



**MSD**

Louisville and Jefferson County  
Metropolitan Sewer District

**Consent Decree Quarterly Report 7  
July 30, 2007**

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**INTRODUCTION**

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

This is the seventh Quarterly Report submitted in accordance with Paragraph 25 of the Consent Decree. This Report covers the fourth quarter of MSD's Fiscal Year 2007, which is defined as April 1, 2007 through June 30, 2007. The structure for this report is outlined as follows:

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

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

Section 3: Program Activities for the Next Reporting Period – This section describes the anticipated projects and activities that are scheduled to be performed during the next reporting period (July 1, 2007 through September 30, 2007) for continued compliance with the Consent Decree.



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**SECTION 1: Program Activities Performed during the Reporting Period**

The Consent Decree requires a number of programs, projects, and activities to be completed under Paragraph 23 – Early Action Plan. The Early Action Plan includes a Nine Minimum Controls Compliance Report, a Capital Improvement Project List for projects to be initiated prior to completion of the discharge abatement plans, a Capacity Management Operations and Maintenance Programs Self-Assessment, and an updated Sewer Overflow Response Protocol. Activities required also include the development of discharge abatement plans for both the separate sanitary sewer and combined sewer systems. The section describes the activities completed during the reporting period of April 1, 2007, through June 30, 2007.

**1.1 Early Action Plan**

The projects and activities conducted as part of the Early Action Plan are described in the following sections. Refer to Figure 1 for a Gantt chart outlining these initiatives.

**1.1.1 Capital Improvement Program - Combined Sewer System**

The following project was under construction during this reporting period:

- **CSO 147 Elimination** – The CSO 147 elimination project will require the disconnection of approximately 75% of the downspouts from the 233 area homes. Previous efforts in the sub-basin include constructing a new storm sewer in the project area. CSO 147 currently overflows to South Fork of Beargrass Creek. The downspout disconnections have been performed. Flow monitoring is being performed to confirm that CSO 147 can be eliminated. This project is scheduled to be completed by September 30, 2007, in accordance with the Consent Decree.

**1.1.2 Capacity Management Operations and Maintenance (CMOM)**

MSD continued to implement the recommendations from the CMOM Self-Assessment report. The activities are being performed using a combination of in-house resources and consultants. Refer to Figure 2 for a Gantt chart outlining these initiatives. A summary of the activities which occurred during this reporting period is presented below:

- Implement Utility Information Management (UIM) Support Plan. MSD is defining the user interface requirements to implement the data access improvements required. Current plans are to display the CMOM performance measures by configuring the “dashboard” feature of the Hansen database program. The CMOM dashboard will be integrated into an overall program control system that will also include program-wide project scheduling, budget management, and document control, accessed from a password protected SharePoint web-portal on MSD’s network.
- Design and Construction Standards. MSD’s design and construction standards have been reviewed to identify opportunities to reduce unauthorized discharges through revised design or construction management practices. A summary technical memorandum has been prepared for review and implementation by a cross-divisional committee of senior MSD staff.
- Initial Continuing Sewer System Assessment. MSD has performed an evaluation of the Hansen Advanced Asset Management module to serve as the basis for the collection



system asset management system. MSD is negotiating with Hansen to purchase this module. The module will allow MSD to use existing asset information (age, material, inspection results) to provide strategic life cycle planning recommendations based on risk management principals (consequence of failure times probability of failure).

- System Capacity Assurance. MSD is documenting the capacity evaluations for the 17 small wastewater treatment plants and pump stations. MSD is also developing field data collection protocol for the System Capacity Assurance Program (SCAP), including revised Pump Station Draw Down test procedures. MSD is also building comprehensive hydraulic models of the combined and separate sanitary sewers. The model will include sanitary sewers 8-inch and larger and combined sewers 18-inch and larger. The model will be used initially in developing the Sanitary Sewer Discharge Plan, and updated as part of the SCAP to determine available system capacity.
- Wet Weather Plan. The Wet Weather Plan is a comprehensive document that incorporates elements from CMOM, LTCP and SSDP. The activities for each of these components are reported in the respective sections of this document.
- Inventory and Spare Parts. MSD has developed a scope of work for a review of inventory and spare parts systems for both rolling stock and fixed operational assets. A consultant has been selected for this work, and the process of work order development has been started.
- Water Quality Data Access. A plan for improving the accessibility of MSD's water quality data has been developed and plan implementation is underway. A consultant has been selected to provide additional resources to accelerate progress of plan implementation.
- Implement Back-up Power. MSD has selected a consultant to assist with selection of generators and design of generator installation. Work is underway to select and design facilities in accordance with the plan previously developed. Work continues on easement and property issues related to siting the new generators at existing pump stations. The contract to install one of the emergency generators has been bid and awarded for the Westover Pump Station.
- Update Pump Station Standard Operating Procedures. MSD updated its Pump Station Standard Operating Procedures. The routine inspection checklists were updated and standardized based on pump station configuration (submersible, dry pit, etc). Standardized PM activities have been developed for each station type. A training program has been developed and presented to first-line supervisors.
- Greenline Analysis. MSD completed the Greenline analysis for Hikes Point and Beechwood Village. The analysis determined that the Greenline elevations in five manholes can be raised with minimal negative impacts to connected homes. The analysis also identified minor modifications to the pumping system operations to further reduce the discharged quantities of the overflows.
- Fats, Oil and Grease Program. MSD developed the plan for enhancing the FOG Program performance goals and FOG enforcement plan. The FOG enforcement plan is being updated as part of an initiative to revise the pretreatment program's Enforcement Response Plan (ERP).



MSD began an evaluation of public educational activities associated with the FOG Program. MSD developed a matrix consisting of audiences to target for FOG educational outreach activities, as well as potential methods (types of media used) of reaching each audience. MSD is evaluating each type of media relative to target audiences and will be developing those chosen in the upcoming quarter. MSD continues to distribute currently available FOG related educational materials.

MSD began working with a FOG consultant to develop a mechanism to ensure that new commercial/industrial development properties include two separate sewer lines to accommodate future Food Service Establishments (FSE).

- Tap Connection Protocols. MSD has reviewed its Tap Connection Protocols and made improvements to the process by using a standardized capacity request form and having staff from multiple departments review the request. The review includes staff from operations, who are able to provide valuable information needed to evaluate whether the wastewater collection and treatment system can accommodate the additional flow from new development, and identify system improvements that can be made to create capacity to accommodate additional loads.
- Flow Monitoring Program. MSD completed the temporary flow monitoring project, in which 180 flow meters across each regional sewershed were installed for 90 days. The flow metering data is being used in the model calibrations and capacity analysis for new development and system rehabilitation work. MSD is reviewing approximately 45 locations for permanent sewer flow monitoring as well as equipment for measurement and telemetry. Pre- and post-construction monitoring and green infrastructure monitoring is also being evaluated in development of the long term flow monitoring program.
- Modify/Develop Pump Station Preventive Maintenance Plan. MSD updated its Preventive Maintenance (PM) plan for pump stations. The PM plan standardizes the maintenance activities scheduled in the Hansen database based on equipment type (submersible pump, blower, etc). MSD also conducted first-round training for the maintenance supervisors.
- Implement Force Main and Air Relief Valve Preventive Maintenance Program. MSD staff were trained to inspect and perform preventive maintenance on the force mains and air relief valves on three force mains. Analysis was completed on prioritizing the inspection of all of the estimated 143 miles of force main and 300 associated air relief valves in the collection system. A ten year inspection program has been created and organized for this cycle. For the 2007 schedule, staff has been identified and trained. Approximately 25 of the 43 miles of force mains scheduled for 2007 have been inspected. Inspections have been performed by cross-divisional teams that include staff from Metro Operations, GIS Records, Human Resources and Engineering. Documentation and reporting procedures along with a training program have been completed.
- Gravity Line PM Risk Evaluation. MSD reviewed the sewer back-up and overflow data to further define the causes for sanitary sewer back-ups and overflows. An overall plan for preventive maintenance of gravity sewers is being updated. As part of this effort

MSD is also revising a staffing and resource plan for the division that maintains the sewers (sanitary, storm and combined) to ensure resource availability for proper system maintenance.

### **1.1.3 Sewer Overflow Response Protocol (SORP)**

The following activities were performed during this quarter:

- Refinements to the electronic overflow reporting system were implemented, based on comments from EPA and EPPC. These refinements included providing more site-specific information such as facility name and facility type.
- The annual SORP review was performed to review the manual in accordance with the provisions in Chapter 4. The review analyzed the implementation of the protocols during the first year. It was determined that modifications to the protocols were not necessary at this time. MSD will continue to enhance the training modules.

## **1.2 Discharge Abatement Plans**

The projects and activities conducted as part of the development of Discharge Abatement Plans are described in the following sections. Refer to Figures 3 and 4 for the Gantt chart outlining these initiatives.

### **1.2.1 Sanitary Sewer Discharge Plan**

#### **1.2.1.1 Updated Sanitary Sewer Overflow Plan**

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 includes a list of the proposed improvements to be accomplished by December 31, 2008.

No projects were completed within the reporting period that required certification. The only project scheduled for completion during this reporting period was completed early and reported in Quarterly Report No. 6.

#### **1.2.1.2 Interim Sanitary Sewer Discharge Plan and Final Sanitary Sewer Discharge Plan**

As part of the Interim Sanitary Sewer Discharge Plan development, MSD has continued to review and analyze options and problems associated with the Hikes Point, Beechwood Village, Highgate Springs Pump Station, and Southeastern Diversion Structure. A technical memorandum is being drafted to describe the overall concept to eliminate these four overflows. This technical memo will be provided to EPA and DEP in August for informational purposes.

The general concept includes reconstruction of the Beechwood Village sanitary sewer system along with relief sewers to eliminate the Highgate Springs Pump Station and offload sewers in the Hikes Point area that currently require pumping during wet weather. The overall plan also involves conveying flow from the Southeast Diversion through the Southeast Interceptor and the Northern Ditch Interceptor to a new relief sewer that will convey wet weather flows from the Northern Ditch Interceptor to the West County Wastewater Treatment Plant. A high-rate secondary treatment system is proposed to treat some of the dilute wastewater conveyed by this relief sewer during wet weather.



To meet the implementation schedule required by the Consent Decree, preliminary engineering and related field surveys have been started for the Beechwood Village sanitary sewer reconstruction. Scopes of work have been developed and a proposal received for preliminary engineering of the West County Wastewater Treatment Plant flow equalization and high-rate secondary treatment system. A proposal has also been requested for preliminary engineering, route selection, and easement identification for the Northern Ditch Interceptor diversion sewer.

## **1.2.2 Long Term Control Plan**

### **1.2.2.1 Interim Long Term Control Plan**

This plan included an overview of the MSD program, efforts taken to reduce/eliminate discharges from the combined sewer system, and the list of proposed improvements to be accomplished by December 31, 2008.

The following projects were under design and/or construction during this reporting period:

- **RTC at Southwestern Outfall SWOR2** – This project, part of Phase 2 of the Real Time Control program, involves the installation of an inflatable dam for storage near the upper end of the Southwestern Outfall. Storage will primarily occur in the Upper Dry Run Trunk and the Mill Creek Trunk. The storage will be integrated into the Global Optimization Real Time Control system. The bidding phase of this project began during this quarter. This project will be completed by the end of December of 2008, in accordance with the Consent Decree.
- **RTC at CSO 108** – This project, part of Phase 2 of the Real Time Control program, involves improving the connection between the Beargrass Interceptor and the Beargrass Interceptor Relief and automating the control of flow through these systems and, therefore, Nightingale Pump Station. This project will be completed by the end of December of 2008, in accordance with the Consent Decree.
- **Integration of Southwestern Pump Station/Main Diversion Structure/Morris Forman Wastewater Treatment Plant** – This project, part of Phase 2 of the Real Time Control program, links the Southwestern Pump Station, Main Diversion Structure, and the Morris Forman Wastewater Treatment Plant with the Global Optimization Real Time Control system. This project will be completed by the end of December of 2008, in accordance with the Consent Decree.
- **Integration of Wheeler Basin** – This project, part of Phase 2 of the Real Time Control program, employs additional controls to better utilize approximately one million gallons of storage in the trunk line that drains the Wheeler Basin. This project will be completed by the end of December of 2008, in accordance with the Consent Decree.

### **1.2.2.2 Final Long Term Control Plan**

During this reporting period, the activities associated with the final LTCP included the following:

- Continued development of the value-based risk management approach to evaluating control alternatives for both the LTCP and the SSDP. This development is part of the stakeholder process described in paragraph 1.3 below;
- Development of a draft cost estimating protocol to be used in both the LTCP and the SSDP;
- Continued work on conversion of sewer system models from XP-SWMM to InfoWorks, and integration of the CSS and SSS models for the Morris Forman Wastewater Treatment Plant service area;
- Identification of potential CSO control strategies, screening of technologies, and development of preliminary control concepts for each of the CSOs;
- Initiation of work to update the ORSANCO Ohio River water quality model for the Louisville area;
- Initiation of a survey of existing recreational uses of the Beargrass Creek and Ohio River in Jefferson County, and the development of potential water quality compliance approaches for both water bodies; and,
- Initiation of an evaluation of the potential to expand the treatment capacity of the Morris Forman Wastewater Treatment Capacity.

Water quality and in-stream hydraulic monitoring continued at selected receiving water locations to calibrate and validate a Water Quality Tool. The WQT is comprised of three integrated models (HSPF, XP-SWMM and CE-QUAL Riv 1). This tool will be used in the development of a TMDL for Beargrass Creek, and also in LTCP process to evaluate the effectiveness of various CSO control alternatives. The WQT was calibrated and validated during this reporting period, and meetings to finalize the modeling, begin load allocations, and draft the TMDL report are expected to be completed during the next reporting period.

### **1.3 Public Participation, Outreach and Notification**

MSD has developed a public outreach program aimed at educating the public on the MSD's primary business functions with emphasis on wastewater, stormwater, and flood protection. Presentations were given to numerous community groups during the reporting period. In addition, a series of 6 public information meetings were held during this reporting period to inform the public about the history and evolution of Louisville's sewer system, Project WIN, how the proposed sewer rate increase related to Consent Decree response and what individual property owners can do to help improve stream water quality within Jefferson County. The mechanisms for communicating this message included a powerpoint presentation, summary handouts and brochures on the various programs discussed.



MSD worked with the Courier Journal newspaper staff to develop an ad-wrapper insert for the Sunday, April 29, 2007, newspaper. The theme of the insert was Project WIN and contained information relative to the following topics:

- Upcoming public meetings;
- Annotated diagrams and definitions of SSOs and CSOs;
- Examples of activities that the typical homeowner can perform to help alleviate sewer overflow problems; and
- General warning to avoid waterways during and for 48 hours after rain storms.

The process of organizing a Wet Weather Team (WWT) as outlined in Consent Decree Paragraph 22 has been completed and WWT meetings are underway. Three additional Wet Weather Team meetings were held within the reporting period, addressing the following topics:

- Stakeholder values to be considered in the evaluation of alternatives;
- Relative importance (weighting factors) for the values;
- Value-based performance measures to be used in evaluating alternatives; and,
- Decision model incorporating the performance measures in a cost-benefit analysis

Information was also presented to the WWT relative to the Interim Sanitary Sewer Discharge Plan conceptual approach, CSO control technologies, and the applicability of "green infrastructure" to wet weather planning.



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**SECTION 2: Performance Overview****2.1 Unauthorized Discharges to Waters of the United States**

Appendix A includes information related to MSD's discharges to waters of the United States for the reporting period. This information is entered and maintained in the Hansen Information Management System (Hansen) utilizing procedures reviewed and improved through efforts associated with various components of the Consent Decree. These discharges have previously been reported to DEP and EPA through telephone calls, weekly reports, wastewater treatment plant daily monitoring reports (DMRs), and Consent Decree quarterly reports.

**2.2 Overflows to Ground**

MSD records 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 improved through efforts associated with various components of the Consent Decree. These overflows will be included in the Annual Report for the period of July 1, 2006 through June 30, 2007.

**2.3 CSO Reductions**

Appendix B includes the June 30, 2007, version of modeled Annual Average Overflow Volume (AAOV) for the permitted CSOs.

Reduction in wet weather CSO volume was accomplished in the reporting period.

- CSO 147 Elimination, as reported in Section 1.1 was nearing completion. This CSO was estimated to have a CSO AAOV of approximately 1.3 million gallons per year.

Appendix C includes CSO flow monitoring information for the reporting period.

**2.4 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. No capital projects associated with SSO locations were completed during the reporting period.

Additional information related to these and other capital projects is located in Section 1.1.2 of this report.

### **SECTION 3: Program Activities for the Next Reporting Period**

The Consent Decree requires a number of programs, projects, and activities to be completed under Paragraph 23 – Early Action Plan. The Early Action Plan includes a Nine Minimum Controls Compliance Report, a Capital Improvement Project List for projects to be initiated prior to completion of the discharge abatement plans, a Capacity Management Operations and Maintenance Programs Self-Assessment, and an updated Sewer Overflow Response Protocol. Activities required also include the development of discharge abatement plans for both the separate sanitary sewer and combined sewer systems. The section describes the activities projected for completion during the reporting period of July 1, 2007, through September 30, 2007.

