	8/7/2011 3:15	8/7/2011 7:15	0.17	2,256,493.14	1.97	1,145,427.99	1.02	2.28	3 hr	Cloudburst
CSO117	8/10/2011 3:00	8/10/2011 3:30	0.02	112,893.16	0.12	940,776.36	2.33	0.12	3 hr	Atlas 14
CSO117	8/13/2011 17:15	8/13/2011 18:30	0.05	581,062.24	0.68	854,503.30	3.04	0.57	1 hr	Cloudburst
CSO117	8/18/2011 8:30	8/18/2011 9:00	0.02	135,995.84	0.28	485,699.42	1.02	0.23	1 hr	Cloudburst
CSO117	9/10/2011 20:15	9/10/2011 20:45	0.02	62,131.60	0.03	2,071,053.42	0.41			
CSO117	9/15/2011 8:00	9/15/2011 17:45	0.41	18,067.31	0.01	1,806,731.46	0.51	0.11	3 hr	Atlas 14
CSO117	9/19/2011 7:15	9/19/2011 8:30	0.05	657,719.36	0.34	1,934,468.70	0.66	0.29	12 hr	Cloudburst
CSO117	9/23/2011 1:45	9/23/2011 8:30	0.28	919,356.22	0.8	1,149,195.28	1.02	0.37	12 hr	Cloudburst
CSO117	9/25/2011 20:15	9/26/2011 6:30	0.43	8,835,817.83	3.81	2,319,112.29	2.32	4.89	24 hr	Cloudburst
CSO117	10/13/2011 7:45	10/13/2011 9:00	0.05	408,318.13	0.29	1,407,993.54	0.25	0.20	3 hr	Atlas 14
CSO117	10/27/2011 0:15	10/27/2011 5:30	0.22	1,267,939.21	0.93	1,363,375.50	1.13	0.43	12 hr	Cloudburst
CSO117	11/3/2011 9:45	11/3/2011 17:15	0.31	265,455.58	0.49	541,746.08	0.33	0.25	3 hr	Atlas 14
CSO117	11/14/2011 21:45	11/15/2011 14:45	0.71	1,341,056.77	1.37	978,873.55	0.24	0.65	48 hr	Atlas 14
CSO117	11/16/2011 5:45	11/16/2011 11:45	0.25	742,673.39	0.6	1,237,788.99	1.69	0.65	48 hr	Atlas 14
CSO117	11/20/2011 17:45	11/20/2011 19:00	0.05	314,025.76	0.43	730,292.46	2.49	0.28	24 hr	Cloudburst
CSO117	11/22/2011 0:15	11/22/2011 11:45	0.48	2,325,845.96	1.01	2,302,817.78	2.59	0.47	12 hr	Cloudburst
CSO117	11/27/2011 6:30	11/27/2011 9:45	0.14	529,114.09	0.45	1,175,809.09	2.27	0.93	48 hr	Atlas 14
CSO117	11/27/2011 22:15	11/29/2011 3:00	1.20	5,421,335.96	2.37	2,287,483.53	2.24	0.93	48 hr	Atlas 14
CSO117	12/4/2011 16:30	12/5/2011 19:30	1.13	8,265,508.66	3.17	2,607,415.98	2.91	1.34	48 hr	Cloudburst
CSO117	12/15/2011 4:15	12/15/2011 8:30	0.18	406,474.07	0.38	1,069,668.60	0.21	0.21	6 hr	Cloudburst
CSO117	12/21/2011 5:15	12/21/2011 8:00	0.11	838,921.50	0.67	1,252,121.65	0.96	0.32	12 hr	Cloudburst
CSO117	12/22/2011 12:15	12/22/2011 18:15	0.25	794,183.64	0.52	1,527,276.23	0.92	0.25	12 hr	Cloudburst
CSO117	12/27/2011 3:15	12/27/2011 12:15	0.38	765,869.31	0.63	1,215,665.57	1.53	0.26	12 hr	Cloudburst
CSO117	1/11/2012 4:45	1/11/2012 12:00	0.30	1,495,511.88	0.57	2,623,705.05	0.19	0.27	24 hr	Cloudburst
CSO117	1/17/2012 4:15	1/17/2012 13:15	0.38	598,093.98	0.32	1,869,043.68	0.97	0.15	12 hr	Cloudburst
CSO117	1/23/2012 3:00	1/23/2012 5:30	0.10	1,205,738.25	0.55	2,192,251.37	0.63	0.31	3 hr	Atlas 14
CSO117	1/25/2012 19:15	1/25/2012 19:45	0.02	23,837.95	0.24	99,324.78	0.82	0.53	24 hr	Cloudburst

UnitID	Overflow Start Date	Overflow End Date	Overflow Duration (Days)	Volume (Gallons)	Overflow Event Rain Inches)	Volume Per Inch	Overflow Antecedent Rain	Frequency (Years)	Period	Standard
CSO117	1/26/2012 5:45	1/26/2012 7:30	0.07	960,263.41	0.43	2,233,170.73	1.18	0.53	24 hr	Cloudburst
CSO117	1/26/2012 18:00	1/27/2012 1:45	0.32	3,025,338.50	0.94	3,218,445.21	1.4	0.53	24 hr	Cloudburst
CSO117	2/4/2012 9:45	2/4/2012 11:15	0.06	257,228.14	0.39	659,559.34	0.31	0.23	3 hr	Atlas 14
CSO117	2/22/2012 23:15	2/23/2012	0.03	183,380.10	0.13	1,410,616.13	0.37	0.09	1 hr	Cloudburst
CSO117	2/29/2012 8:45	2/29/2012 10:00	0.05	452,219.96	0.54	837,444.37	0.7	0.28	1 hr	Cloudburst
CSO117	3/8/2012 10:30	3/8/2012 16:00	0.23	1,082,046.10	0.72	1,502,841.81	0.78	0.38	6 hr	Cloudburst
CSO117	3/15/2012 19:00	3/16/2012 4:00	0.38	1,483,505.59	0.93	1,595,167.30	0.54	0.42	12 hr	Cloudburst
CSO117	3/17/2012 18:45	3/17/2012 23:00	0.18	599,273.44	0.88	680,992.55	1.71	0.52	1 hr	Cloudburst
CSO117	3/23/2012 5:30	3/23/2012 23:45	0.76	2,909,024.37	1.39	2,092,823.29	1.25	0.54	24 hr	Cloudburst
CSO117	3/31/2012 0:30	3/31/2012 0:45	0.01	12,885.03	0.14	92,035.95	0.17	0.09	3 hr	Atlas 14
CSO117	4/1/2012 8:45	4/1/2012 12:00	0.14	2,160,760.19	1.83	1,180,743.27	1.23	0.99	6 hr	Atlas 14
CSO117	4/4/2012 17:45	4/4/2012 18:00	0.01	15,824.15	0.07	226,059.27	2.08	0.11	12 hr	Cloudburst
CSO117	4/28/2012 19:30	4/29/2012 1:00	0.23	1,222,832.00	0.79	1,547,888.61	0.84	0.61	1 hr	Cloudburst
CSO117	4/30/2012 18:15	4/30/2012 19:15	0.04	424,404.56	0.27	1,571,868.73	1.12	0.24	3 hr	Atlas 14
CSO117	5/5/2012	5/5/2012 5:30	0.23	2,200,263.35	1.57	1,401,441.62	1.96	0.84	3 hr	Atlas 14
CSO117	5/13/2012 2:00	5/13/2012 15:00	0.54	4,066,278.18	2.04	1,993,273.62	1.11	0.84	12 hr	Cloudburst
CSO117	5/16/2012 18:15	5/16/2012 18:45	0.02	131,696.37	0.21	627,125.57	2.32	0.18	1 hr	Cloudburst
CSO117	5/29/2012 6:45	5/29/2012 16:45	0.42	6,518,238.88	2.76	2,361,680.76	0.83	1.58	1 hr	Cloudburst
CSO117	5/31/2012 18:45	6/1/2012 5:45	0.46	1,880,925.20	1.21	1,554,483.64	3.12	0.55	12 hr	Cloudburst
CSO118	7/5/2011 17:15	7/5/2011 18:00	0.03	24,782.50	0.11	225,295.48	0.15	0.13	3 hr	Atlas 14
CSO118	7/8/2011 2:45	7/8/2011 5:00	0.09	93,168.94	0.41	227,241.31	0.45	0.23	3 hr	Atlas 14
CSO118	7/12/2011 16:45	7/12/2011 21:00	0.18	221,375.97	0.34	651,105.80	0.73	0.18	6 hr	Cloudburst
CSO118	7/19/2011 22:30	7/20/2011 0:15	0.07	3,893,821.79	1.58	2,464,444.17	0.77	1.76	1 hr	Cloudburst
CSO118	8/7/2011 2:45	8/7/2011 6:45	0.17	4,172,450.53	1.89	2,207,645.78	0.14	2.61	3 hr	Cloudburst
CSO118	8/8/2011 14:30	8/8/2011 15:00	0.02	223.64	0.17	1,315.55	2.07	0.11	3 hr	Atlas 14
CSO118	8/10/2011 2:30	8/10/2011 3:15	0.03	87,000.62	0.1	870,006.15	2.2	0.10	3 hr	Atlas 14
CSO118	8/13/2011 17:00	8/13/2011 18:00	0.04	870,783.19	0.66	1,319,368.47	2.88	0.57	1 hr	Cloudburst
CSO118	8/18/2011 7:30	8/18/2011 8:45	0.05	86,812.03	0.31	280,038.80	0.78	0.25	1 hr	Cloudburst
CSO118	9/4/2011 20:30	9/4/2011 21:00	0.02	84,497.80	0.09	938,864.41	0.1	0.05	1 hr	Cloudburst
CSO118	9/6/2011 3:15	9/6/2011 3:15	0.00	56.98	0.13	438.34	0.28	0.09	12 hr	Cloudburst
CSO118	9/10/2011 19:45	9/10/2011 20:00	0.01	671.79	0.04	16,794.86	0.39			
CSO118	9/11/2011 19:00	9/11/2011 20:30	0.06	1,699.90	0.25	6,799.60	0.48	0.17	1 hr	Cloudburst
CSO118	9/14/2011 21:30	9/14/2011 21:30	0.00	55.36	0.09	615.09	0.41	0.11	3 hr	Atlas 14
CSO118	9/19/2011 6:45	9/19/2011 23:00	0.68	1,239,151.60	0.63	1,966,907.30	0.41	0.28	12 hr	Cloudburst
CSO118	9/21/2011 12:15	9/21/2011 12:15	0.00	52.27	0.02	2,613.31	0.95			
CSO118	9/23/2011 0:45	9/23/2011 8:15	0.31	446,227.91	0.79	564,845.46	0.91	0.37	12 hr	Cloudburst
CSO118	9/25/2011 18:45	9/26/2011 9:15	0.60	17,049,573.79	3.64	4,683,948.84	1.87	9.38	12 hr	Atlas 14
CSO118	10/13/2011 6:45	10/13/2011 18:00	0.47	582,313.22	0.37	1,573,819.51	0.03	0.19	3 hr	Atlas 14
CSO118	10/18/2011 19:30	10/18/2011 20:45	0.05	16,165.99	0.1	161,659.90	0.44			
CSO118	10/19/2011 17:15	10/20/2011 7:45	0.60	1,663.59	0.41	4,057.53	0.57	0.17	24 hr	Cloudburst
CSO118	10/26/2011 20:30	10/27/2011 5:15	0.36	2,050,237.63	1.04	1,971,382.34	0.62	0.48	12 hr	Cloudburst
CSO118	11/3/2011 9:00	11/3/2011 22:15	0.55	204,257.83	0.55	371,377.88	0.17	0.26	3 hr	Atlas 14
CSO118	11/14/2011 21:15	11/15/2011 15:00	0.74	1,191,340.29	1.38	863,290.06	0.19	0.66	48 hr	Atlas 14
CSO118	11/16/2011 4:30	11/16/2011 11:15	0.28	670,870.84	0.61	1,099,788.26	1.56	0.66	48 hr	Atlas 14
CSO118	11/20/2011 3:30	11/20/2011 3:45	0.01	127.01	0.05	2,540.26	2.1	0.31	24 hr	Cloudburst
CSO118	11/20/2011 12:15	11/21/2011 10:30	0.93	227,957.90	0.81	281,429.51	2.16	0.31	24 hr	Cloudburst
CSO118	11/21/2011 23:30	11/22/2011 19:15	0.82	2,425,195.17	1.14	2,127,364.19	2.67	0.50	12 hr	Cloudburst
CSO118	11/27/2011 2:30	11/29/2011 3:45	2.05	9,162,112.15	3.13	2,927,192.38	2.17	0.98	48 hr	Atlas 14

UnitID	Overflow Start Date	Overflow End Date	Overflow Duration (Days)	Volume (Gallons)	Overflow Event Rain Inches)	Volume Per Inch	Overflow Antecedent Rain	Frequency (Years)	Period	Standard
CSO118	11/29/2011 18:00	11/29/2011 19:30	0.06	635.14	0.06	10,585.68	3.19			
CSO118	12/4/2011 14:30	12/6/2011 0:45	1.43	8,675,108.39	3.07	2,825,768.20	2.81	1.15	48 hr	Cloudburst
CSO118	12/15/2011 3:30	12/15/2011 8:45	0.22	312,842.89	0.4	782,107.23	0.08	0.22	6 hr	Cloudburst
CSO118	12/20/2011 23:00	12/21/2011 7:30	0.35	1,128,984.06	0.63	1,792,038.19	0.59	0.29	12 hr	Cloudburst
CSO118	12/22/2011 10:45	12/22/2011 19:45	0.38	809,340.99	0.56	1,445,251.77	0.8	0.26	12 hr	Cloudburst
CSO118	12/27/2011 0:45	12/27/2011 14:00	0.55	651,131.58	0.65	1,001,740.89	1.32	0.26	12 hr	Cloudburst
CSO118	1/11/2012 4:00	1/11/2012 21:15	0.72	1,765,638.88	0.72	2,452,276.22	0.1	0.28	24 hr	Cloudburst
CSO118	1/12/2012 11:45	1/12/2012 14:15	0.10	636.07	0.06	10,601.24	0.77			
CSO118	1/17/2012 2:15	1/17/2012 12:45	0.44	500,161.66	0.33	1,515,641.40	0.87	0.15	12 hr	Cloudburst
CSO118	1/22/2012 22:00	1/23/2012 11:30	0.56	1,787,560.26	0.52	3,437,615.88	0.41	0.29	3 hr	Atlas 14
CSO118	1/25/2012 15:00	1/27/2012 2:45	1.49	7,571,572.80	1.71	4,427,820.35	0.66	0.56	48 hr	Atlas 14
CSO118	2/4/2012 8:00	2/4/2012 12:00	0.17	169,129.99	0.39	433,666.64	0.09	0.23	3 hr	Atlas 14
CSO118	2/4/2012 21:15	2/4/2012 21:45	0.02	36.14	0.01	3,613.94	0.45			
CSO118	2/14/2012 3:00	2/14/2012 11:30	0.35	2,079.39	0.2	10,396.93	0.14	0.10	6 hr	Cloudburst
CSO118	2/15/2012 22:45	2/16/2012 8:00	0.39	2,899.51	0.31	9,353.24	0.37	0.13	12 hr	Cloudburst
CSO118	2/21/2012 5:45	2/21/2012 10:15	0.19	534.25	0.08	6,678.07	0.4			
CSO118	2/22/2012 22:30	2/22/2012 23:45	0.05	216,047.35	0.16	1,350,295.94	0.41	0.12	1 hr	Cloudburst
CSO118	2/29/2012 1:15	2/29/2012 9:30	0.34	607,205.36	0.62	979,363.49	0.28	0.31	12 hr	Cloudburst
CSO118	3/2/2012 6:45	3/2/2012 17:30	0.45	374.65	0.1	3,746.50	0.69			
CSO118	3/4/2012 22:00	3/5/2012 4:00	0.25	1,470.14	0.25	5,880.56	0.81	0.13	6 hr	Cloudburst
CSO118	3/8/2012 9:15	3/8/2012 17:15	0.33	1,279,353.31	0.76	1,683,359.62	0.54	0.39	6 hr	Cloudburst
CSO118	3/12/2012 3:30	3/12/2012 12:15	0.36	1,502.73	0.19	7,909.10	0.86	0.09	12 hr	Cloudburst
CSO118	3/15/2012 17:45	3/16/2012 3:30	0.41	2,010,756.31	0.94	2,139,102.46	0.4	0.42	12 hr	Cloudburst
CSO118	3/17/2012 18:15	3/17/2012 22:30	0.18	921,262.38	1.03	894,429.50	1.75	0.65	1 hr	Cloudburst
CSO118	3/22/2012 23:45	3/23/2012 23:15	0.98	5,123,873.47	1.51	3,393,293.69	1.6	0.58	24 hr	Cloudburst
CSO118	3/30/2012 22:30	3/31/2012 0:30	0.08	5,643.05	0.12	47,025.43	0.06	0.09	1 hr	Cloudburst
CSO118	4/1/2012 6:45	4/1/2012 12:15	0.23	4,962,608.75	1.58	3,140,891.61	0.5	0.87	6 hr	Cloudburst
CSO118	4/4/2012 6:15	4/4/2012 6:45	0.02	350.34	0.04	8,758.61	1.79			
CSO118	4/4/2012 16:15	4/5/2012 1:30	0.39	115,874.27	0.24	482,809.47	1.79	0.11	12 hr	Cloudburst
CSO118	4/14/2012 8:45	4/14/2012 9:15	0.02	110.29	0.08	1,378.67	0.07	0.10	6 hr	Cloudburst
CSO118	4/16/2012 6:45	4/16/2012 8:00	0.05	907.53	0.12	7,562.72	0.24	0.09	3 hr	Atlas 14
CSO118	4/20/2012 23:15	4/21/2012 4:30	0.22	574.88	0.19	3,025.68	0.37	0.11	12 hr	Cloudburst
CSO118	4/26/2012 4:30	4/26/2012 5:00	0.02	242.7	0.08	3,033.76	0.36			
CSO118	4/28/2012 19:00	4/29/2012 0:45	0.24	2,288,845.96	0.77	2,972,527.22	0.63	0.59	1 hr	Cloudburst
CSO118	4/30/2012 18:00	4/30/2012 19:30	0.06	855,402.74	0.27	3,168,158.29	1.08	0.23	3 hr	Atlas 14
CSO118	5/4/2012 16:15	5/5/2012 5:15	0.54	5,457,455.81	1.68	3,248,485.60	1.18	0.90	3 hr	Atlas 14
CSO118	5/12/2012 23:30	5/13/2012 14:45	0.64	6,807,248.51	2.03	3,353,324.39	0.3	0.85	12 hr	Cloudburst
CSO118	5/16/2012 17:30	5/16/2012 18:45	0.05	410,188.10	0.19	2,158,884.74	2.27	0.17	1 hr	Cloudburst
CSO118	5/29/2012 6:30	5/29/2012 19:00	0.52	10,607,786.90	2.72	3,899,921.65	0.59	9.92	3 hr	Cloudburst
CSO118	5/31/2012 18:15	6/1/2012 6:45	0.52	2,358,534.45	1.22	1,933,224.96	3.01	0.53	12 hr	Cloudburst
CSO118	6/4/2012 14:00	6/4/2012 18:15	0.18	489.31	0.17	2,878.28	4.02	0.10	12 hr	Cloudburst
CSO118	6/13/2012 14:45	6/13/2012 14:45	0.00	6,384.36			0.02			
CSO118	6/17/2012 11:15	6/17/2012 12:15	0.04	44,091.25	0.23	191,701.10	0.25	0.26	3 hr	Atlas 14
CSO120	11/14/2011 21:30	11/14/2011 21:45	0.01	119,387.66	0.29	411,681.58	0.3	0.65	48 hr	Atlas 14
CSO120	11/15/2011 12:00	11/15/2011 12:00	0.00	3,584.96	0.61	5,876.98	1.18	0.65	48 hr	Atlas 14
CSO120	11/16/2011 5:30	11/16/2011 7:00	0.06	8,561.07	0.33	25,942.63	1.68	0.65	48 hr	Atlas 14
CSO120	11/20/2011 17:15	11/20/2011 17:15	0.00	5,091.92	0.38	13,399.79	2.44	0.28	24 hr	Cloudburst
CSO120	11/21/2011 4:15	11/21/2011 4:15	0.00	5,476.47	0.09	60,849.66	2.65	0.28	24 hr	Cloudburst

UnitID	Overflow Start Date	Overflow End Date	Overflow Duration (Days)	Volume (Gallons)	Overflow Event Rain Inches)	Volume Per Inch	Overflow Antecedent Rain	Frequency (Years)	Period	Standard
CSO120	11/22/2011 0:15	11/22/2011 10:15	0.42	306,740.70	0.89	344,652.48	2.45	0.43	12 hr	Cloudburst
CSO120	11/27/2011 22:15	11/28/2011 0:45	0.10	24,899.84	0.52	47,884.30	2.15	0.94	48 hr	Atlas 14
CSO120	11/28/2011 11:30	11/29/2011 0:30	0.54	346,947.13	1.7	204,086.55	2.76	0.94	48 hr	Atlas 14
CSO120	12/4/2011 16:45	12/4/2011 17:00	0.01	29,658.37	0.5	59,316.75	2.89	1.21	48 hr	Cloudburst
CSO120	12/5/2011 3:15	12/5/2011 17:30	0.59	675,951.64	2.39	282,824.95	2.88	1.21	48 hr	Cloudburst
CSO120	12/15/2011 3:45	12/15/2011 7:30	0.16	27,116.44	0.39	69,529.33	0.19	0.23	6 hr	Cloudburst
CSO120	12/21/2011 5:00	12/21/2011 6:45	0.07	118,576.66	0.62	191,252.68	0.98	0.30	12 hr	Cloudburst
CSO120	12/22/2011 15:15	12/22/2011 15:15	0.00	2,238.95	0.42	5,330.83	1.09	0.25	12 hr	Cloudburst
CSO120	12/27/2011 10:45	12/27/2011 11:00	0.01	15,291.39	0.35	43,689.68	1.71	0.26	12 hr	Cloudburst
CSO120	1/11/2012 4:30	1/11/2012 6:45	0.09	158,800.98	0.42	378,097.57	0.19	0.28	24 hr	Cloudburst
CSO120	1/17/2012 11:30	1/17/2012 12:00	0.02	23,381.78	0.27	86,599.19	1.19	0.17	12 hr	Cloudburst
CSO120	1/23/2012 2:45	1/23/2012 4:30	0.07	234,322.07	0.57	411,091.35	0.67	0.31	3 hr	Atlas 14
CSO120	1/26/2012 5:45	1/26/2012 6:30	0.03	207,467.27	0.45	461,038.38	1.28	0.55	48 hr	Atlas 14
CSO120	1/26/2012 18:45	1/26/2012 22:45	0.17	585,175.16	0.86	680,436.23	1.64	0.55	48 hr	Atlas 14
CSO120	2/4/2012 9:45	2/4/2012 9:45	0.00	2,264.61	0.27	8,387.46	0.32	0.23	3 hr	Atlas 14
CSO120	2/22/2012 22:45	2/22/2012 23:00	0.01	85,250.67	0.16	532,816.71	0.44	0.13	1 hr	Cloudburst
CSO120	2/29/2012 8:45	2/29/2012 8:45	0.00	63,653.89	0.57	111,673.48	0.77	0.31	12 hr	Cloudburst
CSO120	3/8/2012 12:45	3/8/2012 13:30	0.03	108,056.69	0.71	152,192.52	0.99	0.39	6 hr	Cloudburst
CSO120	3/15/2012 18:45	3/16/2012 2:30	0.32	120,252.28	0.92	130,709.00	0.59	0.42	12 hr	Cloudburst
CSO120	3/17/2012 18:30	3/17/2012 21:45	0.14	41,598.93	0.78	53,331.96	1.71	0.48	1 hr	Cloudburst
CSO120	3/23/2012 5:00	3/23/2012 22:30	0.73	734,043.11	1.52	482,923.10	1.05	0.59	24 hr	Cloudburst
CSO120	4/1/2012 8:30	4/1/2012 10:45	0.09	563,275.80	1.54	365,763.51	1.04	0.85	6 hr	Cloudburst
CSO120	4/4/2012 16:30	4/4/2012 17:15	0.03	18,652.79	0.1	186,527.87	1.86	0.11	12 hr	Cloudburst
CSO120	4/28/2012 19:15	4/28/2012 19:15	0.00	36,910.34	0.62	59,532.80	0.77	0.54	1 hr	Cloudburst
CSO120	5/5/2012 0:15	5/5/2012 1:15	0.04	1,433.58	1.12	1,279.98	2.05	0.75	3 hr	Atlas 14
CSO120	5/13/2012 1:45	5/13/2012 8:45	0.29	5,552.55	1.85	3,001.38	0.9	0.84	12 hr	Cloudburst
CSO120	5/16/2012 17:45	5/16/2012 17:45	0.00	1,472.93	0.22	6,695.15	2.32	0.19	1 hr	Cloudburst
CSO120	5/20/2012 17:00	5/20/2012 17:00	0.00	522.4			0.23			
CSO120	5/21/2012 12:15	5/21/2012 21:00	0.36	15,276.86	0.02	763,842.97	0.23			
CSO120	5/29/2012 6:45	5/29/2012 17:45	0.46	647,723.92	2.71	239,012.52	1.02	9.91	3 hr	Atlas 14
CSO120	5/31/2012 18:30	6/1/2012 4:45	0.43	212,723.15	1.15	184,976.66	3.02	0.54	12 hr	Cloudburst
CSO120	6/17/2012 11:30	6/17/2012 12:00	0.02	31,749.67	0.25	126,998.69	0.34	0.27	3 hr	Atlas 14
CSO121	7/8/2011 3:15	7/8/2011 3:15	0.00	963.9	0.21	4,589.98	0.44	0.21	3 hr	Atlas 14
CSO121	7/19/2011 23:00	7/19/2011 23:45	0.03	496,683.08	1.71	290,457.94	1.66	3.97	1 hr	Cloudburst
CSO121	8/7/2011 3:15	8/7/2011 5:30	0.09	495,308.15	1.7	291,357.73	1	2.67	3 hr	Cloudburst
CSO121	8/13/2011 17:30	8/13/2011 17:30	0.00	5,496.23	0.62	8,864.89	2.8	0.54	1 hr	Cloudburst
CSO121	8/18/2011 8:15	8/18/2011 8:15	0.00	11,381.68	0.3	37,938.94	1	0.26	1 hr	Cloudburst
CSO121	9/4/2011 20:45	9/4/2011 20:45	0.00	17,802.97	0.08	222,537.11	0.13	0.05	24 hr	Cloudburst
CSO121	9/11/2011 20:30	9/11/2011 20:30	0.00	7,417.79	0.24	30,907.47	0.52	0.17	3 hr	Atlas 14
CSO121	9/19/2011 7:15	9/19/2011 7:45	0.02	25,252.19	0.25	101,008.76	0.54	0.26	12 hr	Cloudburst
CSO121	9/23/2011 5:00	9/23/2011 7:15	0.09	15,856.00	0.78	20,328.20	1.21	0.37	12 hr	Cloudburst
CSO121	9/25/2011 20:00	9/26/2011 5:15	0.39	2,075,493.12	3.39	612,239.86	2.03	7.71	12 hr	Atlas 14
CSO121	10/13/2011 7:15	10/13/2011 7:45	0.02	53,320.04	0.23	231,826.26	0.13	0.19	3 hr	Atlas 14
CSO121	10/27/2011 0:15	10/27/2011 0:45	0.02	123,192.39	0.78	157,938.96	1.15	0.44	12 hr	Cloudburst
CSO121	11/14/2011 21:30	11/14/2011 21:30	0.00	7,779.31	0.27	28,812.25	0.3	0.65	48 hr	Atlas 14
CSO121	11/16/2011 7:15	11/16/2011 7:15	0.00	864.41	0.34	2,542.39	1.76	0.65	48 hr	Atlas 14
CSO121	11/21/2011 4:00	11/21/2011 4:00	0.00	19,308.17	0.09	214,535.25	2.64	0.28	24 hr	Cloudburst
CSO121	11/22/2011 3:00	11/22/2011 10:00	0.29	50,945.38	0.88	57,892.47	2.41	0.43	12 hr	Cloudburst

UnitID	Overflow Start Date	Overflow End Date	Overflow Duration (Days)	Volume (Gallons)	Overflow Event Rain Inches)	Volume Per Inch	Overflow Antecedent Rain	Frequency (Years)	Period	Standard
CSO121	11/27/2011 22:45	11/29/2011 2:00	1.14	596,189.32	2.36	252,622.59	2.21	0.94	48 hr	Atlas 14
CSO121	12/4/2011 15:15	12/4/2011 17:00	0.07	3,550.74	0.51	6,962.23	2.71	1.21	48 hr	Cloudburst
CSO121	12/5/2011 4:45	12/5/2011 17:45	0.54	372,253.18	2.35	158,405.61	2.98	1.21	48 hr	Cloudburst
CSO121	12/21/2011 6:30	12/21/2011 6:45	0.01	22,039.51	0.61	36,130.35	1.15	0.30	12 hr	Cloudburst
CSO121	1/11/2012 6:00	1/11/2012 6:45	0.03	27,798.73	0.42	66,187.46	0.33	0.28	24 hr	Cloudburst
CSO121	1/23/2012 2:30	1/23/2012 4:15	0.07	50,447.99	0.57	88,505.24	0.63	0.31	3 hr	Atlas 14
CSO121	1/25/2012 17:30	1/25/2012 17:30	0.00	1,564.19	0.25	6,256.74	0.87	0.55	48 hr	Atlas 14
CSO121	1/26/2012 5:30	1/26/2012 6:30	0.04	136,498.94	0.45	303,330.97	1.25	0.55	48 hr	Atlas 14
CSO121	1/26/2012 18:30	1/27/2012 2:00	0.31	433,208.19	0.93	465,815.26	1.57	0.55	48 hr	Atlas 14
CSO121	2/22/2012 22:45	2/22/2012 22:45	0.00	13,961.87	0.15	93,079.15	0.44	0.13	1 hr	Cloudburst
CSO121	2/29/2012 8:30	2/29/2012 8:45	0.01	9,667.89	0.58	16,668.78	0.76	0.31	12 hr	Cloudburst
CSO121	3/4/2012 22:00	3/4/2012 23:00	0.04	1,255.69	0.05	25,113.85	0.81	0.11	6 hr	Cloudburst
CSO121	3/8/2012 12:45	3/8/2012 13:15	0.02	21,525.29	0.71	30,317.32	0.99	0.39	6 hr	Cloudburst
CSO121	3/16/2012 1:45	3/16/2012 2:30	0.03	47,714.39	0.7	68,163.42	0.99	0.42	12 hr	Cloudburst
CSO121	3/17/2012 18:30	3/17/2012 18:30	0.00	15,095.65	0.54	27,954.90	1.71	0.48	1 hr	Cloudburst
CSO121	3/23/2012 5:15	3/23/2012 22:15	0.71	210,618.90	1.52	138,565.07	1.06	0.59	24 hr	Cloudburst
CSO121	4/1/2012 8:15	4/1/2012 10:45	0.10	128,327.44	1.54	83,329.51	0.96	0.85	6 hr	Cloudburst
CSO121	4/4/2012 16:30	4/4/2012 16:30	0.00	8,992.38	0.08	112,404.77	1.86	0.11	12 hr	Cloudburst
CSO121	4/28/2012 19:00	4/29/2012	0.21	169,745.57	0.73	232,528.17	0.63	0.54	1 hr	Cloudburst
CSO121	4/30/2012 17:45	4/30/2012 18:00	0.01	46,145.25	0.24	192,271.88	1.1	0.31	3 hr	Atlas 14
CSO121	5/4/2012 23:30	5/5/2012 1:30	0.08	446,835.81	1.2	372,363.18	1.7	0.75	3 hr	Atlas 14
CSO121	5/13/2012 1:45	5/13/2012 8:45	0.29	486,619.94	1.85	263,037.80	0.9	0.84	12 hr	Cloudburst
CSO121	5/16/2012 17:30	5/16/2012 17:45	0.01	37,258.16	0.22	169,355.28	2.3	0.19	1 hr	Cloudburst
CSO121	5/29/2012 6:30	5/29/2012 9:45	0.14	1,298,123.90	2.65	489,858.08	0.65	9.91	3 hr	Atlas 14
CSO121	5/31/2012 18:15	6/1/2012 1:15	0.29	168,470.08	1.02	165,166.74	2.97	0.54	12 hr	Cloudburst
CSO121	6/4/2012 14:30	6/4/2012 14:30	0.00	976.95	0.07	13,956.37	4.03	0.10	12 hr	Cloudburst
CSO121	6/17/2012 11:45	6/17/2012 11:45	0.00	16,105.03	0.25	64,420.11	0.36	0.27	3 hr	Atlas 14
CSO125	7/12/2011 17:45	7/12/2011 17:45	0.00	13,450.62	0.24	56,044.23	0.83	0.23	6 hr	Cloudburst
CSO125	7/24/2011 17:15	7/24/2011 17:15	0.00	53,376.29	0.77	69,319.85	2.76	0.61	1 hr	Cloudburst
CSO125	7/30/2011 20:30	7/30/2011 20:30	0.00	28,530.91	0.59	48,357.48	1.39	0.49	1 hr	Cloudburst
CSO125	8/7/2011 4:15	8/7/2011 7:00	0.11	251,533.52	1.66	151,526.22	1.2	0.97	3 hr	Atlas 14
CSO125	8/13/2011 21:15	8/13/2011 22:45	0.06	37,343.44	0.83	44,992.10	2.74	0.70	1 hr	Cloudburst
CSO125	9/10/2011 20:15	9/10/2011 20:15	0.00	21,221.82	0.03	707,393.97	0.41			
CSO125	9/11/2011 20:00	9/11/2011 20:00	0.00	53,469.67	0.24	222,790.28	0.64	0.19	1 hr	Cloudburst
CSO125	9/19/2011 7:30	9/19/2011 7:30	0.00	14,821.03	0.32	46,315.70	0.62	0.30	12 hr	Cloudburst
CSO125	9/23/2011 3:00	9/23/2011 3:00	0.00	24,572.03	0.37	66,410.90	1.13	0.38	12 hr	Cloudburst
CSO125	9/26/2011 1:00	9/26/2011 5:15	0.18	10,975,985.53	3.22	3,408,691.16	3.7	6.60	12 hr	Atlas 14
CSO125	10/13/2011 7:30	10/13/2011 8:15	0.03	26,020.80	0.37	70,326.49	0.3	0.27	3 hr	Atlas 14
CSO125	10/27/2011 0:45	10/27/2011 1:15	0.02	197,232.84	0.72	273,934.51	1.13	0.41	12 hr	Cloudburst
CSO125	11/14/2011 22:00	11/14/2011 22:45	0.03	74,137.31	0.32	231,679.10	0.28	0.67	48 hr	Atlas 14
CSO125	11/15/2011 12:15	11/15/2011 12:15	0.00	54,222.99	0.67	80,929.83	1.21	0.67	48 hr	Atlas 14
CSO125	11/16/2011 7:00	11/16/2011 7:30	0.02	113,882.57	0.37	307,790.74	1.85	0.67	48 hr	Atlas 14
CSO125	11/20/2011 17:30	11/20/2011 17:45	0.01	44,628.37	0.45	99,174.15	2.59	0.31	24 hr	Cloudburst
CSO125	11/21/2011 4:30	11/21/2011 4:30	0.00	77,776.06	0.11	707,055.09	2.82	0.31	24 hr	Cloudburst
CSO125	11/22/2011 3:15	11/22/2011 10:45	0.31	368,291.01	1.07	344,197.21	2.72	0.50	12 hr	Cloudburst
CSO125	12/22/2011 15:15	12/22/2011 15:45	0.02	75,008.47	0.52	144,247.06	1.18	0.29	12 hr	Cloudburst
CSO125	12/27/2011 4:45	12/27/2011 11:45	0.29	84,651.28	0.72	117,571.23	1.77	0.31	12 hr	Cloudburst
CSO125	1/11/2012 5:00	1/11/2012 6:45	0.07	154,924.47	0.52	297,931.68	0.29	0.34	12 hr	Cloudburst

UnitID	Overflow Start Date	Overflow End Date	Overflow Duration (Days)	Volume (Gallons)	Overflow Event Rain Inches)	Volume Per Inch	Overflow Antecedent Rain	Frequency (Years)	Period	Standard
CSO125	1/17/2012 4:00	1/17/2012 12:15	0.34	313,682.65	0.33	950,553.48	1.1	0.15	12 hr	Cloudburst
CSO125	1/23/2012 3:15	1/23/2012 4:45	0.06	705,025.62	0.57	1,236,887.06	0.75	0.32	3 hr	Atlas 14
CSO125	1/26/2012 5:45	1/26/2012 6:45	0.04	214,317.70	0.47	455,995.11	1.34	0.59	48 hr	Atlas 14
CSO125	1/26/2012 18:45	1/27/2012 1:30	0.28	4,251,780.03	1.03	4,127,941.77	1.7	0.59	48 hr	Atlas 14
CSO125	3/8/2012 13:00	3/8/2012 15:00	0.08	414,479.46	0.68	609,528.62	1	0.37	6 hr	Cloudburst
CSO125	3/15/2012 19:15	3/16/2012 3:00	0.32	563,107.79	0.96	586,570.62	0.65	0.43	12 hr	Cloudburst
CSO125	4/1/2012 10:45	4/1/2012 17:00	0.26	332,479.46	1.28	259,749.58	1.46	0.69	6 hr	Cloudburst
CSO125	5/16/2012 18:00	5/16/2012 18:15	0.01	351,431.99	0.21	1,673,485.65	2.25	0.18	1 hr	Cloudburst
CSO125	5/29/2012 6:45	5/29/2012 20:30	0.57	4,790,089.08	2.28	2,100,916.26	0.78	4.18	3 hr	Atlas 14
CSO125	5/31/2012 18:45	6/1/2012 1:45	0.29	995,791.67	0.98	1,016,113.95	2.64	0.50	12 hr	Cloudburst
CSO125	6/14/2012 7:15	6/14/2012 7:15	0.00	248,819.27			0.04			
CSO126	8/7/2011 3:15	8/7/2011 11:00	0.32	315,085.50	1.67	188,673.95	0.9	0.97	3 hr	Atlas 14
CSO126	8/13/2011 17:15	8/14/2011	0.28	219,260.48	0.83	264,169.25	2.73	0.70	1 hr	Cloudburst
CSO126	9/19/2011 7:30	9/19/2011 7:30	0.00	8,228.87	0.32	25,715.22	0.62	0.30	12 hr	Cloudburst
CSO126	9/25/2011 23:45	9/26/2011 15:15	0.65	1,585,218.34	3.24	489,264.92	2.82	6.60	12 hr	Atlas 14
CSO126	10/27/2011 4:15	10/27/2011 5:45	0.06	34,755.71	0.84	41,375.85	1.19	0.41	12 hr	Cloudburst
CSO126	11/20/2011 12:15	11/22/2011 21:30	2.39	295,449.93	1.98	149,217.14	2.21	0.31	24 hr	Cloudburst
CSO126	11/23/2011 9:30	11/24/2011 2:45	0.72	80.83			2.21			
CSO126	11/27/2011 12:00	11/30/2011 22:00	3.42	495,317.27	3.03	163,471.05	2.54	1.12	48 hr	Atlas 14
CSO126	12/4/2011 20:30	12/6/2011 3:00	1.27	1,216,893.72	2.87	424,004.78	3.2	0.97	48 hr	Atlas 14
CSO126	12/6/2011 11:30	12/7/2011 0:30	0.54	35,467.07			3.06			
CSO126	12/15/2011 7:00	12/16/2011 12:30	1.23	862.83	0.47	1,835.82	0.39	0.24	6 hr	Cloudburst
CSO126	12/21/2011 6:45	12/23/2011 15:30	2.36	503,297.37	1.23	409,184.85	1.15	0.31	12 hr	Cloudburst
CSO126	12/24/2011 4:15	12/24/2011 11:00	0.28	16.91			1.31			
CSO126	12/27/2011 12:45	12/28/2011 10:00	0.89	6.65	0.31	21.45	2.03	0.31	12 hr	Cloudburst
CSO126	1/2/2012 23:00	1/3/2012 4:45	0.24	5,755.42			0.76			
CSO126	1/4/2012 10:30	1/4/2012 10:30	0.00	10.45			0.03			
CSO126	1/11/2012 19:15	1/12/2012 19:00	0.99	48,518.07	0.2	242,590.35	0.78	0.34	12 hr	Cloudburst
CSO126	1/17/2012 11:45	1/18/2012 9:15	0.90	171,190.55	0.21	815,193.09	1.28	0.15	12 hr	Cloudburst
CSO126	1/23/2012 3:00	1/27/2012 23:45	4.86	1,355,832.43	2.44	555,669.03	0.71	0.32	3 hr	Atlas 14
CSO126	1/28/2012 9:15	1/28/2012 10:30	0.05	5,089.37	0.01	508,936.83	2.45			
CSO126	2/1/2012 21:15	2/1/2012 22:30	0.05	17,040.16	0.01	1,704,016.09	1.57			
CSO126	2/2/2012 6:45	2/2/2012 8:15	0.06	34,141.35			1.1			
CSO126	2/2/2012 20:00	2/2/2012 22:00	0.08	23,567.19			0.57			
CSO126	2/16/2012 8:15	2/17/2012 2:30	0.76	262,322.95	0.13	2,017,868.85	0.51	0.13	12 hr	Cloudburst
CSO126	2/23/2012 18:00	2/24/2012 8:15	0.59	140,875.31			0.22			
CSO126	2/29/2012 7:30	3/3/2012 2:45	2.80	1,310,934.28	0.61	2,149,072.59	0.39	0.21	12 hr	Cloudburst
CSO126	3/3/2012 11:30	3/3/2012 11:30	0.00	5,411.86			0.61			
CSO126	3/8/2012 7:45	3/9/2012 19:30	1.49	334,572.69	0.77	434,509.99	0.37	0.37	6 hr	Cloudburst
CSO126	3/12/2012 7:15	3/13/2012 8:15	1.04	317,048.00	0.2	1,585,239.98	0.94	0.09	6 hr	Cloudburst
CSO126	3/13/2012 17:45	3/14/2012 9:30	0.66	18,419.24			0.97			
CSO126	3/14/2012 19:15	3/14/2012 20:30	0.05	1,716.66			0.97			
CSO126	3/17/2012 20:15	3/18/2012 2:15	0.25	4,978.01	1.11	4,484.69	2.04	0.67	1 hr	Cloudburst
CSO126	3/23/2012 17:15	3/23/2012 23:30	0.26	41,934.90	1.48	28,334.39	1.9	0.68	24 hr	Cloudburst
CSO126	4/1/2012 10:15	4/1/2012 18:30	0.34	213,634.37	1.28	166,901.85	1.43	0.69	6 hr	Cloudburst
CSO126	5/5/2012 0:15	5/5/2012 7:15	0.29	332,860.44	1.41	236,071.23	2.08	0.79	3 hr	Atlas 14
CSO126	5/13/2012 7:00	5/13/2012 14:15	0.30	781,428.74	1.83	427,010.24	1.7	0.82	12 hr	Cloudburst
CSO126	5/16/2012 17:45	5/16/2012 18:00	0.01	10,770.29	0.21	51,287.09	2.24	0.18	1 hr	Cloudburst

UnitID	Overflow Start Date	Overflow End Date	Overflow Duration (Days)	Volume (Gallons)	Overflow Event Rain Inches)	Volume Per Inch	Overflow Antecedent Rain	Frequency (Years)	Period	Standard
CSO126	5/29/2012 6:45	5/31/2012 7:15	2.02	6,327,433.33	2.28	2,775,190.06	0.78	4.18	3 hr	Atlas 14
CSO126	5/31/2012 21:00	6/1/2012 1:45	0.20	46,366.70	0.98	47,312.96	2.92	0.50	12 hr	Cloudburst
CSO127	7/3/2011 20:45	7/3/2011 20:45	0.00	1,862.80	0.05	37,256.06	0.08			
CSO127	7/8/2011 3:15	7/8/2011 4:00	0.03	79,685.87	0.36	221,349.65	0.56	0.25	3 hr	Atlas 14
CSO127	7/19/2011 22:45	7/19/2011 23:45	0.04	2,062,316.44	1.7	1,213,127.32	1.65	1.47	1 hr	Cloudburst
CSO127	7/20/2011 16:00	7/20/2011 16:00	0.00	429.83	0.2	2,149.16	2.09	0.17	1 hr	Cloudburst
CSO127	7/30/2011 21:15	7/30/2011 21:30	0.01	38,406.49	0.82	46,837.19	1.64	0.61	1 hr	Cloudburst
CSO127	8/7/2011 3:15	8/7/2011 6:30	0.14	968,105.36	1.77	546,952.18	1.04	3.17	3 hr	Cloudburst
CSO127	8/10/2011 1:30	8/10/2011 1:30	0.00	18,968.75			2			
CSO127	8/13/2011 15:45	8/13/2011 16:30	0.03	1,802,083.29	0.01	180,208,328.58	2.06	0.73	1 hr	Cloudburst
CSO127	8/18/2011 6:45	8/18/2011 7:15	0.02	65,375.00	0.03	2,179,166.60	0.93	0.45	1 hr	Cloudburst
CSO127	9/10/2011 20:00	9/10/2011 20:15	0.01	22,163.09	0.04	554,077.36	0.44			
CSO127	9/11/2011 21:00	9/11/2011 22:00	0.04	3,531.54	0.28	12,612.63	0.63	0.17	3 hr	Atlas 14
CSO127	9/19/2011 7:00	9/19/2011 8:00	0.04	63,012.61	0.34	185,331.22	0.56	0.30	12 hr	Cloudburst
CSO127	9/23/2011 2:15	9/23/2011 8:00	0.24	249,243.70	0.83	300,293.62	1.04	0.38	12 hr	Cloudburst
CSO127	9/25/2011 20:00	9/26/2011 7:00	0.46	1,833,952.85	3.17	578,534.02	2.06	4.14	12 hr	Cloudburst
CSO127	10/13/2011 7:30	10/13/2011 8:15	0.03	22,129.41	0.33	67,058.83	0.26	0.24	3 hr	Atlas 14
CSO127	10/27/2011	10/27/2011 5:00	0.21	28,294.41	0.84	33,683.82	0.99	0.39	12 hr	Cloudburst
CSO127	11/3/2011 9:30	11/3/2011 11:45	0.09	36,093.84	0.45	80,208.54	0.33	0.29	3 hr	Atlas 14
CSO127	11/14/2011 21:45	11/15/2011 14:15	0.69	99,466.89	1.46	68,128.01	0.27	0.69	48 hr	Atlas 14
CSO127	11/16/2011 5:15	11/16/2011 11:15	0.25	75,948.72	0.58	130,946.07	1.84	0.69	48 hr	Atlas 14
CSO127	11/20/2011 12:45	11/20/2011 18:15	0.23	32,146.11	0.59	54,484.93	2.3	0.65	48 hr	Atlas 14
CSO127	11/21/2011 10:30	11/21/2011 10:45	0.01	5,568.86	0.28	19,888.78	3.13	0.65	48 hr	Atlas 14
CSO127	11/22/2011 0:15	11/22/2011 11:30	0.47	277,436.00	1.08	256,885.18	2.91	0.65	48 hr	Atlas 14
CSO127	11/27/2011 6:15	11/29/2011 3:45	1.90	1,699,660.75	3.22	527,844.95	2.55	1.26	48 hr	Cloudburst
CSO127	11/29/2011 19:00	11/29/2011 19:45	0.03	9,121.07	0.07	130,301.00	3.38			
CSO127	12/4/2011 16:15	12/6/2011 4:15	1.50	2,228,894.30	3.09	721,325.02	3.07	1.18	48 hr	Cloudburst
CSO127	12/15/2011 4:00	12/15/2011 8:00	0.17	70,755.30	0.37	191,230.53	0.2	0.23	6 hr	Cloudburst
CSO127	12/21/2011 5:15	12/21/2011 7:15	0.08	53,325.42	0.58	91,940.38	0.85	0.27	12 hr	Cloudburst
CSO127	12/22/2011 11:45	12/22/2011 17:30	0.24	233,733.61	0.61	383,169.86	0.79	0.30	12 hr	Cloudburst
CSO127	12/27/2011 2:45	12/27/2011 11:45	0.38	268,256.35	0.79	339,564.99	1.48	0.34	12 hr	Cloudburst
CSO127	1/11/2012 5:00	1/11/2012 10:15	0.22	213,802.81	0.65	328,927.40	0.29	0.33	24 hr	Cloudburst
CSO127	1/11/2012 20:30	1/11/2012 20:30	0.00	1,900.98	0.13	14,622.89	0.84	0.33	24 hr	Cloudburst
CSO127	1/17/2012 4:00	1/17/2012 12:30	0.35	99,287.07	0.31	320,280.88	1.09	0.14	12 hr	Cloudburst
CSO127	1/22/2012 22:45	1/23/2012 5:00	0.26	206,233.38	0.6	343,722.31	0.45	0.33	3 hr	Atlas 14
CSO127	1/26/2012 5:30	1/26/2012 7:00	0.06	142,906.01	0.45	317,568.90	1.28	0.62	24 hr	Cloudburst
CSO127	1/26/2012 17:45	1/27/2012 1:45	0.33	506,051.68	1.14	443,904.98	1.51	0.62	24 hr	Cloudburst
CSO127	2/4/2012 9:00	2/4/2012 10:30	0.06	41,774.86	0.33	126,590.47	0.14	0.20	3 hr	Atlas 14
CSO127	2/22/2012 23:00	2/22/2012 23:30	0.02	18,172.33	0.18	100,957.40	0.4	0.14	1 hr	Cloudburst
CSO127	2/29/2012 6:15	2/29/2012 9:15	0.13	36,279.72	0.58	62,551.24	0.51	0.28	12 hr	Cloudburst
CSO127	3/8/2012 10:15	3/8/2012 17:15	0.29	164,099.12	0.77	213,115.74	0.73	0.39	6 hr	Cloudburst
CSO127	3/15/2012 19:00	3/16/2012 3:30	0.35	287,981.40	0.97	296,888.04	0.6	0.44	12 hr	Cloudburst
CSO127	3/17/2012 18:30	3/17/2012 22:30	0.17	242,187.73	1.19	203,519.10	2.02	0.74	1 hr	Cloudburst
CSO127	3/23/2012 5:00	3/23/2012 23:00	0.75	730,686.19	1.58	462,459.62	1.47	0.61	24 hr	Cloudburst
CSO127	4/1/2012 8:30	4/1/2012 11:45	0.14	1,178,827.52	1.24	950,667.35	0.85	0.69	6 hr	Cloudburst
CSO127	4/16/2012 7:00	4/16/2012 7:15	0.01	24,448.77	0.12	203,739.77	0.3	0.11	3 hr	Atlas 14
CSO127	4/28/2012 19:15	4/29/2012 0:30	0.22	232,074.90	0.74	313,614.73	0.72	0.52	1 hr	Cloudburst
CSO127	4/30/2012 18:15	4/30/2012 18:30	0.01	41,486.77	0.26	159,564.49	1.12	0.29	3 hr	Atlas 14

UnitID	Overflow Start Date	Overflow End Date	Overflow Duration (Days)	Volume (Gallons)	Overflow Event Rain Inches)	Volume Per Inch	Overflow Antecedent Rain	Frequency (Years)	Period	Standard
CSO127	5/4/2012 23:45	5/5/2012 5:00	0.22	1,223,352.50	1.48	826,589.53	1.98	0.80	3 hr	Atlas 14
CSO127	5/13/2012 1:45	5/13/2012 13:30	0.49	760,558.40	2.15	353,748.09	0.82	0.92	12 hr	Cloudburst
CSO127	5/16/2012 18:00	5/16/2012 18:30	0.02	84,933.77	0.24	353,890.69	2.47	0.21	1 hr	Cloudburst
CSO127	5/29/2012 6:45	5/29/2012 17:00	0.43	4,024,873.95	2.5	1,609,949.58	0.64	8.19	3 hr	Atlas 14
CSO127	5/31/2012 18:30	6/1/2012 5:15	0.45	114,540.31	1.13	101,363.11	2.84	0.52	12 hr	Cloudburst
CSO127	6/17/2012 12:15	6/17/2012 12:15	0.00	6,112.58	0.12	50,938.14	0.34	0.25	3 hr	Atlas 14
CSO127	6/30/2012 1:15	6/30/2012 3:45	0.10	162,703.37						
CSO130	7/8/2011 3:00	7/8/2011 5:00	0.08	9,131.39	0.37	24,679.45	0.39	0.21	3 hr	Atlas 14
CSO130	7/12/2011 17:30	7/13/2011 13:30	0.83	32,949.38	0.35	94,141.09	0.69	0.19	6 hr	Cloudburst
CSO130	7/17/2011 22:15	7/17/2011 22:15	0.00	423.77	0.03	14,125.75	0.39			
CSO130	7/19/2011 7:15	7/19/2011 11:30	0.18	12,838.50			0.39			
CSO130	7/19/2011 22:30	7/20/2011 15:45	0.72	393,860.28	1.91	206,209.57	0.99	3.63	1 hr	Cloudburst
CSO130	7/21/2011 6:30	7/22/2011 6:30	1.00	55,403.21			1.95			
CSO130	7/25/2011	7/25/2011	0.00	8,261.33	0.34	24,298.04	2.28	0.29	1 hr	Cloudburst
CSO130	7/25/2011 19:15	7/25/2011 19:15	0.00	76.86			2.3			
CSO130	7/26/2011 8:45	7/26/2011 8:45	0.00	237.77			2.3			
CSO130	7/30/2011 22:45	7/31/2011 0:30	0.07	16,756.73	0.19	88,193.32	0.58	0.16	1 hr	Cloudburst
CSO130	8/7/2011 3:00	8/7/2011 12:30	0.40	351,829.40	1.85	190,178.05	0.57	3.06	3 hr	Cloudburst
CSO130	8/8/2011 14:00	8/8/2011 14:45	0.03	923.72	0.23	4,016.19	2.06	0.15	3 hr	Atlas 14
CSO130	8/10/2011 2:45	8/10/2011 2:45	0.00	153.77	0.06	2,562.80	2.18			
CSO130	8/13/2011 17:15	8/14/2011 1:00	0.32	72,586.78	0.75	96,782.37	2.89	0.63	1 hr	Cloudburst
CSO130	8/18/2011 8:15	8/18/2011 8:30	0.01	3,210.32	0.53	6,057.21	1.33	0.45	1 hr	Cloudburst
CSO130	9/4/2011 20:45	9/4/2011 20:45	0.00	1,082.91	0.06	18,048.55	0.11	0.05	24 hr	Cloudburst
CSO130	9/6/2011 3:15	9/6/2011 3:45	0.02	224.42	0.12	1,870.18	0.25	0.08	12 hr	Cloudburst
CSO130	9/7/2011 5:30	9/8/2011 6:45	1.05	3,629.54	0.01	362,953.75	0.34			
CSO130	9/8/2011 16:30	9/9/2011 3:30	0.46	1,683.66			0.34			
CSO130	9/9/2011 16:00	9/9/2011 16:00	0.00	107.82			0.34			
CSO130	9/10/2011 20:00	9/10/2011 20:15	0.01	701.91	0.02	35,095.58	0.35			
CSO130	9/11/2011 19:15	9/11/2011 21:45	0.10	69,416.21	0.31	223,923.27	0.55	0.20	3 hr	Atlas 14
CSO130	9/12/2011 12:45	9/12/2011 12:45	0.00	1,882.08			0.55			
CSO130	9/13/2011 0:30	9/13/2011 0:30	0.00	780.06			0.52			
CSO130	9/14/2011 21:45	9/15/2011 6:00	0.34	982.58	0.22	4,466.28	0.45	0.12	3 hr	Atlas 14
CSO130	9/18/2011 21:45	9/18/2011 22:45	0.04	786.61	0.07	11,237.25	0.28	0.28	12 hr	Cloudburst
CSO130	9/19/2011 7:00	9/19/2011 8:15	0.05	61,128.79	0.29	210,788.92	0.5	0.28	12 hr	Cloudburst
CSO130	9/21/2011 12:30	9/21/2011 12:30	0.00	237.94	0.03	7,931.19	0.95			
CSO130	9/23/2011 0:30	9/23/2011 8:45	0.34	28,383.51	0.8	35,479.39	0.85	0.37	12 hr	Cloudburst
CSO130	9/25/2011 19:45	9/27/2011 1:00	1.22	1,579,770.29	3.46	456,581.01	2.03	8.19	12 hr	Atlas 14
CSO130	9/27/2011 23:45	9/27/2011 23:45	0.00	282.28			4.45			
CSO130	9/30/2011 1:00	9/30/2011 1:00	0.00	527.41	0.01	52,740.87	4.23			
CSO130	10/3/2011 10:00	10/3/2011 10:00	0.00	4,996.41			0.01			
CSO130	10/4/2011 6:45	10/4/2011 10:00	0.14	2,863.60			0.01			
CSO130	10/7/2011 7:15	10/7/2011 8:30	0.05	394.85						
CSO130	10/10/2011 4:45	10/10/2011 12:00	0.30	713.25						
CSO130	10/11/2011 5:30	10/11/2011 10:30	0.21	3,558.65						
CSO130	10/12/2011 3:30	10/12/2011 8:15	0.20	3,480.62						
CSO130	10/13/2011 7:45	10/13/2011 9:00	0.05	2,086.31	0.35	5,960.89	0.29	0.25	3 hr	Atlas 14
CSO130	10/27/2011	10/27/2011 5:30	0.23	126,017.40	0.89	141,592.58	1.07	0.42	3 hr	Atlas 14
CSO130	11/21/2011 14:00	11/21/2011 14:00	0.00	82.68	0.12	688.96	2.88	0.54	48 hr	Atlas 14

UnitID	Overflow Start Date	Overflow End Date	Overflow Duration (Days)	Volume (Gallons)	Overflow Event Rain Inches)	Volume Per Inch	Overflow Antecedent Rain	Frequency (Years)	Period	Standard
CSO130	11/21/2011 23:45	11/22/2011 12:45	0.54	394,967.69	0.94	420,178.39	2.54	0.54	48 hr	Atlas 14
CSO130	11/26/2011 12:15	11/26/2011 19:15	0.29	55,063.73			1.81			
CSO130	11/27/2011 7:15	11/30/2011 2:45	2.81	6,741,063.19	3.03	2,224,773.33	2.21	0.95	48 hr	Atlas 14
CSO130	12/4/2011 16:45	12/4/2011 17:30	0.03	24,690.54	0.55	44,891.90	2.99	1.18	48 hr	Cloudburst
CSO130	12/5/2011 4:15	12/7/2011 1:00	1.86	2,819,840.78	2.36	1,194,847.79	3.04	1.18	48 hr	Cloudburst
CSO130	12/8/2011 8:30	12/9/2011 15:15	1.28	445,676.24			3.12			
CSO130	12/13/2011 19:15	12/14/2011 6:00	0.45	22,011.09	0.02	1,100,554.30				
CSO130	12/14/2011 23:45	12/15/2011 0:15	0.02	15,359.79			0.02	0.23	6 hr	Cloudburst
CSO130	12/16/2011 14:45	12/16/2011 14:45	0.00	105.75	0.01	10,575.07	0.5			
CSO130	12/21/2011 6:45	12/21/2011 8:30	0.07	74,082.10	0.52	142,465.57	1.1	0.28	12 hr	Cloudburst
CSO130	12/22/2011 11:30	12/22/2011 19:00	0.31	181,841.18	0.53	343,096.56	0.81	0.26	12 hr	Cloudburst
CSO130	12/26/2011 8:45	12/26/2011 8:45	0.00	574.19			1.19			
CSO130	12/27/2011 4:00	12/27/2011 14:30	0.44	231,089.04	0.67	344,909.01	1.53	0.27	12 hr	Cloudburst
CSO130	1/2/2012 15:45	1/2/2012 16:15	0.02	382.24	0.02	19,112.14	0.7			
CSO130	1/3/2012 17:15	1/3/2012 18:45	0.06	592.86			0.04			
CSO130	1/4/2012 12:45	1/4/2012 18:00	0.22	645.73			0.04			
CSO130	1/5/2012 6:15	1/5/2012 8:00	0.07	5,108.22			0.04			
CSO130	1/11/2012 4:30	1/11/2012 12:00	0.31	86,959.50	0.64	135,874.22	0.2	0.30	12 hr	Cloudburst
CSO130	1/11/2012 20:15	1/11/2012 20:15	0.00	33.67	0.1	336.71	0.75	0.30	12 hr	Cloudburst
CSO130	1/17/2012 11:30	1/17/2012 13:15	0.07	12,057.15	0.28	43,061.26	1.23	0.18	12 hr	Cloudburst
CSO130	1/22/2012 4:45	1/22/2012 4:45	0.00	724.2			0.43			
CSO130	1/23/2012 2:45	1/23/2012 5:45	0.13	138,737.87	0.64	216,777.92	0.78	0.33	3 hr	Atlas 14
CSO130	1/25/2012 18:30	1/25/2012 20:30	0.08	106,085.34	0.27	392,908.67	1	0.55	48 hr	Atlas 14
CSO130	1/26/2012 5:30	1/28/2012 15:30	2.42	5,147,419.07	1.44	3,574,596.58	1.3	0.55	48 hr	Atlas 14
CSO130	1/29/2012 2:45	1/29/2012 3:00	0.01	8,057.45			2.41			
CSO130	2/2/2012 22:30	2/3/2012 3:30	0.21	10,054.24			0.17			
CSO130	2/4/2012 11:00	2/4/2012 11:00	0.00	4.85	0.38	12.77	0.43	0.23	3 hr	Atlas 14
CSO130	2/22/2012 22:45	2/22/2012 23:00	0.01	4,377.05	0.13	33,669.64	0.42	0.10	1 hr	Cloudburst
CSO130	2/29/2012 4:15	2/29/2012 10:15	0.25	12,211.13	0.48	25,439.84	0.36	0.27	12 hr	Cloudburst
CSO130	3/8/2012 10:00	3/8/2012 17:45	0.32	247,115.95	0.73	338,515.00	0.65	0.37	6 hr	Cloudburst
CSO130	3/9/2012 12:00	3/9/2012 13:15	0.05	2,032.90			1.04			
CSO130	3/15/2012 19:00	3/16/2012 4:30	0.40	232,195.45	0.96	241,870.26	0.66	0.43	12 hr	Cloudburst
CSO130	3/17/2012 14:45	3/17/2012 23:15	0.35	111,341.29	0.82	135,782.06	1.18	0.50	1 hr	Cloudburst
CSO130	3/23/2012 5:00	3/24/2012 0:30	0.81	468,023.82	1.47	318,383.55	1.11	0.57	24 hr	Cloudburst
CSO130	3/24/2012 18:45	3/24/2012 18:45	0.00	126.81			1.82			
CSO130	4/1/2012 8:15	4/1/2012 18:00	0.41	662,068.31	1.27	521,313.63	0.84	0.69	6 hr	Cloudburst
CSO130	4/4/2012 9:00	4/4/2012 16:45	0.32	665.91	0.15	4,439.37	1.55	0.11	12 hr	Cloudburst
CSO130	4/28/2012 19:15	4/29/2012 0:15	0.21	108,726.52	0.73	148,940.43	0.74	0.54	1 hr	Cloudburst
CSO130	4/29/2012 12:00	4/29/2012 12:00	0.00	469.97			0.87			
CSO130	4/30/2012 18:00	4/30/2012 19:15	0.05	85,731.52	0.38	225,609.27	1.11	0.32	3 hr	Atlas 14
CSO130	5/4/2012 23:45	5/5/2012 5:45	0.25	510,025.72	1.36	375,018.91	1.86	0.73	3 hr	Atlas 14
CSO130	5/13/2012 2:00	5/13/2012 16:45	0.61	1,707,525.91	2.01	849,515.38	0.96	0.81	12 hr	Cloudburst
CSO130	5/14/2012 14:30	5/14/2012 23:00	0.35	1,738.23	0.01	173,822.64	2.13			
CSO130	5/16/2012 17:45	5/16/2012 19:30	0.07	73,971.01	0.24	308,212.53	2.31	0.20	1 hr	Cloudburst
CSO130	5/29/2012 6:45	5/31/2012 0:45	1.75	1,238,079.97	2.34	529,094.00	0.84	6.98	3 hr	Atlas 14
CSO130	5/31/2012 18:30	6/1/2012 9:30	0.63	914,287.18	1.24	737,328.37	2.69	0.54	12 hr	Cloudburst
CSO130	6/1/2012 21:15	6/2/2012 16:00	0.78	17,365.13			3.58			
CSO130	6/17/2012 11:30	6/17/2012 12:00	0.02	1,468.09	0.14	10,486.38	0.38	0.23	3 hr	Atlas 14

