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ENERGY AND ENVIRONMENT CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION
DIVISION OF WATER
200 FAIR OAKS LANE
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LEONARD K. PETERS
SECRETARY

FACT SHEET

**KENTUCKY POLLUTANT DISCHARGE ELIMINATION SYSTEM
PERMIT TO DISCHARGE FROM A LARGE MUNICIPAL SEPARATE STORM SEWER SYSTEM INTO WATERS OF
THE COMMONWEALTH**

KPDES No.: KYS000001 Permit Writer: Abigail Rains Date: June 7, 2011
AI No.: 8235

1. **SYNOPSIS OF APPLICATION**

a. Name and Address of Applicants

Louisville and Jefferson County
Metropolitan Sewer District
700 West Liberty Street
Louisville, Kentucky 40203-1911

Louisville - Jefferson County
Metropolitan Government
600 Metro Hall
Louisville, Kentucky 40202

City of Shively
3920 Dixie Highway
Shively, Kentucky 40216

City of St. Matthews
3941 Grandview Avenue
Louisville, Kentucky 40207

City of Jeffersontown
10146 Watterson Trail
Jeffersontown, Kentucky 40299

City of Anchorage
City Hall, 1306 Evergreen Road
Anchorage, Kentucky 40223

b. Description of Applicant's Operation

The applicant operates a large municipal separate storm sewer system through such controls as legal authority, source identification, discharge characterization, management program, assessment of controls, and fiscal analysis.

2. **PERMIT DURATION**

Five (5) years

3. **THE ADMINISTRATIVE RECORD**

The Administrative Record, including application, draft permit, fact sheet, public notice, comments received, and additional information is available for review at the Division of Water at 200 Fair Oaks Lane, Frankfort, Kentucky 40601.

4. **CONTACT**

Abigail Rains
KPDES Permit Writer
(502) 564-8158, extension 4891

5. **ANTIDEGRADATION**

The purpose of Kentucky's Water Quality Standards (401 KAR 10:026 through 401 KAR 10:031) is to safeguard the surface waters of the Commonwealth for their designated uses, to prevent the creation of new pollution of these waters, and to abate existing pollution. Kentucky's Antidegradation Policy regulation requires that "where the quality of surface waters exceeds that necessary to support propagation of fish, shellfish, wildlife and recreation in and on the water, that quality shall be maintained and protected unless the cabinet finds, after full satisfaction of the intergovernmental coordination and public participation provisions of the cabinet's continuing planning process, that allowing lower water quality is necessary to accommodate important economic or social development in the area in which the waters are located. With regards to point source discharges, water quality shall be maintained and protected in high quality waters according to the procedures specified in 401 KAR 10:030, Section 1(2)(b) or (3)(b)," Kentucky's Antidegradation Implementation Policy regulation.

401 KAR 10:030 Section 1(3)(b)d. states that for an individual MS4 permit issued pursuant to 401 KAR 5:050 through 5:080, two options may be exercised: 1) if the activity permitted by the MS4 permit may result in a lowering of water quality, the cabinet shall describe in the Fact Sheet how the MS4 permit complies with the alternatives analysis and socioeconomic demonstration requirements of the antidegradation policy implementation regulation; or 2) if the requirements and conditions in the MS4 permit will prevent a lowering of water quality, the cabinet shall describe in the Fact Sheet that the MS4 permit complies with the antidegradation policy established in 401 KAR 10:029 Section 1.

The Division of Water has determined that for new or expanded discharges from the MS4 systems covered under this individual MS4 permit the antidegradation requirements of 401 KAR 10:029 Section 1 are satisfied; the Division of Water has concluded that the requirements and conditions of this MS4 permit are sufficiently protective to prevent lowering of water quality in high quality and exceptional waters that exist in Jefferson County for new or expanded discharges occurring from the MS4. Because of the protections afforded by this and other related permits and controls, the division has concluded that no lowering of water quality will occur as a result of runoff from the MS4 communities covered by this permit.

The Division of Water recognizes that MS4 permits are subject to the standard of "maximum extent practicable" (MEP) which evolves for MS4 communities over time. Successive issuances of MS4 permits reflect the improvements in technologies and the communities' ability to implement the MS4 program. This permit, the requirements within which define what the Division of Water considers MEP for these MS4 communities, includes several new requirements that will result in improved quality of stormwater runoff and water quality. These incremental improvements in the permit/MEP are outlined below.

Public Education, Outreach, Participation and Learning Experiences (PEOPLE)

- MSD is required to attend and participate in City Council meetings to address resident's concerns and questions.
- MSD is required to provide speakers for various community stakeholder events, at least six per year, that could benefit from environmental stormwater information.
- MSD is required to perform a statistical survey to gauge the population's knowledge of stormwater quality issues and establish a baseline to assess the changes in individual behaviors, thereby measuring outreach program effectiveness. The permittee is required to utilize the survey results to focus and prioritize PEOPLE activities.
- MSD is required to attend Homebuilders Association land development committee meetings to address concerns and comments from the local homebuilder professionals and provide information regarding changes in procedures, checklist, regulations, etc.
- MSD shall implement series of projects aimed at demonstrating the

feasibility and effectiveness of green infrastructure including, but not limited to rain gardens, green roofs, pervious pavement, bio-swales and infiltration. MSD is required to prioritize, select and implement projects to support a variety of residential, non-residential, professional and non-professional audiences in MSD and co-permittee areas. Where feasible MSD is required collaborate and/or cooperate with local government agencies, schools, co-permittees and/or private properties with significant use and exposure to the general public.

- MSD is required to develop a web site-based system to notify the public and affected stakeholders of proposed major program changes that will significantly impact stormwater runoff quality, negatively or positively. The public is to be given the opportunity to informally comment on proposed changes and these comments will be summarized and made available on the website.

Illicit Discharge Detection and Elimination (IDDE)

- This MS4 permit requires that the IDDE program be initiated throughout the permitted area of Jefferson County (cf. previously the IDDE program extended only to Louisville proper).
- MSD is required to conduct dry-weather screenings of representative outfalls. The recommended level of effort is twenty percent (20%) of the major outfalls per year. However, all the major outfalls shall be addressed within the permit term.
- MSD is required to conduct dry-weather screenings at ninety percent (90%) of large industrial outfalls of industrial facilities once every two years.
- After the initial follow-up to insure the illicit discharge has been mitigated, MSD is required to re-evaluate outfalls that were previously found to have had contaminated discharges to determine the current status of those outfalls. (At least 25% of suspect outfalls each year).
- MSD is required to continue to maintain the GIS Louisville Jefferson County Information Center (LOJIC) layers constituting its storm sewer system map, showing the location of all known major outfalls, and the names and location of all waters of the Commonwealth that receive discharges from those outfalls. (Outfalls are now on GIS system; this was not required in the previous permit.)

Industrial Stormwater Program

An "Industrial Stormwater Program" section, which is entirely new to this issuance of the MSD MS4 permit has been added and includes the following requirements.

- MSD is required to develop and implement an industrial stormwater program to control discharges of pollution to the MS4 from industrial and high-risk commercial facilities.
- MSD is required to develop an inventory of all potential industrial and commercial sites/sources that could contribute substantial pollutant load to the MS4.
- MSD is required to identify risk factors to define facilities as "High Risk", "Moderate Risk" and "Low Risk" which is to be included in the Annual Report.
- MSD is required to compare the datasets for local Approved Hazardous Materials (spill) Prevention Control (HMPC) Plan Facilities to the facility data from local and state environmental and emergency response agencies to address the completeness and accuracy of High Risk Industrial Facilities identification.
- MSD is required to update the list of High Risk Industrial Facilities (HRIFs) at least twice over the permit term, to account for the most recently available North American Industry Classification System (NAICS), Standard Industrial Classification (SIC) codes, Toxic Release Inventory (TRI) data, MSD's HMPC data and MSD's pretreatment program data with the goal of establishing a tiered list of industries to support priorities in MSD's industrial facility inspection program.
- MSD is required to inspect high priority facilities at least once every

three (3) years and moderate risk facilities at least once every five (5) years.

- MSD is required to mandate that High Risk industrial and commercial facilities select, install, implement, and maintain control measures that promote prevention and source control for discharge of applicable pollutants of concern.
- MSD is required to develop criteria or procedures for site inspections and enforcement including criteria to address how the MS4 will use enforcement authorities to ensure compliance with the industrial program requirements. The permittee shall enforce the procedures outlined in Section 95.11 of the Louisville Metro Code of Ordinances relating to hazardous materials.
- MSD is required to develop and distribute outreach materials (brochure, fact sheets, etc.) to HMPC Facilities and other commercial operations of concern to promote illicit discharge elimination awareness. Tracking of distribution shall be reported in the annual report.

Construction Site Storm Water Runoff Control

- MSD is required to assess existing ordinances and regulations to identify changes needed to account for changes in standard of care (cf. KDOW General Construction Permit KYR10), changes in technology, changes to development management process and related program needs in satisfaction 40 CFR 122.26(b)(15)(i) for construction activities that result in a land disturbance of greater than or equal to one acre and construction activity disturbing less than one acre that is part of a larger common plan of development that would disturb one acre or more.
- MSD is required to conduct construction stormwater inspections monthly or after 0.5 inch rain events and to conduct less frequent MSD oversight inspections of at least 90% of active sites. (cf. The previous permit did not specify inspection schedules.)
- MSD is required to institute procedures for receiving Stormwater Pollution Prevention Plans (SWPPPs) for qualifying construction sites within six months of the effective date of the permit.
- New construction activities, the initial source of most new or expanded discharges, are addressed by both state and local stormwater construction permits. These new construction sites are subject to antidegradation consideration under the stormwater construction general permit (KYR10) and antidegradation review under an individual stormwater construction and other applicable KPDES permits. This MS4 permit requires, at a minimum, that the local stormwater construction permit program must be as protective as the state general permit for Stormwater Construction Runoff (KYR10).
- This MS4 permit requires the development and adoption by ordinance or other regulatory mechanism of an on-site stormwater runoff treatment standard for all new development and redevelopment projects. The local standard must require, in combination or alone, water-quality control measures that are designed, built and maintained to infiltrate, evapo-transpire, harvest and re-use stormwater runoff. The minimum standard must be based on the equivalent runoff produced from an 80th percentile precipitation event (e.g. ~0.75 inches).

Good Housekeeping and Pollution Prevention for Municipal Operations

The following are new requirements that specify details of the Good Housekeeping and Pollution Prevention for Municipal Operations program:

- Maintenance of public streets, roads and highways, including pollutants discharged as a result of deicing application and storage practices must implement alternative measures that might benefit stormwater quality from runoff from roadway and salt bin storage locations and will not affect public safety.
- MSD is required to certify MSD employees applying pesticides under the Kentucky Dept. of Agriculture's FIFRA pesticide management registration and certification program. MSD is required to develop and maintain a list of pesticides used and stored, including storage locations. (cf. the previous permit did not require pesticide management registration and

certifications).

- MSD is required to utilize the facility SWPPP Committee to perform routine training of key SWPPP issues regarding at least three (3) SWPPP issues annually and summarize training and attendance for the annual report.