#### **3.1 Early Action Plan**

The projects and activities conducted as part of the Early Action Plan are described in the following sections. Refer to Figure 1 for a Gantt chart outlining these initiatives.

##### **3.1.1 Capital Improvement Program - Combined Sewer System**

The following combined sewer system project will be under construction during the next reporting period.

- **CSO 147 Elimination** – The CSO 147 elimination project required the disconnection of downspouts within the area. Previous efforts in the area include constructing a new storm sewer in the project area. CSO 147 currently overflows to South Fork Beargrass Creek. This project is scheduled to be completed in September of 2007, in accordance with the Consent Decree.

##### **3.1.2 Capacity Management Operations and Maintenance (CMOM)**

MSD received an approval letter for the CMOM re-submittal on August 22, 2006. The approved document can be viewed on the MSD Project WIN website [www.msdlouky.org/projectwin/](http://www.msdlouky.org/projectwin/). Refer to Figure 2 for a Gantt chart outlining these initiatives.

MSD plans to initiate, continue, or complete the following CMOM activities during the next reporting period:

- **Implement Utility Information Management (UIM) Support Plan.** Work is expected to be underway on the overall SharePoint web portal for the overall program control system. Development of the initial Hansen dashboard for reporting on CMOM performance measures is expected to be in service.
- **Initial Continuing Sewer System Assessment.** MSD is negotiating with Hansen to purchase their Advanced Asset Management module. The module will allow MSD to use existing asset information (age, material, inspection results) to provide strategic life cycle planning recommendations based on risk management principals (consequence of failure times probability of failure). The development of the asset management program and entry into Hansen is expected to begin during the next reporting period.



- Facility Capacity Protocol. MSD will complete the documentation for the capacity evaluations for the 17 satellite wastewater treatment plants and pump stations. MSD will complete development of the field data collection protocol for the System Capacity Assurance Program (SCAP).
- Current and Committed Capacity. MSD will continue to build and calibrate the comprehensive hydraulic model of the combined and separate sanitary sewers. The model will also be used to predict sanitary sewer overflow and combined sewer overflows based on different storm events. The model will include sanitary sewers 8-inch and larger and combined sewers 18-inch and larger. The model will be used to determine available system capacity.
- Wet Weather Plan. The Wet Weather Plan is a comprehensive document that incorporates elements from CMOM, LTCP and SSDP. MSD will continue to perform activities for each of these components, as discussed in the respective sections of this document.
- Inventory and Spare Parts. MSD will begin work on the inventory and spare parts plan.
- Water Quality Data Access. MSD will continue work on the water quality data access plan, with a projected completion date in October 2007.
- Implement Back-up Power. MSD will continue easement, permitting, design and procurement activities. Four pump station sites have been selected to have a permanent emergency generator installed in October 2007.
- Implement Greenline Analysis. MSD will implement the recommendations of the Greenline Analysis technical memorandum for Beechwood Village and Hikes Point.
- Implement Pump Station Standard Operating Procedures. MSD updated its Pump Station Standard Operating Procedures. The routine inspection checklists were updated and standardized based on pump station configuration (submersible, dry pit, etc). Supervisors were trained in the procedures, and operating staff will be trained and the new procedures implemented during the next reporting period.
- Fats, Oil and Grease Program. MSD expects to complete the evaluation of its FOG Program related public education activities evaluation and begin to distribute any newly developed educational materials when necessary.

MSD will continue working with its FOG consultant to develop a mechanism to ensure that new commercial/industrial development properties include two separate sewer lines to accommodate future Food Service Establishments (FSE), as well as revising the pretreatment program ERP which will include a specific FOG related enforcement escalation matrix.

- Flow Monitoring Program. MSD completed the temporary flow monitoring project, in which 180 flow meters across each regional sewershed were installed for 90 days. The flow metering data is being used in the model calibrations and capacity analysis for new development and system rehabilitation work. MSD is reviewing approximately 45 locations for permanent sewer flow monitoring as well as equipment for measurement and telemetry. Pre- and post-construction monitoring and green infrastructure



monitoring is also being evaluated in development of the long term flow monitoring program. The flow monitoring plan will be updated as the LTCP and SSDP are developed to support the post construction compliance monitoring program being developed as part of the Wet Weather Plan.

- Implement Pump Station Preventive Maintenance Plan. MSD will continue to train its maintenance personnel regarding the updated procedures in the revised Preventive Maintenance Plan, and will implement the plan by the end of the next reporting period.
- Implement Force Main and Air Relief Valve Preventive Maintenance Program. MSD staff will continue to implement the inspection and preventive maintenance program on the force mains and air relief valves along with analyzing data to verify appropriate force main candidates for the 2008 Program.
- Gravity Line PM Risk Evaluation. MSD will continue developing an overall plan for preventive maintenance of gravity sewers. As part of this effort MSD is continuing to develop a staffing and resource plan for the division that maintains the sewers (sanitary, storm and combined) to ensure that the proper resources are available to properly maintain the system.

### **3.1.3 Sewer Overflow Response Protocol (SORP)**

The following activities will be performed as identified in the approved SORP:

- The annual training plan, including schedule, will be updated; and,
- Refresher training will be completed before the end of the calendar year.

## **3.2 Discharge Abatement Plans**

The schedules for the discharge abatement plans (SSDP and LTCP) are shown in Figures 3 and 4. While the schedules are shown separately, many of the same activities are required, such as alternative development and evaluation, performance evaluations etc. In addition, some of the activities such as affordability evaluation and rate impacts are programmatic in nature, applying to both discharge abatement plans. These are scheduled to be completed on an integrated program rather than the individual components.

### **3.2.1 Separate Sewer Discharge Plan**

#### **3.2.1.1 Updated Sanitary Sewer Overflow Plan**

As noted previously, the schedule for development of the Sanitary Sewer System discharge abatement plan is shown in Figure 3. The following projects are under design and/or construction, and will be active during the next reporting period:

- Broadfern Pump Station Upgrade. Alternatives evaluation for this project began during the second quarter of 2007 and the upgrade will be completed by December 31, 2007, in accordance with the Consent Decree.
- Thurman Drive Pump Station Elimination. Design is proceeding and the pump station will be eliminated by September 30, 2008, in accordance with the Consent Decree.

### **3.2.1.2 Interim Sanitary Sewer Discharge Plan and Final Sanitary Sewer Discharge Plan**

The Interim Sanitary Sewer Discharge Plan (ISSDP) will be submitted by September 30, 2007, in accordance with the Consent Decree. In advance of this submittal, a technical memorandum will be completed outlining the general approach proposed, for the purpose of communication with the various interested parties. As noted on Figure 3, initial flow monitoring is complete to the extent required to support the hydraulic modeling of both the interim and the final SSDP. On-going flow monitoring may be used to fine tune the calibration of the various models over time. Capacity analysis updates will be completed for the areas affected by the ISSDP, and will continue for the other sewersheds that have sanitary sewer overflows. The capacity analyses will include the development and evaluation of control alternatives for each of the locations.

Evaluations completed to date have indicated that the overall mitigation plan for the sanitary sewer overflows at the Southeastern Diversion Structure, Highgate Springs Pump Station, and the Hikes Point area will include rerouting flows from the Southeast Diversion Structure, through the Northern Ditch Interceptor, to the West County Wastewater Treatment Plant. Eliminating overflows at Beechwood Village requires the reconstruction of the sanitary sewer system (including disconnecting illegal connections) and drainage improvements in this area. To achieve the required overflow elimination schedule in the Consent Decree, preliminary engineering and related field investigations are underway relative to the Beechwood Village sanitary sewer reconstruction. These activities will continue during the next reporting period. In addition, preliminary engineering, route selection, and easement acquisition for several of the other solution components will begin during the next reporting period. Preliminary engineering will also be started for the flow equalization and high-rate secondary treatment facilities proposed for the West County Wastewater Treatment Plant.

Historically, the sewer models have been separate hydraulic models for the combined sewer system and various sanitary sewershed areas. This approach was driven, primarily, by the run-time and stability limitations of the XP-SWMM modeling software, system complexity, and level of detail of the models. MSD has purchased a different (more robust) sewer modeling package, with greater capability to analyze larger sewersheds. Work will continue on an integrated sewer model of the combined sewer system and tributary sanitary sewer areas to provide a more accurate analytical tool for alternative selection. Over time, these models will be invaluable tools for making decisions related to the planning effort.

Work will continue on the hydraulic models to support capacity analyses for the other regional treatment plant sewer sheds (Jeffersontown, Floyd's Fork, Cedar Creek, Hite Creek and West County). For SSOs occurring in the sewersheds of the small treatment plants hydraulic modeling work will continue on more limited engineering analyses to support the development and evaluation of mitigation approaches.

Each of the sewersheds containing sanitary sewer overflows will use the sewer models to perform capacity analyses. These capacity analyses will include the development of alternatives for mitigation of capacity limitations that are causing or suspected to cause SSOs. The capacity analyses may identify alternatives that result in additional flows being routed to wastewater treatment plants (either regional or small plants). For those plants that are projected to receive additional flows as a result of overflow elimination projects, a capacity review of that plant will be conducted in accordance with EPA guidance documents. Note that



this evaluation will draw upon the results of capacity analyses also planned under the CMOM program. It is not known yet which plants will require capacity analyses, or during what reporting period these analyses will begin.

### **3.2.2 Interim Long Term Control Plan and Final Long Term Control Plan**

A brief description of the major activities planned in the next reporting period is contained in the following paragraphs.

The Ohio River Valley Water Sanitation Commission (ORSANCO) produced a report to transfer the model developed in a similar Cincinnati/Northern Kentucky study area to a segment of the Ohio River in the vicinity of Louisville. The model evaluated the impacts of combined sewer overflows (CSOs) on the water quality of a large river and resulting benefits of certain CSO abatement scenarios. MSD reviewed this model to determine its suitability for more detailed evaluation of CSO control approaches. MSD is making some modifications to this model to improve its utility in evaluating alternatives developed in the LTCP, and this activity will continue during the next reporting period.

Water quality and in-stream hydraulic monitoring will be continued at selected receiving water locations to calibrate and validate a Water Quality Tool. The WQT is comprised of three integrated models (HSPF, XP-SWMM and CE-QUAL Riv 1). This tool will be used in the development of a TMDL for Beargrass Creek, and also in LTCP process to evaluate the effectiveness of various CSO control alternatives. The WQT was calibrated and validated during this reporting period, and meetings to finalize the modeling, begin load allocations, and draft the modeling report and assist on the TMDL report are expected to be completed during the next reporting period.

In addition to the ongoing combined sewer system flow monitoring work, MSD is performing flow monitoring on approximately 20 CSO outfalls. Data obtained as part of this monitoring effort will be used to validate the CSO model and provide general guidance on the operational characteristics of the combined sewer system.

During the previous reporting period a wide range of potential risk reduction approaches were developed, and a preliminary engineering review of potential alternatives was completed. This preliminary engineering review screened potential alternatives based on a variety of factors related to protecting community values, including an assessment of the potential hydraulic and pollutant reduction, probable benefits in achieving water quality objectives, consideration of sensitive areas, and probable costs. During the next reporting period a wide range of structural, non-structural and operational alternatives will be developed and carried forward for further analysis.

The following projects are under design and/or construction, and will be active during the next reporting period:

- RTC at Southwestern Outfall SWOR2 – This project, part of Phase 2 of the Real Time Control program, involves the installation of an inflatable dam for storage near the upper end of the Southwestern Outfall. Storage will primarily occur in the Upper Dry Run Trunk and the Mill Creek Trunk. The storage will be integrated into the Global Optimization Real Time Control system. Bidding on this project will be completed and



Notice to Proceed is anticipated during this quarter. This project will be completed by the end of December of 2008, in accordance with the Consent Decree.

- **RTC at CSO 108** –This project, part of Phase 2 of the Real Time Control program, involves improving the connection between the Beargrass Interceptor and the Beargrass Interceptor Relief and automating the control of flow through these systems and, therefore, Nightingale Pump Station. This project will be completed by the end of December of 2008, in accordance with the Consent Decree.
- **Integration of Southwestern Pump Station/Main Diversion Structure/Morris Forman Wastewater Treatment Plant** – This project, part of Phase 2 of the Real Time Control program, links the Southwestern Pump Station, Main Diversion Structure, and the Morris Forman Wastewater Treatment Plant with the Global Optimization Real Time Control system. This project will be completed by the end of December of 2008, in accordance with the Consent Decree.
- **Integration of Wheeler Basin** –This project, part of Phase 2 of the Real Time Control program, employs additional controls to better utilize approximately one million gallons of storage in the trunk line that drains the Wheeler Basin. This project will be completed by the end of December of 2008, in accordance with the Consent Decree.

### **3.3 Public Participation, Outreach and Notification**

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

As noted in Section 1, all the elements are underway except for the final public hearing. Over 150 presentations have been made at community meetings, and this activity is planned to continue throughout this reporting period. MSD has already sent out a series of informational mailings, and has initiated a regular Consent Decree progress report as part of its Update newsletter.

The Wet Weather Team has been formed, and regular meetings are being conducted approximately every four to six weeks during this reporting period. As previously discussed, this team will address the issues related both to the development of the Sanitary Sewer Discharge Plan and Long Term Control Plan. Although the meetings are shown in both schedules, they are one in the same. The stakeholder component of this team is comprised of community leaders, environmental advocates, and industry representatives. The stakeholder group will assist MSD in the development and implementation of programs and projects that will satisfy the requirements of the Consent Decree while meeting the level of service objectives of the community.

Two Wet Weather Team meetings are scheduled during the next reporting period. It is expected that these meetings will begin discussions about potential strategies for both CSO control and SSO elimination in addition to specific alternatives that will be evaluated. Green infrastructure opportunities will also be discussed, along with potential ways to provide post-construction compliance monitoring of all aspects of the Wet Weather Plan.



**MSD**

Louisville and Jefferson County  
Metropolitan Sewer District

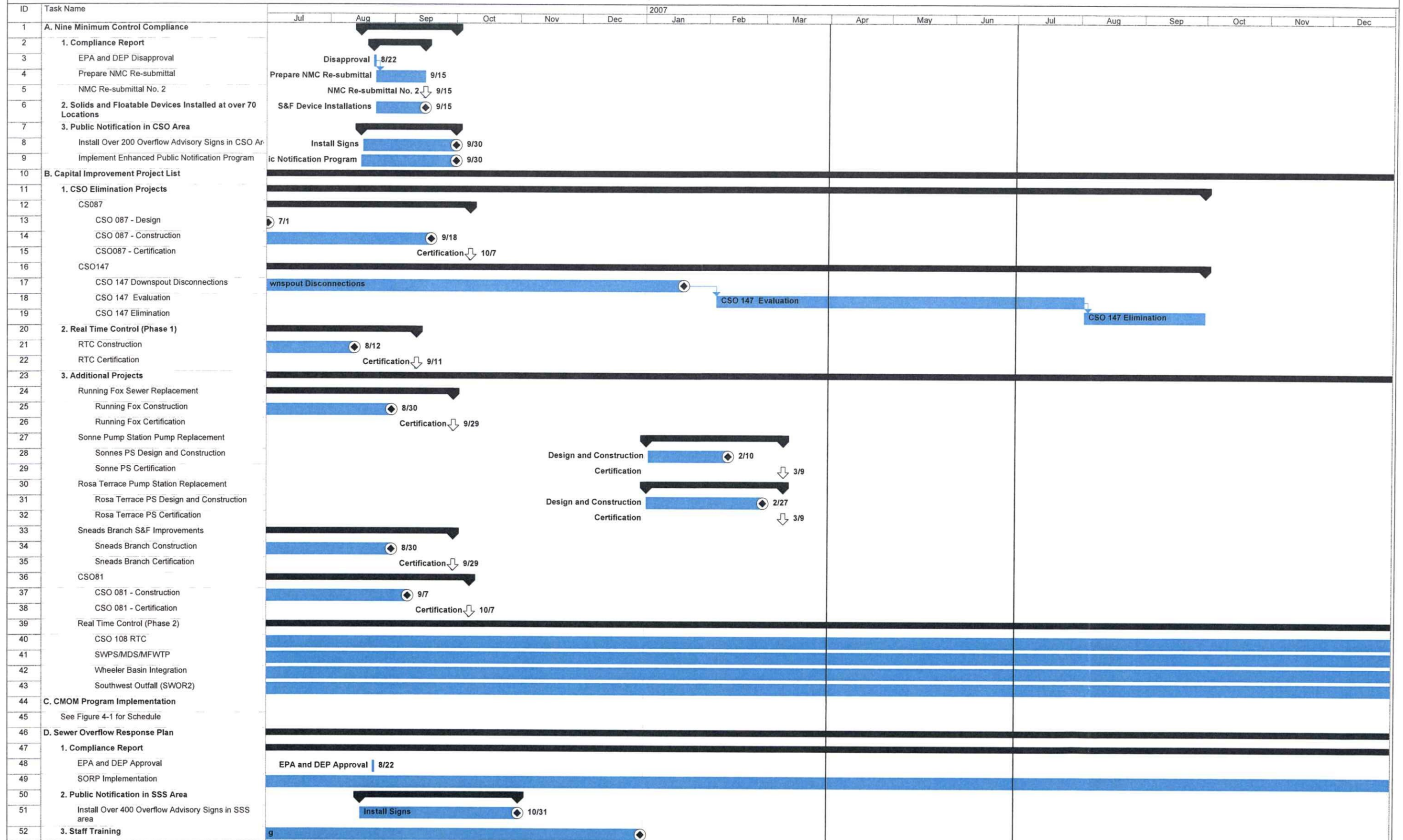
**Consent Decree Quarterly Report 7  
July 30, 2007**

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In addition to public participation, an active public notification process has been implemented, as described in Section 1. This process will continue through the next reporting period.

