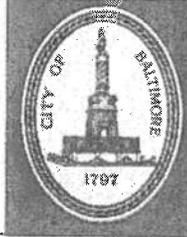


CITY OF BALTIMORE

SHEILA DIXON, Mayor



DEPARTMENT OF PUBLIC WORKS

BUREAU OF WATER AND WASTEWATER
300 Abel Wolman Municipal Building
Baltimore, Maryland 21202

October 27, 2009

VIA OVERNIGHT MAIL

Chief, Environmental Enforcement Section
Environment and Natural Resources Division
U.S. Department of Justice
1425 New York Avenue, N.W.
Washington, D.C. 20005

Chief, Environmental Enforcement Section
Environment and Natural Resources Division
U.S. Department of Justice
950 Pennsylvania Avenue, N.W.
Washington, D.C. 20530

Reference DOJ Case No. 90-5-1-1-4402/1

Reference DOJ Case No. 90-5-1-1-4402/1

Angela McFadden (3WP31)
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Chief
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Water Management Administration
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Baltimore, MD 21230

Principal Counsel
Maryland Department of the Environment
Office of the Attorney General
1800 Washington Boulevard
Baltimore, MD 21230

**RE: United States, et al. v. Mayor and City Council of Baltimore
Civil Action No. JFM-02-1524
Calendar Quarterly Report No. 28
For Calendar Quarter Ending September 30, 2009**

Ladies and Gentlemen:

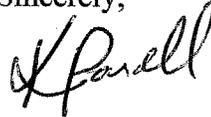
In the above referenced Consent Decree, the City of Baltimore agreed to submit a Calendar Quarterly Progress Report covering activities required by the Consent Decree. Included herewith is Calendar Quarterly Report No.28, for the Calendar Quarter ending September 30, 2009.



October 27, 2009
Page 2

We trust that you will agree that the City of Baltimore is in compliance with this requirement of the Consent Decree. Please notify us if you have any questions related to this item.

Sincerely,



Kishia L. Powell, P.E.
Bureau Head

Enclosures

KLP:ajd

cc: David E. Scott, P.E.
Mr. George Nilson, City Solicitor
Peter Keith, Esquire
Mr. Robert T. Mohr
Mr. Wazir Qadri
Mr. Arthur Jones-Dove

City of Baltimore Sanitary Sewer Overflow Consent Decree

Civil Action No. JFM-02-1524

Calendar Quarterly Report No. 28
For Calendar Quarter ending September 30, 2009

*Submitted:
October 28, 2009*

*Submitted To:
United States Environmental Protection Agency
United States Department of Justice
Maryland Department of the Environment*

*Prepared By:
City of Baltimore
Department of Public Works,
Bureau of Water and Wastewater*

Statement of Certification

I certify under penalty of law that this information was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my directions and my inquiry of the person(s) who manage the system, or the person(s) directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete.



Kishia L Powell, P.E.
Bureau Head



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A. INTRODUCTION

This Calendar Quarterly Report is submitted pursuant to the requirements of a Consent Decree entered on September 30, 2002 in the United States District Court for the District of Maryland as part of the response to Civil Action No. JFM-02-1524. This Calendar Quarterly Report is intended to provide an update on the progress of remedial measures required by the Consent Decree and the status of various programs to be implemented.

The requirements for the Calendar Quarterly Report are specified in Paragraph 18 of the Consent Decree, which reads as follows:

"Beginning with the first full calendar quarter after the Date of Entry of the Consent Decree, Baltimore shall submit to EPA and MDE within thirty (30) days after the end of each calendar quarter until termination of this Consent Decree a Calendar Quarterly Progress Report ("Calendar Quarterly Report") covering the subject of this Consent Decree. This Calendar Quarterly Report shall contain the following:

- i. Progress reports on the implementation of the requirements of Section VII (Remedial Measures) as described in Paragraphs 8 through 15;
- ii. A description of any problems anticipated with respect to meeting the requirements of Section VII (Remedial Measures) of this Consent Decree; and
- iii. A description of all environmentally beneficial projects and SEP implementation activity in accordance with Paragraphs 29-33 of the Consent Decree; and
- iv. Any such additional matters as Baltimore believes should be brought to the attention of EPA and MDE."

It was noted that Paragraph 18 contained a typographical error. The Remedial Measures described in Paragraphs 8 through 15 comprise Section VI of the Consent Decree, and not Section VII. Accordingly, this Calendar Quarterly Report refers to Paragraphs 8 through 17 of the Consent Decree as Section VI.

B. PROGRESS OF IMPLEMENTATION OF SECTION VI REQUIREMENTS

For reference purposes, this Section B is organized so that the item numbers correspond directly to Paragraphs and subparagraphs in the Consent Decree.

Paragraph 8: Elimination of Sanitary Sewer Overflow and Combined Sewer Overflow Discharges

- A. **General Requirements:** During the calendar quarter ending September 30, 2009, the City of Baltimore was in general compliance with the Clean Water Act and Title 9, Subtitle 3 of the Environment Article, Annotated Code of Maryland. Episodes of non-compliance include un-permitted sanitary sewer overflows (SSOs), as reported during the quarter in accordance with Paragraph 17 of the Consent Decree and as summarized in Appendix 4 herein.
- B. **Construction Projects:** Appendix 1 to this Calendar Quarterly Report provides a status update for each of the construction projects listed in Appendix D of the Consent Decree.

1. Practical Completion

As design and construction progress, concerns and issues have arisen that may impact the schedule for some of the Paragraph 8 projects, are as follows:

Project No. 4 : Jones Falls Pumping Station Force Main/Pressure Sewer:

On December 17, 2007 the City requested an extension to extend the project schedule for 60 calendar days resulting in a Practical Completion deadline of February 27, 2008. The City of Baltimore is waiting for a response letter from MDE/EPA. The resulting request was because the Contractor recently encountered unforeseen conditions in the form of extremely hard rock between the intersection of Falls Road and Roland Avenue. The contractor has used mechanical hammers, blasting and expansive slurries in an effort to excavate through this rock area. Practical Completion was achieved for this project on January 23, 2008.

Project No. 8: Stony Run Interceptor and Pumping Station: Due to significant public opposition to the proposed pumping station site in Wyman Park, additional pumping station locations were investigated. A new location at the Department of Public Works Solid Waste Site, near the intersection of Sisson Street and 29th Street had been selected and approved by MDE and EPA. To expedite the project, this project was split into 3 phases:

- SC 819 (Phase 1) is an upper portion of Stony Run interceptor and consists of rehabilitation, and partial replacement of pipelines and manholes located north of Wyndhurst Avenue. Practical completion of this project was complete as of October 14, 2006.
- SC 838 (Phase 2) is the middle portion of Stony Run interceptor and consists of rehabilitation and partial replacement of pipelines located between Cold

Spring Lane and Wyndhurst Avenue. Practical completion of this project was complete as of March 21, 2007.

SC 839 and SC 847 (Phase 3) consist of 20 mgd pumping station, force main and gravity sewer. Due to delay in siting the pump station, the City has requested and MDE has approved a 6-month extension for the project advertisement and completion dates. Both SC 839 and SC 847 were advertised on June 16, 2006. For Contract SC 839, the city received only one bid 65% above the engineers estimate. The city rejected this bid and had determined that the compressed construction schedule of one year is the primary reason for the unusually high bid amount and lack of competitive bidding. The City re-advertised Contract SC839 on October 27, 2006 and, anticipated that based on bids received in December, contract negotiations will begin. The City sent a letter on October 13, 2006 requesting an additional extension of fourteen (14) months to account for the additional time required for construction due to the increased scope of work. For SC 847 the city had awarded this contract to a successful bidder and the current duration was one year, however the full functionality and operation of the pumping station will depend on the progress of SC 839. Therefore, the City has requested to move the practical completion date for SC 839 and SC 847 from December 31, 2007 to February 28, 2009. A response from MDE was received on February 26, 2007, granting the requested extension. The Practical Completion deadline for both of these projects is now February 28, 2009. **The extension letter request for the extension of SC 847 to May 31, 2009 was granted by EPA on June 22, 2009. Practical Completion was achieved on May 29, 2009 for lower portion of project SC 839RR –Stony Run Interceptor. The Construction of the remaining portion of this project continues but the practical completion achieved allows the City to comply with the requirements of the Consent Decree.**

Project No. 10: Greenmount Avenue Interceptor: This project was split into 2 phases:

- Phase I (SC-820) was advertised on December 16, 2005 in compliance with the advertising requirements of the Consent Decree. Practical completion of this project was complete as of May 4, 2007.