The requirements in this permit represent the Division of Water's determination of MEP for the Louisville MSD and Jefferson County communities covered by this permit. This includes MEP for public education and outreach, IDDE, Industrial Stormwater program, Stormwater Construction, Post-construction Requirements, and Good Housekeeping and Pollution Prevention. The Division of Water recognizes that MS4 permits and MEP evolve and improve over successive iterations of said permits. This permit represents a significant improvement in MEP and MS4 stormwater control, particularly in the areas of stormwater construction and post-construction runoff.

6. BMPs and TOTAL MAXIMUM DAILY LOADS (TMDLs)





For waters with an approved or established TMDL, the permittee shall evaluate its Best Management Practices in the SWQMP with respect to MS4 discharges for pollutants of concern to impaired waterbodies listed in the Division of Water publication entitled, "2008 Integrated Report to Congress on the Condition of Water Resources in Kentucky Volume I. 305(b) Report", and its successor publications, found at www.water.ky.gov/sw/swmonitor/305b, to assess their effectiveness in achieving pollutant reductions in impaired water bodies. The evaluation of BMPs may be conducted on a watershed basis or on a point source basis. A list of approved or established TMDLs can be found at <http://www.water.ky.gov/sw/tmdl/Approved+TMDLs.htm>. Upon completion of the evaluation, in watersheds with approved or established TMDL(s), the SWQMP BMPs will be designed to the Maximum Extent Practicable and selected to address the Waste Load Allocation based upon the 2002 Memo from EPA which states in light of 33 U.S.C. § 1342 (p) (3) (B) (iii), EPA recommends that for NPDES-regulated municipal and small construction stormwater discharges should be expressed as BMPs or other similar requirements, rather than numeric effluent limitations. Based upon the evaluation completion, as necessary, the permittee shall modify the SWQMP, per the routine annual updates described in II.C, to improve the effectiveness of the BMPs.

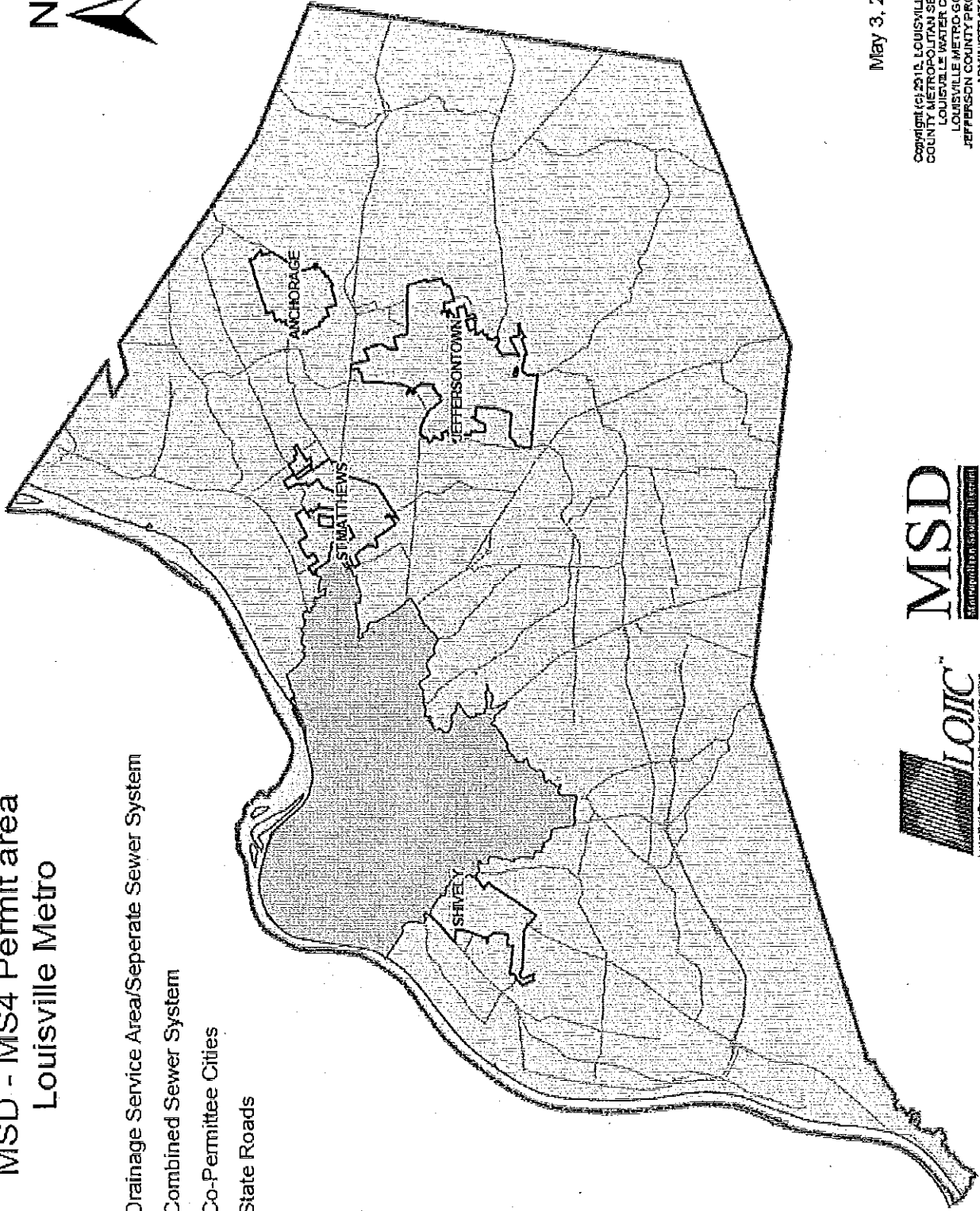
7. PUBLIC NOTICE INFORMATION

Please refer to the attached Public Notice for details regarding the procedures for a final permit decision, deadline for comments, and other information required by 401 KAR 5:075, Section 4(2)(e).

MSD - MS4 Permit area Louisville Metro



-  Drainage Service Area/Separate Sewer System
-  Combined Sewer System
-  Co-Permittee Cities
-  State Roads



May 3, 2010

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Map Prepared by MSD GIS Services and Records

KPDES



KENTUCKY POLLUTANT
DISCHARGE ELIMINATION
SYSTEM

PERMIT

Permit No.: KYS000001
AI No.: 8235

**AUTHORIZATION TO DISCHARGE UNDER THE
KENTUCKY POLLUTANT DISCHARGE ELIMINATION SYSTEM**

Pursuant to Authority in KRS 224,

Louisville and Jefferson County
Metropolitan Sewer District
700 West Liberty Street
Louisville, Kentucky 40203-1911

Louisville - Jefferson County
Metropolitan Government
600 Metro Hall
Louisville, Kentucky 40202

City of Shively
3920 Dixie Highway
Shively, Kentucky 40216

City of St. Matthews
3941 Grandview Avenue
Louisville, Kentucky 40207

City of Jeffersontown
10146 Watterson Trail
Jeffersontown, Kentucky 40299

City of Anchorage
City Hall, 1306 Evergreen Road
Anchorage, Kentucky 40223

is authorized to discharge stormwater runoff from a large municipal separate storm sewer system (MS4) to receiving waters of the Commonwealth in accordance with requirements and other conditions set forth in PARTS I, II, III, and IV hereof. The permit consists of this cover sheet, a table of contents, and PART I 3 pages, PART II 61 pages, PART III 3 pages, and PART IV 1 page.

This permit shall become effective on August 1, 2011.

This permit and the authorization to discharge shall expire at midnight,
July 31, 2016.

June 7, 2011
Date Signed

Sandra L. Gruzesky, Director
Division of Water

DEPARTMENT FOR ENVIRONMENTAL PROTECTION
Division of Water, 200 Fair Oaks Lane, Frankfort, Kentucky 40601

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PART I. APPLICABILITY

A. PERMIT COVERAGE AREA AND RESPONSIBILITIES

1. Permit Coverage Area

This permit applies to Louisville-Jefferson County Metropolitan Sewer District's and its co-permittee's municipal separate storm sewer system (MS4) conveyances and outfalls to the waters of the Commonwealth throughout Jefferson County, Kentucky due to Louisville's status as a merged urban-county government, with exception for the combined sewer system area cover by a separate KPDES permit. The following programs do not apply outside "Urban Areas" as defined in the SWQMP: Illicit Discharge Detection and Elimination (except as associated with the Hazardous Material Spill Prevention Control industrial sites). The following parties are subject to the limits and conditions of the permit.

Permittee: Louisville-Jefferson County Metropolitan Sewer District (MSD)

Co-permittees: Louisville Metropolitan Government
City of Shively
City of St. Matthews
City of Jeffersontown
City of Anchorage

2. Responsibilities

The following serves as an outline of principles for the establishment of an inter-local agreement and the identification of activities provided MSD (paragraph 1) for which the co-permittees will provide applicable compensation to MSD. In the absence of an inter-local agreement, it shall be assumed that each co-permittee shall be responsible for the full duties (including those in paragraph 1) and responsibilities enumerated in the MS4 permit tables for their respective communities/departments.

1. In carrying out the obligations established and set forth in the MS4 permit, MSD has the sole responsibility for the following duties and obligations on a countywide basis on behalf of the co-permittees:
 - Construction oversight including plan review and site inspection; Administration of the Erosion Prevention and Sediment Control Ordinance and the Floodplain Management Ordinance;
 - Hazardous material plans and inspections for qualifying industrial and commercial properties;
 - Administration of the Hazardous Materials Ordinance;
 - Monitoring program and related laboratory analysis;
 - Investigation and enforcement upon potential illicit discharges through Administration of applicable sections of the Wastewater & Stormwater Discharge Regulations;
 - Annual compliance demonstration report preparation for MSD activities and collection of co-permittee portions; and
 - Education and outreach to the general Louisville Metro area. MSD will lead selected specific elements including green infrastructure outreach and education efforts. MSD will provide opportunity for input from co-permittees.
2. In carrying out the obligations established and set forth in the MS4 permit, the Co-permittee has the sole responsibility for the following duties and obligations within its jurisdictional boundaries:

- Construction oversight in addition to that provided through Louisville MSD;
- Drainage system and outfall mapping;
- Implement education and outreach at the applicable levels of neighborhood and local community that compliment the education and outreach provided by MSD tailored to local waterbodies pollutants of concern;
- Drainage system operation and maintenance;
- Inspection, operation, maintenance and/or applicable certification that permanent (also known as post-construction) water quality devices, controls, and management practices are operating effectively;
- Road maintenance including snow and ice removal related stormwater management activities;
- Fleet and facility stormwater pollution prevention plans and their implementation;
- Report and refer potential illicit discharges observations by municipal employees or other reports from residents to MSD for investigation and potential enforcement;
- Preparation and timely submittal of annual compliance demonstration report to MSD according to agreed upon formats and standards; and
- Louisville Metropolitan Government has sole responsibility for administration of other codes and ordinances including, but not limited to, solid waste management, animal control and land development

B. AUTHORIZED DISCHARGES

The permittees identified in Section A of this Part are authorized to discharge stormwater runoff from its MS4 to waters of the Commonwealth in accordance with requirements and other conditions set forth in this Section.