Information related to this Consent Decree and Project WIN may be found at the MSD website [www.msdlouky.org](http://www.msdlouky.org), or at the MSD Project WIN website [www.msdlouky.org/projectwin/](http://www.msdlouky.org/projectwin/).

Figure 1  
Early Action Plan Schedule



**Figure 2  
CMOM Implementation Schedule**

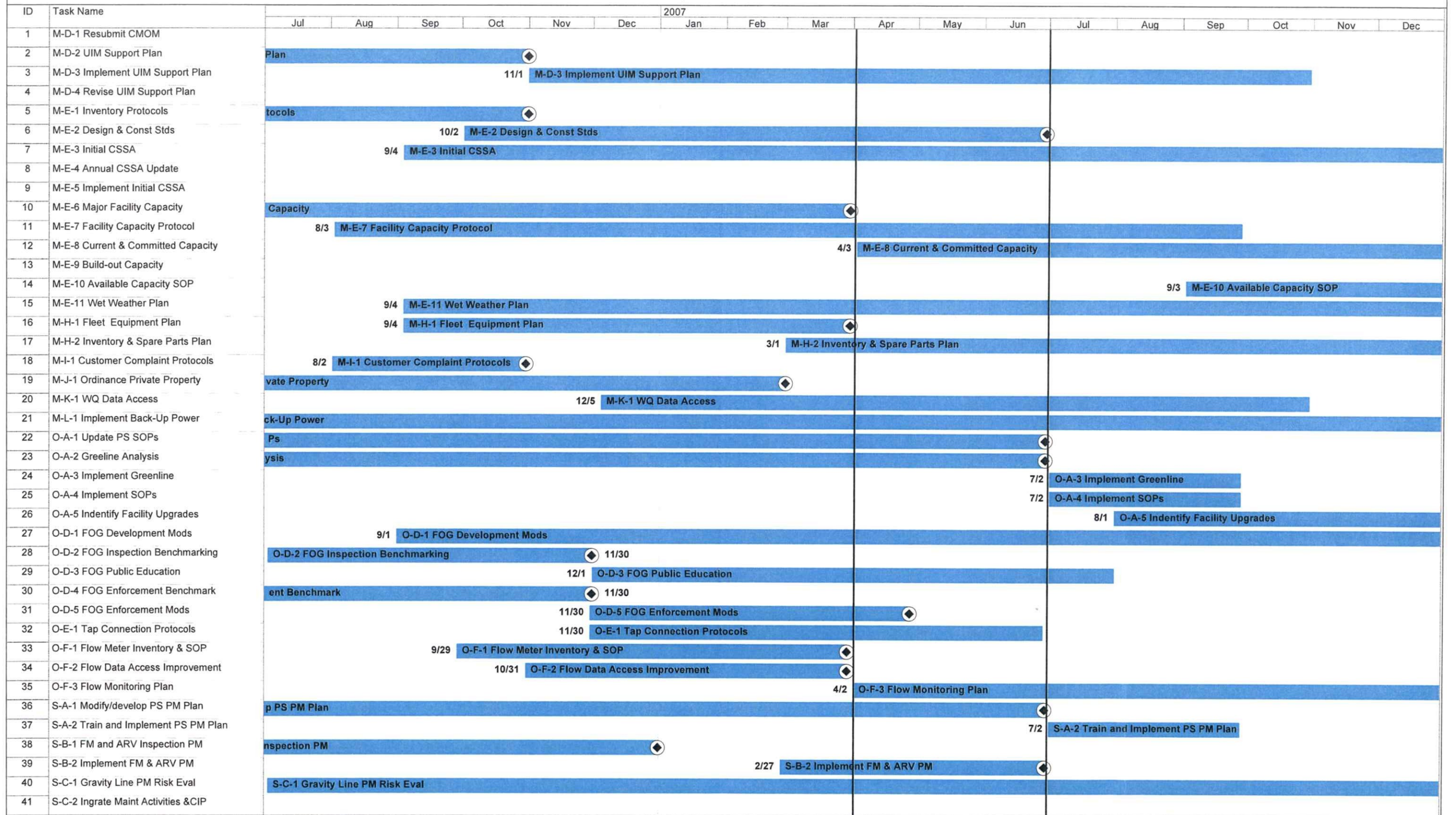


Figure 2  
Date: Mon 7/30/07

Task  Task Completion 

**Figure 3  
Sanitary Sewer Discharge Plan Schedule**

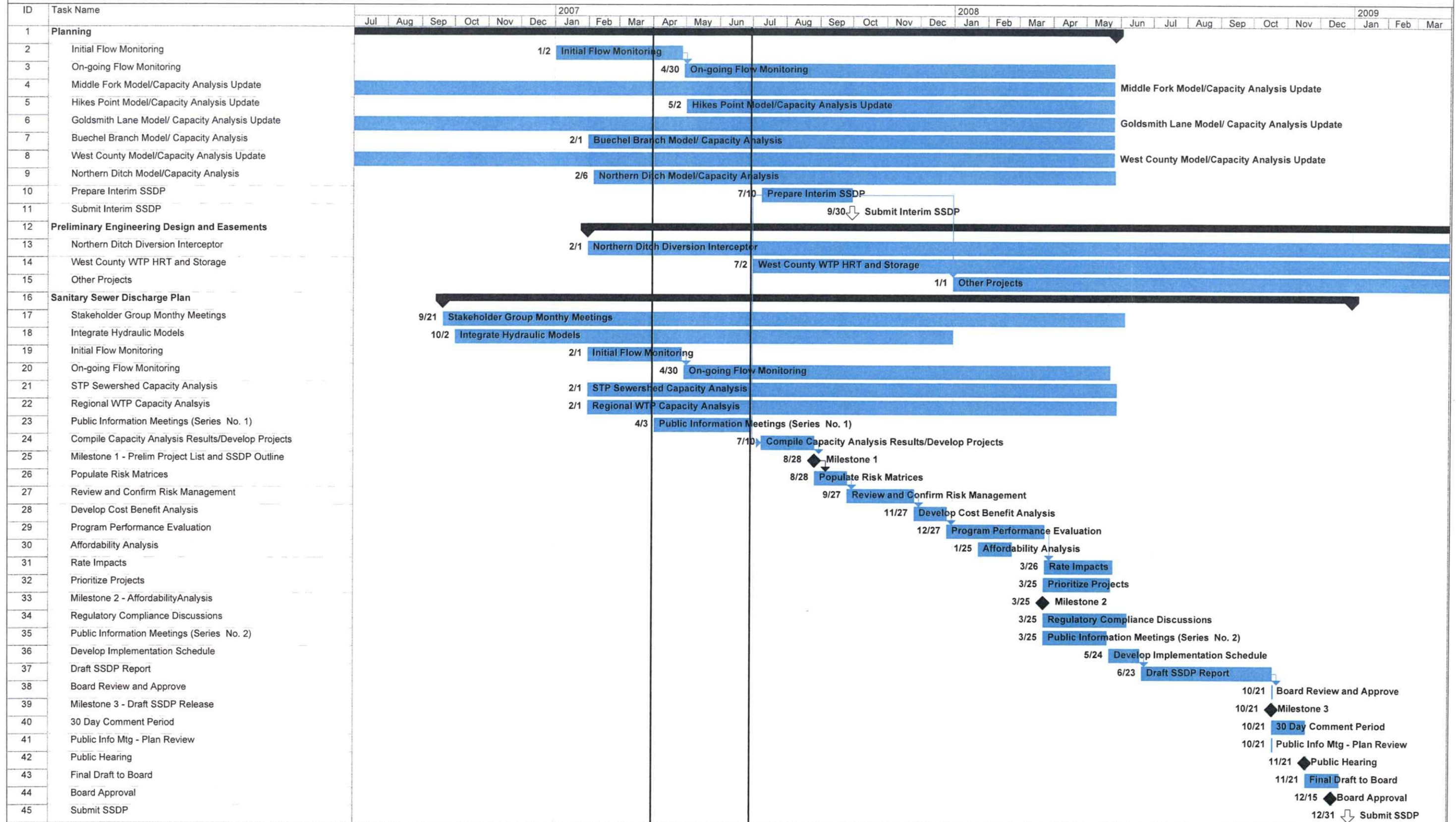


Figure 3  
Date: Mon 7/30/07

Task Milestone Summary Submittal

Figure 4  
Long Term Control Plan Schedule

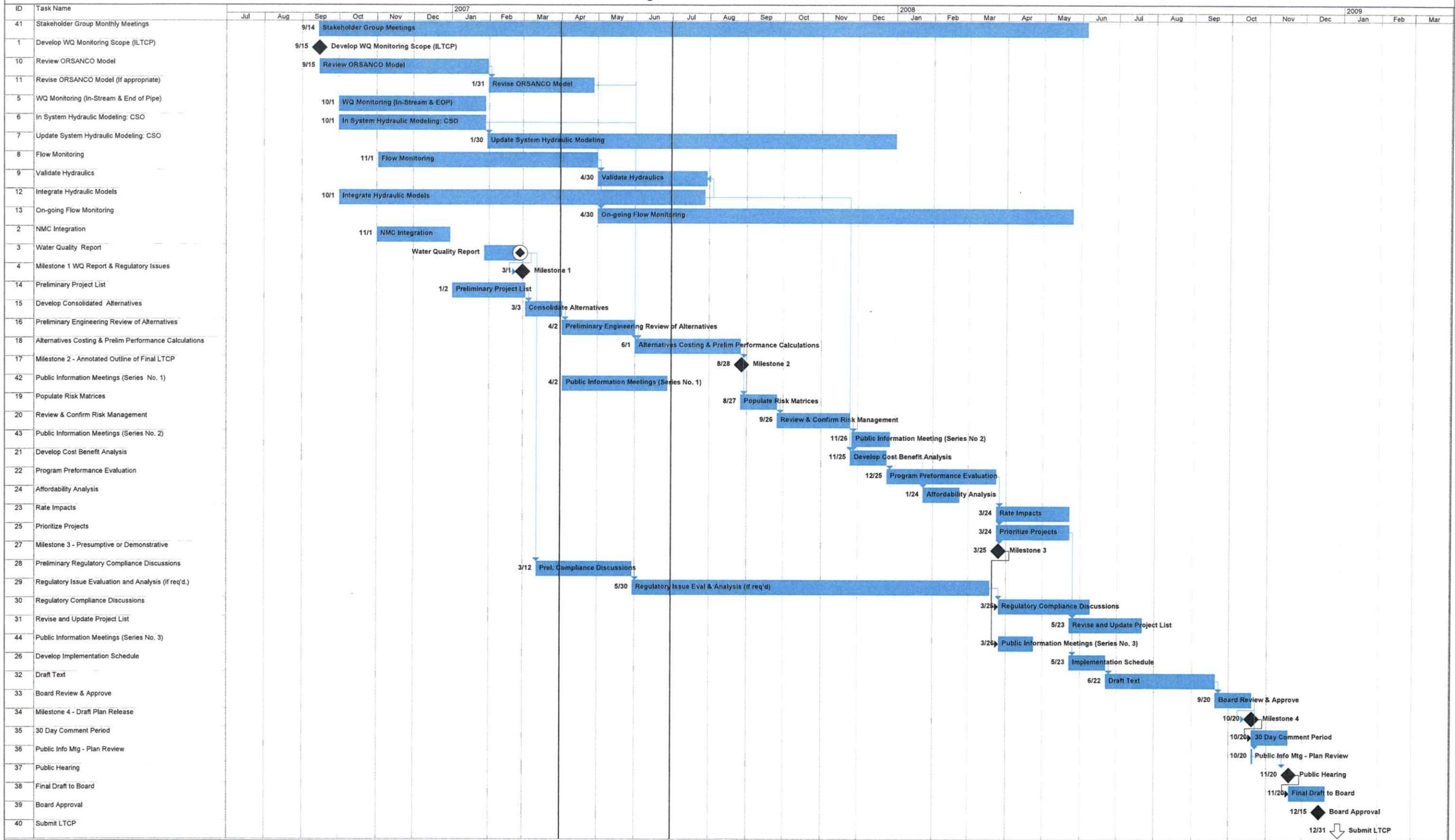


Figure 4  
Date: Mon 7/30/07

Task Milestone Submittal



**MSD**

Louisville and Jefferson County  
Metropolitan Sewer District

**Consent Decree Quarterly Report 7  
July 30, 2007**

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## **APPENDIX A**

### **Unauthorized Discharges to Waters of the US**

Note: The attached discharge report is prepared from discharge information stored in the MSD Hansen System.



**MSD** Louisville and Jefferson County  
Metropolitan Sewer District

IMSAST0004

Discharge Report

Apr 04, 2007 12:00 AM thru Jun 30, 2007 11:59 PM

Report Selections: Excluding PPI, CSO, Result: WUS, Act Code: DISDW, DISREV

|                          |                               |                                                                 |                                                    |               |
|--------------------------|-------------------------------|-----------------------------------------------------------------|----------------------------------------------------|---------------|
| <b>KPDES #</b><br>000000 | <b>Facility ID</b><br>MSD0000 | <b>Treatment Plant Name</b><br>NO PLANT-GOES TO<br>STREAM/RIVER | <b>Receiving Stream of Treatment Plant</b><br>NONE | <b>Region</b> |
|--------------------------|-------------------------------|-----------------------------------------------------------------|----------------------------------------------------|---------------|

| Facility Type          | Facility ID | Facility Address | If Pump Station, Name of Pump Station: | Receiving Stream | Discharge to |
|------------------------|-------------|------------------|----------------------------------------|------------------|--------------|
| SLS Sewer Lift Station | MSD0303-FP  | 342 W MAIN ST    | 4TH STREET FLOOD PS                    | OHIO RIVER       | STREAM       |

| <u>Activity Code / Description</u> | <u>WO #</u> | <u>Initiated</u>  | <u>Initiated By</u> | <u>Problem</u>           | <u>Resolution</u>             | <u>Completed</u>  |
|------------------------------------|-------------|-------------------|---------------------|--------------------------|-------------------------------|-------------------|
| DISDW: DRY WEATHER DISCHARGE       | 658403      | 04/18/07 05:47 AM | GARY HUMPHREY       | PUMPED DUE TO COE MANUAL | DISCHARGE TO WATERS OF THE US | 04/20/07 04:30 PM |

**Spot Inspections:**

|                   |                                                                                                                   |
|-------------------|-------------------------------------------------------------------------------------------------------------------|
| Discharge Amount: | 4,674,000 GAL                                                                                                     |
| Cause:            | STATION PLACED IN FLOOD PUMPING PER USACE FLOOD PLUMPING PROTOCOLS TO AVOID FLOODING AND PROPERTY DAMAGE          |
| Clean Up:         | CLEANUP NOT FEASIBLE DUE TO LOCATION OF THIS OVERFLOW.                                                            |
| Control Zone:     | CONTROL ZONE SETUP IS NOT FEASIBLE DUE TO THE LOCATION OF THIS OVERFLOW                                           |
| Impact:           | NO VISUAL OBSERVATION POSSIBLE SINCE THE STATIONS PUMPS ARE UNDERWATER                                            |
| Repair:           | THIS OVERFLOW WAS DUE TO MSD COMPLIANCE WITH USACOE FLOOD PUMPING PROTOCOL TO AVOID FLOODING AND PROPERTY DAMAGE. |

**Notifications:**

|                   |                                                                                                       |
|-------------------|-------------------------------------------------------------------------------------------------------|
| 04/18/07 01:00 AM | Email notification of unauthorized discharge sent to Harkins.John@epamail.epa.gov and eppc.ert@ky.gov |
|-------------------|-------------------------------------------------------------------------------------------------------|