UnitID	Overflow Start Date	Overflow End Date	Overflow Duration (Days)	Volume (Gallons)	Overflow Event Rain Inches)	Volume Per Inch	Overflow Antecedent Rain	Frequency (Years)	Period	Standard
CSO132	7/8/2011 3:45	7/8/2011 5:15	0.06	24,353.84	0.35	69,582.41	0.55	0.19	6 hr	Cloudburst
CSO132	7/12/2011 17:45	7/12/2011 18:15	0.02	50,180.52	0.22	228,093.29	0.76	0.22	6 hr	Cloudburst
CSO132	7/19/2011 22:30	7/20/2011	0.06	756,815.05	1.6	473,009.41	1.02	1.50	1 hr	Cloudburst
CSO132	8/7/2011 3:15	8/7/2011 7:00	0.16	1,456,830.59	1.89	770,809.84	1.02	2.94	3 hr	Cloudburst
CSO132	8/13/2011 17:15	8/13/2011 18:00	0.03	70,172.31	0.78	89,964.51	2.91	0.67	1 hr	Cloudburst
CSO132	8/18/2011 8:15	8/18/2011 8:45	0.02	286,386.67	0.56	511,404.77	1.4	0.48	1 hr	Cloudburst
CSO132	9/4/2011 21:00	9/4/2011 21:15	0.01	7,200.40	0.07	102,862.90	0.08	0.04	24 hr	Cloudburst
CSO132	9/10/2011 20:30	9/10/2011 20:30	0.00	2,062.65	0.02	103,132.73	0.33			
CSO132	9/11/2011 19:30	9/11/2011 21:00	0.06	47,714.06	0.31	153,916.34	0.57	0.21	3 hr	Atlas 14
CSO132	9/19/2011 7:00	9/19/2011 8:15	0.05	258,104.14	0.31	832,593.99	0.5	0.30	12 hr	Cloudburst
CSO132	9/23/2011 2:45	9/23/2011 8:15	0.23	62,346.14	0.82	76,031.87	1.13	0.38	12 hr	Cloudburst
CSO132	9/25/2011 20:00	9/26/2011 11:00	0.63	2,428,180.89	3.32	731,379.79	2.12	7.15	12 hr	Atlas 14
CSO132	10/13/2011 7:30	10/13/2011 8:30	0.04	111,855.45	0.35	319,586.99	0.29	0.25	3 hr	Atlas 14
CSO132	10/27/2011	10/27/2011 5:15	0.22	149,371.35	0.9	165,968.16	1.07	0.42	6 hr	Cloudburst
CSO132	11/3/2011 9:30	11/3/2011 11:45	0.09	129,676.97	0.43	301,574.35	0.34	0.29	3 hr	Atlas 14
CSO132	11/14/2011 21:30	11/15/2011 15:00	0.73	161,948.69	1.49	108,690.40	0.31	0.67	48 hr	Atlas 14
CSO132	11/16/2011 5:30	11/16/2011 11:30	0.25	149,124.89	0.52	286,778.64	1.76	0.67	48 hr	Atlas 14
CSO132	11/20/2011 17:30	11/20/2011 18:45	0.05	29,923.30	0.41	72,983.66	2.54	0.28	24 hr	Cloudburst
CSO132	11/21/2011 4:15	11/21/2011 9:00	0.20	35,591.81	0.22	161,780.98	2.77	0.28	24 hr	Cloudburst
CSO132	11/22/2011 0:15	11/22/2011 12:45	0.52	372,515.30	0.94	396,292.88	2.54	0.44	6 hr	Cloudburst
CSO132	11/27/2011 6:15	11/30/2011 3:15	2.88	9,006,402.28	3.05	2,952,918.78	2.15	0.96	48 hr	Atlas 14
CSO132	12/4/2011 16:30	12/7/2011 2:15	2.41	13,314,078.24	3.01	4,423,281.81	2.99	0.99	48 hr	Atlas 14
CSO132	12/15/2011 4:00	12/15/2011 8:15	0.18	318,722.72	0.42	758,863.61	0.22	0.23	6 hr	Cloudburst
CSO132	12/21/2011 5:15	12/21/2011 7:45	0.10	1,031,572.47	0.61	1,691,102.41	0.98	0.29	12 hr	Cloudburst
CSO132	12/22/2011 11:45	12/22/2011 18:30	0.28	864,887.64	0.55	1,572,522.99	0.83	0.27	12 hr	Cloudburst
CSO132	12/27/2011 3:00	12/27/2011 14:00	0.46	746,163.75	0.74	1,008,329.39	1.5	0.30	12 hr	Cloudburst
CSO132	1/11/2012 5:00	1/11/2012 11:30	0.27	298,754.41	0.71	420,780.85	0.3	0.34	6 hr	Cloudburst
CSO132	1/11/2012 20:30	1/11/2012 20:45	0.01	2,742.39	0.12	22,853.29	0.83	0.34	6 hr	Cloudburst
CSO132	1/17/2012 4:15	1/17/2012 12:45	0.35	186,210.09	0.36	517,250.26	1.09	0.17	12 hr	Cloudburst
CSO132	1/23/2012 2:45	1/23/2012 5:15	0.10	54,625.67	0.72	75,868.98	0.82	0.39	3 hr	Atlas 14
CSO132	1/25/2012 18:45	1/25/2012 19:45	0.04	17,876.60	0.25	71,506.42	1.04	0.60	24 hr	Cloudburst
CSO132	1/26/2012 5:30	1/26/2012 8:30	0.13	682,498.37	0.47	1,452,124.20	1.37	0.60	24 hr	Cloudburst
CSO132	1/26/2012 17:45	1/28/2012 3:00	1.39	1,987,787.75	1.1	1,807,079.78	1.61	0.60	24 hr	Cloudburst
CSO132	2/4/2012 9:45	2/4/2012 12:15	0.10	78,376.21	0.38	206,253.18	0.31	0.21	3 hr	Atlas 14
CSO132	2/22/2012 23:00	2/22/2012 23:30	0.02	74,907.15	0.16	468,169.69	0.43	0.12	1 hr	Cloudburst
CSO132	2/29/2012 4:30	2/29/2012 9:30	0.21	42,395.94	0.46	92,165.09	0.39	0.23	12 hr	Cloudburst
CSO132	3/8/2012 10:30	3/8/2012 17:45	0.30	130,395.96	0.71	183,656.29	0.66	0.36	6 hr	Cloudburst
CSO132	3/15/2012 19:00	3/16/2012 4:00	0.38	428,734.51	0.94	456,100.54	0.66	0.42	12 hr	Cloudburst
CSO132	3/17/2012 18:45	3/17/2012 22:45	0.17	23,898.15	1.04	22,978.99	1.93	0.68	1 hr	Cloudburst
CSO132	3/23/2012 5:15	3/24/2012 0:30	0.80	1,200,270.56	1.47	816,510.58	1.31	0.57	24 hr	Cloudburst
CSO132	3/28/2012 14:30	3/28/2012 15:00	0.02	50,261.57	0.07	718,022.49	1.57			
CSO132	3/31/2012	3/31/2012 0:30	0.02	2,614.71	0.15	17,431.37	0.23	0.10	3 hr	Atlas 14
CSO132	4/1/2012 7:30	4/1/2012 15:00	0.31	2,339,037.71	1.18	1,982,235.35	0.55	0.64	6 hr	Cloudburst
CSO132	4/4/2012 16:15	4/4/2012 17:45	0.06	109,246.80	0.11	993,152.70	1.47	0.11	12 hr	Cloudburst
CSO132	4/16/2012 7:00	4/16/2012 7:15	0.01	23,282.63	0.08	291,032.92	0.26	0.09	3 hr	Atlas 14
CSO132	4/28/2012 19:15	4/29/2012 0:30	0.22	310,605.35	0.7	443,721.93	0.69	0.50	1 hr	Cloudburst
CSO132	4/30/2012 18:00	4/30/2012 18:45	0.03	220,953.58	0.39	566,547.65	1.07	0.30	3 hr	Atlas 14
CSO132	5/4/2012 23:45	5/5/2012 5:15	0.23	551,056.63	1.42	388,068.05	1.82	0.79	3 hr	Atlas 14

UnitID	Overflow Start Date	Overflow End Date	Overflow Duration (Days)	Volume (Gallons)	Overflow Event Rain Inches)	Volume Per Inch	Overflow Antecedent Rain	Frequency (Years)	Period	Standard
CSO132	5/13/2012 2:00	5/13/2012 16:30	0.60	1,605,889.29	1.91	840,779.73	0.88	0.78	12 hr	Cloudburst
CSO132	5/16/2012 17:45	5/16/2012 18:45	0.04	440,502.21	0.26	1,694,239.25	2.2	0.21	1 hr	Cloudburst
CSO132	5/29/2012 6:45	5/29/2012 15:00	0.34	764,059.20	2.22	344,170.81	0.81	3.36	3 hr	Atlas 14
CSO132	5/31/2012 18:45	6/1/2012 6:15	0.48	134,295.53	1.21	110,988.04	2.65	0.54	12 hr	Cloudburst
CSO132	6/17/2012 12:00	6/17/2012 14:45	0.11	55,311.32	0.48	115,231.93	0.41	0.31	1 hr	Cloudburst
CSO137	11/3/2011 9:30	11/3/2011 11:30	0.08	17,490.46	0.35	49,972.74	0.27	0.23	3 hr	Atlas 14
CSO137	11/22/2011 10:15	11/22/2011 11:15	0.04	114,887.76	1.03	111,541.51	3.42	0.57	12 hr	Cloudburst
CSO137	11/27/2011 6:00	11/29/2011 3:15	1.89	3,893,419.31	3.2	1,216,693.53	2.67	1.25	48 hr	Cloudburst
CSO137	11/29/2011 18:30	11/29/2011 19:30	0.04	68,945.52	0.07	984,936.03	3.39			
CSO137	12/4/2011 16:15	12/6/2011 13:30	1.89	7,007,661.27	2.84	2,467,486.36	3.04	0.93	48 hr	Atlas 14
CSO137	12/15/2011 4:00	12/15/2011 7:45	0.16	124,680.41	0.4	311,701.03	0.24	0.24	6 hr	Cloudburst
CSO137	12/20/2011 23:15	12/21/2011 7:15	0.33	395,198.44	0.56	705,711.51	0.59	0.26	12 hr	Cloudburst
CSO137	12/22/2011 14:00	12/22/2011 17:30	0.15	634,097.36	0.6	1,056,828.94	0.88	0.29	12 hr	Cloudburst
CSO137	12/27/2011 2:30	12/27/2011 11:30	0.38	455,178.20	0.74	615,105.68	1.42	0.33	12 hr	Cloudburst
CSO137	1/11/2012 4:45	1/11/2012 10:00	0.22	94,056.23	0.57	165,010.92	0.26	0.29	6 hr	Cloudburst
CSO137	1/11/2012 20:30	1/11/2012 20:30	0.00	120.05	0.11	1,091.40	0.75	0.29	6 hr	Cloudburst
CSO137	1/17/2012 4:00	1/17/2012 12:30	0.35	175,938.60	0.37	475,509.73	1.05	0.17	12 hr	Cloudburst
CSO137	1/22/2012 22:30	1/23/2012 4:45	0.26	324,734.04	0.55	590,425.53	0.5	0.30	3 hr	Atlas 14
CSO137	1/25/2012 18:00	1/25/2012 19:00	0.04	6,371.90	0.28	22,756.78	0.85	0.65	24 hr	Cloudburst
CSO137	1/26/2012 5:30	1/26/2012 6:45	0.05	284,202.70	0.47	604,686.59	1.21	0.65	24 hr	Cloudburst
CSO137	1/26/2012 17:45	1/27/2012 1:00	0.30	837,121.19	1.2	697,601.00	1.49	0.65	24 hr	Cloudburst
CSO137	2/4/2012 9:30	2/4/2012 10:15	0.03	39,678.82	0.34	116,702.40	0.28	0.22	3 hr	Atlas 14
CSO137	2/15/2012 23:45	2/15/2012 23:45	0.00	4,112.13	0.15	27,414.21	0.37	0.11	12 hr	Cloudburst
CSO137	2/22/2012 23:00	2/22/2012 23:15	0.01	67,191.53	0.15	447,943.54	0.35	0.11	1 hr	Cloudburst
CSO137	2/29/2012 6:00	2/29/2012 9:00	0.13	205,914.74	0.62	332,120.55	0.5	0.30	12 hr	Cloudburst
CSO137	3/2/2012 11:45	3/2/2012 11:45	0.00	3,507.48	0.09	38,972.06	0.73	0.06	12 hr	Cloudburst
CSO137	3/8/2012 10:00	3/8/2012 17:15	0.30	90,933.54	0.79	115,105.74	0.74	0.38	12 hr	Cloudburst
CSO137	3/15/2012 19:00	3/16/2012 3:15	0.34	316,215.46	1.04	304,053.32	0.69	0.47	12 hr	Cloudburst
CSO137	3/17/2012 18:30	3/17/2012 18:45	0.01	334,089.39	0.79	422,897.96	2.01	0.69	1 hr	Cloudburst
CSO137	3/23/2012 13:30	3/23/2012 22:30	0.38	544,665.38	1.38	394,685.06	1.84	0.61	24 hr	Cloudburst
CSO137	4/1/2012 8:45	4/1/2012 10:30	0.07	458,801.64	1.84	249,348.72	1.21	3.56	3 hr	Cloudburst
CSO137	4/28/2012 19:30	4/29/2012 0:15	0.20	203,690.04	0.78	261,141.08	0.82	0.58	1 hr	Cloudburst
CSO137	4/30/2012 18:15	4/30/2012 18:15	0.00	8,859.22	0.24	36,913.43	1.18	0.22	1 hr	Cloudburst
CSO137	5/4/2012 23:45	5/5/2012 1:45	0.08	463,623.89	1.12	413,949.90	1.55	0.72	6 hr	Cloudburst
CSO137	5/13/2012 1:45	5/13/2012 9:00	0.30	708,669.45	2.01	352,571.87	0.94	0.91	12 hr	Cloudburst
CSO137	5/29/2012 6:45	5/29/2012 9:45	0.13	1,670,180.91	3.04	549,401.62	0.86	9.58	6 hr	Cloudburst
CSO137	5/31/2012 18:30	6/1/2012 1:30	0.29	138,708.85	1.2	115,590.70	3.49	0.59	12 hr	Cloudburst
CSO140	7/19/2011 22:30	7/19/2011 23:30	0.04	584,607.48	1.78	328,431.17	1.07	3.67	1 hr	Cloudburst
CSO140	8/7/2011 3:00	8/7/2011 11:15	0.34	339,771.58	1.96	173,352.85	0.65	2.33	3 hr	Cloudburst
CSO140	8/13/2011 17:00	8/13/2011 17:15	0.01	100,394.18	0.7	143,420.25	2.93	0.61	1 hr	Cloudburst
CSO140	8/18/2011 8:00	8/18/2011 8:00	0.00	18,532.21	0.47	39,430.24	1.26	0.40	1 hr	Cloudburst
CSO140	9/4/2011 20:30	9/4/2011 20:30	0.00	6,672.08	0.07	95,315.43	0.1	0.05	24 hr	Cloudburst
CSO140	9/11/2011 19:30	9/11/2011 19:30	0.00	29,102.78	0.23	126,533.81	0.55	0.19	1 hr	Cloudburst
CSO140	9/19/2011 6:45	9/19/2011 7:30	0.03	96,253.78	0.31	310,496.05	0.38	0.28	12 hr	Cloudburst
CSO140	9/23/2011 7:00	9/23/2011 7:00	0.00	7,939.03	0.76	10,446.10	1.48	0.38	12 hr	Cloudburst
CSO140	9/25/2011 19:45	9/26/2011 14:30	0.78	4,001,651.53	3.27	1,223,746.65	2	6.81	12 hr	Atlas 14
CSO140	10/13/2011 7:30	10/13/2011 7:30	0.00	31,836.94	0.21	151,604.48	0.21	0.20	3 hr	Atlas 14
CSO140	10/26/2011 23:45	10/27/2011 0:45	0.04	107,742.57	0.73	147,592.56	0.94	0.43	12 hr	Cloudburst

UnitID	Overflow Start Date	Overflow End Date	Overflow Duration (Days)	Volume (Gallons)	Overflow Event Rain Inches)	Volume Per Inch	Overflow Antecedent Rain	Frequency (Years)	Period	Standard
CSO140	11/14/2011 21:15	11/14/2011 21:30	0.01	31,413.63	0.27	116,346.79	0.29	0.65	48 hr	Atlas 14
CSO140	11/21/2011 4:00	11/21/2011 4:00	0.00	43,644.73	0.09	484,941.46	2.68	0.28	24 hr	Cloudburst
CSO140	11/22/2011 2:45	11/22/2011 10:00	0.30	50,901.84	0.9	56,557.60	2.47	0.44	12 hr	Cloudburst
CSO140	11/27/2011 22:45	11/29/2011 12:45	1.58	1,592,708.75	2.45	650,085.21	2.23	0.95	48 hr	Atlas 14
CSO140	12/5/2011 3:15	12/6/2011 10:45	1.31	2,904,857.27	2.38	1,220,528.27	2.91	1.00	48 hr	Atlas 14
CSO140	12/15/2011 3:30	12/15/2011 7:15	0.16	25,996.68	0.41	63,406.54	0.1	0.24	6 hr	Cloudburst
CSO140	12/21/2011 4:45	12/21/2011 6:45	0.08	47,070.06	0.61	77,164.04	0.97	0.29	12 hr	Cloudburst
CSO140	12/27/2011 10:45	12/27/2011 10:45	0.00	668.05	0.33	2,024.40	1.77	0.29	12 hr	Cloudburst
CSO140	1/11/2012 6:30	1/11/2012 6:30	0.00	12,941.59	0.44	29,412.70	0.46	0.31	6 hr	Cloudburst
CSO140	1/17/2012 11:45	1/17/2012 11:45	0.00	4,839.34	0.21	23,044.49	1.25	0.18	12 hr	Cloudburst
CSO140	1/23/2012 2:30	1/23/2012 4:15	0.07	30,350.70	0.65	46,693.39	0.75	0.35	3 hr	Atlas 14
CSO140	1/26/2012 5:30	1/26/2012 6:15	0.03	153,956.25	0.48	320,742.18	1.32	0.61	48 hr	Atlas 14
CSO140	1/26/2012 18:15	1/27/2012 10:45	0.69	1,546,823.70	1.08	1,432,244.17	1.65	0.61	48 hr	Atlas 14
CSO140	2/22/2012 22:30	2/22/2012 22:45	0.01	8,303.98	0.15	55,359.86	0.43	0.12	1 hr	Cloudburst
CSO140	2/29/2012 8:30	2/29/2012 8:30	0.00	72,057.80	0.48	150,120.42	0.67	0.27	12 hr	Cloudburst
CSO140	3/8/2012 12:30	3/8/2012 14:30	0.08	19,556.04	0.71	27,543.73	0.97	0.39	6 hr	Cloudburst
CSO140	3/16/2012 1:15	3/16/2012 2:30	0.05	37,312.77	0.84	44,419.96	0.89	0.42	12 hr	Cloudburst
CSO140	3/17/2012 18:30	3/17/2012 18:30	0.00	4,205.66	0.73	5,761.18	1.89	0.64	1 hr	Cloudburst
CSO140	3/23/2012 4:45	3/24/2012	0.80	193,810.64	1.55	125,039.12	1.19	0.60	24 hr	Cloudburst
CSO140	4/1/2012 8:15	4/1/2012 20:15	0.50	1,009,618.27	1.52	664,222.55	1	0.83	6 hr	Cloudburst
CSO140	4/4/2012 16:30	4/4/2012 16:30	0.00	3,230.03	0.08	40,375.41	1.83	0.11	12 hr	Cloudburst
CSO140	4/28/2012 19:00	4/29/2012	0.21	55,698.74	0.73	76,299.64	0.61	0.54	1 hr	Cloudburst
CSO140	4/30/2012 18:00	4/30/2012 18:00	0.00	6,099.00	0.25	24,396.01	1.13	0.33	3 hr	Atlas 14
CSO140	5/29/2012 6:45	5/30/2012 0:45	0.75	2,387,647.47	2.39	999,015.68	0.89	7.33	3 hr	Atlas 14
CSO140	5/31/2012 18:30	6/1/2012 4:15	0.41	171,695.48	1.04	165,091.81	2.7	0.51	12 hr	Cloudburst
CSO140	6/17/2012 11:30	6/17/2012 12:00	0.02	15,196.33	0.25	60,785.33	0.45	0.32	3 hr	Atlas 14
CSO141	1/12/2012 13:15	1/12/2012 13:15	0.00	9,003.05	0.08	112,538.09	0.82			
CSO141	1/23/2012 2:45	1/23/2012 13:30	0.45	251,473.13	0.6	419,121.88	0.67	0.31	3 hr	Atlas 14
CSO141	1/26/2012 5:45	1/27/2012 2:15	0.85	247,089.24	1.39	177,762.04	1.28	0.55	48 hr	Atlas 14
CSO141	2/22/2012 22:45	2/22/2012 22:45	0.00	3,620.61	0.15	24,137.37	0.44	0.13	1 hr	Cloudburst
CSO141	2/29/2012 8:45	2/29/2012 10:45	0.08	33,197.28	0.58	57,236.69	0.77	0.31	12 hr	Cloudburst
CSO141	3/8/2012 12:45	3/8/2012 13:30	0.03	20,432.05	0.71	28,777.54	0.99	0.39	6 hr	Cloudburst
CSO141	3/17/2012 18:30	3/17/2012 20:15	0.07	10,224.69	0.63	16,229.66	1.71	0.48	1 hr	Cloudburst
CSO141	3/19/2012 9:15	3/19/2012 9:30	0.01	74.34			1.85			
CSO141	3/23/2012 5:15	3/24/2012 5:00	0.99	104,945.28	1.52	69,042.95	1.06	0.59	24 hr	Cloudburst
CSO141	4/1/2012 8:30	4/1/2012 22:30	0.58	138,852.07	1.56	89,007.74	1.04	0.85	6 hr	Cloudburst
CSO141	4/28/2012 19:15	4/29/2012 1:45	0.27	64,339.16	0.73	88,135.83	0.77	0.54	1 hr	Cloudburst
CSO141	4/30/2012 18:00	5/1/2012 2:15	0.34	38,827.39	0.46	84,407.36	1.11	0.31	3 hr	Atlas 14
CSO141	5/4/2012 23:30	5/5/2012 14:30	0.63	135,710.25	1.43	94,902.27	1.7	0.75	3 hr	Atlas 14
CSO141	5/13/2012 2:00	5/13/2012 17:30	0.65	94,513.88	2.04	46,330.33	1.05	0.84	12 hr	Cloudburst
CSO141	5/16/2012 17:45	5/16/2012 19:45	0.08	9,187.24	0.23	39,944.51	2.32	0.19	1 hr	Cloudburst
CSO141	5/29/2012 6:30	5/29/2012 10:15	0.16	136,658.95	2.69	50,802.58	0.65	9.91	3 hr	Atlas 14
CSO141	5/31/2012 18:30	6/1/2012 13:00	0.77	63,042.06	1.24	50,840.37	3.02	0.54	12 hr	Cloudburst
CSO141	6/17/2012 11:30	6/17/2012 13:45	0.09	23,053.83	0.28	82,335.09	0.34	0.27	3 hr	Atlas 14
CSO146	7/8/2011 3:30	7/8/2011 5:00	0.06	75,878.20	0.42	180,662.38	0.72	0.23	3 hr	Atlas 14
CSO146	7/8/2011 3:30	7/8/2011 5:00	0.06	75,878.20	0.42	180,662.38	0.72	0.23	3 hr	Atlas 14
CSO146	7/8/2011 3:30	7/8/2011 5:00	0.06	75,878.20	0.42	180,662.38	0.72	0.23	3 hr	Atlas 14
CSO146	7/8/2011 3:30	7/8/2011 5:00	0.06	75,878.20	0.42	180,662.38	0.72	0.23	3 hr	Atlas 14

UnitID	Overflow Start Date	Overflow End Date	Overflow Duration (Days)	Volume (Gallons)	Overflow Event Rain Inches)	Volume Per Inch	Overflow Antecedent Rain	Frequency (Years)	Period	Standard
CSO146	7/12/2011 17:00	7/12/2011 21:00	0.17	202,380.61	0.47	430,597.04	0.91	0.27	6 hr	Cloudburst
CSO146	7/12/2011 17:00	7/12/2011 21:00	0.17	202,380.61	0.47	430,597.04	0.91	0.27	6 hr	Cloudburst
CSO146	7/12/2011 17:00	7/12/2011 21:00	0.17	202,380.61	0.47	430,597.04	0.91	0.27	6 hr	Cloudburst
CSO146	7/12/2011 17:00	7/12/2011 21:00	0.17	202,380.61	0.47	430,597.04	0.91	0.27	6 hr	Cloudburst
CSO146	7/19/2011 22:45	7/20/2011	0.05	1,204,987.53	1.43	842,648.62	1.13	1.63	1 hr	Cloudburst
CSO146	7/19/2011 22:45	7/20/2011	0.05	1,204,987.53	1.43	842,648.62	1.13	1.63	1 hr	Cloudburst
CSO146	7/19/2011 22:45	7/20/2011	0.05	1,204,987.53	1.43	842,648.62	1.13	1.63	1 hr	Cloudburst
CSO146	7/19/2011 22:45	7/20/2011	0.05	1,204,987.53	1.43	842,648.62	1.13	1.63	1 hr	Cloudburst
CSO146	8/7/2011 3:15	8/7/2011 6:45	0.15	1,617,920.37	1.87	865,198.06	1.03	2.61	3 hr	Cloudburst
CSO146	8/7/2011 3:15	8/7/2011 6:45	0.15	1,617,920.37	1.87	865,198.06	1.03	2.61	3 hr	Cloudburst
CSO146	8/7/2011 3:15	8/7/2011 6:45	0.15	1,617,920.37	1.87	865,198.06	1.03	2.61	3 hr	Cloudburst
CSO146	8/7/2011 3:15	8/7/2011 6:45	0.15	1,617,920.37	1.87	865,198.06	1.03	2.61	3 hr	Cloudburst
CSO146	8/8/2011 15:15	8/8/2011 15:30	0.01	50,897.65	0.2	254,488.25	2.12	0.13	3 hr	Atlas 14
CSO146	8/8/2011 15:15	8/8/2011 15:30	0.01	50,897.65	0.2	254,488.25	2.12	0.13	3 hr	Atlas 14
CSO146	8/8/2011 15:15	8/8/2011 15:30	0.01	50,897.65	0.2	254,488.25	2.12	0.13	3 hr	Atlas 14
CSO146	8/8/2011 15:15	8/8/2011 15:30	0.01	50,897.65	0.2	254,488.25	2.12	0.13	3 hr	Atlas 14
CSO146	8/10/2011 2:45	8/10/2011 3:15	0.02	41,204.29	0.12	343,369.05	2.24	0.15	3 hr	Atlas 14
CSO146	8/10/2011 2:45	8/10/2011 3:15	0.02	41,204.29	0.12	343,369.05	2.24	0.15	3 hr	Atlas 14
CSO146	8/10/2011 2:45	8/10/2011 3:15	0.02	41,204.29	0.12	343,369.05	2.24	0.15	3 hr	Atlas 14
CSO146	8/10/2011 2:45	8/10/2011 3:15	0.02	41,204.29	0.12	343,369.05	2.24	0.15	3 hr	Atlas 14
CSO146	8/11/2011 20:15	8/12/2011 3:15	0.29	551,713.02			2.32			
CSO146	8/13/2011 17:00	8/13/2011 18:00	0.04	800,052.36	0.84	952,443.28	3.13	0.72	1 hr	Cloudburst
CSO146	8/13/2011 17:00	8/13/2011 18:00	0.04	800,052.36	0.84	952,443.28	3.13	0.72	1 hr	Cloudburst
CSO146	8/13/2011 17:00	8/13/2011 18:00	0.04	800,052.36	0.84	952,443.28	3.13	0.72	1 hr	Cloudburst
CSO146	8/13/2011 17:00	8/13/2011 18:00	0.04	800,052.36	0.84	952,443.28	3.13	0.72	1 hr	Cloudburst
CSO146	8/18/2011 8:00	8/18/2011 9:00	0.04	321,777.06	0.24	1,340,737.77	1.14	0.20	1 hr	Cloudburst
CSO146	8/18/2011 8:00	8/18/2011 9:00	0.04	321,777.06	0.24	1,340,737.77	1.14	0.20	1 hr	Cloudburst
CSO146	8/18/2011 8:00	8/18/2011 9:00	0.04	321,777.06	0.24	1,340,737.77	1.14	0.20	1 hr	Cloudburst
CSO146	8/18/2011 8:00	8/18/2011 9:00	0.04	321,777.06	0.24	1,340,737.77	1.14	0.20	1 hr	Cloudburst
CSO146	9/10/2011 20:00	9/10/2011 20:15	0.01	10,762.82	0.03	358,760.74	0.41			
CSO146	9/10/2011 20:00	9/10/2011 20:15	0.01	10,762.82	0.03	358,760.74	0.41			
CSO146	9/10/2011 20:00	9/10/2011 20:15	0.01	10,762.82	0.03	358,760.74	0.41			
CSO146	9/10/2011 20:00	9/10/2011 20:15	0.01	10,762.82	0.03	358,760.74	0.41			
CSO146	9/19/2011 7:00	9/19/2011 8:00	0.04	329,995.47	0.31	1,064,501.51	0.53	0.28	12 hr	Cloudburst
CSO146	9/19/2011 7:00	9/19/2011 8:00	0.04	329,995.47	0.31	1,064,501.51	0.53	0.28	12 hr	Cloudburst
CSO146	9/19/2011 7:00	9/19/2011 8:00	0.04	329,995.47	0.31	1,064,501.51	0.53	0.28	12 hr	Cloudburst
CSO146	9/19/2011 7:00	9/19/2011 8:00	0.04	329,995.47	0.31	1,064,501.51	0.53	0.28	12 hr	Cloudburst
CSO146	9/23/2011 2:30	9/23/2011 8:00	0.23	327,069.37	0.82	398,865.08	1.06	0.38	12 hr	Cloudburst
CSO146	9/23/2011 2:30	9/23/2011 8:00	0.23	327,069.37	0.82	398,865.08	1.06	0.38	12 hr	Cloudburst
CSO146	9/23/2011 2:30	9/23/2011 8:00	0.23	327,069.37	0.82	398,865.08	1.06	0.38	12 hr	Cloudburst
CSO146	9/23/2011 2:30	9/23/2011 8:00	0.23	327,069.37	0.82	398,865.08	1.06	0.38	12 hr	Cloudburst
CSO146	9/25/2011 20:00	9/26/2011 6:30	0.44	10,831,179.70	3.94	2,749,030.38	2.21	7.39	12 hr	Cloudburst
CSO146	9/25/2011 20:00	9/26/2011 6:30	0.44	10,831,179.70	3.94	2,749,030.38	2.21	7.39	12 hr	Cloudburst
CSO146	9/25/2011 20:00	9/26/2011 6:30	0.44	10,831,179.70	3.94	2,749,030.38	2.21	7.39	12 hr	Cloudburst
CSO146	9/25/2011 20:00	9/26/2011 6:30	0.44	10,831,179.70	3.94	2,749,030.38	2.21	7.39	12 hr	Cloudburst
CSO146	10/13/2011 7:30	10/13/2011 8:15	0.03	252,585.40	0.27	935,501.48	0.23	0.19	3 hr	Atlas 14
CSO146	10/13/2011 7:30	10/13/2011 8:15	0.03	252,585.40	0.27	935,501.48	0.23	0.19	3 hr	Atlas 14
CSO146	10/13/2011 7:30	10/13/2011 8:15	0.03	252,585.40	0.27	935,501.48	0.23	0.19	3 hr	Atlas 14

UnitID	Overflow Start Date	Overflow End Date	Overflow Duration (Days)	Volume (Gallons)	Overflow Event Rain Inches)	Volume Per Inch	Overflow Antecedent Rain	Frequency (Years)	Period	Standard
CSO146	10/13/2011 7:30	10/13/2011 8:15	0.03	252,585.40	0.27	935,501.48	0.23	0.19	3 hr	Atlas 14
CSO146	10/27/2011	10/27/2011 5:15	0.22	484,010.67	1.01	479,218.48	1.17	0.47	12 hr	Cloudburst
CSO146	10/27/2011	10/27/2011 5:15	0.22	484,010.67	1.01	479,218.48	1.17	0.47	12 hr	Cloudburst
CSO146	10/27/2011	10/27/2011 5:15	0.22	484,010.67	1.01	479,218.48	1.17	0.47	12 hr	Cloudburst
CSO146	10/27/2011	10/27/2011 5:15	0.22	484,010.67	1.01	479,218.48	1.17	0.47	12 hr	Cloudburst
CSO146	11/3/2011 9:45	11/3/2011 16:45	0.29	65,921.64	0.5	131,843.28	0.31	0.24	12 hr	Cloudburst
CSO146	11/3/2011 9:45	11/3/2011 16:45	0.29	65,921.64	0.5	131,843.28	0.31	0.24	12 hr	Cloudburst
CSO146	11/3/2011 9:45	11/3/2011 16:45	0.29	65,921.64	0.5	131,843.28	0.31	0.24	12 hr	Cloudburst
CSO146	11/3/2011 9:45	11/3/2011 16:45	0.29	65,921.64	0.5	131,843.28	0.31	0.24	12 hr	Cloudburst
CSO146	11/14/2011 21:30	11/14/2011 23:15	0.07	211,321.49	0.38	556,109.19	0.3	0.73	48 hr	Atlas 14
CSO146	11/14/2011 21:30	11/14/2011 23:15	0.07	211,321.49	0.38	556,109.19	0.3	0.73	48 hr	Atlas 14
CSO146	11/14/2011 21:30	11/14/2011 23:15	0.07	211,321.49	0.38	556,109.19	0.3	0.73	48 hr	Atlas 14
CSO146	11/14/2011 21:30	11/14/2011 23:15	0.07	211,321.49	0.38	556,109.19	0.3	0.73	48 hr	Atlas 14
CSO146	11/15/2011 8:00	11/15/2011 14:15	0.26	80,363.58	1.11	72,399.63	0.82	0.73	48 hr	Atlas 14
CSO146	11/15/2011 8:00	11/15/2011 14:15	0.26	80,363.58	1.11	72,399.63	0.82	0.73	48 hr	Atlas 14
CSO146	11/15/2011 8:00	11/15/2011 14:15	0.26	80,363.58	1.11	72,399.63	0.82	0.73	48 hr	Atlas 14
CSO146	11/15/2011 8:00	11/15/2011 14:15	0.26	80,363.58	1.11	72,399.63	0.82	0.73	48 hr	Atlas 14
CSO146	11/16/2011 5:30	11/16/2011 11:30	0.25	85,092.18	0.65	130,911.04	1.86	0.73	48 hr	Atlas 14
CSO146	11/16/2011 5:30	11/16/2011 11:30	0.25	85,092.18	0.65	130,911.04	1.86	0.73	48 hr	Atlas 14
CSO146	11/16/2011 5:30	11/16/2011 11:30	0.25	85,092.18	0.65	130,911.04	1.86	0.73	48 hr	Atlas 14
CSO146	11/16/2011 5:30	11/16/2011 11:30	0.25	85,092.18	0.65	130,911.04	1.86	0.73	48 hr	Atlas 14
CSO146	11/20/2011 17:30	11/20/2011 18:30	0.04	10,813.77	0.52	20,795.71	2.81	0.33	24 hr	Cloudburst
CSO146	11/20/2011 17:30	11/20/2011 18:30	0.04	10,813.77	0.52	20,795.71	2.81	0.33	24 hr	Cloudburst
CSO146	11/20/2011 17:30	11/20/2011 18:30	0.04	10,813.77	0.52	20,795.71	2.81	0.33	24 hr	Cloudburst
CSO146	11/20/2011 17:30	11/20/2011 18:30	0.04	10,813.77	0.52	20,795.71	2.81	0.33	24 hr	Cloudburst
CSO146	11/22/2011	11/22/2011 11:30	0.48	372,045.20	1.07	347,705.80	2.9	0.50	12 hr	Cloudburst
CSO146	11/22/2011	11/22/2011 11:30	0.48	372,045.20	1.07	347,705.80	2.9	0.50	12 hr	Cloudburst
CSO146	11/22/2011	11/22/2011 11:30	0.48	372,045.20	1.07	347,705.80	2.9	0.50	12 hr	Cloudburst
CSO146	11/22/2011	11/22/2011 11:30	0.48	372,045.20	1.07	347,705.80	2.9	0.50	12 hr	Cloudburst
CSO146	11/27/2011 6:15	11/29/2011 3:15	1.88	1,491,484.47	2.95	505,587.96	2.42	0.95	48 hr	Atlas 14
CSO146	11/27/2011 6:15	11/29/2011 3:15	1.88	1,491,484.47	2.95	505,587.96	2.42	0.95	48 hr	Atlas 14
CSO146	11/27/2011 6:15	11/29/2011 3:15	1.88	1,491,484.47	2.95	505,587.96	2.42	0.95	48 hr	Atlas 14
CSO146	11/27/2011 6:15	11/29/2011 3:15	1.88	1,491,484.47	2.95	505,587.96	2.42	0.95	48 hr	Atlas 14
CSO146	12/4/2011 16:15	12/5/2011 22:00	1.24	2,760,373.34	3	920,124.45	2.87	0.99	48 hr	Atlas 14
CSO146	12/4/2011 16:15	12/5/2011 22:00	1.24	2,760,373.34	3	920,124.45	2.87	0.99	48 hr	Atlas 14
CSO146	12/4/2011 16:15	12/5/2011 22:00	1.24	2,760,373.34	3	920,124.45	2.87	0.99	48 hr	Atlas 14
CSO146	12/4/2011 16:15	12/5/2011 22:00	1.24	2,760,373.34	3	920,124.45	2.87	0.99	48 hr	Atlas 14
CSO146	12/15/2011 4:00	12/15/2011 8:00	0.17	93,928.29	0.4	234,820.73	0.2	0.23	6 hr	Cloudburst
CSO146	12/15/2011 4:00	12/15/2011 8:00	0.17	93,928.29	0.4	234,820.73	0.2	0.23	6 hr	Cloudburst
CSO146	12/15/2011 4:00	12/15/2011 8:00	0.17	93,928.29	0.4	234,820.73	0.2	0.23	6 hr	Cloudburst
CSO146	12/15/2011 4:00	12/15/2011 8:00	0.17	93,928.29	0.4	234,820.73	0.2	0.23	6 hr	Cloudburst
CSO146	12/21/2011 5:15	12/21/2011 7:30	0.09	275,719.00	0.64	430,810.94	0.94	0.31	12 hr	Cloudburst
CSO146	12/21/2011 5:15	12/21/2011 7:30	0.09	275,719.00	0.64	430,810.94	0.94	0.31	12 hr	Cloudburst
CSO146	12/21/2011 5:15	12/21/2011 7:30	0.09	275,719.00	0.64	430,810.94	0.94	0.31	12 hr	Cloudburst
CSO146	12/21/2011 5:15	12/21/2011 7:30	0.09	275,719.00	0.64	430,810.94	0.94	0.31	12 hr	Cloudburst
CSO146	12/22/2011 12:00	12/22/2011 18:00	0.25	325,717.36	0.54	603,180.31	0.88	0.26	12 hr	Cloudburst
CSO146	12/22/2011 12:00	12/22/2011 18:00	0.25	325,717.36	0.54	603,180.31	0.88	0.26	12 hr	Cloudburst
CSO146	12/22/2011 12:00	12/22/2011 18:00	0.25	325,717.36	0.54	603,180.31	0.88	0.26	12 hr	Cloudburst

UnitID	Overflow Start Date	Overflow End Date	Overflow Duration (Days)	Volume (Gallons)	Overflow Event Rain Inches)	Volume Per Inch	Overflow Antecedent Rain	Frequency (Years)	Period	Standard
CSO146	12/22/2011 12:00	12/22/2011 18:00	0.25	325,717.36	0.54	603,180.31	0.88	0.26	12 hr	Cloudburst
CSO146	12/27/2011 2:45	12/27/2011 12:00	0.39	269,221.48	0.6	448,702.47	1.45	0.25	12 hr	Cloudburst
CSO146	12/27/2011 2:45	12/27/2011 12:00	0.39	269,221.48	0.6	448,702.47	1.45	0.25	12 hr	Cloudburst
CSO146	12/27/2011 2:45	12/27/2011 12:00	0.39	269,221.48	0.6	448,702.47	1.45	0.25	12 hr	Cloudburst
CSO146	12/27/2011 2:45	12/27/2011 12:00	0.39	269,221.48	0.6	448,702.47	1.45	0.25	12 hr	Cloudburst
CSO146	1/11/2012 4:45	1/11/2012 11:30	0.28	347,153.13	0.59	588,395.13	0.21	0.28	12 hr	Cloudburst
CSO146	1/11/2012 4:45	1/11/2012 11:30	0.28	347,153.13	0.59	588,395.13	0.21	0.28	12 hr	Cloudburst
CSO146	1/11/2012 4:45	1/11/2012 11:30	0.28	347,153.13	0.59	588,395.13	0.21	0.28	12 hr	Cloudburst
CSO146	1/11/2012 4:45	1/11/2012 11:30	0.28	347,153.13	0.59	588,395.13	0.21	0.28	12 hr	Cloudburst
CSO146	1/11/2012 20:45	1/11/2012 20:45	0.00	4,752.66	0.11	43,205.97	0.71	0.28	12 hr	Cloudburst
CSO146	1/11/2012 20:45	1/11/2012 20:45	0.00	4,752.66	0.11	43,205.97	0.71	0.28	12 hr	Cloudburst
CSO146	1/11/2012 20:45	1/11/2012 20:45	0.00	4,752.66	0.11	43,205.97	0.71	0.28	12 hr	Cloudburst
CSO146	1/11/2012 20:45	1/11/2012 20:45	0.00	4,752.66	0.11	43,205.97	0.71	0.28	12 hr	Cloudburst
CSO146	1/17/2012 4:00	1/17/2012 12:45	0.36	178,324.39	0.36	495,345.53	1	0.17	12 hr	Cloudburst
CSO146	1/17/2012 4:00	1/17/2012 12:45	0.36	178,324.39	0.36	495,345.53	1	0.17	12 hr	Cloudburst
CSO146	1/17/2012 4:00	1/17/2012 12:45	0.36	178,324.39	0.36	495,345.53	1	0.17	12 hr	Cloudburst
CSO146	1/17/2012 4:00	1/17/2012 12:45	0.36	178,324.39	0.36	495,345.53	1	0.17	12 hr	Cloudburst
CSO146	1/23/2012 2:45	1/23/2012 5:00	0.09	279,812.76	0.51	548,652.48	0.59	0.29	3 hr	Atlas 14
CSO146	1/23/2012 2:45	1/23/2012 5:00	0.09	279,812.76	0.51	548,652.48	0.59	0.29	3 hr	Atlas 14
CSO146	1/23/2012 2:45	1/23/2012 5:00	0.09	279,812.76	0.51	548,652.48	0.59	0.29	3 hr	Atlas 14
CSO146	1/23/2012 2:45	1/23/2012 5:00	0.09	279,812.76	0.51	548,652.48	0.59	0.29	3 hr	Atlas 14
CSO146	1/25/2012 19:00	1/25/2012 19:15	0.01	15,478.20	0.24	64,492.52	0.81	0.56	24 hr	Cloudburst
CSO146	1/25/2012 19:00	1/25/2012 19:15	0.01	15,478.20	0.24	64,492.52	0.81	0.56	24 hr	Cloudburst
CSO146	1/25/2012 19:00	1/25/2012 19:15	0.01	15,478.20	0.24	64,492.52	0.81	0.56	24 hr	Cloudburst
CSO146	1/25/2012 19:00	1/25/2012 19:15	0.01	15,478.20	0.24	64,492.52	0.81	0.56	24 hr	Cloudburst
CSO146	1/26/2012 5:30	1/26/2012 7:00	0.06	341,502.60	0.39	875,647.70	1.06	0.56	24 hr	Cloudburst
CSO146	1/26/2012 5:30	1/26/2012 7:00	0.06	341,502.60	0.39	875,647.70	1.06	0.56	24 hr	Cloudburst
CSO146	1/26/2012 5:30	1/26/2012 7:00	0.06	341,502.60	0.39	875,647.70	1.06	0.56	24 hr	Cloudburst
CSO146	1/26/2012 5:30	1/26/2012 7:00	0.06	341,502.60	0.39	875,647.70	1.06	0.56	24 hr	Cloudburst
CSO146	1/26/2012 17:45	1/27/2012 1:45	0.33	1,211,977.94	1.05	1,154,264.71	1.32	0.56	24 hr	Cloudburst
CSO146	1/26/2012 17:45	1/27/2012 1:45	0.33	1,211,977.94	1.05	1,154,264.71	1.32	0.56	24 hr	Cloudburst
CSO146	1/26/2012 17:45	1/27/2012 1:45	0.33	1,211,977.94	1.05	1,154,264.71	1.32	0.56	24 hr	Cloudburst
CSO146	1/26/2012 17:45	1/27/2012 1:45	0.33	1,211,977.94	1.05	1,154,264.71	1.32	0.56	24 hr	Cloudburst
CSO146	2/4/2012 9:30	2/4/2012 10:45	0.05	22,594.79	0.41	55,109.25	0.29	0.25	3 hr	Atlas 14
CSO146	2/4/2012 9:30	2/4/2012 10:45	0.05	22,594.79	0.41	55,109.25	0.29	0.25	3 hr	Atlas 14
CSO146	2/4/2012 9:30	2/4/2012 10:45	0.05	22,594.79	0.41	55,109.25	0.29	0.25	3 hr	Atlas 14
CSO146	2/4/2012 9:30	2/4/2012 10:45	0.05	22,594.79	0.41	55,109.25	0.29	0.25	3 hr	Atlas 14
CSO146	2/22/2012 23:00	2/22/2012 23:30	0.02	41,800.04	0.12	348,333.71	0.38	0.09	1 hr	Cloudburst
CSO146	2/22/2012 23:00	2/22/2012 23:30	0.02	41,800.04	0.12	348,333.71	0.38	0.09	1 hr	Cloudburst
CSO146	2/22/2012 23:00	2/22/2012 23:30	0.02	41,800.04	0.12	348,333.71	0.38	0.09	1 hr	Cloudburst
CSO146	2/22/2012 23:00	2/22/2012 23:30	0.02	41,800.04	0.12	348,333.71	0.38	0.09	1 hr	Cloudburst
CSO146	2/29/2012 6:15	2/29/2012 9:30	0.14	143,725.80	0.64	224,571.57	0.39	0.31	1 hr	Cloudburst
CSO146	2/29/2012 6:15	2/29/2012 9:30	0.14	143,725.80	0.64	224,571.57	0.39	0.31	1 hr	Cloudburst
CSO146	2/29/2012 6:15	2/29/2012 9:30	0.14	143,725.80	0.64	224,571.57	0.39	0.31	1 hr	Cloudburst
CSO146	2/29/2012 6:15	2/29/2012 9:30	0.14	143,725.80	0.64	224,571.57	0.39	0.31	1 hr	Cloudburst
CSO146	3/8/2012 10:15	3/8/2012 17:30	0.30	303,241.60	0.8	379,052.00	0.77	0.40	6 hr	Cloudburst
CSO146	3/8/2012 10:15	3/8/2012 17:30	0.30	303,241.60	0.8	379,052.00	0.77	0.40	6 hr	Cloudburst
CSO146	3/8/2012 10:15	3/8/2012 17:30	0.30	303,241.60	0.8	379,052.00	0.77	0.40	6 hr	Cloudburst

UnitID	Overflow Start Date	Overflow End Date	Overflow Duration (Days)	Volume (Gallons)	Overflow Event Rain Inches)	Volume Per Inch	Overflow Antecedent Rain	Frequency (Years)	Period	Standard
CSO146	3/8/2012 10:15	3/8/2012 17:30	0.30	303,241.60	0.8	379,052.00	0.77	0.40	6 hr	Cloudburst
CSO146	3/15/2012 19:00	3/16/2012 3:45	0.36	600,789.13	1.16	517,921.67	0.73	0.52	12 hr	Cloudburst
CSO146	3/15/2012 19:00	3/16/2012 3:45	0.36	600,789.13	1.16	517,921.67	0.73	0.52	12 hr	Cloudburst
CSO146	3/15/2012 19:00	3/16/2012 3:45	0.36	600,789.13	1.16	517,921.67	0.73	0.52	12 hr	Cloudburst
CSO146	3/15/2012 19:00	3/16/2012 3:45	0.36	600,789.13	1.16	517,921.67	0.73	0.52	12 hr	Cloudburst
CSO146	3/17/2012 18:45	3/17/2012 22:30	0.16	238,061.09	0.97	245,423.80	2.02	0.58	1 hr	Cloudburst
CSO146	3/17/2012 18:45	3/17/2012 22:30	0.16	238,061.09	0.97	245,423.80	2.02	0.58	1 hr	Cloudburst
CSO146	3/17/2012 18:45	3/17/2012 22:30	0.16	238,061.09	0.97	245,423.80	2.02	0.58	1 hr	Cloudburst
CSO146	3/17/2012 18:45	3/17/2012 22:30	0.16	238,061.09	0.97	245,423.80	2.02	0.58	1 hr	Cloudburst
CSO146	3/23/2012 5:15	3/23/2012 23:45	0.77	1,826,844.47	1.37	1,333,463.11	1.26	0.53	24 hr	Cloudburst
CSO146	3/23/2012 5:15	3/23/2012 23:45	0.77	1,826,844.47	1.37	1,333,463.11	1.26	0.53	24 hr	Cloudburst
CSO146	3/23/2012 5:15	3/23/2012 23:45	0.77	1,826,844.47	1.37	1,333,463.11	1.26	0.53	24 hr	Cloudburst
CSO146	3/23/2012 5:15	3/23/2012 23:45	0.77	1,826,844.47	1.37	1,333,463.11	1.26	0.53	24 hr	Cloudburst
CSO146	4/1/2012 8:30	4/1/2012 11:45	0.14	1,239,955.96	1.87	663,078.05	1.27	3.44	3 hr	Cloudburst
CSO146	4/1/2012 8:30	4/1/2012 11:45	0.14	1,239,955.96	1.87	663,078.05	1.27	3.44	3 hr	Cloudburst
CSO146	4/1/2012 8:30	4/1/2012 11:45	0.14	1,239,955.96	1.87	663,078.05	1.27	3.44	3 hr	Cloudburst
CSO146	4/1/2012 8:30	4/1/2012 11:45	0.14	1,239,955.96	1.87	663,078.05	1.27	3.44	3 hr	Cloudburst
CSO146	4/4/2012 17:45	4/4/2012 17:45	0.00	7,123.11	0.08	89,038.89	2.15	0.13	12 hr	Cloudburst
CSO146	4/4/2012 17:45	4/4/2012 17:45	0.00	7,123.11	0.08	89,038.89	2.15	0.13	12 hr	Cloudburst
CSO146	4/4/2012 17:45	4/4/2012 17:45	0.00	7,123.11	0.08	89,038.89	2.15	0.13	12 hr	Cloudburst
CSO146	4/4/2012 17:45	4/4/2012 17:45	0.00	7,123.11	0.08	89,038.89	2.15	0.13	12 hr	Cloudburst
CSO146	4/16/2012 7:15	4/16/2012 7:15	0.00	17,990.75	0.07	257,010.72	0.3	0.09	3 hr	Atlas 14
CSO146	4/16/2012 7:15	4/16/2012 7:15	0.00	17,990.75	0.07	257,010.72	0.3	0.09	3 hr	Atlas 14
CSO146	4/16/2012 7:15	4/16/2012 7:15	0.00	17,990.75	0.07	257,010.72	0.3	0.09	3 hr	Atlas 14
CSO146	4/16/2012 7:15	4/16/2012 7:15	0.00	17,990.75	0.07	257,010.72	0.3	0.09	3 hr	Atlas 14
CSO146	4/28/2012 19:15	4/29/2012 0:45	0.23	752,643.53	0.77	977,459.13	0.79	0.58	1 hr	Cloudburst
CSO146	4/28/2012 19:15	4/29/2012 0:45	0.23	752,643.53	0.77	977,459.13	0.79	0.58	1 hr	Cloudburst
CSO146	4/28/2012 19:15	4/29/2012 0:45	0.23	752,643.53	0.77	977,459.13	0.79	0.58	1 hr	Cloudburst
CSO146	4/28/2012 19:15	4/29/2012 0:45	0.23	752,643.53	0.77	977,459.13	0.79	0.58	1 hr	Cloudburst
CSO146	4/30/2012 18:00	4/30/2012 18:45	0.03	434,765.05	0.26	1,672,173.25	1.11	0.21	3 hr	Atlas 14
CSO146	4/30/2012 18:00	4/30/2012 18:45	0.03	434,765.05	0.26	1,672,173.25	1.11	0.21	3 hr	Atlas 14
CSO146	4/30/2012 18:00	4/30/2012 18:45	0.03	434,765.05	0.26	1,672,173.25	1.11	0.21	3 hr	Atlas 14
CSO146	4/30/2012 18:00	4/30/2012 18:45	0.03	434,765.05	0.26	1,672,173.25	1.11	0.21	3 hr	Atlas 14
CSO146	5/4/2012 23:45	5/5/2012 5:15	0.23	2,632,874.85	1.35	1,950,277.66	1.55	0.70	6 hr	Cloudburst
CSO146	5/4/2012 23:45	5/5/2012 5:15	0.23	2,632,874.85	1.35	1,950,277.66	1.55	0.70	6 hr	Cloudburst
CSO146	5/4/2012 23:45	5/5/2012 5:15	0.23	2,632,874.85	1.35	1,950,277.66	1.55	0.70	6 hr	Cloudburst
CSO146	5/4/2012 23:45	5/5/2012 5:15	0.23	2,632,874.85	1.35	1,950,277.66	1.55	0.70	6 hr	Cloudburst
CSO146	5/13/2012 2:00	5/13/2012 14:45	0.53	7,909,803.29	2.02	3,915,744.20	1.09	0.86	12 hr	Cloudburst
CSO146	5/13/2012 2:00	5/13/2012 14:45	0.53	7,909,803.29	2.02	3,915,744.20	1.09	0.86	12 hr	Cloudburst
CSO146	5/13/2012 2:00	5/13/2012 14:45	0.53	7,909,803.29	2.02	3,915,744.20	1.09	0.86	12 hr	Cloudburst
CSO146	5/13/2012 2:00	5/13/2012 14:45	0.53	7,909,803.29	2.02	3,915,744.20	1.09	0.86	12 hr	Cloudburst
CSO146	5/16/2012 18:00	5/16/2012 18:00	0.00	17,653.90	0.18	98,077.24	2.28	0.16	1 hr	Cloudburst
CSO146	5/16/2012 18:00	5/16/2012 18:00	0.00	17,653.90	0.18	98,077.24	2.28	0.16	1 hr	Cloudburst
CSO146	5/16/2012 18:00	5/16/2012 18:00	0.00	17,653.90	0.18	98,077.24	2.28	0.16	1 hr	Cloudburst
CSO146	5/16/2012 18:00	5/16/2012 18:00	0.00	17,653.90	0.18	98,077.24	2.28	0.16	1 hr	Cloudburst
CSO146	5/29/2012 6:45	5/29/2012 13:15	0.27	5,320,956.80	3.09	1,721,992.49	0.93	8.75	6 hr	Cloudburst
CSO146	5/29/2012 6:45	5/29/2012 13:15	0.27	5,320,956.80	3.09	1,721,992.49	0.93	8.75	6 hr	Cloudburst
CSO146	5/29/2012 6:45	5/29/2012 13:15	0.27	5,320,956.80	3.09	1,721,992.49	0.93	8.75	6 hr	Cloudburst