1. Limitations

The following discharges are not authorized by this permit:

- a. Discharges of non-stormwater, except where such discharges are in compliance with a separate KPDES permit (or the discharger has applied for such a permit) or where those discharges have been determined not to represent significant sources of pollution, consistent with state and federal regulations; and
- b. Discharges of materials resulting from a spill, except emergency discharges required to prevent imminent threat to human health or to prevent severe property damage, provided reasonable and prudent measures have been taken to minimize the impact of the discharges.

2. Cross-Connection between Sanitary Sewers and Storm Sewer/MS4 Prohibited

This permit shall not be construed to authorize the discharge of sanitary wastewater through cross connections or to authorize other illicit discharges through the Municipal Separate Storm Sewer System, except as provided in 401 KAR 5:065 (1)(b)(13).

3. Effluent Limitations

The effluent limit requirements of this permit are narrative. The permittee is

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Permit No.: KYS000001
AI No.: 8235

required to develop, implement, enforce and update, as needed, a Stormwater Quality Management Plan (SWQMP) which shall include controls intended to reduce the discharge of pollutants from its MS4 conveyances consistent with 40 CFR 122.34.

PART II. STORM WATER QUALITY MANAGEMENT PROGRAM

The permittee is required to develop, implement and enforce a Stormwater Quality Management Plan (SWQMP) which shall include controls intended to reduce the discharge of pollutants from its MS4 conveyances consistent with Section 402(p) of the Clean Water Act. These requirements shall be met using controls which may consist of a combination of best management practices (BMPs), control techniques and systems, design and engineering methods, public participation and education, and other appropriate provisions designed to limit the discharge of pollutants from the MS4 conveyances and which are environmentally beneficial and technically and economically feasible. The tables and requirements included in this part of the permit represent Maximum Extent Practicable (MEP).

A. LEGAL AUTHORITY

The permittee shall ensure legal authority to control discharges to and from those portions of the MS4 over which it has jurisdiction. This legal authority may be a combination of regulation, statute, ordinance, permit, contract, order, or inter-jurisdictional agreements between permittees with adequate existing legal authority to accomplish items 1-5 below:

1. To control the contribution of pollutants to the MS4 by stormwater discharges associated with industrial activity and the quality of stormwater discharged from sites of Industrial Activity;
2. To prohibit illicit discharges to the MS4;
3. To control the discharge of spills and the dumping or disposal of materials other than stormwater (e.g. industrial and commercial wastes, trash, used motor vehicle fluids, leaf litter, grass clippings, animal wastes, etc.) into the MS4;
4. To require compliance with conditions in regulation, ordinances, permits, contracts or orders; and,
5. To carry out all inspection, surveillance and monitoring procedures necessary to determine compliance and noncompliance with permit conditions including the prohibition on illicit discharges to the municipal separate storm sewer.

B. STORM WATER QUALITY MANAGEMENT PROGRAM

The stormwater quality management program (SWQMP) is an integral part of the overall watershed management plan, per 40 CFR 122.26(d)(2)(IV), which includes non-point sources, wastewater treatment point sources, and combined sewer overflow point sources. A comprehensive wet weather plan utilizing an integrated approach for prioritization and implementation is necessary to adequately address the watershed needs. Implementation of a program to effectively reduce pollutants (including floatables) in discharges from municipal separate storm sewers must include program elements that address public education, outreach, participation, and learning experiences, illicit discharge detection and elimination, construction site runoff control, post construction stormwater management, industrial monitoring and control, and good housekeeping and pollution prevention in municipal operations.

1. Public Education, Outreach, Participation and Learning Experiences
 - a. Continue the implementation and expansion of the public education program and conduct public outreach activities in the community that focus on impacts from stormwater discharges to water bodies and the steps that the public can take to reduce pollutants in stormwater runoff, per applicable state and federal requirements.
 - b. This measure includes continued compliance with state and local public notice requirements when implementing a public involvement/participation program. Activities may include representation on local stormwater management work groups, public hearings, education for volunteers

assisting with program coordination and monitoring efforts, per applicable state and federal regulations.

Compliance with these terms is achieved by implementing the program elements, as shown in Public Education, Outreach, Participation, and Learning Experiences (PEOPLE) Tables in Section F of this Part, unless inconsistent with other provisions of this permit.

2. Illicit Discharge Detection and Elimination

- a. Develop, if not already completed, implement, and enforce a program to detect and eliminate illicit discharges, that includes field screening such as dry weather screening and dry weather screening at industrial outfalls as described in the tables in Section F.;
- b. Develop, if not already completed, a storm sewer system map, showing the location of all known major outfalls, and the names and location of all waters of the Commonwealth that receive discharges from those outfalls;
- c. The permittee shall continue to effectively prohibit, through ordinance or other regulatory mechanism, non-stormwater discharges into the separate storm sewer system, define allowable non-stormwater discharges, and implement appropriate enforcement procedures and actions;
- d. Develop, if not already completed, and implement a plan to detect and address non-stormwater discharges, including illegal dumping, to the MS4 system;
- e. Continue to inform public employees, businesses, and the general public of hazards associated with illegal discharges and improper disposal of waste; and
- f. If in the course of implementing the SWQMP it is demonstrated that at any location sanitary sewer lines exfiltrate and such exfiltration migrates to the Municipal Separate Storm Sewer System, the permittee shall continue to promptly evaluate, prepare and implement a response plan to correct the sanitary sewer exfiltration problem.

Compliance with these terms is achieved by implementing the program elements, as shown in Illicit Discharge Detection and Elimination (IDDE) Tables in Section F of this Part, unless inconsistent with other provisions of this permit.

3. Industrial Stormwater Program

- a. Develop, if not already completed, and implement an industrial stormwater program to control discharges of pollution to the MS4 from industrial and high-risk commercial facilities.
- b. Develop, if not already completed, an inventory of all potential industrial and commercial sites/sources that could contribute substantial pollutant load to the MS4. This inventory shall include the name and address of the facility, contact person, and type of industry or commercial activities. This inventory shall be updated annually at a minimum and be made available to the Division of Water upon request.
- c. The permittee shall identify Risk Factors to define facilities as "High Risk", "Moderate Risk" and "Low Risk". This identification of facilities shall be completed and submitted with the Annual Report of Permit Year one.
- d. The permittee shall compare the datasets for local Approved Hazardous Materials (spill) Prevention and Controls (HMPC) Plan

facilities to the publicly available facility data from local and state environmental and emergency response agencies to address the completeness and accuracy of High Risk Industrial Facilities (HRIFs) identification.

- e. The permittee shall update the list of HRIFs at least twice over the permit term, to account for the most recently available North American Industry Classification System (NAICS), Standard Industrial Classification (SIC) codes, Toxic Release Inventory (TRI) data, MSD's HMPC data and MSD's pretreatment program data with the goal of establishing a tiered list of industries to support priorities in MSD's industrial facility inspection program.
- f. Starting in Permit Year two (2), and based on the results of the updated HRIF assessment, the permittee shall inspect high priority facilities at least once every three (3) years and moderate risk facilities at least once every five (5) years.
- g. The permittee shall require the High Risk industrial and commercial facilities to select, install, implement, and maintain control measures that promote prevention and source control for discharge of applicable pollutants of concern. This requirement may be addressed through the HMPC Plan and/or federal programs such as Spill Prevention, Control and Countermeasure (SPCC) Plan and/or the Groundwater Protection Plan (GPP) that are already implemented at the industrial and commercial facilities. Starting in Permit Year two (2), the Permittee shall inspect the high-risk industrial and commercial facilities on a prioritized frequency to ensure compliance with this measure, summarizing inspections performed annually.
- h. Within six months of the effective date of the permit, the permittee shall develop criteria or procedures for site inspections and enforcement including criteria to address how the MS4 will use enforcement authorities to ensure compliance with the industrial program requirements. The permittee shall enforce the procedures outlined in Section 95.11 of the Louisville Metro Code of Ordinances relating to hazardous materials.
- i. Starting in Permit Year two (2), the permittee shall develop and distribute outreach materials (brochure, fact sheets, etc.) to HMPC Facilities and other commercial operations of concern to promote illicit discharge elimination awareness. Tracking of distribution shall be reported in the annual report.

Compliance with these terms is achieved by implementing the program elements, as shown in Industrial Program Tables in Section F of this Part, unless inconsistent with other provisions of this permit.

4. Construction Site Storm Water Runoff Control

- a. Develop, if not completed, implement, and enforce a program to reduce pollutants in any stormwater runoff to the MS4 from Active Construction Sites.
- b. The program must include the development and implementation of, at a minimum:
 - (i) Requirements for construction site operators to implement appropriate erosion and sediment control best management practices (BMPs) that, at a minimum, shall be as protective as Kentucky's General Stormwater Permit for Construction Sites (KYR100000);
 - (ii) An ordinance or other regulatory mechanism to require erosion and sediment controls, as well as sanctions to ensure compliance;

- (iii) Requirements for construction site operators to implement appropriate erosion and sediment control best management practices (BMP);
- (iv) Procedures for site plan review which incorporate consideration of potential water quality impacts with the procedures outlined in Section 159.02 of the Louisville/Jefferson County Erosion Prevention and Sediment Control Ordinance to assess whether the plan includes measures that address potential water quality impacts from construction prior to authorization of land disturbance;
- (v) Procedures for receipt and consideration of information submitted by the public through regular customer service communications;
- (vi) Develop and implement criteria and procedures for site inspection and enforcement including a required effort for inspections being ninety percent (90) of active construction sites disturbing one acre or more and less than an one acre if part of a larger common plan of development shall be inspected monthly or after 0.5 inch rain events;
- (vii) A requirement to implement enforcement procedures outlined in Section 159.05 of the Louisville/Jefferson County Erosion Prevention and Sediment Control Ordinance, including an enforcement response plan;
- (viii) Develop and maintain an inventory of all active public and private construction sites that result in a total land disturbance of greater than or equal to one acre and less than one acre that is part of a larger common plan of development. Inventory should include the project's name, address, contact person, inspection dates, and any enforcement actions; and
- (ix) A requirement that discharges from construction sites to high quality waters will protect existing in-stream water uses consistent with Kentucky General Stormwater Permit for Construction Sites (KYR100000).

Compliance with these terms is achieved by implementing the program elements, as shown in Construction Site Stormwater Runoff Controls Tables in Section F of this Part, unless inconsistent with other provisions of this permit.

5. Post-Construction Storm Water Management in New Development and Redevelopment
- a. Develop, if not completed, implement, and enforce a program to address stormwater runoff from new development and redevelopment projects that disturb greater than or equal to one acre, including projects less than one acre that are part of a larger common plan of development. The program must ensure that controls are in place that would prevent or minimize pollutant loads from post-construction discharges to the MS4s.
 - b. Develop, if not completed, and implement post construction stormwater pollution control strategies, which include structural and/or non-structural best management practices (BMPs) to the maximum extent practicable.
 - c. Continue to use an ordinance or other regulatory mechanism to address post-construction runoff from new development and redevelopment projects.
 - d. Within 12 months of the effective date of this permit, develop and submit to the Division of Water, an on-site stormwater runoff quality treatment standard, to be adopted by ordinance or other regulatory mechanism for

all new development and redevelopment projects. The proposed local standard will require, in combination or alone, management measures that are designed, built and maintained to infiltrate, evapo-transpire, harvest and reuse stormwater runoff. The permittee shall develop a locally derived water-quality treatment standard that requires new development projects to implement controls to manage runoff through water-quality control measures. The standard shall be based, at a minimum, on an analysis of precipitation records to determine the equivalent surface depth of runoff (e.g. ~0.75 inches) produced from an 80th percentile precipitation event.