**MSD** Louisville and Jefferson County  
Metropolitan Sewer District

IMSAST0004

Discharge Report

Apr 04, 2007 12:00 AM thru Jun 30, 2007 11:59 PM

Report Selections: Excluding PPI, CSO, Result: WUS, Act Code: DISDW, DISREV

|                      |                        |                                    |                                                   |                |
|----------------------|------------------------|------------------------------------|---------------------------------------------------|----------------|
| KPDES #<br>KY0022420 | Facility ID<br>MSD0202 | Treatment Plant Name<br>HITE CREEK | Receiving Stream of Treatment Plant<br>HITE CREEK | Region<br>EAST |
|----------------------|------------------------|------------------------------------|---------------------------------------------------|----------------|

|                                    |                      |                                     |                                        |                  |              |
|------------------------------------|----------------------|-------------------------------------|----------------------------------------|------------------|--------------|
| Facility Type<br>SMH Sewer Manhole | Facility ID<br>22117 | Facility Address<br>3651 COLLINS LN | If Pump Station, Name of Pump Station: | Receiving Stream | Discharge to |
|------------------------------------|----------------------|-------------------------------------|----------------------------------------|------------------|--------------|

|                                    |             |                   |                     |                    |                                  |                   |
|------------------------------------|-------------|-------------------|---------------------|--------------------|----------------------------------|-------------------|
| <u>Activity Code / Description</u> | <u>WO #</u> | <u>Initiated</u>  | <u>Initiated By</u> | <u>Problem</u>     | <u>Resolution</u>                | <u>Completed</u>  |
| DISDW: DRY WEATHER DISCHARGE       | 660701      | 04/24/07 10:30 AM | TERRY<br>RICHARDSON | STRUCTURAL FAILURE | DISCHARGE TO WATERS OF<br>THE US | 04/24/07 04:45 PM |

**Spot Inspections:**

|                   |                                                                                         |
|-------------------|-----------------------------------------------------------------------------------------|
| Discharge Amount: | 350 GAL                                                                                 |
| Cause:            | MAIN SEWER BROKEN DOWN.                                                                 |
| Clean Up:         | MSD CLEANED THE AREA AND USED A VACTOR TO REMOVE SOLIDS.                                |
| Control Zone:     | MSD POSTED SIGNS AND DOOR CARDS IN THE AREA. MSD CONTAINED THE AREA AROUND THE MANHOLE. |
| Impact:           | SEWAGE WAS DISCHARGING AROUND THE MANHOLE AND INTO THE CREEK.                           |
| Repair:           | WORK ORDER #646310 - REPLACED 40FT OF 15INCH PIPE IN THE MAIN SEWER.                    |

**Notifications:**

|                   |                                                                                                       |
|-------------------|-------------------------------------------------------------------------------------------------------|
| 04/24/07 01:00 AM | Email notification of unauthorized discharge sent to Harkins.John@epamail.epa.gov and eppc.ert@ky.gov |
|-------------------|-------------------------------------------------------------------------------------------------------|



**MSD** Louisville and Jefferson County  
Metropolitan Sewer District

IMSAST0004

Discharge Report

Apr 04, 2007 12:00 AM thru Jun 30, 2007 11:59 PM

Report Selections: Excluding PPI, CSO, Result: WUS, Act Code: DISDW, DISREV

|                             |                               |                                            |                                                          |                       |
|-----------------------------|-------------------------------|--------------------------------------------|----------------------------------------------------------|-----------------------|
| <b>KPDES #</b><br>KY0078956 | <b>Facility ID</b><br>MSD0277 | <b>Treatment Plant Name</b><br>WEST COUNTY | <b>Receiving Stream of Treatment Plant</b><br>OHIO RIVER | <b>Region</b><br>WEST |
|-----------------------------|-------------------------------|--------------------------------------------|----------------------------------------------------------|-----------------------|

| Facility Type     | Facility ID | Facility Address | If Pump Station, Name of Pump Station: | Receiving Stream | Discharge to |
|-------------------|-------------|------------------|----------------------------------------|------------------|--------------|
| SMH Sewer Manhole | 79650       | 4807 MUD LN      |                                        |                  |              |

| <u>Activity Code / Description</u> | <u>WO #</u> | <u>Initiated</u>  | <u>Initiated By</u> | <u>Problem</u>  | <u>Resolution</u>             | <u>Completed</u>  |
|------------------------------------|-------------|-------------------|---------------------|-----------------|-------------------------------|-------------------|
| DISREV: RAIN EVENT DISCHARGE       | 680635      | 06/23/07 07:50 PM | GERALD DUNLAP       | GREASE BLOCKAGE | DISCHARGE TO WATERS OF THE US | 06/23/07 09:30 PM |

**Spot Inspections:**

|                   |                                                           |
|-------------------|-----------------------------------------------------------|
| Discharge Amount: | 30 GAL                                                    |
| Cause:            | GREASE BLOCKAGE IN MANHOLE LEADING TO PUMP STATION.       |
| Clean Up:         | RAKED AREA AND SPREAD LIME AROUND MANHOLE                 |
| Control Zone:     | NONE REQUIRED. UPON ARRIVAL RAIN HAD WASHED INTO THE LEAD |
| Impact:           | WATER DISCHARGING FROM MANHOLE                            |
| Repair:           | FLUSHED LEAD TO RELIEVE WATER - WORK ORDER #680636        |

**Notifications:**

|                   |                                                                                                       |
|-------------------|-------------------------------------------------------------------------------------------------------|
| 06/23/07 01:00 PM | Email notification of unauthorized discharge sent to Harkins.John@epamail.epa.gov and eppc.ert@ky.gov |
|-------------------|-------------------------------------------------------------------------------------------------------|



**MSD** Louisville and Jefferson County  
Metropolitan Sewer District

IMSAST0004  
Discharge Report

Apr 04, 2007 12:00 AM thru Jun 30, 2007 11:59 PM

Report Selections: Excluding PPI, CSO, Result: WUS, Act Code: DISDW, DISREV

|                             |                               |                                              |                                                          |                       |
|-----------------------------|-------------------------------|----------------------------------------------|----------------------------------------------------------|-----------------------|
| <b>KPDES #</b><br>KY0022411 | <b>Facility ID</b><br>MSD0278 | <b>Treatment Plant Name</b><br>MORRIS FORMAN | <b>Receiving Stream of Treatment Plant</b><br>OHIO RIVER | <b>Region</b><br>WEST |
|-----------------------------|-------------------------------|----------------------------------------------|----------------------------------------------------------|-----------------------|

|                                        |                             |                                              |                                               |                         |                     |
|----------------------------------------|-----------------------------|----------------------------------------------|-----------------------------------------------|-------------------------|---------------------|
| <b>Facility Type</b><br>SMN Sewer Main | <b>Facility ID</b><br>01260 | <b>Facility Address</b><br>268 LAURIE VALLEE | <b>If Pump Station, Name of Pump Station:</b> | <b>Receiving Stream</b> | <b>Discharge to</b> |
|----------------------------------------|-----------------------------|----------------------------------------------|-----------------------------------------------|-------------------------|---------------------|

|                                    |             |                   |                     |                                   |                                  |                   |
|------------------------------------|-------------|-------------------|---------------------|-----------------------------------|----------------------------------|-------------------|
| <u>Activity Code / Description</u> | <u>WO #</u> | <u>Initiated</u>  | <u>Initiated By</u> | <u>Problem</u>                    | <u>Resolution</u>                | <u>Completed</u>  |
| DISDW: DRY WEATHER DISCHARGE       | 655764      | 04/12/07 11:00 AM | TERRY<br>RICHARDSON | OBSTRUCTION-NOT GREASE /<br>ROOTS | DISCHARGE TO WATERS OF<br>THE US | 04/12/07 01:19 PM |

**Spot Inspections:**

|                   |                                                                    |
|-------------------|--------------------------------------------------------------------|
| Discharge Amount: | 50 GAL                                                             |
| Cause:            | A SIX FOOT (4 X 4)WOODEN FENCE POLE INSIDE THE MAIN SEWER CHANNEL. |
| Clean Up:         | MSD FLUSHED AND BAGGED UP THE SEWAGE .                             |
| Control Zone:     | CAUTION SIGNS AND DOOR CARDS WERE PLACED .                         |
| Impact:           | SEWAGE WAS AROUND THE MANHOLE AND DRAINAGE DITCH LINE.             |
| Repair:           | WORK ORDER # 655757 - ROOT CUT THE MAIN SEWER.                     |

**Notifications:**

|                   |                                                                                                       |
|-------------------|-------------------------------------------------------------------------------------------------------|
| 04/12/07 01:00 PM | Email notification of unauthorized discharge sent to Harkins.John@epamail.epa.gov and eppc.ert@ky.gov |
|-------------------|-------------------------------------------------------------------------------------------------------|



**MSD** Louisville and Jefferson County  
Metropolitan Sewer District

IMSAST0004

Discharge Report

Apr 04, 2007 12:00 AM thru Jun 30, 2007 11:59 PM

Report Selections: Excluding PPI, CSO, Result: WUS, Act Code: DISDW, DISREV

|                                      |                               |                                              |                                                          |                       |
|--------------------------------------|-------------------------------|----------------------------------------------|----------------------------------------------------------|-----------------------|
| <b>KPDES #</b><br>KY0022411 (Cont'd) | <b>Facility ID</b><br>MSD0278 | <b>Treatment Plant Name</b><br>MORRIS FORMAN | <b>Receiving Stream of Treatment Plant</b><br>OHIO RIVER | <b>Region</b><br>WEST |
|--------------------------------------|-------------------------------|----------------------------------------------|----------------------------------------------------------|-----------------------|

|                                           |                                |                                                 |                                               |                                                           |                               |
|-------------------------------------------|--------------------------------|-------------------------------------------------|-----------------------------------------------|-----------------------------------------------------------|-------------------------------|
| <b>Facility Type</b><br>SMH Sewer Manhole | <b>Facility ID</b><br>08935-SM | <b>Facility Address</b><br>1001 BRECKENRIDGE LN | <b>If Pump Station, Name of Pump Station:</b> | <b>Receiving Stream</b><br>MIDDLE FORK<br>BEARGRASS CREEK | <b>Discharge to</b><br>STREAM |
|-------------------------------------------|--------------------------------|-------------------------------------------------|-----------------------------------------------|-----------------------------------------------------------|-------------------------------|

|                                    |             |                   |                     |                         |                                  |                   |
|------------------------------------|-------------|-------------------|---------------------|-------------------------|----------------------------------|-------------------|
| <u>Activity Code / Description</u> | <u>WO #</u> | <u>Initiated</u>  | <u>Initiated By</u> | <u>Problem</u>          | <u>Resolution</u>                | <u>Completed</u>  |
| DISREV: RAIN EVENT DISCHARGE       | 657770      | 04/14/07 11:15 AM | MICHAEL GRIFFITH    | LACK OF SYSTEM CAPACITY | DISCHARGE TO WATERS OF<br>THE US | 04/14/07 10:15 PM |

**Spot Inspections:**

|                   |                                                                                                                    |
|-------------------|--------------------------------------------------------------------------------------------------------------------|
| Discharge Amount: | 367,804 GAL                                                                                                        |
| Cause:            | HEAVY RAIN                                                                                                         |
| Clean Up:         | RAIN EVENT RELATED - CLEANUP NOT FEASIBLE                                                                          |
| Control Zone:     | RAIN EVENT RELATED - PERMANENT SIGNS POSTED                                                                        |
| Impact:           | THE MAJORITY OF THIS OVERFLOW CONSISTED PRIMARILY OF STORWATER WITH SOME SEWAGE: MANY AREA CREEKS LEFT THEIR BANKS |
| Repair:           | RAIN EVENT RELATED - THIS SITE IS IN MSD CAPITAL PLAN FOR ABATEMENT                                                |

**Notifications:**

|                   |                                                                                                       |
|-------------------|-------------------------------------------------------------------------------------------------------|
| 04/14/07 01:00 AM | Email notification of unauthorized discharge sent to Harkins.John@epamail.epa.gov and eppc.ert@ky.gov |
|-------------------|-------------------------------------------------------------------------------------------------------|



**MSD** Louisville and Jefferson County  
Metropolitan Sewer District

IMSAST0004

Discharge Report

Apr 04, 2007 12:00 AM thru Jun 30, 2007 11:59 PM

Report Selections: Excluding PPI, CSO, Result: WUS, Act Code: DISDW, DISREV

|                                                                    |                               |                                              |                                                          |                                           |                                                    |                                       |
|--------------------------------------------------------------------|-------------------------------|----------------------------------------------|----------------------------------------------------------|-------------------------------------------|----------------------------------------------------|---------------------------------------|
| <b>KPDES #</b><br>KY0022411 (Cont'd)                               | <b>Facility ID</b><br>MSD0278 | <b>Treatment Plant Name</b><br>MORRIS FORMAN | <b>Receiving Stream of Treatment Plant</b><br>OHIO RIVER | <b>Region</b><br>WEST                     |                                                    |                                       |
| <u>Activity Code / Description</u><br>DISREV: RAIN EVENT DISCHARGE | <u>WO #</u><br>681406         | <u>Initiated</u><br>06/28/07 04:00 PM        | <u>Initiated By</u><br>JOHN LASLEY JR                    | <u>Problem</u><br>LACK OF SYSTEM CAPACITY | <u>Resolution</u><br>DISCHARGE TO WATERS OF THE US | <u>Completed</u><br>06/28/07 06:33 PM |

**Spot Inspections:**

|                   |                                                                     |
|-------------------|---------------------------------------------------------------------|
| Discharge Amount: | 13,579 GAL                                                          |
| Cause:            | HEAVY RAIN                                                          |
| Clean Up:         | RAIN EVENT RELATED - CLEANUP NOT FEASIBLE                           |
| Control Zone:     | RAIN EVENT RELATED - PERM. SIGNS POSTED                             |
| Impact:           | OVERFLOW TO WATERS OF US DURING RAIN EVENT                          |
| Repair:           | RAIN EVENT RELATED - THIS SITE IS IN MSD CAPITAL PLAN FOR ABATEMENT |

**Notifications:**

|                   |                                                                                                       |
|-------------------|-------------------------------------------------------------------------------------------------------|
| 06/28/07 01:00 PM | Email notification of unauthorized discharge sent to Harkins.John@epamail.epa.gov and eppc.ert@ky.gov |
|-------------------|-------------------------------------------------------------------------------------------------------|



**MSD** Louisville and Jefferson County  
Metropolitan Sewer District

IMSAST0004

Discharge Report

Apr 04, 2007 12:00 AM thru Jun 30, 2007 11:59 PM

Report Selections: Excluding PPI, CSO, Result: WUS, Act Code: DISDW, DISREV

|                                      |                               |                                              |                                                          |                       |
|--------------------------------------|-------------------------------|----------------------------------------------|----------------------------------------------------------|-----------------------|
| <b>KPDES #</b><br>KY0022411 (Cont'd) | <b>Facility ID</b><br>MSD0278 | <b>Treatment Plant Name</b><br>MORRIS FORMAN | <b>Receiving Stream of Treatment Plant</b><br>OHIO RIVER | <b>Region</b><br>WEST |
|--------------------------------------|-------------------------------|----------------------------------------------|----------------------------------------------------------|-----------------------|

|                                           |                             |                                                 |                                               |                                                          |                                    |
|-------------------------------------------|-----------------------------|-------------------------------------------------|-----------------------------------------------|----------------------------------------------------------|------------------------------------|
| <b>Facility Type</b><br>SMH Sewer Manhole | <b>Facility ID</b><br>18471 | <b>Facility Address</b><br>3107 DELL BROOKE AVE | <b>If Pump Station, Name of Pump Station:</b> | <b>Receiving Stream</b><br>SOUTH FORK<br>BEARGRASS CREEK | <b>Discharge to</b><br>CATCH BASIN |
|-------------------------------------------|-----------------------------|-------------------------------------------------|-----------------------------------------------|----------------------------------------------------------|------------------------------------|

|                                    |             |                   |                     |                 |                                  |                   |
|------------------------------------|-------------|-------------------|---------------------|-----------------|----------------------------------|-------------------|
| <u>Activity Code / Description</u> | <u>WO #</u> | <u>Initiated</u>  | <u>Initiated By</u> | <u>Problem</u>  | <u>Resolution</u>                | <u>Completed</u>  |
| DISREV: RAIN EVENT DISCHARGE       | 657735      | 04/14/07 11:56 AM | WILLIAM BRIGHT      | PUMPED OVERFLOW | DISCHARGE TO WATERS OF<br>THE US | 04/14/07 04:26 PM |

**Spot Inspections:**

|                   |                                                                                     |
|-------------------|-------------------------------------------------------------------------------------|
| Discharge Amount: | 432,000 GAL                                                                         |
| Cause:            | SET PUMP TO ALLEVIATE PROPERTY DAMAGE AND FLOODING DURING A SIGNIFICANT RAIN EVENT. |
| Clean Up:         | MSD CLEANED THE OVERFLOW SITE ONCE THE RAIN SUBSIDED                                |
| Control Zone:     | MSD SET BARRICADES AND TEMPORARY SIGNS ON THE PUMPS                                 |
| Impact:           | THE MAJORITY OF THIS OVERFLOW CONSISTED PRIMARILY OF STORM WATER WITH SOME SEWAGE   |
| Repair:           | THIS LOCATION IS IN MSD'S CAPITAL ABATEMENT PROGRAM                                 |