UnitID	Overflow Start Date	Overflow End Date	Overflow Duration (Days)	Volume (Gallons)	Overflow Event Rain Inches)	Volume Per Inch	Overflow Antecedent Rain	Frequency (Years)	Period	Standard
CSO146	5/29/2012 6:45	5/29/2012 13:15	0.27	5,320,956.80	3.09	1,721,992.49	0.93	8.75	6 hr	Cloudburst
CSO146	5/31/2012 18:30	6/1/2012 5:45	0.47	3,503,390.86	1.15	3,046,426.83	3.44	0.53	12 hr	Cloudburst
CSO146	5/31/2012 18:30	6/1/2012 5:45	0.47	3,503,390.86	1.15	3,046,426.83	3.44	0.53	12 hr	Cloudburst
CSO146	5/31/2012 18:30	6/1/2012 5:45	0.47	3,503,390.86	1.15	3,046,426.83	3.44	0.53	12 hr	Cloudburst
CSO146	5/31/2012 18:30	6/1/2012 5:45	0.47	3,503,390.86	1.15	3,046,426.83	3.44	0.53	12 hr	Cloudburst
CSO148	11/3/2011 9:15	11/3/2011 16:30	0.30	25,443.59	0.44	57,826.34	0.21	0.23	3 hr	Atlas 14
CSO148	11/14/2011 21:30	11/15/2011 13:45	0.68	70,384.99	1.43	49,220.27	0.23	0.71	48 hr	Atlas 14
CSO148	11/16/2011 5:00	11/16/2011 8:15	0.14	8,405.84	0.47	17,884.76	1.79	0.71	48 hr	Atlas 14
CSO148	11/20/2011 12:30	11/20/2011 19:30	0.29	13,923.14	0.65	21,420.21	2.32	0.33	24 hr	Cloudburst
CSO148	11/21/2011 8:15	11/21/2011 10:15	0.08	4,254.18	0.2	21,270.92	3.08	0.33	24 hr	Cloudburst
CSO148	11/21/2011 23:45	11/22/2011 11:00	0.47	60,978.15	1.24	49,175.93	2.94	0.57	12 hr	Cloudburst
CSO148	11/27/2011 6:00	11/29/2011 1:45	1.82	113,704.65	3.2	35,532.70	2.67	1.25	48 hr	Cloudburst
CSO148	12/4/2011 16:00	12/5/2011 18:00	1.08	315,201.67	2.81	112,171.41	3.01	0.93	48 hr	Atlas 14
CSO148	12/15/2011 3:45	12/15/2011 7:30	0.16	11,099.04	0.4	27,747.59	0.18	0.24	6 hr	Cloudburst
CSO148	12/21/2011 5:00	12/21/2011 7:00	0.08	38,728.47	0.56	69,157.99	0.85	0.26	12 hr	Cloudburst
CSO148	12/22/2011 11:30	12/22/2011 17:30	0.25	20,323.94	0.6	33,873.23	0.75	0.29	12 hr	Cloudburst
CSO148	12/27/2011 2:15	12/27/2011 11:15	0.38	25,550.65	0.69	37,029.93	1.4	0.33	12 hr	Cloudburst
CSO148	1/11/2012 4:30	1/11/2012 11:00	0.27	49,690.69	0.62	80,146.27	0.23	0.29	6 hr	Cloudburst
CSO148	1/11/2012 20:15	1/11/2012 20:15	0.00	396.26	0.11	3,602.36	0.75	0.29	6 hr	Cloudburst
CSO148	1/17/2012 3:45	1/17/2012 12:15	0.35	57,110.24	0.37	154,352.01	1.05	0.17	12 hr	Cloudburst
CSO148	1/22/2012 22:30	1/23/2012 4:30	0.25	95,261.92	0.55	173,203.49	0.5	0.30	3 hr	Atlas 14
CSO148	1/25/2012 15:15	1/25/2012 19:00	0.16	2,402.73	0.28	8,581.19	0.73	0.65	24 hr	Cloudburst
CSO148	1/26/2012 5:15	1/26/2012 6:30	0.05	54,091.90	0.47	115,089.14	1.15	0.65	24 hr	Cloudburst
CSO148	1/26/2012 17:30	1/26/2012 23:15	0.24	244,275.75	1.16	210,582.54	1.49	0.65	24 hr	Cloudburst
CSO148	2/4/2012 8:45	2/4/2012 11:45	0.13	43,639.09	0.39	111,895.11	0.16	0.22	3 hr	Atlas 14
CSO148	2/10/2012 8:30	2/11/2012 0:30	0.67	7,534.53	0.02	376,726.35	0.45			
CSO148	2/11/2012 9:15	2/12/2012 0:15	0.63	4,331.89			0.29			
CSO148	2/12/2012 9:00	2/13/2012 11:15	1.09	7,159.75			0.05			
CSO148	2/15/2012 23:30	2/15/2012 23:30	0.00	1,141.79	0.15	7,611.94	0.37	0.11	12 hr	Cloudburst
CSO148	2/22/2012 23:00	2/22/2012 23:00	0.00	21,284.24	0.15	141,894.95	0.35	0.11	1 hr	Cloudburst
CSO148	2/29/2012 6:00	2/29/2012 9:00	0.13	26,273.00	0.62	42,375.81	0.5	0.30	12 hr	Cloudburst
CSO148	3/2/2012 9:00	3/2/2012 9:00	0.00	1,619.42	0.07	23,134.55	0.71	0.06	12 hr	Cloudburst
CSO148	3/4/2012 22:30	3/7/2012 14:15	2.66	178,271.42	0.27	660,264.52	0.83	0.14	6 hr	Cloudburst
CSO148	3/8/2012 10:00	3/8/2012 17:00	0.29	25,900.83	0.79	32,785.87	0.74	0.38	12 hr	Cloudburst
CSO148	3/12/2012 7:15	3/12/2012 7:30	0.01	492.08	0.16	3,075.51	0.99	0.08	12 hr	Cloudburst
CSO148	3/15/2012 18:00	3/16/2012 3:00	0.38	39,823.84	1.03	38,663.92	0.51	0.47	12 hr	Cloudburst
CSO148	3/17/2012 18:30	3/18/2012 1:30	0.29	136,432.09	1.13	120,736.37	2.01	0.69	1 hr	Cloudburst
CSO148	3/23/2012 5:00	3/23/2012 22:30	0.73	213,772.34	1.58	135,298.95	1.35	0.61	24 hr	Cloudburst
CSO148	3/31/2012	3/31/2012	0.00	750.95	0.12	6,257.92	0.16	0.09	3 hr	Atlas 14
CSO148	4/1/2012 8:30	4/1/2012 11:00	0.10	174,126.85	1.86	93,616.59	1.16	3.56	3 hr	Cloudburst
CSO148	4/16/2012 6:45	4/16/2012 7:00	0.01	1,363.18	0.07	19,474.01	0.22	0.09	3 hr	Atlas 14
CSO148	5/13/2012 13:00	5/13/2012 13:00	0.00	137.64	0.49	280.9	2.15	0.91	12 hr	Cloudburst
CSO148	5/16/2012 18:00	5/16/2012 18:00	0.00	373.79	0.29	1,288.95	2.49	0.25	1 hr	Cloudburst
CSO148	5/29/2012 6:45	5/29/2012 9:15	0.10	234,585.20	2.99	78,456.59	0.86	9.58	6 hr	Cloudburst
CSO148	5/31/2012 18:30	6/1/2012 5:15	0.45	43,486.92	1.26	34,513.43	3.49	0.59	12 hr	Cloudburst
CSO149	7/5/2011 17:45	7/5/2011 18:15	0.02	20,945.51	0.34	61,604.44	0.37	0.27	3 hr	Atlas 14
CSO149	7/8/2011 3:45	7/8/2011 4:15	0.02	45,012.32	0.36	125,034.23	0.78	0.23	3 hr	Atlas 14
CSO149	7/12/2011 17:00	7/12/2011 17:45	0.03	301,480.77	0.29	1,039,588.87	0.91	0.27	6 hr	Cloudburst

UnitID	Overflow Start Date	Overflow End Date	Overflow Duration (Days)	Volume (Gallons)	Overflow Event Rain Inches)	Volume Per Inch	Overflow Antecedent Rain	Frequency (Years)	Period	Standard
CSO149	7/19/2011 22:45	7/20/2011 0:15	0.06	2,652,603.25	1.43	1,854,967.31	1.13	1.63	1 hr	Cloudburst
CSO149	7/23/2011 10:15	7/23/2011 10:45	0.02	2,713.59			1.57			
CSO149	8/7/2011 3:15	8/7/2011 6:30	0.14	3,195,237.45	1.86	1,717,869.60	1.03	2.61	3 hr	Cloudburst
CSO149	8/10/2011 2:45	8/10/2011 3:15	0.02	99,912.21	0.12	832,601.71	2.24	0.15	3 hr	Atlas 14
CSO149	8/13/2011 17:15	8/13/2011 18:00	0.03	933,430.85	0.84	1,111,227.20	3.14	0.72	1 hr	Cloudburst
CSO149	8/18/2011 8:15	8/18/2011 8:45	0.02	255,653.00	0.24	1,065,220.82	1.15	0.20	1 hr	Cloudburst
CSO149	9/4/2011 20:45	9/4/2011 20:45	0.00	21,518.51	0.09	239,094.54	0.13	0.06	24 hr	Cloudburst
CSO149	9/10/2011 20:00	9/10/2011 20:15	0.01	61,380.49	0.03	2,046,016.19	0.41			
CSO149	9/19/2011 7:00	9/19/2011 8:15	0.05	477,003.22	0.32	1,490,635.06	0.53	0.28	12 hr	Cloudburst
CSO149	9/23/2011 1:15	9/23/2011 8:00	0.28	212,596.91	0.82	259,264.52	0.92	0.38	12 hr	Cloudburst
CSO149	9/25/2011 20:00	9/26/2011 7:30	0.48	9,490,208.03	3.94	2,408,682.24	2.21	7.39	12 hr	Cloudburst
CSO149	10/13/2011 7:30	10/13/2011 8:15	0.03	409,421.06	0.27	1,516,374.28	0.23	0.19	3 hr	Atlas 14
CSO149	10/18/2011 20:30	10/18/2011 20:45	0.01	11,014.51	0.15	73,430.04	0.56	0.11	1 hr	Cloudburst
CSO149	10/27/2011	10/27/2011 5:00	0.21	678,164.06	1.01	671,449.57	1.17	0.47	12 hr	Cloudburst
CSO149	11/3/2011 9:30	11/3/2011 16:30	0.29	96,776.84	0.5	193,553.68	0.28	0.24	12 hr	Cloudburst
CSO149	11/14/2011 21:30	11/14/2011 23:15	0.07	297,476.20	0.38	782,832.10	0.3	0.73	48 hr	Atlas 14
CSO149	11/15/2011 8:45	11/15/2011 14:00	0.22	103,074.13	1.06	97,239.75	0.9	0.73	48 hr	Atlas 14
CSO149	11/16/2011 5:30	11/16/2011 8:15	0.11	186,670.99	0.47	397,172.31	1.86	0.73	48 hr	Atlas 14
CSO149	11/20/2011 17:30	11/20/2011 18:30	0.04	150,355.68	0.52	289,145.55	2.81	0.33	24 hr	Cloudburst
CSO149	11/21/2011 23:45	11/22/2011 11:15	0.48	1,117,296.76	1.07	1,044,202.58	2.9	0.50	12 hr	Cloudburst
CSO149	11/27/2011 6:15	11/27/2011 9:00	0.11	71,304.42	0.42	169,772.44	2.42	0.95	48 hr	Atlas 14
CSO149	11/27/2011 22:30	11/28/2011 2:15	0.16	196,756.40	0.6	327,927.34	2.3	0.95	48 hr	Atlas 14
CSO149	11/28/2011 10:45	11/29/2011 2:00	0.64	1,189,573.15	1.82	653,611.62	2.8	0.95	48 hr	Atlas 14
CSO149	12/4/2011 16:15	12/5/2011 19:45	1.15	3,961,125.43	2.98	1,329,236.72	2.87	0.99	48 hr	Atlas 14
CSO149	12/15/2011 4:00	12/15/2011 8:00	0.17	137,688.64	0.4	344,221.59	0.2	0.23	6 hr	Cloudburst
CSO149	12/21/2011 5:00	12/21/2011 7:30	0.10	373,607.98	0.64	583,762.47	0.93	0.31	12 hr	Cloudburst
CSO149	12/22/2011 14:30	12/22/2011 17:30	0.13	199,019.70	0.54	368,555.00	1.02	0.26	12 hr	Cloudburst
CSO149	12/27/2011 3:00	12/27/2011 11:45	0.36	210,900.76	0.59	357,458.92	1.48	0.25	12 hr	Cloudburst
CSO149	1/11/2012 4:45	1/11/2012 11:15	0.27	654,433.65	0.59	1,109,209.57	0.21	0.28	12 hr	Cloudburst
CSO149	1/17/2012 4:00	1/17/2012 12:45	0.36	224,489.60	0.36	623,582.23	1	0.17	12 hr	Cloudburst
CSO149	1/23/2012 2:45	1/23/2012 5:00	0.09	801,357.49	0.51	1,571,289.20	0.59	0.29	3 hr	Atlas 14
CSO149	1/26/2012 5:30	1/26/2012 7:00	0.06	392,172.03	0.39	1,005,569.30	1.06	0.56	24 hr	Cloudburst
CSO149	1/26/2012 18:45	1/26/2012 23:45	0.21	1,377,062.93	1.02	1,350,061.69	1.49	0.56	24 hr	Cloudburst
CSO149	2/4/2012 9:45	2/4/2012 10:30	0.03	82,085.04	0.41	200,207.42	0.35	0.25	3 hr	Atlas 14
CSO149	2/22/2012 23:00	2/22/2012 23:30	0.02	134,983.34	0.12	1,124,861.13	0.38	0.09	1 hr	Cloudburst
CSO149	2/29/2012 8:45	2/29/2012 9:30	0.03	343,561.25	0.62	554,131.05	0.77	0.31	1 hr	Cloudburst
CSO149	3/8/2012 10:15	3/8/2012 15:15	0.21	598,571.98	0.74	808,881.06	0.77	0.40	6 hr	Cloudburst
CSO149	3/15/2012 19:00	3/16/2012 3:30	0.35	477,924.48	1.16	412,003.87	0.73	0.52	12 hr	Cloudburst
CSO149	3/17/2012 18:30	3/17/2012 22:30	0.17	279,004.68	0.97	287,633.69	2.01	0.58	1 hr	Cloudburst
CSO149	3/23/2012 5:15	3/23/2012 23:15	0.75	2,072,642.50	1.37	1,512,877.74	1.26	0.53	24 hr	Cloudburst
CSO149	3/31/2012 0:15	3/31/2012 0:15	0.00	415.35	0.14	2,966.80	0.18	0.10	1 hr	Cloudburst
CSO149	4/1/2012 8:30	4/1/2012 11:30	0.13	970,470.00	1.87	518,967.91	1.27	3.44	3 hr	Cloudburst
CSO149	4/28/2012 19:15	4/29/2012 0:45	0.23	1,442,018.02	0.77	1,872,750.68	0.79	0.58	1 hr	Cloudburst
CSO149	4/30/2012 18:00	4/30/2012 18:45	0.03	486,850.01	0.26	1,872,500.03	1.11	0.21	3 hr	Atlas 14
CSO149	5/4/2012 23:45	5/5/2012 5:00	0.22	1,701,798.73	1.34	1,269,999.05	1.55	0.70	6 hr	Cloudburst
CSO149	5/13/2012 1:45	5/13/2012 14:15	0.52	1,691,392.63	2.02	837,323.08	0.95	0.86	12 hr	Cloudburst
CSO149	5/16/2012 18:00	5/16/2012 18:15	0.01	56,949.15	0.18	316,384.17	2.28	0.16	1 hr	Cloudburst
CSO149	5/29/2012 6:45	5/29/2012 16:30	0.41	9,605,746.22	3.09	3,108,655.73	0.93	8.75	6 hr	Cloudburst

UnitID	Overflow Start Date	Overflow End Date	Overflow Duration (Days)	Volume (Gallons)	Overflow Event Rain Inches)	Volume Per Inch	Overflow Antecedent Rain	Frequency (Years)	Period	Standard
CSO149	5/31/2012 18:30	6/1/2012 5:00	0.44	843,643.59	1.13	746,587.25	3.44	0.53	12 hr	Cloudburst
CSO149	6/17/2012 12:00	6/17/2012 12:00	0.00	1,421.36	0.17	8,360.94	0.21	0.15	1 hr	Cloudburst
CSO150	12/15/2011 20:30	12/16/2011 5:30	0.38	17,095.39			0.47			
CSO150	12/21/2011 5:00	12/21/2011 6:15	0.05	34,528.46	0.79	43,706.91	1.12	0.39	12 hr	Cloudburst
CSO150	12/22/2011 15:15	12/22/2011 18:00	0.11	67,449.91	0.49	137,652.88	1.27	0.24	12 hr	Cloudburst
CSO150	12/27/2011 1:00	12/27/2011 14:00	0.54	41,621.86	0.8	52,027.32	1.51	0.32	12 hr	Cloudburst
CSO150	1/4/2012 10:30	1/4/2012 16:15	0.24	4,450.98			0.04			
CSO150	1/5/2012 2:30	1/5/2012 2:30	0.00	987.14			0.04			
CSO150	1/6/2012 10:30	1/6/2012 15:15	0.20	20,473.56			0.04			
CSO150	1/17/2012 1:15	1/17/2012 11:15	0.42	37,304.78	0.41	90,987.28	0.82	0.21	12 hr	Cloudburst
CSO150	1/23/2012 3:30	1/24/2012 3:45	1.01	49,653.00	0.57	87,110.53	0.87	0.31	3 hr	Atlas 14
CSO150	1/26/2012 20:15	1/26/2012 22:00	0.07	105,816.15	0.88	120,245.63	2.02	0.60	24 hr	Cloudburst
CSO150	3/8/2012 13:15	3/8/2012 15:15	0.08	125,557.46	0.67	187,399.19	1.02	0.36	6 hr	Cloudburst
CSO150	3/16/2012 2:30	3/16/2012 3:15	0.03	66,700.21	0.65	102,615.71	1.11	0.41	12 hr	Cloudburst
CSO150	3/17/2012 21:45	3/17/2012 22:30	0.03	47,977.48	0.52	92,264.39	1.65	0.29	6 hr	Cloudburst
CSO150	3/23/2012 13:15	3/23/2012 23:30	0.43	113,763.66	1.47	77,390.24	1.24	0.61	3 hr	Atlas 14
CSO150	4/1/2012 9:15	4/1/2012 12:30	0.14	116,171.10	1.63	71,270.62	1.48	0.90	6 hr	Cloudburst
CSO150	4/28/2012 19:15	4/28/2012 19:15	0.00	11,880.79	0.61	19,476.70	0.73	0.54	1 hr	Cloudburst
CSO150	4/30/2012 18:00	4/30/2012 18:00	0.00	1,684.35	0.22	7,656.15	1.06	0.30	3 hr	Atlas 14
CSO150	5/4/2012 23:30	5/5/2012 2:00	0.10	55,533.03	1.17	47,464.13	1.78	0.75	3 hr	Atlas 14
CSO150	5/13/2012 3:15	5/13/2012 9:15	0.25	114,354.68	1.82	62,832.24	1.34	0.84	24 hr	Cloudburst
CSO150	5/16/2012 17:30	5/16/2012 17:30	0.00	1,057.17	0.25	4,228.67	2.44	0.23	1 hr	Cloudburst
CSO150	5/29/2012 6:45	5/29/2012 10:30	0.16	152,096.48	2.88	52,811.28	1.37	4.70	1 hr	Cloudburst
CSO150	5/31/2012 18:15	5/31/2012 18:15	0.00	6,537.24	0.32	20,428.87	3.21	0.54	12 hr	Cloudburst
CSO150	6/17/2012 11:15	6/17/2012 11:15	0.00	1,515.70	0.16	9,473.10	0.22	0.18	1 hr	Cloudburst
CSO151	7/3/2011 20:30	7/3/2011 20:45	0.01	165,701.94	0.02	8,285,097.09	0.06			
CSO151	7/8/2011 3:00	7/8/2011 5:00	0.08	366,268.98	0.42	872,068.99	0.41	0.23	3 hr	Atlas 14
CSO151	7/12/2011 17:00	7/12/2011 21:30	0.19	419,677.47	0.47	892,930.80	0.83	0.25	6 hr	Cloudburst
CSO151	7/19/2011 22:45	7/20/2011 0:30	0.07	819,227.67	1.59	515,237.53	1.43	1.50	1 hr	Cloudburst
CSO151	7/30/2011 21:15	7/30/2011 21:45	0.02	130,222.16	0.61	213,478.95	0.77	0.49	1 hr	Cloudburst
CSO151	8/7/2011 3:15	8/7/2011 7:45	0.19	2,119,848.79	1.94	1,092,705.56	1.09	2.28	3 hr	Cloudburst
CSO151	8/8/2011 15:30	8/8/2011 15:30	0.00	17,186.58	0.22	78,120.83	2.19	0.15	3 hr	Atlas 14
CSO151	8/10/2011 2:45	8/10/2011 3:15	0.02	181,612.76	0.1	1,816,127.61	2.29	0.11	3 hr	Atlas 14
CSO151	8/13/2011 17:15	8/13/2011 18:45	0.06	1,021,717.94	0.72	1,419,052.70	3.05	0.61	1 hr	Cloudburst
CSO151	8/18/2011 8:15	8/18/2011 9:00	0.03	336,096.02	0.21	1,600,457.25	0.99	0.17	1 hr	Cloudburst
CSO151	9/4/2011 21:00	9/4/2011 21:15	0.01	77,187.33	0.07	1,102,676.14	0.08	0.05	12 hr	Cloudburst
CSO151	9/6/2011 13:15	9/6/2011 22:15	0.38	339,949.94	0.06	5,665,832.34	0.38	0.11	12 hr	Cloudburst
CSO151	9/10/2011 20:00	9/10/2011 20:30	0.02	344,692.43	0.04	8,617,310.78	0.43			
CSO151	9/11/2011 20:45	9/11/2011 22:15	0.06	448,435.63	0.21	2,135,407.74	0.57	0.13	3 hr	Atlas 14
CSO151	9/14/2011 10:30	9/14/2011 16:30	0.25	94,723.86			0.28			
CSO151	9/15/2011 12:45	9/15/2011 12:45	0.00	1,603.37			0.49			
CSO151	9/19/2011 7:00	9/19/2011 15:30	0.35	1,056,939.13	0.67	1,577,521.09	0.56	0.30	12 hr	Cloudburst
CSO151	9/23/2011 0:30	9/23/2011 9:15	0.36	3,774,997.76	0.77	4,902,594.50	0.83	0.36	12 hr	Cloudburst
CSO151	9/25/2011 20:00	9/26/2011 15:30	0.81	14,038,618.42	3.64	3,856,763.30	2.18	9.38	12 hr	Atlas 14
CSO151	10/13/2011 7:00	10/13/2011 9:15	0.09	1,350,349.60	0.3	4,501,165.33	0.1	0.20	3 hr	Atlas 14
CSO151	10/20/2011 5:45	10/20/2011 8:30	0.11	561,015.10	0.36	1,558,375.28	0.89	0.18	24 hr	Cloudburst
CSO151	10/26/2011 13:30	10/27/2011 6:45	0.72	4,339,408.10	1.09	3,981,108.35	0.59	0.46	12 hr	Cloudburst
CSO151	11/3/2011 9:15	11/3/2011 17:15	0.33	2,102,802.69	0.46	4,571,310.19	0.22	0.23	3 hr	Atlas 14

UnitID	Overflow Start Date	Overflow End Date	Overflow Duration (Days)	Volume (Gallons)	Overflow Event Rain Inches)	Volume Per Inch	Overflow Antecedent Rain	Frequency (Years)	Period	Standard
CSO151	12/1/2011 7:00	12/1/2011 16:15	0.39	49,484.06			3.34			
CSO151	12/4/2011 14:45	12/8/2011 11:00	3.84	33,052,756.23	2.84	11,638,294.45	2.96	0.93	48 hr	Atlas 14
CSO151	12/15/2011 3:45	12/15/2011 10:30	0.28	2,477,649.33	0.4	6,194,123.33	0.15	0.22	6 hr	Cloudburst
CSO151	12/20/2011 23:15	12/21/2011 2:45	0.15	108,413.58	0.23	471,363.39	0.55	0.25	12 hr	Cloudburst
CSO151	12/22/2011 11:15	12/22/2011 20:45	0.40	3,264,639.92	0.6	5,441,066.53	0.75	0.28	12 hr	Cloudburst
CSO151	12/27/2011 1:30	12/27/2011 15:30	0.58	5,286,704.01	0.74	7,144,194.61	1.31	0.30	12 hr	Cloudburst
CSO151	1/2/2012 23:15	1/3/2012 5:15	0.25	1,064,928.32	0.01	106,492,832.30	0.74			
CSO151	1/11/2012 4:30	1/11/2012 22:15	0.74	3,936,749.90	0.77	5,112,662.20	0.21	0.30	6 hr	Cloudburst
CSO151	1/12/2012 12:30	1/12/2012 14:30	0.08	88,805.46	0.05	1,776,109.20	0.83			
CSO151	1/13/2012 0:45	1/13/2012 4:45	0.17	94,497.37	0.02	4,724,868.48	0.86			
CSO151	1/14/2012	1/14/2012 4:00	0.17	312,207.91			0.86			
CSO151	1/17/2012 2:30	1/17/2012 13:30	0.46	1,754,381.39	0.35	5,012,518.27	0.91	0.16	12 hr	Cloudburst
CSO151	1/22/2012 22:30	1/23/2012 6:00	0.31	2,579,032.36	0.52	4,959,677.62	0.46	0.29	3 hr	Atlas 14
CSO151	1/25/2012 15:15	1/25/2012 20:15	0.21	1,531,662.72	0.27	5,672,824.88	0.71	0.57	48 hr	Atlas 14
CSO151	1/26/2012 5:00	1/28/2012 22:45	2.74	12,906,707.57	1.49	8,662,219.84	1.04	0.57	48 hr	Atlas 14
CSO151	1/29/2012 11:15	1/29/2012 15:45	0.19	49,935.11			2.31			
CSO151	2/4/2012 8:30	2/4/2012 12:30	0.17	1,514,102.90	0.38	3,984,481.31	0.12	0.22	3 hr	Atlas 14
CSO151	2/11/2012 17:00	2/11/2012 17:15	0.01	53,154.77			0.07			
CSO151	2/12/2012 8:00	2/12/2012 9:15	0.05	188,791.09			0.05			
CSO151	2/14/2012 11:45	2/14/2012 12:00	0.01	525.23	0.08	6,565.40	0.25	0.10	6 hr	Cloudburst
CSO151	2/15/2012 23:30	2/16/2012 8:30	0.38	237,051.65	0.28	846,613.03	0.4	0.12	12 hr	Cloudburst
CSO151	2/22/2012 22:45	2/23/2012	0.05	621,633.67	0.14	4,440,240.50	0.38	0.10	1 hr	Cloudburst
CSO151	2/29/2012 2:30	2/29/2012 10:00	0.31	914,122.57	0.55	1,662,041.04	0.29	0.26	12 hr	Cloudburst
CSO151	3/2/2012 9:00	3/2/2012 12:00	0.13	181,395.19	0.08	2,267,439.92	0.63	0.06	12 hr	Cloudburst
CSO151	3/4/2012 23:00	3/5/2012 5:45	0.28	94,465.39	0.27	349,871.82	0.75	0.14	6 hr	Cloudburst
CSO151	3/5/2012 16:00	3/5/2012 16:45	0.03	3,800.62			0.97			
CSO151	3/8/2012 9:30	3/8/2012 19:00	0.40	3,083,146.37	0.78	3,952,751.75	0.62	0.36	6 hr	Cloudburst
CSO151	3/12/2012 7:15	3/12/2012 8:15	0.04	154,126.75	0.16	963,292.19	0.95	0.09	12 hr	Cloudburst
CSO151	3/15/2012 18:15	3/16/2012 5:00	0.45	3,643,018.92	1.04	3,502,902.81	0.51	0.47	12 hr	Cloudburst
CSO151	3/17/2012 18:30	3/19/2012 22:15	2.16	3,306,463.58	1.16	2,850,399.64	2.03	0.70	1 hr	Cloudburst
CSO151	3/23/2012 4:45	3/23/2012 7:15	0.10	1,140,834.53	0.33	3,457,074.34	1.35	0.65	24 hr	Cloudburst
CSO151	3/23/2012 21:45	3/24/2012 0:15	0.10	674,667.27	0.97	695,533.27	2.57	0.65	24 hr	Cloudburst
CSO151	3/24/2012 8:30	3/24/2012 16:45	0.34	174,421.44			2.85			
CSO151	3/25/2012 12:15	3/25/2012 20:45	0.35	19,549.37			1.69			
CSO151	3/31/2012 0:15	3/31/2012 0:30	0.01	71,534.09	0.12	596,117.41	0.17	0.09	1 hr	Cloudburst
CSO151	4/1/2012 8:30	4/1/2012 19:15	0.45	4,222,788.08	1.68	2,513,564.33	1.06	0.92	6 hr	Cloudburst
CSO151	4/4/2012 6:45	4/4/2012 7:15	0.02	54,585.30	0.04	1,364,632.59	1.9			
CSO151	4/4/2012 17:15	4/4/2012 18:15	0.04	286,960.84	0.09	3,188,453.79	1.92	0.11	12 hr	Cloudburst
CSO151	4/14/2012 9:00	4/14/2012 9:30	0.02	21,585.87	0.14	154,184.79	0.15	0.13	6 hr	Cloudburst
CSO151	4/16/2012 6:45	4/16/2012 7:30	0.03	308,813.99	0.1	3,088,139.89	0.29	0.10	3 hr	Atlas 14
CSO151	4/20/2012 23:30	4/21/2012 4:00	0.19	53,834.29	0.19	283,338.38	0.43	0.11	12 hr	Cloudburst
CSO151	4/28/2012 19:15	4/29/2012 1:15	0.25	1,732,702.31	0.74	2,341,489.61	0.75	0.55	1 hr	Cloudburst
CSO151	4/30/2012 18:00	4/30/2012 20:15	0.09	1,048,630.38	0.3	3,495,434.61	1.1	0.20	3 hr	Atlas 14
CSO151	5/4/2012 16:15	5/5/2012 9:00	0.70	5,810,603.21	1.46	3,979,865.22	1.12	0.76	6 hr	Cloudburst
CSO151	5/12/2012 23:30	5/14/2012 13:00	1.56	12,613,987.61	2.07	6,093,713.82	0.28	0.88	12 hr	Cloudburst
CSO151	5/16/2012 18:00	5/16/2012 18:45	0.03	722,900.57	0.22	3,285,911.68	2.36	0.19	1 hr	Cloudburst
CSO151	5/29/2012 6:30	5/30/2012 11:15	1.20	13,099,766.59	2.97	4,410,695.82	0.61	4.00	6 hr	Atlas 14
CSO151	5/30/2012 20:00	5/30/2012 21:00	0.04	323,713.82			2.97			

UnitID	Overflow Start Date	Overflow End Date	Overflow Duration (Days)	Volume (Gallons)	Overflow Event Rain Inches)	Volume Per Inch	Overflow Antecedent Rain	Frequency (Years)	Period	Standard
CSO151	5/31/2012 6:30	5/31/2012 6:30	0.00	20,847.84			2.97			
CSO151	5/31/2012 18:30	6/1/2012 13:15	0.78	6,346,646.27	1.2	5,288,871.89	3.33	0.53	12 hr	Cloudburst
CSO152	7/8/2011 3:00	7/8/2011 5:00	0.08	304,507.14	0.42	725,016.99	0.5	0.24	3 hr	Atlas 14
CSO152	7/12/2011 17:15	7/12/2011 21:15	0.17	341,363.78	0.54	632,155.15	0.93	0.29	6 hr	Cloudburst
CSO152	7/19/2011 22:45	7/20/2011	0.05	822,527.27	1.51	544,720.05	1.27	1.55	1 hr	Cloudburst
CSO152	7/30/2011 21:15	7/30/2011 21:30	0.01	96,501.95	0.33	292,430.14	0.45	0.25	1 hr	Cloudburst
CSO152	8/7/2011 3:15	8/7/2011 7:00	0.16	2,591,563.64	1.82	1,423,936.07	1.04	3.00	3 hr	Cloudburst
CSO152	8/10/2011 2:45	8/10/2011 3:00	0.01	162,502.73	0.11	1,477,297.51	2.15	0.11	3 hr	Atlas 14
CSO152	8/13/2011 17:00	8/13/2011 18:00	0.04	705,971.82	0.8	882,464.77	2.99	0.69	1 hr	Cloudburst
CSO152	8/18/2011 8:15	8/18/2011 8:45	0.02	163,697.51	0.23	711,728.31	1.1	0.19	1 hr	Cloudburst
CSO152	9/4/2011 20:45	9/4/2011 21:00	0.01	64,139.70	0.07	916,281.41	0.08	0.05	24 hr	Cloudburst
CSO152	9/10/2011 20:00	9/10/2011 20:15	0.01	125,024.88	0.04	3,125,621.88	0.4			
CSO152	9/11/2011 20:45	9/11/2011 20:45	0.00	30,092.76	0.19	158,382.97	0.54	0.14	3 hr	Atlas 14
CSO152	9/19/2011 7:00	9/19/2011 8:00	0.04	396,508.70	0.3	1,321,695.65	0.52	0.28	12 hr	Cloudburst
CSO152	9/23/2011 2:15	9/23/2011 8:15	0.25	1,236,956.91	0.76	1,627,574.88	0.98	0.35	12 hr	Cloudburst
CSO152	9/25/2011 19:45	9/26/2011 6:45	0.46	4,878,227.55	3.71	1,314,886.13	2.02	9.86	12 hr	Atlas 14
CSO152	10/13/2011 7:15	10/13/2011 8:30	0.05	368,633.44	0.25	1,474,533.76	0.13	0.18	3 hr	Atlas 14
CSO152	10/20/2011 6:30	10/20/2011 6:45	0.01	10,511.40	0.31	33,907.74	0.93	0.18	24 hr	Cloudburst
CSO152	10/26/2011 23:45	10/27/2011 5:15	0.23	1,006,716.86	1.08	932,145.24	0.99	0.50	12 hr	Cloudburst
CSO152	11/3/2011 9:15	11/3/2011 16:45	0.31	467,972.20	0.48	974,942.09	0.22	0.23	3 hr	Atlas 14
CSO152	11/14/2011 21:30	11/15/2011 15:00	0.73	1,617,723.35	1.51	1,071,339.97	0.28	0.72	48 hr	Atlas 14
CSO152	11/16/2011 5:00	11/16/2011 11:30	0.27	870,126.33	0.66	1,318,373.23	1.81	0.72	48 hr	Atlas 14
CSO152	11/20/2011 12:30	11/21/2011 10:45	0.93	557,858.45	0.88	633,930.05	2.38	0.34	24 hr	Cloudburst
CSO152	11/21/2011 23:45	11/22/2011 11:30	0.49	2,277,127.13	1.16	1,963,040.63	2.94	0.54	12 hr	Cloudburst
CSO152	11/27/2011 5:45	11/29/2011 3:00	1.89	7,009,581.88	3.05	2,298,223.57	2.49	0.98	48 hr	Atlas 14
CSO152	11/29/2011 19:00	11/29/2011 19:30	0.02	49,252.04	0.06	820,867.41	3.17			
CSO152	12/4/2011 15:45	12/5/2011 22:30	1.28	10,471,609.37	2.88	3,635,975.47	2.89	0.95	48 hr	Atlas 14
CSO152	12/15/2011 3:45	12/15/2011 8:45	0.21	480,510.19	0.4	1,201,275.48	0.16	0.22	6 hr	Cloudburst
CSO152	12/21/2011 5:00	12/21/2011 7:30	0.10	1,004,184.74	0.58	1,731,352.99	0.85	0.28	12 hr	Cloudburst
CSO152	12/22/2011 11:30	12/22/2011 18:00	0.27	1,090,655.31	0.56	1,947,598.76	0.8	0.27	12 hr	Cloudburst
CSO152	12/27/2011 2:15	12/27/2011 12:00	0.41	1,618,739.60	0.66	2,452,635.76	1.38	0.28	12 hr	Cloudburst
CSO152	1/11/2012 4:30	1/11/2012 11:15	0.28	1,778,086.51	0.62	2,867,881.46	0.2	0.29	6 hr	Cloudburst
CSO152	1/11/2012 20:00	1/11/2012 21:00	0.04	116,823.19	0.12	973,526.60	0.72	0.29	6 hr	Cloudburst
CSO152	1/17/2012 3:45	1/17/2012 12:45	0.38	918,358.56	0.32	2,869,870.50	1.01	0.14	12 hr	Cloudburst
CSO152	1/22/2012 22:30	1/23/2012 5:00	0.27	1,491,003.13	0.52	2,867,313.72	0.42	0.29	3 hr	Atlas 14
CSO152	1/25/2012 15:45	1/25/2012 19:15	0.15	215,214.34	0.27	797,090.16	0.76	0.54	48 hr	Atlas 14
CSO152	1/26/2012 5:15	1/26/2012 7:00	0.07	925,776.66	0.36	2,571,601.83	1.11	0.54	48 hr	Atlas 14
CSO152	1/26/2012 17:30	1/27/2012 1:45	0.34	4,099,875.82	1	4,099,875.82	1.34	0.54	48 hr	Atlas 14
CSO152	2/4/2012 9:00	2/4/2012 12:00	0.13	453,610.19	0.42	1,080,024.26	0.17	0.25	3 hr	Atlas 14
CSO152	2/15/2012 23:45	2/15/2012 23:45	0.00	5,702.43	0.17	33,543.72	0.39	0.13	12 hr	Cloudburst
CSO152	2/22/2012 22:45	2/22/2012 23:30	0.03	383,834.05	0.14	2,741,671.75	0.4	0.10	1 hr	Cloudburst
CSO152	2/29/2012 5:45	2/29/2012 9:15	0.15	536,284.10	0.56	957,650.18	0.42	0.27	12 hr	Cloudburst
CSO152	3/8/2012 9:45	3/8/2012 17:15	0.31	1,670,911.66	0.75	2,227,882.21	0.64	0.37	6 hr	Cloudburst
CSO152	3/12/2012 7:30	3/12/2012 7:30	0.00	24,693.42	0.16	154,333.87	0.95	0.08	12 hr	Cloudburst
CSO152	3/15/2012 18:45	3/16/2012 3:15	0.35	2,258,977.71	1.05	2,151,407.34	0.64	0.48	12 hr	Cloudburst
CSO152	3/17/2012 18:30	3/17/2012 22:30	0.17	1,013,800.55	0.98	1,034,490.36	1.93	0.58	1 hr	Cloudburst
CSO152	3/23/2012 4:45	3/23/2012 23:15	0.77	1,669,716.43	1.48	1,128,186.77	1.21	0.57	24 hr	Cloudburst
CSO152	3/30/2012 23:45	3/31/2012 0:15	0.02	130,358.13	0.13	1,002,754.83	0.16	0.09	1 hr	Cloudburst

UnitID	Overflow Start Date	Overflow End Date	Overflow Duration (Days)	Volume (Gallons)	Overflow Event Rain Inches)	Volume Per Inch	Overflow Antecedent Rain	Frequency (Years)	Period	Standard
CSO152	4/1/2012 8:15	4/1/2012 11:30	0.14	829,631.60	1.84	450,886.74	1.03	3.50	3 hr	Atlas 14
CSO152	4/4/2012 16:30	4/4/2012 17:30	0.04	145,116.29	0.08	1,813,953.65	2.06	0.13	12 hr	Cloudburst
CSO152	4/16/2012 6:45	4/16/2012 7:15	0.02	59,733.07	0.07	853,329.61	0.26	0.09	3 hr	Atlas 14
CSO152	4/28/2012 19:15	4/29/2012 0:45	0.23	637,598.36	0.76	838,945.22	0.77	0.57	1 hr	Cloudburst
CSO152	4/30/2012 18:15	4/30/2012 18:45	0.02	280,532.06	0.22	1,275,145.74	1.06	0.18	3 hr	Atlas 14
CSO152	5/4/2012 23:45	5/5/2012 5:15	0.23	1,860,866.44	1.39	1,338,752.84	1.57	0.72	6 hr	Cloudburst
CSO152	5/13/2012 0:15	5/13/2012 15:15	0.63	5,564,484.72	2.05	2,714,382.79	0.34	0.87	12 hr	Cloudburst
CSO152	5/16/2012 18:00	5/16/2012 18:30	0.02	358,930.21	0.21	1,709,191.45	2.33	0.18	1 hr	Cloudburst
CSO152	5/29/2012 6:45	5/29/2012 13:45	0.29	3,027,880.90	2.97	1,019,488.52	0.9	4.00	6 hr	Atlas 14
CSO152	5/31/2012 18:30	6/1/2012 5:45	0.47	1,768,569.95	1.16	1,524,629.27	3.34	0.53	12 hr	Cloudburst
CSO152	6/17/2012 12:00	6/17/2012 12:15	0.01	86,001.30	0.14	614,295.03	0.2	0.14	3 hr	Atlas 14
CSO153	7/19/2011 22:45	7/19/2011 22:45	0.00	28,064.36	1.31	21,423.17	1.34	3.97	1 hr	Cloudburst
CSO153	8/7/2011 4:00	8/7/2011 4:00	0.00	1,065.02	1.35	788.91	1.39	2.67	3 hr	Cloudburst
CSO153	9/26/2011 0:15	9/26/2011 10:45	0.44	864,285.13	3.39	254,951.36	3.09	7.71	12 hr	Atlas 14
CSO153	11/28/2011 14:00	11/29/2011 11:45	0.91	3,416,002.61	1.66	2,057,832.89	3.13	0.94	48 hr	Atlas 14
CSO153	12/5/2011 7:30	12/5/2011 21:00	0.56	3,655,546.55	2.31	1,582,487.68	3.27	1.21	48 hr	Cloudburst
CSO153	1/26/2012 20:45	1/27/2012 9:15	0.52	836,593.08	0.94	889,992.64	2.04	0.55	48 hr	Atlas 14
CSO153	3/23/2012 4:45	3/23/2012 23:00	0.76	749,439.19	1.53	489,829.54	1.01	0.59	24 hr	Cloudburst
CSO153	3/24/2012 10:00	3/24/2012 10:15	0.01	292.95			2.41			
CSO153	3/30/2012 23:30	3/31/2012	0.02	23,902.02	0.15	159,346.82	0.15	0.10	3 hr	Atlas 14
CSO153	4/1/2012 8:15	4/1/2012 17:15	0.38	1,116,059.36	1.56	715,422.67	0.96	0.85	6 hr	Cloudburst
CSO153	4/4/2012 16:30	4/4/2012 17:15	0.03	39,384.92	0.1	393,849.20	1.86	0.11	12 hr	Cloudburst
CSO153	4/16/2012 6:45	4/16/2012 6:45	0.00	11,411.95	0.06	190,199.15	0.27	0.10	3 hr	Atlas 14
CSO153	4/28/2012 19:15	4/29/2012 0:15	0.21	166,618.25	0.73	228,244.17	0.77	0.54	1 hr	Cloudburst
CSO153	4/30/2012 18:00	4/30/2012 18:15	0.01	46,696.20	0.24	194,567.52	1.11	0.31	3 hr	Atlas 14
CSO153	5/4/2012 23:30	5/5/2012 6:00	0.27	1,062,683.71	1.43	743,135.46	1.7	0.75	3 hr	Atlas 14
CSO153	5/16/2012 13:45	5/16/2012 18:30	0.20	106,908.14	0.23	464,818.02	2.1	0.19	1 hr	Cloudburst
CSO153	5/17/2012 7:15	5/17/2012 7:45	0.02	1,920.95			2.33			
CSO153	5/18/2012 7:00	5/18/2012 7:15	0.01	987.9			2.33			
CSO153	5/29/2012 6:45	5/29/2012 23:00	0.68	1,383,547.82	2.71	510,534.25	1.02	9.91	3 hr	Atlas 14
CSO153	5/31/2012 18:30	6/1/2012 5:45	0.47	453,460.19	1.17	387,572.81	3.02	0.54	12 hr	Cloudburst
CSO153	6/4/2012 16:45	6/4/2012 16:45	0.00	2,972.15	0.13	22,862.68	4.09	0.10	12 hr	Cloudburst
CSO153	6/17/2012 11:30	6/17/2012 12:15	0.03	65,942.77	0.25	263,771.09	0.34	0.27	3 hr	Atlas 14
CSO153	6/23/2012 10:45	6/23/2012 14:45	0.17	3,993.92			0.55			
CSO153	6/24/2012 8:00	6/24/2012 20:00	0.50	12,844.93			0.46			
CSO153	6/25/2012 7:00	6/25/2012 8:15	0.05	143.51			0.03			
CSO154	11/22/2011 3:15	11/22/2011 9:45	0.27	7,286.86	0.88	8,280.52	2.49	0.44	6 hr	Cloudburst
CSO154	11/27/2011 8:30	11/27/2011 9:45	0.05	349,388.74	0.38	919,444.05	2.21	0.96	48 hr	Atlas 14
CSO154	11/27/2011 22:30	11/29/2011 10:30	1.50	10,326,985.92	2.49	4,147,383.90	2.17	0.96	48 hr	Atlas 14
CSO154	11/29/2011 19:30	11/29/2011 20:30	0.04	310,653.85	0.06	5,177,564.09	3.13			
CSO154	12/4/2011 16:30	12/5/2011 23:30	1.29	4,455,683.40	3.01	1,480,293.49	2.99	0.99	48 hr	Atlas 14
CSO154	12/21/2011 6:45	12/21/2011 7:00	0.01	20,914.38	0.54	38,730.32	1.12	0.29	12 hr	Cloudburst
CSO154	12/26/2011 16:15	12/26/2011 16:15	0.00	4,902.98			1.24	0.30	12 hr	Cloudburst
CSO154	12/27/2011 3:00	12/27/2011 15:30	0.52	55,331.68	0.75	73,775.58	1.5	0.30	12 hr	Cloudburst
CSO154	12/28/2011 13:45	12/28/2011 13:45	0.00	674.75			1.35			
CSO154	12/29/2011 8:30	12/29/2011 8:30	0.00	1,944.10			1.35			
CSO154	12/31/2011 15:15	12/31/2011 15:15	0.00	15,383.88			0.76			
CSO154	1/1/2012 5:15	1/1/2012 10:30	0.22	34,349.47			0.76			

UnitID	Overflow Start Date	Overflow End Date	Overflow Duration (Days)	Volume (Gallons)	Overflow Event Rain Inches)	Volume Per Inch	Overflow Antecedent Rain	Frequency (Years)	Period	Standard
CSO154	1/1/2012 19:15	1/1/2012 19:30	0.01	2,547.08			0.76			
CSO154	1/11/2012 6:45	1/11/2012 7:00	0.01	532.01	0.51	1,043.16	0.52	0.34	6 hr	Cloudburst
CSO154	1/20/2012 8:15	1/20/2012 8:30	0.01	1,321.24			0.39			
CSO154	1/23/2012 4:15	1/23/2012 4:30	0.01	5,538.04	0.71	7,800.05	1.11	0.39	3 hr	Atlas 14
CSO154	1/25/2012 19:15	1/25/2012 19:30	0.01	1,704.30	0.25	6,817.20	1.04	0.60	24 hr	Cloudburst
CSO154	1/26/2012 5:30	1/27/2012 18:15	1.53	6,712,167.80	1.57	4,275,266.12	1.37	0.60	24 hr	Cloudburst
CSO154	3/4/2012 23:00	3/4/2012 23:00	0.00	2,126.27	0.04	53,156.85	0.67	0.11	6 hr	Cloudburst
CSO154	3/8/2012 10:30	3/8/2012 17:45	0.30	142,934.87	0.71	201,316.71	0.66	0.36	6 hr	Cloudburst
CSO154	3/15/2012 20:00	3/16/2012 3:00	0.29	34,434.65	0.94	36,632.60	0.67	0.42	12 hr	Cloudburst
CSO154	3/23/2012 13:45	3/23/2012 22:45	0.38	37,647.07	1.23	30,607.37	1.78	0.57	24 hr	Cloudburst
CSO154	4/1/2012 8:30	4/1/2012 15:45	0.30	420,349.37	1.18	356,228.28	0.86	0.64	6 hr	Cloudburst
CSO154	4/28/2012 19:15	4/28/2012 19:30	0.01	6,851.93	0.57	12,020.93	0.69	0.50	1 hr	Cloudburst
CSO154	4/30/2012 18:00	4/30/2012 18:00	0.00	14,400.85	0.24	60,003.54	1.07	0.30	3 hr	Atlas 14
CSO154	5/4/2012 23:45	5/5/2012 1:45	0.08	148,245.09	1.24	119,552.49	1.82	0.79	3 hr	Atlas 14
CSO154	5/13/2012 2:30	5/13/2012 14:15	0.49	188,494.47	1.91	98,688.20	1.07	0.78	12 hr	Cloudburst
CSO154	5/16/2012 17:45	5/16/2012 18:00	0.01	18,850.42	0.26	72,501.62	2.2	0.21	1 hr	Cloudburst
CSO154	5/29/2012 7:15	5/29/2012 19:45	0.52	3,784,474.46	2.22	1,704,718.22	1.21	3.36	3 hr	Atlas 14
CSO154	5/31/2012 18:30	6/1/2012 1:30	0.29	8,892.09	1.06	8,388.77	2.6	0.54	12 hr	Cloudburst
CSO154	6/17/2012 14:15	6/17/2012 14:15	0.00	3,043.58	0.48	6,340.80	0.77	0.31	1 hr	Cloudburst
CSO155	2/29/2012 8:45	2/29/2012 8:45	0.00	642.17	0.59	1,088.43	0.82	0.34	1 hr	Cloudburst
CSO155	3/8/2012 12:30	3/8/2012 12:30	0.00	211.31	0.6	352.19	1.01	0.36	6 hr	Cloudburst
CSO155	3/15/2012 17:45	3/15/2012 18:00	0.01	260.05	0.15	1,733.67	0.39	0.40	12 hr	Cloudburst
CSO155	3/17/2012 18:30	3/17/2012 18:30	0.00	26,998.96	0.25	107,995.84	1.36	0.28	3 hr	Atlas 14
CSO155	3/23/2012 5:15	3/23/2012 22:15	0.71	55,077.90	1.57	35,081.46	0.78	0.60	24 hr	Cloudburst
CSO155	4/1/2012 8:30	4/1/2012 10:30	0.08	44,188.60	1.39	31,790.36	0.88	0.77	6 hr	Cloudburst
CSO155	4/14/2012 9:00	4/14/2012 9:00	0.00	50.68	0.11	460.75	0.13	0.11	6 hr	Cloudburst
CSO155	4/26/2012 4:45	4/26/2012 4:45	0.00	74.61	0.06	1,243.49	0.36			
CSO155	4/28/2012 19:15	4/29/2012	0.20	47,884.38	0.7	68,406.25	0.72	0.52	1 hr	Cloudburst
CSO155	4/30/2012 18:00	4/30/2012 20:00	0.08	1,584.41	0.4	3,961.03	1.05	0.27	3 hr	Atlas 14
CSO155	5/4/2012 23:30	5/5/2012 1:30	0.08	86,577.66	1.15	75,284.92	1.77	0.74	3 hr	Atlas 14
CSO155	5/13/2012 2:00	5/13/2012 7:45	0.24	11,162.66	1.73	6,452.40	0.95	0.83	24 hr	Cloudburst
CSO155	5/16/2012 17:45	5/16/2012 18:00	0.01	457.33	0.22	2,078.75	2.37	0.19	1 hr	Cloudburst
CSO155	5/29/2012 6:30	5/29/2012 9:00	0.10	136,748.69	2.66	51,409.28	0.89	4.96	1 hr	Cloudburst
CSO155	5/31/2012 18:15	6/1/2012 3:45	0.40	13,719.81	1.07	12,822.25	2.98	0.51	12 hr	Cloudburst
CSO155	6/17/2012 11:15	6/17/2012 11:45	0.02	3,369.75	0.18	18,720.82	0.19	0.16	1 hr	Cloudburst
CSO166	7/3/2011 20:30	7/3/2011 21:00	0.02	361,853.34	0.05	7,237,066.78	0.08			
CSO166	7/19/2011 19:30	7/19/2011 23:45	0.18	1,316,755.89	1.7	774,562.29	0.83	1.47	1 hr	Cloudburst
CSO166	7/20/2011 16:00	7/20/2011 16:15	0.01	304,186.92	0.2	1,520,934.60	2.09	0.17	1 hr	Cloudburst
CSO166	7/24/2011 16:45	7/24/2011 18:15	0.06	1,185,703.48	0.8	1,482,129.34	2.76	0.59	1 hr	Cloudburst
CSO166	7/30/2011 20:15	7/30/2011 20:45	0.02	69,550.94	0.76	91,514.40	1.33	0.61	1 hr	Cloudburst
CSO166	8/7/2011 3:00	8/7/2011 7:00	0.17	2,692,532.78	1.79	1,504,208.26	0.52	3.17	3 hr	Cloudburst
CSO166	8/13/2011 17:00	8/13/2011 18:15	0.05	929,179.15	0.85	1,093,151.95	2.87	0.73	1 hr	Cloudburst
CSO166	8/18/2011 8:15	8/18/2011 9:00	0.03	408,592.78	0.55	742,895.96	1.47	0.45	1 hr	Cloudburst
CSO166	9/11/2011 20:00	9/11/2011 20:45	0.03	66,949.15	0.25	267,796.61	0.64	0.17	3 hr	Atlas 14
CSO166	9/19/2011 7:15	9/19/2011 7:45	0.02	135,563.87	0.33	410,799.61	0.63	0.30	12 hr	Cloudburst
CSO166	9/23/2011 3:00	9/23/2011 8:00	0.21	250,204.52	0.83	301,451.23	1.13	0.38	12 hr	Cloudburst
CSO166	9/25/2011 23:45	9/26/2011 11:15	0.48	5,860,776.06	3.17	1,848,825.26	2.85	4.14	12 hr	Cloudburst
CSO166	10/13/2011 8:00	10/13/2011 8:30	0.02	46,809.72	0.34	137,675.65	0.31	0.24	3 hr	Atlas 14

UnitID	Overflow Start Date	Overflow End Date	Overflow Duration (Days)	Volume (Gallons)	Overflow Event Rain Inches)	Volume Per Inch	Overflow Antecedent Rain	Frequency (Years)	Period	Standard
CSO166	10/27/2011 0:30	10/27/2011 2:00	0.06	684,703.80	0.7	978,148.28	1.12	0.39	12 hr	Cloudburst
CSO166	11/3/2011 10:15	11/3/2011 10:15	0.00	3,576.22	0.35	10,217.77	0.42	0.29	3 hr	Atlas 14
CSO166	11/14/2011 21:45	11/14/2011 23:15	0.06	250,751.04	0.32	783,597.01	0.27	0.69	48 hr	Atlas 14
CSO166	11/15/2011 12:30	11/15/2011 14:15	0.07	129,730.28	0.94	138,010.94	1.28	0.69	48 hr	Atlas 14
CSO166	11/16/2011 5:45	11/16/2011 8:45	0.13	296,949.75	0.47	631,807.98	1.86	0.69	48 hr	Atlas 14
CSO166	11/20/2011 18:00	11/20/2011 18:30	0.02	150,716.75	0.58	259,856.46	2.78	0.65	48 hr	Atlas 14
CSO166	11/21/2011 4:30	11/21/2011 11:00	0.27	180,702.15	0.28	645,364.82	2.97	0.65	48 hr	Atlas 14
CSO166	11/22/2011 6:30	11/22/2011 12:15	0.24	1,946,089.01	1.07	1,818,774.77	3.1	0.65	48 hr	Atlas 14
CSO166	11/27/2011 22:45	11/29/2011 21:15	1.94	10,773,382.79	2.72	3,960,802.50	2.53	1.26	48 hr	Cloudburst
CSO166	12/4/2011 17:30	12/4/2011 18:00	0.02	67,454.23	0.55	122,644.06	3.18	1.18	48 hr	Cloudburst
CSO166	12/5/2011 3:00	12/6/2011 18:30	1.65	13,482,792.79	2.49	5,414,776.22	2.93	1.18	48 hr	Cloudburst
CSO166	12/15/2011 4:45	12/15/2011 4:45	0.00	6,314.59	0.23	27,454.72	0.25	0.23	6 hr	Cloudburst
CSO166	12/21/2011 6:30	12/21/2011 8:00	0.06	514,946.01	0.57	903,414.04	1.03	0.27	12 hr	Cloudburst
CSO166	12/22/2011 15:15	12/22/2011 18:00	0.11	272,183.11	0.61	446,201.82	1.11	0.30	12 hr	Cloudburst
CSO166	12/27/2011 3:45	12/27/2011 12:30	0.36	335,117.34	0.8	418,896.67	1.59	0.34	12 hr	Cloudburst
CSO166	1/11/2012 6:30	1/11/2012 7:45	0.05	402,620.35	0.51	789,451.66	0.5	0.33	24 hr	Cloudburst
CSO166	1/17/2012 4:30	1/17/2012 12:45	0.34	239,217.84	0.31	771,670.46	1.09	0.14	12 hr	Cloudburst
CSO166	1/23/2012 2:45	1/23/2012 5:15	0.10	884,730.85	0.6	1,474,551.41	0.67	0.33	3 hr	Atlas 14
CSO166	1/26/2012 5:45	1/26/2012 7:15	0.06	550,861.68	0.45	1,224,137.06	1.32	0.62	24 hr	Cloudburst
CSO166	1/26/2012 19:00	1/27/2012 10:00	0.63	3,419,844.89	1.15	2,973,778.16	1.76	0.62	24 hr	Cloudburst
CSO166	2/4/2012 10:15	2/4/2012 10:30	0.01	53,200.26	0.33	161,212.92	0.34	0.20	3 hr	Atlas 14
CSO166	2/22/2012 23:15	2/22/2012 23:45	0.02	193,898.29	0.18	1,077,212.72	0.39	0.14	1 hr	Cloudburst
CSO166	2/29/2012 9:00	2/29/2012 9:45	0.03	350,749.33	0.54	649,535.79	0.77	0.28	12 hr	Cloudburst
CSO166	3/8/2012 13:15	3/8/2012 17:45	0.19	618,865.99	0.78	793,417.93	1.08	0.39	6 hr	Cloudburst
CSO166	3/16/2012 1:15	3/16/2012 4:00	0.11	1,246,617.15	0.87	1,432,893.28	0.91	0.44	12 hr	Cloudburst
CSO166	3/17/2012 18:30	3/17/2012 23:00	0.19	1,650,350.73	1.19	1,386,849.35	2.02	0.74	1 hr	Cloudburst
CSO166	3/23/2012 5:30	3/24/2012	0.77	2,126,077.82	1.58	1,345,618.87	1.48	0.61	24 hr	Cloudburst
CSO166	3/28/2012 14:45	3/28/2012 15:15	0.02	211,906.65	0.09	2,354,518.30	1.68			
CSO166	4/1/2012 7:45	4/1/2012 16:15	0.35	2,410,238.20	1.26	1,912,887.46	0.5	0.69	6 hr	Cloudburst
CSO166	4/28/2012 19:15	4/29/2012 1:00	0.24	717,866.56	0.74	970,089.94	0.72	0.52	1 hr	Cloudburst
CSO166	4/30/2012 18:00	4/30/2012 19:00	0.04	157,926.76	0.39	404,940.42	1.12	0.29	3 hr	Atlas 14
CSO166	5/4/2012 23:45	5/5/2012 2:30	0.11	2,479,327.42	1.29	1,921,959.24	1.98	0.80	3 hr	Atlas 14
CSO166	5/13/2012 2:00	5/13/2012 16:45	0.61	5,969,497.15	2.18	2,738,301.44	0.97	0.92	12 hr	Cloudburst
CSO166	5/16/2012 18:00	5/16/2012 19:00	0.04	399,890.68	0.24	1,666,211.18	2.47	0.21	1 hr	Cloudburst
CSO166	5/29/2012 7:00	5/29/2012 19:00	0.50	9,052,259.16	2.5	3,620,903.66	0.8	8.19	3 hr	Atlas 14
CSO166	5/31/2012 19:00	6/1/2012 5:45	0.45	1,155,174.75	1.14	1,013,311.19	2.96	0.52	12 hr	Cloudburst
CSO167	10/27/2011 0:15	10/27/2011 4:45	0.19	182,251.88	0.9	202,502.09	1.09	0.42	6 hr	Cloudburst
CSO167	11/3/2011 9:45	11/3/2011 10:30	0.03	18,374.47	0.36	51,040.19	0.37	0.29	3 hr	Atlas 14
CSO167	11/14/2011 21:30	11/14/2011 23:00	0.06	114,196.95	0.4	285,492.38	0.31	0.67	48 hr	Atlas 14
CSO167	11/15/2011 9:00	11/15/2011 14:00	0.21	42,133.77	1	42,133.77	0.92	0.67	48 hr	Atlas 14
CSO167	11/16/2011 5:30	11/16/2011 11:15	0.24	66,683.16	0.52	128,236.85	1.76	0.67	48 hr	Atlas 14
CSO167	11/20/2011 17:30	11/20/2011 18:30	0.04	25,154.93	0.41	61,353.50	2.54	0.28	24 hr	Cloudburst
CSO167	11/21/2011 4:15	11/21/2011 4:45	0.02	80,982.05	0.13	622,938.86	2.77	0.28	24 hr	Cloudburst
CSO167	11/22/2011 0:15	11/22/2011 11:30	0.47	328,997.90	0.94	349,997.77	2.54	0.44	6 hr	Cloudburst
CSO167	11/27/2011 6:30	11/27/2011 9:15	0.11	37,915.46	0.4	94,788.64	2.15	0.96	48 hr	Atlas 14
CSO167	11/27/2011 22:00	11/29/2011 20:45	1.95	1,265,221.20	2.56	494,227.03	2.12	0.96	48 hr	Atlas 14
CSO167	12/4/2011 16:30	12/6/2011 13:45	1.89	2,080,975.68	3.01	691,354.05	2.99	0.99	48 hr	Atlas 14
CSO167	12/15/2011 4:00	12/15/2011 8:00	0.17	47,006.73	0.4	117,516.82	0.22	0.23	6 hr	Cloudburst