Phase II (SC-833) of this project was advertised on December 23, 2005 in compliance with the advertising requirements of the Consent Decree, however only receiving one bid that was 50% over the estimate and was rejected. This project was re-advertised on March 17, 2006. Construction notice to proceed was granted to the contractor on August 14, 2006. In October 2004, the City sent a letter to MDE/EPA requesting that the project scope of work be changed from construction of the new pumping station to construction of a new gravity relief sewer. MDE and EPA subsequently approved this request in letters dated February 2, 2005 and December 21, 2004, respectively. The revised scope of work resulted in additional complexities, including major water and electrical utilities, tunnel conflicts, and railroad right of way issues. In addition, the scope includes microtunneling. The City sent a letter to MDE/EPA, dated July 7, 2006, requesting to extend the Practical Completion deadline by 180 days to December 30, 2007. A response from MDE was received February 26, 2007 granting the requested extension. **An extension letter was sent to MDE and EPA on December 7, 2007 requesting a 90 day extension for the Practical Completion deadline of March 28, 2008. This**

extension was approved and a subsequent extension for 90 days through June 27, 2008 was submitted, we await a response from MDE/EPA. Practical Completion was achieved for this project on May 27, 2008.

2. SSO Structure Elimination

SSO No. 132 is located at the intersection of Springdale Avenue and Hilton Street. It was proposed to monitor this SSO structure for a twelve-month period ending September 18, 2004. During the calendar quarter ending September 30, 2005, activity was observed at this SSO structure on March 23, and March 28, 2005.

The City of Baltimore eliminated SSO No. 33 & No. 34 on December 10, 2008 and December 23, respectively. The City of Baltimore eliminated SSO No. 136 on January 21, 2009.

SSO No. 134 is located near the intersection of Liberty Heights and Elamont Road. SSO No. 135 is located one block away from SSO No. 134, at the intersection of Liberty Heights and Dennlyn Road. SSO No. 136 is located at 323 Wilson Ave. SSO No. 137 is located near the intersection of Shannon Drive and Brehms Lane.

The City has engaged the services of an engineering firm to investigate and evaluate the collection system adjacent to SSO Nos. 132, 134 and 135.

The City will continue to monitor and evaluate activity at these SSO structures and will continue to keep EPA and MDE advised of progress in future Calendar Quarterly Reports.

Other than the concerns and issues noted here, all Paragraph 8 projects are proceeding on schedule, and at this point, no problems are expected in meeting the milestone dates specified in Appendix D of the Consent Decree.

C. **Separate Sanitary Sewer Characterization Report:** This requirement has been completed.

D. **Elimination of Combined Sewer Overflows:**

Walbrook: This project has been completed.

Forest Park: During the calendar quarter ending June 30, 2006, combined sewer overflow (CSO) No. 13P was eliminated and the City reported that the Combined Sewer System has been separated and all CSO structures have been eliminated in the Forest Park neighborhood.

On October 11, 2006, the City sent a letter to MDE/EPA that included a report dated March 2006 entitled "Confirmatory Testing for Final Separation of Combined Sewer System in Forest Park Area". The letter also documented the elimination dates for the CSO structures associated with this area, including 10P, 11P, 13P, 18P, 19P, 21P, and 31P. Lastly, the City requested that post-construction monitoring be waived for these CSO structures since the eliminations were performed.

MDE responded to this letter on December 11, 2006 and approved the waiving of post monitoring for the CSO structures, with the exception of 13P. For this structure 13P, MDE noted that a site inspection was performed by MDE on October 19, 2006 that revealed the discharge of raw sewage. Therefore, MDE disapproved the waiving of the post-monitoring requirements at this location. On January 16, 2007 the City submitted a letter of response that included additional sampling results indicating that the high bacterial levels are due to stagnant pooling water at the outfall in lieu of a sewage discharge. It is therefore believed by the City that post-monitoring can be waived at overflow structure 13P. The City is awaiting a response from MDE and EPA regarding this letter.

E. Flow and Rainfall Monitoring for Paragraph 8 Construction Projects:

As of September 30, 2009, 7 flow meters are installed as indicated in Table 8-1 specifically for Paragraph 8 Projects.

Table 8-1: Flow Monitor Installations for Paragraph 8 Projects

Consent Decree Project ID No.	ADS Project ID No.	Project	No. of Meters		
			July	August	September
2, 3, 5	2	Upper Jones Falls Interceptor	0	0	0
7	4	Lower Jones Falls Interceptor	1	1	1
8	5	Stony Run Interceptor & P.S.	0	1	1
10	7	Greenmount Interceptor	2	2	2
23	9	Lower Gwynns Run Interceptor	0	0	0
24	10	Gwynns Run Sewershed	3	3	3
		Total	6	7	7

A summary of rainfall and flow monitoring data collected during March, April and May 2009 prepared by ADS Environmental Services is submitted on a compact disk in the inside of the back cover of this Calendar Quarterly Report. The ADS report includes:

- Meter location maps
- Meter site reports
- Rain gauge location maps
- Tabular flow monitoring data
- Tabular rain gauge data
- Depth and velocity scattergraph plots
- Flow and rainfall data in Excel format

All flow meters are ADS Model 4000 flow monitors. Each meter was calibrated by manually measuring depth and velocity to confirm that the flow meters are functioning

properly. Multiple measurements were obtained for each flow meter. These measurements are shown on the depth-velocity scattergraphs provided for the flow monitoring sites.

F. Progress Reports:

Progress of work under Paragraph 8 is as reported herein.

Paragraph 9: Collection System Evaluation and Sewershed Plans

A. The milestone dates for completion of the Sewershed Study and Plan for each of the City's eight sewersheds, as established by Paragraph 9.B of the Consent Decree, recognize that evaluation work will not begin in earnest until several years after the Date of Entry.

Sewershed Study and Plan: At this time, the City does not anticipate any difficulties or delays in meeting the milestone dates for completion of the Sewershed Study and Plan for any sewershed. Jones Falls, the first of the sewershed plans was submitted to MDE/EPA and DOJ on December 26, 2008 with an approach plan for prioritizing the capital improvements recommended by the Jones Falls team and the other sewersheds. **MDE/EPA submitted comments on the Jones Falls Report in a letter dated June 4, 2009. The City responded within 30 days. The Herring Run sewershed plan was submitted to MDE/EPA and DOJ on June 26, 2009.**

Currently, six Sewershed Studies are on-going. The table below provides the City's Notice to Proceed date for each Sewershed Study, as well as a summary of field work accomplished to date. As the Sewershed teams perform quality control and differentiate the non-DPW and private property assets the quantities listed below will change accordingly.

B.

Sewershed Name	City Notice to Proceed Date	Approx. MHs inspected to Date	Approx. CCTV Inspected to Date (linear feet)
Jones Falls	5/24/06	7,044	1,091,904
Herring Run	11/1/06	6,937	1,469,771
High Level	1/31/07	4,871	816,616
Low Level	5/9/07	6,739	1,105,984
Gwynns Falls	6/20/07	4,179	805,135
Outfall	8/8/07	1,450	326,051
Patapsco	8/8/07	1,180	223,427
Dundalk	8/22/07	557	123,455
TOTAL		32,957	5,962,343

C. **The Sewershed Study and Plan Elements:** The Plan Elements in the Consent Decree are to be followed for each sewershed. **The City has developed and continues to improve upon and review a Sewershed Study Manual for the**



consultants to follow during their evaluations. This document provides uniform guidelines for conducting the Sewershed Studies.

- D. **Collection System Inspections:** Please refer to Section B above for a summary of inspection progress.

In accordance with Paragraph 8 and 9 of the Consent Decree, many collection system components have been replaced, rehabilitated, and slip-lined. The City submitted to the EPA/MDE, under Paragraph 9 D (vii), a request for wavier of the Paragraph 9.D inspection requirements for these system components. In a letter dated September 4, 2007, MDE approved the request to waive inspection of selected portions of the collection system.

- E. **Infiltration and Inflow ("I/I") Evaluation:** The City had selected 3 contractors to perform the flow monitoring and rainfall monitoring task as required by the Consent Decree. Notice to Proceed on these contracts was issued in February 2006. **Flow monitoring began on May 9, 2006 and as of September 30, 2009, the flow monitoring continues at 38 meter locations throughout the City including Paragraph 8 Project and long term monitoring program.**
- F. **Long-Term Capacity/Peak Flow Management:** During the calendar quarter ending September 30, 2009, there was no capacity/flow management analysis activity related to the Sewershed Studies and Plans.
- G. **Sewershed Study and Plan(s) Approval and Implementation:** Jones Falls and Herring Run Sewershed Study Plan Report was submitted to EPA and MDE on 12/28/08 and 06/26/09 respectively.
- H. **Progress Reports:** Progress of work under Paragraph 9 is as reported herein.

Paragraph 10: Illegal Sewer Connections

- A. **Illegal Private Connections:** During the calendar quarter ending September 30, 2009, Baltimore further addressed the list of suspected illegal connections to the collection system known to the City. The City had previously initiated enforcement actions for 14 suspected illegal connections by notifying the respective property owners of the suspected illegal connections and actions to be taken, as required by Paragraph 10.A of the Consent Decree. In accordance with the City's enforcement plan, staff of Housing and Community Development (HCD) inspected the 14 properties and determined that two were not illegal connections, ten required dye/smoke testing for confirmation, and two required further evaluation. The City performed dye testing and determined that only 5 are illegal connections. Furthermore, the City has identified and confirmed 33 additional properties within the Western Run Sewershed with illegal storm water connections to the sanitary system.