**Notifications:**

|                   |                                                                                                       |
|-------------------|-------------------------------------------------------------------------------------------------------|
| 04/14/07 01:00 AM | Email notification of unauthorized discharge sent to Harkins.John@epamail.epa.gov and eppc.ert@ky.gov |
|-------------------|-------------------------------------------------------------------------------------------------------|



**MSD** Louisville and Jefferson County  
Metropolitan Sewer District

IMSAST0004

Discharge Report

Apr 04, 2007 12:00 AM thru Jun 30, 2007 11:59 PM

Report Selections: Excluding PPI, CSO, Result: WUS, Act Code: DISDW, DISREV

|                    |                    |                             |                                            |               |
|--------------------|--------------------|-----------------------------|--------------------------------------------|---------------|
| <b>KPDES #</b>     | <b>Facility ID</b> | <b>Treatment Plant Name</b> | <b>Receiving Stream of Treatment Plant</b> | <b>Region</b> |
| KY0022411 (Cont'd) | MSD0278            | MORRIS FORMAN               | OHIO RIVER                                 | WEST          |

| Facility Type     | Facility ID | Facility Address | If Pump Station, Name of Pump Station: | Receiving Stream   | Discharge to |
|-------------------|-------------|------------------|----------------------------------------|--------------------|--------------|
| SMH Sewer Manhole | 21153       | 4522 CORDOVA RD  |                                        | UPPER SINKING FORK | CATCH BASIN  |

|                                    |             |                   |                     |                 |                               |                   |
|------------------------------------|-------------|-------------------|---------------------|-----------------|-------------------------------|-------------------|
| <u>Activity Code / Description</u> | <u>WO #</u> | <u>Initiated</u>  | <u>Initiated By</u> | <u>Problem</u>  | <u>Resolution</u>             | <u>Completed</u>  |
| DISREV: RAIN EVENT DISCHARGE       | 657741      | 04/14/07 12:38 PM | WILLIAM BRIGHT      | PUMPED OVERFLOW | DISCHARGE TO WATERS OF THE US | 04/14/07 04:50 PM |

**Spot Inspections:**

|                   |                                                                                     |
|-------------------|-------------------------------------------------------------------------------------|
| Discharge Amount: | 364,400 GAL                                                                         |
| Cause:            | SET PUMP TO ALLEVIATE PROPERTY DAMAGE AND FLOODING DURING A SIGNIFICANT RAIN EVENT. |
| Clean Up:         | MSD CLEANED THE OVERFLOW SITE ONCE THE RAIN SUBSIDED                                |
| Control Zone:     | MSD SET BARRICADES AND TEMPORARY SIGNS ON THE PUMPS                                 |
| Impact:           | MAJORITY OF WATER PUMPED CONSISTED PRIMARILY OF STORM WATER WITH SOME SEWAGE        |
| Repair:           | THIS LOCATION IS IN MSD'S CAPITAL ABATEMENT PROGRAM                                 |

**Notifications:**

|                   |                                                                                                       |
|-------------------|-------------------------------------------------------------------------------------------------------|
| 04/14/07 01:00 AM | Email notification of unauthorized discharge sent to Harkins.John@epamail.epa.gov and eppc.ert@ky.gov |
|-------------------|-------------------------------------------------------------------------------------------------------|



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Metropolitan Sewer District

IMSAST0004

Discharge Report

Apr 04, 2007 12:00 AM thru Jun 30, 2007 11:59 PM

Report Selections: Excluding PPI, CSO, Result: WUS, Act Code: DISDW, DISREV

|                                      |                               |                                              |                                                          |                       |
|--------------------------------------|-------------------------------|----------------------------------------------|----------------------------------------------------------|-----------------------|
| <b>KPDES #</b><br>KY0022411 (Cont'd) | <b>Facility ID</b><br>MSD0278 | <b>Treatment Plant Name</b><br>MORRIS FORMAN | <b>Receiving Stream of Treatment Plant</b><br>OHIO RIVER | <b>Region</b><br>WEST |
|--------------------------------------|-------------------------------|----------------------------------------------|----------------------------------------------------------|-----------------------|

|                                           |                             |                                               |                                               |                                               |                                    |
|-------------------------------------------|-----------------------------|-----------------------------------------------|-----------------------------------------------|-----------------------------------------------|------------------------------------|
| <b>Facility Type</b><br>SMH Sewer Manhole | <b>Facility ID</b><br>21156 | <b>Facility Address</b><br>4601 STONEHENGE DR | <b>If Pump Station, Name of Pump Station:</b> | <b>Receiving Stream</b><br>UPPER SINKING FORK | <b>Discharge to</b><br>CATCH BASIN |
|-------------------------------------------|-----------------------------|-----------------------------------------------|-----------------------------------------------|-----------------------------------------------|------------------------------------|

|                                    |             |                   |                     |                 |                               |                   |
|------------------------------------|-------------|-------------------|---------------------|-----------------|-------------------------------|-------------------|
| <u>Activity Code / Description</u> | <u>WO #</u> | <u>Initiated</u>  | <u>Initiated By</u> | <u>Problem</u>  | <u>Resolution</u>             | <u>Completed</u>  |
| DISREV: RAIN EVENT DISCHARGE       | 657746      | 04/14/07 01:00 PM | WILLIAM BRIGHT      | PUMPED OVERFLOW | DISCHARGE TO WATERS OF THE US | 04/14/07 05:15 PM |

**Spot Inspections:**

|                   |                                                                                     |
|-------------------|-------------------------------------------------------------------------------------|
| Discharge Amount: | 408,000 GAL                                                                         |
| Cause:            | SET PUMPS TO ALLEVIATE PROPERTY DAMAGE AND FLOODING DURING A SIGNIFICANT RAIN EVENT |
| Clean Up:         | MSD CLEANED THE OVERFLOW SITE ONCE THE RAIN SUBSIDED                                |
| Control Zone:     | MSD SET BARRICADES AND TEMPORARY SIGNS ON THE PUMPS                                 |
| Impact:           | THE MAJORITY OF THIS OVERFLOW CONSISTED PRIMARILY OF STORM WATER WITH SOME SEWAGE   |
| Repair:           | THIS LOCATION IS IN MSD'S CAPITAL ABATEMENT PROGRAM                                 |

**Notifications:**

|                   |                                                                                                       |
|-------------------|-------------------------------------------------------------------------------------------------------|
| 04/14/07 01:00 AM | Email notification of unauthorized discharge sent to Harkins.John@epamail.epa.gov and eppc.ert@ky.gov |
|-------------------|-------------------------------------------------------------------------------------------------------|



**MSD** Louisville and Jefferson County  
Metropolitan Sewer District

IMSAST0004  
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Apr 04, 2007 12:00 AM thru Jun 30, 2007 11:59 PM

Report Selections: Excluding PPI, CSO, Result: WUS, Act Code: DISDW, DISREV

|                               |                        |                                       |                                                   |                |
|-------------------------------|------------------------|---------------------------------------|---------------------------------------------------|----------------|
| KPDES #<br>KY0022411 (Cont'd) | Facility ID<br>MSD0278 | Treatment Plant Name<br>MORRIS FORMAN | Receiving Stream of Treatment Plant<br>OHIO RIVER | Region<br>WEST |
|-------------------------------|------------------------|---------------------------------------|---------------------------------------------------|----------------|

| Facility Type     | Facility ID | Facility Address | If Pump Station, Name of Pump Station: | Receiving Stream               | Discharge to |
|-------------------|-------------|------------------|----------------------------------------|--------------------------------|--------------|
| SMH Sewer Manhole | 27005       | 1012 ALTA CIR    |                                        | MIDDLE FORK<br>BEARGRASS CREEK | GROUND       |

| <u>Activity Code / Description</u> | <u>WO #</u> | <u>Initiated</u>  | <u>Initiated By</u> | <u>Problem</u>          | <u>Resolution</u>                | <u>Completed</u>  |
|------------------------------------|-------------|-------------------|---------------------|-------------------------|----------------------------------|-------------------|
| DISREV: RAIN EVENT DISCHARGE       | 657768      | 04/14/07 11:45 AM | MICHAEL GRIFFITH    | LACK OF SYSTEM CAPACITY | DISCHARGE TO WATERS OF<br>THE US | 04/14/07 03:40 PM |

**Spot Inspections:**

|                   |                                                                     |
|-------------------|---------------------------------------------------------------------|
| Discharge Amount: | 108,000 GAL                                                         |
| Cause:            | HEAVY RAIN                                                          |
| Clean Up:         | RAIN EVENT RELATED - CLEANUP NOT FEASIBLE                           |
| Control Zone:     | RAIN EVENT RELATED - PERM. SIGNS POSTED                             |
| Impact:           | OVERFLOW TO WATERS OF US DURING RAIN EVENT                          |
| Repair:           | RAIN EVENT RELATED - THIS SITE IS IN MSD CAPITAL PLAN FOR ABATEMENT |

**Notifications:**

|                   |                                                                                                       |
|-------------------|-------------------------------------------------------------------------------------------------------|
| 04/14/07 01:00 AM | Email notification of unauthorized discharge sent to Harkins.John@epamail.epa.gov and eppc.ert@ky.gov |
|-------------------|-------------------------------------------------------------------------------------------------------|



**MSD** Louisville and Jefferson County  
Metropolitan Sewer District

IMSAST0004

Discharge Report

Apr 04, 2007 12:00 AM thru Jun 30, 2007 11:59 PM

Report Selections: Excluding PPI, CSO, Result: WUS, Act Code: DISDW, DISREV

|                                      |                               |                                              |                                                          |                       |
|--------------------------------------|-------------------------------|----------------------------------------------|----------------------------------------------------------|-----------------------|
| <b>KPDES #</b><br>KY0022411 (Cont'd) | <b>Facility ID</b><br>MSD0278 | <b>Treatment Plant Name</b><br>MORRIS FORMAN | <b>Receiving Stream of Treatment Plant</b><br>OHIO RIVER | <b>Region</b><br>WEST |
|--------------------------------------|-------------------------------|----------------------------------------------|----------------------------------------------------------|-----------------------|

|                      |                    |                         |                                               |                               |                     |
|----------------------|--------------------|-------------------------|-----------------------------------------------|-------------------------------|---------------------|
| <b>Facility Type</b> | <b>Facility ID</b> | <b>Facility Address</b> | <b>If Pump Station, Name of Pump Station:</b> | <b>Receiving Stream</b>       | <b>Discharge to</b> |
| SMH Sewer Manhole    | 44397              | 4000 FINCASTLE RD       |                                               | SOUTH FORK<br>BEARGRASS CREEK | GROUND              |

|                                    |             |                   |                     |                         |                                  |                   |
|------------------------------------|-------------|-------------------|---------------------|-------------------------|----------------------------------|-------------------|
| <u>Activity Code / Description</u> | <u>WO #</u> | <u>Initiated</u>  | <u>Initiated By</u> | <u>Problem</u>          | <u>Resolution</u>                | <u>Completed</u>  |
| DISREV: RAIN EVENT DISCHARGE       | 653942      | 04/03/07 08:00 PM | DWIGHT MITCHELL     | LACK OF SYSTEM CAPACITY | DISCHARGE TO WATERS OF<br>THE US | 04/04/07 07:11 AM |

**Spot Inspections:**

|                   |                                                                     |
|-------------------|---------------------------------------------------------------------|
| Discharge Amount: | 5,940 GAL                                                           |
| Cause:            | HEAVY RAIN                                                          |
| Clean Up:         | RAIN EVENT RELATED - CLEANUP NOT FEASIBLE.                          |
| Control Zone:     | THE MAGNITUDE OF THE STORM DID NOT ALLOW CONTROL ZONE SETUP.        |
| Impact:           | OVERFLOW TO WATERS OF US DURING RAIN EVENT                          |
| Repair:           | RAIN EVENT RELATED - THIS SITE IS IN MSD CAPITAL PLAN FOR ABATEMENT |

**Notifications:**

|                   |                                                                                                       |
|-------------------|-------------------------------------------------------------------------------------------------------|
| 04/03/07 01:00 PM | Email notification of unauthorized discharge sent to Harkins.John@epamail.epa.gov and eppc.ert@ky.gov |
|-------------------|-------------------------------------------------------------------------------------------------------|



**MSD** Louisville and Jefferson County  
Metropolitan Sewer District

IMSAST0004

Discharge Report

Apr 04, 2007 12:00 AM thru Jun 30, 2007 11:59 PM

Report Selections: Excluding PPI, CSO, Result: WUS, Act Code: DISDW, DISREV

|                                                                    |                               |                                              |                                                          |                                           |                                                    |                                       |
|--------------------------------------------------------------------|-------------------------------|----------------------------------------------|----------------------------------------------------------|-------------------------------------------|----------------------------------------------------|---------------------------------------|
| <b>KPDES #</b><br>KY0022411 (Cont'd)                               | <b>Facility ID</b><br>MSD0278 | <b>Treatment Plant Name</b><br>MORRIS FORMAN | <b>Receiving Stream of Treatment Plant</b><br>OHIO RIVER | <b>Region</b><br>WEST                     |                                                    |                                       |
| <u>Activity Code / Description</u><br>DISREV: RAIN EVENT DISCHARGE | <u>WO #</u><br>657737         | <u>Initiated</u><br>04/14/07 07:30 AM        | <u>Initiated By</u><br>DWIGHT MITCHELL                   | <u>Problem</u><br>LACK OF SYSTEM CAPACITY | <u>Resolution</u><br>DISCHARGE TO WATERS OF THE US | <u>Completed</u><br>04/15/07 06:54 AM |

**Spot Inspections:**

|                   |                                                                     |
|-------------------|---------------------------------------------------------------------|
| Discharge Amount: | 6,210 GAL                                                           |
| Cause:            | HEAVY RAIN                                                          |
| Clean Up:         | RAIN EVENT RELATED - CLEANUP NOT FEASIBLE                           |
| Control Zone:     | RAIN EVENT RELATED - TEMPORARY SIGNS PLACED & DOOR HANGERS POSTED.  |
| Impact:           | OVERFLOW TO WATERS OF US DURING RAIN EVENT                          |
| Repair:           | RAIN EVENT RELATED - THIS SITE IS IN MSD CAPITAL PLAN FOR ABATEMENT |

**Notifications:**

|                   |                                                                                                       |
|-------------------|-------------------------------------------------------------------------------------------------------|
| 04/14/07 01:00 AM | Email notification of unauthorized discharge sent to Harkins.John@epamail.epa.gov and eppc.ert@ky.gov |
|-------------------|-------------------------------------------------------------------------------------------------------|



**MSD** Louisville and Jefferson County  
Metropolitan Sewer District

IMSAST0004

Discharge Report

Apr 04, 2007 12:00 AM thru Jun 30, 2007 11:59 PM

Report Selections: Excluding PPI, CSO, Result: WUS, Act Code: DISDW, DISREV

|                                      |                               |                                              |                                                          |                       |
|--------------------------------------|-------------------------------|----------------------------------------------|----------------------------------------------------------|-----------------------|
| <b>KPDES #</b><br>KY0022411 (Cont'd) | <b>Facility ID</b><br>MSD0278 | <b>Treatment Plant Name</b><br>MORRIS FORMAN | <b>Receiving Stream of Treatment Plant</b><br>OHIO RIVER | <b>Region</b><br>WEST |
|--------------------------------------|-------------------------------|----------------------------------------------|----------------------------------------------------------|-----------------------|

|                                           |                             |                                                 |                                               |                         |                     |
|-------------------------------------------|-----------------------------|-------------------------------------------------|-----------------------------------------------|-------------------------|---------------------|
| <b>Facility Type</b><br>SMH Sewer Manhole | <b>Facility ID</b><br>48682 | <b>Facility Address</b><br>4545 TAYLORSVILLE RD | <b>If Pump Station, Name of Pump Station:</b> | <b>Receiving Stream</b> | <b>Discharge to</b> |
|-------------------------------------------|-----------------------------|-------------------------------------------------|-----------------------------------------------|-------------------------|---------------------|

|                                    |             |                   |                     |                |                                  |                   |
|------------------------------------|-------------|-------------------|---------------------|----------------|----------------------------------|-------------------|
| <u>Activity Code / Description</u> | <u>WO #</u> | <u>Initiated</u>  | <u>Initiated By</u> | <u>Problem</u> | <u>Resolution</u>                | <u>Completed</u>  |
| DISDW: DRY WEATHER DISCHARGE       | 658401      | 04/17/07 06:10 PM | WILLIAM<br>ATTEBURY | ROOTS          | DISCHARGE TO WATERS OF<br>THE US | 04/17/07 09:00 PM |