UnitID	Overflow Start Date	Overflow End Date	Overflow Duration (Days)	Volume (Gallons)	Overflow Event Rain Inches)	Volume Per Inch	Overflow Antecedent Rain	Frequency (Years)	Period	Standard
CSO167	12/21/2011 5:15	12/21/2011 7:30	0.09	166,848.61	0.61	273,522.31	0.98	0.29	12 hr	Cloudburst
CSO167	12/22/2011 14:30	12/22/2011 18:00	0.15	71,414.39	0.55	129,844.35	0.98	0.27	12 hr	Cloudburst
CSO167	12/27/2011 3:15	12/27/2011 12:00	0.36	81,033.97	0.71	114,132.35	1.51	0.30	12 hr	Cloudburst
CSO167	1/11/2012 5:00	1/11/2012 11:15	0.26	103,787.12	0.71	146,179.05	0.3	0.34	6 hr	Cloudburst
CSO167	1/17/2012 4:15	1/17/2012 12:30	0.34	58,897.74	0.36	163,604.84	1.09	0.17	12 hr	Cloudburst
CSO167	1/23/2012 2:45	1/23/2012 5:00	0.09	236,144.15	0.72	327,977.99	0.82	0.39	3 hr	Atlas 14
CSO167	1/25/2012 19:15	1/25/2012 19:15	0.00	84.72	0.25	338.9	1.04	0.60	24 hr	Cloudburst
CSO167	1/26/2012 5:45	1/26/2012 7:00	0.05	210,202.18	0.47	447,238.67	1.44	0.60	24 hr	Cloudburst
CSO167	1/26/2012 17:45	1/27/2012 11:45	0.75	708,078.54	1.1	643,707.76	1.61	0.60	24 hr	Cloudburst
CSO167	2/4/2012 9:45	2/4/2012 10:45	0.04	24,314.38	0.35	69,469.64	0.31	0.21	3 hr	Atlas 14
CSO167	2/22/2012 23:00	2/22/2012 23:30	0.02	51,744.05	0.16	323,400.30	0.43	0.12	1 hr	Cloudburst
CSO167	2/29/2012 8:45	2/29/2012 9:15	0.02	73,661.15	0.44	167,411.70	0.62	0.23	12 hr	Cloudburst
CSO167	3/8/2012 12:45	3/8/2012 17:15	0.19	140,638.51	0.7	200,912.16	0.93	0.36	6 hr	Cloudburst
CSO167	3/15/2012 19:00	3/16/2012 3:30	0.35	226,420.94	0.94	240,873.34	0.66	0.42	12 hr	Cloudburst
CSO167	3/17/2012 18:45	3/17/2012 22:30	0.16	167,441.41	1.04	161,001.36	1.93	0.68	1 hr	Cloudburst
CSO167	3/23/2012 5:15	3/23/2012 23:15	0.75	463,748.20	1.47	315,474.97	1.31	0.57	24 hr	Cloudburst
CSO167	3/28/2012 14:30	3/28/2012 14:45	0.01	41,498.61	0.07	592,837.22	1.57			
CSO167	3/31/2012 0:15	3/31/2012 0:15	0.00	443.81	0.15	2,958.71	0.23	0.10	3 hr	Atlas 14
CSO167	4/1/2012 7:30	4/1/2012 11:30	0.17	706,184.96	1.14	619,460.49	0.55	0.64	6 hr	Cloudburst
CSO167	4/4/2012 16:15	4/4/2012 16:30	0.01	3,505.77	0.08	43,822.09	1.47	0.11	12 hr	Cloudburst
CSO167	4/28/2012 19:15	4/29/2012 0:30	0.22	190,653.61	0.7	272,362.30	0.69	0.50	1 hr	Cloudburst
CSO167	4/30/2012 18:00	4/30/2012 18:30	0.02	98,698.56	0.25	394,794.23	1.07	0.30	3 hr	Atlas 14
CSO167	5/4/2012 23:45	5/5/2012 5:00	0.22	1,055,893.90	1.41	748,860.92	1.82	0.79	3 hr	Atlas 14
CSO167	5/13/2012 2:00	5/13/2012 15:15	0.55	1,148,414.17	1.91	601,263.96	0.88	0.78	12 hr	Cloudburst
CSO167	5/16/2012 17:45	5/16/2012 18:30	0.03	104,043.40	0.26	400,166.92	2.2	0.21	1 hr	Cloudburst
CSO167	5/29/2012 6:45	5/29/2012 13:15	0.27	892,617.11	2.22	402,079.78	0.81	3.36	3 hr	Atlas 14
CSO167	5/31/2012 18:30	6/1/2012 1:45	0.30	95,130.79	1.06	89,746.03	2.6	0.54	12 hr	Cloudburst
CSO174	7/12/2011 16:45	7/12/2011 17:00	0.01	147,499.89	0.26	567,307.29	0.95	0.27	6 hr	Cloudburst
CSO174	7/19/2011 22:45	7/19/2011 23:30	0.03	586,534.69	1.43	410,164.12	1.13	1.63	1 hr	Cloudburst
CSO174	8/7/2011 3:15	8/7/2011 5:15	0.08	464,536.81	1.7	273,256.95	1.03	2.61	3 hr	Cloudburst
CSO174	8/8/2011 15:00	8/8/2011 15:00	0.00	4,680.65	0.2	23,403.25	2.12	0.13	3 hr	Atlas 14
CSO174	8/11/2011 20:00	8/11/2011 21:15	0.05	133,708.77			2.32			
CSO174	8/13/2011 17:00	8/13/2011 17:30	0.02	340,791.49	0.84	405,704.16	3.13	0.72	1 hr	Cloudburst
CSO174	8/18/2011 8:00	8/18/2011 8:15	0.01	278,571.18	0.24	1,160,713.24	1.14	0.20	1 hr	Cloudburst
CSO174	9/19/2011 7:00	9/19/2011 7:30	0.02	65,301.97	0.31	210,651.52	0.53	0.28	12 hr	Cloudburst
CSO174	9/25/2011 20:00	9/26/2011 5:00	0.38	3,666,491.72	3.93	932,949.55	2.21	7.39	12 hr	Cloudburst
CSO174	10/13/2011 7:30	10/13/2011 7:45	0.01	35,936.50	0.25	143,745.99	0.23	0.19	3 hr	Atlas 14
CSO174	10/27/2011	10/27/2011 0:45	0.03	287,945.65	0.82	351,153.24	1.17	0.47	12 hr	Cloudburst
CSO174	11/14/2011 21:30	11/14/2011 21:45	0.01	92,149.00	0.28	329,103.57	0.3	0.73	48 hr	Atlas 14
CSO174	11/22/2011	11/22/2011 9:30	0.40	48,281.94	0.98	49,267.28	2.9	0.50	12 hr	Cloudburst
CSO174	11/28/2011 15:30	11/28/2011 18:15	0.11	42,983.85	1.01	42,558.27	3.38	0.95	48 hr	Atlas 14
CSO174	12/5/2011 6:00	12/5/2011 17:30	0.48	713,296.00	2.21	322,758.37	3.11	0.99	48 hr	Atlas 14
CSO174	12/21/2011 6:15	12/21/2011 6:45	0.02	114,343.12	0.64	178,661.13	1.08	0.31	12 hr	Cloudburst
CSO174	1/11/2012 4:30	1/11/2012 6:45	0.09	45,238.56	0.41	110,337.96	0.18	0.28	12 hr	Cloudburst
CSO174	1/17/2012 11:30	1/17/2012 12:00	0.02	114,211.28	0.24	475,880.32	1.13	0.17	12 hr	Cloudburst
CSO174	1/23/2012 2:45	1/23/2012 4:15	0.06	96,617.22	0.5	193,234.45	0.59	0.29	3 hr	Atlas 14
CSO174	1/26/2012 5:30	1/26/2012 6:00	0.02	202,310.19	0.39	518,744.08	1.06	0.56	24 hr	Cloudburst
CSO174	1/26/2012 18:45	1/26/2012 21:15	0.10	636,320.09	0.83	766,650.71	1.49	0.56	24 hr	Cloudburst

UnitID	Overflow Start Date	Overflow End Date	Overflow Duration (Days)	Volume (Gallons)	Overflow Event Rain Inches)	Volume Per Inch	Overflow Antecedent Rain	Frequency (Years)	Period	Standard
CSO174	2/22/2012 23:00	2/22/2012 23:00	0.00	5,331.52	0.12	44,429.32	0.38	0.09	1 hr	Cloudburst
CSO174	2/29/2012 8:45	2/29/2012 8:45	0.00	43,983.24	0.62	70,940.70	0.77	0.31	1 hr	Cloudburst
CSO174	3/8/2012 12:45	3/8/2012 13:15	0.02	15,448.22	0.72	21,455.86	1.05	0.40	6 hr	Cloudburst
CSO174	3/16/2012 2:15	3/16/2012 2:30	0.01	1,027.46	0.81	1,268.47	1.28	0.52	12 hr	Cloudburst
CSO174	3/17/2012 21:00	3/17/2012 21:45	0.03	28,957.14	0.97	29,852.72	2.22	0.58	1 hr	Cloudburst
CSO174	3/23/2012 5:15	3/23/2012 22:30	0.72	976,864.84	1.37	713,040.03	1.26	0.53	24 hr	Cloudburst
CSO174	4/1/2012 8:30	4/1/2012 10:45	0.09	864,523.38	1.87	462,311.97	1.27	3.44	3 hr	Cloudburst
CSO174	4/28/2012 19:15	4/28/2012 19:45	0.02	1,064,579.05	0.67	1,588,923.95	0.79	0.58	1 hr	Cloudburst
CSO174	4/30/2012 18:00	4/30/2012 18:15	0.01	52,237.90	0.2	261,189.50	1.11	0.21	3 hr	Atlas 14
CSO174	5/4/2012 23:45	5/5/2012 2:00	0.09	382,287.72	1.1	347,534.29	1.55	0.70	6 hr	Cloudburst
CSO174	5/13/2012 1:45	5/13/2012 8:15	0.27	741,050.13	1.9	390,026.38	0.95	0.86	12 hr	Cloudburst
CSO174	5/29/2012 6:30	5/29/2012 9:15	0.11	3,202,415.76	3.01	1,063,925.50	0.58	8.75	6 hr	Cloudburst
CSO174	5/31/2012 18:30	6/1/2012 1:15	0.28	149,385.37	1.05	142,271.78	3.44	0.53	12 hr	Cloudburst
CSO178	6/27/2012 11:15	6/27/2012 11:15	0.00	863.49			0.04			
CSO180	11/14/2011 21:30	11/14/2011 21:45	0.01	40,078.54	0.28	143,137.65	0.3	0.73	48 hr	Atlas 14
CSO180	11/22/2011 0:15	11/22/2011 0:15	0.00	970.96	0.13	7,468.90	2.9	0.50	12 hr	Cloudburst
CSO180	12/5/2011 7:00	12/5/2011 15:30	0.35	6,229.94	1.82	3,423.05	3.2	0.99	48 hr	Atlas 14
CSO180	12/15/2011 3:45	12/15/2011 3:45	0.00	3,729.66	0.15	24,864.38	0.17	0.23	6 hr	Cloudburst
CSO180	12/21/2011 6:15	12/21/2011 6:45	0.02	19,666.94	0.64	30,729.59	1.08	0.31	12 hr	Cloudburst
CSO180	1/11/2012 6:30	1/11/2012 6:45	0.01	1,402.32	0.41	3,420.30	0.41	0.28	12 hr	Cloudburst
CSO180	1/17/2012 11:30	1/17/2012 11:45	0.01	4,332.03	0.22	19,691.03	1.13	0.17	12 hr	Cloudburst
CSO180	1/23/2012 2:45	1/23/2012 2:45	0.00	18,408.45	0.19	96,886.58	0.59	0.29	3 hr	Atlas 14
CSO180	1/26/2012 5:45	1/26/2012 6:00	0.01	35,060.54	0.39	89,898.82	1.16	0.56	24 hr	Cloudburst
CSO180	1/26/2012 19:00	1/26/2012 21:15	0.09	61,755.08	0.83	74,403.71	1.55	0.56	24 hr	Cloudburst
CSO180	2/22/2012 23:00	2/22/2012 23:00	0.00	14,912.23	0.12	124,268.61	0.38	0.09	1 hr	Cloudburst
CSO180	2/29/2012 8:45	2/29/2012 8:45	0.00	21,225.80	0.62	34,235.16	0.77	0.31	1 hr	Cloudburst
CSO180	3/23/2012 5:15	3/23/2012 22:15	0.71	270,075.70	1.37	197,135.54	1.26	0.53	24 hr	Cloudburst
CSO180	4/1/2012 8:45	4/1/2012 10:45	0.08	147,438.64	1.87	78,844.19	1.29	3.44	3 hr	Cloudburst
CSO180	4/28/2012 19:15	4/29/2012 0:15	0.21	75,838.90	0.77	98,492.07	0.79	0.58	1 hr	Cloudburst
CSO180	4/30/2012 18:00	4/30/2012 18:15	0.01	23,727.96	0.2	118,639.81	1.11	0.21	3 hr	Atlas 14
CSO180	5/5/2012	5/5/2012 1:45	0.07	118,497.88	1.07	110,745.68	1.59	0.70	6 hr	Cloudburst
CSO180	5/13/2012 2:00	5/13/2012 8:00	0.25	110,039.30	1.9	57,915.42	1.09	0.86	12 hr	Cloudburst
CSO180	5/15/2012 9:45	5/15/2012 9:45	0.00	55.58			2.11			
CSO180	5/16/2012 18:00	5/16/2012 18:00	0.00	4,540.34	0.18	25,224.13	2.28	0.16	1 hr	Cloudburst
CSO180	5/29/2012 6:45	5/29/2012 8:45	0.08	683,085.11	2.96	230,771.99	0.93	8.75	6 hr	Cloudburst
CSO182	7/5/2011 19:45	7/5/2011 19:45	0.00	2,256.04	0.34	6,635.43	0.42	0.22	3 hr	Atlas 14
CSO182	7/8/2011 3:15	7/8/2011 5:00	0.07	9,964.78	0.41	24,304.34	0.64	0.23	3 hr	Atlas 14
CSO182	7/12/2011 17:30	7/12/2011 20:45	0.14	5,206.60	0.53	9,823.78	0.93	0.30	6 hr	Cloudburst
CSO182	8/7/2011 4:15	8/7/2011 6:30	0.09	19,432.30	1.68	11,566.84	1.24	3.56	3 hr	Cloudburst
CSO182	8/8/2011 15:15	8/8/2011 15:15	0.00	2,840.88	0.19	14,952.02	1.92	0.13	3 hr	Atlas 14
CSO182	8/10/2011 3:00	8/10/2011 3:00	0.00	341.89	0.12	2,849.06	2.04	0.11	3 hr	Atlas 14
CSO182	8/12/2011 2:00	8/12/2011 3:15	0.05	18,818.74			2.08			
CSO182	8/13/2011 17:45	8/13/2011 18:00	0.01	6,324.55	0.84	7,529.23	2.91	0.72	1 hr	Cloudburst
CSO182	8/18/2011 8:30	8/18/2011 8:45	0.01	2,906.68	0.33	8,808.12	1.25	0.28	1 hr	Cloudburst
CSO182	9/4/2011 20:45	9/4/2011 21:00	0.01	10,886.92	0.08	136,086.48	0.09	0.05	24 hr	Cloudburst
CSO182	9/6/2011 22:15	9/6/2011 22:15	0.00	1,897.89			0.36			
CSO182	9/10/2011 20:00	9/10/2011 20:00	0.00	8,467.37	0.04	211,684.27	0.41			
CSO182	9/11/2011 20:15	9/11/2011 21:45	0.06	8,795.02	0.13	67,653.99	0.49	0.08	3 hr	Atlas 14

UnitID	Overflow Start Date	Overflow End Date	Overflow Duration (Days)	Volume (Gallons)	Overflow Event Rain Inches)	Volume Per Inch	Overflow Antecedent Rain	Frequency (Years)	Period	Standard
CSO182	9/19/2011 7:45	9/19/2011 7:45	0.00	5,770.57	0.33	17,486.57	0.65	0.30	12 hr	Cloudburst
CSO182	9/19/2011 23:00	9/19/2011 23:00	0.00	4,112.34	0.01	411,233.68	0.98			
CSO182	9/23/2011 2:00	9/23/2011 8:00	0.25	65,340.49	0.82	79,683.52	1.02	0.38	12 hr	Cloudburst
CSO182	9/25/2011 20:15	9/26/2011 7:15	0.46	1,521,072.36	3.88	392,028.96	2.26	7.16	3 hr	Atlas 14
CSO182	10/13/2011 8:00	10/13/2011 8:00	0.00	6,944.94	0.29	23,948.06	0.29	0.22	3 hr	Atlas 14
CSO182	10/26/2011 13:15	10/27/2011 5:00	0.66	23,422.00	1.19	19,682.35	0.63	0.50	12 hr	Cloudburst
CSO182	11/3/2011 9:15	11/3/2011 16:45	0.31	35,785.36	0.49	73,031.35	0.26	0.25	3 hr	Atlas 14
CSO182	11/14/2011 22:00	11/15/2011 14:15	0.68	77,263.72	1.49	51,854.85	0.3	0.72	48 hr	Atlas 14
CSO182	11/16/2011 5:00	11/16/2011 11:30	0.27	71,236.47	0.65	109,594.57	1.8	0.72	48 hr	Atlas 14
CSO182	11/20/2011 4:15	11/20/2011 4:15	0.00	184.4	0.07	2,634.23	2.29	0.33	24 hr	Cloudburst
CSO182	11/20/2011 12:30	11/20/2011 20:00	0.31	25,546.78	0.63	40,550.44	2.39	0.33	24 hr	Cloudburst
CSO182	11/22/2011 0:30	11/22/2011 19:30	0.79	66,429.45	1.16	57,266.77	2.89	0.50	12 hr	Cloudburst
CSO182	11/27/2011 3:15	11/29/2011 5:00	2.07	495,923.17	3.06	162,066.39	2.28	0.96	48 hr	Atlas 14
CSO182	11/29/2011 18:30	11/29/2011 19:30	0.04	10,727.79	0.06	178,796.45	3.13			
CSO182	12/4/2011 15:45	12/5/2011 3:00	0.47	174,703.38	0.98	178,268.75	2.83	0.98	48 hr	Atlas 14
CSO182	12/5/2011 11:45	12/6/2011 3:00	0.64	121,587.94	1.94	62,674.20	3.41	0.98	48 hr	Atlas 14
CSO182	12/15/2011 3:45	12/15/2011 7:45	0.17	22,145.25	0.38	58,276.97	0.16	0.22	6 hr	Cloudburst
CSO182	12/20/2011 23:15	12/21/2011 7:15	0.33	20,762.90	0.58	35,798.10	0.58	0.27	12 hr	Cloudburst
CSO182	12/22/2011 11:30	12/22/2011 17:45	0.26	84,284.84	0.56	150,508.65	0.78	0.27	12 hr	Cloudburst
CSO182	12/27/2011 2:15	12/27/2011 12:00	0.41	92,408.32	0.62	149,045.68	1.35	0.26	12 hr	Cloudburst
CSO182	1/11/2012 5:30	1/11/2012 11:15	0.24	59,030.66	0.61	96,771.57	0.29	0.29	6 hr	Cloudburst
CSO182	1/11/2012 20:15	1/11/2012 20:45	0.02	9,163.88	0.11	83,307.99	0.72	0.29	6 hr	Cloudburst
CSO182	1/17/2012 4:00	1/17/2012 4:15	0.01	7,852.85	0.14	56,091.80	0.97	0.18	12 hr	Cloudburst
CSO182	1/17/2012 12:30	1/17/2012 12:30	0.00	3,921.24	0.24	16,338.51	1.21	0.18	12 hr	Cloudburst
CSO182	1/22/2012 23:00	1/23/2012 5:00	0.25	11,081.70	0.5	22,163.39	0.51	0.26	3 hr	Atlas 14
CSO182	1/25/2012 15:45	1/25/2012 19:15	0.15	19,701.60	0.26	75,775.40	0.72	0.59	24 hr	Cloudburst
CSO182	1/26/2012 5:15	1/26/2012 7:15	0.08	30,058.61	0.49	61,344.11	1.13	0.59	24 hr	Cloudburst
CSO182	1/26/2012 17:30	1/27/2012 2:30	0.38	89,191.99	1.04	85,761.52	1.43	0.59	24 hr	Cloudburst
CSO182	2/4/2012 9:00	2/4/2012 12:00	0.13	27,485.38	0.44	62,466.78	0.19	0.25	3 hr	Atlas 14
CSO182	2/16/2012	2/16/2012	0.00	6,590.84	0.16	41,192.75	0.39	0.12	12 hr	Cloudburst
CSO182	2/22/2012 23:00	2/22/2012 23:30	0.02	16,688.84	0.13	128,375.68	0.38	0.10	1 hr	Cloudburst
CSO182	2/29/2012 6:15	2/29/2012 9:30	0.14	14,470.88	0.65	22,262.90	0.45	0.31	12 hr	Cloudburst
CSO182	3/2/2012 12:00	3/2/2012 12:00	0.00	4,855.45	0.07	69,363.59	0.74	0.06	12 hr	Cloudburst
CSO182	3/8/2012 10:00	3/8/2012 17:30	0.31	87,102.25	0.82	106,222.26	0.73	0.40	6 hr	Cloudburst
CSO182	3/12/2012 7:45	3/12/2012 7:45	0.00	3,012.22	0.15	20,081.49	1.01	0.08	12 hr	Cloudburst
CSO182	3/15/2012 19:00	3/16/2012 3:45	0.36	72,124.35	1.12	64,396.74	0.74	0.50	12 hr	Cloudburst
CSO182	3/17/2012 19:15	3/18/2012 2:00	0.28	27,966.61	0.97	28,831.55	1.93	0.54	3 hr	Atlas 14
CSO182	3/23/2012 5:00	3/24/2012 0:45	0.82	93,399.47	1.51	61,853.95	1.21	0.59	24 hr	Cloudburst
CSO182	3/31/2012 0:15	3/31/2012 0:30	0.01	6,596.22	0.11	59,965.63	0.15	0.07	3 hr	Atlas 14
CSO182	4/1/2012 11:30	4/1/2012 12:00	0.02	8,399.56	1.76	4,772.48	1.91	0.99	3 hr	Atlas 14
CSO182	4/4/2012 6:45	4/4/2012 6:45	0.00	1,722.02	0.03	57,400.55	1.95			
CSO182	4/4/2012 17:30	4/4/2012 17:45	0.01	3,560.17	0.09	39,557.39	2	0.13	12 hr	Cloudburst
CSO182	4/14/2012 9:15	4/14/2012 9:15	0.00	1,960.69	0.06	32,678.14	0.07	0.07	6 hr	Cloudburst
CSO182	4/16/2012 7:00	4/16/2012 7:15	0.01	3,249.70	0.07	46,424.22	0.2	0.09	3 hr	Atlas 14
CSO182	4/21/2012 0:30	4/21/2012 0:30	0.00	1,036.02	0.1	10,360.23	0.37	0.11	12 hr	Cloudburst
CSO182	4/26/2012 5:00	4/26/2012 5:15	0.01	6,761.35	0.06	112,689.16	0.37			
CSO182	4/28/2012 19:15	4/29/2012 0:45	0.23	17,930.13	0.77	23,285.88	0.8	0.58	1 hr	Cloudburst
CSO182	4/30/2012 18:00	4/30/2012 18:45	0.03	6,417.51	0.27	23,768.57	1.12	0.21	3 hr	Atlas 14

UnitID	Overflow Start Date	Overflow End Date	Overflow Duration (Days)	Volume (Gallons)	Overflow Event Rain Inches)	Volume Per Inch	Overflow Antecedent Rain	Frequency (Years)	Period	Standard
CSO182	5/4/2012 16:30	5/4/2012 16:30	0.00	2,190.59	0.04	54,764.67	1.17	0.80	6 hr	Cloudburst
CSO182	5/5/2012 0:45	5/5/2012 5:15	0.19	41,051.70	1.47	27,926.33	1.74	0.80	6 hr	Cloudburst
CSO182	5/8/2012 6:00	5/8/2012 6:15	0.01	15,498.19	0.02	774,909.59	1.57			
CSO182	5/13/2012	5/13/2012 15:00	0.63	521,704.08	2.02	258,269.35	0.36	0.86	12 hr	Cloudburst
CSO182	5/29/2012 6:45	5/29/2012 13:30	0.28	4,495,993.83	3.12	1,441,023.66	0.93	10.00	6 hr	Cloudburst
CSO182	5/31/2012 18:45	6/1/2012 7:15	0.52	523,970.16	1.19	440,311.05	3.55	0.53	12 hr	Cloudburst
CSO182	6/4/2012 14:30	6/4/2012 14:30	0.00	146.38	0.08	1,829.71	4.41	0.09	6 hr	Cloudburst
CSO182	6/20/2012 17:30	6/20/2012 18:15	0.03	24,414.26			0.23			
CSO183	6/7/2012 13:00	6/7/2012 16:30	0.15	26,483.81			1.45			
CSO183	6/17/2012 16:30	6/17/2012 16:30	0.00	11,870.51	0.12	98,920.94	0.15	0.09	1 hr	Cloudburst
CSO183	6/25/2012 12:00	6/25/2012 12:00	0.00	12,023.66			0.02			
CSO183	6/29/2012 3:15	6/29/2012 3:15	0.00	13,324.70			0.02			
CSO184 CSO1	5/31/2012 18:45	5/31/2012 18:45	0.00	4,239.96						
CSO189	7/19/2011 23:00	7/20/2011 1:45	0.11	8,841,088.89	1.36	6,500,800.66	1.1	1.89	1 hr	Cloudburst
CSO189	8/7/2011 3:15	8/7/2011 7:30	0.18	5,182,414.54	1.2	4,318,678.78	0.66	0.69	3 hr	Atlas 14
CSO189	8/8/2011 14:15	8/8/2011 15:45	0.06	37,865.55	0.36	105,182.09	1.47	0.24	3 hr	Atlas 14
CSO189	8/13/2011 17:45	8/13/2011 18:15	0.02	11,956.40	0.43	27,805.59	2.16	0.35	1 hr	Cloudburst
CSO189	9/19/2011 7:30	9/19/2011 8:45	0.05	423,566.46	0.22	1,925,302.07	0.59	0.25	24 hr	Cloudburst
CSO189	9/23/2011 6:15	9/23/2011 8:30	0.09	313,904.56	0.64	490,475.87	1.33	0.30	12 hr	Cloudburst
CSO189	9/25/2011 23:30	9/26/2011 11:00	0.48	30,005,996.01	3.08	9,742,206.50	2.59	3.57	6 hr	Cloudburst
CSO189	10/27/2011 0:15	10/27/2011 2:30	0.09	1,829,669.47	0.71	2,576,999.25	1	0.38	12 hr	Cloudburst
CSO189	11/14/2011 21:45	11/14/2011 23:45	0.08	839,750.84	0.38	2,209,870.63	0.3	0.57	48 hr	Atlas 14
CSO189	11/15/2011 12:30	11/15/2011 14:00	0.06	51,449.41	0.78	65,960.78	1.26	0.57	48 hr	Atlas 14
CSO189	11/16/2011 7:00	11/16/2011 8:45	0.07	262,817.52	0.31	847,798.45	1.6	0.57	48 hr	Atlas 14
CSO189	11/21/2011 4:30	11/21/2011 5:00	0.02	129,685.89	0.15	864,572.62	2.35	0.47	48 hr	Atlas 14
CSO189	11/22/2011 6:45	11/22/2011 11:30	0.20	2,313,680.86	0.81	2,856,396.13	2.19	0.47	48 hr	Atlas 14
CSO189	11/27/2011 8:15	11/27/2011 9:30	0.05	193,189.95	0.49	394,265.21	2.08	0.93	48 hr	Atlas 14
CSO189	11/27/2011 23:30	11/29/2011 10:45	1.47	5,571,834.97	2.25	2,476,371.10	2.21	0.93	48 hr	Atlas 14
CSO189	12/4/2011 16:45	12/6/2011 4:00	1.47	16,858,292.45	3.48	4,844,336.91	2.91	1.74	48 hr	Cloudburst
CSO189	12/22/2011 15:30	12/22/2011 18:15	0.11	375,852.14	0.43	874,074.75	1.1	0.22	12 hr	Cloudburst
CSO189	12/27/2011 5:15	12/27/2011 11:00	0.24	9,681.51	0.54	17,928.72	1.53	0.24	24 hr	Cloudburst
CSO189	1/11/2012 5:30	1/11/2012 12:00	0.27	1,023,231.43	0.82	1,247,843.21	0.33	0.39	12 hr	Cloudburst
CSO189	1/17/2012 12:00	1/17/2012 12:45	0.03	148,793.90	0.24	619,974.59	1.49	0.20	12 hr	Cloudburst
CSO189	1/23/2012 3:00	1/23/2012 6:30	0.15	1,752,350.19	0.69	2,539,637.95	0.88	0.35	3 hr	Atlas 14
CSO189	1/26/2012 5:45	1/27/2012 8:30	1.11	9,860,547.01	1.58	6,240,852.54	1.32	0.27	3 hr	Atlas 14
CSO189	2/4/2012 10:30	2/4/2012 10:45	0.01	3,902.99	0.33	11,827.25	0.4	0.20	3 hr	Atlas 14
CSO189	2/29/2012 8:45	2/29/2012 9:45	0.04	338,612.83	0.37	915,169.82	0.59	0.20	1 hr	Cloudburst
CSO189	3/8/2012 12:30	3/8/2012 15:15	0.11	364,057.12	0.65	560,087.88	0.86	0.34	6 hr	Cloudburst
CSO189	3/15/2012 18:45	3/16/2012 4:00	0.39	1,029,193.41	0.92	1,118,688.49	0.53	0.42	12 hr	Cloudburst
CSO189	3/17/2012 18:30	3/18/2012 0:15	0.24	1,464,368.19	0.5	2,928,736.37	1.44	0.29	3 hr	Atlas 14
CSO189	3/23/2012 10:45	3/24/2012	0.55	3,903,815.32	1.36	2,870,452.44	0.88	0.55	24 hr	Cloudburst
CSO189	4/1/2012 8:45	4/1/2012 12:45	0.17	5,146,129.54	1.35	3,811,947.81	0.93	0.74	6 hr	Cloudburst
CSO189	4/28/2012 19:15	4/29/2012 0:45	0.23	3,197,340.51	0.71	4,503,296.49	0.73	0.52	1 hr	Cloudburst
CSO189	4/30/2012 18:00	4/30/2012 21:00	0.13	1,318,169.40	0.48	2,746,186.24	1.15	0.32	3 hr	Atlas 14
CSO189	5/5/2012	5/5/2012 5:30	0.23	5,016,546.88	1.44	3,483,713.11	1.63	0.77	6 hr	Cloudburst
CSO189	5/13/2012 2:30	5/13/2012 14:30	0.50	5,428,748.90	1.87	2,903,074.28	0.87	0.75	24 hr	Cloudburst
CSO189	5/16/2012 18:00	5/16/2012 18:45	0.03	219,216.56	0.16	1,370,103.51	2.12	0.14	1 hr	Cloudburst
CSO189	5/29/2012 6:30	5/29/2012 14:15	0.32	23,693,157.35	2.73	8,678,812.22	1.16	4.57	1 hr	Cloudburst

UnitID	Overflow Start Date	Overflow End Date	Overflow Duration (Days)	Volume (Gallons)	Overflow Event Rain Inches)	Volume Per Inch	Overflow Antecedent Rain	Frequency (Years)	Period	Standard
CSO189	5/31/2012 18:30	6/1/2012 3:00	0.35	2,154,119.61	0.94	2,291,616.61	3.05	0.45	12 hr	Cloudburst
CSO189	6/17/2012 11:45	6/17/2012 12:30	0.03	143,491.40	0.13	1,103,780.01	0.14	0.11	1 hr	Cloudburst
CSO190	7/12/2011 17:00	7/12/2011 17:00	0.00	22,123.64	0.07	316,052.00	0.95	0.12	6 hr	Cloudburst
CSO190	7/19/2011 22:30	7/19/2011 23:45	0.05	1,960,914.81	1.49	1,316,050.21	0.24	3.89	1 hr	Cloudburst
CSO190	8/7/2011 3:00	8/7/2011 5:00	0.08	1,508,578.89	1.24	1,216,595.88	0.48	0.88	3 hr	Atlas 14
CSO190	8/8/2011 13:30	8/8/2011 15:00	0.06	196,853.25	0.41	480,129.88	1.84	0.27	3 hr	Atlas 14
CSO190	8/13/2011 17:00	8/13/2011 17:15	0.01	117,979.82	0.75	157,306.43	2.8	0.66	1 hr	Cloudburst
CSO190	9/4/2011 20:30	9/4/2011 20:30	0.00	23,508.24	0.08	293,853.01	0.18	0.07	12 hr	Cloudburst
CSO190	9/19/2011 7:00	9/19/2011 7:30	0.02	250,202.19	0.32	781,881.83	0.59	0.32	12 hr	Cloudburst
CSO190	9/23/2011 1:00	9/23/2011 7:15	0.26	37,037.79	0.71	52,165.90	1.08	0.33	12 hr	Cloudburst
CSO190	9/25/2011 23:30	9/26/2011 5:00	0.23	6,440,780.07	3.97	1,622,362.74	2.97	9.58	6 hr	Cloudburst
CSO190	10/13/2011 7:15	10/13/2011 8:00	0.03	153,349.51	0.28	547,676.82	0.15	0.22	3 hr	Atlas 14
CSO190	10/18/2011 20:00	10/18/2011 20:30	0.02	82,540.86	0.15	550,272.41	0.61	0.11	1 hr	Cloudburst
CSO190	10/27/2011	10/27/2011 1:15	0.05	813,535.68	0.73	1,114,432.43	0.92	0.42	3 hr	Atlas 14
CSO190	11/3/2011 9:30	11/3/2011 9:30	0.00	7,237.15	0.26	27,835.20	0.34	0.28	3 hr	Atlas 14
CSO190	11/14/2011 21:15	11/14/2011 22:00	0.03	290,268.91	0.22	1,319,404.12	0.21	0.63	48 hr	Atlas 14
CSO190	11/16/2011 6:30	11/16/2011 6:45	0.01	41,498.29	0.37	112,157.53	1.66	0.63	48 hr	Atlas 14
CSO190	11/20/2011 17:15	11/20/2011 17:30	0.01	21,796.58	0.33	66,050.24	2.31	0.25	24 hr	Cloudburst
CSO190	11/21/2011 4:00	11/21/2011 4:30	0.02	419,711.04	0.13	3,228,546.47	2.53	0.25	24 hr	Cloudburst
CSO190	11/22/2011 6:00	11/22/2011 8:30	0.10	382,314.15	0.82	466,236.76	2.49	0.47	6 hr	Cloudburst
CSO190	11/27/2011 8:00	11/27/2011 8:30	0.02	56,143.30	0.48	116,965.21	2.26	0.92	48 hr	Atlas 14
CSO190	11/28/2011 0:30	11/28/2011 0:30	0.00	7,706.77	0.47	16,397.38	2.54	0.92	48 hr	Atlas 14
CSO190	11/28/2011 11:30	11/28/2011 23:15	0.49	280,801.46	1.49	188,457.36	2.85	0.92	48 hr	Atlas 14
CSO190	12/4/2011 16:30	12/4/2011 17:15	0.03	91,292.24	0.6	152,153.73	2.82	1.53	48 hr	Cloudburst
CSO190	12/5/2011 3:15	12/5/2011 17:30	0.59	1,797,999.30	2.54	707,873.74	2.94	1.53	48 hr	Cloudburst
CSO190	12/15/2011 3:45	12/15/2011 7:30	0.16	84,359.92	0.4	210,899.80	0.2	0.23	6 hr	Cloudburst
CSO190	12/21/2011 5:00	12/21/2011 6:45	0.07	269,809.89	0.74	364,607.96	1.05	0.35	12 hr	Cloudburst
CSO190	12/22/2011 15:30	12/22/2011 15:30	0.00	12,208.45	0.41	29,776.70	1.19	0.24	12 hr	Cloudburst
CSO190	1/11/2012 4:30	1/11/2012 7:00	0.10	345,265.21	0.41	842,110.28	0.14	0.29	6 hr	Cloudburst
CSO190	1/17/2012 11:30	1/17/2012 12:00	0.02	89,737.63	0.2	448,688.17	1.17	0.17	12 hr	Cloudburst
CSO190	1/23/2012 2:45	1/23/2012 4:30	0.07	780,857.37	0.56	1,394,388.16	0.66	0.31	3 hr	Atlas 14
CSO190	1/26/2012 5:30	1/26/2012 6:30	0.04	801,616.14	0.45	1,781,369.21	1.2	0.56	24 hr	Cloudburst
CSO190	1/26/2012 18:45	1/26/2012 22:00	0.14	1,038,652.60	0.87	1,193,853.56	1.68	0.56	24 hr	Cloudburst
CSO190	2/4/2012 9:45	2/4/2012 9:45	0.00	10,712.14	0.25	42,848.57	0.31	0.21	3 hr	Atlas 14
CSO190	2/22/2012 23:00	2/22/2012 23:00	0.00	15,275.05	0.19	80,395.01	0.54	0.15	1 hr	Cloudburst
CSO190	2/29/2012 8:30	2/29/2012 9:00	0.02	248,290.48	0.6	413,817.47	0.81	0.34	1 hr	Cloudburst
CSO190	3/8/2012 12:30	3/8/2012 13:30	0.04	131,979.53	0.65	203,045.44	1.01	0.36	6 hr	Cloudburst
CSO190	3/15/2012 17:45	3/16/2012 3:00	0.39	427,957.48	0.89	480,851.10	0.39	0.40	12 hr	Cloudburst
CSO190	3/17/2012 18:30	3/17/2012 21:00	0.10	428,626.36	0.43	996,805.49	1.36	0.28	3 hr	Atlas 14
CSO190	3/23/2012 5:15	3/23/2012 22:45	0.73	1,602,540.70	1.57	1,020,726.56	0.78	0.60	24 hr	Cloudburst
CSO190	3/31/2012 0:15	3/31/2012 0:15	0.00	46,784.48	0.17	275,202.83	0.19	0.11	3 hr	Atlas 14
CSO190	4/1/2012 8:30	4/1/2012 11:00	0.10	1,860,782.13	1.4	1,329,130.09	0.88	0.77	6 hr	Cloudburst
CSO190	4/28/2012 19:15	4/29/2012 0:15	0.21	1,271,476.33	0.7	1,816,394.75	0.72	0.52	1 hr	Cloudburst
CSO190	4/30/2012 18:00	4/30/2012 20:15	0.09	540,753.49	0.41	1,318,910.95	1.05	0.27	3 hr	Atlas 14
CSO190	5/4/2012 23:30	5/5/2012 4:30	0.21	1,809,042.26	1.36	1,330,178.13	1.77	0.74	3 hr	Atlas 14
CSO190	5/13/2012 2:00	5/13/2012 8:45	0.28	1,733,341.19	1.75	990,480.68	0.95	0.83	24 hr	Cloudburst
CSO190	5/16/2012 17:45	5/16/2012 18:15	0.02	270,847.91	0.22	1,231,126.88	2.37	0.19	1 hr	Cloudburst
CSO190	5/29/2012 6:30	5/29/2012 9:30	0.13	4,437,682.28	2.69	1,649,696.01	0.89	4.96	1 hr	Cloudburst

UnitID	Overflow Start Date	Overflow End Date	Overflow Duration (Days)	Volume (Gallons)	Overflow Event Rain Inches)	Volume Per Inch	Overflow Antecedent Rain	Frequency (Years)	Period	Standard
CSO190	5/31/2012 18:30	6/1/2012 1:45	0.30	1,024,962.50	1	1,024,962.50	3.02	0.51	12 hr	Cloudburst
CSO190	6/17/2012 11:30	6/17/2012 12:00	0.02	327,454.13	0.18	1,819,189.60	0.21	0.16	1 hr	Cloudburst
CSO191	7/20/2011	7/20/2011 0:45	0.03	904,886.20	1.19	760,408.57	1.2	1.39	1 hr	Cloudburst
CSO191	8/7/2011 3:45	8/7/2011 5:15	0.06	571,016.56	1.13	505,324.39	0.92	0.75	3 hr	Atlas 14
CSO191	8/13/2011 18:00	8/13/2011 18:15	0.01	357,319.28	0.65	549,721.97	2.47	0.56	1 hr	Cloudburst
CSO191	9/19/2011 8:00	9/19/2011 8:00	0.00	22,847.19	0.25	91,388.74	0.6	0.26	24 hr	Cloudburst
CSO191	9/26/2011 0:30	9/26/2011 6:45	0.26	9,972,317.69	3.68	2,709,868.94	3.22	9.72	12 hr	Atlas 14
CSO191	10/27/2011	10/27/2011 0:45	0.03	340,104.94	0.71	479,021.04	1.09	0.42	12 hr	Cloudburst
CSO191	11/14/2011 21:30	11/14/2011 21:30	0.00	31,908.06	0.24	132,950.26	0.3	0.61	48 hr	Atlas 14
CSO191	11/17/2011 8:30	11/17/2011 8:30	0.00	20,527.08	0.01	2,052,708.47	1.89			
CSO191	11/22/2011 7:00	11/22/2011 8:30	0.06	106,259.51	0.82	129,584.76	2.5	0.50	48 hr	Atlas 14
CSO191	11/27/2011 15:45	12/1/2011 19:30	4.16	405,457,091.45	2.53	160,259,719.94	2.18	0.92	48 hr	Atlas 14
CSO191	12/5/2011 2:00	12/8/2011 8:30	3.27	241,529,676.40	2.49	96,999,870.04	2.79	1.18	48 hr	Cloudburst
CSO191	12/21/2011 6:15	12/21/2011 6:30	0.01	44,847.14	0.64	70,073.66	1.27	0.31	12 hr	Cloudburst
CSO191	1/11/2012 6:30	1/11/2012 6:30	0.00	2,989.36	0.52	5,748.76	0.53	0.37	12 hr	Cloudburst
CSO191	1/17/2012 11:30	1/17/2012 12:00	0.02	44,826.05	0.3	149,420.18	1.43	0.21	12 hr	Cloudburst
CSO191	1/23/2012 2:45	1/23/2012 4:30	0.07	138,358.37	0.64	216,184.95	0.79	0.37	3 hr	Atlas 14
CSO191	1/26/2012 5:30	1/26/2012 6:45	0.05	478,591.82	0.48	997,066.29	1.28	0.57	24 hr	Cloudburst
CSO191	1/26/2012 18:30	1/29/2012 2:00	2.31	131,537,105.07	1.02	128,957,946.15	1.69	0.57	24 hr	Cloudburst
CSO191	2/29/2012 8:30	2/29/2012 8:45	0.01	153,143.94	0.53	288,950.84	0.65	0.30	1 hr	Cloudburst
CSO191	3/8/2012 12:45	3/8/2012 14:30	0.07	53,273.83	0.65	81,959.73	0.89	0.35	6 hr	Cloudburst
CSO191	3/16/2012 1:00	3/16/2012 4:00	0.13	196,573.39	1.05	187,212.76	0.95	0.49	12 hr	Cloudburst
CSO191	3/17/2012 19:15	3/17/2012 22:45	0.15	39,083.88	0.59	66,243.87	1.63	0.33	3 hr	Atlas 14
CSO191	3/23/2012 14:00	3/23/2012 23:30	0.40	1,270,572.16	1.33	955,317.41	1.3	0.58	24 hr	Cloudburst
CSO191	4/1/2012 9:15	4/1/2012 10:45	0.06	495,828.56	1.1	450,753.23	0.89	0.66	3 hr	Atlas 14
CSO191	4/4/2012 16:15	4/4/2012 16:15	0.00	4,064.36	0.04	101,608.96	1.31	0.13	12 hr	Cloudburst
CSO191	4/28/2012 19:15	4/29/2012	0.20	505,659.46	0.68	743,616.85	0.73	0.50	1 hr	Cloudburst
CSO191	5/5/2012 1:15	5/5/2012 2:15	0.04	1,233,932.63	0.97	1,272,095.49	2.05	0.69	6 hr	Cloudburst
CSO191	5/13/2012 1:45	5/13/2012 8:30	0.28	690,987.09	1.79	386,026.30	0.96	0.81	3 hr	Atlas 14
CSO191	5/29/2012 6:30	5/29/2012 9:45	0.14	10,863,800.39	3.35	3,242,925.49	1.55	40.43	3 hr	Cloudburst
CSO191	5/31/2012 18:15	6/1/2012 1:30	0.30	114,922.30	1.05	109,449.81	3.76	0.53	12 hr	Cloudburst
CSO199	11/14/2011 21:30	11/14/2011 21:45	0.01	2,767.90	0.32	8,649.69	0.34	0.70	48 hr	Atlas 14
CSO199	11/22/2011 0:30	11/22/2011 7:15	0.28	1,268.35	0.66	1,921.74	2.74	0.59	48 hr	Atlas 14
CSO199	11/28/2011 15:45	11/28/2011 15:45	0.00	10.47	0.79	13.25	3.29	0.93	48 hr	Atlas 14
CSO199	12/4/2011 17:00	12/4/2011 22:00	0.21	96.93	0.75	129.24	2.87	1.21	48 hr	Cloudburst
CSO199	12/5/2011 7:45	12/5/2011 16:00	0.34	4,105.11	1.96	2,094.44	3.32	1.21	48 hr	Cloudburst
CSO199	12/21/2011 6:30	12/25/2011 3:30	3.88	74,034.64	1.2	61,695.53	1.21	0.32	12 hr	Cloudburst
CSO199	12/25/2011 12:15	12/26/2011 9:15	0.88	21,562.95			1.26			
CSO199	12/26/2011 20:15	12/30/2011 10:15	3.58	76,925.52	0.69	111,486.26	1.25	0.28	12 hr	Cloudburst
CSO199	12/30/2011 19:15	12/31/2011 0:45	0.23	4,044.81	0.01	404,480.72	0.69			
CSO199	12/31/2011 19:15	1/1/2012	0.20	1,401.10			0.7			
CSO199	1/1/2012	1/3/2012 20:45	2.86	64,146.54	0.03	2,138,218.01	0.7			
CSO199	1/5/2012 22:30	1/6/2012 0:15	0.07	1,732.13			0.04			
CSO199	1/6/2012 20:15	1/8/2012 4:45	1.35	15,127.42			0.03			
CSO199	1/8/2012 13:30	1/8/2012 13:30	0.00	269.75			0.03			
CSO199	1/8/2012 22:15	1/10/2012 1:30	1.14	19,896.52	0.01	1,989,651.98	0.03			
CSO199	1/10/2012 13:45	1/19/2012 10:15	8.85	252,950.86	1.11	227,883.65	0.01			
CSO199	1/22/2012 23:15	1/24/2012 11:45	1.52	60,783.08	0.77	78,939.06	0.5	0.39	3 hr	Atlas 14

UnitID	Overflow Start Date	Overflow End Date	Overflow Duration (Days)	Volume (Gallons)	Overflow Event Rain Inches)	Volume Per Inch	Overflow Antecedent Rain	Frequency (Years)	Period	Standard
CSO199	1/26/2012 5:45	1/28/2012 10:30	2.20	39,224.20	1.48	26,502.84	1.45	0.57	24 hr	Cloudburst
CSO199	1/28/2012 19:45	1/29/2012 11:15	0.65	15,374.00			2.51			
CSO199	1/30/2012 3:45	1/30/2012 10:00	0.26	11,146.63			1.96			
CSO199	1/30/2012 19:00	1/31/2012	0.21	1,002.08			1.74			
CSO199	1/31/2012 17:15	1/31/2012 19:15	0.08	496.23			1.74			
CSO199	2/1/2012 21:15	2/1/2012 21:45	0.02	277.64	0.01	27,764.20	1.51			
CSO199	2/6/2012 0:15	2/6/2012 10:45	0.44	6,887.77			0.47			
CSO199	2/6/2012 23:30	2/7/2012	0.02	193.26			0.47			
CSO199	2/7/2012 23:45	2/8/2012 1:15	0.06	664.01	0.01	66,400.75	0.45			
CSO199	2/27/2012 19:15	2/28/2012 1:45	0.27	21,712.03			0.26			
CSO199	2/28/2012 19:15	2/29/2012 14:15	0.79	27,455.89	0.54	50,844.24	0.16	0.25	12 hr	Cloudburst
CSO199	3/3/2012 5:45	3/3/2012 10:00	0.18	21,427.37			0.67			
CSO199	3/3/2012 22:15	3/6/2012 17:45	2.81	364,642.61	0.2	1,823,213.04	0.67			
CSO199	3/7/2012 7:45	3/7/2012 8:15	0.02	2,959.21			0.63			
CSO199	3/8/2012 12:45	3/8/2012 13:30	0.03	1,771.50	0.7	2,530.71	0.99	0.38	6 hr	Cloudburst
CSO199	3/17/2012 18:30	3/17/2012 18:45	0.01	4,350.32	0.33	13,182.78	1.6	0.32	6 hr	Cloudburst
CSO199	3/23/2012 5:15	3/23/2012 22:30	0.72	23,883.85	1.38	17,307.14	0.82	0.53	24 hr	Cloudburst
CSO199	4/1/2012 8:45	4/1/2012 10:30	0.07	12,975.80	1.59	8,160.88	1.04	0.89	3 hr	Atlas 14
CSO199	4/28/2012 19:15	4/29/2012 4:45	0.40	43,528.75	0.81	53,739.20	0.84	0.62	1 hr	Cloudburst
CSO199	4/30/2012 18:00	5/1/2012 11:45	0.74	35,565.66	0.46	77,316.66	1.17	0.31	3 hr	Atlas 14
CSO199	5/2/2012 5:30	5/2/2012 12:15	0.28	14,654.66			1.4			
CSO199	5/5/2012	5/5/2012 5:45	0.24	23,350.35	1.6	14,593.97	1.94	0.86	6 hr	Cloudburst
CSO199	5/13/2012 2:00	5/13/2012 7:45	0.24	7,891.57	1.72	4,588.12	1.03	0.78	12 hr	Cloudburst
CSO199	5/14/2012 9:45	5/14/2012 15:15	0.23	925			1.99			
CSO199	5/15/2012 15:15	5/15/2012 23:00	0.32	320.47			1.96			
CSO199	5/29/2012 6:45	5/29/2012 9:00	0.09	73,608.27	3.13	23,517.02	1.07	30.32	3 hr	Cloudburst
CSO199	5/31/2012 20:30	5/31/2012 20:30	0.00	1,610.90	0.62	2,598.23	3.85	0.55	12 hr	Cloudburst
CSO200	11/14/2011 21:30	11/14/2011 21:45	0.01	3,324.15	0.32	10,387.96	0.34	0.70	48 hr	Atlas 14
CSO200	11/20/2011 14:00	11/20/2011 14:00	0.00	265.19	0.2	1,325.93	2.43	0.59	48 hr	Atlas 14
CSO200	11/21/2011 8:45	11/21/2011 9:15	0.02	1,520.65	0.19	8,003.41	3	0.59	48 hr	Atlas 14
CSO200	11/21/2011 23:45	11/22/2011 3:00	0.14	1,070.13	0.2	5,350.66	2.75	0.59	48 hr	Atlas 14
CSO200	11/28/2011 15:45	11/28/2011 15:45	0.00	533.5	0.79	675.32	3.29	0.93	48 hr	Atlas 14
CSO200	12/5/2011 15:00	12/5/2011 15:30	0.02	865.23	1.24	697.77	3.59	1.21	48 hr	Cloudburst
CSO200	12/21/2011 6:30	12/21/2011 7:00	0.02	1,356.74	0.64	2,119.90	1.21	0.32	12 hr	Cloudburst
CSO200	1/23/2012 2:45	1/23/2012 2:45	0.00	1,132.38	0.36	3,145.49	0.72	0.39	3 hr	Atlas 14
CSO200	1/26/2012 5:45	1/26/2012 6:00	0.01	157.86	0.43	367.12	1.45	0.57	24 hr	Cloudburst
CSO200	1/26/2012 19:15	1/26/2012 20:30	0.05	854.91	0.68	1,257.22	1.92	0.57	24 hr	Cloudburst
CSO200	2/22/2012 23:00	2/22/2012 23:00	0.00	292.58	0.15	1,950.54	0.42	0.11	1 hr	Cloudburst
CSO200	2/29/2012 8:45	2/29/2012 8:45	0.00	312.02	0.49	636.77	0.67	0.25	12 hr	Cloudburst
CSO200	3/17/2012 18:30	3/17/2012 18:30	0.00	481.45	0.33	1,458.95	1.6	0.32	6 hr	Cloudburst
CSO200	3/23/2012 13:15	3/23/2012 22:15	0.38	15,514.24	1.24	12,511.49	1.25	0.53	24 hr	Cloudburst
CSO200	4/1/2012 8:30	4/1/2012 10:15	0.07	8,950.88	1.57	5,701.20	1.02	0.89	3 hr	Atlas 14
CSO200	4/28/2012 19:15	4/28/2012 19:30	0.01	72,820.47	0.71	102,564.05	0.84	0.62	1 hr	Cloudburst
CSO200	4/30/2012 18:00	4/30/2012 18:15	0.01	14,741.06	0.22	67,004.83	1.17	0.31	3 hr	Atlas 14
CSO200	5/5/2012 1:15	5/5/2012 1:30	0.01	28,038.07	1.25	22,430.45	2.52	0.86	6 hr	Cloudburst
CSO200	5/13/2012 2:15	5/13/2012 7:30	0.22	1,662.66	1.69	983.83	1.13	0.78	12 hr	Cloudburst
CSO200	5/29/2012 6:30	5/29/2012 9:30	0.13	294,154.33	3.17	92,793.16	0.79	30.32	3 hr	Cloudburst
CSO200	5/31/2012 18:30	6/1/2012 1:15	0.28	7,895.54	1.05	7,519.56	3.56	0.55	12 hr	Cloudburst

UnitID	Overflow Start Date	Overflow End Date	Overflow Duration (Days)	Volume (Gallons)	Overflow Event Rain Inches)	Volume Per Inch	Overflow Antecedent Rain	Frequency (Years)	Period	Standard
CSO200	6/21/2012 19:00	6/22/2012 7:00	0.50	4,417.37	0.02	220,868.41	0.2			
CSO206	7/19/2011 19:15	7/19/2011 23:45	0.19	1,798,262.63	1.53	1,175,335.06	0.71	0.91	1 hr	Cloudburst
CSO206	7/29/2011 0:15	7/29/2011 14:45	0.60	128,149.58			0.74			
CSO206	7/30/2011 21:15	7/30/2011 21:45	0.02	96,792.11	0.91	106,364.96	1.64	0.70	1 hr	Cloudburst
CSO206	8/18/2011 8:00	8/18/2011 8:45	0.03	142,476.78	0.36	395,768.83	1.04	0.30	1 hr	Cloudburst
CSO206	9/4/2011 21:00	9/4/2011 21:15	0.01	22,025.08	0.07	314,644.00	0.07	0.05	12 hr	Cloudburst
CSO206	9/6/2011 3:15	9/6/2011 3:30	0.01	10,874.21	0.19	57,232.69	0.31	0.12	12 hr	Cloudburst
CSO206	9/8/2011 16:30	9/8/2011 16:30	0.00	4,069.67			0.41			
CSO206	9/10/2011 20:00	9/10/2011 20:30	0.02	60,498.27	0.06	1,008,304.55	0.47			
CSO206	9/11/2011 20:00	9/11/2011 22:15	0.09	120,355.16	0.22	547,068.90	0.61	0.14	3 hr	Atlas 14
CSO206	9/19/2011 7:00	9/19/2011 23:15	0.68	205,027.02	0.67	306,010.48	0.58	0.31	12 hr	Cloudburst
CSO206	9/23/2011 0:15	9/23/2011 8:30	0.34	531,855.97	0.81	656,612.31	0.82	0.38	12 hr	Cloudburst
CSO206	9/25/2011 19:45	9/26/2011 5:45	0.42	2,992,919.77	3.18	941,169.74	2	4.29	12 hr	Cloudburst
CSO206	10/13/2011 7:00	10/13/2011 8:45	0.07	164,854.39	0.32	515,169.96	0.14	0.23	3 hr	Atlas 14
CSO206	10/18/2011 20:15	10/18/2011 20:15	0.00	2,117.81	0.12	17,648.40	0.55	0.07	3 hr	Atlas 14
CSO206	10/20/2011 1:00	10/20/2011 7:30	0.27	163,538.23	0.34	480,994.80	0.68	0.17	12 hr	Cloudburst
CSO206	10/26/2011 13:30	10/27/2011 5:30	0.67	695,123.46	1.01	688,241.05	0.54	0.42	12 hr	Cloudburst
CSO206	11/3/2011 9:15	11/4/2011 0:30	0.64	333,596.58	0.66	505,449.36	0.29	0.30	3 hr	Atlas 14
CSO206	11/14/2011 21:30	11/15/2011 15:45	0.76	1,384,135.77	1.6	865,084.86	0.31	0.74	48 hr	Atlas 14
CSO206	11/16/2011 5:00	11/16/2011 12:00	0.29	672,151.19	0.63	1,066,906.65	1.9	0.74	48 hr	Atlas 14
CSO206	11/20/2011 4:15	11/21/2011 11:15	1.29	933,508.86	1	933,508.86	2.35	0.69	48 hr	Atlas 14
CSO206	11/22/2011	11/22/2011 20:15	0.84	1,042,591.60	1.32	789,842.12	3.05	0.69	48 hr	Atlas 14
CSO206	11/27/2011 3:15	11/30/2011 13:15	3.42	4,298,522.59	3.45	1,245,948.58	2.52	1.31	48 hr	Cloudburst
CSO206	12/4/2011 16:00	12/6/2011 7:00	1.63	2,893,422.19	3.03	954,924.82	3.11	1.00	48 hr	Atlas 14
CSO206	12/15/2011 4:00	12/15/2011 9:15	0.22	291,971.84	0.47	621,216.68	0.24	0.26	6 hr	Cloudburst
CSO206	12/20/2011 23:15	12/21/2011 7:15	0.33	434,507.23	0.59	736,452.93	0.61	0.27	12 hr	Cloudburst
CSO206	12/22/2011 11:45	12/22/2011 17:45	0.25	492,811.23	0.61	807,887.26	0.78	0.30	12 hr	Cloudburst
CSO206	12/27/2011 1:30	12/27/2011 13:45	0.51	637,575.01	0.88	724,517.06	1.39	0.36	12 hr	Cloudburst
CSO206	1/11/2012 4:45	1/11/2012 11:30	0.28	626,487.13	0.66	949,222.92	0.26	0.31	24 hr	Cloudburst
CSO206	1/11/2012 20:00	1/11/2012 21:30	0.06	95,612.73	0.15	637,418.20	0.79	0.31	24 hr	Cloudburst
CSO206	1/17/2012 2:45	1/17/2012 12:45	0.42	284,866.25	0.37	769,908.78	0.96	0.17	12 hr	Cloudburst
CSO206	1/22/2012 22:30	1/23/2012 5:00	0.27	438,650.66	0.58	756,294.25	0.49	0.33	3 hr	Atlas 14
CSO206	1/25/2012 15:30	1/25/2012 19:30	0.17	189,340.11	0.25	757,360.43	0.78	0.61	24 hr	Cloudburst
CSO206	1/26/2012 5:00	1/27/2012 1:00	0.83	1,119,949.97	1.57	713,343.93	1.06	0.61	24 hr	Cloudburst
CSO206	2/4/2012 8:30	2/4/2012 12:15	0.16	256,646.33	0.37	693,638.74	0.11	0.20	6 hr	Cloudburst
CSO206	2/15/2012 23:45	2/16/2012 7:45	0.33	231,249.14	0.26	889,419.79	0.38	0.11	12 hr	Cloudburst
CSO206	2/21/2012 6:15	2/21/2012 6:15	0.00	2,937.71	0.07	41,967.36	0.35			
CSO206	2/22/2012 23:00	2/22/2012 23:30	0.02	84,682.44	0.12	705,687.03	0.33	0.08	1 hr	Cloudburst
CSO206	2/29/2012 2:00	2/29/2012 9:15	0.30	232,135.50	0.56	414,527.67	0.26	0.27	12 hr	Cloudburst
CSO206	3/2/2012 11:45	3/2/2012 12:15	0.02	59,420.66	0.12	495,172.14	0.71	0.07	12 hr	Cloudburst
CSO206	3/4/2012 23:15	3/5/2012 5:30	0.26	61,069.64	0.22	277,589.29	0.81	0.12	6 hr	Cloudburst
CSO206	3/8/2012 9:45	3/8/2012 17:45	0.33	702,337.23	0.76	924,127.93	0.65	0.37	6 hr	Cloudburst
CSO206	3/12/2012 7:45	3/12/2012 12:00	0.18	12,880.21	0.18	71,556.71	0.96	0.08	12 hr	Cloudburst
CSO206	3/15/2012 18:00	3/16/2012 3:30	0.40	886,608.57	0.97	914,029.46	0.41	0.44	12 hr	Cloudburst
CSO206	3/17/2012 18:15	3/17/2012 21:30	0.14	144,879.72	1.24	116,838.48	1.82	0.84	1 hr	Cloudburst
CSO206	3/23/2012 4:45	3/23/2012 22:45	0.75	1,087,110.90	1.61	675,224.16	1.56	0.62	24 hr	Cloudburst
CSO206	3/31/2012	3/31/2012 0:15	0.01	27,694.43	0.11	251,767.52	0.21	0.07	3 hr	Atlas 14
CSO206	4/1/2012 8:15	4/1/2012 11:15	0.13	2,016,782.49	1.4	1,440,558.92	0.9	0.77	6 hr	Cloudburst