The City has further researched the 38 illegal connections documented above in the past Quarterly reports and has determined that the results of the testing performed to date

cannot differentiate between an illegal connection or a privately-owned portion of a customer service connection lateral. Dye testing performed did prove that sources of inflow are connected to the sewer, however, it was not determined whether the connections were via direct connections to the sewer pipe or via the privately owned portion of the lateral. As such, the City should not have positively identified these as illegal connections and requests approval to remove the 38 connections from the list in Appendix 2 until further investigation can be performed. **The City awaits input from MDE and EPA on this action.**

The City plans to perform supplemental investigation as part of the Paragraph 9 Sewershed Studies. Under these studies, each of these connections and any additional connections will be investigated and a distinction will be made between the two types of connections as noted herein. On August 11, 2008 while performing dye testing as part of their field investigations, the Herring Run Sewershed team identified an illegal sewer connection at 4424 Marble Hill Road. Once an illegal connection is identified, the approved Illegal Connection Enforcement and Implementation Plan will be adhered to. **This illegal connection has been found to be located on private property. The City has contacted its Housing Department to send the owner a notice to eliminate this illegal connection.**

- B. **Updated List of Illegal Connections:** Appendix 2 contains the updated list of 38 known illegal connections.
- C. **Illegal Connection Enforcement and Implementation Plan:** This requirement has been completed as reported in Quarterly Report No.7.
- D. In a letter dated May 5, 2003, MDE stated that they had reviewed the draft plan for implementation and enforcement with regard to illegal connections and found it to be acceptable. As requested by MDE, the City is considering the merits of adding a provision to the Plan that would enable the City Department of Public Works to actually do disconnections themselves and bill people for the materials and labor as a last resort if they have a situation where flows may cause a SSO and there is no cooperation from the property owner. To date, the need for this has not occurred. EPA in its letter dated January 12, 2005 has approved the Illegal Sewer Connection Detection and Enforcement Plan.
- E. Progress of work under Paragraph 10 is as reported herein.
- F. **Privately-Owned Portion of a Customer Service Connection Lateral:** During the calendar quarter ending September 30, 2009, no privately-owned portion of a customer service connection was identified as a source of I/I that causes or contributes to an overflow from the collection system. During this same quarter, no owners of such laterals were notified of the need to repair, rehabilitate, replace or terminate their laterals, and no enforcement actions in regard to such laterals were pending.

Paragraph 11: Pumping Station Inspection, Rehabilitation, and Repair

- A. **Pumping Station Rehabilitation and Repair:** As reported in Quarterly report No. 8, all pumping station rehabilitation projects are complete.
- B. **Pumping Station Inspection Procedures:** During the calendar quarter ending September 30, 2009, Baltimore inspected each of the eight pumping stations at least twice daily in accordance with Paragraph 11.B. All inspections were conducted in accordance with the inspection checklist attached as Appendix F to the Consent Decree, and completed inspection checklists are being maintained. All deficiencies noted during inspections were corrected within eight hours, or a work order was issued for correction. A listing of these work orders is attached as Appendix 3 to this Calendar Quarterly Report.

As reported in Quarterly Report No. 8, the project to upgrade the SCADA system for remote monitoring of pumping stations is completed. As such, the City of Baltimore recognizes that once daily pumping station inspections will satisfy the requirements of the Consent Decree in accordance with Paragraph 11.B.i.

- C. **Pumping Station Remote Monitoring:** As of September 30, 2009, Baltimore continuously monitored pumping station data in accordance with Paragraph 11.C. of the Consent Decree. Alarm data was electronically archived.
- D. **Pumping Station Equipment Inventory:** As of September 30, 2009, all pumps, motors, bar screens, sensors and other critical components of Baltimore's pumping stations had been assigned unique equipment identification numbers. These numbers are recorded in the maintenance information management system ("MIMS") operated by Baltimore's Wastewater Facilities Division.
- E. **Pumping Station Preventative Maintenance:** The MIMS system operated by Baltimore's Wastewater Facilities Division automatically generates work orders for preventive maintenance at Baltimore's eight pumping stations, including standard operating procedures and parts lists. During the calendar quarter ending September 30, 2009, the MIMS system was used to initiate and track scheduled preventive maintenance activities at the pumping stations.

During the calendar quarter ending December 31, 2002, a procedure for determining the cause of equipment and/or system failures was submitted as required by Paragraph 11.E.ii of the Consent Decree. During the calendar quarter ending September 30, 2009, there were no overflows at the Pumping Stations. Therefore, no root cause analysis was performed this quarter.

- F. **Pumping Station Operation and Maintenance Manuals:** As of September 30, 2009, operations and maintenance ("O&M") manuals for each of Baltimore's eight pumping stations were up to date, reflecting current station configuration, equipment, and characteristics. Operating parameter value ranges for each pumping station are available in the standard operating procedures ("SOP's") for that pumping station, which

are posted at the pumping station and considered part of the O&M manual. Pump run times are kept in the log books at each pumping station.

- G. **Progress Reports:** Table 11-1 Summarizes the status of Baltimore's pumping station inspection and repair program during the calendar quarter ending September 30, 2009.

Table 11-1: Pumping Station Inspection and Repair Program

Pumping Station	Date of Inspection Completion	Date of Repair Completion	Repairs or Improvements	No. of Overflows
Eastern Avenue	All Pumping Stations inspected twice per day throughout reporting period	See Appendix 3	See Appendix 3	None
Brooklyn				None
Dundalk				None
Jones Falls				None
Locust Point				None
Quad Avenue				None
McComas				None
Westport				None

Progress toward installation of the new SCADA system for remote monitoring of pumping stations is reported in item 11.C above.

Paragraph 12: Collection and Transmission System Model

- A. The hydraulic modeling task for each sewershed will be performed utilizing the previously-selected hydraulic modeling software package: InfoWorks, marketed by Wallingford Software.
- B. **Model Elements:** The InfoWorks hydraulic modeling package is fully compliant with the requirements listed in Paragraph 12.B.i of the Consent Decree.
- C. **Model Project Approach Report:** This draft Report was submitted by the February 27, 2003 milestone date (150 days from the Date of Entry of the Consent Decree).
- D. EPA in its letter dated January 12, 2005 has approved the Model Project Approach Report. Baltimore has initiated implementation of the Model Project Approach Report. The first phase of model implementation, involving the migration of the four models developed as part of previous sewershed studies into an InfoWorks environment, is underway.
- E. **Model Certification:** Baltimore will complete implementation of the Model for each sewershed on or before submission of the respective Sewershed Study and Plan required under Paragraph 9, and will certify the model for each sewershed at that time.
- F. **Progress Report:** The City continued development of the model during this Quarterly period.



Paragraph 13: Collection System Operation and Maintenance

- A. During the calendar quarter ending September 30, 2009, Baltimore continued to review current practices and procedures for collection system operation and maintenance, and to identify any changes that are needed for full compliance with the requirements of Paragraph 13.A. of the Consent Decree.
- B. The draft Operations and Maintenance Program Report required under Paragraph 13.B. of the Consent Decree was submitted in accordance with the milestone date of January 28, 2003 (120 days from the Date of Entry of the Consent Decree). MDE has indicated approval of this draft Report; EPA has also approved this report in its letter dated January 12, 2005.
- C. The City of Baltimore is in the process of implementing root and grease control programs after approval of chemical products that will be used as part of the cleaning for root and grease problem areas. Those pipes that are found to have root and grease problems are being recorded in the GIS.
- D. **Progress Reports:** The implementation period of the Operations and Maintenance Plan was completed in July 2006. The City submitted the Year 1 Annual Report on October 30, 2007, which covered the time period from July 2006 to July 2007. This report includes all elements as specified in this section of the Consent Decree. The Year 2 Annual Report was submitted on October 30, 2008 and it covers the time period from July 2008 to June 2009. **The Year 3 Annual Report is due on October 31, 2009. The City of Baltimore will continue to review data in preparation for the next Progress Report.**

Paragraph 14: Information Management System Program

- A. During the calendar quarter ending September 30, 2009, Baltimore continued to develop an information management system that will facilitate engineering analysis, evaluation, operation and maintenance of the collection system.
- B. **Geographic Information System:** On September 24, 2004, Baltimore demonstrated to EPA and MDE that the GIS is fully functioning and capable of displaying the information described in Paragraph 14.B.i through iv.
- C. **500 Scale Maps:** This requirement has been completed as reported in Quarterly Report No. 7.
- D. **Global Positioning System:** Water and Wastewater Maintenance crews are equipped with eight global positioning system ("GPS") units for use in collection system maintenance. A standard operating procedure (SOP) has been developed for the use of these units in locating collection system components, and maintenance crews have received appropriate training.