**Spot Inspections:**

|                   |                                                                                  |
|-------------------|----------------------------------------------------------------------------------|
| Discharge Amount: | 100 GAL                                                                          |
| Cause:            | MAIN SEWER BACKUP DUE TO ROOTS IN LINE                                           |
| Clean Up:         | MSD WASHED DOWN AREA WITH FLUSHER                                                |
| Control Zone:     | MSD PLACED SIGNS ALONG DRAINAGE DITCH                                            |
| Impact:           | SEWER OVERFLOWED OUT OF MANHOLE AND INTO DRAINAGE DITCH                          |
| Repair:           | WORK ORDER #658498 - MSD ROOT CUT MAIN SEWER 300 FEET TO GET THE MAIN SEWER OPEN |

**Notifications:**

|                   |                                                                                                       |
|-------------------|-------------------------------------------------------------------------------------------------------|
| 04/17/07 12:59 AM | Email notification of unauthorized discharge sent to Harkins.John@epamail.epa.gov and eppc.ert@ky.gov |
|-------------------|-------------------------------------------------------------------------------------------------------|



**MSD** Louisville and Jefferson County  
Metropolitan Sewer District

IMSAST0004

Discharge Report

Apr 04, 2007 12:00 AM thru Jun 30, 2007 11:59 PM

Report Selections: Excluding PPI, CSO, Result: WUS, Act Code: DISDW, DISREV

|                                      |                               |                                              |                                                          |                       |
|--------------------------------------|-------------------------------|----------------------------------------------|----------------------------------------------------------|-----------------------|
| <b>KPDES #</b><br>KY0022411 (Cont'd) | <b>Facility ID</b><br>MSD0278 | <b>Treatment Plant Name</b><br>MORRIS FORMAN | <b>Receiving Stream of Treatment Plant</b><br>OHIO RIVER | <b>Region</b><br>WEST |
|--------------------------------------|-------------------------------|----------------------------------------------|----------------------------------------------------------|-----------------------|

|                                           |                               |                                                    |                                               |                                                          |                               |
|-------------------------------------------|-------------------------------|----------------------------------------------------|-----------------------------------------------|----------------------------------------------------------|-------------------------------|
| <b>Facility Type</b><br>SMH Sewer Manhole | <b>Facility ID</b><br>72571-X | <b>Facility Address</b><br>4600 CHAMPIONS TRACE LN | <b>If Pump Station, Name of Pump Station:</b> | <b>Receiving Stream</b><br>SOUTH FORK<br>BEARGRASS CREEK | <b>Discharge to</b><br>STREAM |
|-------------------------------------------|-------------------------------|----------------------------------------------------|-----------------------------------------------|----------------------------------------------------------|-------------------------------|

|                                    |             |                   |                     |                         |                                  |                   |
|------------------------------------|-------------|-------------------|---------------------|-------------------------|----------------------------------|-------------------|
| <u>Activity Code / Description</u> | <u>WO #</u> | <u>Initiated</u>  | <u>Initiated By</u> | <u>Problem</u>          | <u>Resolution</u>                | <u>Completed</u>  |
| DISREV: RAIN EVENT DISCHARGE       | 681407      | 06/28/07 07:30 PM | MICHAEL GRIFFITH    | LACK OF SYSTEM CAPACITY | DISCHARGE TO WATERS OF<br>THE US | 06/28/07 07:30 PM |

**Spot Inspections:**

|                   |                                                                     |
|-------------------|---------------------------------------------------------------------|
| Discharge Amount: | 159,206 GAL                                                         |
| Cause:            | HEAVY RAIN                                                          |
| Clean Up:         | RAIN EVENT RELATED - CLEANUP NOT FEASIBLE                           |
| Control Zone:     | THE MAGNITUDE OF THIS STORM DID NOT ALLOW CONTROL ZONE SETUP        |
| Impact:           | OVERFLOW TO WATERS OF US DURING RAIN EVENT                          |
| Repair:           | RAIN EVENT RELATED - THIS SITE IS IN MSD CAPITAL PLAN FOR ABATEMENT |

**Notifications:**

|                   |                                                                                                       |
|-------------------|-------------------------------------------------------------------------------------------------------|
| 06/28/07 01:00 PM | Email notification of unauthorized discharge sent to Harkins.John@epamail.epa.gov and eppc.ert@ky.gov |
|-------------------|-------------------------------------------------------------------------------------------------------|



**MSD** Louisville and Jefferson County  
Metropolitan Sewer District

IMSAST0004

Discharge Report

Apr 04, 2007 12:00 AM thru Jun 30, 2007 11:59 PM

Report Selections: Excluding PPI, CSO, Result: WUS, Act Code: DISDW, DISREV

KPDES #  
KY0022411 (Cont'd)

Facility ID  
MSD0278

Treatment Plant Name  
MORRIS FORMAN

Receiving Stream of Treatment Plant  
OHIO RIVER

Region  
WEST

| Facility Type     | Facility ID | Facility Address   | If Pump Station, Name of Pump Station: | Receiving Stream              | Discharge to |
|-------------------|-------------|--------------------|----------------------------------------|-------------------------------|--------------|
| SMH Sewer Manhole | CSO131      | 1630 FRANKFORT AVE |                                        | SOUTH FORK<br>BEARGRASS CREEK |              |

| <u>Activity Code / Description</u> | <u>WO #</u> | <u>Initiated</u>  | <u>Initiated By</u> | <u>Problem</u>     | <u>Resolution</u>                | <u>Completed</u>  |
|------------------------------------|-------------|-------------------|---------------------|--------------------|----------------------------------|-------------------|
| DISDW: DRY WEATHER DISCHARGE       | 664010      | 05/01/07 08:59 PM | WILLIAM BRIGHT      | MECHANICAL FAILURE | DISCHARGE TO WATERS OF<br>THE US | 05/01/07 10:40 PM |

**Spot Inspections:**

|                   |                                                                                                                                                     |
|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| Discharge Amount: | 2,525 GAL                                                                                                                                           |
| Cause:            | BROKEN CHAIN ON GATE                                                                                                                                |
| Clean Up:         | NONE POSSIBLE DUE TO SWIFT FLOW OF BEARGRASS CREEK                                                                                                  |
| Control Zone:     | TRAFFIC CONTROL. NO PUBLIC ACCESS TO BEARGRASS CREEK IN THIS AREA. PERMANENT SIGNS POSTED ALONG DOWNSTREAM ACCESS WAY                               |
| Impact:           | IT WAS TOO DARK TO OBSERVE IMPACT AT THE TIME OF DISCOVERY. HOWEVER, THE AREA DOWNSTREAM WAS CHECKED ON MAY 2 AND NO ADVERSE IMPACTS WERE OBSERVED. |
| Repair:           | WORK ORDER #664012 - REPAIRED THE CHAIN AND RECONNECTED                                                                                             |

**Notifications:**

|                   |                                                                                                       |
|-------------------|-------------------------------------------------------------------------------------------------------|
| 05/01/07 01:00 PM | Email notification of unauthorized discharge sent to Harkins.John@epamail.epa.gov and eppc.ert@ky.gov |
|-------------------|-------------------------------------------------------------------------------------------------------|



**MSD** Louisville and Jefferson County  
Metropolitan Sewer District

IMSAST0004

Discharge Report

Apr 04, 2007 12:00 AM thru Jun 30, 2007 11:59 PM

Report Selections: Excluding PPI, CSO, Result: WUS, Act Code: DISDW, DISREV

|                                      |                               |                                              |                                                          |                       |
|--------------------------------------|-------------------------------|----------------------------------------------|----------------------------------------------------------|-----------------------|
| <b>KPDES #</b><br>KY0022411 (Cont'd) | <b>Facility ID</b><br>MSD0278 | <b>Treatment Plant Name</b><br>MORRIS FORMAN | <b>Receiving Stream of Treatment Plant</b><br>OHIO RIVER | <b>Region</b><br>WEST |
|--------------------------------------|-------------------------------|----------------------------------------------|----------------------------------------------------------|-----------------------|

|                                                |                                  |                                                      |                                                                  |                                                          |                               |
|------------------------------------------------|----------------------------------|------------------------------------------------------|------------------------------------------------------------------|----------------------------------------------------------|-------------------------------|
| <b>Facility Type</b><br>SLS Sewer Lift Station | <b>Facility ID</b><br>MSD0023-PS | <b>Facility Address</b><br>501 MOCKINGBIRD VALLEY RD | <b>If Pump Station, Name of Pump Station:</b><br>MELLWOOD AVENUE | <b>Receiving Stream</b><br>MUDDY FORK<br>BEARGRASS CREEK | <b>Discharge to</b><br>STREAM |
|------------------------------------------------|----------------------------------|------------------------------------------------------|------------------------------------------------------------------|----------------------------------------------------------|-------------------------------|

|                                    |             |                   |                     |                         |                               |                   |
|------------------------------------|-------------|-------------------|---------------------|-------------------------|-------------------------------|-------------------|
| <u>Activity Code / Description</u> | <u>WO #</u> | <u>Initiated</u>  | <u>Initiated By</u> | <u>Problem</u>          | <u>Resolution</u>             | <u>Completed</u>  |
| DISREV: RAIN EVENT DISCHARGE       | 657771      | 04/14/07 01:00 PM | NOBLE MARKS JR      | LACK OF SYSTEM CAPACITY | DISCHARGE TO WATERS OF THE US | 04/14/07 04:25 PM |

**Spot Inspections:**

|                   |                                                                               |
|-------------------|-------------------------------------------------------------------------------|
| Discharge Amount: | 1,500 GAL                                                                     |
| Cause:            | LACK OF SYSTEM CAPACITY                                                       |
| Clean Up:         | AREA RAKED, DEBRIS HAULED, WET WELL HAULED UNTIL THE LEVEL WAS UNDER CONTROL. |
| Control Zone:     | SIGNS POSTED PUBLIC NOTIFIED                                                  |
| Impact:           | NO VISUAL IMPACT OBSERVED IN RECIEVING WATERS.                                |
| Repair:           | WET WELL AT PUMP STATION HAULED UNTIL THE LEVEL UNDER CONTROL.                |

**Notifications:**

|                   |                                                                                                       |
|-------------------|-------------------------------------------------------------------------------------------------------|
| 04/14/07 01:00 AM | Email notification of unauthorized discharge sent to Harkins.John@epamail.epa.gov and eppc.ert@ky.gov |
|-------------------|-------------------------------------------------------------------------------------------------------|



**MSD** Louisville and Jefferson County  
Metropolitan Sewer District

IMSAST0004

Discharge Report

Apr 04, 2007 12:00 AM thru Jun 30, 2007 11:59 PM

Report Selections: Excluding PPI, CSO, Result: WUS, Act Code: DISDW, DISREV

|                                      |                               |                                              |                                                          |                       |
|--------------------------------------|-------------------------------|----------------------------------------------|----------------------------------------------------------|-----------------------|
| <b>KPDES #</b><br>KY0022411 (Cont'd) | <b>Facility ID</b><br>MSD0278 | <b>Treatment Plant Name</b><br>MORRIS FORMAN | <b>Receiving Stream of Treatment Plant</b><br>OHIO RIVER | <b>Region</b><br>WEST |
|--------------------------------------|-------------------------------|----------------------------------------------|----------------------------------------------------------|-----------------------|

|                        |                    |                         |                                               |                         |                     |
|------------------------|--------------------|-------------------------|-----------------------------------------------|-------------------------|---------------------|
| <b>Facility Type</b>   | <b>Facility ID</b> | <b>Facility Address</b> | <b>If Pump Station, Name of Pump Station:</b> | <b>Receiving Stream</b> | <b>Discharge to</b> |
| SLS Sewer Lift Station | MSD0183-PS         | 3450 WOODSIDE RD        | GLENVIEW HILLS                                | OHIO RIVER              | DITCH               |

|                                    |             |                   |                     |                     |                               |                   |
|------------------------------------|-------------|-------------------|---------------------|---------------------|-------------------------------|-------------------|
| <u>Activity Code / Description</u> | <u>WO #</u> | <u>Initiated</u>  | <u>Initiated By</u> | <u>Problem</u>      | <u>Resolution</u>             | <u>Completed</u>  |
| DISREV: RAIN EVENT DISCHARGE       | 664688      | 05/04/07 08:30 PM | NOBLE MARKS JR      | POWER OUTAGE (LG&E) | DISCHARGE TO WATERS OF THE US | 05/04/07 09:30 PM |

**Spot Inspections:**

|                   |                                                            |
|-------------------|------------------------------------------------------------|
| Discharge Amount: | 1,200 GAL                                                  |
| Cause:            | LGE POWER OUTAGE                                           |
| Clean Up:         | AREA WASHED DOWN , RAKED AND DEBRIS HAULED AWAY.           |
| Control Zone:     | AREA TAPED - CONES AND SIGNS PLACED.                       |
| Impact:           | DISCOLORATION IN LOCAL STREAM. NO SOLIDS OBSERVED.         |
| Repair:           | POWER WAS RESTORED AND STATION WAS PLACED BACK IN SERVICE. |

**Notifications:**

|                   |                                                                                                       |
|-------------------|-------------------------------------------------------------------------------------------------------|
| 05/04/07 01:00 PM | Email notification of unauthorized discharge sent to Harkins.John@epamail.epa.gov and eppc.ert@ky.gov |
|-------------------|-------------------------------------------------------------------------------------------------------|



**MSD** Louisville and Jefferson County  
Metropolitan Sewer District

IMSAST0004

Discharge Report

Apr 04, 2007 12:00 AM thru Jun 30, 2007 11:59 PM

Report Selections: Excluding PPI, CSO, Result: WUS, Act Code: DISDW, DISREV

KPDES #  
KY0029114

Facility ID  
MSD0292

Treatment Plant Name  
HUNTING CREEK SOUTH

Receiving Stream of Treatment Plant  
HARRODS CREEK

Region  
EAST

| Facility Type  | Facility ID | Facility Address      | If Pump Station, Name of Pump Station: | Receiving Stream | Discharge to |
|----------------|-------------|-----------------------|----------------------------------------|------------------|--------------|
| SMN Sewer Main | 66847G-CO   | 7104 COVERED COVE WAY |                                        |                  |              |

| <u>Activity Code / Description</u> | <u>WO #</u> | <u>Initiated</u>  | <u>Initiated By</u> | <u>Problem</u>     | <u>Resolution</u>             | <u>Completed</u>  |
|------------------------------------|-------------|-------------------|---------------------|--------------------|-------------------------------|-------------------|
| DISDW: DRY WEATHER DISCHARGE       | 654753      | 04/08/07 01:15 AM | PATRICK ELDER       | STRUCTURAL FAILURE | DISCHARGE TO WATERS OF THE US | 04/08/07 01:20 AM |

**Spot Inspections:**

|                   |                                                                                              |
|-------------------|----------------------------------------------------------------------------------------------|
| Discharge Amount: | 30 GAL                                                                                       |
| Cause:            | STRUCTURAL FAILURE OF FORCE MAIN PIPE                                                        |
| Clean Up:         | AREA RAKED & DEBRIS HAULED. DIKE BUILT TO CONTAIN OVERFLOW                                   |
| Control Zone:     | TEMPORARY SIGNS POSTED                                                                       |
| Impact:           | DEBRIS & SOLIDS ON THE GROUND, NO DISCOLOR OF STREAM WHERE ENTERED CATCH BASIN               |
| Repair:           | MAC CONSTRUCTION CALLED TO EXCAVATE & MAKE PIPE REPAIRS TO 4" HDPF FORCE MAIN TO MSD0292 STP |

**Notifications:**

|                   |                                                                                                       |
|-------------------|-------------------------------------------------------------------------------------------------------|
| 04/08/07 01:00 AM | Email notification of unauthorized discharge sent to Harkins.John@epamail.epa.gov and eppc.ert@ky.gov |
|-------------------|-------------------------------------------------------------------------------------------------------|



**MSD** Louisville and Jefferson County  
Metropolitan Sewer District

IMSAST0004

Discharge Report

Apr 04, 2007 12:00 AM thru Jun 30, 2007 11:59 PM

Report Selections: Excluding PPI, CSO, Result: WUS, Act Code: DISDW, DISREV

|                             |                               |                                            |                                                             |                       |
|-----------------------------|-------------------------------|--------------------------------------------|-------------------------------------------------------------|-----------------------|
| <b>KPDES #</b><br>KY0042226 | <b>Facility ID</b><br>MSD0403 | <b>Treatment Plant Name</b><br>LAKE FOREST | <b>Receiving Stream of Treatment Plant</b><br>CHENOWETH RUN | <b>Region</b><br>EAST |
|-----------------------------|-------------------------------|--------------------------------------------|-------------------------------------------------------------|-----------------------|

| Facility Type     | Facility ID | Facility Address | If Pump Station, Name of Pump Station: | Receiving Stream | Discharge to |
|-------------------|-------------|------------------|----------------------------------------|------------------|--------------|
| SMH Sewer Manhole | 34033       | 622 WOODLAKE DR  |                                        |                  |              |

| <u>Activity Code / Description</u> | <u>WO #</u> | <u>Initiated</u>  | <u>Initiated By</u> | <u>Problem</u>                    | <u>Resolution</u>                | <u>Completed</u>  |
|------------------------------------|-------------|-------------------|---------------------|-----------------------------------|----------------------------------|-------------------|
| DISDW: DRY WEATHER DISCHARGE       | 669095      | 05/23/07 09:15 AM | PATRICK ELDER       | OBSTRUCTION-NOT GREASE /<br>ROOTS | DISCHARGE TO WATERS OF<br>THE US | 05/23/07 12:15 PM |