UnitID	Overflow Start Date	Overflow End Date	Overflow Duration (Days)	Volume (Gallons)	Overflow Event Rain Inches)	Volume Per Inch	Overflow Antecedent Rain	Frequency (Years)	Period	Standard
CSO206	4/4/2012 6:15	4/4/2012 6:45	0.02	48,403.22	0.04	1,210,080.61	1.68			
CSO206	4/4/2012 17:30	4/4/2012 17:30	0.00	1,588.53	0.07	22,693.34	1.65	0.09	12 hr	Cloudburst
CSO206	4/14/2012 8:45	4/14/2012 10:30	0.07	78,445.54	0.15	522,970.29	0.14	0.12	1 hr	Cloudburst
CSO206	4/16/2012 6:45	4/16/2012 7:15	0.02	44,595.84	0.08	557,448.00	0.28	0.09	3 hr	Atlas 14
CSO206	4/20/2012 23:30	4/21/2012 4:45	0.22	121,283.33	0.25	485,133.32	0.42	0.13	12 hr	Cloudburst
CSO206	4/26/2012 5:00	4/26/2012 5:00	0.00	13,017.87	0.07	185,969.56	0.43			
CSO206	5/4/2012 16:15	5/5/2012 5:00	0.53	745,649.63	1.36	548,271.79	1.14	0.73	3 hr	Atlas 14
CSO206	5/12/2012 23:30	5/13/2012 15:00	0.65	1,099,974.38	2.25	488,877.50	0.34	0.94	12 hr	Cloudburst
CSO206	5/29/2012 6:30	5/29/2012 13:00	0.27	1,029,247.48	3.21	320,637.84	0.52	28.72	3 hr	Atlas 14
CSO206	5/31/2012 20:00	6/1/2012 1:00	0.21	50,243.38	1.01	49,745.92	3.79	0.54	12 hr	Cloudburst
CSO206	6/4/2012 16:30	6/4/2012 17:30	0.04	4,367.23	0.15	29,114.86	4.59	0.10	12 hr	Cloudburst
CSO206	6/11/2012 3:45	6/11/2012 3:45	0.00	2,692.25	0.02	134,612.48	0.23			
CSO206	6/17/2012 12:00	6/17/2012 12:00	0.00	3,216.52	0.09	35,739.09	0.28	0.11	3 hr	Atlas 14
CSO210	7/12/2011 20:30	7/12/2011 22:15	0.07	26,770.83	0.22	121,685.61	0.66	0.12	6 hr	Cloudburst
CSO210	7/18/2011 12:45	7/29/2011 6:30	10.74	2,395,520.87	1.21	1,979,769.31	0.23			
CSO210	8/7/2011 2:30	8/7/2011 11:15	0.36	1,297,083.32	1.42	913,438.95	0.11	0.82	3 hr	Atlas 14
CSO210	8/8/2011 16:30	8/11/2011 10:00	2.73	166,354.16	0.49	339,498.29	1.71	0.17	3 hr	Atlas 14
CSO210	8/13/2011 16:45	8/13/2011 19:45	0.13	43,854.17	0.58	75,610.63	2.39	0.50	1 hr	Cloudburst
CSO210	9/19/2011 8:00	9/19/2011 16:45	0.36	63,437.50	0.56	113,281.25	0.62	0.27	24 hr	Cloudburst
CSO210	9/23/2011 3:00	9/23/2011 10:00	0.29	236,145.83	0.73	323,487.44	1.02	0.34	12 hr	Cloudburst
CSO210	9/25/2011 23:30	9/26/2011 11:15	0.49	5,523,645.84	3.61	1,530,095.80	2.84	9.17	12 hr	Atlas 14
CSO210	10/13/2011 9:30	10/13/2011 10:15	0.03	7,604.17	0.33	23,042.93	0.32	0.21	12 hr	Cloudburst
CSO210	10/26/2011 23:45	10/27/2011 3:30	0.16	145,104.17	0.82	176,956.30	0.9	0.41	12 hr	Cloudburst
CSO210	11/14/2011 21:15	12/1/2011 14:15	16.71	5,235,104.18	6.67	784,873.19	0.3	0.61	48 hr	Atlas 14
CSO210	12/4/2011 16:30	12/12/2011 10:15	7.74	3,105,312.51	3.23	961,397.06	2.9	1.38	48 hr	Cloudburst
CSO210	12/15/2011 7:00	12/19/2011 12:30	4.23	442,395.83	0.53	834,709.11	0.41	0.24	6 hr	Cloudburst
CSO210	12/21/2011 6:00	12/29/2011 6:30	8.02	1,278,437.49	1.81	706,319.06	1.19	0.33	12 hr	Cloudburst
CSO210	1/11/2012 5:30	1/11/2012 14:30	0.38	317,083.33	0.79	401,371.31	0.31	0.37	12 hr	Cloudburst
CSO210	1/17/2012 12:30	1/17/2012 14:15	0.07	38,333.33	0.19	201,754.38	1.38	0.16	12 hr	Cloudburst
CSO210	1/23/2012 3:30	1/23/2012 7:15	0.16	185,520.84	0.59	314,442.10	0.79	0.31	3 hr	Atlas 14
CSO210	1/26/2012 5:15	1/30/2012 6:45	4.06	1,423,020.83	1.54	924,039.50	1.14	0.59	24 hr	Cloudburst
CSO210	2/4/2012 10:30	2/7/2012 16:30	3.25	324,270.84	0.36	900,752.34	0.36	0.20	3 hr	Atlas 14
CSO210	2/29/2012 8:15	3/5/2012 7:15	4.96	461,875.02	0.75	615,833.36	0.54	0.28	1 hr	Cloudburst
CSO210	3/8/2012 12:15	3/12/2012 5:45	3.73	314,375.00	0.8	392,968.75	0.76	0.33	6 hr	Cloudburst
CSO210	3/16/2012 1:30	3/17/2012 23:45	1.93	545,729.16	1.43	381,628.78	0.96	0.46	12 hr	Cloudburst
CSO210	3/23/2012 12:45	3/24/2012 7:30	0.78	923,854.16	1.42	650,601.52	1.18	0.60	24 hr	Cloudburst
CSO210	4/1/2012 9:30	4/1/2012 14:00	0.19	416,909.91	1.3	320,699.93	1.17	0.73	3 hr	Atlas 14
CSO210	4/28/2012 19:00	4/28/2012 22:45	0.16	153,116.55	0.65	235,563.92	0.75	0.54	1 hr	Cloudburst
CSO210	4/30/2012 20:15	4/30/2012 21:15	0.04	31,051.18	0.39	79,618.40	1.28	0.26	3 hr	Atlas 14
CSO210	5/4/2012 23:45	5/5/2012 17:30	0.74	843,603.50	1.48	570,002.36	1.47	0.77	6 hr	Cloudburst
CSO210	5/6/2012 13:30	5/6/2012 13:30	0.00	2.69			1.9			
CSO210	5/13/2012 2:45	5/13/2012 18:30	0.66	808,703.75	2	404,351.88	1.31	0.81	12 hr	Cloudburst
CSO210	5/19/2012 13:45	5/19/2012 18:00	0.18	2,230.78			2.13			
CSO210	5/20/2012 12:15	5/20/2012 15:15	0.13	1,753.33			0.18			
CSO210	5/26/2012 12:45	5/26/2012 16:45	0.17	1,896.71			0.03			
CSO210	5/27/2012 13:00	5/27/2012 17:00	0.17	1,915.08			0.03			
CSO210	5/28/2012 13:30	5/28/2012 15:45	0.09	952.31			0.03			
CSO210	5/29/2012 6:15	5/29/2012 15:15	0.38	4,826,449.80	3.17	1,522,539.37	1.01	29.79	3 hr	Cloudburst

UnitID	Overflow Start Date	Overflow End Date	Overflow Duration (Days)	Volume (Gallons)	Overflow Event Rain Inches)	Volume Per Inch	Overflow Antecedent Rain	Frequency (Years)	Period	Standard
CSO210	5/31/2012 18:15	6/1/2012 5:15	0.46	291,987.18	1.17	249,561.69	3.56	0.55	12 hr	Cloudburst
CSO210	6/9/2012 16:15	6/9/2012 16:15	0.00	159.11			0.22			
CSO210	6/12/2012 14:30	6/12/2012 14:30	0.00	2.61			0.01			
CSO210	6/15/2012 13:15	6/15/2012 17:30	0.18	2,705.55			0.01			
CSO210	6/16/2012 15:45	6/16/2012 16:45	0.04	636.54			0.01			
CSO210	6/19/2012 14:15	6/19/2012 15:15	0.04	164.36			0.17			
CSO210	6/20/2012 12:45	6/20/2012 15:45	0.13	1,286.44			0.17			
CSO210	6/21/2012 13:00	6/21/2012 16:45	0.16	1,111.54			0.17			
CSO210	6/22/2012 12:45	6/22/2012 16:15	0.15	949.66			0.19			
CSO210	6/23/2012 12:15	6/23/2012 18:15	0.25	3,965.66			0.19			
CSO210	6/24/2012 12:00	6/24/2012 18:00	0.25	3,506.65			0.02			
CSO210	6/25/2012 12:30	6/25/2012 17:45	0.22	2,859.40			0.02			
CSO210	6/26/2012 16:15	6/26/2012 16:15	0.00	156.48			0.02			
CSO210	6/27/2012 15:30	6/27/2012 16:30	0.04	5.33			0.02			
CSO210	6/28/2012 13:15	6/28/2012 18:15	0.21	3,007.79			0.02			
CSO210	6/29/2012 12:00	6/29/2012 19:00	0.29	6,209.82						
CSO210	6/30/2012 12:45	6/30/2012 19:15	0.27	6,843.41						
CSO211	7/11/2011 20:30	7/12/2011 19:00	0.94	940,937.49	0.1	9,409,374.90	1.14			
CSO211	7/19/2011 22:45	7/29/2011 6:30	9.32	32,081,458.45	1.21	26,513,602.03	0.44	1.42	1 hr	Cloudburst
CSO211	8/7/2011 3:00	8/8/2011 6:00	1.13	28,603,645.95	1.43	20,002,549.61	0.62	0.82	3 hr	Atlas 14
CSO211	8/13/2011 17:30	8/13/2011 20:00	0.10	9,088,437.51	0.58	15,669,719.85	2.49	0.50	1 hr	Cloudburst
CSO211	9/19/2011 7:45	9/23/2011 10:45	4.13	9,644,791.61	1.33	7,251,723.02	0.62	0.27	24 hr	Cloudburst
CSO211	9/25/2011 23:15	9/27/2011 11:45	1.52	44,756,146.17	3.61	12,397,824.42	2.78	9.17	12 hr	Atlas 14
CSO211	9/29/2011 11:45	9/29/2011 21:00	0.39	5,729.17	0.01	572,916.67	4.56			
CSO211	9/30/2011 12:30	9/30/2011 12:30	0.00	416.67			3.84			
CSO211	10/3/2011 13:45	10/4/2011 6:00	0.68	54,583.33			0.01			
CSO211	10/10/2011 9:30	10/10/2011 9:30	0.00	312.5						
CSO211	10/11/2011 11:00	10/11/2011 11:00	0.00	416.67						
CSO211	10/15/2011 12:15	10/15/2011 12:15	0.00	104.17			0.47			
CSO211	10/16/2011 10:30	10/16/2011 10:30	0.00	312.5			0.47			
CSO211	10/21/2011 4:15	10/21/2011 8:15	0.17	2,243,437.46			0.82			
CSO211	10/27/2011	10/27/2011 3:00	0.13	10,175,729.12	0.77	13,215,232.62	1.02	0.41	12 hr	Cloudburst
CSO211	10/28/2011 23:15	10/29/2011 9:15	0.42	86,597,812.12			1.06			
CSO211	10/30/2011 0:30	10/30/2011 9:00	0.35	99,420,208.63			1.06			
CSO211	11/1/2011 3:00	11/1/2011 8:30	0.23	52,347,291.51			1.07			
CSO211	11/5/2011 2:45	11/5/2011 8:30	0.24	53,808,333.32			0.63			
CSO211	11/6/2011 5:00	11/6/2011 8:00	0.13	13,901,666.70			0.63			
CSO211	11/11/2011 2:15	11/11/2011 9:45	0.31	91,047,916.41			0.06			
CSO211	11/14/2011 21:45	11/18/2011 0:15	3.10	53,757,187.48	1.89	28,442,956.34	0.34	0.61	48 hr	Atlas 14
CSO211	11/18/2011 9:30	11/19/2011 1:15	0.66	51,266,249.74			1.89			
CSO211	11/20/2011 18:30	11/26/2011 3:45	5.39	19,626,666.64	1.63	12,040,899.78	2.3	0.51	48 hr	Atlas 14
CSO211	11/27/2011 2:30	11/30/2011 10:00	3.31	66,433,750.16	3.09	21,499,595.52	1.89	0.93	48 hr	Atlas 14
CSO211	11/30/2011 19:45	12/1/2011 1:45	0.25	72,777,187.38			3.09			
CSO211	12/1/2011 10:00	12/1/2011 12:00	0.08	12,263,125.04			3.09			
CSO211	12/1/2011 21:00	12/3/2011 9:00	1.50	233,001,562.86			3.09			
CSO211	12/4/2011 6:00	12/9/2011 10:45	5.20	276,330,833.11	3.26	84,764,059.24	2.71	1.38	48 hr	Cloudburst
CSO211	12/9/2011 23:30	12/11/2011 1:45	1.09	123,406,354.46			3.26			
CSO211	12/11/2011 11:15	12/16/2011 0:45	4.56	65,947,916.05	0.53	124,430,030.29	3.23			

UnitID	Overflow Start Date	Overflow End Date	Overflow Duration (Days)	Volume (Gallons)	Overflow Event Rain Inches)	Volume Per Inch	Overflow Antecedent Rain	Frequency (Years)	Period	Standard
CSO211	12/16/2011 20:00	12/18/2011 10:30	1.60	261,889,688.20	0.01	26,188,968,820.12	0.55			
CSO211	12/21/2011 6:15	12/22/2011 21:00	1.61	6,102,500.00	1.16	5,260,775.87	1.25	0.33	12 hr	Cloudburst
CSO211	12/23/2011 21:30	12/24/2011 11:00	0.56	66,593,541.28			1.21			
CSO211	12/24/2011 19:30	12/25/2011 10:00	0.60	159,664,999.86			1.21			
CSO211	12/26/2011 1:45	12/26/2011 11:00	0.39	53,226,666.94			1.21			
CSO211	12/26/2011 20:45	12/28/2011 11:15	1.60	59,311,145.90	0.64	92,673,665.47	1.21	0.25	12 hr	Cloudburst
CSO211	12/29/2011 3:30	12/29/2011 6:00	0.10	15,603,541.55			1.13			
CSO211	12/31/2011 1:00	12/31/2011 13:30	0.52	2,708.33			0.65			
CSO211	1/2/2012 1:30	1/2/2012 16:30	0.63	149,250,103.69	0.02	7,462,505,184.36	0.65			
CSO211	1/3/2012 1:00	1/3/2012 1:30	0.02	3,764,895.84	0.01	376,489,583.65	0.56			
CSO211	1/3/2012 14:30	1/3/2012 19:00	0.19	57,793,958.82			0.04			
CSO211	1/4/2012 5:45	1/4/2012 9:15	0.15	26,344,270.96			0.04			
CSO211	1/4/2012 23:45	1/5/2012 10:15	0.44	66,823,020.30			0.04			
CSO211	1/8/2012	1/8/2012 10:15	0.43	89,898,958.22			0.03			
CSO211	1/9/2012 21:45	1/10/2012 10:30	0.53	123,739,061.99			0.01			
CSO211	1/11/2012 6:00	1/12/2012 17:15	1.47	36,504,791.23	1	36,504,791.23	0.41	0.37	12 hr	Cloudburst
CSO211	1/13/2012 17:15	1/13/2012 17:30	0.01	2,249,270.84			1.03			
CSO211	1/14/2012 13:00	1/14/2012 22:00	0.38	58,589,063.03	0.01	5,858,906,302.85	1.03			
CSO211	1/15/2012 6:15	1/16/2012 8:00	1.07	112,207,916.82	0.01	11,220,791,681.61	1.04			
CSO211	1/17/2012 12:30	1/17/2012 13:45	0.05	703,333.32	0.19	3,701,754.33	1.38	0.16	12 hr	Cloudburst
CSO211	1/17/2012 22:30	1/20/2012 17:15	2.78	533,476,980.87	0.01	53,347,698,087.00	1.38			
CSO211	1/21/2012 6:45	1/21/2012 7:30	0.03	7,816,979.17			0.38			
CSO211	1/21/2012 16:30	1/22/2012 8:30	0.67	203,937,082.70			0.37			
CSO211	1/23/2012 3:30	1/24/2012 10:00	1.27	23,239,270.84	0.6	38,732,118.07	0.79	0.31	3 hr	Atlas 14
CSO211	1/24/2012 22:45	1/25/2012 11:30	0.53	59,609,583.70			0.62			
CSO211	1/26/2012 5:30	1/27/2012 10:00	1.19	23,953,229.39	1.52	15,758,703.55	1.15	0.59	24 hr	Cloudburst
CSO211	1/28/2012 2:30	1/28/2012 5:15	0.11	93,125.00	0.01	9,312,500.04	2.34			
CSO211	1/28/2012 14:00	1/29/2012 9:00	0.79	57,338,437.97	0.01	5,733,843,797.00	2.36			
CSO211	1/29/2012 21:45	1/30/2012 10:15	0.52	61,411,562.22			2.32			
CSO211	1/31/2012 0:30	1/31/2012 3:45	0.14	62,291.67			1.76			
CSO211	2/1/2012 5:00	2/2/2012 2:00	0.88	794,479.17	0.01	79,447,917.24	1.79			
CSO211	2/5/2012 22:15	2/6/2012 5:00	0.28	73,608,124.70			0.41			
CSO211	2/7/2012 1:45	2/7/2012 10:15	0.35	16,501,354.33			0.41			
CSO211	2/9/2012 4:15	2/10/2012 11:30	1.30	259,657,499.50			0.4			
CSO211	2/11/2012 0:45	2/11/2012 6:30	0.24	26,652,083.40	0.02	1,332,604,169.85	0.41			
CSO211	2/12/2012 3:00	2/12/2012 3:15	0.01	1,826,250.04			0.06			
CSO211	2/12/2012 12:30	2/13/2012 0:45	0.51	78,702,916.82			0.06			
CSO211	2/13/2012 10:30	2/13/2012 23:45	0.55	35,346,041.28	0.01	3,534,604,128.20	0.06			
CSO211	2/20/2012	2/20/2012 11:30	0.48	62,476,353.92			0.53			
CSO211	2/25/2012 8:30	2/25/2012 9:30	0.04	13,874,478.98			0.25			
CSO211	2/25/2012 19:45	2/26/2012 10:30	0.61	19,764,583.27			0.25			
CSO211	2/26/2012 23:45	2/26/2012 23:45	0.00	1,736,145.81			0.24			
CSO211	2/28/2012 7:00	2/28/2012 8:30	0.06	12,535,208.38			0.18			
CSO211	2/29/2012 9:30	3/4/2012 16:00	4.27	47,639,896.07	0.56	85,071,242.98	0.65	0.28	1 hr	Cloudburst
CSO211	3/5/2012 2:00	3/6/2012 10:00	1.33	19,406,249.96	0.1	194,062,499.63	0.74			
CSO211	3/6/2012 23:30	3/10/2012 9:00	3.40	25,731,354.45	0.71	36,241,344.29	0.76			
CSO211	3/16/2012 1:45	3/21/2012 4:45	5.13	2,479,791.65	1.4	1,771,279.75	1.01	0.46	12 hr	Cloudburst
CSO211	3/23/2012 12:45	3/24/2012 7:30	0.78	28,840,833.32	1.42	20,310,446.00	1.18	0.60	24 hr	Cloudburst

APPENDIX E – ACRONYMS

Appendix E - Acronyms for Project WIN Annual Report

AAM	Advanced Asset Management
AAOV	Average Annual Overflow Volume
ADAPS	Automated Data Processing System
BAP	Blockage Abatement Program
BGC	Beargrass Creek
BMP	Best Management Practices
BUD	Before "U" Dig
CCP	Composite Correction Plan
CCTV	Closed Caption Television
CD	Consent Decree
CDS	Continuous Deflection Separator
CIPP	Cured in Place Pipe
CMF	Central Maintenance Facility
CMMS	Computerized Maintenance Management System
CMOM	Capacity Management Operations and Maintenance
CPE	Comprehensive Performance Evaluations
CSO	Combined Sewer Overflow
CSOFT	Software Name
CSS	Combined Sewer System
CSSA	Continuing Sewer System Assessment
DMR	Discharge Monitoring Report
DO	Dissolved Oxygen
DWO	Dry Weather Overflow
eB	Enterprise Bridge (Enterprise Informatics scanning software for document management)
EGIS	Emergency Geographic Information System
EMC	Event Mean Concentration
EPA	Environmental Protection Agency
ERP	Enforcement Response Plan
ERPI	Emergency Response Pretreatment Inspectors
FCN	Field Correction Notice
FEMA	Federal Emergency Management Agency
FM	Force Main
FMIS	Fleet Management Information System
FOG	Fats, Oil & Grease
FPS	Flood Pump Station
FSE	Food Service Establishment
FY	Fiscal Year
GCE	Grease Control Equipment
GIS	Geographic Information System
GLPM	Gravity Line Preventive Maintenance
GPD	Gallons per Day
HMI	Human Machine Interface
HR	Human Resources
I&FP	Infrastructure & Flood Protection (MSD Division)
ICA	Interceptor Condition Assessment
ID	Identification
I&I	Inflow and Infiltration
IMS	Information Management System

Appendix E - Acronyms for Project WIN Annual Report

IOAP	Integrated Overflow Abatement Plan
ISSDP	Interim Sanitary Sewer Discharge Plan
ID	Identification
IT	Information Technology
IWD	Industrial Waste Department
JCPS	Jefferson County Public Schools
KDEP	Kentucky Department of Environmental Protection
KPDES	Kentucky Pollutant Discharge Elimination System
KY	Kentucky
LE	Lateral Extension
LF	Linear Feet
LID	Low Impact Development
LIMS	Laboratory Information Management System
LMDPHW	Louisville Metro Department of Public Health and Wellness
LMPD	Louisville Metro Police Department
LTC	Long Term Control
LTCP	Long Term Control Plan
LOJIC	Louisville and Jefferson County Information Consortium
MDS	Main Diversion Structure
MEB	Main Equipment Building
MG	Million Gallons
MGD	Million Gallons Per Day
MH	Manhole
MO	Metro Operations
MOA	Memorandum of Agreement
MOR	Monthly Operating Report
MOU	Memorandum of Understanding
MSD	Metropolitan Sewer District (Louisville and Jefferson County)
NACWA	National Association of Clean Water Agencies
NDD	Non-Domestic Dischargers
NMC	Nine Minimum Controls
NOV	Notice of Violation
NPR	National Public Radio
MC	Mission Critical
ORD	Office of Research and Development
ORSANCO	Ohio River Valley Water Sanitation Commission
PACP	Pipeline Assessment and Certification Program
PCM	Post Construction Monitoring
PI	Plant Information System
PM	Preventive Maintenance
POC	Pollutants of Concern
PRIDE	Personal Responsibility in a Desirable Environment
PS	Pump Station
PSC	Property Service Connection
QA/QC	Quality Assurance/Quality Control
RDII	Rainfall-Derived Infiltration and Inflow
RS	Regulatory Services
RTC	Real Time Control

Appendix E - Acronyms for Project WIN Annual Report

S&F	Solids and Floatables
SAP	Software Name
SCADA	Supervisory Control And Data Acquisition
SCAP	System Capacity Assurance Plan
SEP	Supplemental Environmental Projects
SIU	Significant Industrial User
SNC	Significant not compliance
SOP	Standard Operating Procedure
SORP	Sewer Overflow Response Protocol
SSDP	Sanitary Sewer Discharge Plan
SSES	Sanitary Sewer Evaluation Study
SSO	Sanitary Sewer Overflow
SSOP	Sanitary Sewer Overflow Plan
SWO	Stop Work Order
SWOR2	Southwestern Outfall Relief - Phase 2
SWPS	Southwestern Pump Station
TISCIT	Totally Integrated Sonar and CCTV Inspection Technique
TM	Technical Memorandum
TMDL	Total Maximum Daily Load
TV	Television
UDR	Unusual Discharge Request
UIM	Utility Information Management
UK	University of Kentucky
USACE	U.S. Army Corps of Engineers
USGS	United States Geological Survey
WDR	Wastewater Discharge Regulators
WIN	Waterway Improvements Now
WQT	Water Quality Tool
WQTC	Water Quality Treatment Center
WW	Wet Weather
WWT	Wet Weather Team

APPENDIX F – MAY 1, 2011, LETTER TO RESIDENTS



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

April 6, 2012

Dear Louisville Metro Resident:

MSD is committed to providing clean, safe waterways to be used by the community for recreational purposes and also to be a home for thriving populations of fish and wildlife. As part of this commitment, we are continuing with a 19-year comprehensive sewer improvement program, Project WIN (Waterway Improvements Now), which will continue through 2024. This program is designed to minimize major sources of water pollution by limiting the overloading of sewers from excessive rainwater, thereby reducing combined and sanitary sewer overflows.

As a resident living or working near the Ohio River or one of the forks of Beargrass Creek, your neighborhood is particularly susceptible to sewer overflows during rain storms. Included with this letter, MSD is providing some important information to aid in minimizing the potential risks associated with these waterways. We also provided information about how you can improve water quality by actions taken in your own home and neighborhood.

We look forward to working with you in continuing efforts to improve our community and the quality of our waterways. We can protect and enhance Louisville's Metro's waterways to ensure they are clean, safe and enjoyable for many generations.

Please call us at (502) 587-0603, or visit us online at www.msdlouky.org/projectwin to learn more about project WIN and how you can become part of the WINning team!

Sincerely,

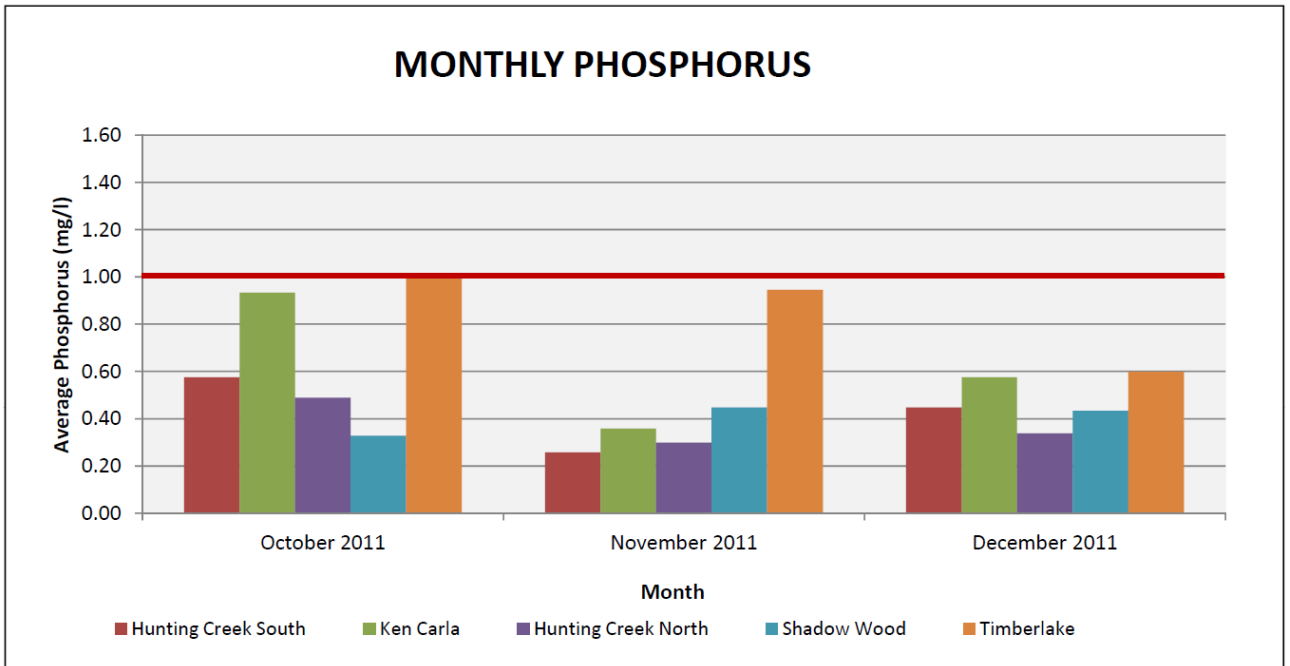
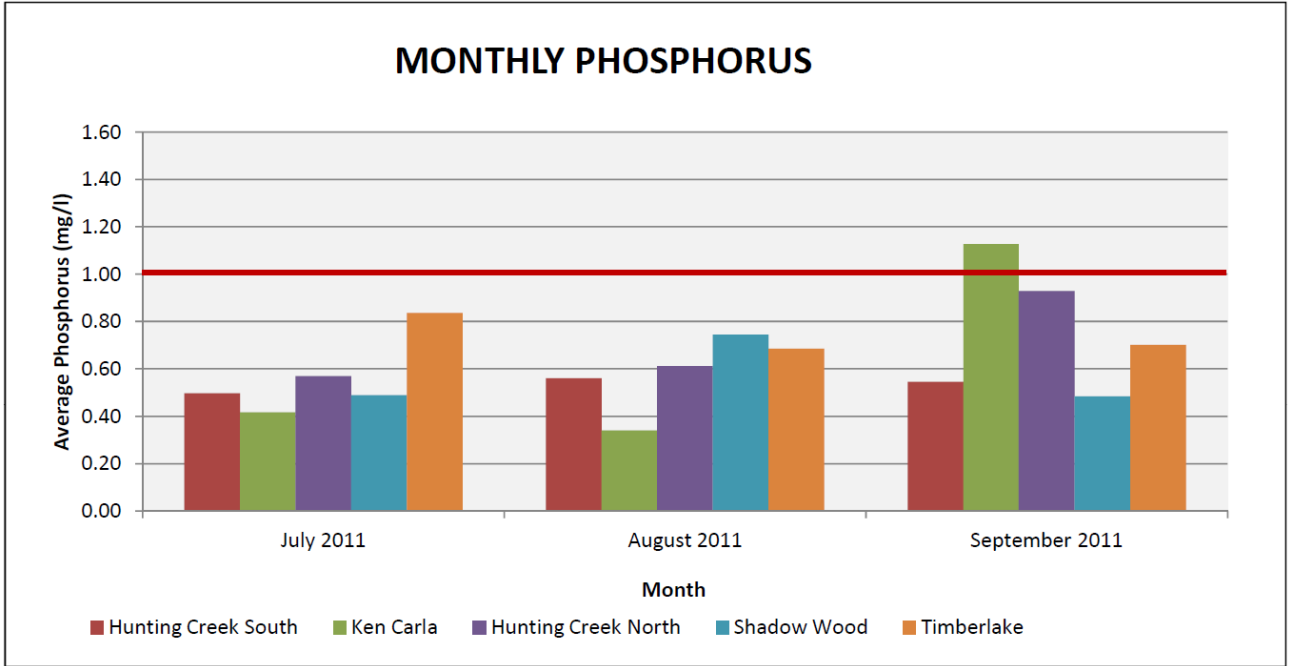
Greg Heitzman
MSD Interim Executive Director



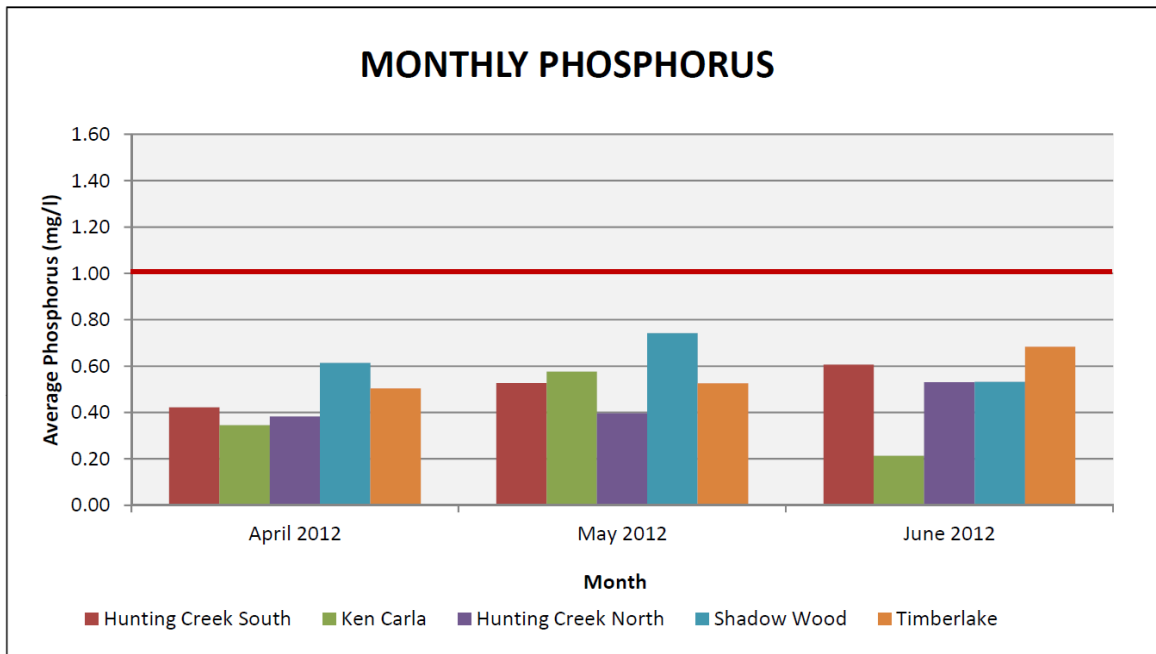
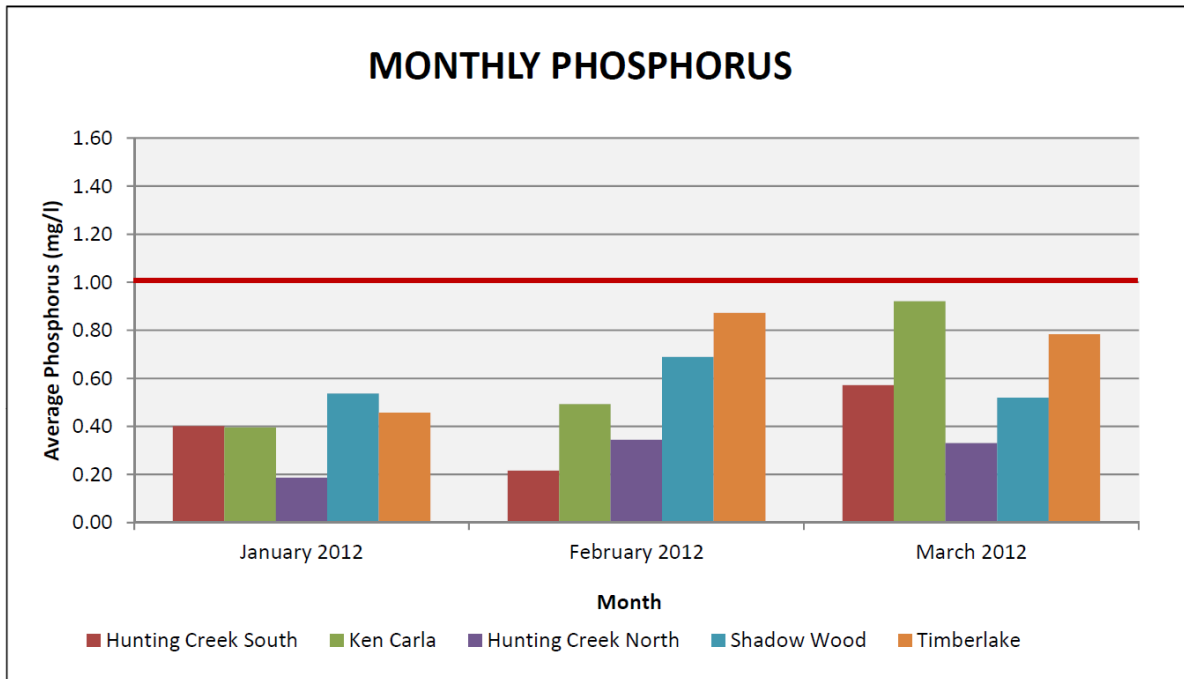
*Beneficial Use of Louisville's Biosolids
www.louisvillegreen.com*

APPENDIX G – PHOSPHORUS MONITORING DATA

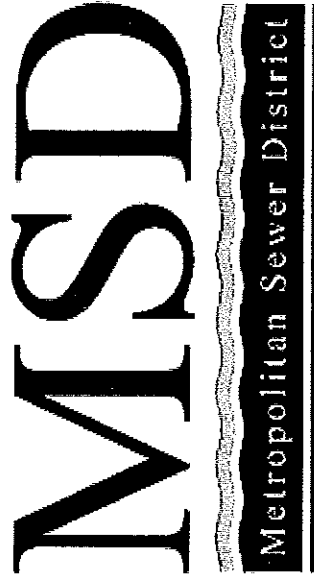
Appendix G -
FY 12 Phosphorous Data



Appendix G -
FY 12 Phosphorous Data



APPENDIX H – ORGANIZATIONAL CHART



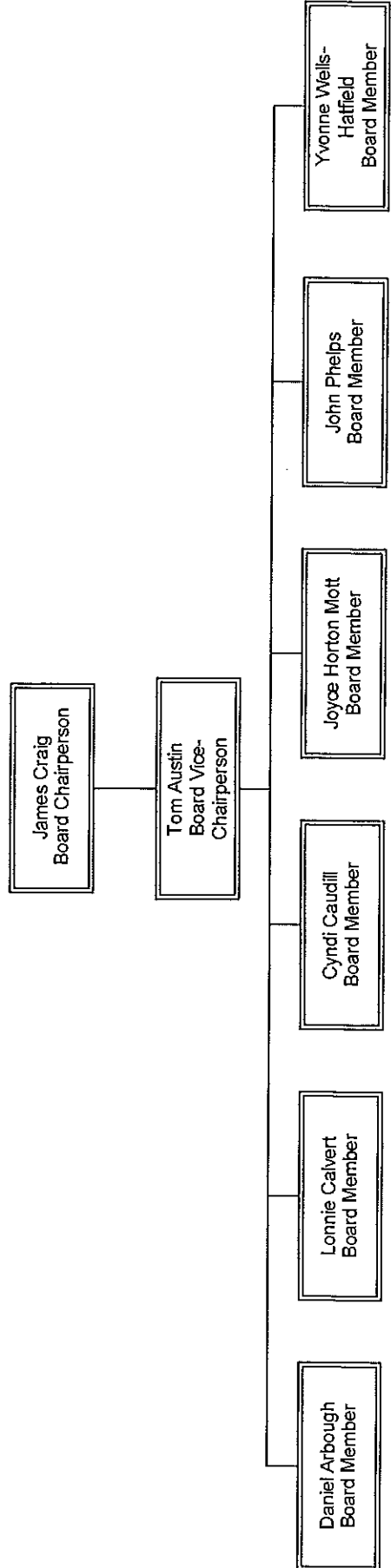
Louisville and Jefferson County
Metropolitan Sewer District

Organizational Chart
October 8, 2012

Organizational Summary

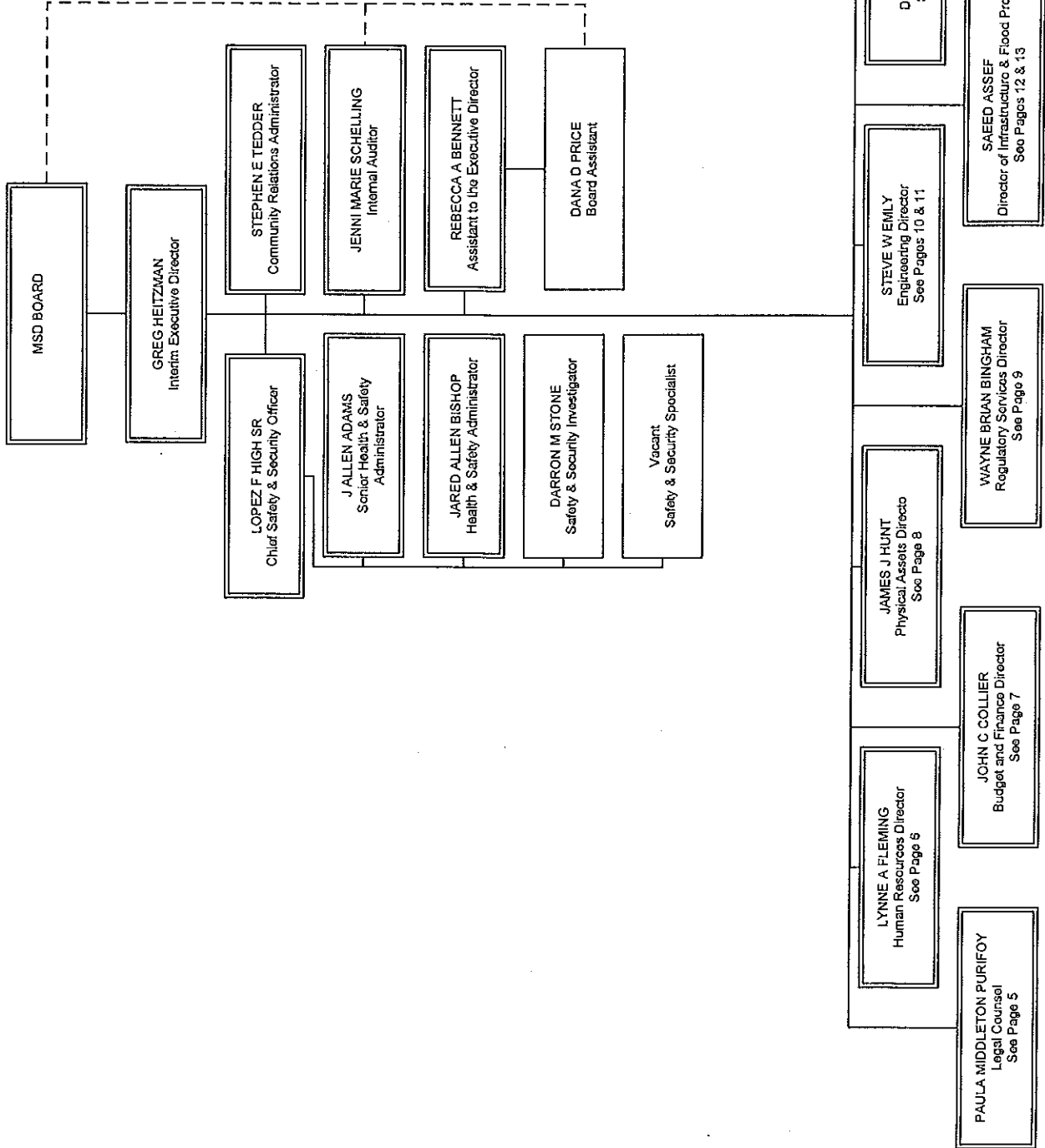
	<u>Authorized</u>	<u>Actual</u>	<u>Vacant</u>	<u>Exempt</u>	<u>Non-Exempt</u>	<u>Unit</u>	<u>Overbudget</u>
Executive Offices Division	10	9	1	7	3	0	0
Legal Division	8	7	1	5	3	0	0
Human Resources Division	13	11	2	7	6	0	0
Finance Division	23	19	4	10	13	0	0
Physical Assets Division	40	36	4	8	14	18	0
Regulatory Services Division	61	51	10	26	35	0	0
Engineering Division							
Development/Plan Review	23	20	3	11	12	0	0
Design/Construction	28.5	26.5	2	18	10.5	0	0
Infrastructure & Flood Prot Division							
Administration & Support Services	70	69	1	13	18	39	0
Sewer/Flood Prot. & Stormwater Drain.	149	140	9	13	3	133	0
Operations Division							
MFWTP Operations	53.5	49.5	4	11	8.5	34	0
MFWTP Maintenance	38	37	1	5	6	27	0
Metro Operations & Maintenance	80	79	1	14	8	58	0
Information Technology Division							
Information Technology	45	41	4	32	13	0	0
Customer Relations	19	19	0	2	17	0	0
DISTRICT TOTAL	661	614	47	182	170	309	0

Board Members



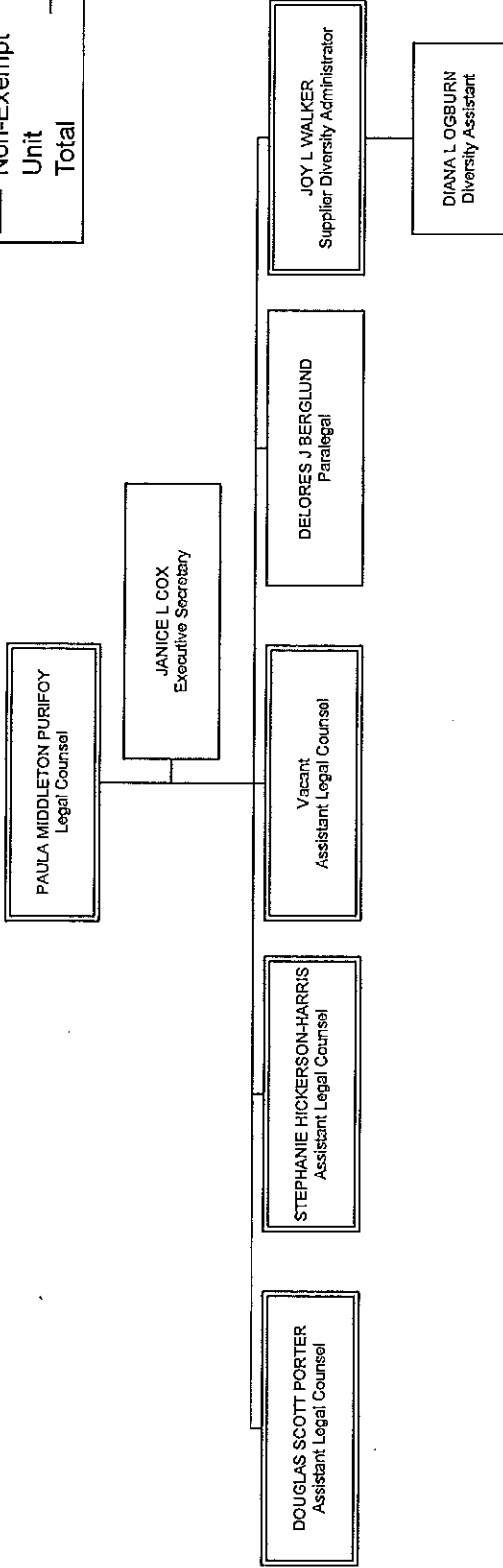
Executive Offices Division

BUDGET STATUS	
Actual	9
Vacant	1
Authorized	10
Exempt	7
Non-Exempt	3
Unit	0
Total	10



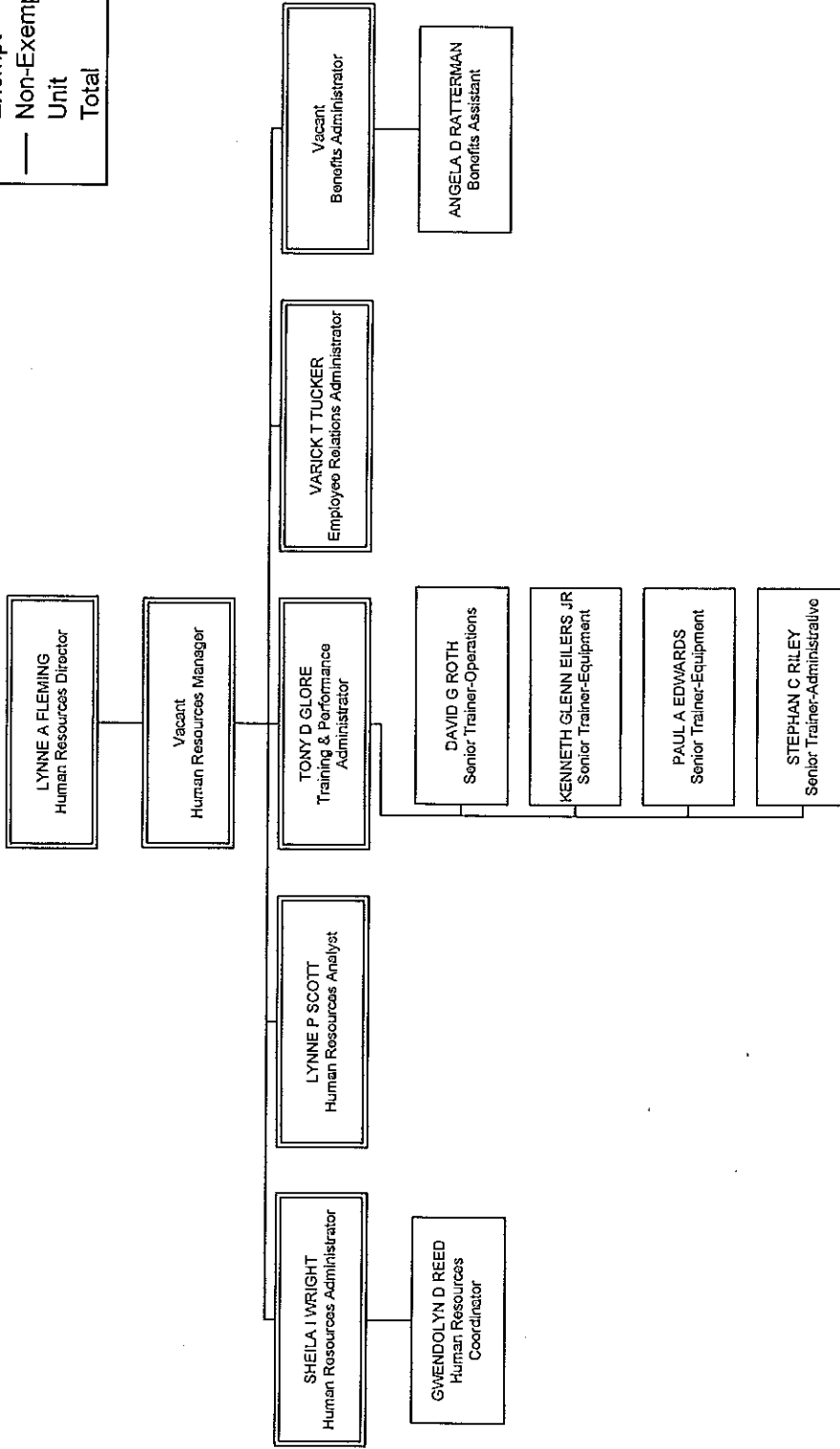
Legal Division

BUDGET STATUS	
Actual	7
Vacant	1
Authorized	8
Exempt	5
Non-Exempt	3
Unit	0
Total	8



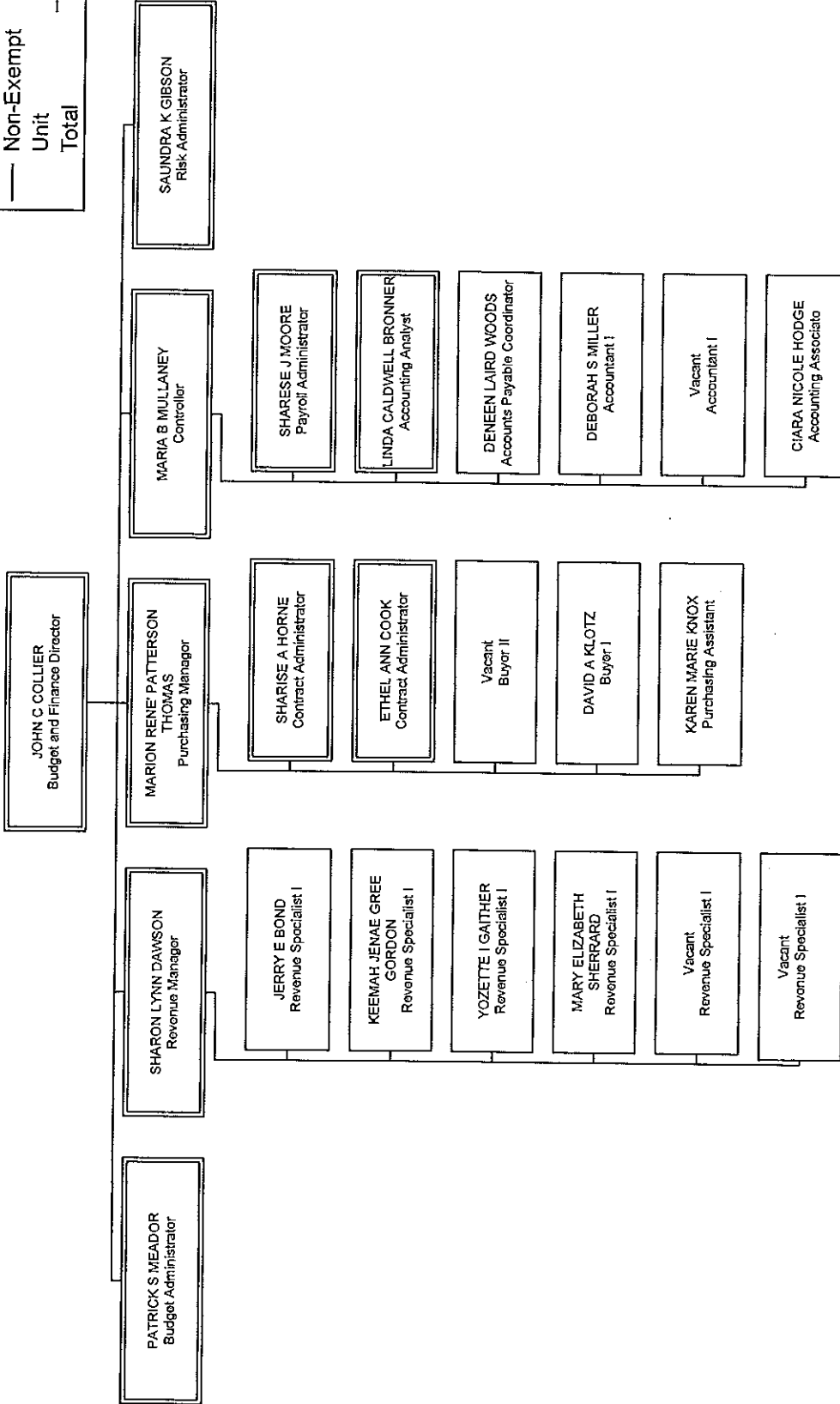
Human Resources Division

BUDGET STATUS	
Actual	11
Vacant	2
Authorized	13
Exempt	7
Non-Exempt	6
Unit	0
Total	13



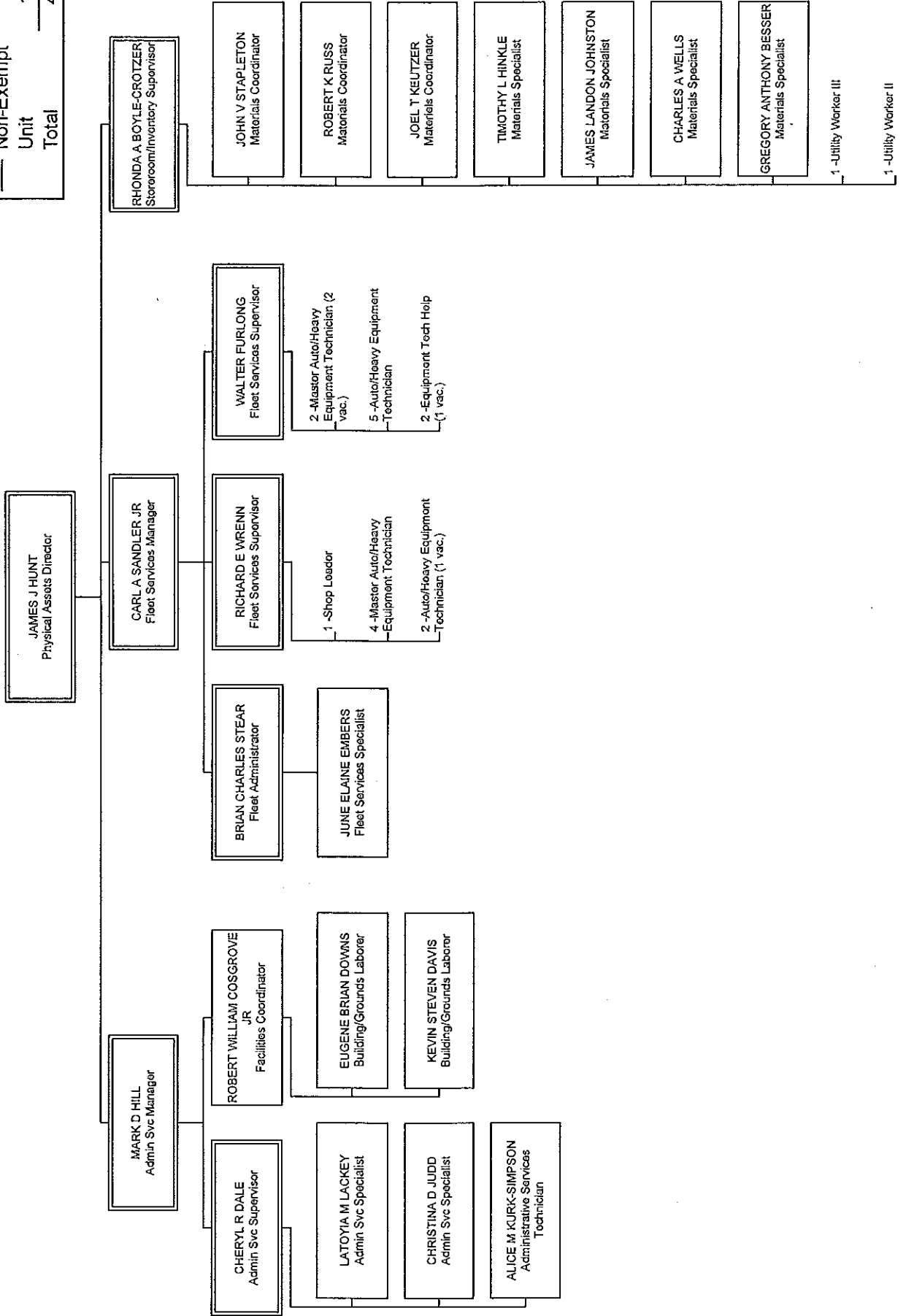
Finance Division

BUDGET STATUS	
Actual	19
Vacant	4
Authorized	23
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Exempt	10
Non-Exempt	13
Unit	0
Total	23



Physical Assets Division

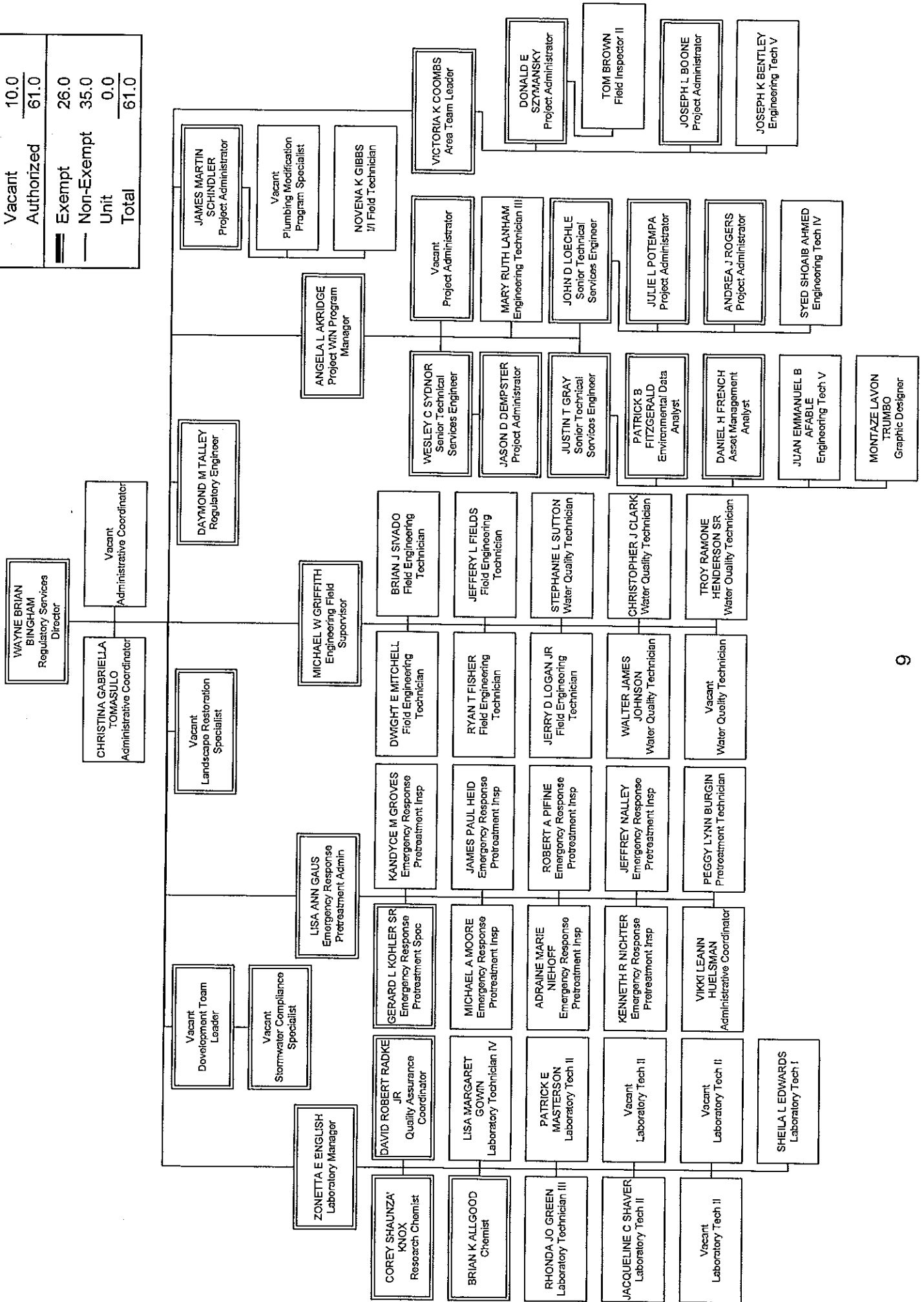
BUDGET STATUS	
Actual	36
Vacant	4
Authorized	40
Exempt	8
Non-Exempt	14
Unit	18
Total	40