- e. The permittee shall conduct site plan reviews through procedures for reviewing development plans for compliance with stormwater management requirements.
- f. The permittee shall maintain an inventory and map of post-construction stormwater controls, including retention ponds, detention basins, and stormwater quality treatment facilities. The inventory should be updated annually.
- g. The permittee shall require all new development or redevelopment to establish and enter into a long-term maintenance agreement and maintenance plan approved management practices for property owners. Alternatively, the permittee may establish other enforceable mechanisms for requiring long-term maintenance of structural and non-structural BMPs. Such authorities shall allow the MS4, or its designee, to conduct inspections of the management practices and also account for transfer of responsibility in leases and/or deed transfers. The agreement shall also allow the MS4s, or its designee, to perform necessary maintenance or corrective actions neglected by the property owner/operator, and authority to recover costs from the property owner/operator when the owner/operator has not performed the necessary maintenance.

Compliance with these terms is achieved by implementing the program elements, as shown in Post-Construction Site Stormwater Runoff Controls Tables in Section F of this Part, unless inconsistent with other provisions of this permit.

5. Pollution Prevention/Good Housekeeping for Municipal Operations

- a. Develop, if not completed, and implement an operation and maintenance program that includes a training component and has the ultimate goal of preventing or reducing pollutant runoff from municipal operations. The permittee is encouraged to use training materials that are available from EPA, the state or other organizations. The permittee shall include training to prevent and reduce stormwater pollution from activities such as park and open space maintenance, fleet and building maintenance, new construction and land disturbances, and stormwater system maintenance.
- b. Maintenance of public streets, roads and highways, including pollutants discharged as a result of deicing application and storage practices must implement alternative measures that might benefit stormwater quality from runoff from roadway and salt bin storage locations and will not affect public safety.

Compliance with these terms is achieved by implementing the program elements, as shown in Good Housekeeping/Pollution Prevention at Municipal-Owned Operations Tables in Section F of this Part, unless inconsistent with other provisions of this permit.

6. Monitor and Control Pollutants in Storm Water Discharges

The permittee shall enhance and continue implementation and track monitoring

and sampling of the MS4, Waters of the Commonwealth of Kentucky. The program shall:

- a. Continue to provide the most accurate, reliable data practicable that can be used to determine efficacy of the MS4 SWQMP and other environmental improvement programs;
- b. Continue to provide trend analysis data to support long-term assessments of local waterways and program performance.

Compliance with these terms is achieved by implementing the program elements, as shown in Monitoring Programs Tables in Section F of this Part, unless inconsistent with other provisions of this permit.

7. Program Assessment and Reporting

The permittee shall continue to implement a system of assessing the performance of the MS4 program in terms of activities performed and outcomes generated, in both the short-term and long-term.

Compliance with these terms is achieved by implementing the program elements as shown in Program Assessment and Reporting Tables in Section F of this Part, unless inconsistent with other provisions of this permit.

C. SWQMP REVIEW AND MODIFICATION

1. The permittee shall perform an annual review of the current SWQMP in conjunction with preparation of the Annual Report.
2. The permittee may modify the SWQMP during the life of the permit in accordance with the following procedures:
 - a. Modifications that add but neither subtract nor replace, components, controls, or requirements to the approved SWQMP may be made by the permittee at any time. A description of the modification shall be included in the subsequent Annual Report.
 - b. Modifications that replace an ineffective or infeasible BMP may be made by the permittee at any time. A description of the replacement BMP shall be included in the subsequent Annual Report along with the following information:
 - (i) An analysis of why the former BMP was ineffective or infeasible (including cost-prohibitive);
 - (ii) Expectations on the effectiveness of the replacement BMP; and
 - (iii) An analysis of why the replacement BMP is expected to achieve the goals of the BMP which was replaced.
 - c. Modifications to adjust the schedule for maintenance activities or the frequency of inspections or monitoring identified in the SWQMP may be made by the permittee on an annual basis. The permittee must include in the subsequent Annual Report a description of the adjustment to the schedule along with the following information:
 - (i) An analysis of why the former schedule was ineffective or infeasible; and
 - (ii) Expectations on the effectiveness of the replacement schedule.
 - d. Modifications included in the Annual Report shall be signed by the permittee affected by that modification. Modifications will be highlighted by the affected permittee via their web site or other regular

customer service communication methods.

e. The permittee shall implement the SWQMP on all new areas added to their portion of the municipal separate storm sewer system (or for which they become responsible for implementation of stormwater quality controls) as expeditiously as practicable. Implementation of the program in any new area shall consider the plans in the SWQMP of the previous MS4 ownership.

3. Permittee may proceed with any uncompleted programs from the previous permit cycle to ensure the continuation of all positive activities towards improvement of water quality.
4. The permittee shall implement the provisions of the SWQMP. The SWQMP will be proposed by the permittee as a component program of its KPDES permit for its MS4. The SWQMP describes a variety of activities to be implemented by the permittee pursuant to its KPDES permit in order to reduce pollution levels in its municipal stormwater. In light of the voluminous, comprehensive, and evolving nature of the SWQMP, which in some portions may discuss long term plans and aspirational goals of the program and in other may provide general descriptions of the program, many portions of the SWQMP do not lend itself to specific enforcement. Although portions of the SWQMP may not be specifically enforceable, a broad failure to implement programs described in the SWQMP would be subject to enforcement.

D. TOTAL MAXIMUM DAILY LOADS AND IMPAIRED WATERS

1. Total Maximum Daily Loads (TMDLs)
 - a. BMPs and Approved TMDLs

The requirements of this section apply only to the permittee's MS4 discharges to receiving waters with adopted or established TMDLs and associated allocations. It is the intent of this section to ensure that pollutant discharges for those parameters listed in the TMDL are reduced to the MEP through the implementation of the permittee's SWQMP. The permittee shall make progress toward achieving assigned wasteload allocations (WLAs) by demonstrating through the implementation of structural and nonstructural best management practices and other program activities that are targeted at TMDL-related pollutants within watersheds that discharge to a waterbody with an adopted TMDL. A list of approved or established TMDLs can be found at <http://www.water.ky.gov/sw/tmdl/Approved+TMDLs.htm>.

Within twelve (12) months of the effective date of the permit, the permittee shall evaluate and implement water quality control measures that are specifically selected to achieve established WLAs for the pollutant of concern.

If a TMDL is approved for an impaired waterbody into which the permitted MS4 discharges and for which the MS4 causes or contributes to water quality impairment(s), the Division of Water will review the TMDL and applicable wasteload allocation(s) to determine whether the TMDL allocates pollutant reductions for stormwater discharges. If current discharges from the MS4 are not meeting TMDL allocations, the Division of Water will notify the permittee of that finding and require that the SWQMP identified in Part II of this general permit be modified. This modification will occur in conjunction with the normal SWQMP updating process, in accordance with Part II.C.2.d of this permit relating to Plan Implementations and Modifications. This modification will include any applicable and appropriate BMPs to implement the TMDL within a reasonable timeframe.

b. Monitoring Program

The permittee shall document, within 12 months of the permit effective date, that it has integrated appropriate measures into the MS4 monitoring program to track water quality trends for the pollutant(s) of concern at the Long-Term Monitoring Network (LTMN) composed of the existing 25 sites servicing waters with an approved TMDL, the permittee shall monitor for these pollutants of concern attributed to MS4 sources for at least 3 storm events every five years. The permittee shall use adaptive management to meet the TMDL. This adaptive management approach allows for evaluation whether progress is being made towards achieving the WLA. The twenty-five (25) sites are attached in Appendix A.

c. Annual Reporting

Annual MS4 compliance reporting requirements shall also include a special section identifying approved TMDL(s) and special efforts or management practices to address the Pollutant(s) of Concern. As appropriate for the pollutant of concern, the permittee will identify measures taken to address in the following program areas:

- Public Education, Outreach, Participation & Learning Experiences (PEOPLE)
- Illicit Discharge Detection and Elimination (IDDE)
- Industrial Stormwater Program (IP)
- Construction Site Stormwater Runoff Controls (CS)
- Post-Construction Site Stormwater Runoff Controls (PC)
- Good Housekeeping/Pollution Prevention (GH/P2)
- Monitoring (M)
- Performance Assessing and Reporting (PAR)

The permittee will include water quality trend analysis for the Pollutant(s) of Concern with other MS4 monitoring program data with annual compliance reports.

2. Impaired Waters

For impaired waters that lack an approved TMDL, the permittee shall evaluate its Best Management Practices in the SWQMP with respect to the MS4 discharges for pollutants of concern that substantially change the discharge to impaired waterbodies listed in the Division of Water report entitled, "2008 Integrated Report to Congress on the Condition of Water Resources in Kentucky Volume II. 303(d) List of Surface Waters", and subsequent publications, to assess their effectiveness in minimizing pollution to such impaired water bodies. The evaluation of BMPs may be conducted on a watershed basis or on a point source basis. For LTMN sites servicing waters that are designated as impaired on the 303(d) list that the MS4 discharges into, the permittee shall monitor the impaired waters for those pollutants attributed to MS4 sources for at least 3 storm events over the course of the permit term. Based upon its evaluation, the permittee shall modify its SWQMP as necessary and appropriate to improve the effectiveness of the BMPs.

E. FISCAL REQUIREMENTS

Funding shall be established and maintained to ensure the accomplishment of the activities required by this permit.

F. COMPLIANCE TABLES

The following tables for MSD and each co-permittee are used to expand on the specific MS4 program requirements.

MSD Tables

TABLE 1. PUBLIC EDUCATION, OUTREACH, PARTICIPATION, AND LEARNING EXPERIENCES (PEOPLE)	
MSD is the primary co-permittee and has an inter-local agreement with its co-permittees; the responsibilities are divided according to the Part I-1, Section A.	
PEOPLE: General Public & Stakeholder Education Program	
Element Task	Activity Required
General Public-Mass Media Integration/Distribution	Report the number of potential households and estimate the numbers of households were reached.
General Public-Direct Interaction	Permittee shall present educational materials to the public at least six (6) event days per year; update booth material annually. Provide summary of the educational activities in annual report
General Public-Meeting Topic Integration	Starting in year two (2), Permittee shall integrate water quality topics in MS4 public meetings at least six (6) events per year; provide summary of the events in the annual report
Volunteer Programs, Participation or Support	Starting in Permit Year two (2), Permittee shall have direct participation in at least three (3) events per year; and promote additional two (2) events per year, provide summary of volunteer opportunities the permittee participated, facilitate, or supported in the annual report
Metro Call Hotline and MSD Customer Relations	Permittee shall provide a summary of MS4 complaints and comments received in the annual report
	The permittee shall integrate MS4 stormwater quality topics in to existing print mass media, local government cable channel, social marketing materials, and/or new materials with the intent of affecting behavior change.
	The permittee shall present the "Key Messages" at community events, through the use of a display booth, "enviroscape" or other direct personal integration approaches.
	The permittee shall integrate MS4 stormwater quality topics, as feasible and appropriate into other MSD sponsored public meetings.
	The permittee shall participate in, facilitate, encourage or support volunteer program opportunities on a case by case basis to optimize resources and potential to affect behavioral changes through participation events.
	The permittee shall provide support to the 24-hour central reporting hotline "Metro Call" and internet communication channels for use by the public and MSD employees to report complaints, spills, and illegal dumping.