**Spot Inspections:**

|                   |                                                                       |
|-------------------|-----------------------------------------------------------------------|
| Discharge Amount: | 1,800 GAL                                                             |
| Cause:            | FORCE MAIN FROM MSD1172-PS WAS OBSTRUCTED.                            |
| Clean Up:         | AREA RAKED, & DEBRIS HAULED, AREA SCRUBBED CLEAN & WASHED & SANITIZED |
| Control Zone:     | ADVISED PROPERTY OWNER, PUT UP SIGNS AROUND AFFECTED AREA             |
| Impact:           | DISCOLORATION OF STREAM PTD HYDROLOGY 10292,DEBRIS, SOLIDS.           |
| Repair:           | CONTRACTED API TO JET ROD THE FM LINE & RETURN TO SERVICE             |

**Notifications:**

|                   |                                                                                                       |
|-------------------|-------------------------------------------------------------------------------------------------------|
| 05/23/07 01:00 PM | Email notification of unauthorized discharge sent to Harkins.John@epamail.epa.gov and eppc.ert@ky.gov |
|-------------------|-------------------------------------------------------------------------------------------------------|



**MSD** Louisville and Jefferson County  
Metropolitan Sewer District

IMSAST0004

Discharge Report

Apr 04, 2007 12:00 AM thru Jun 30, 2007 11:59 PM

Report Selections: Excluding PPI, CSO, Result: WUS, Act Code: DISDW, DISREV

|                               |                        |                                     |                                                      |                |
|-------------------------------|------------------------|-------------------------------------|------------------------------------------------------|----------------|
| KPDES #<br>KY0042226 (Cont'd) | Facility ID<br>MSD0403 | Treatment Plant Name<br>LAKE FOREST | Receiving Stream of Treatment Plant<br>CHENOWETH RUN | Region<br>EAST |
|-------------------------------|------------------------|-------------------------------------|------------------------------------------------------|----------------|

|                                 |                          |                                     |                                        |                  |              |
|---------------------------------|--------------------------|-------------------------------------|----------------------------------------|------------------|--------------|
| Facility Type<br>SMN Sewer Main | Facility ID<br>80581B-AG | Facility Address<br>611 WOODLAKE DR | If Pump Station, Name of Pump Station: | Receiving Stream | Discharge to |
|---------------------------------|--------------------------|-------------------------------------|----------------------------------------|------------------|--------------|

|                                    |             |                   |                     |                    |                               |                   |
|------------------------------------|-------------|-------------------|---------------------|--------------------|-------------------------------|-------------------|
| <u>Activity Code / Description</u> | <u>WO #</u> | <u>Initiated</u>  | <u>Initiated By</u> | <u>Problem</u>     | <u>Resolution</u>             | <u>Completed</u>  |
| DISDW: DRY WEATHER DISCHARGE       | 678585      | 06/18/07 12:45 PM | NOBLE MARKS JR      | STRUCTURAL FAILURE | DISCHARGE TO WATERS OF THE US | 06/18/07 02:15 PM |

**Spot Inspections:**

|                   |                                                                        |
|-------------------|------------------------------------------------------------------------|
| Discharge Amount: | 450 GAL                                                                |
| Cause:            | FORCE MAIN BREAK                                                       |
| Clean Up:         | API CALLED TO ASSIST MSD PERSONEL IN CLEAN UP AT THE SITE OF DISCHARGE |
| Control Zone:     | SIGNS POSTED AND AREA WAS TAPED OFF                                    |
| Impact:           | SOILDS AND DISCOLORATION OF STREAM                                     |
| Repair:           | MAC CONSTRUCTION CALLED TO REPAIR FORCE MAIN AND RETURN TO SERVICE     |

**Notifications:**

|                   |                                                                                                       |
|-------------------|-------------------------------------------------------------------------------------------------------|
| 06/18/07 01:00 PM | Email notification of unauthorized discharge sent to Harkins.John@epamail.epa.gov and eppc.ert@ky.gov |
|-------------------|-------------------------------------------------------------------------------------------------------|

Total Facilities Printed: 18



**MSD** Louisville and Jefferson County  
Metropolitan Sewer District

IMSAST0004

Discharge Report

Apr 01, 2007 12:00 AM thru Jun 30, 2007 11:59 PM

Report Selections: Excluding PPI, CSO, Prob Code: BYPAS, UPSET

|                             |                               |                                               |                                                                  |                       |
|-----------------------------|-------------------------------|-----------------------------------------------|------------------------------------------------------------------|-----------------------|
| <b>KPDES #</b><br>KY0022462 | <b>Facility ID</b><br>MSD0206 | <b>Treatment Plant Name</b><br>GLENVIEW ACRES | <b>Receiving Stream of Treatment Plant</b><br>LITTLE GOOSE CREEK | <b>Region</b><br>EAST |
|-----------------------------|-------------------------------|-----------------------------------------------|------------------------------------------------------------------|-----------------------|

|                                                   |                               |                                              |                                               |                                               |                               |
|---------------------------------------------------|-------------------------------|----------------------------------------------|-----------------------------------------------|-----------------------------------------------|-------------------------------|
| <b>Facility Type</b><br>SPL Sewer Treatment Plant | <b>Facility ID</b><br>MSD0206 | <b>Facility Address</b><br>3315 LIME KILN LN | <b>If Pump Station, Name of Pump Station:</b> | <b>Receiving Stream</b><br>LITTLE GOOSE CREEK | <b>Discharge to</b><br>GROUND |
|---------------------------------------------------|-------------------------------|----------------------------------------------|-----------------------------------------------|-----------------------------------------------|-------------------------------|

|                                    |             |                   |                     |                           |                               |                   |
|------------------------------------|-------------|-------------------|---------------------|---------------------------|-------------------------------|-------------------|
| <u>Activity Code / Description</u> | <u>WO #</u> | <u>Initiated</u>  | <u>Initiated By</u> | <u>Problem</u>            | <u>Resolution</u>             | <u>Completed</u>  |
| :                                  | 667634      | 05/17/07 09:45 AM | NOBLE MARKS JR      | BYPASS AT TREATMENT PLANT | DISCHARGE TO WATERS OF THE US | 05/17/07 10:00 AM |

**Spot Inspections:**

|                   |                                                                                  |
|-------------------|----------------------------------------------------------------------------------|
| Discharge Amount: | 100 GAL                                                                          |
| Cause:            | CLARIFIER RETURN LINE OBSTRUCTION                                                |
| Clean Up:         | FOAM AND DEBRIS WAS RAKED AND HAULED AWAY WITH LIME PLACED ON AREA OF DISCHARGE. |
| Control Zone:     | AREA TAPED OFF WITH SIGNS AND CONES POSTED IN AREA                               |
| Impact:           | NO VISUAL IMPACT AFTER AREA WAS CLEANED AND SANITIZED.                           |
| Repair:           | CLARIFIER RETURN LINE UNCLOGGED AND PUT BACK IN SERVICE.                         |

**Notifications:**

|                   |                                                                                                       |
|-------------------|-------------------------------------------------------------------------------------------------------|
| 05/17/07 01:00 AM | Email notification of unauthorized discharge sent to Harkins.John@epamail.epa.gov and eppc.ert@ky.gov |
|-------------------|-------------------------------------------------------------------------------------------------------|

Total Facilities Printed: 1



**MSD**

Louisville and Jefferson County  
Metropolitan Sewer District

**Consent Decree Quarterly Report 7  
July 30, 2007**

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## **APPENDIX B**

### **CSO AAOV Reductions**

Note: The AAOV information was developed utilizing XP-SWMM.

# APPENDIX B

## SUMMARY OF WET WEATHER COMBINED OVERFLOWS STATUS THROUGH JUNE 2007

| CSO NO.                     | CSO NAME                   | LOCATION                 | RECEIVING STREAM | NUMBER OF OVERFLOW INCIDENTS (NO./YR) | AVG. DURATION OF OVERFLOW (HRS) | AVG VOLUME PER INCIDENT (1000 G/INCIDENT) | STATUS     |             |
|-----------------------------|----------------------------|--------------------------|------------------|---------------------------------------|---------------------------------|-------------------------------------------|------------|-------------|
| <b>OHIO RIVER WATERSHED</b> |                            |                          |                  |                                       |                                 |                                           |            |             |
| 015                         | SOUTHWESTERN PS            | BELLS LN & I-264         | OR               | 39                                    | 7.46                            | 21,660                                    | ACTIVE     |             |
| 016                         | MILES PARK BYPASS          | S OF 45th & WINNROSE     | OR               | 0                                     | 0.00                            | 0                                         | ACTIVE     |             |
| 019                         | 34th STREET PS             | 34th & RUDD              | OR               | 49                                    | 5.02                            | 1,940                                     | ACTIVE     |             |
| 020                         | BUCHANAN PS                | BUCHANAN & FRANKLIN      | OR               | 41                                    | 3.65                            | 980                                       | ACTIVE     |             |
| 022                         | FOURTH ST PS               | FOURTH & MAIN            | OR               | 13                                    | 1.15                            | 570                                       | ACTIVE     |             |
| 023                         | ORI @ 4th ST PS            | FOURTH & MAIN            | OR               | 3                                     | 1.33                            | 280                                       | ACTIVE     |             |
| 026                         | CRD 6th & BROADWAY         | 6th & BROADWAY           | OR               | 0                                     | 0.00                            | 0                                         | ACTIVE     |             |
| 027                         | CRD 7th & BROADWAY         | 7th & BROADWAY           | OR               | 0                                     | 0.00                            | 0                                         | ACTIVE     |             |
| 028                         | CRD 6th & YORK             | 6TH & YORK               | OR               | 4                                     | 1.00                            | 20                                        | ACTIVE     |             |
| 029                         | CRD 8th & YORK             | 8th & YORK               | OR               | 24                                    | 1.50                            | 120                                       | ACTIVE     |             |
| 030                         | CRD 9th & YORK "A"         | 9th & YORK               | OR               | 17                                    | 1.17                            | 80                                        | ACTIVE     |             |
| 031                         | CRD 6th & BRECKINRIDGE     | 6th & BRECKINRIDGE       | OR               | 0                                     | 0.00                            | 0                                         | ACTIVE     |             |
| 032                         | CRD 4th & BRECKINRIDGE     | 4th & BRECKINRIDGE       | OR               | 0                                     | 0.00                            | 0                                         | ACTIVE     |             |
| 033                         | CRD ON YORK E OF 4th       | ON YORK E OF 4th         | OR               | 2                                     | 1.00                            | 6                                         | ACTIVE     |             |
| 034                         | CRD 4th & YORK             | 4th & YORK               | OR               | 35                                    | 1.82                            | 40                                        | ACTIVE     |             |
| 035                         | CRD 2nd & BROADWAY NO 1    | 2nd & BROADWAY           | OR               | 0                                     | 0.00                            | 0                                         | ACTIVE     |             |
| 036                         | CRD 3rd & BROADWAY         | 3rd & BROADWAY           | OR               | 12                                    | 1.08                            | 20                                        | ACTIVE     |             |
| 038                         | CRD 5th & BROADWAY         | 5th & BROADWAY           | OR               | 2                                     | 1.00                            | 2                                         | ACTIVE     |             |
| 049                         | PRESTON ST                 | PRESTON N OF JACKSON     | OR               |                                       |                                 | Eliminated                                | ELIMINATED | CSO Plugged |
| 050                         | 12th STREET                | 12th ST N OF MAIN        | OR               | 34                                    | 4.23                            | 200                                       | ACTIVE     |             |
| 051                         | 11th STREET                | 11th ST N OF MAIN        | OR               | 9                                     | 1.11                            | 40                                        | ACTIVE     |             |
| 052                         | 10th STREET                | 10th ST N OF MAIN        | OR               | 8                                     | 1.25                            | 60                                        | ACTIVE     |             |
| 053                         | 8th STREET                 | 8th ST N OF MAIN         | OR               | 32                                    | 1.75                            | 170                                       | ACTIVE     |             |
| 054                         | 7th STREET                 | 7th ST N OF MAIN         | OR               | 18                                    | 2.38                            | 50                                        | ACTIVE     |             |
| 055                         | 6th STREET                 | 6th ST N OF MAIN         | OR               | 18                                    | 1.33                            | 150                                       | ACTIVE     |             |
| 056                         | 5th STREET                 | 5th ST N OF MAIN         | OR               | 33                                    | 2.93                            | 130                                       | ACTIVE     |             |
| 057                         | FIRST STREET OVFL WEIR     | 1st & MAIN               | OR               | 0                                     | 0.00                            | 0                                         | ACTIVE     |             |
| 058                         | PRESTON ST OVFL WEIR       | PRESTON & MAIN           | OR               | 22                                    | 2.36                            | 230                                       | ACTIVE     |             |
| 062                         | LOGAN COMPANY              | N OF BUCHANAN PS         | OR               | 47                                    | 9.74                            | 1,030                                     | ACTIVE     |             |
| 104                         | SW PKWY SEWER @ BROADWAY   | SW PKWY & BROADWAY       | OR               | 21                                    | 1.90                            | 290                                       | ACTIVE     |             |
| 105                         | WESTERN OUTFALL @ BROADWAY | BROADWAY @ SW PKWY       | OR               | 82                                    | 6.26                            | 4,280                                     | ACTIVE     |             |
| 150                         | 8th ST @ COMMON PLACE      | 8th ST & COMMON PLACE    | OR               | 49                                    | 2.42                            | 80                                        | ACTIVE     |             |
| 155                         | ROWAN ST @ 12th ST         | ROWAN & 12th             | OR               | 4                                     | 1.25                            | 10                                        | ACTIVE     |             |
| 156                         | 6th & WASHINGTON SAN DIV   | WASHINGTON W OF 6th      | OR               | 0                                     | 0.00                            | 0                                         | ACTIVE     |             |
| 160                         | SEWER IN ALLEY SAN DIV     | 1ST ST BTW MAIN & MARKET | OR               | 22                                    | 1.45                            | 10                                        | ACTIVE     |             |
| 161                         | MARKET ST SAN DIV          | FIRST & MARKET           | OR               | 16                                    | 2.31                            | 10                                        | ACTIVE     |             |
| 172                         | ADAMS STREET               | ADAMS ST & I-64          | OR               | 14                                    | 1.21                            | 10                                        | ACTIVE     |             |
| 178                         | CRD 9th & YORK "B"         | 9th & YORK               | OR               | 5                                     | 1.00                            | 20                                        | ACTIVE     |             |