Regulatory Services Division

BUDGET STATUS

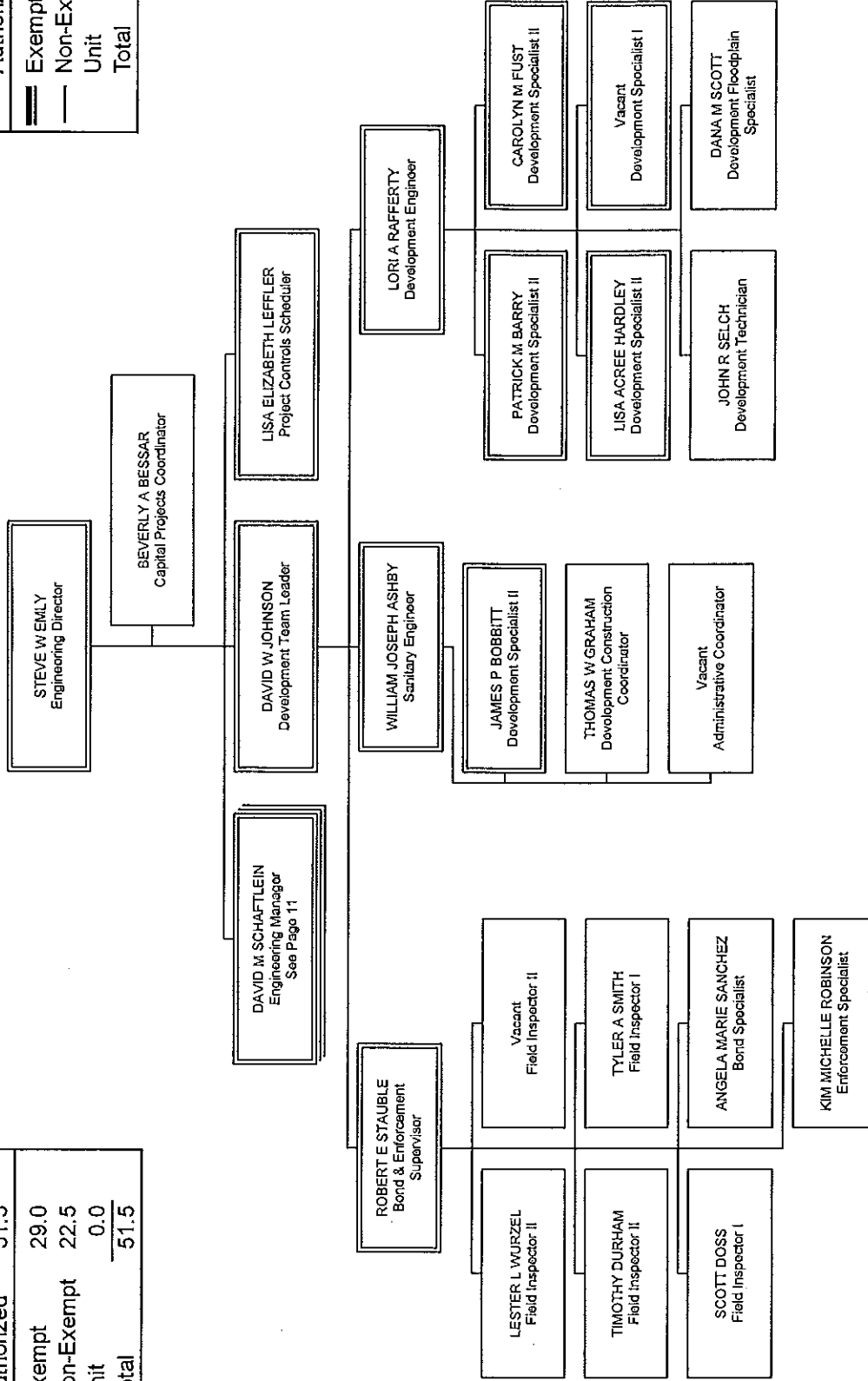
Actual	51.0
Vacant	10.0
Authorized	61.0
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Exempt	26.0
Non-Exempt	35.0
Unit	0.0
Total	61.0



Engineering Division Development Plan/Review

DIVISION BUDGET STATUS	
Actual	46.5
Vacant	5.0
Authorized	<u>51.5</u>
Exempt	29.0
Non-Exempt	22.5
Unit	0.0
Total	<u>51.5</u>

BUDGET STATUS	
Actual	20
Vacant	3
Authorized	<u>23</u>
Exempt	11
Non-Exempt	12
Unit	0
Total	<u>23</u>



Engineering Division Design/Construction

DAVID M SCHAFTLEIN
Engineering Manager

Vacant
Administrative Coordinator

GREGORY L DARST
Construction Manager

JOSEPH SAMUEL EXELY
Project Administrator

CLAY C CALLOWAY
Project Administrator

BRIAN E BRADLEY
Project Administrator

Vacant
Design Manager

TAMIKA N DAVIS
Administrative Coordinator

ERIC G BRADY
Construction Engineer

GREGORY EUGENE POWELL
Construction Engineer

JOSEPH GILBERT THOMAS
Construction Engineer

STEVEN O PETREY
Construction Engineer

DAVID RAY COE
Construction Engineer

MICHAEL T MARLING
Construction Supervisor

RONALD HENDERSON
Field Inspector II

MICHAEL E HOLLEY
Field Inspector II

GLEN COOPER II
Field Inspector II

JERRY EUGENE BOND JR
Field Inspector II

CHARLES V CRAWFORD III
Field Inspector II

CHESTER TROWEL
Field Inspector II

JOHN RAYMOND TELLMAN
Field Inspector II

ALONZO SMITH
Engineering Assistant

GARNETT BRADLEY SELCH
Design Engineer

SHARLIE A KHAN
Project Administrator

MESKEREM ESHETU
Design Engineer

CHRISTIAN W MILLER II
Project Administrator

JACOB L WATHIS
Design Engineer

BRANDON LEE FLAHERTY
Project Administrator

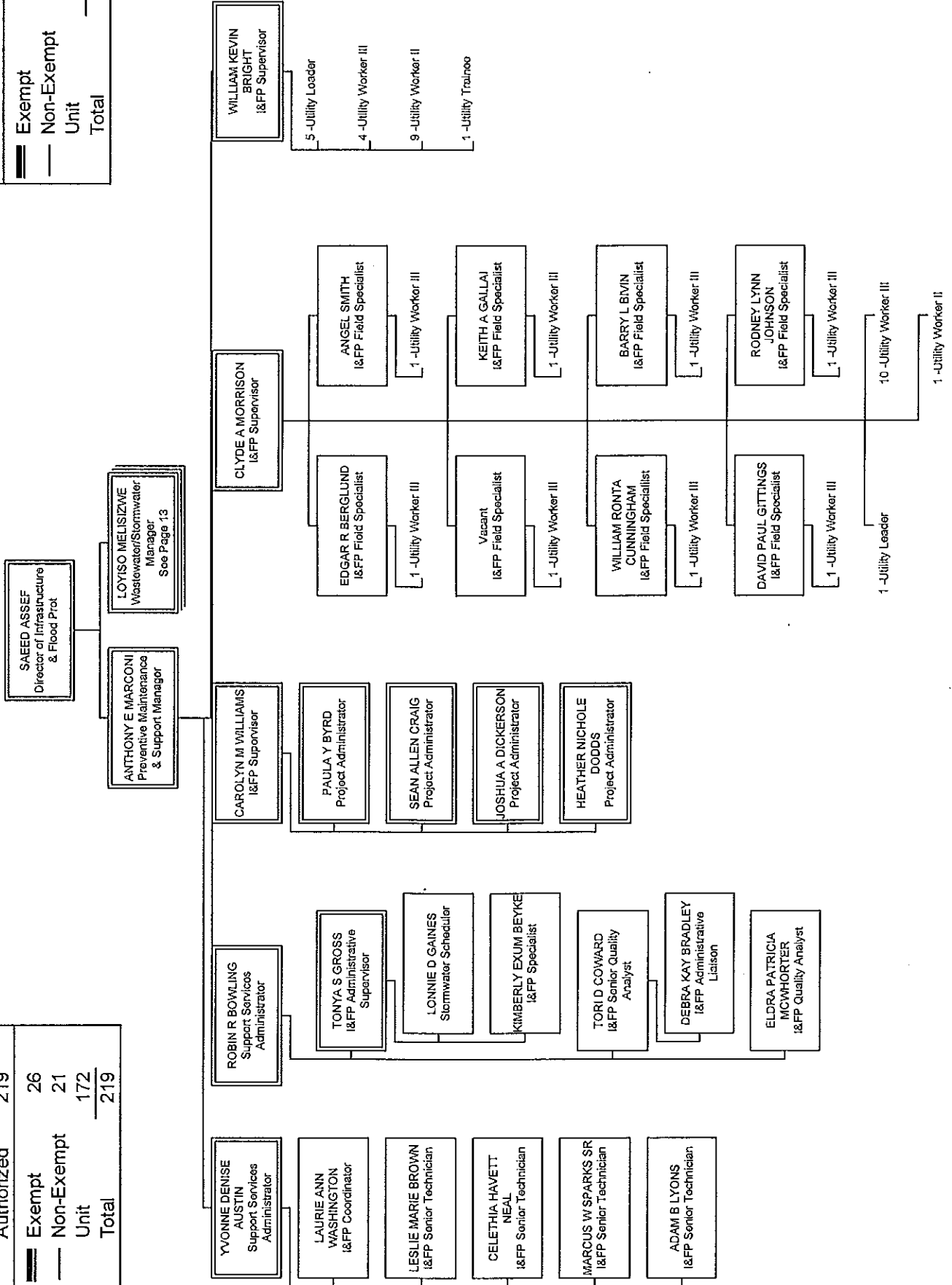
JORDAN ANTHONY BASHAM
Engineering Tech IV

BUDGET STATUS	
Actual	26.5
Vacant	2.0
Authorized	28.5
Exempt	18.0
Non-Exempt	10.5
Unit	0.0
Total	28.5

Infrastructure & Flood Protection Division Administration & Support Services

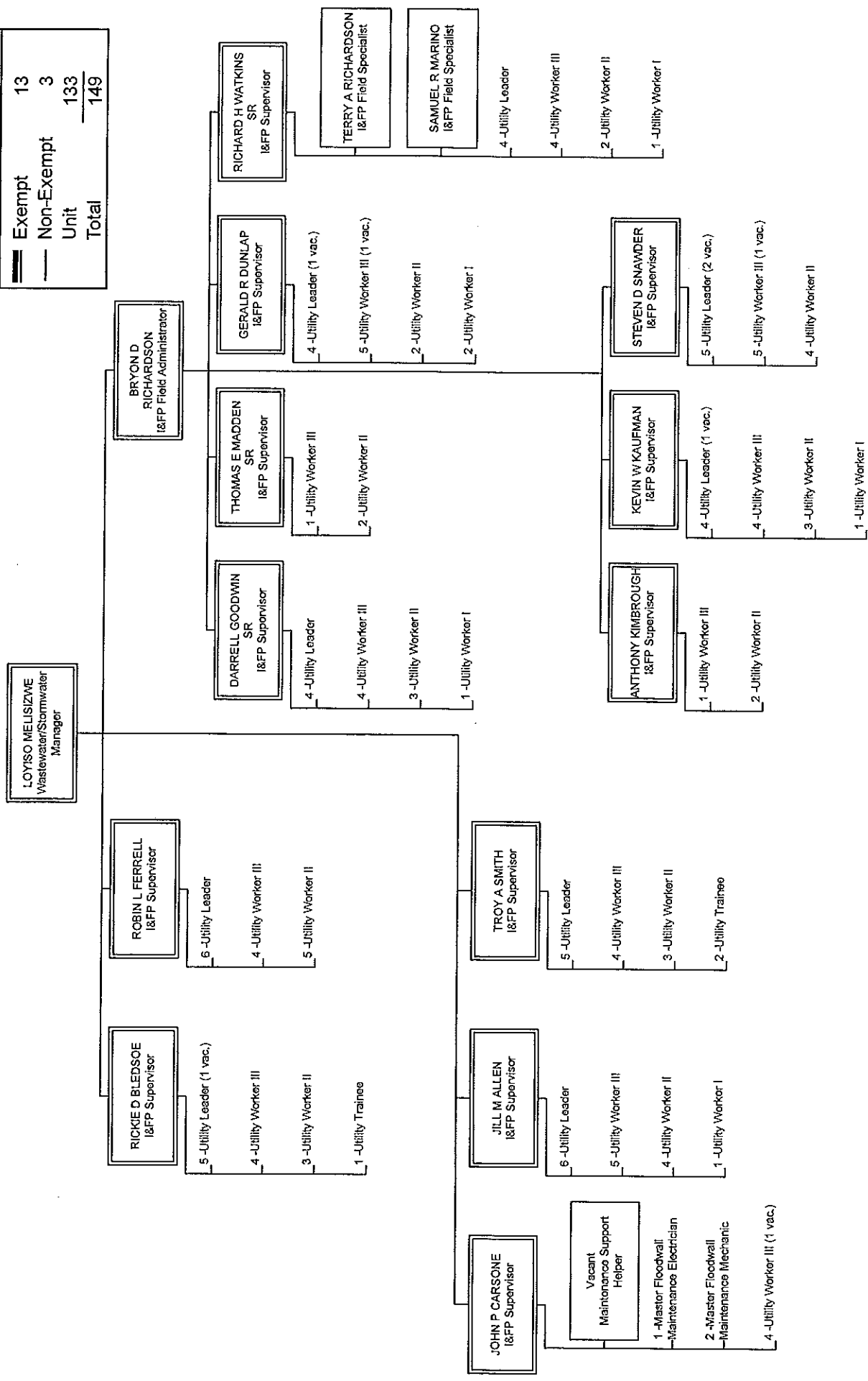
DIVISION BUDGET STATUS	
Actual	209
Vacant	10
Authorized	219
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Exempt	26
Non-Exempt	21
Unit	172
Total	219

BUDGET STATUS	
Actual	69
Vacant	1
Authorized	70
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Exempt	13
Non-Exempt	18
Unit	39
Total	70



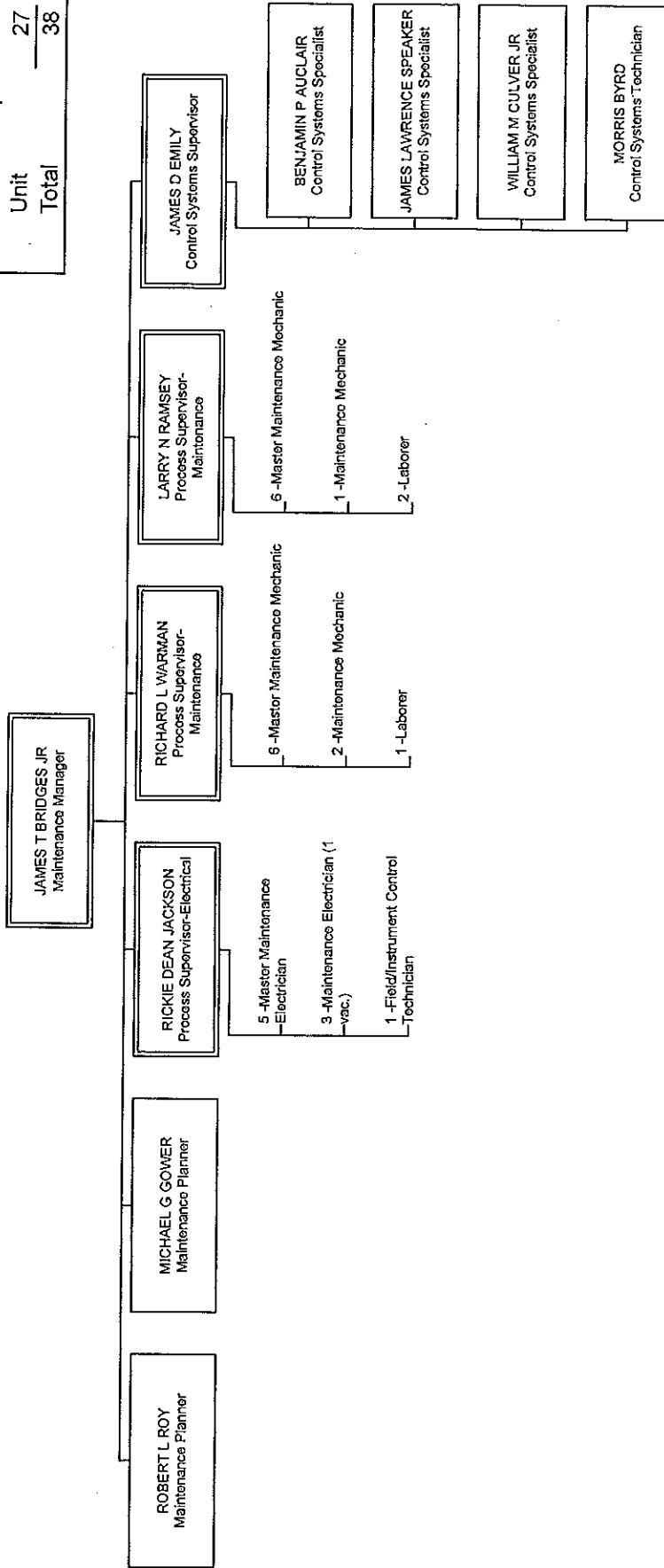
Infrastructure & Flood Protection Division Sewer/Flood Protection & Stormwater Drainage

BUDGET STATUS	
Actual	140
Vacant	9
Authorized	149
Exempt	13
Non-Exempt	3
Unit	133
Total	149



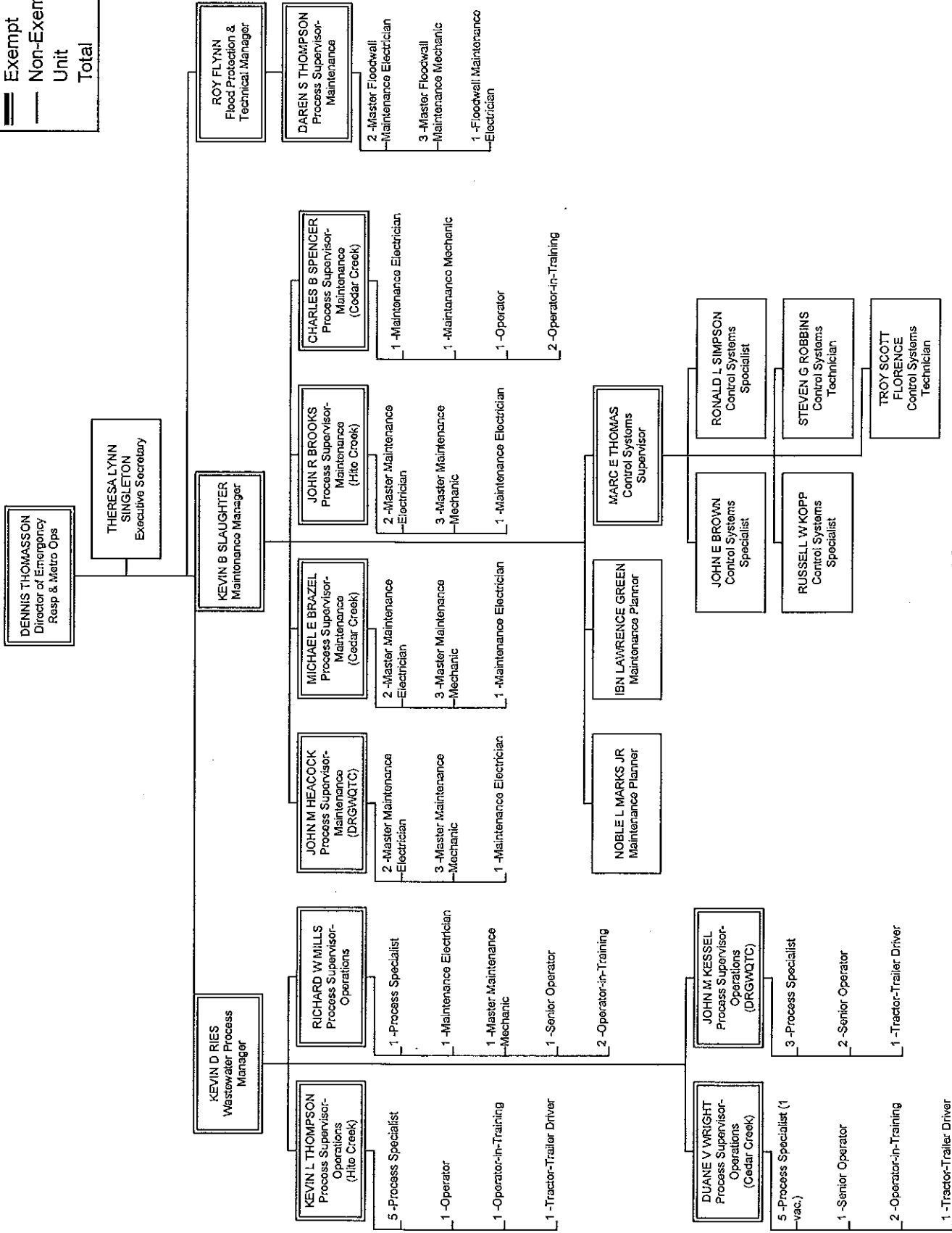
Operations Division MFWTP Maintenance

BUDGET STATUS	
Actual	37
Vacant	1
Authorized	38
Exempt	5
Non-Exempt	6
Unit	27
Total	38



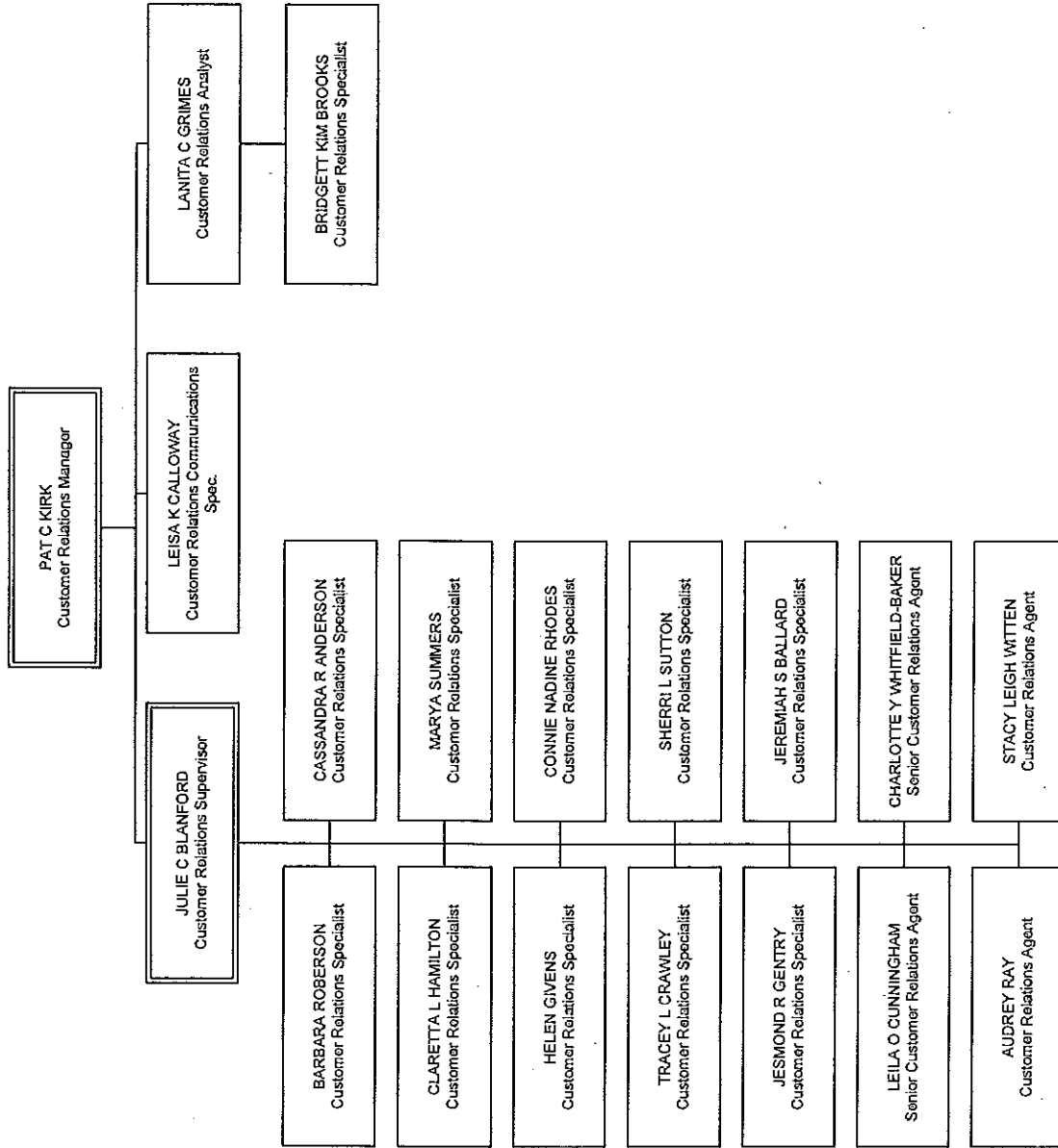
Operations Division Metro Operations & Maintenance

BUDGET STATUS	
Actual	79
Vacant	1
Authorized	80
Exempt	14
Non-Exempt	8
Unit	58
Total	80



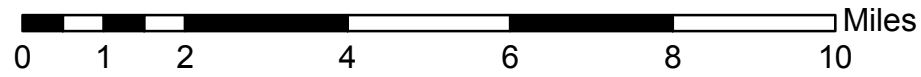
Information Technology Division Customer Relations

BUDGET STATUS	
Actual	19
Vacant	0
Authorized	19
Exempt	2
Non-Exempt	17
Unit	0
Total	19



APPENDIX I – FY12 CSSA ANNUAL REPORT

Continuing Sanitary Sewer Assessment Tele-Inspection Program Overview

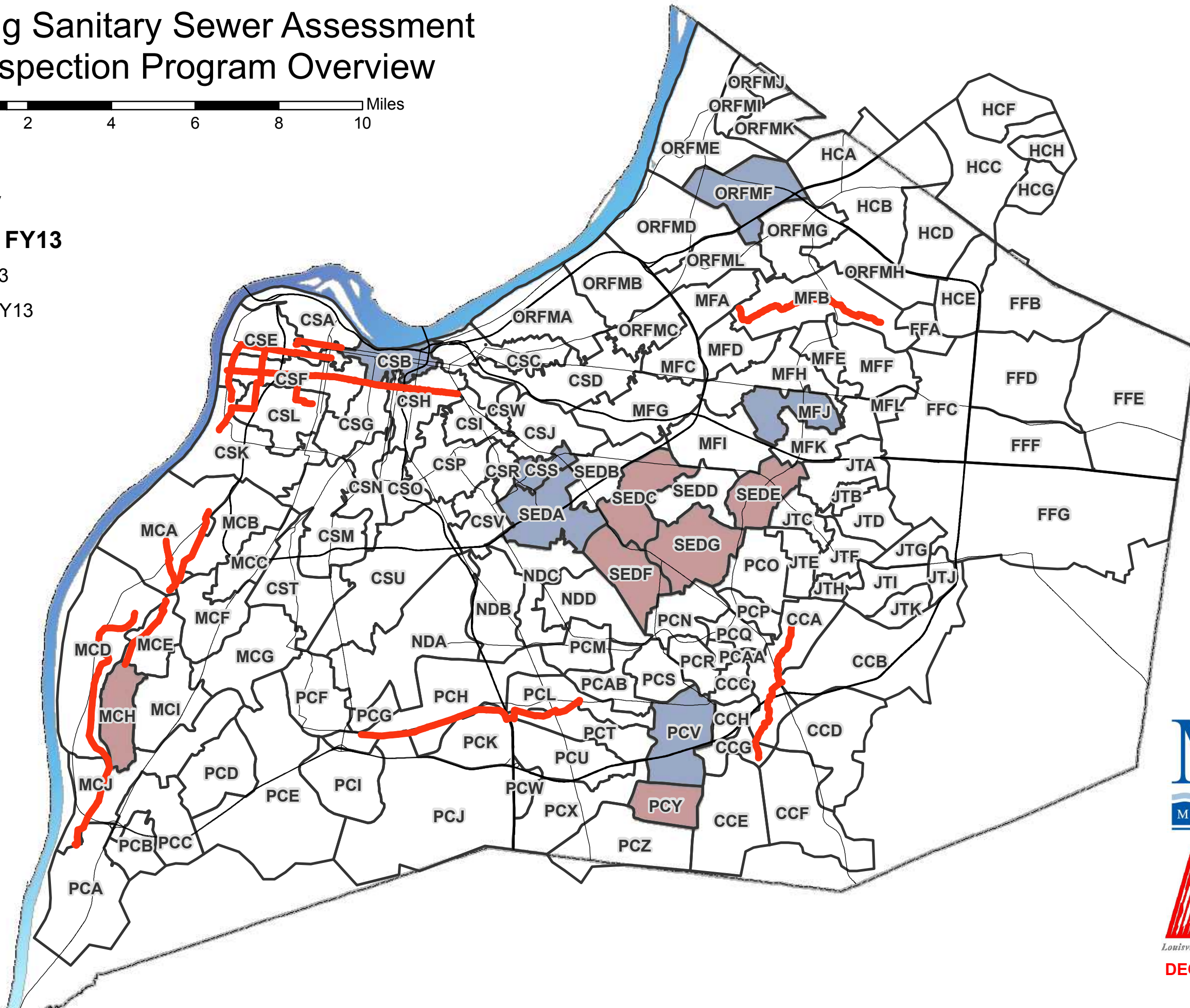


ICA Phase IV

CSSA Tracking FY13

Internal, FY13

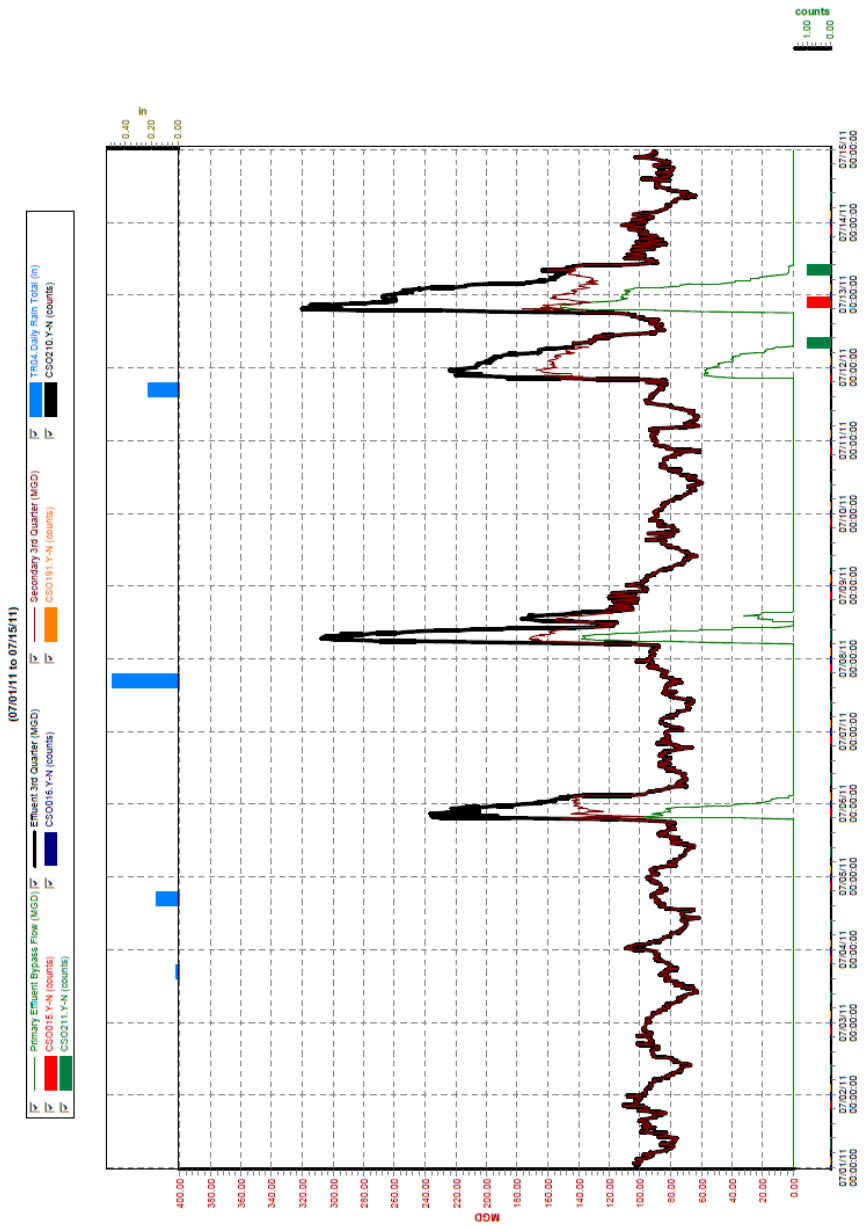
Contractor, FY13



DEC 2012 I&FP

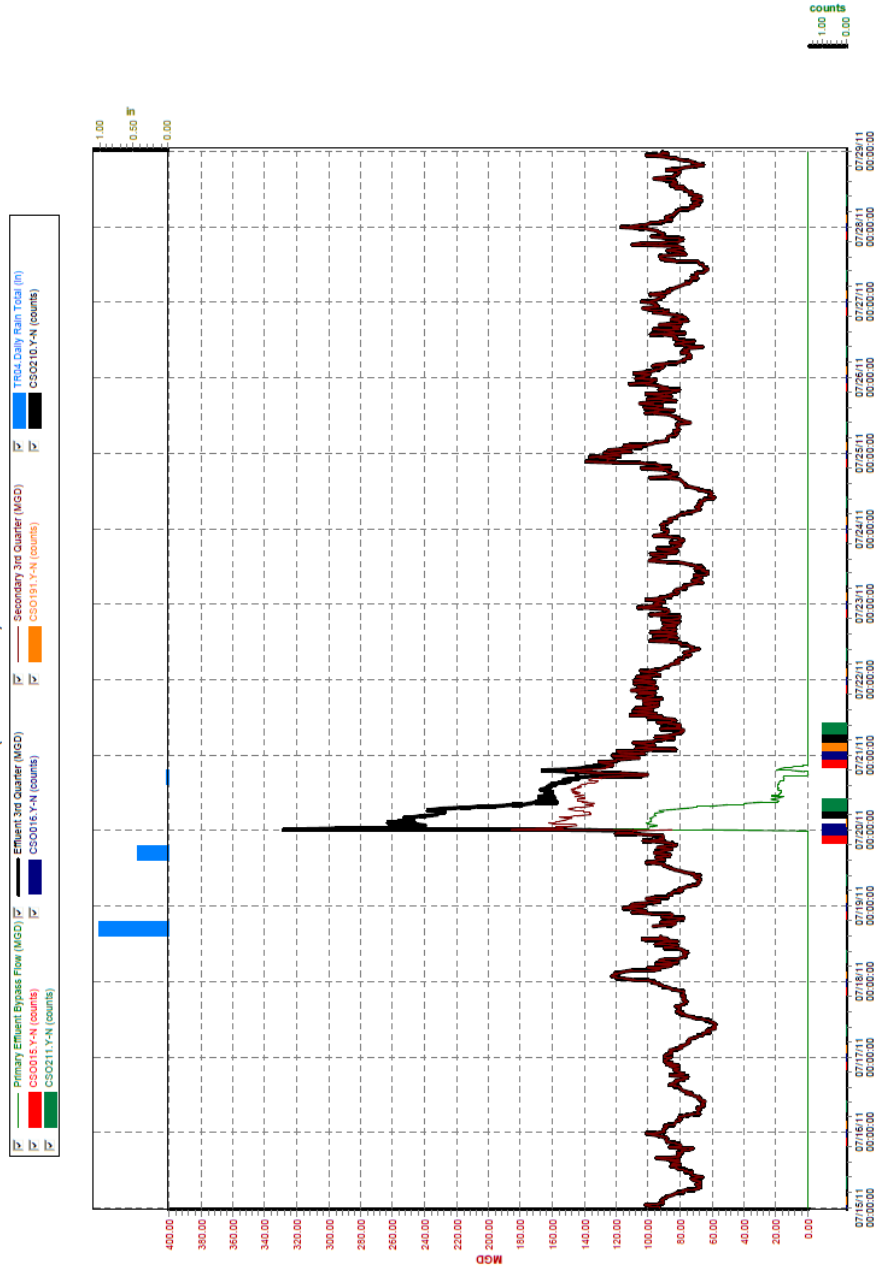
APPENDIX J – MORRIS FORMAN WQTC FY12 CHARTS

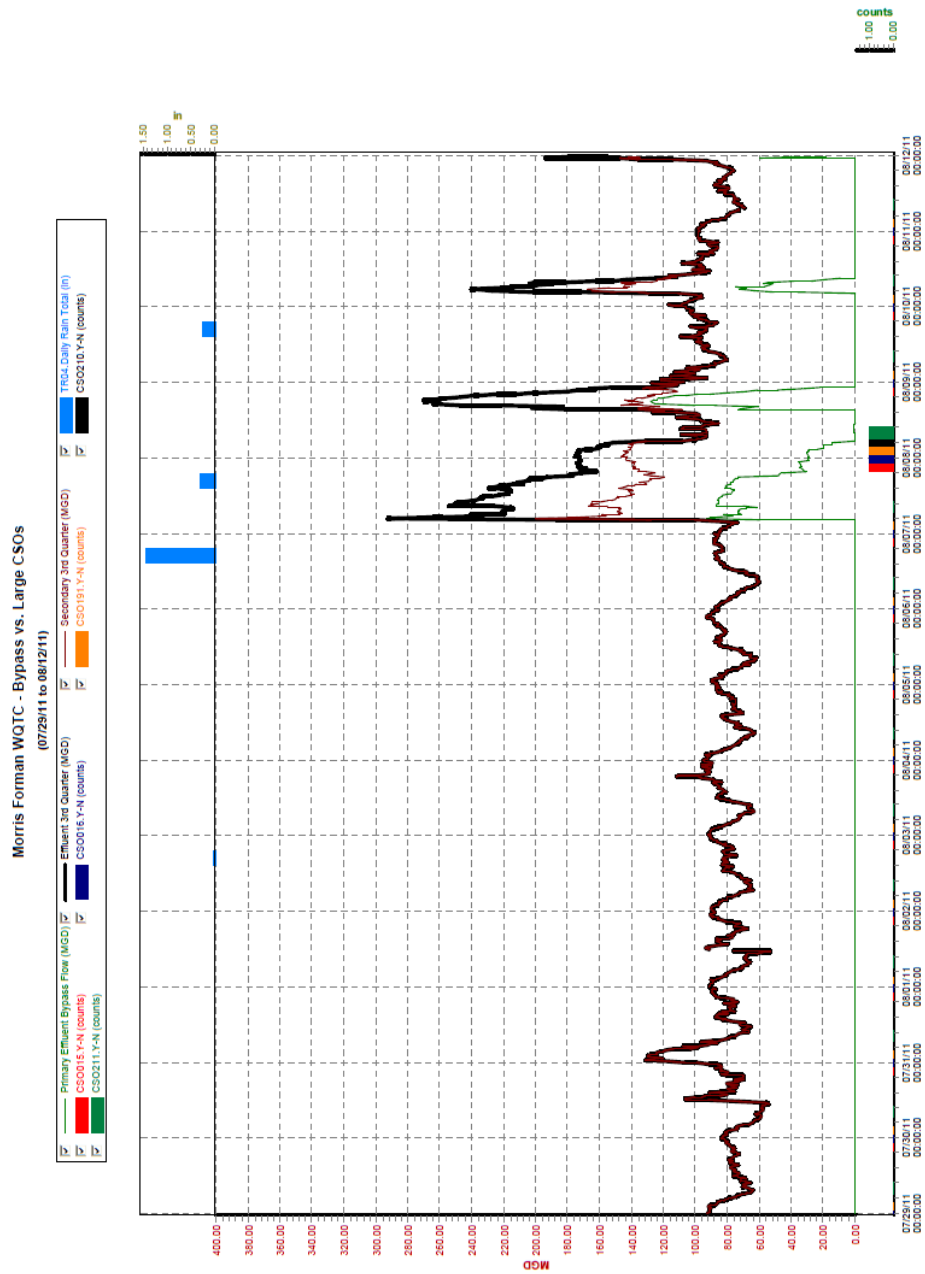
Morris Forman WQTC - Bypass vs. Large CSOs

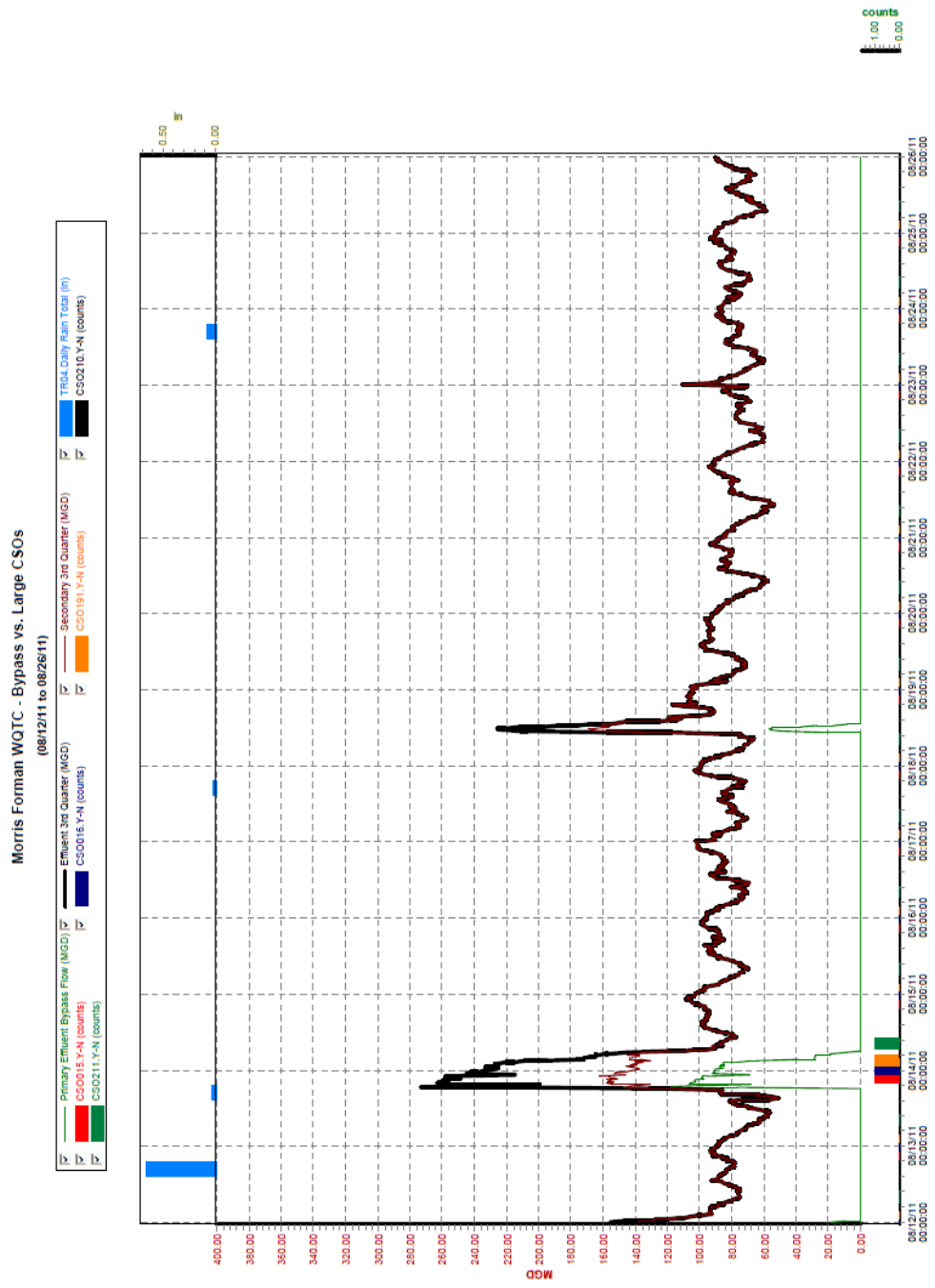


Morris Forman WQTC - Bypass vs. Large CSOs

(07/15/11 to 07/29/11)

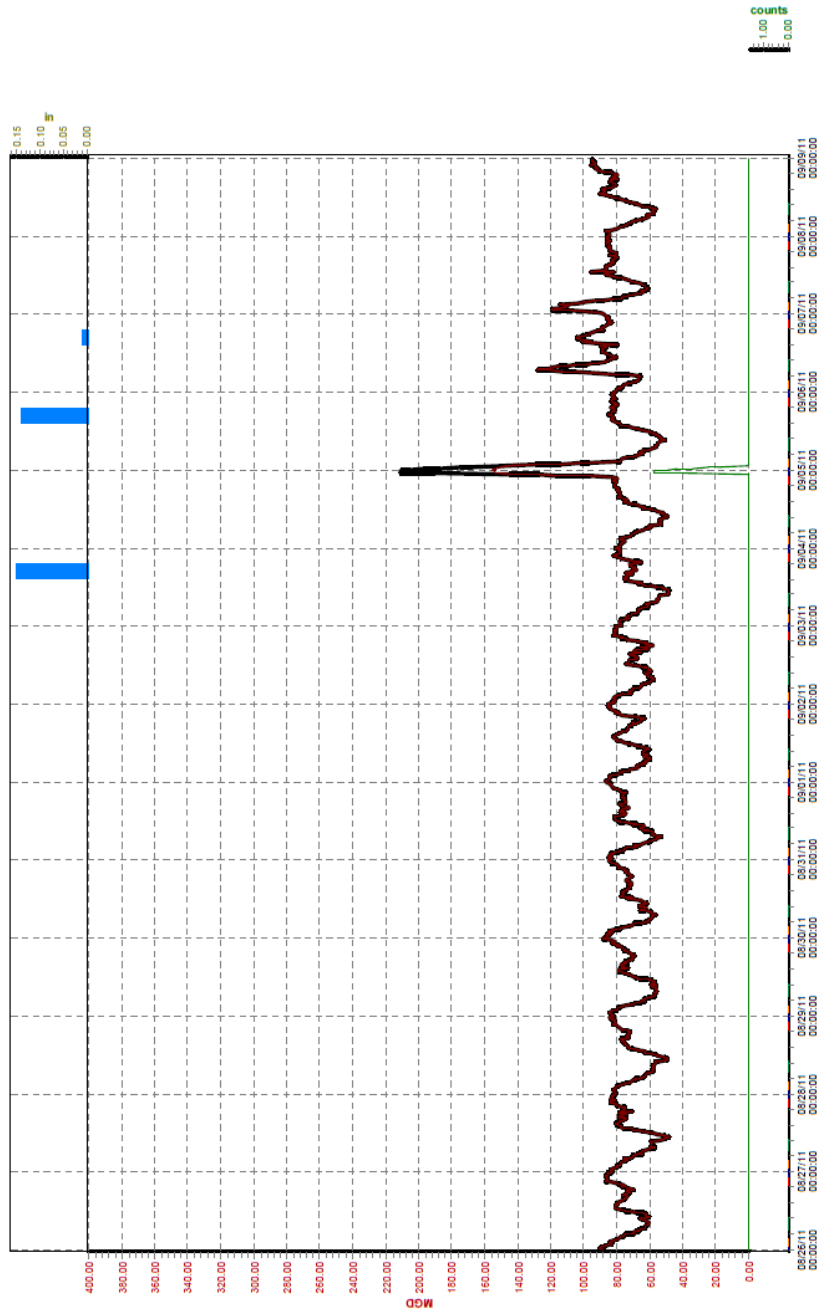






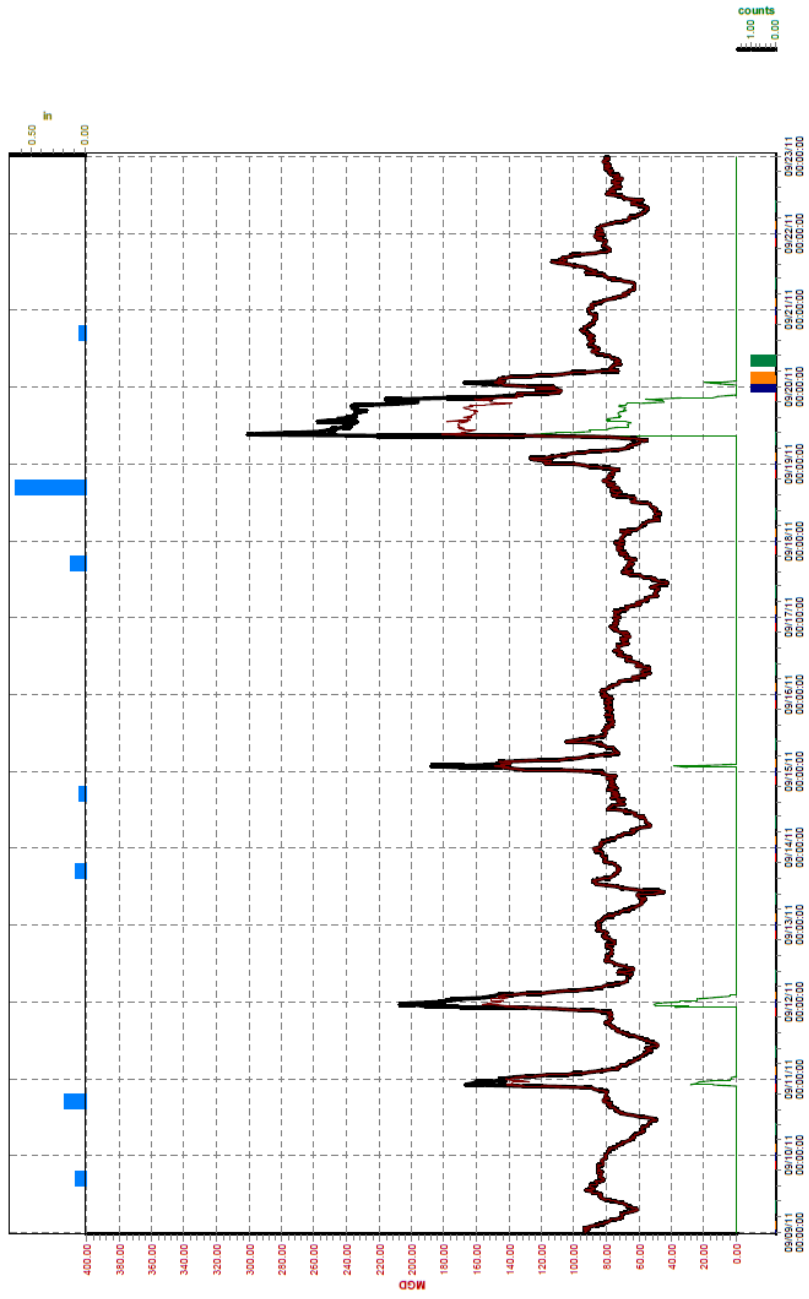
Morris Forman WQTC - Bypass vs. Large CSOs

(08/26/11 to 09/09/11)

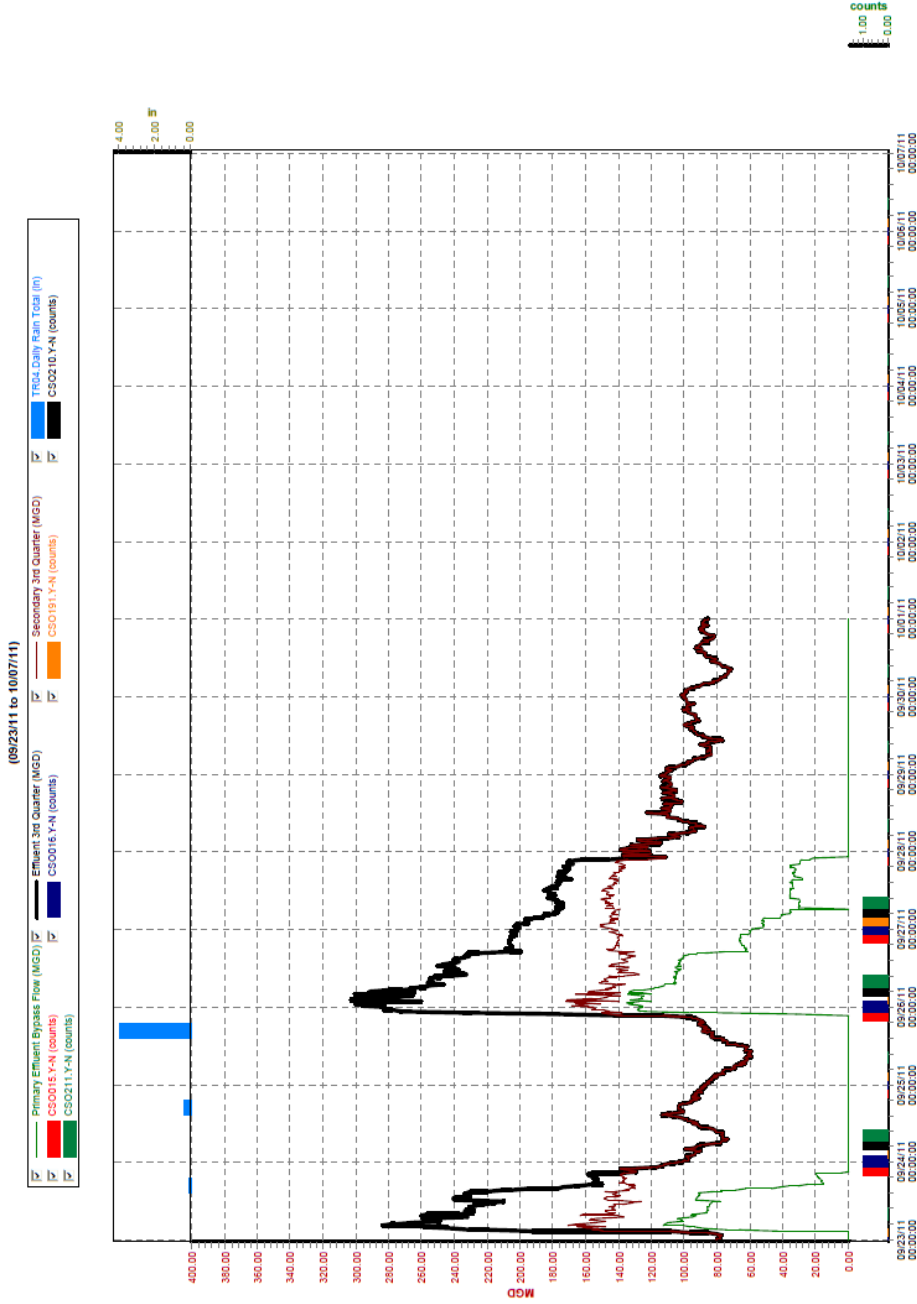


Morris Forman WQTC - Bypass vs. Large CSOs

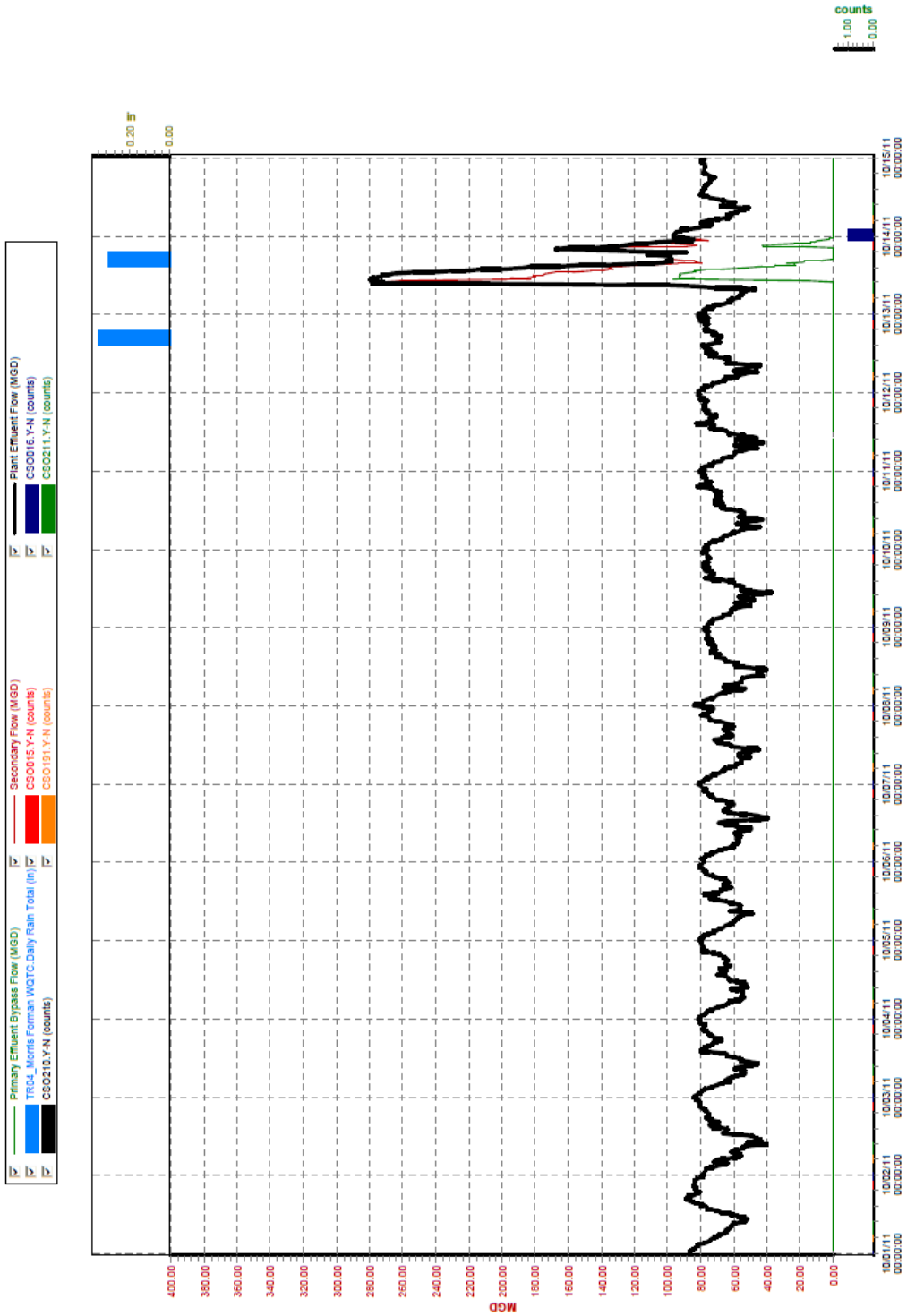
(08/09/11 to 09/23/11)