- E. **Inventory of Collection System Components:** On September 24, 2004, Baltimore demonstrated to EPA and MDE that the GIS is fully functioning and capable of displaying the information described in Paragraph 14.E for each component.
- F. **Update Inventory of Collection System Components:** Within ninety (90) days of completion of inspection or rehabilitation of a collection system component as required under Paragraph 9, Baltimore will update the collection system inventory.
- G. **Progress Reports:** Development of the Baltimore collection system inventory database continued throughout the calendar quarter ending September 30, 2009. Most of the information currently in the database has been taken from record documents (for example, "as-built" drawings). This information will be verified and supplemented, and all required database fields will be populated, as part of the Sewershed Studies required under Paragraph 9 of the Consent Decree. Progress toward implementation of the GIS is reported in item 14.B. above.

Paragraph 15: Valve Inspection and Repair Program

- A. All requirements of Paragraph 15 have been completed as summarized in Quarterly Report No. 7.
- E. Progress Reports: All requirements of Paragraph 15 have been completed as noted in Appendix H of Consent Decree.

Paragraph 16: Emergency Response Plan – Unpermitted Discharges

- A. **Emergency Response Plan (ERP):** Baltimore has developed and implemented an Emergency Response Plan for protection of public health and the environment in the event of an unpermitted discharge from the wastewater collection system.
- B. This requirement has been completed as reported in Quarterly Report No. 7.
- C. The EPA and MDE reviewed the draft Emergency Response Plan, and review comments were forwarded to Baltimore in a letter from EPA Region 3 received by Baltimore on July 23, 2002. Baltimore revised the draft Emergency Response Plan accordingly or otherwise responded to the review comments within the 30-day requirement established by Paragraph 16.C. of the Consent Decree. MDE and EPA granted approval of the Plan in separate letters received by Baltimore on May 5, 2003 and May 14, 2003, respectively. As of the June 13, 2003 milestone date for implementation of the Plan (30 days from final approval), 70 copies of the Plan had been produced and distributed to appropriate staff.
- D. **Yearly Review and Update:** During the Calendar Quarter ending September 30, 2007, the City submitted the Yearly Update for 2007. The 2008 update was submitted on December 26, 2008. **The City of Baltimore will provide updates to the ERP for 2009 by end of 2009.**

- E. No portions of the Emergency Response Plan are in dispute at this time, and Baltimore has implemented the Plan in its entirety.

Paragraph 17: Reporting of Discharge Events and Recordkeeping

- A. During the calendar quarter ending September 30, 2009, Baltimore complied with the reporting requirements for overflows from the wastewater collection system as established by Paragraph 17 of the Consent Decree, by NPDES Permit Numbers 21555 and 21601, by State Discharge Permit Numbers 89-DP-0581 and 93-DP-0580A, and by State and Federal regulations. Oral notification of overflows was made to MDE within 24 hours of the time that Baltimore first became aware of them, and written reports were forwarded within 5 days. A summary of reported overflows for the calendar quarter ending September 30, 2009 is provided in Appendix 4.
- B. During the calendar quarter ending September 30, 2009, Baltimore maintained a monitoring, sampling, analysis and reporting program to monitor water quality in Baltimore surface water. This program is administered by the Water Quality Management Section of the Environmental Services Division in accordance with the requirements of the NPDES referenced in item 17.A. above. Monitoring results are published annually in Baltimore's Water Quality Report.
- C. Records of all sanitary sewer overflows from Baltimore's collection system during the calendar quarter ending September 30, 2009 are being maintained in accordance with the requirements of Paragraph 17.C.
- D. Copies of all written reports prepared pursuant to Paragraph 17 will be maintained for a minimum of 5 years, as required by Paragraph 17.D.

C. DESCRIPTION OF ANTICIPATED PROBLEMS WITH SECTION VI REQUIREMENTS

Issues and concerns related to Paragraph 8 construction projects are reported above in the Paragraph 8 section of this Calendar Quarterly Report. As of September 30, 2009, there were no other anticipated problems with Section VI requirements to report.

D. DESCRIPTION OF SEP ACTIVITIES

The study and 30% design for the Patapsco Wastewater Treatment Plant Enhanced Nutrient Removal (ENR) project was completed and submitted to Maryland Department of the Environment (MDE) and US EPA Region III (EPA) in September 2004. The MDE letter approving the 30% design for the Patapsco Wastewater Treatment Plant was on December 1, 2004. The EPA letter approving the 30% design was on received May 24, 2005.

The consultant agreement for the design of the Patapsco Wastewater Treatment Plant ENR project was approved by the City's Board of Estimates on December 21, 2005. **As**



of the calendar quarter ending September 30, 2009, 100% design documents are currently under review for SC 845 - BAF and tertiary PS. SC 852 - Denitrification filters project was advertised on March 27, 2009 and the bids are currently being reviewed. Bids were rejected and this project will be readvertised on October 13, 2009.

In addition, the City has selected the consultant for engineering services for SC 855 - ENR Modifications to the Existing Facilities at the Patapsco Wastewater Treatment Plant. **As of the calendar quarter ending September 30, 2009, the 100% design documents are being reviewed by the City.**

E. ADDITIONAL MATTERS FOR THE ATTENTION OF THE EPA AND MDE

As of September 30, 2009 the City of Baltimore has added the Sanitary Discharges of Unknown Origin (SDUO) tracking sheet to the Quarterly Report per the requirements of the policy letter by EPA and MDE dated March 31, 2009. The details of these sites are located in the SDUO tracking sheets in Appendix 4.

The City provided a response to MDE/EPA and requested additional time to research and develop possible methods of quantifying SDUOs in a letter dated April 30, 2009. The City submitted the SDUO Quantification Protocol to MDE and EPA for review, comments and approval on August 06, 2009.

APPENDIX 1

**STATUS OF
PARAGRAPH 8
CONSTRUCTION PROJECTS**



Civil Action No. JFM-02-1524
Calendar Quarterly Report No. 28
For Calendar Quarter Ending September 30, 2009