MSD Tables

TABLE 1. PUBLIC EDUCATION, OUTREACH, PARTICIPATION, AND LEARNING EXPERIENCES (PEOPLE)		
PEOPLE General Public's Stakeholder Education Program cont'd		
Element Task	Frequency or Measure of Success	
	Activity Required	
Elected Officials	Permittee shall provide a summary of its attendance of meetings at Mayors and/or Council Member's discretion in the annual report	The permittee shall attend and participate at the discretion of Mayor's office and Louisville Metro Council members to address resident's concerns and questions.
Public Speakers	Permittee shall provide public speakers to various community stakeholders at least six (6) events per year	The permittee shall provide speakers to various community stakeholder groups that could benefit from environmental stormwater information.
News Media-Press Releases	Permittee shall provide at least two (2) press releases per year highlighting public participation opportunities	The permittee shall provide press releases to the local news media highlighting opportunities for the public to participate in outreach and involvement events to make a positive difference through behavior change.
MSD Web Site	Permittee shall report summary of updates in the annual reports of Permit Years 2 and 4	The permittee shall review and revise the website with the "Key Messages" content and other related PEOPLE plan elements.
Behavior Change Assessment Survey	Permittee shall provide summary in the annual report of the Baseline Survey in Permit Year one (1) and the Behavior Assessment in Permit Year four (4).	The permittee shall perform a statistical survey to gauge the population's knowledge of stormwater quality issues and establish baseline to assess the changes in behavior and outreach program effectiveness. The permittee shall utilize the survey results to refocus and reprioritize PEOPLE activities.
Developers Advisory Group	Permittee shall participate in at least three (3) events per year	The permittee shall participate in the Developers Advisory Group (DAG) meetings to address concerns and comments from key local development professionals and provide information regarding changes in construction procedures, checklist, regulations, etc.

MSD Tables

TABLE 1. PUBLIC EDUCATION, OUTREACH, PARTICIPATION AND LEARNING EXPERIENCES (PEOPLE)		
PEOPLE: General Public & Stakeholder Education Program cont'd		
Element Task	Frequency or Measure of Success	
	Activity Required	
Homebuilders Association Land Development Committee Monthly Meetings	Permittee shall participate in at least 75% of the meetings annually	The permittee shall attend Homebuilders Association land development committee meetings to address concerns and comments from the local homebuilder professional and provide information regarding changes in procedures, checklist, regulations, etc
Greater Louisville Inc. Environmental and Water Committees	Permittee shall participate in at least three (3) events per year	The permittee shall participate in committee meetings to address concerns and comments from key local development professionals and provide information regarding changes in construction procedures, checklist, regulations, etc.
Construction Operators	Permittee shall evaluate educational materials and/or multimedia presentations for the construction industry related to point source pollution and non-point source pollution and stormwater pollution annually	The permittee shall make available educational materials and/or multimedia presentations for the construction industry related to point and non-point source pollution, green infrastructure and stormwater pollution prevention measures for operational procedures and erosion and sediment controls.
Rain Garden Outreach	Permittee shall estimate handbook distribution and report in the annual report	The permittee shall maintain and update rain garden handbook with the intent of general public outreach. Consider expanding use to support residential, non-residential professional and non-professional audiences. The permittee shall evaluate changes and make updates at least every even numbered year.
Green Infrastructure Demonstration Projects	Permittee shall provide a Summary Report of Green Infrastructure demonstration projects in the annual report	The permittee shall implement series of projects aimed at demonstrating the feasibility and effectiveness of green infrastructure including, but not limited to rain gardens, green roofs, pervious pavement, bio-swales and infiltration. Prioritize, select and implement projects to support a variety of residential, non-residential, professional and non-professional audiences in MSD and co-permittee areas. Where feasible collaborate and/or cooperate with local government agencies, schools, co-permittees and/or private properties with significant use and exposure to the general public.

MSD Tables

TABLE 1. PUBLIC EDUCATION, OUTREACH, PARTICIPATION, AND LEARNING EXPERIENCES (PEOPLE)		
PEOPLE: General Public & Stakeholder Education Program cont'd		
Element Task	Frequency or Measure of Success	
Activity Required	Activity Required	
Public Notification of Major Program Changes	Permittee shall finalize notification system within twelve (12) months of effective date of permit	The permittee shall develop a web site-based system to notify the public and affected stakeholders of proposed major program changes that will significantly impact stormwater runoff quality, negatively or positively. The public shall be given the opportunity to informally comment on proposed changes and these comments will be summarized and made available on the website.
Cooperative Efforts (MSD provides supportive or other non-lead role)		
Element Task	Frequency or Measure of Success	
Activity Required	Activity Required	
Jefferson County MS4 Workgroup-Communication	Permittee shall attend at least two (2) meetings per year	The permittee shall participate in the Jefferson County MS4 Co-Permittee Workgroup meetings discussing program progress, challenges, activity changes, shared activity requests communication needs and lesson learned.
"Go Green Louisville" Program Assistance	Permittee shall report its activities and support of the "Go Green Louisville" initiatives in the annual report	The permittee shall continue to support Louisville Metro and the "Go Green Louisville" initiatives with development of guidance materials to be applied to new Metro Government Facilities incorporating green infrastructure.

MSD Tables

TABLE 2. ILLICIT DISCHARGE DETECTION AND ELIMINATION (IDDE)		
MSD is the primary co-permittee and has an inter-local agreement with its co-permittees; the responsibilities are divided according to the Part I-1, Section A.		
IDDE 1. Legal Prohibition/Control Authority		
Element Task	Frequency or Measure of Success	Activity Required
Assess Legal Prohibition/Control Authority	Permittee shall evaluate, in the odd-numbered permit years, the proposed changes in Wastewater Stormwater Discharge Regulations (WDRs) for consideration by MSD Board	The permittee shall evaluate existing ordinances and regulations with an emphasis on Article 5 of the WDRs to determine if they are sufficient relative to MSD's ability to implement an effective IDDE program per 40 CFR. 122.26(b) (2). The permittee shall periodically update WDRs as needed to identify and eliminate risk of illicit discharges due to changes in technology, industrial management processes, regulations or program modifications. The permittee shall provide a summary of the adoption of such changes and information about implementation, and effective date in the Annual Report.
IDDE Source Investigation and Elimination Procedures	Submit to the Division of Water within six (6) months of the effective date of the permit	The permittee shall develop and implement a formal plan of illicit discharge detection including how to trace the source of an illicit discharge and procedures for removing or eliminating them once they are located or reported. The plan should also include the enforcement procedures outlined in the WDRs for illicit discharge elimination, which includes ten (10) days from the receipt of the Notice of Violation; the source of the illicit discharge shall submit a mitigation plan for removal.
Public Illicit Discharge Report Investigation	Permittee shall provide in the annual report, a summary of the investigations of illicit discharges performed	The permittee shall continue to receive and investigate public reports of potential illicit discharges via customer service hotline, webpage reporting and Metrocall. The permittee shall update and perform customer service hotline staff training for receiving calls regarding potential illicit discharges and appropriate routing procedures.
Dry Weather Screening	Permittee shall provide in the annual report, a summary of the dry weather screenings performed.	The permittee shall conduct dry weather screening of representative outfalls. The recommended level of effort is twenty percent (20%) of the major outfalls per year. However, all the major outfalls shall be addressed within the permit term. The permittee shall also conduct dry-weather screenings at ninety percent (90%) of large industrial outfalls of industrial facilities once every two years.
Screening Follow-up	Permittee shall starting in Permit Year One (1) inspect at least 25% of suspect outfalls per year	After the initial follow-up to insure the illicit discharge has been mitigated, the permittee shall re-evaluate outfalls that were previously found to have had contaminated discharges to determine the current status of those outfalls.

MSD Tables

TABLE 2. ILLICIT DISCHARGE DETECTION AND ELIMINATION (IDDE) CODE 'C'		
IDDE 2 Management Activities		
Element Task	Frequency or Measure of Success	
	Activity Required	
Mapping - Stormwater Infrastructure Inventory	Permittee shall maintain a storm sewer system map	The permittee shall continue to maintain the GIS Louisville Jefferson County Information Center (LOJIC) layers constituting its storm sewer system map, showing the location of all known major outfalls, and the names and location of all waters of the Commonwealth that receive discharges from those outfalls.
Non-Industrial IDDE Program Enforcement	Permittee shall report annually, including number of investigations, enforcement actions and referrals to KDOW, and follow-up investigations.	The permittee shall continue to utilize the Wastewater/Stormwater Discharge Regulations, related checklists and procedures for investigation of potential illicit discharges and elimination of illicit discharges.
Hazmat/Spill Unified Response Program	Permittee shall report, if necessary, any changes to the policies and programs and procedures, in the annual report	The permittee shall continue to maintain and enforce the ordinances, policies, programs and procedures for response and containing spills that may discharge into the MS4. The spill response procedures outlined in Section 95.07 of the Louisville Metro Code of Ordinances relating to hazardous materials shall continue to be implemented and enforced.
On-site SWPPP	Permittee shall document SWPPP procedures and expectations and make the procedures and expectations publicly available	The permittee shall institute procedure for receiving Stormwater Pollution Prevention Plans (SWPPP) for qualifying construction sites within six months of the effective date of the permit.
MVA Mitigation Kit Program	Permittee shall report metrics for kit distribution and after-use collection in the annual report	The permittee shall continue motor vehicle accident (MVA) mitigation kit distribution program to meet Fire Department and emergency response spill containment needs.
IDDE Identification SWPPP Training Integration	Training shall occur at least once per year and the permittee shall report in the annual report the date of training and the number of staff participating in training	The permittee shall integrate techniques and practices to assist staff identify potential illicit discharges into facility and system operations and maintenance training.

MSD Tables

TABLE 2. ILLICIT DISCHARGE DETECTION AND ELIMINATION (IDDE) CONT'D		
Cooperative Efforts (MSD provides supportive or other non-lead role)		
Element Task	Frequency of Measure of Success	Activity Required
KDOW Support	Permittee shall summarize and include in the annual report any assistance given to the Kentucky Division of Water by MSD	As KDOW requests, the permittee shall accompany KDOW on inspection of KPDES stormwater permitted facilities in Jefferson County.