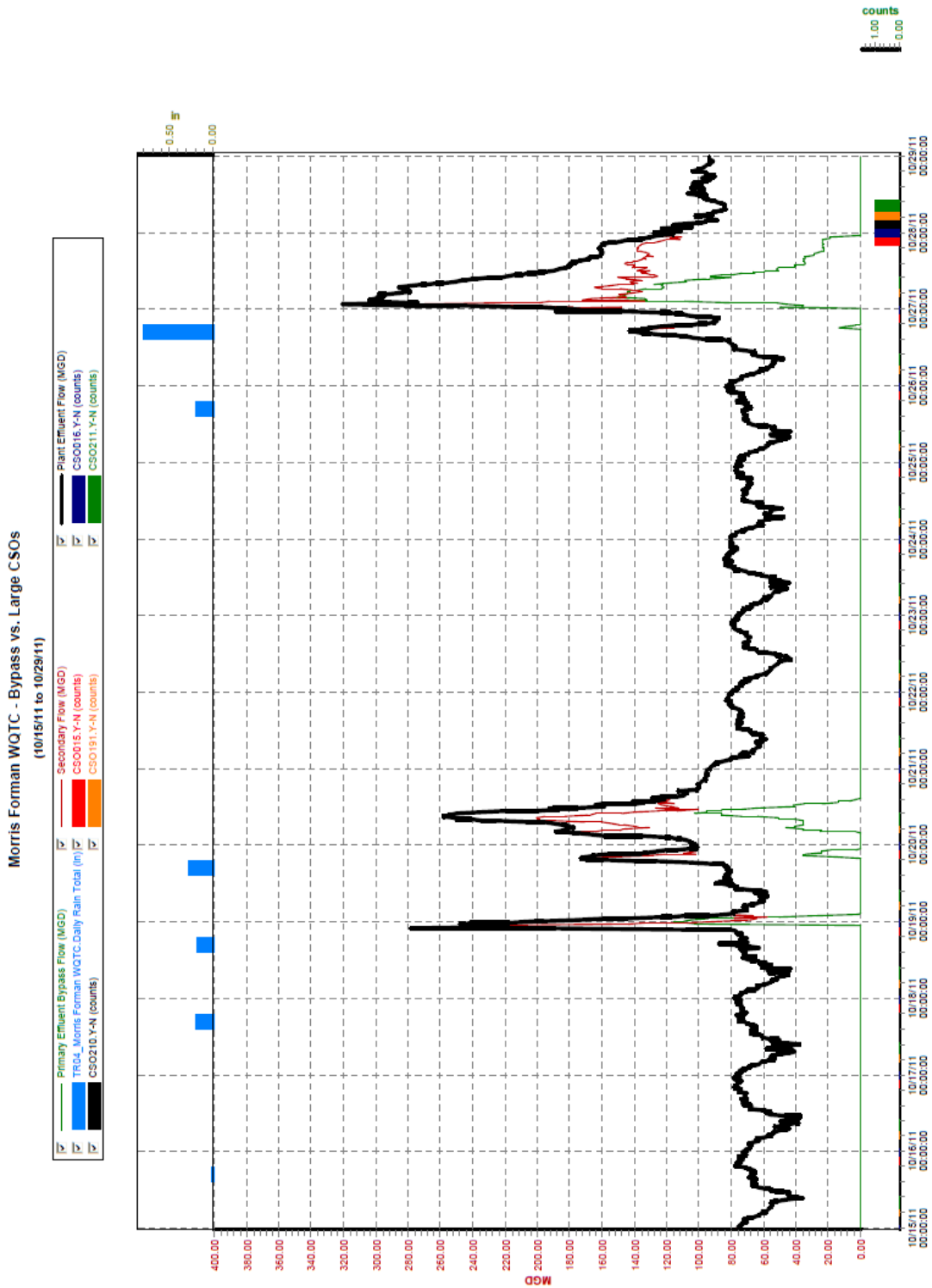


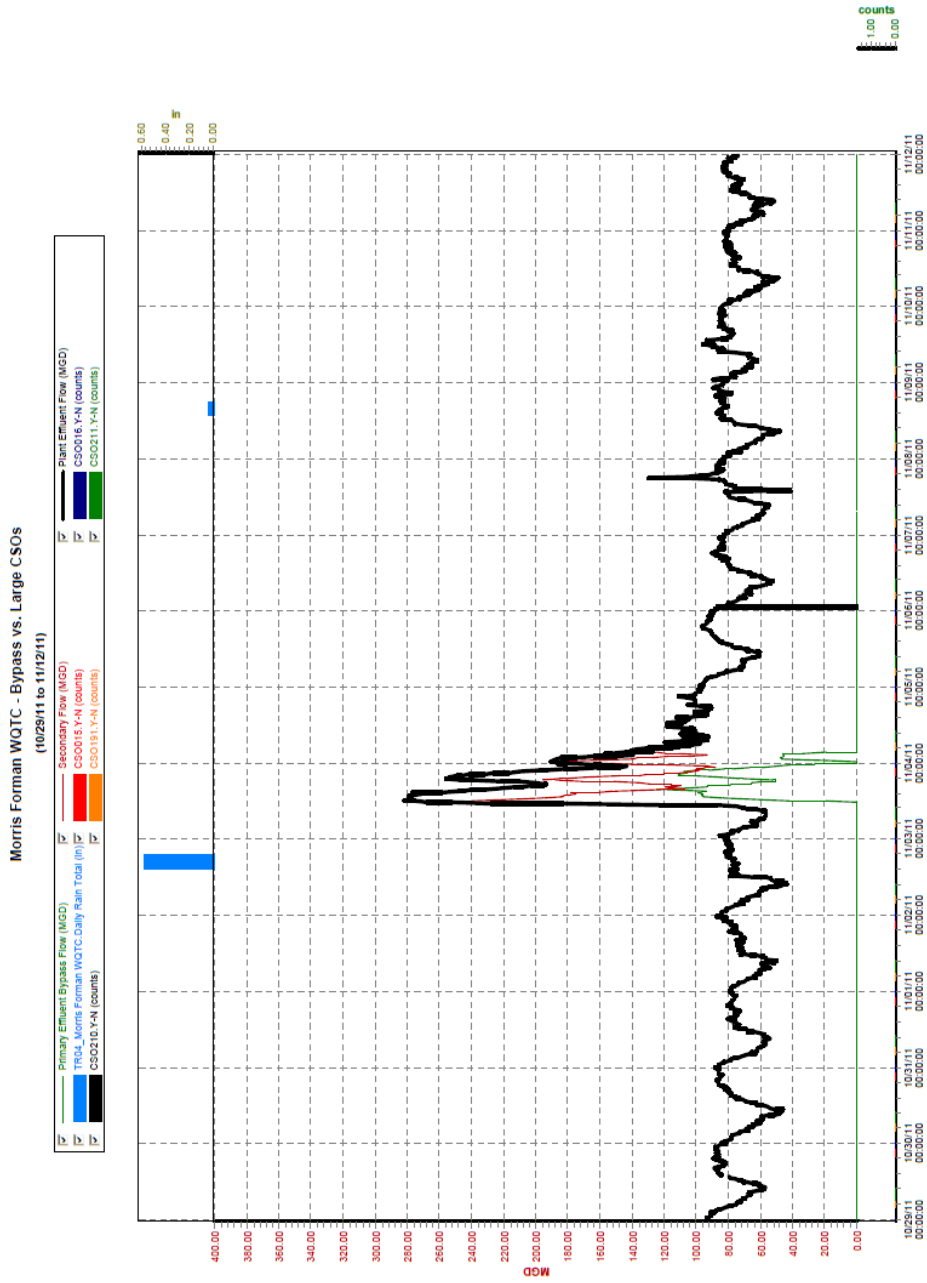
Morris Forman WQTC - Bypass vs. Large CSOs



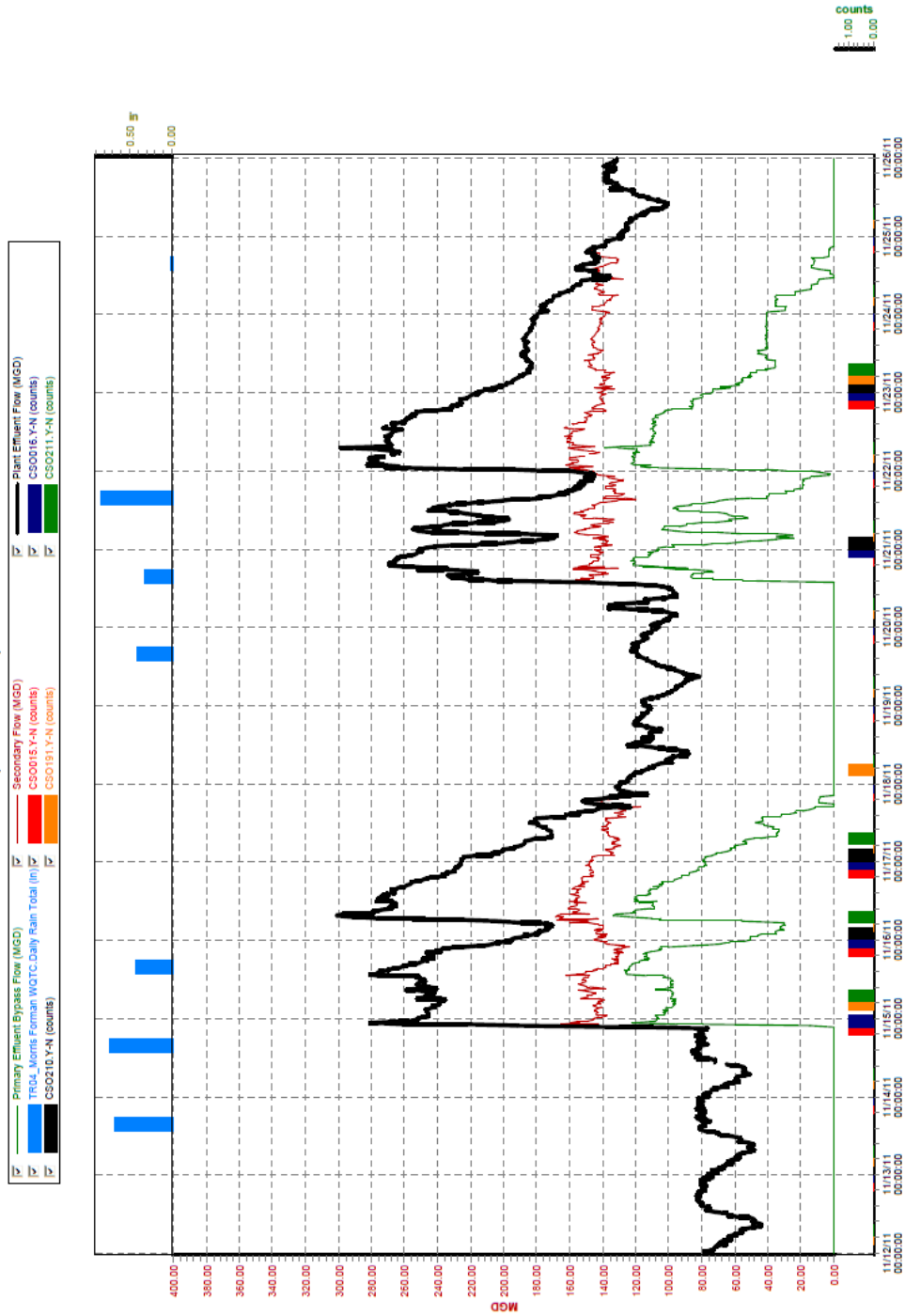
Morris Forman WQTC - Bypass vs. Large CSOs
(10/01/11 to 10/15/11)





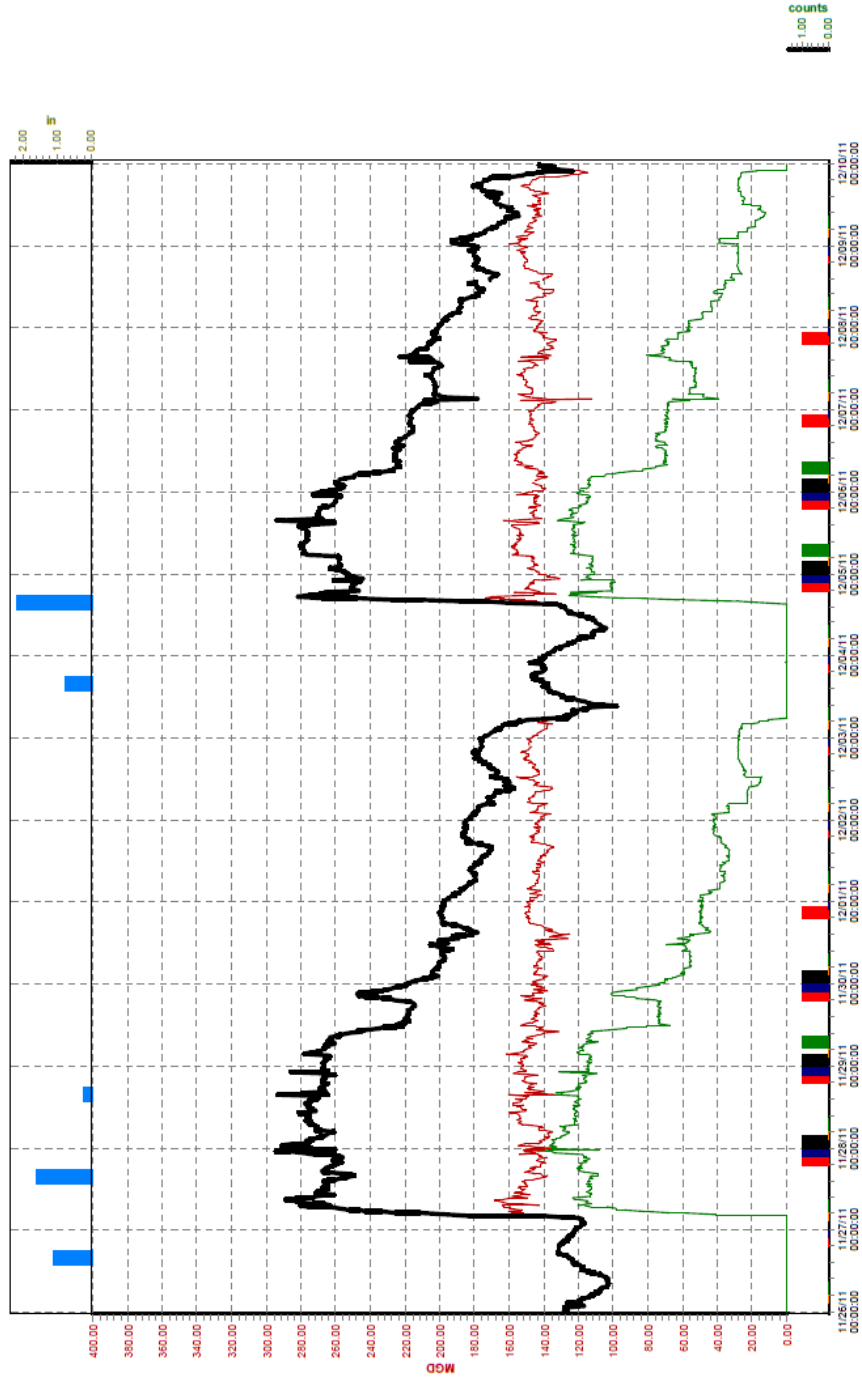


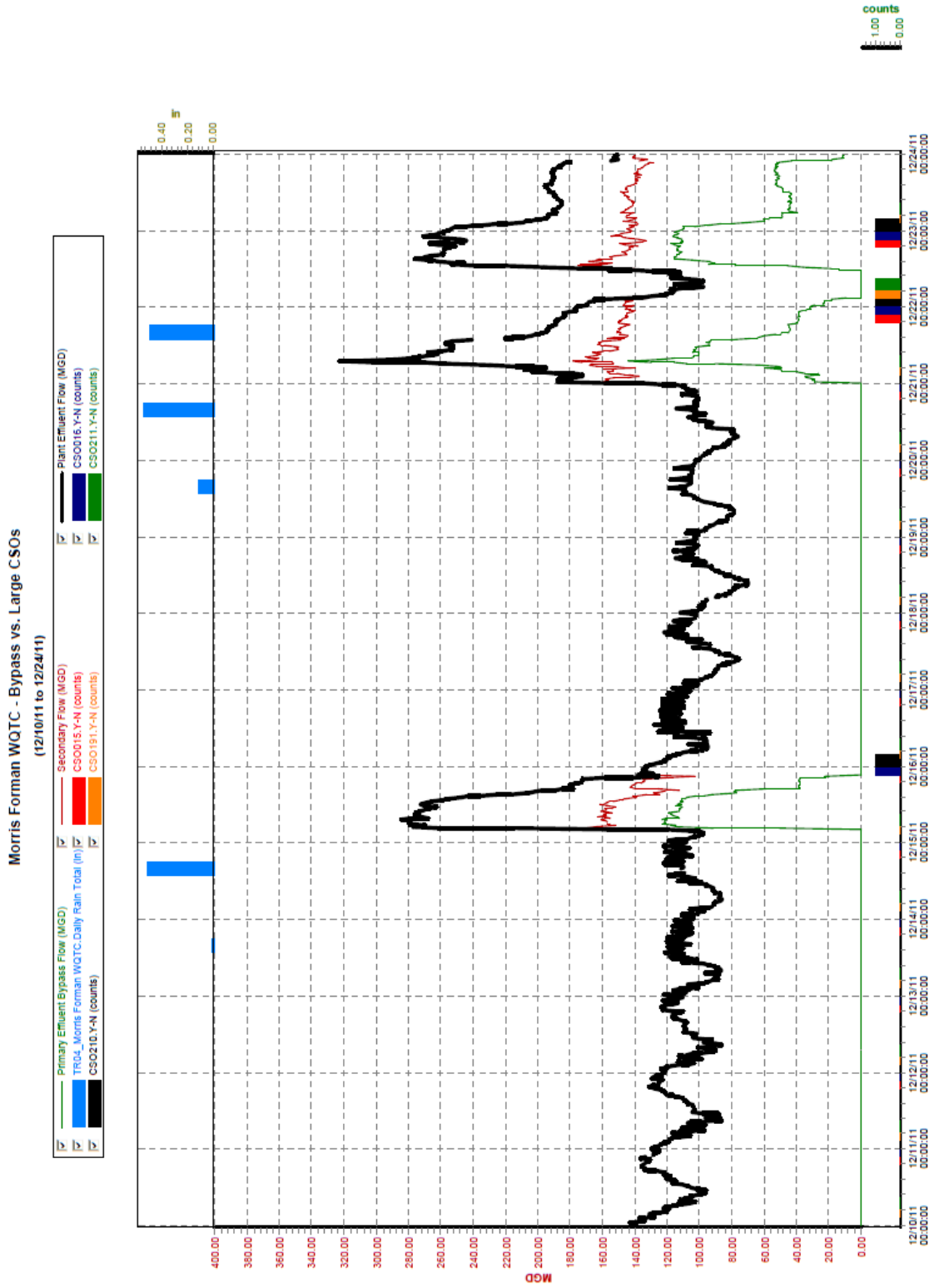
Morris Forman WQTC - Bypass vs. Large CSOs
(11/12/11 to 11/26/11)



Morris Forman WQTC - Bypass vs. Large CSOs

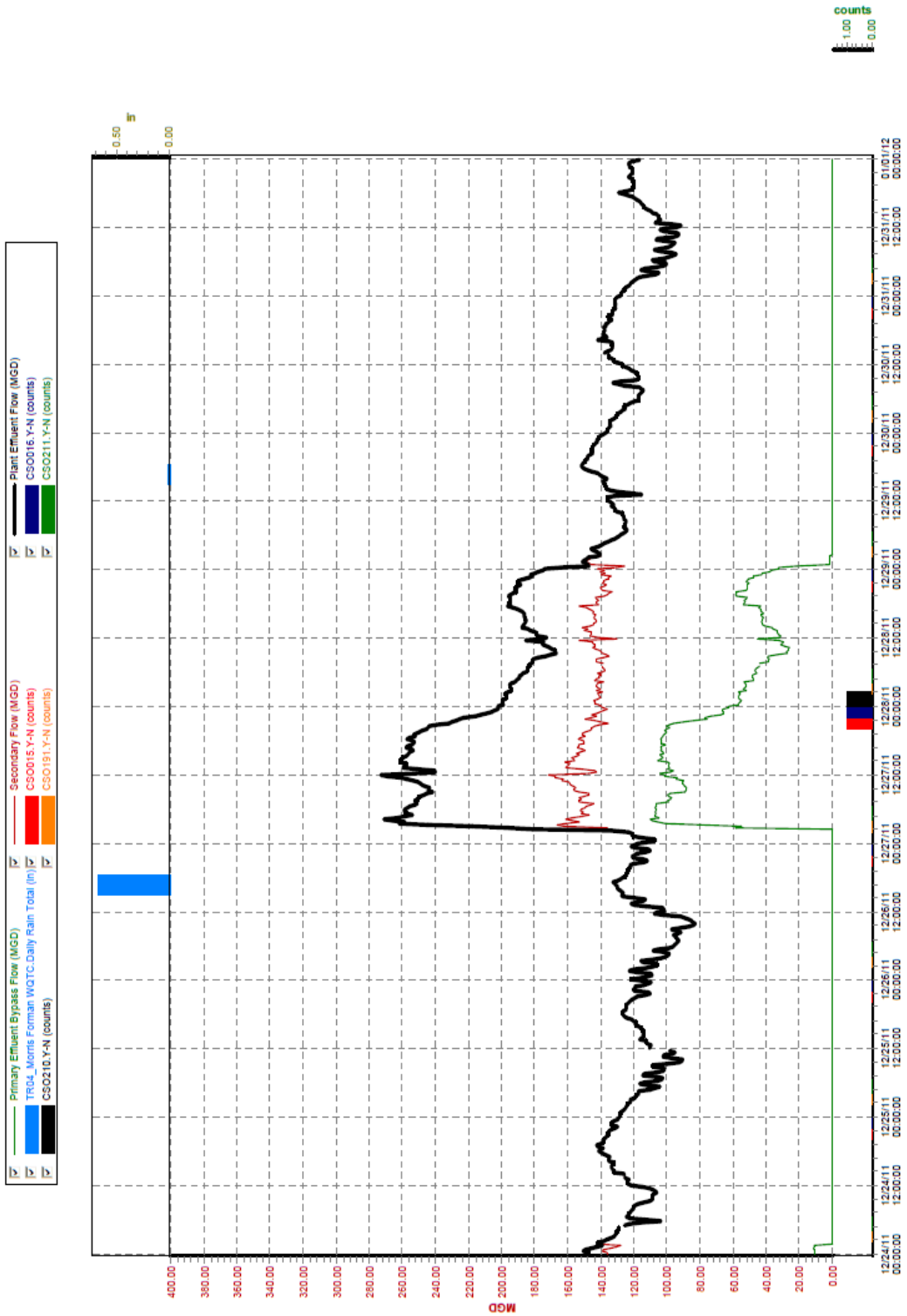
(11/28/11 to 12/10/11)

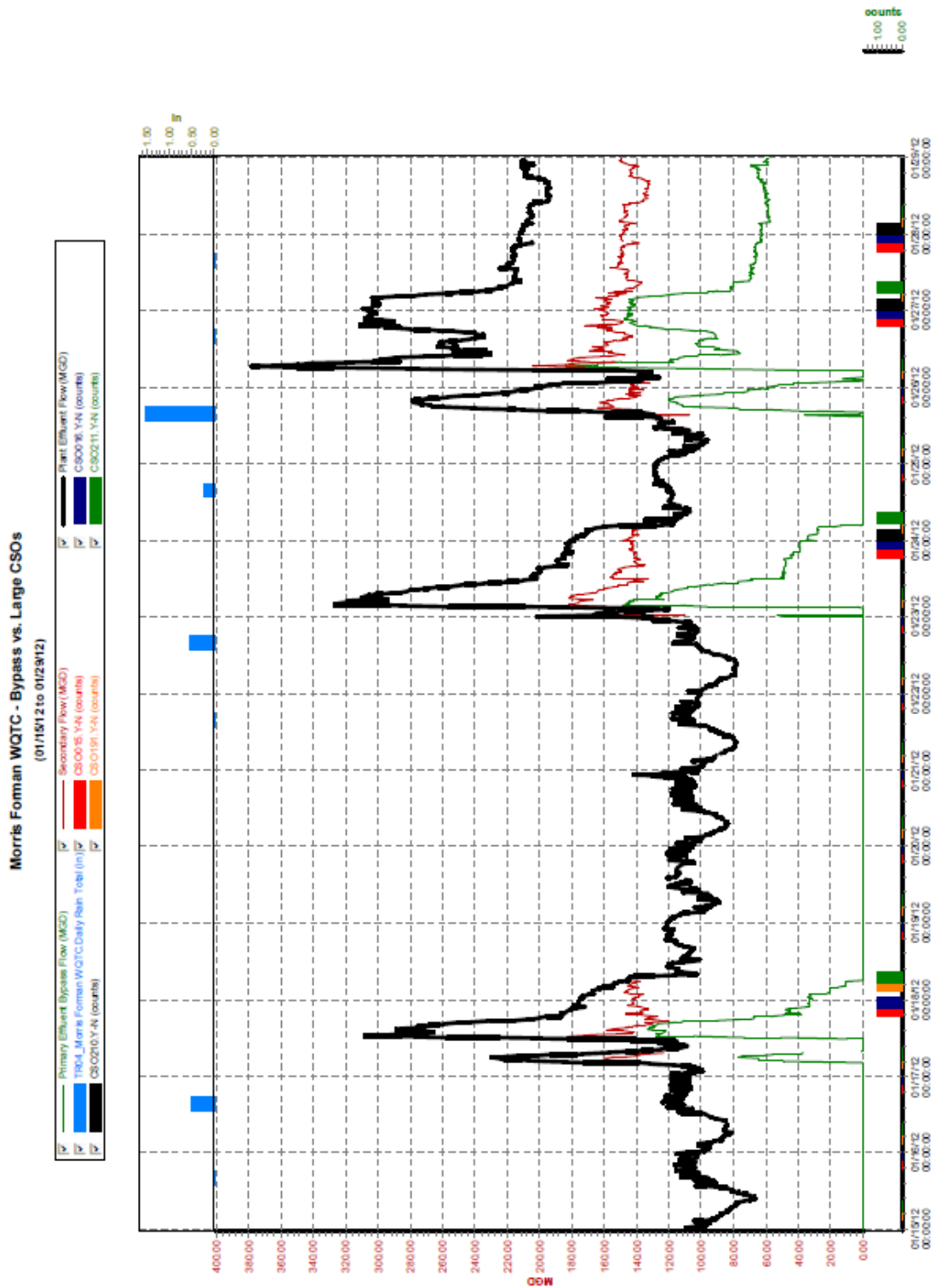


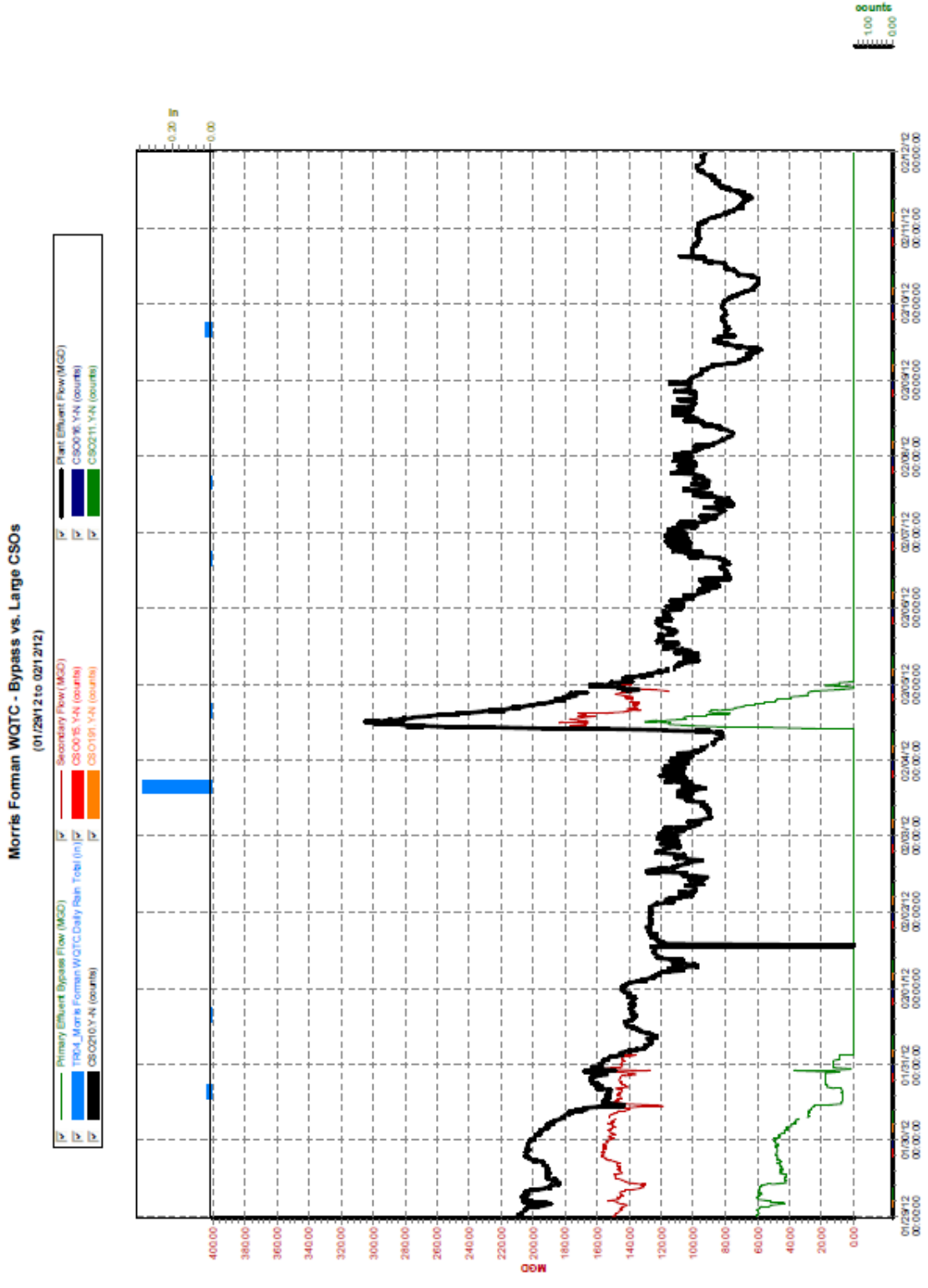


Morris Forman WQTC - Bypass vs. Large CSOs

(12/24/11 to 01/01/12)

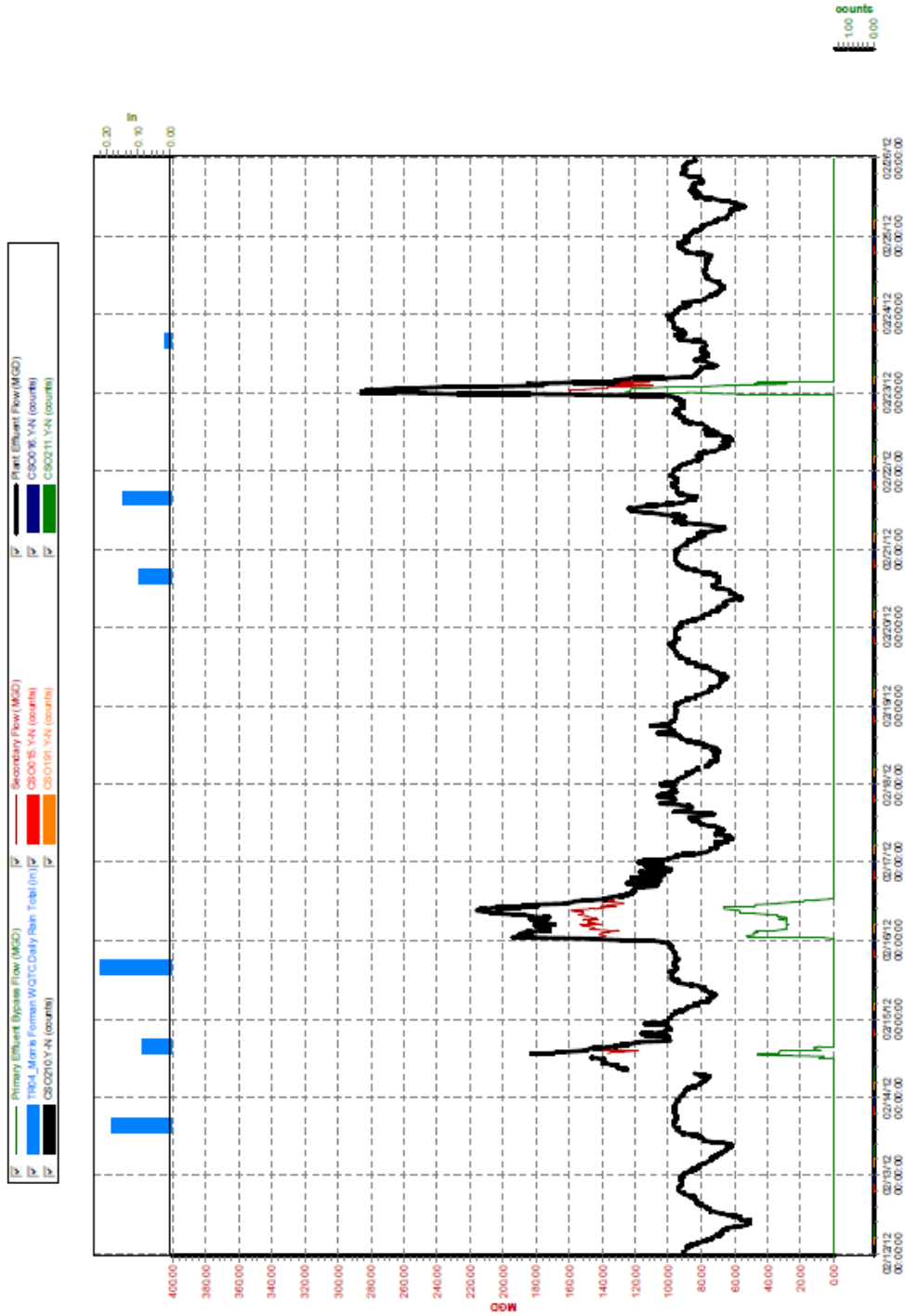


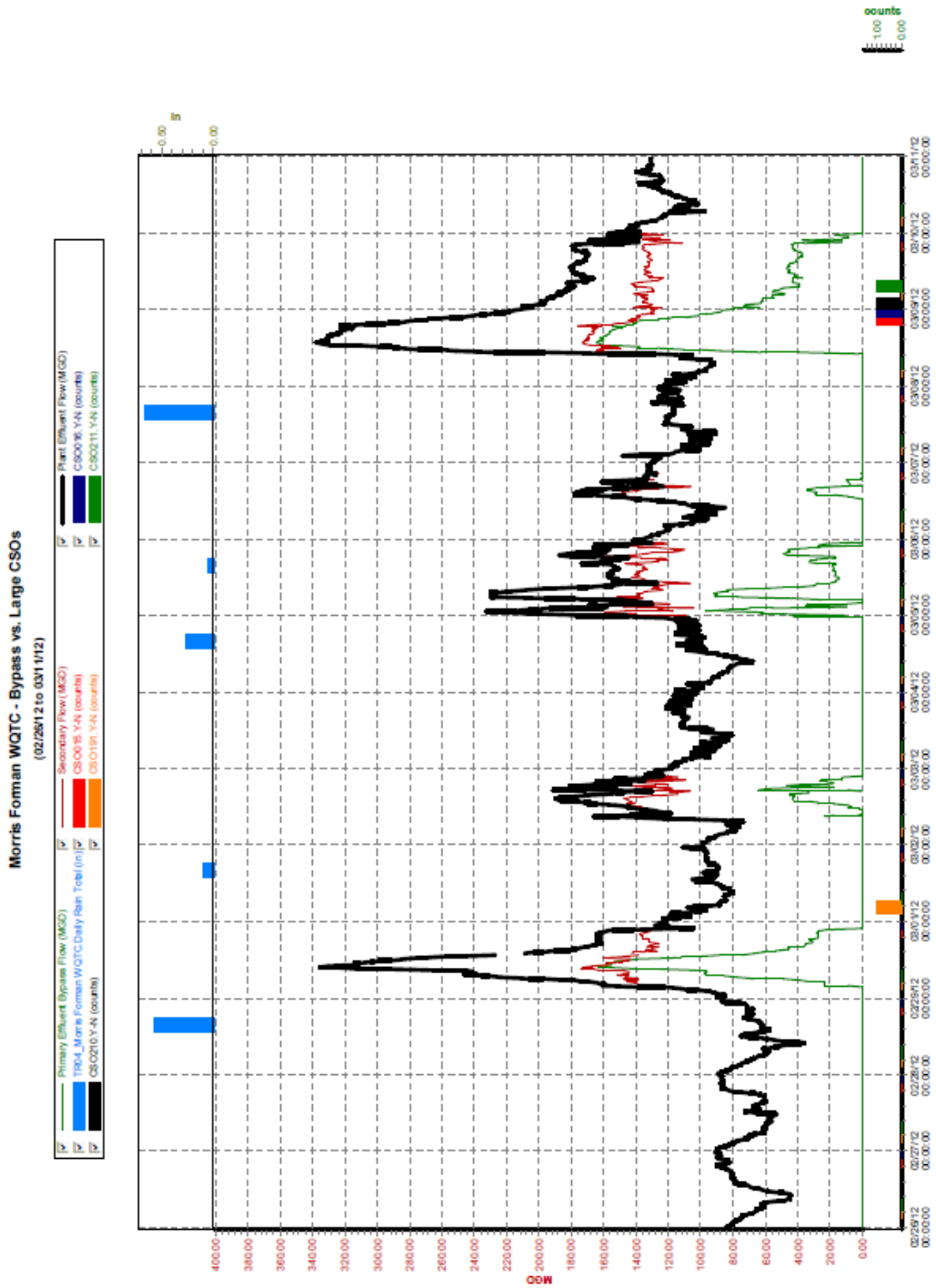


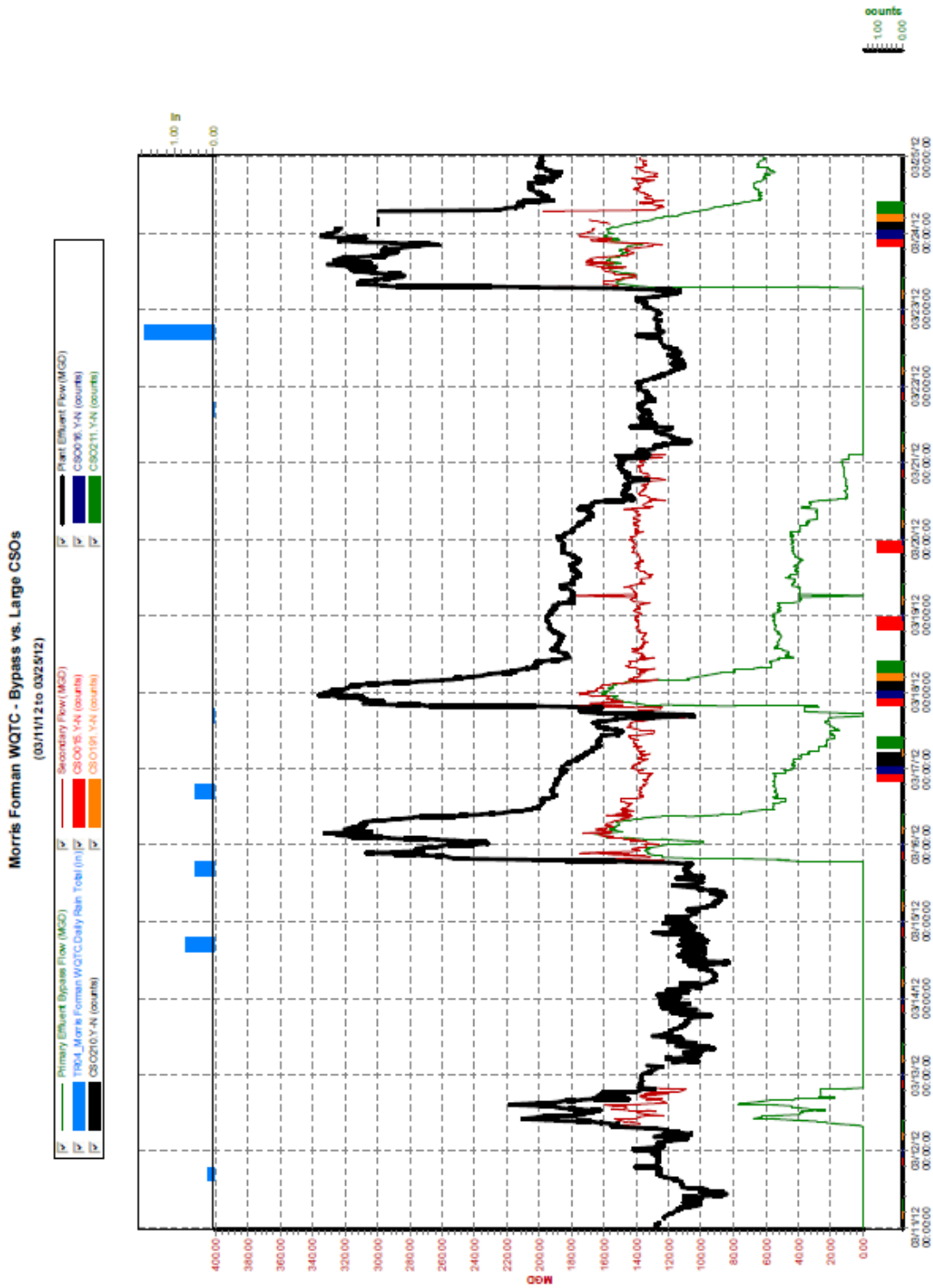


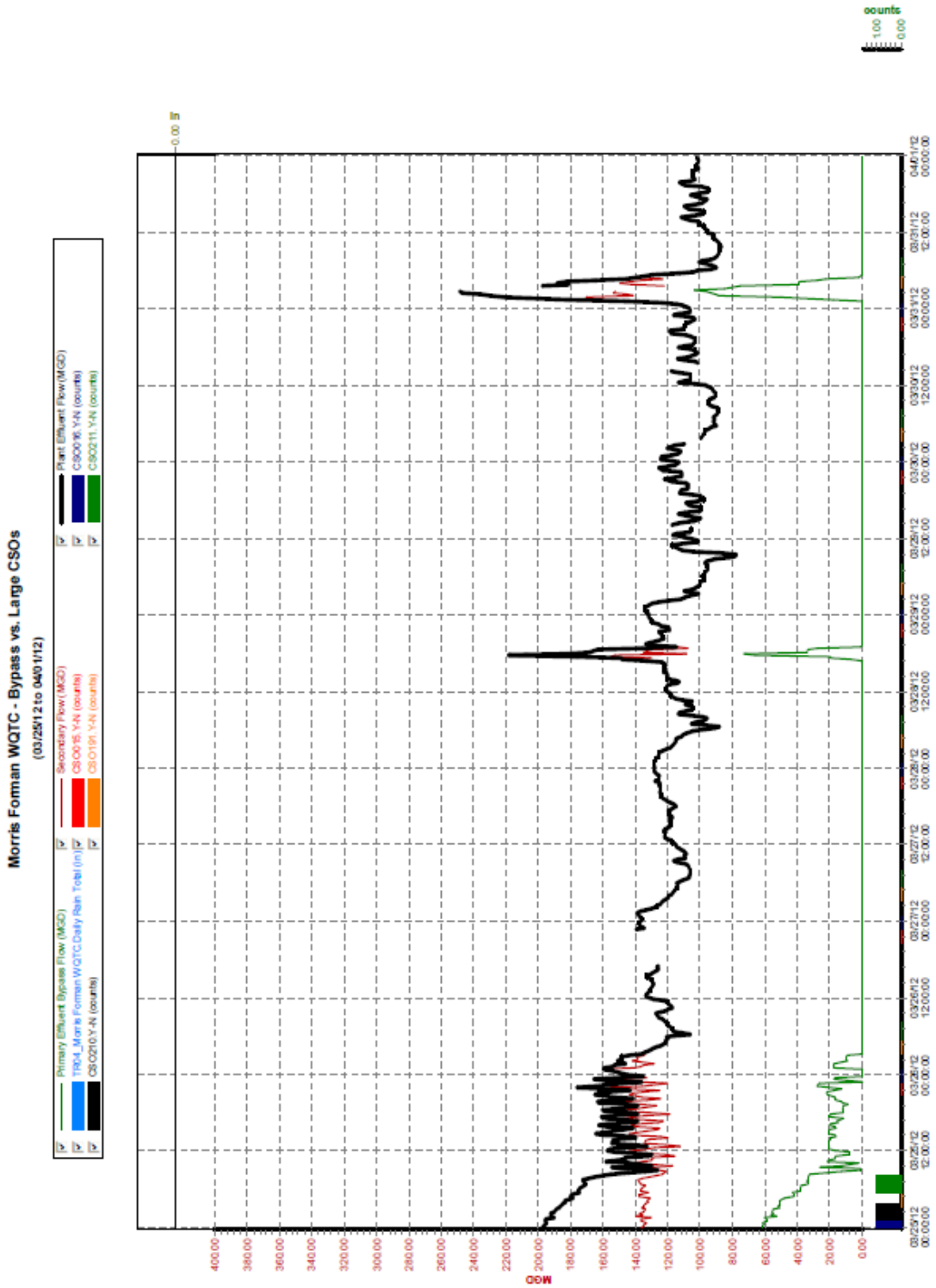
Morris Forman WQTC - Bypass vs. Large CSOs

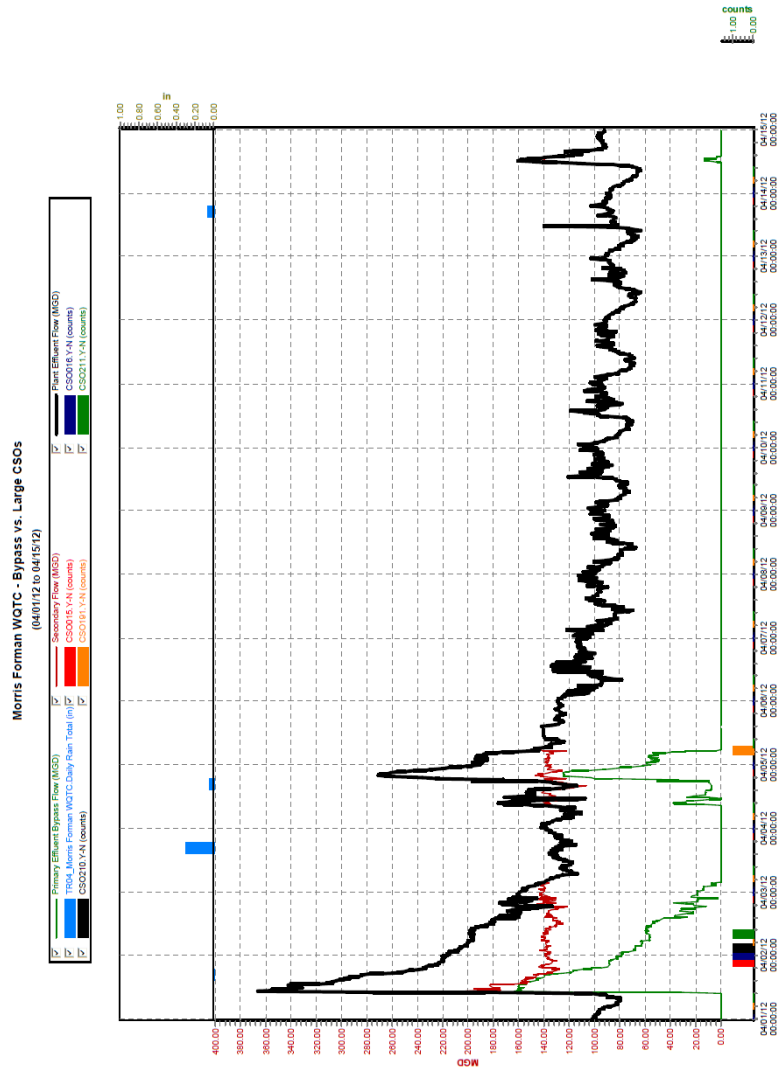
(02/12/12 to 02/26/12)





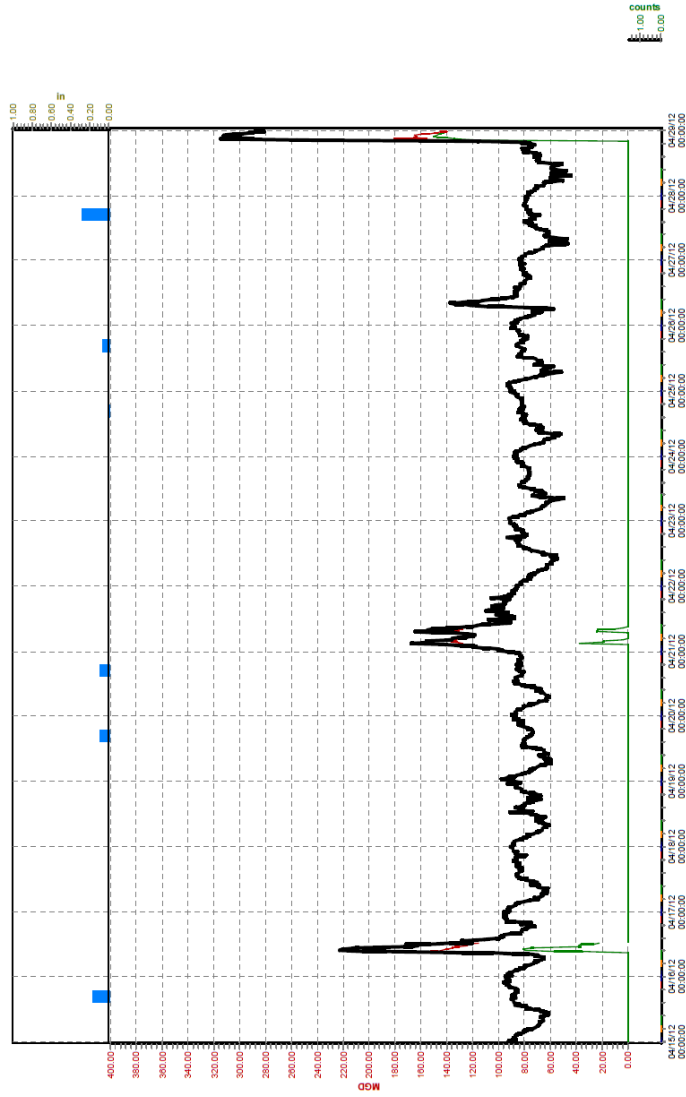


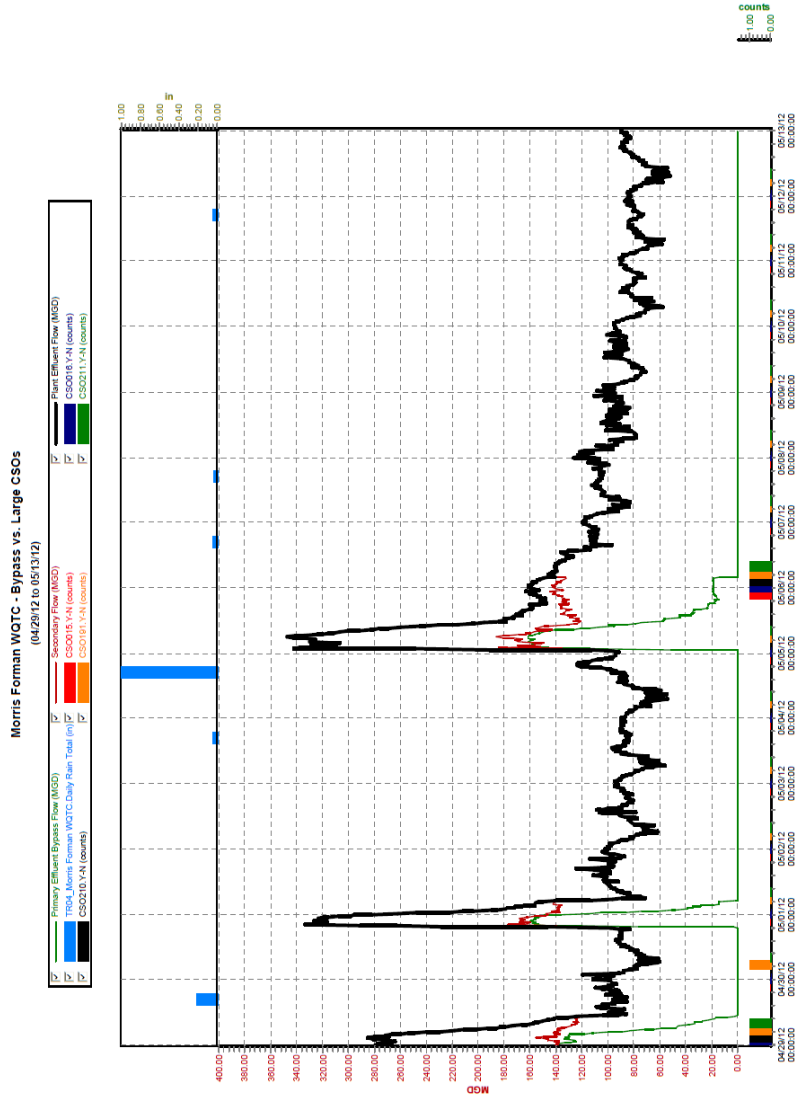




Morris Forman WQTC - Bypass vs. Large CSOs

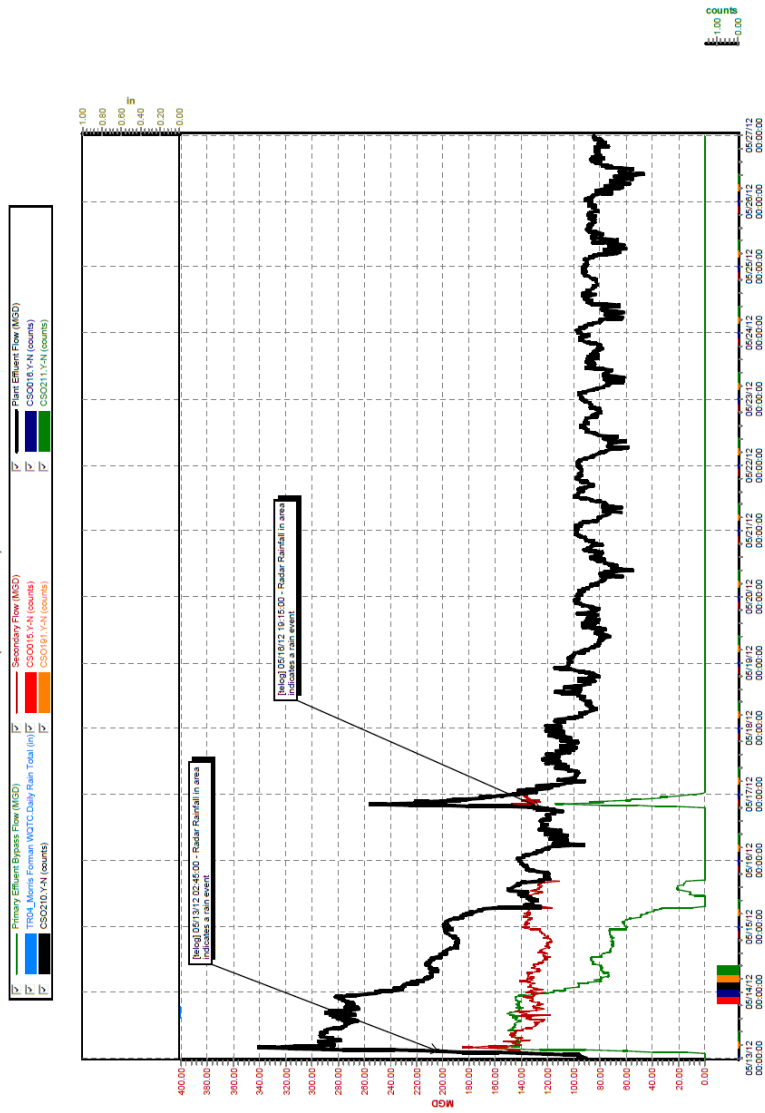
(04/15/12 to 04/29/12)

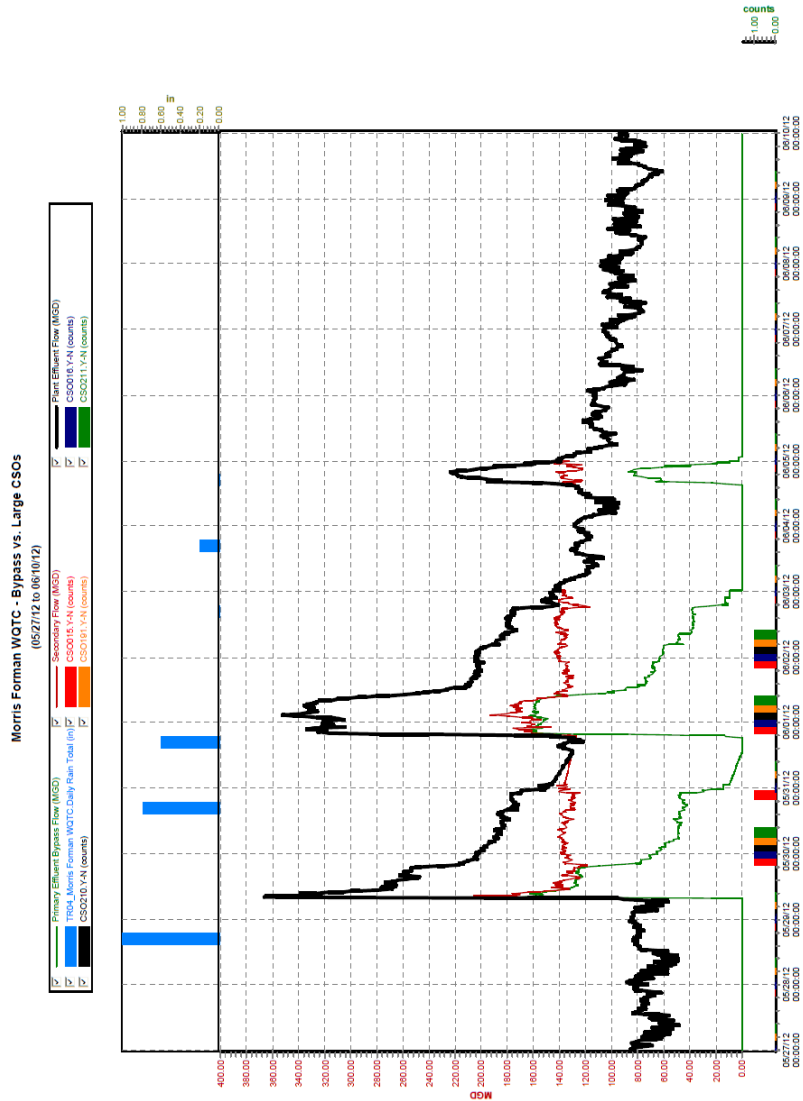




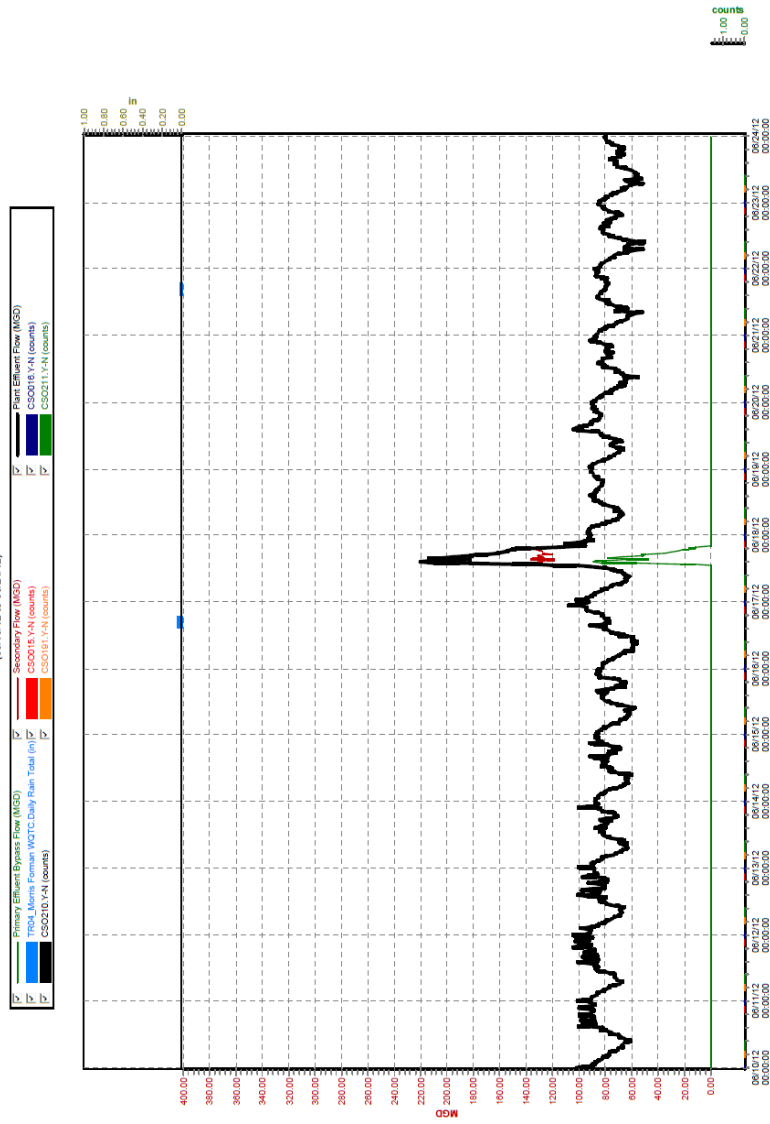
Morris Forman WQTC - Bypass vs. Large CSOs

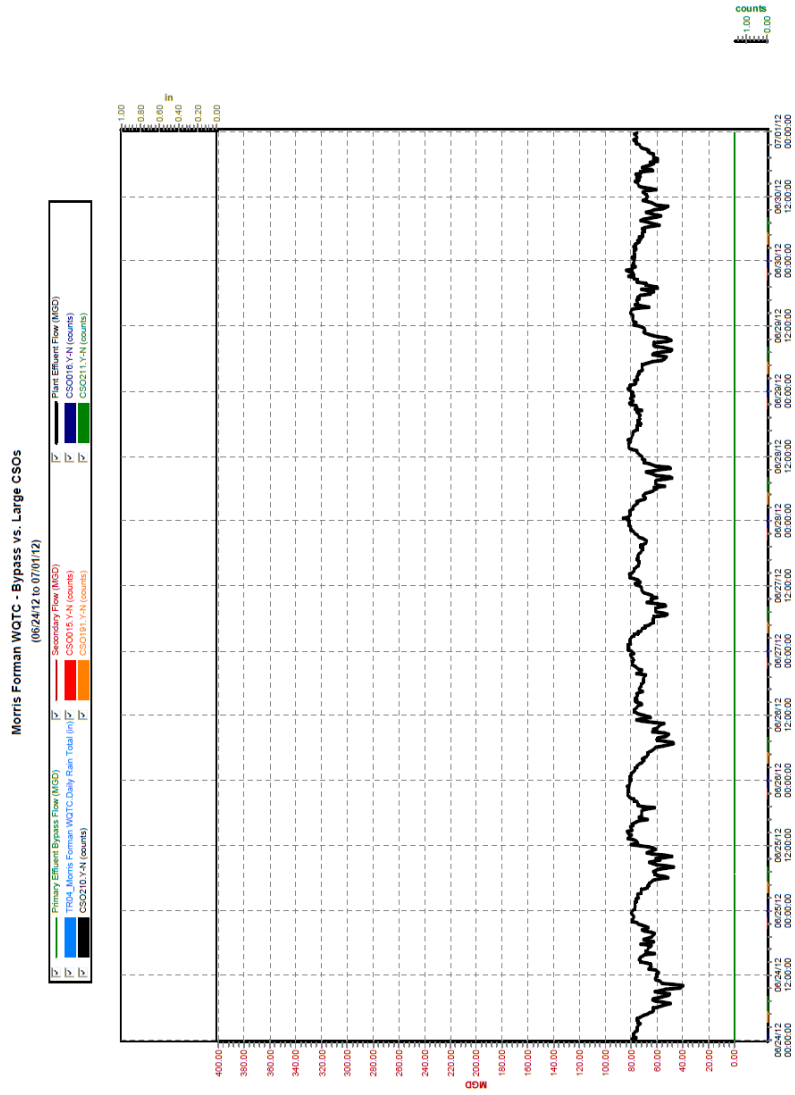
(05/13/12 to 05/27/12)





Morris Forman WQTC - Bypass vs. Large CSOs
(06/10/12 to 06/24/12)







APPENDIX K - LOUISVILLE METRO HEALTH DEPARTMENT PROGRAM ACCOMPLISHMENTS



Louisville Metro Department of Public Health & Wellness
Program Activities
July 1, 2011 – June 30, 2012

Background

In April 2005, a consent decree, known as the Supplemental Environmental Projects consent decree, was filed in the United States District Court, Western District of Kentucky, Louisville Division. Exhibit A of this decree stipulated that Public Health Screenings - Western Louisville would be conducted at a designated cost of \$1,000,000. This sum came from the settlement among the U. S. Environmental Protection Agency, the Commonwealth of Kentucky Environmental and Public Protection Cabinet, and the Metropolitan Sewer District over alleged environmental violations. The Louisville Metro Department of Public Health & Wellness entered into an agreement with the state to conduct the Community Health Screenings Project in the designated areas surrounding "Rubbertown." To augment the scope of the project, the Commonwealth of Kentucky committed an additional \$200,000. Rubbertown is an area with industrial facilities in the vicinity. The facilities include wastewater treatment, chemical and rubber production, electricity production, and other manufacturing plants typical of industrialized areas.