APPENDIX 1
STATUS OF PARAGRAPHS 8 CONSTRUCTION PROJECTS
AS OF JUNE 30, 2009

PROJ. ID NO.	PROJECT	DESCRIPTION AND REMARKS	DATE CONSTRUCTION CONTRACT ADVERTISED	DATE OF PRACTICAL COMPLETION	DATE SSO STRUCTURES ELIMINATED	SSO/CSO STRUCTURES ELIMINATED	STATUS
HERRING RUN SEWERSHED							
12	Moores Run Interceptor - Middle Section Sanitary Contract No. 7746 and 7751	Construction of approximately 400 linear feet of 18-inch, approximately 600 linear feet of 21-inch, approximately 4800 linear feet of 24-inch, approximately 1000 linear feet of 30-inch, and approximately 100 linear feet of 36-inch sewer to replace existing interceptor	June 30, 2003	July 14, and Sept 2, 2007	June 30, 2006	Eliminates SSO Nos. 116 and 119	Complete
13	Moores Run Interceptor - Lower Section Sanitary Contract No. 661 and 644	Construction of approximately 6000 linear feet of 42-inch, approximately 2700 linear feet of 36-inch siphon, and approximately 3700 linear feet of 34-inch sewer to replace the existing interceptor	June 20, 2005	June 30, 2007	June 20, 2008	Eliminates SSO No. 83 and 94	Construction Phase - Complete
14	Moores Run Interceptor - Upper Section Sanitary Contract No. 817	Construction of approximately 1700 linear feet of 18-inch and approximately 2200 linear feet of 21-inch sewer to replace the existing interceptor	June 30, 2004	June 30, 2005	June 30, 2006	Contributes to elimination of SSO Nos. 118 and 119	Complete
15	Elimination of Collection System Overflows to Herring Run Sewershed	Access hydraulics and design improvements to areas adjacent to overflows	Existing on-call contract	June 30, 2003	June 30, 2004	Eliminates SSO Nos. 88 and 109	Complete
16	Elimination of Siphon Blowoffs (Siphon No. 2 - Bay View Yard south of Siphon No. 4 - Baylors Lane/Morris Road) Sanitary Contract No. 630	1. Cleaning and inspection of siphons with repairs as necessary 2. Elimination of blow-offs	On-call contract	June 30, 2004	June 30, 2005	Eliminates SSO No. 92	Complete*
GWYNNS FALLS SEWERSHED							
17	Proctor Mill System Improvements including GFO trench in Gwynns Falls Sewershed Sanitary Contract Nos. 777 & 304	Rehabilitation of approximately 12,000 linear feet of 12- to 24-inch conveyance piping (SC777) and approximately 33,000 linear feet of 6- to 10-inch collection piping (SC304)	June 30, 2003	June 30, 2006	June 30, 2007	Eliminates SSO Nos. 237, 287 and 238	Complete
18	David Run System Improvements (DRA Branch) Sanitary Contract No. 766, 625	Clean, inspect and rehabilitate approximately 20,000 linear feet of 12- to 24-inch conveyance piping (COE) and approximately 11,000 linear feet of 6- to 12-inch collection piping (SC766)	June 30, 2003	June 30, 2006	June 30, 2007	Eliminates SSO Nos. 167 and 177	Complete
19	Moores Run Interceptor Sanitary Contract No. 536	Clean, inspect and rehabilitate 12,400 linear feet of 12- to 24-inch conveyance piping	On-call contract	June 30, 2007	June 30, 2008	Eliminates SSO Nos. 237 and 242	Construction Phase - Complete
20	Elimination of Siphon Blowoffs (Siphon No. 11 - Annapolis Road and Chestnut Street, Siphon No. 12 - Chestnut Rd. west of Frankstown Rd.) SC No. 627	1. Cleaning and inspection of siphons with repairs as necessary 2. Elimination of blow-offs	On-call contract	June 30, 2004	June 30, 2006	Eliminates SSO Nos. 84 and 227	Complete*
COMBINED SEWER AREAS							
21	Wallbrook Sanitary Contract No. 760	Implementation of Long Term Control Plan and combined sewer separation design in Wallbrook area		June 30, 2002	June 30, 2003	Eliminates CSO No. 217	Complete
22	Forest Park Sanitary Contract Nos. 760 and 613	Implementation of Long Term Control Plan and combined sewer separation design in Forest Park area	December 30, 2003	June 30, 2006	June 30, 2008	Eliminates CSO No. 137 and SSO Nos. 107, 117, 127, 187, 287, 277 and 317. SSO Nos. 107, 187, 117 & 317 are completed.	Complete
HIGH LEVEL SEWERSHED							
23	Gwynns Run Interceptor Sanitary Contract No. 612	Improvements to 66 Gwynns Run Interceptor	December 30, 2004	February 25, 2007	1/27/2007**	Eliminates SSO Nos. 106, 107 and 136	Complete
24	Gwynns Run System Improvements Sanitary Contract No. 807	Access hydraulics and design improvements to areas adjacent to overflows	June 30, 2003	June 30, 2006	June 30, 2007	Eliminates SSO Nos. 56, 56, 57, 60, 63, 103, 126, 127 and 131	Complete
25	Elimination of Siphon Blowoffs (Siphon Nos. 8 and 10 - east of Washington Avenue, Siphon No. 27 - Avenue M) SC No. 627	1. Cleaning and inspection of siphons with repairs as necessary 2. Elimination of blow-offs	On-call contract	June 30, 2004	June 30, 2005	Eliminates SSO Nos. 79 and 81	Complete*
LOW LEVEL SEWERSHED							
26	Elimination of Siphon Blowoffs (Siphon No. 6 - east of 800 Linnell Avenue) Sanitary Contract No. 827	1. Cleaning and inspection of siphons with repairs as necessary 2. Elimination of blow-off	On-call contract	June 30, 2004	June 30, 2005	Eliminates SSO No. 327	Complete

* Approved by MDE/PEA. ** Approved by MDE. *** Approved by EPA

APPENDIX 2

LIST OF ILLEGAL CONNECTIONS



Civil Action No. JFM-02-1524
Calendar Quarterly Report No. 28
For Calendar Quarter Ending September 30, 2009

City of Baltimore Sanitary Sewer Overflow Consent Decree

Civil Action No. JFM-02-1524

List of Illegal Connections

Full Address	Test ID	Person/Entity Responsible	Source Type	Date Identified	Dye Result	Current Status	Comments
1. 5904 Berkeley Ave.	172 B 2	Property Owner	Downspout	6/20/2005		Newly Identified	
2. 6203 Blitmore Ave.	311 A 2	Property Owner	Downspout	6/20/2005		Newly Identified	
3. 3310 Clarks Ln.	212 B 7	Property Owner	Downspout	6/20/2005		Newly Identified	
4. 3312 Clarks Ln.	212 B 6	Property Owner	Downspout	6/20/2005		Newly Identified	
5. 3601 Clarks Ln.	256 B 1	Property Owner	Area Drain	3/21/2005	Positive	Newly Identified	
6. 2238 Crest Rd.	14 A 2	Property Owner	Downspout	6/20/2005		Newly Identified	
7. 2302 Crest Rd.	13 A 5	Property Owner	Downspout	6/20/2005		Newly Identified	
	13 A 6	Property Owner	Downspout	6/20/2005		Newly Identified	
8. 5616 Cross Country Blvd.	99 A 2	Property Owner	Downspout	6/20/2005		Newly Identified	
9. 6309 Fairlane Dr.	154 B 2	Property Owner	Downspout	6/20/2005		Newly Identified	
	154 B 1	Property Owner	Downspout Connection	6/20/2005		Newly Identified	
10. 6908 Fieldcrest Rd.	272 B 3	Property Owner	Downspout Connection	6/20/2005		Newly Identified	
11. 3800 Glengyle Ave.	275 B 13	Property Owner	Downspout Connection	6/20/2005		Newly Identified	
12. 6309 Greenspring Ave.	153 B 5	Property Owner	Downspout	6/20/2005		Newly Identified	
	153 B 4	Property Owner	Area Drain	3/28/2005	Positive	Newly Identified	
13. 2212 Ken Oak Rd.	100 A 1	Property Owner	Downspout	6/20/2005		Newly Identified	
	100 A 2	Property Owner	Downspout	6/20/2005		Newly Identified	
14. 2416 Ken Oak Rd.	103 A 1	Property Owner	Downspout	6/20/2005		Newly Identified	
15. 5609 Key Ave.	50 B 4	Property Owner	Downspout	6/20/2005		Newly Identified	
16. 2504 Larrivale Rd.	154 B 7	Property Owner	Downspout	6/20/2005		Newly Identified	
17. 5815 Lochlea Rd.	116 B 1	Property Owner	Downspout	6/20/2005		Newly Identified	
18. 5806 Park Heights Ave.	78 B 4	Property Owner	Downspout	6/20/2005		Newly Identified	
	78 B 2	Property Owner	Downspout	6/20/2005		Newly Identified	
	78 B 3	Property Owner	Downspout	6/20/2005		Newly Identified	
	78 B 9	Property Owner	Downspout	6/20/2005		Newly Identified	
	78 B 8	Property Owner	Downspout	6/20/2005		Newly Identified	
19. 5905 Park Heights Ave.	95 B 2	Property Owner	Downspout	6/20/2005		Newly Identified	
20. 6414 Park Heights Ave.	315 A 4	Property Owner	Downspout Connection	6/20/2005		Newly Identified	
	315 A 3	Property Owner	Area Drain	3/22/2005	Positive	Newly Identified	
21. 7126 Park Heights Ave.	280 B 16	Property Owner	Downspout Connection	6/20/2005		Newly Identified	
22. 6311 Pearce Ave.	203 B 5	Property Owner	Downspout	6/20/2005		Newly Identified	
	203 B 4	Property Owner	Downspout	6/20/2005		Newly Identified	
23. 6106 Pimlico Rd.	135 A 1	Property Owner	Driveway Drain	3/28/2005	Positive	Newly Identified	
24. 6306 Pimlico Rd.	127 B 1	Property Owner	Downspout	6/20/2005		Newly Identified	
25. 5503 Rusk Ave.	30 B 1	Property Owner	Downspout	6/20/2005		Newly Identified	
26. 3208 Shelburne Rd.	334 A 1	Property Owner	Driveway Drain	3/15/2005	Positive	Newly Identified	
27. 1702 South Rd.	324 A 2	Property Owner	Downspout	6/20/2005		Newly Identified	
28. 2117 Sulgrave Ave.	320 B 6	Property Owner	Downspout	6/20/2005		Newly Identified	
29. 2607 Taney Rd.	183 B 4	Property Owner	Driveway Drain	3/23/2005	Positive	Newly Identified	
30. 2615 Taney Rd.	183 B 2	Property Owner	Downspout	6/20/2005		Newly Identified	
31. 2700 Taney Rd.	183 B 8	Property Owner	Downspout	6/20/2005		Newly Identified	
32. 2808 Taney Rd.	182 B 6	Property Owner	Downspout	6/20/2005		Newly Identified	
	182 B 5	Property Owner	Downspout	6/20/2005		Newly Identified	
33. 2810 W. Strathmore Ave.	180 A 5	Property Owner	Downspout	6/20/2005		Newly Identified	
34. 3602 Chesolm Rd.		Property Owner	Downspout	5/9/2005	Positive	Newly Identified	
35. 6708 Park Heights Ave.		Property Owner	Downspout	5/9/2005	Positive	Newly Identified	
36. 4214 Groveland Ave.		Property Owner	Downspout	5/9/2005	Positive	Newly Identified	
37. 4414 Groveland Ave.		Property Owner	Downspout	5/9/2005	Positive	Newly Identified	
38. 2705 Queen Anne Ave.		Property Owner	Downspout	5/9/2005	Positive	Newly Identified	