MSD Tables

TABLE 3. INDUSTRIAL STORMWATER PROGRAM		
INDUSTRIAL STORMWATER PROGRAM REQUIREMENTS (IP)		
MSD is the primary co-permittee and has an inter-local agreement with its co-permittees; the responsibilities are divided according to the Part I-1, Section A.		
IP 1. Legal Prohibition/Control Authority		
Element Task	Frequency of Measure of Success	
Element Task	Activity Required	
Industrial IDDE Program Enforcement	Permittee shall summarize in the annual report the industrial enforcement actions and referrals to Kentucky Division of Water	For industrial properties, the permittee shall continue to utilize the Wastewater/Stormwater Discharge Regulations, Hazardous Materials Ordinance and related checklists and procedures for identification of potential illicit discharges and elimination of illicit discharges/ unauthorized stormwater discharges. The permittee shall perform analysis of industry property data layer in LOJIC cross linking with properties holding a Hazardous Materials (spill) Prevention Control (HMPC) Plan to identify potential sites that should be added to the program with consideration for High Risk Industrial Facilities designation (determined in other activities).
Industrial IDDE Program Enforcement	Within six (6) months of the effective date of the permit the Permittee shall have established adequate legal authority to require compliance with this measure.	The permittee shall maintain adequate legal authority, per 401 KAR 5:060, Section 12(9)(b)3 and 40 CFR 122.26(b)(2), to require compliance and inspection of sites, inspection of priority industrial and commercial facilities, including establishing control measure requirements such as Hazardous Materials Management Prevention and Control (HMPC), Spill Prevention, Control and Countermeasure (SPCC) Plan and/or the Groundwater Protection Plan (GPP) for facilities that have a potential to discharge to the MS4 and enforce stormwater requirements.
IP 2. Inventory and Inspection of Industrial Facilities		
Element Task	Frequency of Measure of Success	
Element Task	Activity Required	
Industrial Facility Inventory	Permittee shall update annually and made available to the Division of Water upon request	The permittee shall maintain an inventory of all potential industrial and commercial sites/sources that could contribute substantial pollutant loads to the MS4.

MSD Tables

TABLE 3 - INDUSTRIAL STORMWATER PROGRAM		
IP 2 Inventory and Inspection of Industrial Facilities cont'd		
Element Name	Frequency or Measure of Success	
	Activity Required	
"High Risk" Facility Definition	Permittee shall report results by end of Permit Year one (1)	The permittee shall identify Risk Factors to define facilities as "High Risk", "Moderate Risk" and "Low Risk".
HRIF Inventory Update	Permittee shall summarize and report annually, the assessment and updates of any industrial facilities identified as "High", "Moderate", and "Low" risk	The permittee shall compare the datasets for local Approved HMPC Plan Facilities to the publicly available Facility data from local and state environmental and emergency response agencies to address the completeness and accuracy of High Risk Industrial Facilities identification. The permittee shall update the list of HRIFs at least twice over the permit term, to account for the most recently available North American Industry Classification System (NAICS), Standard Industrial Classification (SIC) codes, Toxic Release Inventory (TRI) data, MSD's HMPC data and MSD's pretreatment program data with the goal of establishing a tiered list of industries to support priorities in MSD's industrial facility inspection program.
HRIF and High-Risk HMPC Inspection	Starting in Permit Year two (2), the Permittee shall report the summary of prioritized inspections completed, and any enforcement resulting from the inspections.	Based on the results of the updated HRIF assessment, the permittee shall inspect high priority facilities at least once every three (3) years and moderate risk facilities at least once every five (5) years.
Industrial Facility Control Measures	Starting in Permit Year two (2), the Permittee shall report annually on control measures required of the high-risk industrial and commercial facilities to ensure compliance with this measure.	The permittee shall require the High Risk industrial and commercial facilities to select, install, implement, and maintain control measures that promote prevention and source control for discharge of applicable pollutants of concern. This requirement may be addressed through the Hazardous Materials (spill) Prevention Control (HMPC) Plan and/or federal programs such as Spill Prevention, Control and Countermeasure (SPCC) Plan and/or the Groundwater Protection Plan (GPP) that are already implemented at the industrial and commercial facilities. The permittee shall require the applicable facilities to identify the specific control measures, good housekeeping and maintenance procedures, and employee training necessary.

MSD Tables

TABLE 3 - INDUSTRIAL STORMWATER PROGRAM	
TABLE 2 - Inventory and Inspection of Industrial Facilities (Cont'd)	
Element Task	Frequency or Measure of Success
Enforcement/ Inspections	Within six months of the permit issuance, the Permittee shall develop the required criteria or procedures to comply with this measure.
MSD Plan Review	Permittee shall assess at least every three (3) years and report changes to process in the annual report
Industrial & Commercial Community Outreach	Starting in Permit Year two (2), the Permittee shall identify materials developed and distribution estimates and summarize in the annual report
TABLE 3 - INDUSTRIAL STORMWATER PROGRAM	
Cooperative Efforts (MSD provides supportive of other non-lead role)	
Element Task	Frequency or Measure of Success
KDOW Support	Permittee shall summarize and include in the annual report any assistance given to the Kentucky Division of Water by MSD

Activity Required

The permittee shall develop criteria or procedures for site inspections and enforcement including criteria to address how the MS4 will use enforcement authorities to ensure compliance with the industrial program requirements. The permittee shall enforce the procedures outlined in Section 95.11 of the Louisville Metro Code of Ordinances relating to hazardous materials.

The permittee shall determine if existing triggers in the new development and redevelopment plan and plumbing systems review process are sufficient to include appropriate industrial stormwater quality specialists/inspectors in the plan approval process.

The permittee shall develop and distribute outreach materials (brochure, fact sheets, etc.) to HMEC Facilities and other commercial operations of concern to promote illicit discharge elimination awareness.

Activity Required

As KDOW requests, the permittee shall accompany KDOW on inspection of KPDES stormwater permitted facilities in Jefferson County.

MSD Tables

TABLE 4. CONSTRUCTION SITE STORMWATER RUNOFF CONTROL REQUIREMENTS (CS)	
MSD is the primary co-permittee and has an inter-local agreement with its co-permittees; the responsibilities are divided according to the Part I-1, Section A.	
CS 1. Legal Prohibition/Control Authority	
Element Task	Frequency or Measure of Success
Activity Required	
Assess Legal Prohibition/Control Authority	Permittee shall summarize proposed changes enumerated by end of permit years one (1) and three (3) and report proposed changes in to Wastewater/Stormwater Discharge Regulations for consideration by MSD Board in the annual report
Implement Legal Prohibition/Control Authority	Permittee shall require routine inspections of active construction sites with reasonable potential to discharge to MS4. A summary of these inspections and any enforcement actions resulting from these inspections shall be included in the Annual Report
Site Plan Review	Permittee shall review plans as needed and report the number of plans reviewed in the Annual Report
Construction Site Inspection	Within 60 days of permit effective date
Construction Site Inspection Frequency	Permittee shall report the number of inspection performed in the Annual Report
	The permittee shall assess existing ordinance and regulations to identify changes needed to account for changes in standard of care (as directed by KDOT General Construction Permit KYR10), changes in technology, changes to development management process and related program needs in satisfaction 40 CFR 122.26(b)(15)(i) for construction activities that result in a land disturbance of greater than or equal to one acre and construction activity disturbing less than one acre that is part of a larger common plan of development that would disturb one acre or more.
	The permittee shall continue to enforce existing ordinances and regulations intended to limit construction phase stormwater quality impacts from new construction and significant redevelopment.
	The permittee shall conduct site plan reviews in accordance with the procedures outlined in Section 159.02 of the Louisville/Jefferson County Erosion Prevention and Sediment Control Ordinance to assess whether the plans include measures that address potential water quality impacts from construction prior to authorization of land disturbance.
	The permittee shall develop and implement criteria and/or procedures for site inspection. The procedures shall include an Enforcement Response Plan outlined in Section 159.05 of the Louisville/Jefferson County Erosion Prevention and Sediment Control Ordinance.
	The permittee is required to conduct inspections monthly or after 0.5 inch rain events with less frequent MSD oversight inspections of at least 90% of active sites.

MSD Tables

TABLE 4 CONSTRUCTION SITE STORMWATER RUNOFF CONTROL REQUIREMENTS (CS)		
CS-2 CS Management Activities		
Element Task	Frequency or Measure of Success	Activity Required
Construction Site Inventory	Inventory continually updated as projects are permitted and projects are completed	The permittee shall develop and maintain an inventory of all active public and private construction sites that result in a total land disturbance of greater than or equal to one acre and less than one acre that is part of a larger common plan of development. Inventory should include the project's name, address, contact person, inspection dates, and any enforcement actions issued to the project.
Construction BMP Guidance Materials	Permittee shall update the Design Manual and Standards Specifications by end of permit years one (1) and four (4) and make the updates publicly available	As needed to account for changes in the KDOW general construction permit(s), the permittee shall update the guidance materials facilitating current technology use, local plan review/inspection requirements and related implications, Design Manual chapters and Standard Specifications sections to address EPSC and other construction phase (waste concrete, fueling and repairs operations, etc) topics including BMP selection, feasibility, design considerations, operation, maintenance, inspection checklist and related matters.
On-site SWPPP	Permittee shall document SWPPP procedures and expectations and make the procedures and expectations publicly available	The permittee shall institute procedure for receiving Stormwater Pollution Prevention Plans (SWPPP) for qualifying construction sites within six months of the effective date of the permit.
Construction Stormwater Runoff Control Program Inspection Refresher	Permittee shall complete refresher with Construction inspectors annually, reporting the date and the number of attendees in the Annual Report	The permittee shall review inspector practices with individual MSD and contract inspectors to communicate/confirm oversight responsibilities, documentation requirements, and frequency of inspection, inspection standards and protocols. The refresher review (performed on-site) will include EPSC and non-EPSC construction stormwater control metrics, the most current KDOW General Construction Permit and the current USEPA MS4 Program Evaluation Construction Site Checklist.

MSD Tables

TABLE 4. CONSTRUCTION SITE STORMWATER RUNOFF CONTROL REQUIREMENTS (CS) cont'd		
CS 2. CS Management Activities		
Element/Task	Frequency or Measure of Success	
	Activity Required	
Construction Inspector Training	Permittee shall provide at least three (3) training opportunities annually reporting the date and the number of attendees in the Annual Report	The permittee shall continue construction inspector training program placing new emphasis on delivering similar messages and understanding between MSD inspectors (regular and contracted) and qualified local contractor inspectors.
Plan Preparers and Reviewers Training (MSD Facilitates)	Permittee shall offer at least two (2) events annually and starting in Permit Year two (2) report program updates in the annual report	The permittee shall identify updates to the plan preparers training program currently administered through the Jefferson County Public School System placing new emphasis on identifying sensitive features (305b listed streams, threatened or endangered species, etc.) and customizing site SWPPPs to account for the special conditions.
Local Utility Construction General Permit Entities	Permittee shall hold meetings with at least 90% of MSD's EPSC general permit holders at least every two years	The permittee shall continue to coordinate policy level stakeholders from local utility agencies holding construction general permits from MSD to confirm inter-agency communication protocols and review changes to standard, policies, procedures, BMP operation expectations and related matters.
MSD General Construction Permits Evaluation	Permittee shall evaluate all general permits by the end of Permit Year three (3); and report general construction permits issued by MSD in the annual report	The permittee shall evaluate General Construction Permits issued by MSD to utilities and other entities to determine adequacy with revisions to the KDOW general construction permits, changes in permittee organization/practices, MSD standards, etc.
Enforcement Tracking Log/Database	Permittee shall summarize enforcement actions in the annual report. A summary of the tracked enforcement actions issued shall be included in the Annual Report	The permittee shall continue to track enforcement actions issues (SWO/NOVs) to support follow-up inspections and issuance of penalties and/or Notice of Compliance.