In 2007, Louisville Mayor Jerry E. Abramson signed a resolution for the Louisville Metro Department of Public Health & Wellness (LMPHW) to enter into an agreement with the Environmental and Public Protection Cabinet of Kentucky and to fulfill the requirements of the decree, these screenings with results, follow-up and referral was to be completed by June 30, 2008. The cost of the health screenings was \$816,958.02. Working with the state and MSD, it was agreed that the balance of the funds would be used for community projects that addressed asthma in the Rubbertown area.

The Louisville Metro Department of Public Health & Wellness (LMPHW) with approval from the state agreed upon two asthma projects from July 1, 2010 to June 30, 2011. The University of Louisville School of Public Health & Information Sciences assisted the LMPHW and Jefferson County Public Schools by collecting data and providing a data analysis and technical assistance to identify the prevalence of children with asthma in 13 elementary schools located in the Rubbertown area. The cost of this contract was \$15,684. The second project was a grant to the Jefferson County Public Education Foundation to provide asthma-related activities at Gutermuth Elementary School. A grant was awarded in the amount of \$4,224.

Since that time, two other projects have been presented and approved. The Louisville/Jefferson County Metro Government acting by and through its Department

of Public Health and Wellness has entered into a contract with Norton Healthcare, Inc. (NHC). This agreement became effective on September 1, 2011 and concludes on December 31, 2012. The amount of funds granted to NHC from the MSD Supplemental Environmental Project consent decree is \$125,860. The purpose of the grant is to improve cancer outreach, education, prevention and early detection and diagnosis. The specific types of cancer screenings include breast cancer, cervical cancer, prostate cancer, and colon cancer.

The goals of the project are to (1) reduce barriers to cancer screenings; (2) increase the rate of screening in communities at high risk for developing cancer by using the Mobile Prevention Center; and (3) provide the necessary follow-up services to all patients in need. The following services were provided between September 1, 2011 and June 30, 2012.

Actual as of 06/30/2012			
Category	Quantity	% Of Proposed Screenings Complete	Cost to Date
Screenings			
Clinical Breast Exam	184	61%	\$0.00
Mammogram	175	69%	\$9,625.00
PAP Test	39	78%	\$663.00
PSA	0	100%	\$0.00
FOBT	12	60%	\$42.00
Colonoscopy**	20	61%	\$21,170.00
Diagnosis Procedures**			
Diagnostic Exams	43	61%	\$4,393.00
Personnel			
Navigator		81%	\$20,165.00
Education & Outreach Materials			
Materials			\$5,000.00
Total		49%	\$61,058.00

The second approved project is with the University of Louisville School of Medicine, Department of Pediatrics, University of Louisville Pediatric Broadway. The grant agreement is established for July 1, 2012 - December 31, 2013 in the amount of \$101,270. The purpose of the funded program is for the University of Louisville Pediatric Broadway to improve the health and control of asthma in pediatric patients in an urban, low-income community medical practice by partnering the healthcare provider with an asthma nurse educator to provide education, reinforcement and

support at the medical home and in the child's home environment. The target population is children who live in the MSD/SEP Rubbertown area, specifically zip codes 40210, 40211, 40216, and 40258. The UL Pediatrics Broadway (the medical home) provides asthma medical care to approximately 895 patients who reside in these zip codes. The following goals and objectives have been established for this project and will be the subject of future reporting:

Measureable Outcomes

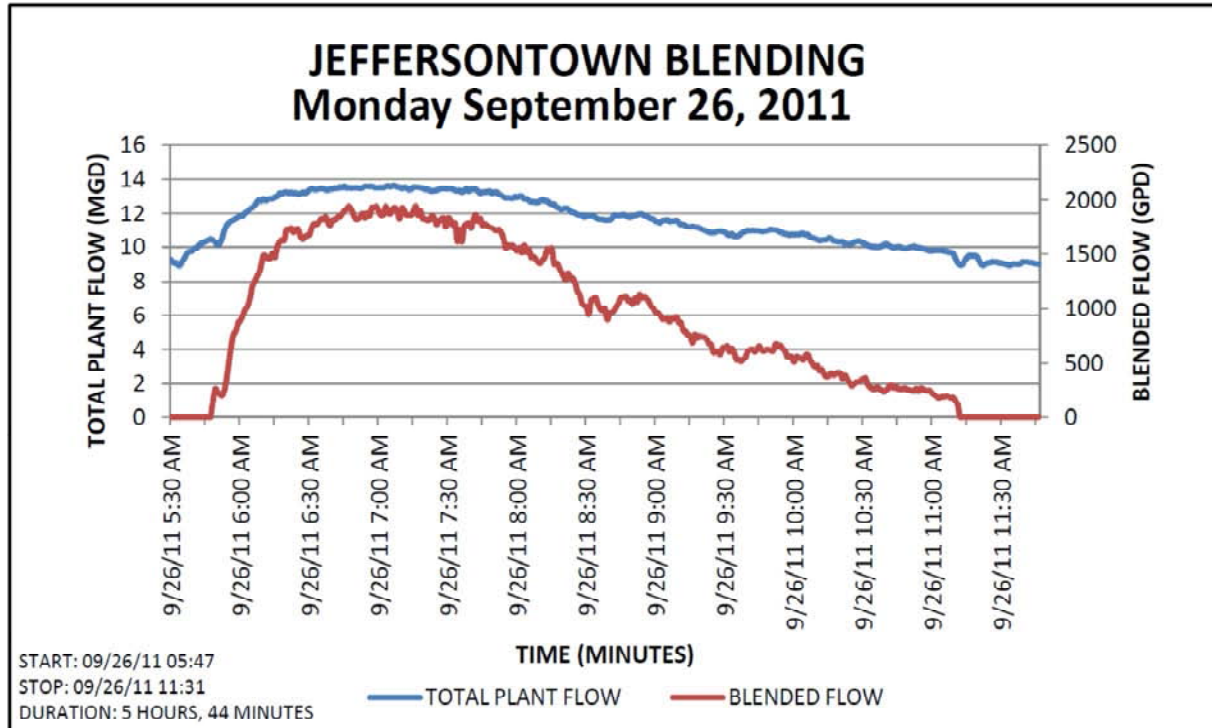
1. Evidence of improved health for participating pediatric asthma patients by comparing data 1 year prior and 2 years after the initiation of the program. Data sources include number of:
 - a. Emergency Room Visits
 - b. Hospitalizations
 - c. ICU/TCU stays
 - d. 23-hour observation stays
2. Evidence of improved education by tracking the percentage of patients with:
 - a. current asthma action plans,
 - b. yearly PFT (if appropriate)
 - c. flu vaccine compliance
 - d. spacer use
 - e. controller med use
3. Referral to appropriate community resources
4. Patient satisfaction
5. Physician satisfaction
6. Cost-benefit analysis during the pre-post intervention periods

Goals and Objectives for Measureable Outcomes

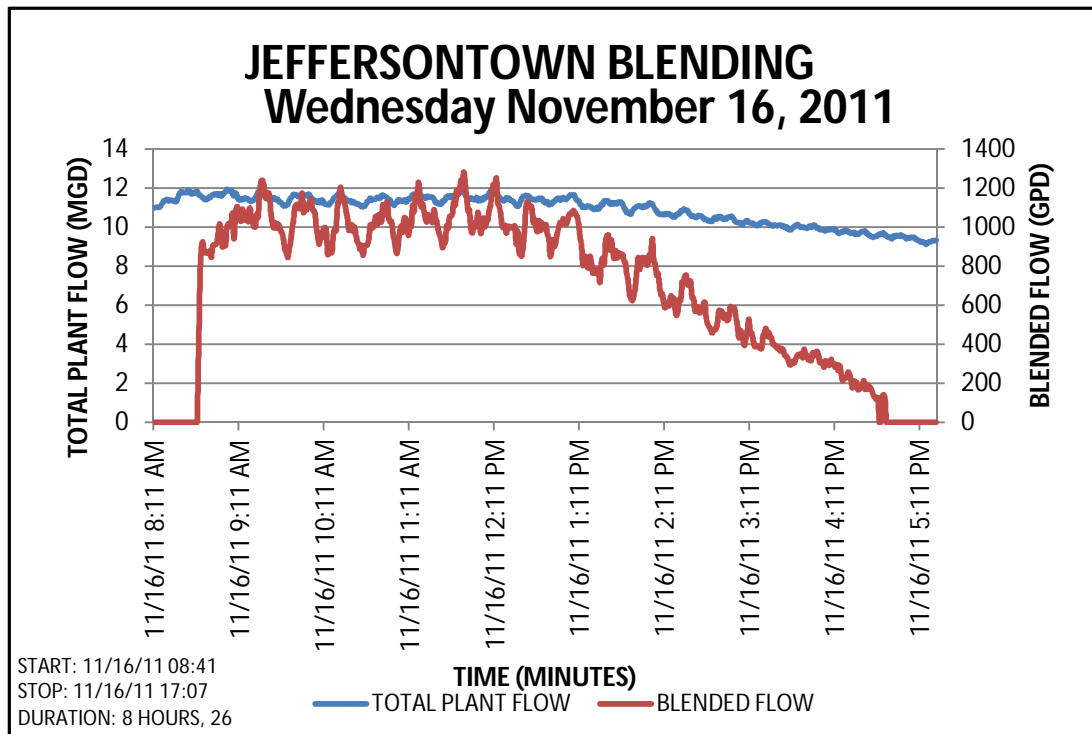
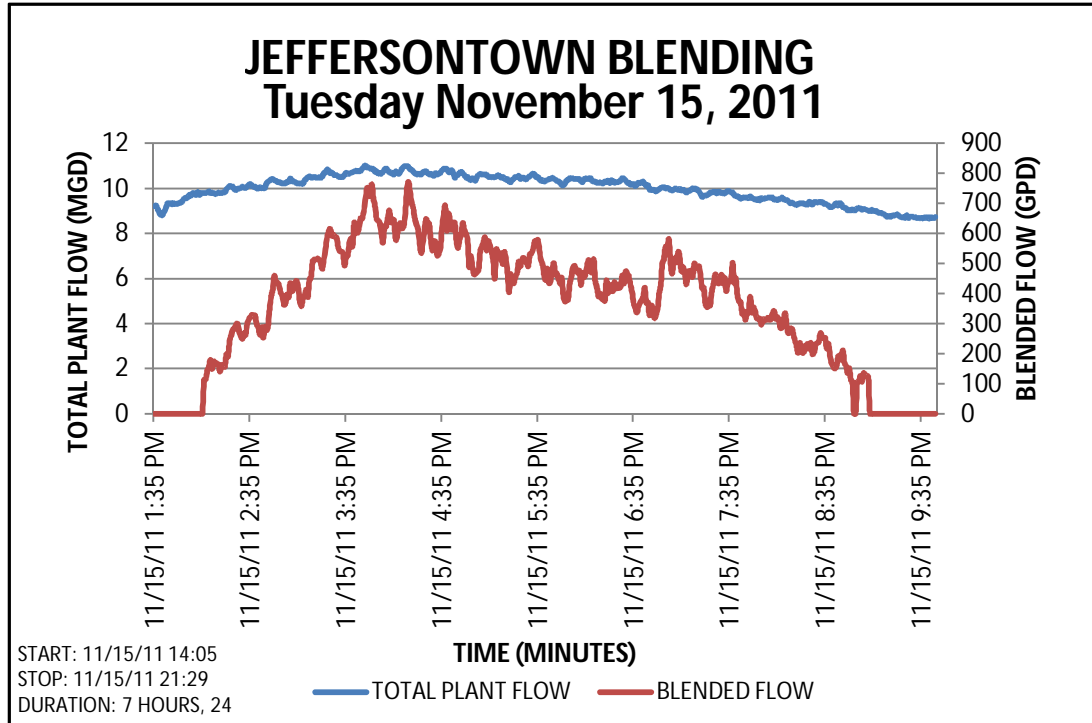
1. To improve the health and control of pediatric asthma patients in an urban low-income community practice by partnering U of L Pediatrics Broadway with an asthma nurse educator who can provide education, reinforcement, and support in both the office and home environments. **(Measureable Outcomes 1, 2, 3, 4, 5, 6)**
2. To link families to community resources to modify factors which contribute to poorly controlled disease. **(Measureable Outcome 3)**
3. To demonstrate an improvement in asthma control utilizing the Passport database by showing a reduction in utilization of emergency services and hospital stays. **(Measureable Outcomes 1, 2, 6)**
4. To demonstrate improvement in control of asthma through medication use (i.e. number of steroid bursts, increased use of controller medications). **(Measureable Outcome 2)**

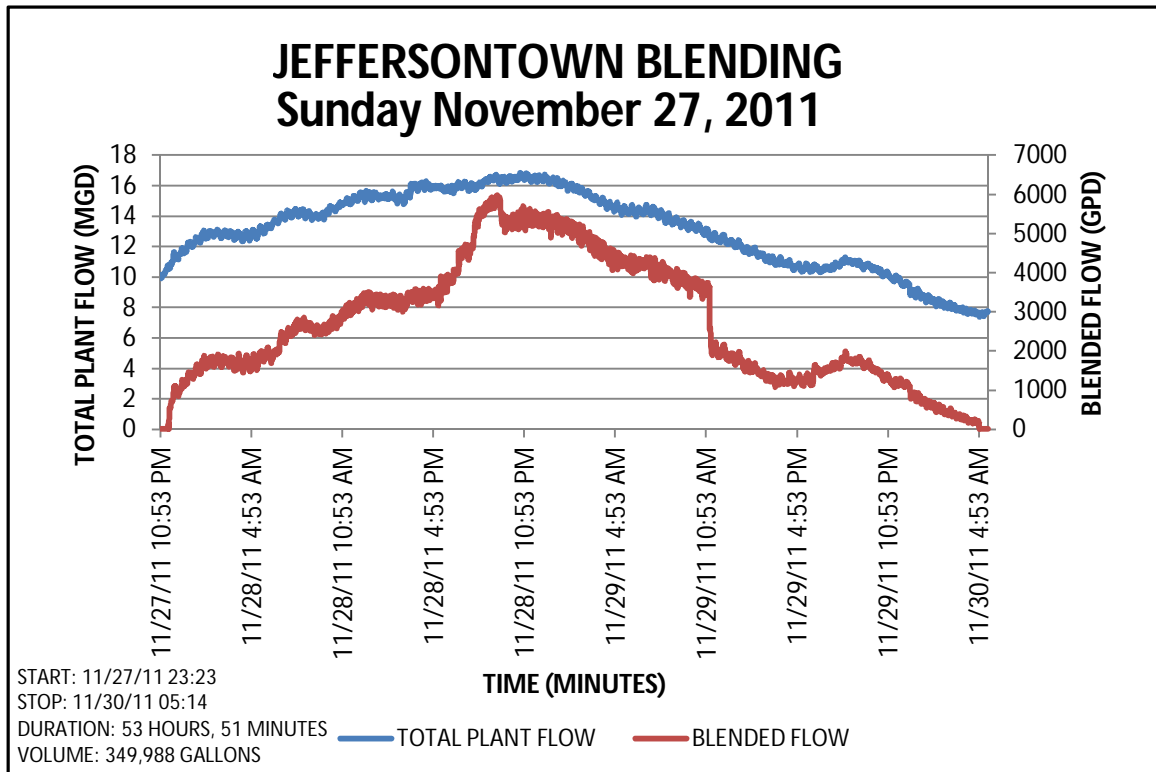
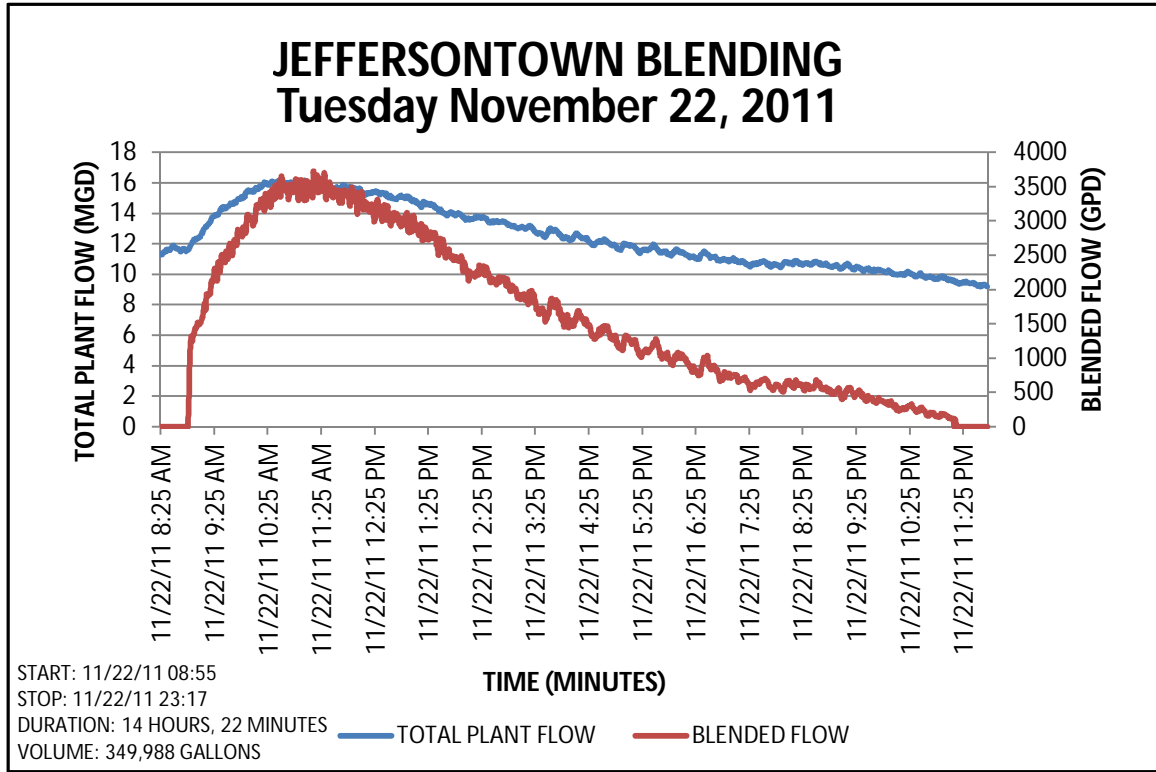
APPENDIX L – JEFFERSONTOWN WQTC BLENDING EVENT CHARTS

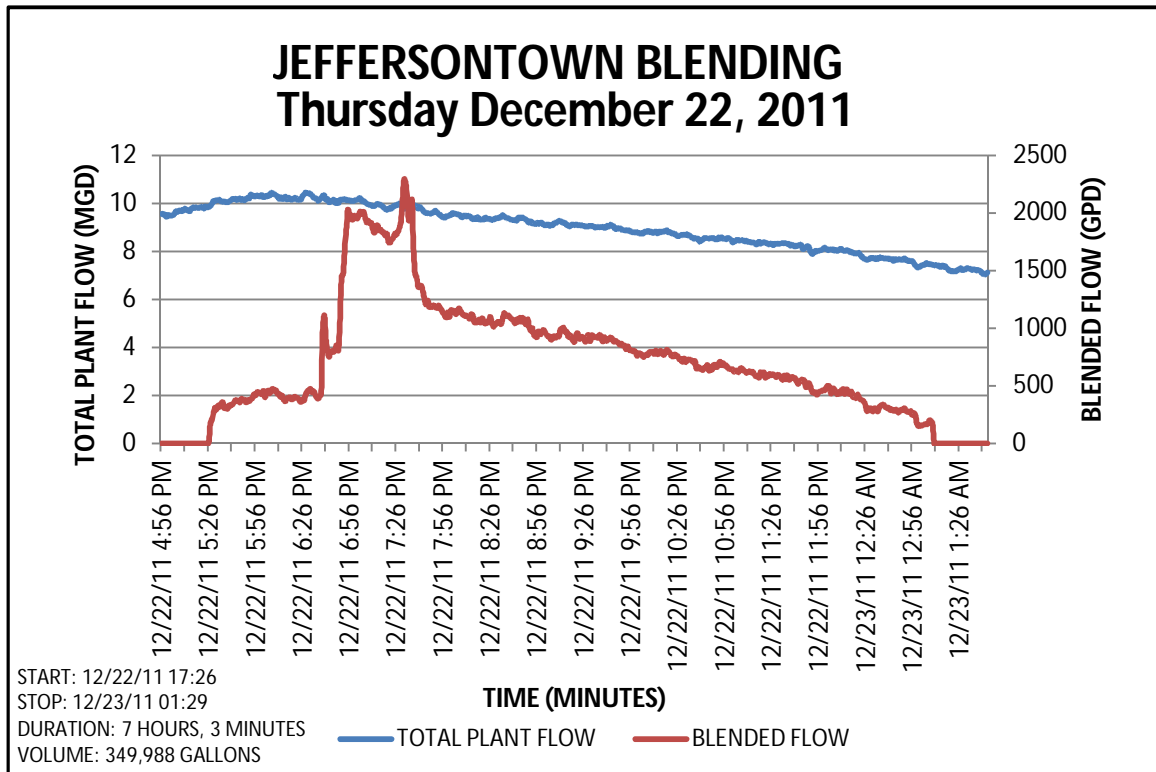
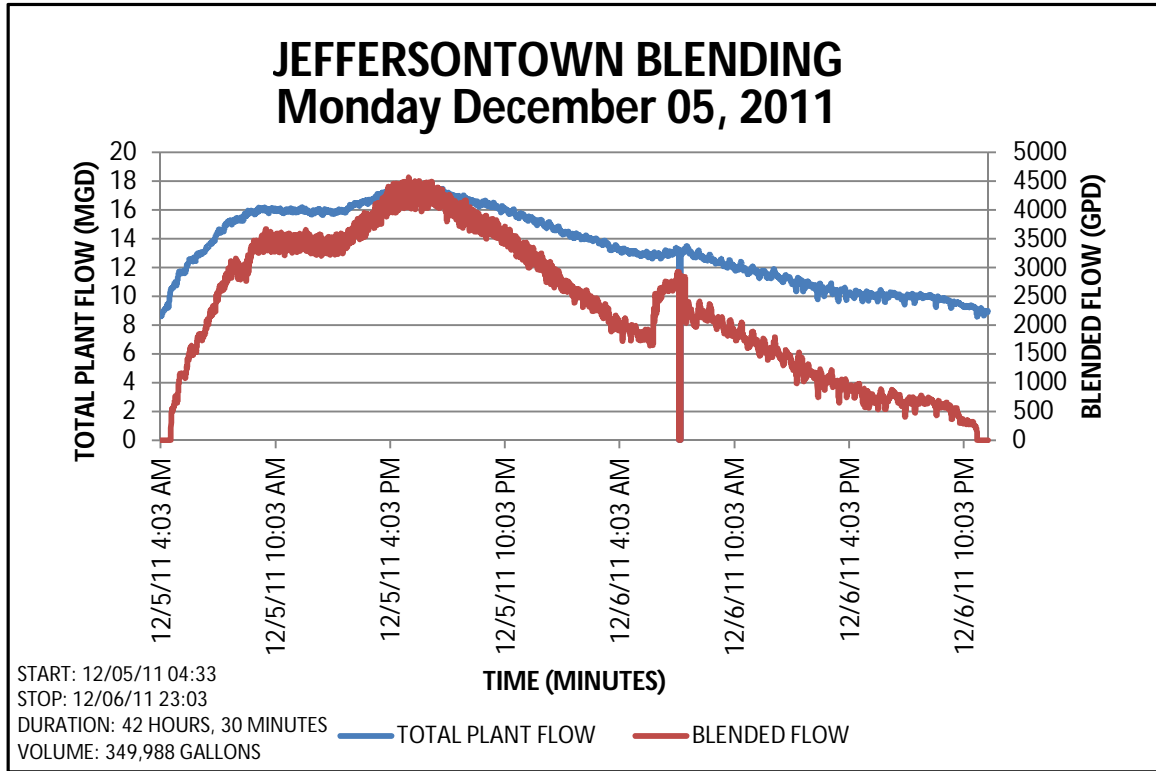
QUARTER 24 BLENDING: JULY 1, 2011 – SEPTEMBER 30, 2011

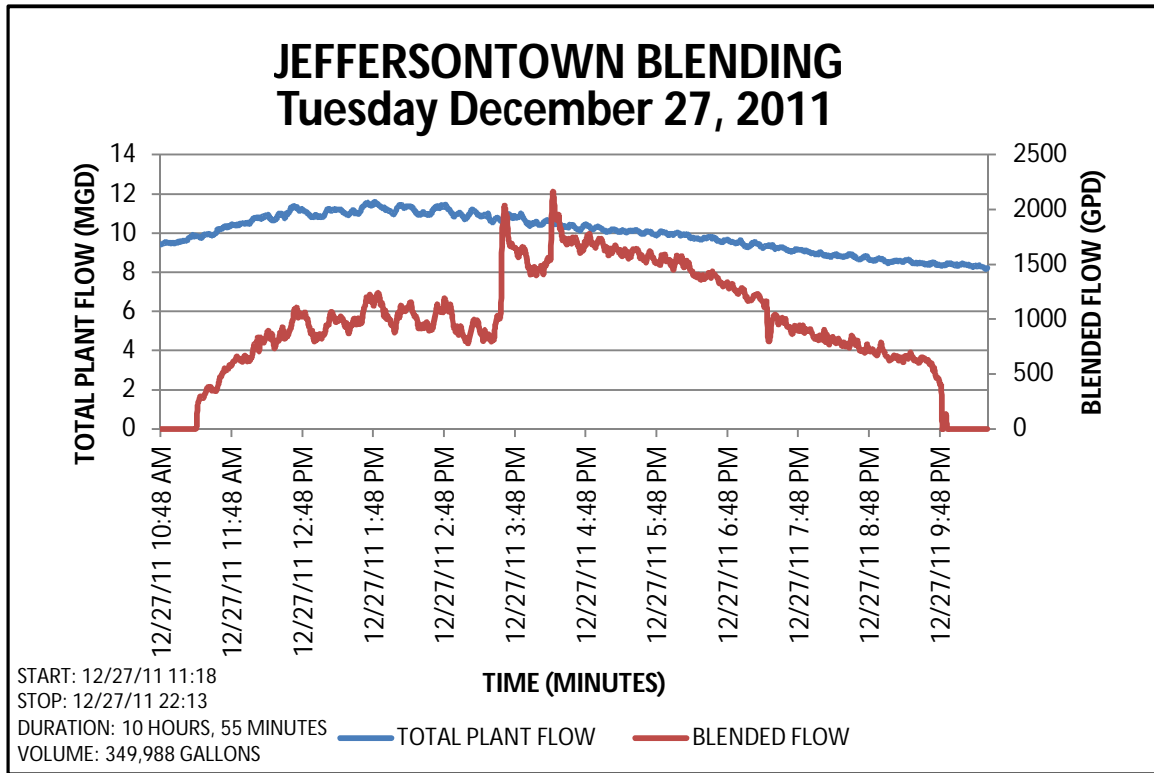


QUARTER 25 BLENDING: OCTOBER 1, 2011 – DECEMBER 31, 2011

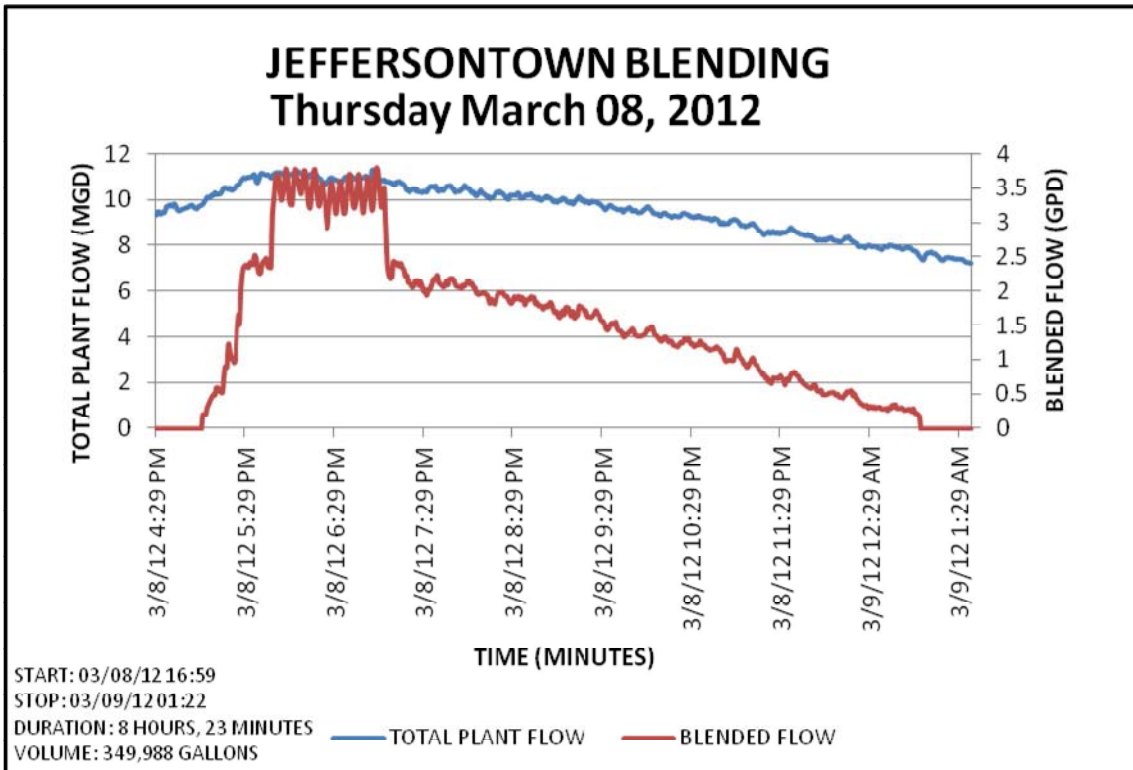
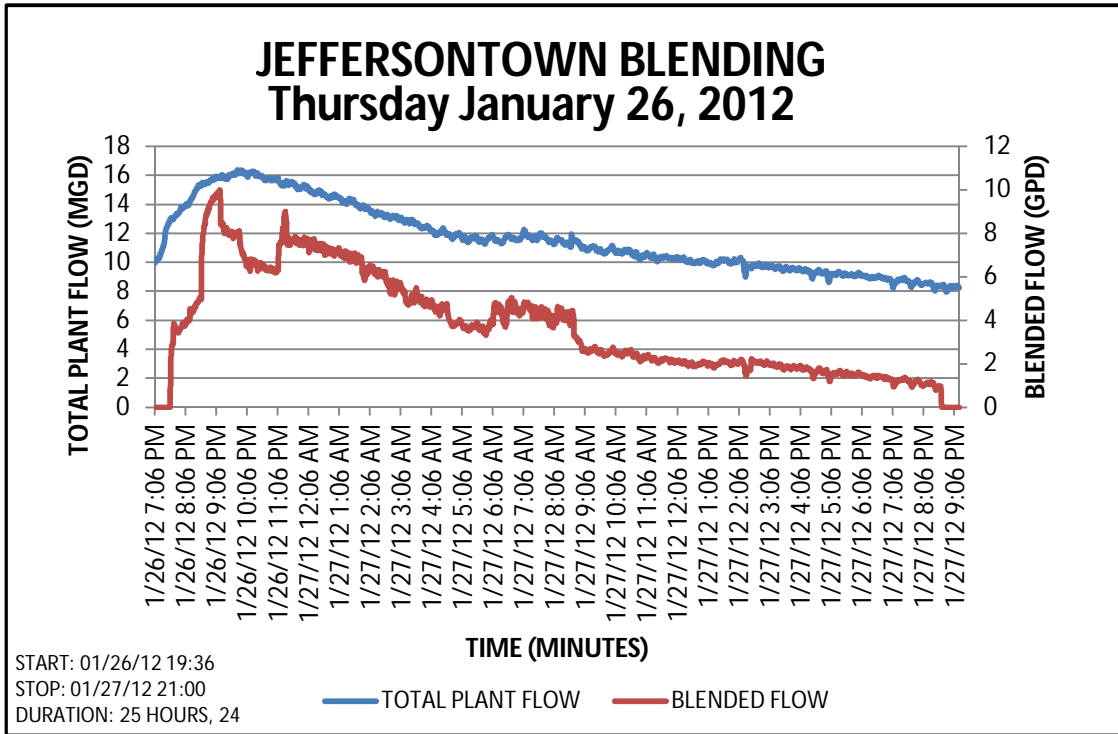


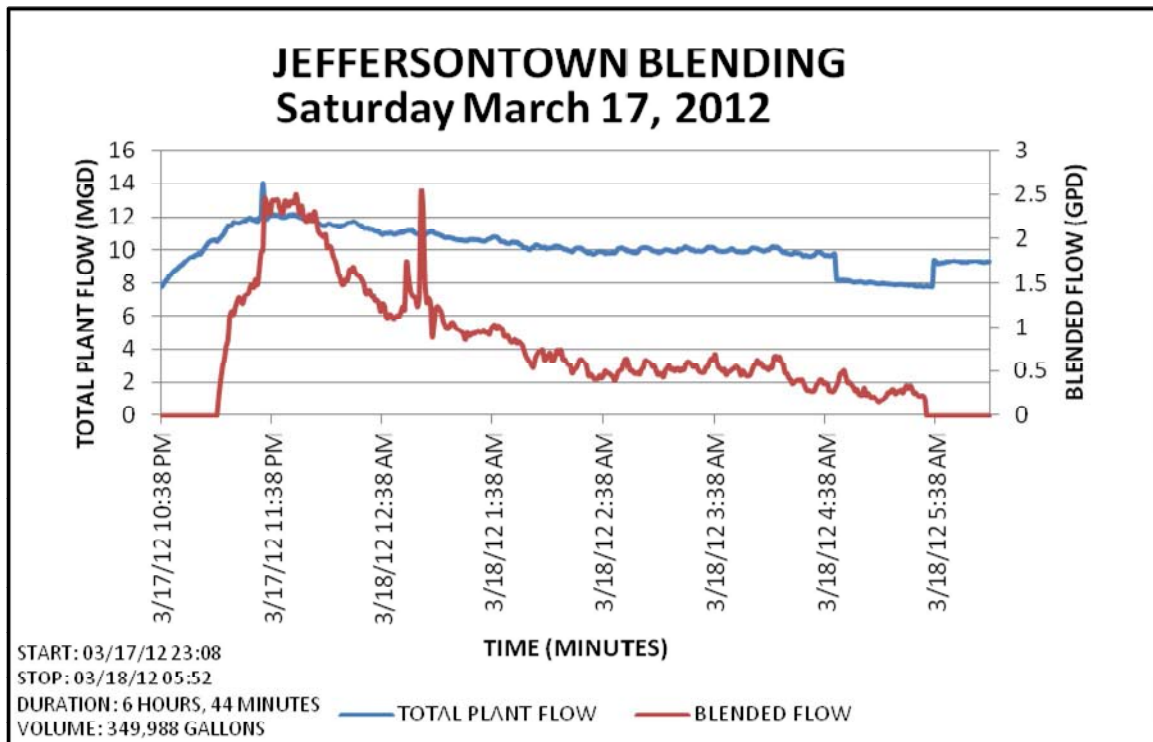
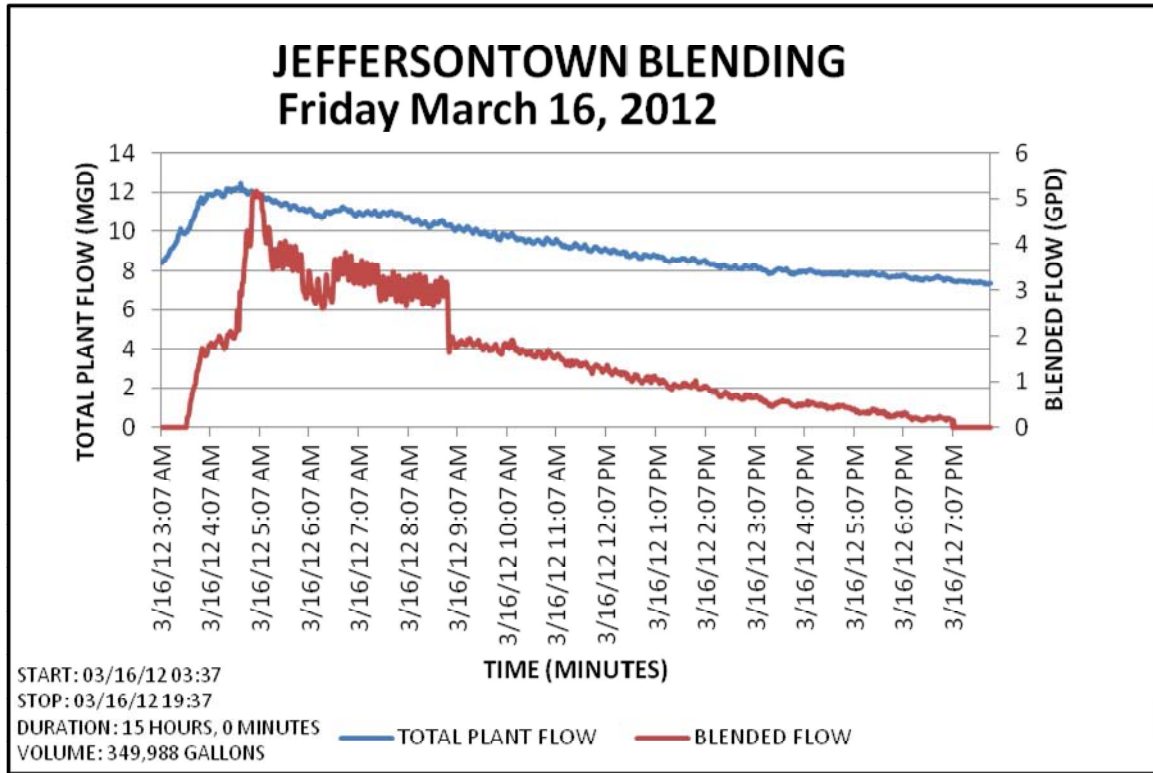




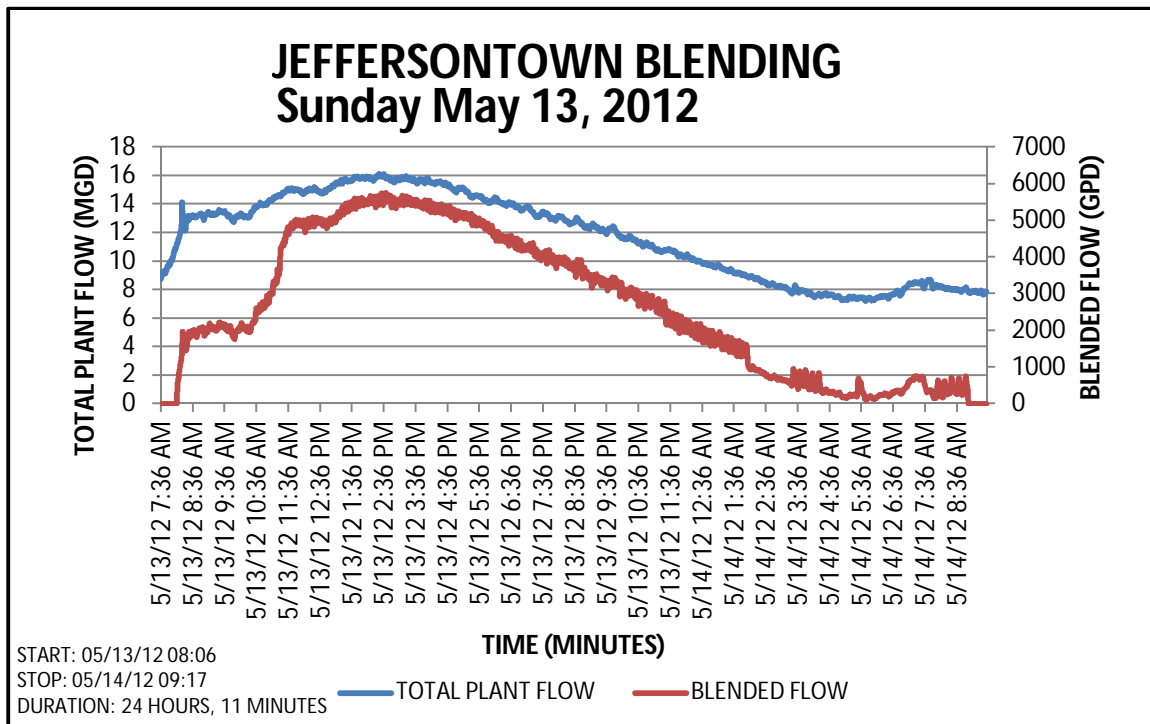
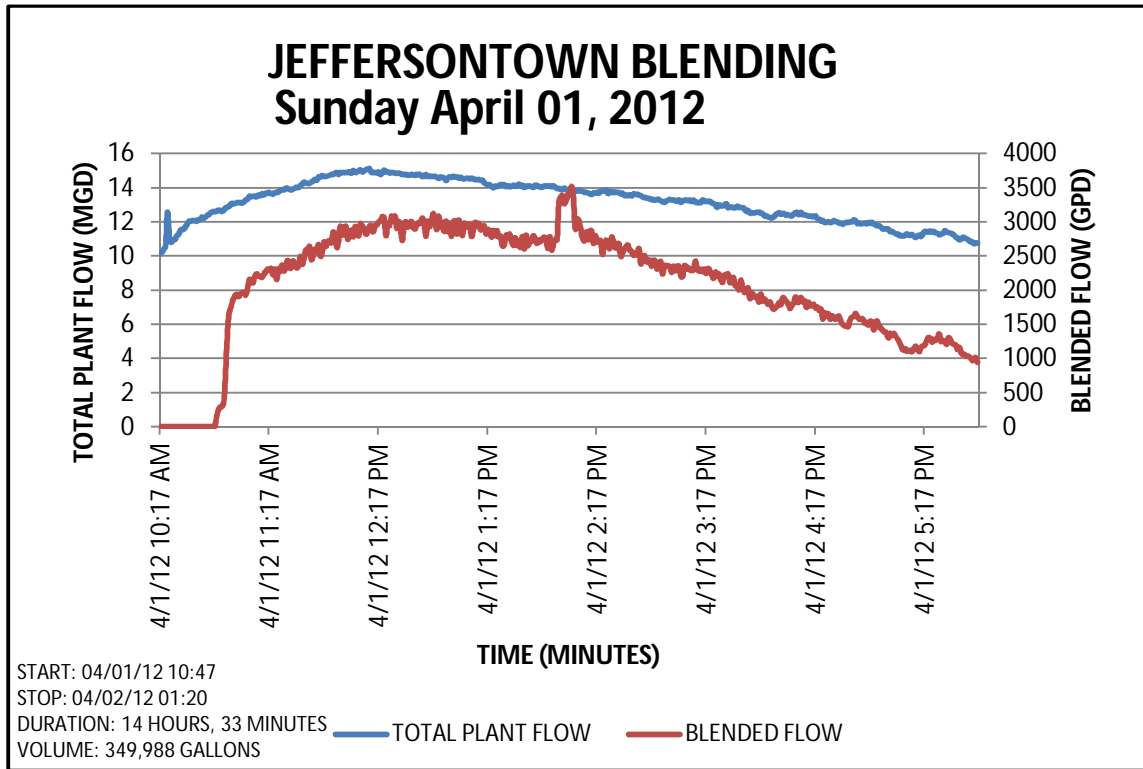


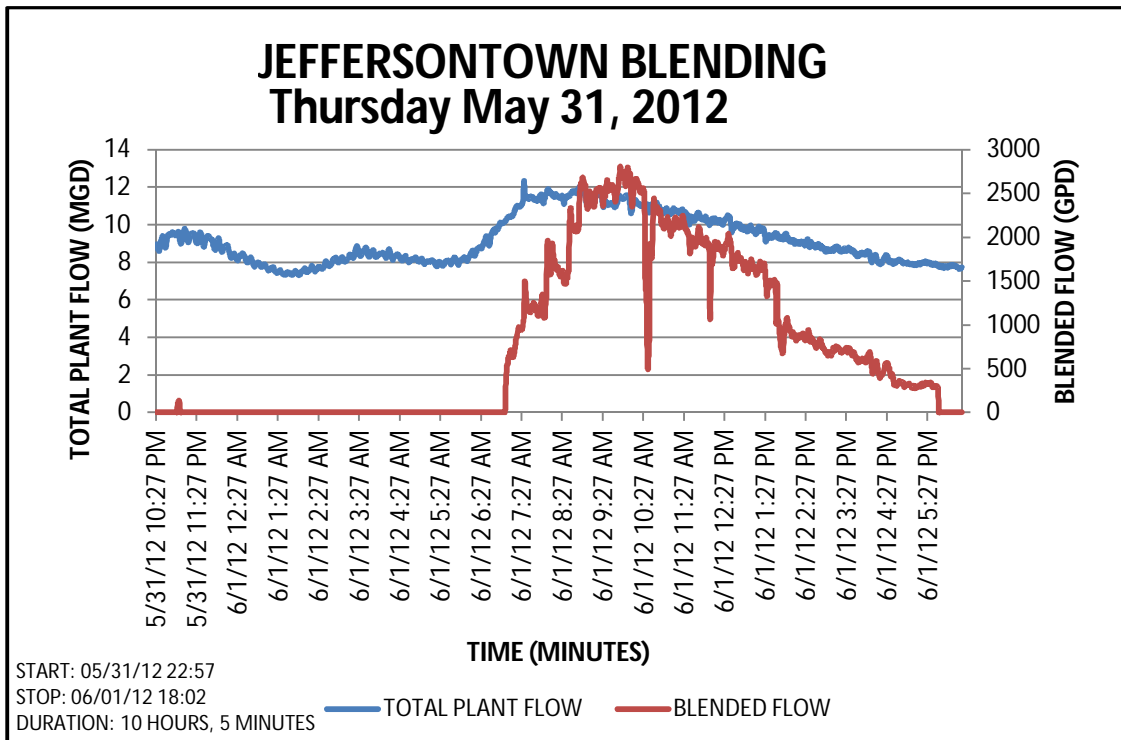
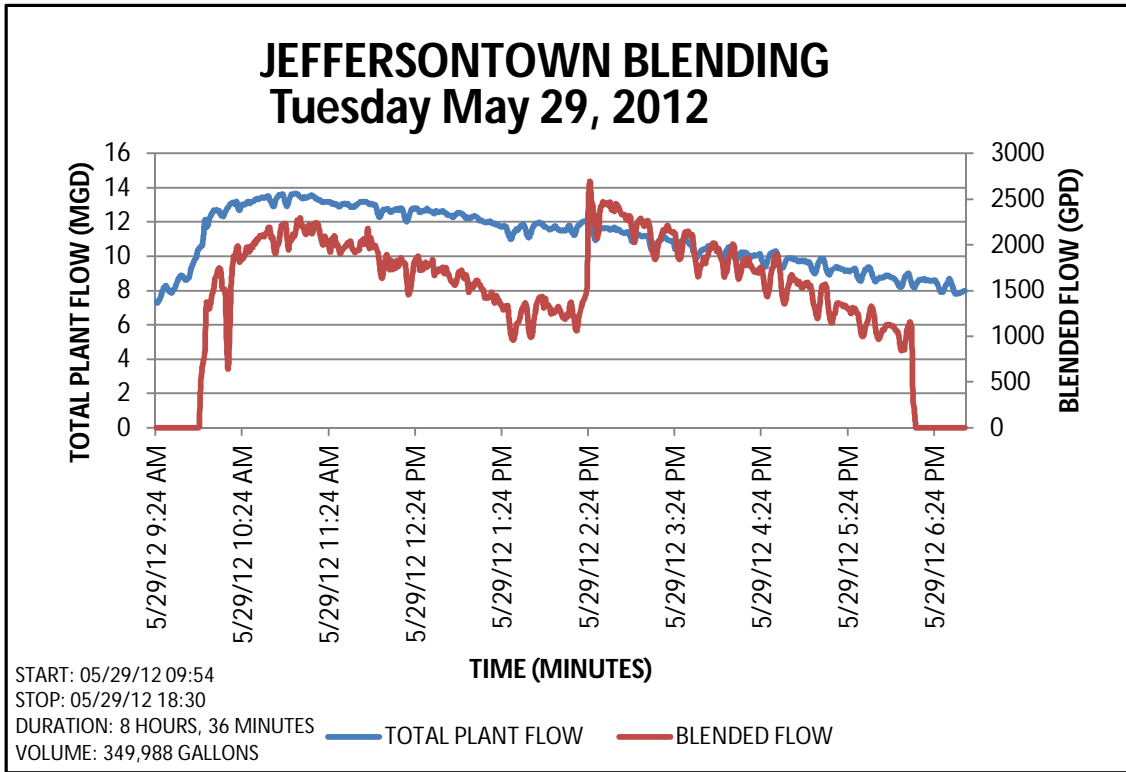
QUARTER 26 BLENDING: JANUARY 1, 2012 – MARCH 31, 2012





QUARTER 27 BLENDING: APRIL 1, 2012 – JUNE 30, 2012





APPENDIX M – BYPASS EVENT CORRECTIVE ACTIONS

Appendix M – FY12 Bypass Analysis

Bypass Analysis – July 1, 2011, to June 30, 2012	
Bypass Description	Bypass Corrective Actions
Capacity	
<ul style="list-style-type: none"> - <u>Berrytown WQTC (Hansen Discharge WO: 1388761):</u> Bypass (capacity) was reported at this WQTC on December 5, 2011. Increased plant flow caused secondary aeration to be shut off to prevent solids wash-out. Plant flows were more than ten times the design flow during the rain event on December 5, 2011. 	<ul style="list-style-type: none"> - Secondary aeration was shut down until flow reached normal operating levels to reduce the impact of the bypass. - If operational needs for resources allow, MSD will haul wastewater from this WQTC during significant rain events. - Lake Forest Pump Station, Force Main, and Interceptor (Budget ID E05509) will eliminate this WQTC. The Berrytown component of this project is anticipated to be complete by December 31, 2012.
<ul style="list-style-type: none"> - <u>Chenoweth Hills WQTC (Hansen Discharge WO: 1389076):</u> Bypass (capacity) was reported at this WQTC on December 5, 2011. Increased plant flow caused the chlorine contact tank channel to overflow. Plant flows were more than six times the design flow during the rain event on December 5, 2011. 	<ul style="list-style-type: none"> - If operational needs for resources allow, MSD will haul wastewater from this WQTC during significant rain events. - Reviewed SOPs for possible enhancement. No further action is advised at this time. - An SSES project (Budget ID A3130) to reduce wet weather flows is scheduled for completion on June 30, 2012.
<ul style="list-style-type: none"> - <u>Chenoweth Hills WQTC (Hansen Discharge WO: 1389077):</u> Bypass (capacity) was reported at this WQTC on December 5, 2011. Increased plant flow caused the effluent pump station to overflow. Plant flows were more than six times the design flow during the rain event on December 5, 2011. 	<ul style="list-style-type: none"> - If operational needs for resources allow, MSD will haul wastewater from this WQTC during significant rain events. - Reviewed SOPs for possible enhancement. No further action is advised at this time. - An SSES project (Budget ID A3130) to reduce wet weather flows is scheduled for completion on June 30, 2012.

Appendix M – FY12 Bypass Analysis

<ul style="list-style-type: none"> - <u>Berrytown WQTC (Hansen Discharge WO: 1447794):</u> Bypass (capacity) was reported at this WQTC on March 18, 2012. Increased plant flow caused a clarifier overflow. Plant flows were more than four times the design flow during the rain event on March 18, 2012. 	<ul style="list-style-type: none"> - MSD reinforced the clarifier walls where overflows occurred. - If operational needs for resources allow, MSD will haul wastewater from this WQTC during significant rain events.
<ul style="list-style-type: none"> - <u>Berrytown WQTC (Hansen Discharge WO: 1447800):</u> Bypass (capacity) was reported at this WQTC on March 18, 2012. Increased plant flow caused an overflow at the aeration basin. Plant flows were more than five times the design flow during the rain event on March 18, 2012. 	<ul style="list-style-type: none"> - If operational needs for resources allow, MSD will haul wastewater from this WQTC during significant rain events.
<ul style="list-style-type: none"> - <u>Hite Creek WQTC (Hansen Discharge WO: 1496224):</u> Bypass (Capacity) was reported at this WQTC on May 29, 2012. Increased plant flow caused two gallons of foam to overflow the influent channel. Plant flows were more than three times the design flow during the rain event on May 29, 2012. 	<ul style="list-style-type: none"> - MSD will install a defoaming application point upstream of this channel. - If operational needs for resources allow, MSD will haul wastewater from this WQTC during significant rain events.
<p>External Power failures (LGE Related-PWR)</p>	
<ul style="list-style-type: none"> - <u>Starview WQTC (Hansen Discharge WO: 1321027):</u> Bypass (Power Failure) was reported at this WQTC on August 13, 2011. A power failure caused the effluent pump station to fail during the rain event of August 13, 2011. 	<ul style="list-style-type: none"> - MSD installed an alternate power source (temporary generator). - Lake Forest Pump Station, Force Main, and Interceptor (Budget ID E05509) will eliminate this WQTC. The Starview component of this project is anticipated to be complete by December 31, 2012.
<ul style="list-style-type: none"> - <u>Derek R Guthrie WQTC (Hansen Discharge WO: 1357433):</u> Bypass (Power Failure) was reported at this WQTC on October 13, 2011. A power failure caused flow to bypass disinfection and dechlorination during the rain event of October 13, 2011. 	<ul style="list-style-type: none"> - MSD closed the plant influent gate to stop the bypass. Plant expansion will include backup power source for disinfection and dechlorination. This project is scheduled to be complete on February 29, 2011.

Appendix M – FY12 Bypass Analysis

<ul style="list-style-type: none"> - <u>McNeely Lake WQTC (Hansen Discharge WO: 1456189):</u> Bypass (Power Failure) was reported at this WQTC on March 23, 2012. A power failure caused flow to bypass the influent pump station during the rain event of March 23, 2012. 	<ul style="list-style-type: none"> - MSD installed a temporary generator to restore service to the WQTC on March 23, 2012.
<ul style="list-style-type: none"> - <u>Starview WQTC (Hansen Discharge WO: 1496181):</u> Bypass (Power Failure) was reported at this WQTC on May 29, 2012. A power failure caused flow to bypass the influent pump station during the rain event of May 29, 2012. 	<ul style="list-style-type: none"> - MSD review alternative power sources for this WQTC as resources allow.
<ul style="list-style-type: none"> - <u>Jeffersontown WQTC (Hansen Discharge WO: 1508255):</u> Bypass (Power Failure) was reported at this WQTC on June 25, 2012. A momentary power failure caused flow to bypass UV treatment prior to the backup power generator starting up during the rain event of June 25, 2012. According to SORP documentation, this is not considered a bypass, there were no permit parameter exceedences, and will not be reported as a bypass in the future. 	<ul style="list-style-type: none"> - MSD has alternative power generation installed at this WQTC. - WQTC to be eliminated prior to December 31, 2015.
<p>Facility Failure (Mechanical -MCH, Electrical - ELE, Structural-SRT)</p>	
<ul style="list-style-type: none"> - <u>Shadow Wood WQTC (Hansen Discharge WO: 1308246):</u> Bypass (structural) was reported at this WQTC on July 27, 2011. Erosion in the tertiary pond allowed flows to bypass disinfection during dry weather. 	<ul style="list-style-type: none"> - MSD drained the pond and installed a plug to stop the bypass on July 27, 2011. MSD excavated at the leak, then poured concrete in the embankment to prevent a future bypass at this location. - The Shadow Wood plant is to be eliminated as part of the Prospect Elimination Phase 1 (BUDGET ID D94210) prior to December 31, 2015.

Appendix M – FY12 Bypass Analysis

<p>- <u>Floyds Fork WQTC (Hansen Discharge WO: 13153518)</u>: Bypass (mechanical) was reported at this WQTC on August 8, 2011. Plant UV system shut down due to leak in system coolant line during dry weather.</p>	<p>- MSD repaired the coolant line, and contacted the manufacturer for replacement parts. A low level alarm was added to the SCADA system to alert staff of a future occurrence. Corrective action was completed on August 9, 2011.</p>
<p>- <u>Cedar Creek WQTC (Hansen Discharge WO: 1316305)</u>: Bypass (electrical) was reported at this WQTC on August 11, 2011. The UV system shut down due to low flows in the channel during dry weather.</p>	<p>- MSD re-started the UV system manually on August 11, 2011. SOP will be updated to specify one active channel (of two) to be in service during low flow periods to prevent recurrence of the dry weather bypass. Corrective action to be completed prior to December 31, 2011.</p>
<p>- <u>Jeffersontown WQTC (Hansen Discharge WO: 1358396)</u>: Bypass (electrical) was reported at this WQTC on October 15, 2011. An electrical malfunction in the secondary pump station caused a bypass of secondary treatment during dry weather on October 15, 2011.</p>	<p>- MSD investigated the electrical failure, and re-started the pump station upon discovery.</p> <p>- Changed the secondary pump station control switch relay to reduce possible re-occurrence.</p> <p>- Reviewed SOPs for possible enhancement. No further action is advised at this time.</p> <p>- The Jeffersontown WQTC elimination project is scheduled to be complete by December 31, 2015.</p>
<p>- <u>Morris Forman WQTC (Hansen Discharge WO: 1387346)</u>: Bypass (electrical) was reported at this WQTC on November 30, 2011. The biotower pumps shut down during the rain event on November 30, 2011.</p>	<p>- MSD investigated the pump shut down, and re-started upon discovery of the failure.</p> <p>- Reviewed SOPs for possible enhancement. No further action is advised at this time.</p>
<p>- <u>Cedar Creek WQTC (Hansen Discharge WO: 1421441)</u>: Bypass (electrical) was reported at this WQTC on February 5, 2012, when a UV channel gate failed to close in automatic control.</p>	<p>- UV equipment vendor repaired a faulty control board to prevent the channel gate from being opened without UV lights powered up. Action was completed on February 6, 2012.</p>

Appendix M – FY12 Bypass Analysis

Human Error (OPN)	
<ul style="list-style-type: none"> - <u>Chenoweth Run WQTC (Hansen Discharge WO: 1500585):</u> Bypass (Human Error) was reported at this WQTC on June 2, 2012. A Contractor working on site inadvertently cut a water line to the WQTC, temporarily disrupting disinfection. 	<ul style="list-style-type: none"> - MSD entered a vendor complaint form on the Contractor.
Utility Damage	
<ul style="list-style-type: none"> - <u>Morris Forman WQTC (Hansen Discharge WO: 1297907):</u> Bypass was reported at this WQTC on July 11, 2011. A Louisville Water Company water main break of over 40 MG caused excessive flows to reach the plant, and led to a bypass of secondary treatment during dry weather. 	<ul style="list-style-type: none"> - MSD maximized secondary treatment during the event.
<ul style="list-style-type: none"> - <u>Morris Forman WQTC (Hansen Discharge WO: 1320542):</u> Bypass was reported at this WQTC on August 11, 2011. A Louisville Water Company water main break caused excessive flows to reach the plant, and led to a bypass of secondary treatment during dry weather. 	<ul style="list-style-type: none"> - MSD maximized secondary treatment during the event.