APPENDIX 3

PUMPING STATION WORK ORDERS



*Civil Action No. JFM-02-1524
Calendar Quarterly Report No. 28
For Calendar Quarter Ending September 30, 2009*

Completed/Issued W/F Report

CORRECTIVES & INDEX July 1, 2009 --> Brooklyn Dundalk Eastern Ave
Pumping Stations Sept 30, 2009 --> Jones Falls Loovst Pt. Melomas St.
--> East Avenue Westport

QUERY NAME MICROFILM
LIBRARY NAME NORTH YORK

FILE	LIBRARY	NUMBER	FORMAT
MSST00	MSBLOF	MSST00	MSST00R
EQST	MSBLOF	EQST	EQSTR
MSST31	MSBLOF	MSST31	MSST31R
DCCL	MSBLOF	DCCL	DCCLR
ETXTS	MSBLOF	ETXTS	TEXTSR

DATE 10/01/09
TIME 06:20:35

Completed/Issued Rpt. - Pumping Stations only

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Pumping Station Issued W/O's Locations:

JULY 01, '07 - Sept 30, '09 --> Brooklyn Dundalk Eastern Ave
** PM only ** --> Jones Falls Locust Point McComas St.
--> Quad Avenue Westport

QUERY NAME WDCOMPMSAL
LIBRARY NAME MONTHLYRUN

FILE	LIBRARY	MEMBER	FORMAT
WSMST00	MMSSBIOF	WSMST00	WSMST00R
WSMST31	MMSSBIOF	WSMST31	WSMST31R

DATE 10/01/09
TIME 06:20:26

Issued W/O's - Pump Stations (PM only)

APPENDIX 4

SUMMARY OF REPORTED OVERFLOWS



*Civil Action No. JFM-02-1524
Calendar Quarterly Report No. 28
For Calendar Quarter Ending September 30, 2009*

**City of Baltimore
Activity at Sanitary Sewer Overflow Structures
For Calendar Quarter Ending September 30, 2009**

SSO No.67

<u>Date</u>	<u>Surcharge Depth (in)**</u>	<u>Rainfall (in)</u>
07/23/2009	Flow Meter in Place	1.71
09/11/2009	Flow Meter in Place	3.75

SSO No. 72

<u>Date</u>	<u>Surcharge Depth (in)**</u>	<u>Rainfall (in)</u>
07/05/2009	Flow Meter in Place	0.67
07/23/2009	Flow Meter in Place	1.71
08/29/2009	Flow Meter in Place	1.44
09/11/2009 – 09/12/2009	Flow Meter in Place	3.75
09/26/2009 – 09/27/2009	Flow Meter in Place	2.42

SSO No. 132

<u>Date</u>	<u>Surcharge Depth (in)**</u>	<u>Rainfall (in)</u>
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City of Baltimore
Activity at Sanitary Sewer Overflow Structures
For Calendar Quarter Ending September 30, 2009

None Reported

SSO No. 134

<u>Date</u>	<u>Surcharge Depth (in)**</u>	<u>Rainfall (in)</u>
07/23/2009	Flow Meter in Place	1.31

SSO No. 135

<u>Date</u>	<u>Surcharge Depth (in)**</u>	<u>Rainfall (in)</u>
None Reported		

SSO No. 137

<u>Date</u>	<u>Surcharge Depth (in)**</u>	<u>Rainfall (in)</u>
07/01/2009	Flow Meter in Place	0.98
07/23/2009	Flow Meter in Place	0.90
07/31/2009	Flow Meter in Place	0.43



City of Baltimore
Activity at Sanitary Sewer Overflow Structures
For Calendar Quarter Ending September 30, 2009

08/18/2009	Flow Meter in Place	0.42
08/21/2009	Flow Meter in Place	0.76
08/28/2009	Flow Meter in Place	0.87
08/29/2009	Flow Meter in Place	0.71
09/11/2009	Flow Meter in Place	1.77

Pumping Station Overflows

<u>Pumping Station</u>	<u>Date</u>	<u>Volume Loss (gal)</u>	<u>Rainfall (in)</u>
None Reported			

Waste Water Treatment Plant Overflows

<u>WWTP</u>	<u>Date</u>	<u>Volume Loss (gal)</u>	<u>Rainfall (in)</u>
None Reported			



City of Baltimore
Un-Permitted Sanitary Sewer Overflows
For Calendar Quarter Ending September 30, 2009

Date	Estimated Volume (Gal)	Cause	Rain	Receiving Waters	Location	Zip
7/1/2009	450	Sewer mainline blocked due to Debris	0.54	Herring Run	1625 Stonewood Road	21239
7/1/2009	7,200	Sewer mainline blocked due to Leaking Pipe	0.00	Herring Run	3402 Parkside Drive	21013
7/8/2009	Evidence of an Overflow	Sewer mainline blocked due to Debris	0.00	Northwest Harbor	9 North Broadway	21231
7/8/2009	Evidence of an Overflow	Sewer mainline blocked due to Rags	0.00	Inner Harbor	513 N. Streeper Street	21205
7/9/2009	540	Sewer mainline blocked due to Rags & Grease	0.00	Gwynns Falls	222 N. Carrollton Avenue	21217
7/9/2009	Evidence of an Overflow	Sewer mainline blocked due to Rags	0.00	Gwynns Falls	3301 Liberty Heights Avenue	21215
7/10/09 - 7/15/2009	7,140	Sewer mainline blocked due to Rags	0.00	Gwynns Falls	4128 Westchester Road	21215
7/12/2009	Evidence of an Overflow	Sewer mainline blocked due to Rags & Trash	0.00	Inner Harbor	1029 N. Central Ave	21202
7/12/2009	600	Sewer mainline blocked due to Rags	0.00	Jones Falls	6800 Park Heights	21215
7/12/2009	120	Sewer mainline blocked due to Rags & Roots	0.00	Gwynns Falls	3306 N. Hilton Street	21216
7/16/2009	350	Sewer mainline blocked due to Roots	0.00	Jones Falls	301 Club Road	21210
7/20/2009	180	Sewer mainline blocked due to Rags	0.00	Patapsco	2578 Marbourne Ave	21230
7/21/2009	5,700	Sewer mainline blocked due to Rags & Roots	0.00	Gwynns Falls	500 W. University Pkwy	21210
7/24/2009	3,600	Sewer mainline blocked due to Rags, Roots & Grease	0.15	Patapsco	2400 Harriett Ave	21230
7/24/2009	2,492	Sewer mainline blocked due to Rags	0.15	Jones Falls	2225 Rogene Drive	21209

City of Baltimore
Un-Permitted Sanitary Sewer Overflows
For Calendar Quarter Ending September 30, 2009

Date	Estimated Volume (Gal) Evidence of an Overflow	Cause	Rain	Receiving Waters	Location	Zip
8/13/2009		Rags & Grease	0.26	Gwynns Falls	919 Claymont Avenue	21216
8/18/2009	214	Debris	0.45	Herring Run	5713 Edgepark Road	21239
8/18/2009	540	Rags, Gravel & Grease	0.00	Jones Falls	1500 Brentwood Avenue	21213
8/23/2009	505	Sand, Gravel & Rocks	0.00	Gwynns Falls	3200 East Drive	21217
8/25/2009	780	Rags & Debris	0.00	Inner Harbor	514 W. Preston Street	21201
8/26/2009	120	Rags & Grease	0.00	Inner Harbor	514 W. Preston Street	21201
8/30/2009	450	Rags & Trash	0.00	Inner Harbor	1220 Steelton Ave	21224
8/31/2009	360	Rags & Grease	0.00	Gwynns Falls	514 W. Preston Street	21202

City of Baltimore
Un-Permitted Sanitary Sewer Overflows
For Calendar Quarter Ending September 30, 2009

Date	Estimated Volume (Gal)	Cause	Rain	Receiving Waters	Location	Zip
9/4/2009	506	Rags & Grease	N/A	Patapsco	2500 W. Franklin St	21223
9/8/2009	150	Rags & Grease	N/A	Gwynns Falls	1308 Wildwood Pkwy	21229
9/8/2009	Evidence of an Overflow	Roots	N/A	Gwynns Falls	644 E. Clement St	21230
9/9/2009	485	Rags & Grease	N/A	Inner Harbor	507 W. Preston St	21201
9/11/2009	9,450	Heavy Rain & Infill/Inflow	N/A	Inner Harbor	400 E. Eager St	21202
9/11/2009	6,075	Heavy Rain & Infill/Inflow	N/A	Jones Falls	1700 Falls Road	21201
9/11/2009	850	Debris	N/A	Herring Run	406 W. Cold Spring Ln	21212
9/11/2009	5,030	Grease	N/A	Inner Harbor	4 N. Bethel St	21231
9/12/2009	360	Roots	N/A	Gwynns Falls	2645 Hampden Ave	21211
9/14/2009 - 9/16/2009	Evidence of an Overflow	Roots	N/A	Patapsco	1700 Canton Dr	21224
9/17/2009	1,020	Roots & Grease	N/A	Gwynns Falls	2600 Gwynns Falls Rd	21216
9/23/2009	180	Rags & Grease	N/A	Gwynns Falls	3337 Winterbourne Rd	21216
9/24/2009	60	Rags	N/A	Gwynns Falls	1612 N. Warwick Ave	21216
9/30/2009	300	Rags & Grease	N/A	Gwynns Falls	2400 W. Cold Spring Ln	21209

Notes:

1. Unknown Quantity - When DPW visited the site, the problem had already subsided, but the source of discharge was evident.
2. Traces of sewage were evident but SSO had subsided prior to arrival at the site.
3. N/A- Not Available (June Rain Gauge data not available at time of this report.)