MSD Tables

TABLE 4. CONSTRUCTION SITE STORMWATER RUNOFF CONTROL REQUIREMENTS (CS) cont'd		
Cooperative Efforts (MSD provides supportive or other non-lead role)		
Element/Task	Frequency of Measure of Success	
	Activity Required	
Plan Development Process Identification	Permittee shall make up-to-date guidance documents publicly available. A summary of the revised guidance materials shall be included in the Annual Report	The permittee shall review and update, as needed guidance materials identifying the process that developers must follow to obtain related construction permits, including process flow charts and checklists.
Metro IP & L Enforcement Coordination	Permittee shall hold at least one (1) conference every other year starting in Permit Year one (1)	The permittee shall coordinate program enforcement actions with Metro Inspections, Permits and Licensing (IP&L), as necessary, to support overall site compliance with an emphasis on Notices of Deficiency, Notices of Violation, and Stop Work Orders issued by MSD and implications on land disturbance and "in building" activities.

MSD Tables

TABLE 5. POST-CONSTRUCTION (PC) STORMWATER RUNOFF CONTROL FOR NEW DEVELOPMENT AND REDEVELOPMENT		
MSD is the primary co-permittee and has an inter-local agreement with its co-permittees; the responsibilities are divided according to the Part I-1, Section A.		
PC-1 Legal Prohibition/Control Authority		
Element Task	Frequency or Measure of Success	Activity Required
Assess Legal Prohibition/Control Authority	Permittee shall make assessments in Permit Year one (1) and if necessary, in Permit Years two (2) and four (4) report proposed changes in the WDR for consideration by MSD Board.	The permittee shall assess existing Wastewater/Stormwater Discharge Regulations and other relevant ordinances and regulations, to identify changes needed to account for changes in standard of care, changes in technology, changes to development and management process and related program needs, for new development and redevelopment projects that disturb greater than or equal to one acre and construction activity disturbing less than one acre, including projects less than one acre that are part of a larger common plan of development.
Implement Legal Prohibition/Control Authority	Permittee shall summarize enforcement actions in the annual report. The permittee shall include the number of inspections and enforcement actions.	The permittee shall enforce existing ordinances and regulations intended to limit long-term stormwater quality impacts from new construction and significant redevelopment.
Site Plan Review	Within thirty days of permit effective date	The permittee shall conduct site plan reviews through procedures for reviewing development plans for compliance with stormwater management requirements.
Stormwater Infrastructure Inventory	Permittee shall update the GIS LOJIC System as data becomes available	The permittee shall continue to maintain the GIS-LOJIC layers incorporating system changes from new development plans, MSD projects and related system projects.
Post-Construction BMP Inventory Update	Permittee shall incorporate related data on ongoing basis; Permittee shall assess data to identify and fill dataset gaps every other year.	The permittee shall develop and maintain an inventory and map of post-construction stormwater controls, including retention ponds, detention basins, and stormwater quality treatment facilities. The permittee shall update LOJIC and Hansen datasets to reflect the location, extent, and condition of post-construction stormwater quality BMPs.
Post-Construction Inspector Training	At least two trainings per year for the inspectors of Post-Construction BMPs. Report in the annual report, the dates of training, # of attendees, and subject matter.	The permittee shall provide training to the inspectors including internal staff that have been designated to inspect the effectiveness of the post-construction BMPs, as well as, the local residents who are required to provide operation and maintenance of privately-owned Post-Construction BMPs.

MSD Tables

TABLE 5. POST-CONSTRUCTION (PC) STORMWATER RUNOFF CONTROL FOR NEW DEVELOPMENT AND REDEVELOPMENT CONT'D	
PC 2 PC/Plan Maintenance and Update	Activity Required
Element/Task	Frequency or Measure of Success
Regional Flood Control BMP Retrofit Analysis	Permittee shall complete assessment report identifying with high, moderate, and low retrofit potential by the end of Permit Year three (3) and summarize on the annual report
Inspect "Credit" Basins	Permittee shall perform spot check inspections for at least 50% of qualifying facilities annually starting in Permit Year two (2) and summarize for the annual report
Inspection Plan Procedures for Treatment BMPs	Permittee shall perform spot check inspections for at least 20% of treatment BMPs annually starting in Permit Year two (2). All BMPs should be inspected by the end of the permit cycle. A summary of this activity shall be included in the annual report
Post-Construction and Green Infrastructure BMP Guidance Materials	Permittee shall update the guidance materials specifically the Design Manual chapters and Standards Specifications sections and make the document publicly available
	The permittee shall evaluate and update the guidance materials facilitating current technology use and to reflect local plan review, construction site inspection and post-construction inspection requirements. Design Manual chapters and Standard Specifications sections to address long-term BMP operation, inspection and maintenance including checklists. "Green Infrastructure" is a combination of natural and engineered infrastructure that is designed to reduce the environmental footprint of the system. In terms of stormwater, green infrastructure can effectively manage stormwater runoff through the use of infiltration, biofiltration, detention, and other stormwater management techniques.
	The permittee shall inspect private flood control basins, (retention ponds) receiving a stormwater utility user fee credit (reduction) to determine ability to fulfill original, current and projected drainage demands. Continue to enforce, per existing basin credits documentation requirements, necessary to fulfill maintenance agreements and long-term system integrity.
	The permittee shall develop and implement inspection and oversight protocol for private stormwater quality treatment BMPs to facilitate long-term maintenance demands including requirements for qualified private inspection of private BMPs with local government oversight access inspection and controls.
	The permittee shall evaluate regional flood control basins to determine stormwater quality treatment incorporation/retrofit feasibility. Explore opportunities to cost-share, incentives or otherwise finance the projects.

MSD Tables

TABLE 5. POST-CONSTRUCTION (PC) STORMWATER RUNOFF CONTROL FOR NEW DEVELOPMENT AND REDEVELOPMENT CONT'D		
PC 2. PC Plan Maintenance and Update		
Element Task	Frequency or Measure of Success	
	Activity Required	
Plan Preparers & Reviewers Training (MSD Facilitates)	Permittee shall continue to offer at least two (2) events annually. A summary of workshops topics and attendance shall be submitted in the annual report	The permittee shall provide available content, such as EPA webcasts, through periodic training classes, workshops and meetings for designers, planners, and developers including emphasis on green infrastructure, post-construction planning, and design procedures for structural and non-structural BMPs, pollutant removal and inspection.
Plan Preparers & Reviewers Training	Permittee shall summarize in the annual report, training updates and offer at least three (3) training opportunities annually	The permittee shall update, as necessary, content to the existing training program currently administered by Jefferson County Public School System or to a new program to address green infrastructure, post-construction stormwater quality BMP issues.
Project DRI	Permittee shall provide program progress summarizing cost, number and type of projects in the annual report	The permittee shall continue to implement Drainage Response Initiative (DRI) program aimed at identifying and solving the local drainage problems in Jefferson County.
User Fee Credits (Green Infrastructure Incentives) Program Planning	Permittee shall provide assessment and planning results by the end of Permit Year two (2) in the annual report	The permittee shall assess the feasibility of implementing a utility user fee credits program for green infrastructure and post-construction BMPs. The permittee shall perform a feasibility assessment to include considerations for financial sustainability, billing system administration, utilization potential, credit longevity, oversight inspections and related matters. Develop a schedule, that addresses feasibility study issues, to setup a program to promote stormwater utility user fee credits opportunities for properties implementing stormwater quality BMPs beyond minimum requirements with the intent of encouraging flood control pond retrofit, redevelopment GI BMP incorporation and new development GI BMP implementation. This program may offer incentives for developers to use cost-effective, eco-friendly solutions.

MSD Tables

TABLE 5. POST-CONSTRUCTION (PC) STORMWATER RUNOFF CONTROL FOR NEW DEVELOPMENT AND REDEVELOPMENT CONT. d.	
PC 2. PC Plan Maintenance and Update cont. d.	
Element Task	Frequency or Measure of Success
Stream Restoration Inspection and Maintenance	Permittee shall provide in the annual report, summarized stream reaches and maintenance performed to be started in Permit Year two (2)
Certified/qualified Construction BMP Inspector Program	Permittee shall by the end of Permit Year two (2), summarize the feasibility report study result and schedule of action items and include summary in the annual report
Stormwater runoff quality treatment standard for all new development and redevelopment projects	Within sixty days (60) of the effective permit date, permittee shall submit a local treatment standard for addressing stormwater runoff quality.
Private BMP Maintenance Agreement Assessment/Long Term O & M	Within 12 months of the effective date of the permit all new development and redevelopment projects shall be required to have this agreement
	The permittee shall identify restored stream reaches that MSD has maintenance responsibilities. The permittee shall also determine status of restored reaches and identify, prioritize/schedule and implement maintenance needs.
	The permittee shall outline and determine the feasibility of a program to identify and hold accountable third party private BMP inspectors (such as home inspectors) to facilitate periodic operation and maintenance of private facilities resulting from the credits program, regulations changes and demonstration projects. If results warrant, develop schedule to implement requirements for private BMP inspections and resulting training/testing program.
	The permittee shall develop an on-site stormwater runoff quality treatment standard, to be adopted by ordinance or other regulatory mechanism for all new development and redevelopment projects. The proposed local standard will require, in combination or alone, management measures that are designed, built and maintained to infiltrate, evapo-transpire, harvest and reuse stormwater runoff, or otherwise manage the stormwater runoff quality. The standard shall be based, at a minimum, on an analysis of precipitation records to determine the equivalent surface depth of runoff (e.g. 0.75 inches) produced from an 80 th percentile precipitation event.
	The permittee shall require all new development or redevelopment to establish and enter into a long-term maintenance agreement and maintenance plan approved management practices for property owners. Alternatively, the permittee may establish other enforceable mechanisms for requiring long-term maintenance of structural and non-structural BMPs. Such authorities shall allow the MS4, or its designee, to conduct inspections of the management practices and also account for transfer of responsibility in leases and/or deed transfers. The agreement shall also allow the MS4s, or its designee, to perform necessary maintenance or corrective actions neglected by the property owner/operator, and authority to recover costs from the property owner/operator when the owner/operator has not performed the necessary maintenance.