# APPENDIX B

## SUMMARY OF WET WEATHER COMBINED OVERFLOWS STATUS THROUGH JUNE 2007

| CSO NO. | CSO NAME                 | LOCATION              | RECEIVING STREAM | NUMBER OF OVERFLOW INCIDENTS (NO./YR) | AVG. DURATION OF OVERFLOW (HRS) | AVG VOLUME PER INCIDENT (1000 G/INCIDENT) | STATUS     |                       |
|---------|--------------------------|-----------------------|------------------|---------------------------------------|---------------------------------|-------------------------------------------|------------|-----------------------|
| 181     | CRD 2nd & BROADWAY NO 2  | 2nd & BROADWAY        | OR               | 14                                    | 1.21                            | 20                                        | ACTIVE     |                       |
| 189     | NORTHWESTERN SAN DIV     | SHAWNEE PARK FLOOD PS | OR               | 54                                    | 8.59                            | 10,240                                    | ACTIVE     |                       |
| 190     | SEVENTEENTH ST SAN DIV   | 17th ST & NW PKWY     | OR               | 36                                    | 3.52                            | 290                                       | ACTIVE     |                       |
| 191     | ALGONQUIN PKWY SAN DIV   | SOUTHWESTERN PS       | OR               | 14                                    | 1.21                            | 290                                       | ACTIVE     |                       |
| 192     | CRD S 6th & GARLAND      | 6th & GARLAND         | OR               | 14                                    | 1.21                            | 10                                        | ACTIVE     |                       |
| 193     | CRD S 6th & KENTUCKY     | 6th & KENTUCKY        | OR               | 14                                    | 1.21                            | 10                                        | ACTIVE     |                       |
| 194     | CRD S OAK W OF 4th       | OAK ST W OF 4th ST    | OR               | 0                                     | 0.00                            | 0                                         | ACTIVE     |                       |
| 195     | CRD S 4th & OAK          | 4th & OAK             | OR               | 0                                     | 0.00                            | 0                                         | ACTIVE     |                       |
| 196     | CRD S 3rd & OAK          | 3rd & OAK             | OR               | 58                                    | 3.22                            | 20                                        | ACTIVE     |                       |
| 197     | CRD S 3rd S OF OAK       | 3rd ST S OF OAK ST    | OR               | 33                                    | 1.81                            | 10                                        | ACTIVE     |                       |
| 198     | CRD S 3rd & ORMSBY       | 3rd & ORMSBY          | OR               | 57                                    | 2.66                            | 30                                        | ACTIVE     |                       |
| 199     | CRD S 3rd N OF MAGNOLIA  | 3rd ST N OF MAGNOLIA  | OR               | 11                                    | 1.18                            | 1                                         | ACTIVE     |                       |
| 200     | CRD S 3rd & MAGNOLIA     | 3rd & MAGNOLIA        | OR               | 31                                    | 1.54                            | 8                                         | ACTIVE     |                       |
| 201     | CRD S 5th & KENTUCKY     | 5th & KENTUCKY        | OR               | 27                                    | 2.70                            | 10                                        | ACTIVE     |                       |
| 202     | CRD S ORMSBY W OF 3rd    | ORMSBY W OF 3rd ST    | OR               | 19                                    | 1.15                            | 4                                         | ACTIVE     |                       |
| 203     | CRD S 4th & ORMSBY       | 4th & ORMSBY          | OR               | 0                                     | 0.00                            | 0                                         | ACTIVE     |                       |
| 204     | CRD S 5th & BRECKINRIDGE | 5th & BRECKINRIDGE    | OR               |                                       |                                 | Eliminated                                | ELIMINATED | CSO Plugged - 5/19/00 |
| 207     | 2nd & JEFFERSON          | 2ND & JEFFERSON       | OR               | 0                                     | 0.00                            | 0                                         | ACTIVE     |                       |
| 208     | 12th & JEFFERSON         | 12th & JEFFERSON      | OR               | 0                                     | 0.00                            | 0                                         | ACTIVE     |                       |
| 210     | 45th STREET-GREENWOOD    | S OF 45th & WINNROSE  | OR               | 54                                    | 3.96                            | 390                                       | ACTIVE     |                       |
| 211     | MAIN DIVERSION STRUCTURE | WAYNE SUPPLY          | OR               | 43                                    | 5.72                            | 11,900                                    | ACTIVE     |                       |

# APPENDIX B

## SUMMARY OF WET WEATHER COMBINED OVERFLOWS STATUS THROUGH JUNE 2007

| CSO NO.                          | CSO NAME                      | LOCATION                       | RECEIVING STREAM | NUMBER OF OVERFLOW INCIDENTS (NO./YR) | AVG. DURATION OF OVERFLOW (HRS) | AVG VOLUME PER INCIDENT (1000 G/INCIDENT) | STATUS     |                        |
|----------------------------------|-------------------------------|--------------------------------|------------------|---------------------------------------|---------------------------------|-------------------------------------------|------------|------------------------|
| <b>BEARGRASS CREEK WATERSHED</b> |                               |                                |                  |                                       |                                 |                                           |            |                        |
| 018                              | NIGHTINGALE PS                | NIGHTINGALE & SFBGC            | SF BGC           | 1                                     | 29.00                           | 640                                       | ACTIVE     |                        |
| 065                              | LAMPTON STREET                | LAMPTON & SWAN                 | SF BGC           |                                       |                                 | Eliminated                                | ELIMINATED | CSO Plugged            |
| 080                              | PAYNE STREET                  | LEXINGTON RD W OF PAYNE        | MF BGC           |                                       |                                 | Eliminated                                | ELIMINATED | Sewers Separated       |
| 081                              | LETTERLE                      | LETTERLE @ BGC PS              | SF BGC           |                                       |                                 | Eliminated                                | ELIMINATED | CSO Plugged 9/07/06    |
| 082                              | BGI AT BGC                    | BGC @ OMFT                     | SF BGC           | 12                                    | 1.25                            | 40                                        | ACTIVE     |                        |
| 083                              | BRENT ST & BROADWAY CONNECT   | BRENT & BROADWAY               | SF BGC           | 36                                    | 1.86                            | 70                                        | ACTIVE     |                        |
| 084                              | BRENT ST @ BGC                | BRENT ST @ BGC                 | SF BGC           | 15                                    | 1.20                            | 140                                       | ACTIVE     |                        |
| 086                              | PAYNE AT SPRING               | PAYNE ST @ SPRING ST           | MF BGC           | 0                                     | 0.00                            | 0                                         | ACTIVE     |                        |
| 087                              | BLUEHORSE                     | FRANKFORT @ BLUEHORSE          | SF BGC           |                                       |                                 | Eliminated                                | ELIMINATED | CSO Plugged 9/18/06    |
| 088                              | MELLWOOD AVE INT              | BROWNSBORO RD @ BGC            | SF BGC           | 0                                     | 0.00                            | 0                                         | ACTIVE     | Sewers Separated       |
| 091                              | SCHILLER AVE OVFL             | SCHILLER & HIGHLAND            | SF BGC           | 3                                     | 1.33                            | 20                                        | ACTIVE     |                        |
| 092                              | ST CATHERINE @ BGC            | SCHILLER BTW KY & ST CATHERINE | SF BGC           | 2                                     | 1.00                            | 15                                        | ACTIVE     |                        |
| 093                              | SPRING STREET                 | SPRING ST N OF MELLWOOD        | SF BGC           | 0                                     | 0.00                            | 0                                         | ACTIVE     |                        |
| 097                              | CANTONMENT SIPHON NO 2        | BGC S OF EASTERN PKWY          | SF BGC           | 56                                    | 6.98                            | 880                                       | ACTIVE     |                        |
| 106                              | ROYAL - NEFF                  | BACKYARD OF 1212 ROYAL         | SF BGC           | 11                                    | 1.09                            | 10                                        | ACTIVE     |                        |
| 108                              | REG NO 1 - NEWBURG            | NEWBURG @ TREVILIAN            | SF BGC           | 34                                    | 2.17                            | 1,160                                     | ACTIVE     |                        |
| 109                              | REG NO 2 - DEER PARK          | BEHIND O. L. O. P.             | SF BGC           | 19                                    | 1.15                            | 150                                       | ACTIVE     |                        |
| 110                              | REG NO 3 - GOSS AVE           | BGC S OF EASTERN PKWY          | SF BGC           | 32                                    | 1.90                            | 120                                       | ACTIVE     |                        |
| 111                              | EMERSON STREET SEWER          | BGC N OF EASTERN PKWY          | SF BGC           | 39                                    | 2.74                            | 240                                       | ACTIVE     |                        |
| 113                              | ELLISON AVENUE SEWER          | ELLISON & SCHILLER             | SF BGC           | 46                                    | 5.13                            | 170                                       | ACTIVE     |                        |
| 117                              | REG NO 11 - DRY RUN           | LOGAN & CALDWELL               | SF BGC           | 37                                    | 3.02                            | 2,230                                     | ACTIVE     |                        |
| 118                              | REG NO 15 - E BRDWY           | BROADWAY W OF BGC              | SF BGC           | 64                                    | 7.29                            | 2,650                                     | ACTIVE     |                        |
| 119                              | BRENT STREET SEWER            | BGC N OF BROADWAY              | SF BGC           | 27                                    | 1.62                            | 80                                        | ACTIVE     |                        |
| 120                              | PHOENIX HILL SEWER            | E OF BGC & S OF BAXTER         | SF BGC           | 24                                    | 1.50                            | 180                                       | ACTIVE     |                        |
| 121                              | REG NO 18 - GREEN ST          | LEXINGTON RD W OF BGC          | SF BGC           | 23                                    | 1.39                            | 130                                       | ACTIVE     |                        |
| 123                              | REG NO 20 - RUTH-SULGRV       | ON BGC OP SPRING VALLEY        | MF BGC           |                                       |                                 | Eliminated                                | ELIMINATED | CSO Plugged            |
| 125                              | REG NO 24 - GRINSTEAD DR      | GRINSTEAD @ I-64               | MF BGC           | 30                                    | 7.16                            | 610                                       | ACTIVE     |                        |
| 126                              | REG NO 26 - RAYMOND AVE       | I-64 & SAUNDERS LN             | MF BGC           | 6                                     | 1.16                            | 40                                        | ACTIVE     |                        |
| 127                              | ETLEY AVENUE                  | LEXINGTON RD OP ETLEY          | MF BGC           | 29                                    | 1.86                            | 450                                       | ACTIVE     |                        |
| 130                              | WEBSTER STREET                | S OF STORY OP WEBSTER          | SF BGC           | 26                                    | 3.53                            | 250                                       | ACTIVE     |                        |
| 131                              | REG NO 33 - MELWD & FRANKFORT | FRANKFORT AVE @ BGC            | SF BGC           | 3                                     | 1.33                            | 70                                        | ACTIVE     |                        |
| 132                              | REG NO 35 - BROWNSBORO        | BROWNSBORO & DRESCHER B        | MudF BGC         | 64                                    | 6.62                            | 1,830                                     | ACTIVE     |                        |
| 137                              | CALVARY CEMETARY              | CALVARY CEMETARY @ BGC         | SF BGC           | 19                                    | 1.63                            | 50                                        | ACTIVE     |                        |
| 140                              | LOCUST STREET                 | LOCUST SW OF SPRING            | MF BGC           | 28                                    | 1.92                            | 180                                       | ACTIVE     |                        |
| 141                              | BAXTER AVE @ BGC              | BAXTER AVE & BGC               | SF BGC           | 0                                     | 0.00                            | 0                                         | ACTIVE     |                        |
| 142                              | SBR LOGAN ST @ ST CATHERINE   | LOGAN & ST CATHERINE           | SF BGC           | N/A                                   | N/A                             | N/A                                       | ACTIVE     |                        |
| 143                              | KENTUCKY STREET BLOW-OFF      | OAK & BGC                      | SF BGC           |                                       |                                 | Eliminated                                | ELIMINATED | Plugged-CSO not needed |

# APPENDIX B

## SUMMARY OF WET WEATHER COMBINED OVERFLOWS STATUS THROUGH JUNE 2007

| CSO NO. | CSO NAME                  | LOCATION                     | RECEIVING STREAM | NUMBER OF OVERFLOW INCIDENTS (NO./YR) | AVG. DURATION OF OVERFLOW (HRS) | AVG VOLUME PER INCIDENT (1000 G/INCIDENT) | STATUS     |                  |
|---------|---------------------------|------------------------------|------------------|---------------------------------------|---------------------------------|-------------------------------------------|------------|------------------|
| 144     | VANCE ST REGULATOR        | S END OF VANCE & I-64        | MF BGC           | 27                                    | 3.70                            | 20                                        | ACTIVE     |                  |
| 145     | POINT PUMP STATION        | POINT PUMP STATION           | SF BGC           |                                       |                                 | Eliminated                                | ELIMINATED | CSO Plugged      |
| 146     | SNEADS BRANCH DIVERSION   | SWAN ST S OF BGC             | SF BGC           | 51                                    | 6.72                            | 1,790                                     | ACTIVE     |                  |
| 147     | SWAN STREET DIVERSION     | SWAN ST N OF BGC             | SF BGC           | 65                                    | 3.10                            | 20                                        | ACTIVE     | Sewers Separated |
| 148     | EASTERN PKWY DIVERSION    | EASTERN PKWY E OF BGC        | SF BGC           | 12                                    | 1.16                            | 20                                        | ACTIVE     |                  |
| 149     | DRY RUN DIVERSION         | KENTUCKY STREET & ST PAUL CT | SF BGC           | 19                                    | 8.26                            | 360                                       | ACTIVE     |                  |
| 151     | REG NO 5 - CASTLEWOOD     | BGC & CASTLEWOOD DELL        | SF BGC           | 64                                    | 7.40                            | 2,240                                     | ACTIVE     |                  |
| 152     | REG NO 7 - SOUTHEASTERN   | BGC & RUFER AVENUE           | SF BGC           | 42                                    | 2.88                            | 810                                       | ACTIVE     |                  |
| 153     | COOPER STREET             | LEXINGTON & COOPER           | SF BGC           | 53                                    | 3.37                            | 130                                       | ACTIVE     |                  |
| 154     | MELLWOOD @ SCHOEFFEL      | MELLWOOD AVE & EDWD POND BR  | MudF BGC         | 12                                    | 1.33                            | 120                                       | ACTIVE     |                  |
| 162     | BEALS BRANCH HW REG       | ON MFT S OF LEXINGTON        | MF BGC           |                                       |                                 | Eliminated                                | ELIMINATED | Overflow Plugged |
| 166     | BEALS BRANCH SAN DIV      | LEXINGTON RD & I-64          | MF BGC           | 31                                    | 1.83                            | 520                                       | ACTIVE     |                  |
| 167     | BROWNSBORO LAT NO 2       | BROWNSBORO & DRESCHER B      | MudF BGC         | 0                                     | 0.00                            | 0                                         | ACTIVE     |                  |
| 174     | SBR GOSS & BOYLE          | GOSS AVE & BOYLE ST          | SF BGC           | 18.0                                  | 1.2                             | 110                                       | ACTIVE     |                  |
| 179     | KENTUCKY ST SEWER OVFL    | KENTUCKY ST & ST PAUL CT     | SF BGC           | 14                                    | 1.21                            | 6                                         | ACTIVE     |                  |
| 180     | SBR ORMSBY AVE RELIEF     | ORMSBY & CLAY                | SF BGC           | 0                                     | 0.00                            | 0                                         | ACTIVE     |                  |
| 182     | SBR SHELBY & BURNETT      | BURNETT W OF SHELBY ST       | SF BGC           | 38                                    | 2.00                            | 290                                       | ACTIVE     |                  |
| 183     | SBR ALEXANDER & KESWICK   | ALEXANDER & KESWICK          | SF BGC           | 0                                     | 0.00                            | 0                                         | ACTIVE     |                  |
| 184     | SBR FETTER & ALEXANDER    | FETTER & ALEXANDER           | SF BGC           | 14                                    | 1.21                            | 20                                        | ACTIVE     |                  |
| 185     | SBR SHELBY & KESWICK      | SHELBY & KESWICK             | SF BGC           | 23                                    | 1.34                            | 50                                        | ACTIVE     |                  |
| 186     | SBR LOGAN & OAK           | LOGAN & OAK                  | SF BGC           | 0                                     | 0.00                            | 0                                         | ACTIVE     |                  |
| 187     | SBR SHELBY & CAMP         | SHELBY & CAMP                | SF BGC           | 0                                     | 0.00                            | 0                                         | ACTIVE     |                  |
| 188     | SBR SHELBY & CLAY         | SHELBY & CLAY                | SF BGC           | 0                                     | 0.00                            | 0                                         | ACTIVE     |                  |
| 205     | SBR MORGAN STREET RELIEF  | MORGAN & HOERTZ              | SF BGC           | 0                                     | 0.00                            | 0                                         | ACTIVE     |                  |
| 206     | CHEROKEE PARK @ SPRING DR | CHEROKEE RD & SPRING DR      | MF BGC           | 63                                    | 10.50                           | 1,410                                     | ACTIVE     |                  |
| 209     | CHEROKEE PK @ PARK BD RD  | CHEROKEE PK @ PARK BD RD     | MF BGC           |                                       |                                 | Eliminated                                | ELIMINATED | Sewers Separated |

TOTAL ACTIVE CSOs = 111

### Notes:

This information was developed through computer model simulations processed on March 10, 2004. It is NOT measured data.

The rainfall data utilized as input was an average rainfall year developed through a statistical analysis evaluating 54 years of rainfall data (1948 to 2002) for Jefferson County, KY.

The model simulation was done assuming the peak capacity at MFWTP equal to 350 mgd. However, sustainability of 350 mgd has not yet been proven.

Summary updated to show the elimination of CSO 209 (closed 9/30/05).

OR - Ohio River

SF-BGC - South Fork of Beargrass Creek

MF-BGC - Middle Fork of Beargrass Creek

L-BGC - Lower Beargrass Creek

SBR - Sneads Branch Relief Sewer

CRD - Central Relief Drain

|                 |  |
|-----------------|--|
| CSO Eliminate   |  |
| Sewer Separated |  |

## **APPENDIX C**

### **CSO Flow Monitoring**

Note: The CSO flow information was recorded by MSD flow monitors.



**April 1, 2007 through June 30, 2007**

[illegible]

**April 1, 2007 through June 30, 2007**

[illegible]















**April 1, 2007 through June 30, 2007**

[illegible]

















**April 1, 2007 through June 30, 2007**

[illegible]

**April 1, 2007 through June 30, 2007**

[illegible]

**April 1, 2007 through June 30, 2007**

[illegible]





**April 1, 2007 through June 30, 2007**

CSO #118 CSO #127 CSO #132 CSO #140

[illegible]







**April 1, 2007 through June 30, 2007**

**O #118   CSO #127   CSO #132   CSO #140**

[illegible]