SDUO Tracking List

Updated thru September 30, 2009

Serial No.	Date of Occurrence	Location	Zip Code	Stream Affected	Date of Resolution	Duration (Days)	Est. Quantity of Discharge (gallons)(5)	Measures taken to Identify Source or Resolve	Future/Planned Work
Priority #1	1/3/2002	Stony Run/University Parkway	21218	Jones Falls	Not Resolved	On-going	Not available	Dye and ammonia testing and CCTV inspections.	Coordinates with Baltimore City Housing Department to address this issue.
Priority #2	12/7/2007	Originally Gwynns Run 2325 Hollins Street	21233	Gwynns Falls	5/16/2008	526	Not available	Dye and ammonia testing and CCTV inspections. Repaired broken sewer line.	RESOLVED
1	11/30/2007	Mannasota & Shannon	21213	Herring Run	Not Resolved	On-going	Not available	Dye and ammonia testing and cleaned line prior to CCTV inspections but to date defect could not be identified. CIPP lined sewer, but testing indicated no resolution.	City to perform further site investigation and testing.
2	4/11/2007	6225 York Rd behind Walker Mews Apartment Building	21212	Herring Run	Not Resolved	813	Not available	Dye and ammonia testing and CCTV inspections performed prior to CIPP lining. CIPP lined sewer, but testing indicated no resolution.	City to perform further site investigation and testing.
3	22/1/2006	Originally Coddysing & Greensong 4301 Prisco Rd. (and Loyola No they?)	21215	Jones Falls	2/24/2009	1,099	Not available	Dye and ammonia testing and CCTV inspections performed prior to CIPP lining.	RESOLVED
4	8/2/2006	508 St. Paul Place	21202	Jones Falls	Not Resolved	On-going	Not available	Dye and ammonia testing and CCTV inspections performed but to date defects could not be identified. Dye tests in neighboring properties does not show up in storm drain manhole. Source of sewage infiltration is unknown. City to excavate pipe for further investigations. Prepared sketch prior to excavation for further CCTV inspection.	Contractor to mobilize to the site and excavate pipe.
5	12/14/2006	Guilford Ave & Eager St.	21202	Jones Falls	Not Resolved	On-going	Not available	Series of dye and ammonia testing performed and CCTV inspections and point repair. Dye appeared to be seeping through SD manhole between the brickwork and the bottom of the pipe.	Grout manhole and perform confirmatory testing
6	11/7/2007	Wynnsford Ave. west of Lannable Ave	21210	Stony Run	8/25/2008	232	Not available	Dye and ammonia testing and CCTV inspections performed prior to point repair.	RESOLVED
7	10/6/2004	Wynndun Ave. west of Lannable Ave (Box Culvert below Bridge)	21210	Stony Run	5/1/2009	1,656	Not available	Series of dye and ammonia testing performed and CCTV inspections. Problem identified to be a private property issue. Owner was advised of problem and leak resolved with owner's plumber.	RESOLVED
8	12/11/2003	Gwynns Run trunk drain, Wash Water Lake to Carroll Park	Varies	Gwynns Falls	Not Resolved	On-going	Not available	Series of dye and ammonia testing performed and CCTV inspections and point repairs performed at two known sources, namely (2325 Hollins Street refer to Priority #2 above) and on sewer lines at Bradfish St and Winchester Ave. Recent testing indicate ammonia level is below the threshold level.	The City will continue to test.
9	10/15/2003	Mill Race Road, Woodberry	21211	Jones Falls	Not Resolved	On-going	Not available	Raised nearby manholes buried in steep slope. Dye and ammonia testing and CCTV inspections and CIPP lining performed but did not completely abate the problem. Dye test appear to be coming in at bench of Storm Drain manhole.	Grout manhole and perform confirmatory testing
10	4/17/2007	Mannasota Ave 65ft South of Nicholas Ave	21206	Herring Run	Not Resolved	On-going	Not available	Series of dye and ammonia testing performed and cleaning of pipe prior to CCTV inspections. Further investigations required.	Re-direct flow to a new manhole to be built upon existing sanitary sewer.



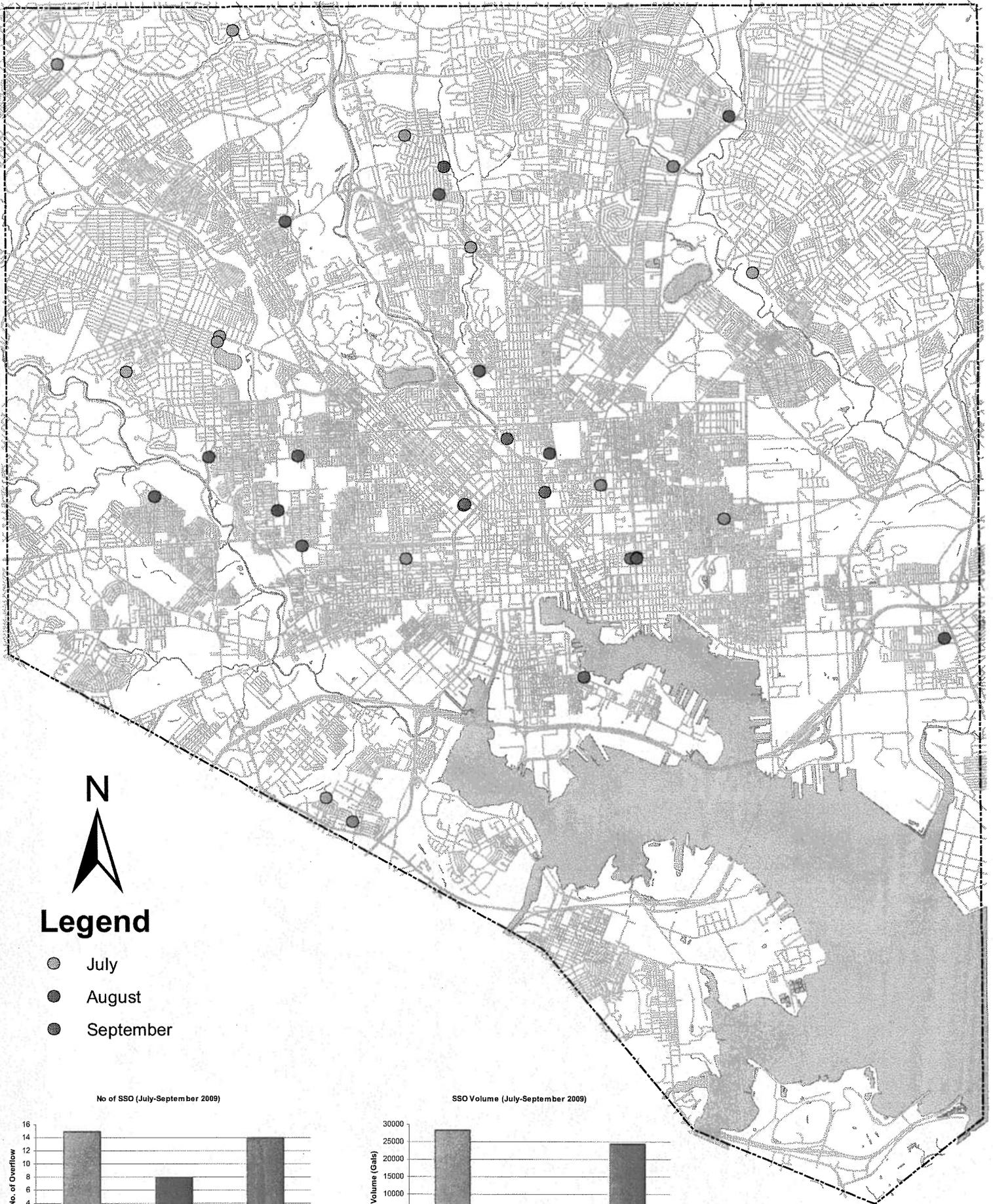
Serial No.	Date of Occurrence	Location	Zip Code	Stream Affected	Date of Resolution	Duration (Days)	Est. Quantity of Discharge (gallons)(5)	Measures taken to identify Source or Resolve	Future/Planned Work
11	8/19/2005	Shirley Ave between Pall Mall and Derby Manor (same as Greenspring & Shirley previously provided)	21209	Jones Falls	Not Resolved	On-going	Not available	Dye and ammonia testing and CCTV inspections and repair of broken pipe performed but to date problem persists	Grout manhole and perform confirmatory testing
12	10/4/2005	2901 Chesnut Ave	21211	Jones Falls	SW48 Divisions to Test this Week	On-going	Not available	Dye and ammonia testing and CCTV inspections confirmed that private property line is connected directly to storm drain line. Owner to re-connect line.	Coordinate with Baltimore City Housing Department to address this issue.
13	9/21/2005	Cross Country and Clarks Lane	21215	Western Run	Not Resolved	On-going	Not available	a series of dye and ammonia testing and CCTV inspections and CIPP lining performed. Confirmatory testing indicate high ammonia reading still persists.	City to apply concrete plug to the under drain and perform confirmatory testing.
14	9/18/2007	JHU Campus	21218	Jones Falls	Not Resolved	On-going	Not available	Series of dye and ammonia testing and CCTV inspections and CIPP lining performed. The Sewer line was capped and rerouted to the sewer manhole at the Art Museum. Confirmatory testing indicate high ammonia reading still persists. Infiltration has been confirmed to be coming from JHU campus	Coordinate with Baltimore City Housing Department to address this issue.
15	8/29/2007	4029 Fairview Ave.	21216	Gwynns Falls	Not Resolved	On-going	Not available	Series of dye and ammonia testing and CCTV inspections performed. Based on field investigations the problem is through the private property lines.	City to clean roots on main line and home owner to connect to manline. Coordinate with Housing Department to address the issue.
16	4/4/2005	Across from 1212 Sunnyside Ave.	21229	Gwynns Falls	5/21/2008	1,143	Not available	Dye and ammonia testing performed. Manhole removed and sewer line extended down stream.	RESOLVED
17	7/5/2006	Hiken Road and Wawworth Rd	21239	Harring Run	9/15/2006	72	Not available	Series of dye and ammonia testing and CCTV inspections performed and nearby pipe CIPPed. Confirmatory tests indicate problem no longer persists.	RESOLVED
18	11/7/2007	Amberly Way @ Colwood	21210	Story Run	7/15/2009	On-going	Not available	A series of ammonia testing and dye testing did not reveal any infiltration into the storm drain. Ammonia and Dye tests results could not be duplicated. All Related Issues Have been Resolved	RESOLVED
19	9/11/2006	Elkport & Duveland	21216	Gwynns Falls	3/10/2009	942	Not available	A series of dye and ammonia testing and CCTV inspections and CIPP lining performed.	RESOLVED
20	7/5/2006	W. 24th & Morton St.	21218	Jones Falls	Not Resolved	On-going	Not available	Series of dye and ammonia testing and CCTV inspections performed. Based on field investigations the problem is through the private property lines.	City to perform additional dye tests on private property and coordinate with Housing Department to address the issue.
21	7/5/2006	2411 N. Charles St.	21218	Jones Falls	2/24/2009	965	Not available	A series of dye and ammonia testing and CCTV inspections, point repair and CIPP lining performed. Confirmatory tests indicate problem no longer persists.	RESOLVED
22	11/19/2007	Behind 5512 South Hill Lane	21210	Jones Falls	11/19/2007	3	Not available	Repair has been completed, and has stopped sewage leakage into stream.	RESOLVED
23	12/17/2007	Luzar Rd. 1600 ft from Frankenhorn Rd	21229	Gwynns Falls	1/11/2008	25	Not available	Repair has been completed, and has stopped sewage leakage into stream.	RESOLVED
24	9/12/2004	Collins Ave (end of the 500 block)	21229	Gwynns Falls	Not Resolved	On-going	Not available	A series of dye and ammonia testing and CCTV inspections performed. A main line choke was relieved but additional access point required for further investigation identified.	Prepare sketch to install additional manholes to allow for CCTV inspections. The recommended resolution will be determined depending on problem identified.

Serial No.	Date of Occurrence	Location	Zip Code	Stream Affected	Date of Resolution	Duration (Days)	Est. Quantity of Discharge (gallons)(5)	Measures taken to identify Source or Resolve	Future/Planned Work
25	11/20/2006	Cross Country Blvd & Dale Rd.	21209	Jones Falls	3/10/2009	831	Not available	A series of dye and ammonia testing and CCTV inspections and CPPP lining performed. Confirmatory tests indicate problem no longer persists.	RESOLVED
26	4/02/2008	4201 Pulaski Hwy - Poppoan Oil	21224	Inner Harbor	3/18/2008	344	Not available	Installed new sanitary sewer line and storm drain with a dry clean trap. Field testing confirmed problem to Sewers & Storm Drain have resulted in a functional system.	RESOLVED
27	4/23/2006	Armshead Gardens Community	21211	Herring Run	5/26/2008	388	Not available	Abandoned siphon has been cleaned and problem is resolved.	RESOLVED
28	1/10/2007	Lovegrove & 31st Southwest Corner	21218	Inner Harbor	Not Resolved	On-going	Not available	A series of dye and ammonia testing and CCTV inspections performed. Three direct connections were identified.	City to disconnect sewer house connection from the storm drain system and connect to parallel sewer line in July 09.
29	7/15/2004	31st & Charles 24" VCP - Collapsed Pipe	21218	Inner Harbor	SWH8 Division to Test this Site	On-going	Not available	A series of dye and ammonia testing and CCTV inspections performed. Sewage infiltrating into the storm drain. City CPPP Lined Sewer on 9/21/09.	City to CPPP sanitary sewer line
30	7/15/2004	31st & Charles 24" Brick Pipe Bell Shaped	21218	Inner Harbor	SWH8 Division to Test this Site	On-going	Not available	A series of dye and ammonia testing and CCTV inspections performed. Sewage infiltrating into the storm drain. City CPPP Lined Sewer on 9/21/09.	City to CPPP sanitary sewer line
31	9/10/2008	Cemetery, Pulaski Hwy. at Dean Street	21224	NW Harbor	SWH8 Division to Test this Site	On-going	Not available	A series of dye and ammonia testing and CCTV inspections and extensive field investigations performed. A choked sanitary sewer caused by a broken pipe was identified and repaired.	Confirmatory testing to be completed.
32	5/19/2009	4016-4018 Rogers Ave. - Rogers Post Apartments	21207	Gwynns Falls	Not Resolved	On-going	Not available	Series of dye and ammonia testing performed and CCTV inspections. Problem identified to be a private property issue.	Coordinate with Baltimore City Housing Department to address this issue.
33	6/25/2009	Cross Country Blvd & Crest Rd.	21209	Jones Falls	Not Resolved	On-going	Not available	A series of dye and ammonia testing and CCTV inspections performed.	City to perform additional investigation of the site prior to development of a resolution.
34	7/17/2009	Pall Mall Rd & Osweego Ave	21215	Jones Falls	Not Resolved	On-going	Not available	A series of dye and ammonia testing have been performed. It has been determined that there is direct contact from 2558 Osweego Ave.	Coordinate with Baltimore City Housing Department to address this issue.
35	8/19/2009	Ezer St 24" Storm Drain feeding into Gullford Ave	21202	Jones Falls	Not Resolved	On-going	Not available	A series of dye and ammonia testing and CCTV inspections performed. Have been unable to identify the source.	City to perform additional investigation of the site prior to development of a resolution.
36	8/20/2009	Carboxe Road @ Upland Apartments	21249	Jones Falls	Not Resolved	On-going	Not available	Completed ammonia testing and CCTV inspection. Located 4 possible direct connections from the Apartment Bldg to the sewer line.	Coordinate with Baltimore City Housing Department to access the Apartment Bldg to perform dye testing.

Site is Resolved & Confirmed by Testing

SDUO Summary (05-30-09):
1. Total SDUO Sites: 36 (Including 3 new sites in the last quarter)
2. Total SDUO Sites Resolved: 14 (39% Complete)
3. Total SDUO on Private Property: 7 (2 Private Property Site Resolved)
4. Total SDUO Sites Open: 22 (61% Open)
5. Quantity of discharge cannot be finalized since MBE and EPA are presently reviewing the City's proposed SDUO Quantification Methodology/Protocol which was submitted to MDE/PA for approval on August 9, 2009.

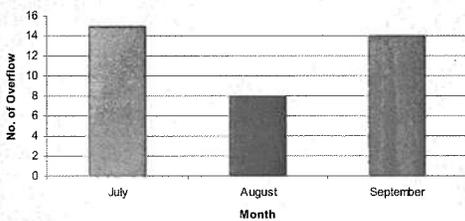




Legend

- July
- August
- September

No of SSO (July-September 2009)



SSO Volume (July-September 2009)