MSD Tables

TABLE 5 POST-CONSTRUCTION (PC) STORMWATER RUNOFF CONTROL FOR NEW DEVELOPMENT AND REDEVELOPMENT CONT'D		
Cooperative Efforts (MSD provides supportive or other non-lead role)	Frequency or Measure of Success	Activity Required
Green Infrastructure Demonstration Site(s)	Permittee shall report its role and activities, lessons learned, and overall project progress, and summarize for the annual report	The permittee shall continue, in cooperation with Louisville Metro Mayor's administration, University of Louisville and other local agencies, to pursue development of stormwater quality and green infrastructure interpretative center(s) at strategic location(s) around Jefferson County with the intent of providing a positive highly visible platform to promote the viability and desirability of green infrastructure BMPs. Where feasible explore the opportunity for BMP evaluation and pre-/post-monitoring.
Rain Barrels and Louisville Nature Center	Permittee shall report its role, lessons learned and overall programs progress and summarize for the annual report	The permittee shall explore the opportunity for MSD to continue program with Louisville Nature Center that provided public guidance to construct and maintain rain barrels.
Pond Creek and Mill Creek Recreational Planning	Permittee shall report its role, lessons learned and overall programs progress and summarize for the annual report	The permittee shall continue to collaborate with the US Army Corps of Engineers in their efforts to develop a trail system integrating community assets and environmental resources.

MSD Tables

TABLE 6. GOOD HOUSEKEEPING/POLLUTION PREVENTION (GH/P2) PROGRAMS FOR MUNICIPAL FACILITIES		
MSD is the primary co-permittee and has an inter-local agreement with its co-permittees; the responsibilities are divided according to the Part I-1, Section A.		
GH/P2 Plan Maintenance and Update		
Element/Task	Frequency or Measure of Success	Activity Required
Stormwater Pollution Prevention Plans for MSD Operations	Permittee shall assess plans within six (6) months of major facility changes or at least once every two years by the facility superintendents and operation managers who make up the SWP3 Committee.	The permittee shall periodically update and implement Stormwater Pollution Prevention Plans (SWPPPs) (also known as BMP Plans or Stormwater Plans) to control the discharge of pollutants from POTWs and other applicable MSD-owned facilities as defined in 40 CFR 122.26 including wastewater treatment plants and major operating facilities. SWPPPs will include provisions for maintenance activities on facility grounds, materials and equipment storage, security, preventative maintenance, risk identification and assessment, materials inventory, floor drain protection/controls, inspections and records.
Training on MSD Facility SWPPPs	Permittee shall starting in Permit Year two (2) address at least three (3) SWPPP issues annually and summarize training and attendance for the annual report	The permittee shall utilize the facility SWPPP Committees to perform routine training of key SWPPP issues
Maintenance Staff Training on Pollution Prevention	Permittee shall report the number of staff attending related training and include in the annual report	The permittee shall provide training to key maintenance staff on good housekeeping activities related to stormwater quality in MSD operations including but not limited to: green infrastructure operation and maintenance, fleet and building maintenance, and stormwater conveyance/drainage system maintenance.
Pesticides Management	Permittee shall track employees with related state certifications	The permittee shall utilize Commonwealth of Kentucky pesticide management registration and certifications to qualify MSD employees applying pesticides. The permittee shall develop and maintain a list of pesticides used and stored, including storage locations.
Incident Response Staff Training	Permittee shall report incident response staff training participation starting in Permit Year two (2)	The permittee shall provide training to unified incident response staff on related stormwater issues including good housekeeping, IDDE, construction, post-construction BMP/controls and program management.

MSD Tables

TABLE 6. GOOD HOUSEKEEPING/POLLUTION PREVENTION (GH/P2) PROGRAMS FOR MUNICIPAL FACILITIES CONT. 3		
Element Task	Frequency or Measure of Success	Activity Required
MSD Capital Project Control	Permittee shall summarize changes to MSD Capital Project requirements starting in Permit Year two (2)	The permittee shall, for MSD directed capital, rehabilitation and reconstruction projects, disturbing more than one acre, performed by a contractor, ensure the contract documents/agreements/work orders will include stipulations that require the work be designed/performed/implemented/constructed under the same standards for construction and post-construction stormwater quality that MSD requires of private development it regulates.
MSD Stormwater Quality BMP Data	Permittee shall every other year assess datasets for completeness and ability to support staff scheduling stormwater-quality BMPs MSD is responsible for maintaining starting in Permit Year two (2)	The permittee shall update IOJIC and Hansen datasets to identify stormwater-quality BMPs located on MSD properties, rights-of-way and easements that MSD is responsible for operating and/or maintaining. The datasets will be updated in a manner to support ongoing prioritization and tracking of operation and maintenance.
Catch Basin and Storm Sewer Cleaning	Permittee shall summarize and include in the annual report	The permittee shall continue to clean catch basins and sewers (closed pipe systems) to prevent debris from entering receiving streams and address drainage/flooding issues in MSD area based on known priorities and information gathered from the customer hotline.
Channel Maintenance	Permittee shall summarize and include in the annual report	The permittee shall continue to maintain open channel system in MSD area based on priorities and information from the customer hotline including ditch cleanings, ditch regrading, drainage obstruction removals, erosion repairs, floodwall levee maintenance, headwall install/repair, concrete channel installation, tree removal, driveway apron restoration, routine mowing and closed pipe installations.
Cooperative Efforts (MSD provides supportive or other non-lead role)		
Element Task	Frequency or Measure of Success	Activity Required
Stormwater Pollution Prevention Plans for Co-Permittee Operations	Permittee shall assist in the review of at least one (1) facility annually if requested by co-permittees	As co-permittees make request, the permittee shall provide periodic 3 rd -party technical assistance and/or review of the facility stormwater pollution prevention plans (SWPPPs, BMP plans, or Stormwater Plans and BMPs) and/or site visit/walkthrough to help identify opportunities to improve the effectiveness of the plans and their implementation.

MSD Tables

TABLE 7. MONITORING (M)	
MSD is the primary co-permittee and has an inter-local agreement with its co-permittees; the responsibilities are divided according to the Part I-1, Section A.	
Monitoring Plan Maintenance and Update	
Element Task	Frequency of Measure of Success
<p>Long-Term Monitoring Network (LTMN)</p> <p>Permittee shall provide datasets electronically with annual report</p>	<p>The permittee shall continue the existing program of the collection of long-term data on stream quality and habitat for at least 25 LTMN locations selected to support the various types of data collected. This program includes:</p> <p>Continuous - pH, conductivity, temperature, dissolved oxygen, percent dissolved oxygen and stream flow.</p> <p>Once Every Two Years - Biological sampling and/or evaluation rotating to include: algae, fish and benthic macro invertebrates.</p> <p>Quarterly - Ambient monitoring for Total Suspended Solids (TSS); Total Dissolved Solids (TDS); Fecal Coliform; E. coli; Oil and Grease; Biochemical Oxygen Demand (BOD5); Chemical Oxygen Demand (COD); Lead, Total Recoverable; Cadmium, Total Recoverable; Copper; Total Recoverable; Zinc, Total Recoverable; Dissolved Phosphorus; Total Phosphorus; Total Ammonia Nitrogen (as N); Total Kjeldahl Nitrogen (as N); Nitrate plus Nitrite Nitrogen (as N); and pH</p> <p>5/month (May-October) - Recreational monitoring for fecal Coliform.</p> <p>1/month (May-October) - Recreational monitoring for E. coli.</p>
Monitoring Summary	Permittee shall summarize and include in annual report
Trend Analysis	Permittee shall, at least once per permit cycle, provide synthesis report
<p>The permittee shall provide a summary of monitoring collection efforts and results in the annual report.</p> <p>The permittee shall perform trend analysis to support long-term assessments of local waterways and program performance. Report analysis through the "Synthesis Reports" at least once every permit cycle.</p>	

MSD Tables

TABLE 7. MONITORING (M) (cont'd.)		
M. Monitoring Plan Maintenance and Update		
Element Task	Frequency or Measure of Success	Activity Required
Flow Estimate to Support Quarterly Ambient Monitoring	Permittee shall provide available data and include in annual reports	The permittee shall utilize total precipitation estimates over the previous twenty-four (24) hour period to estimate flow. When flow is measured with in stream gauging equipment, that data will be utilized rather than precipitation based estimates.
Monitoring Location Maintenance	Permittee shall summarize activities and include in annual reports	The permittee shall continue its collaboration with United States Geological Survey (USGS) on flow gauges and monitoring locations maintenance and data management.
Precipitation Estimate	Permittee shall continue to make rain gauge network data available on-line	The permittee shall continue to maintain the continuous rain gauge network and on-line public access to that data.
Water Quality Standards	Permittee shall apply the most stringent standard	The permittee shall compare stream monitoring analytical results to the applicable water quality standards for each parameter of the monitoring program. The most stringent applicable standard shall be used for comparison. Constituents that exceed applicable Water Quality Standards shall be highlighted. The permittee shall include a discussion of possible pollutant sources through the annual report.
Location Mapping	Permittee shall maintain the monitoring stations reflected in mapping system	The permittee shall maintain the geo-coded monitoring station locations and descriptions through related geographic datasets and databases.
Sampling Methodology and Test Procedures	Permittee shall perform the sampling methodology to insure compliance with 40 CFR 122.26 and 136	The permittee shall perform the sampling methodology according to the EPA stormwater application regulations at 40 CFR 122.26. The permittee shall perform the analyses according to the procedures approved under 40 CFR Part 136, unless other test procedures have been specified.
Annual Data Summary	Permittee shall provide a summary electronically with the annual report	The permittee shall submit a stormwater monitoring report annually. The monitoring reports shall include: status of implementation of the monitoring program, methods of evaluating data, graphical summaries of the data, and an explanation/discussion of the data for each component of the monitoring program. The monitoring data/results obtained each year will be submitted electronically with the Annual Report. A narrative data analysis shall be submitted annually with in the Annual Report.

MSD Tables

TABLE 8. PERFORMANCE ASSESSMENT AND REPORTING (PAR)	
MSD is the primary co-permittee and has an inter-local agreement with its co-permittees; the responsibilities are divided according to the Part I-1, Section A.	
Element Task	Frequency or Measure of Success
Activity Required	
Activity Measures Reporting	Permittee shall develop and retain Annual Reports for three years beyond permit term
PEOPLE	Permittee shall, by the end of Permit Year two (2), summarize tracking procedures and results and include with annual report
Illicit Discharge Trend Analysis	Permittee shall provide, during Permit Year Five (5) a report of trends and potential implications of IDDE investigations
Industrial/IDDE Compliance Actions Portal	Permittee shall, by the end of Permit Year three (3), report progress summarized in annual compliance demonstration report
Post-Construction Inspection Portal	Permittee, shall, by the end of Permit Year three (3), report progress summarized in annual compliance demonstration report
Six-Level Program Assessment Methodology	Permittee shall develop approaches enumerated by the end of Permit Year two (2) and implemented by the end of Permit Year four (4)
	As described in the specific activity listings, the permittee shall compile information necessary to provide in an annual compliance report. The metrics defined by "Measure of Success" shall be reported and kept for program assessment purposes. The permittee shall track the appropriate metrics through existing databases/spreadsheets to support staff assignments and budget development.
	The permittee shall develop and implement an activity tracking procedure to support consistent coordination and integrated reporting in a way that enables the variety of MSD staff to report their individual activities, target audiences, and related metric.
	The permittee shall perform a trend analysis of illicit discharge investigations and enforcement actions over the term of the permit.
	The permittee shall develop strategies and establish a schedule to initiate a Compliance Actions Web Portal supplementing existing databases for functionality for internal use to expedite follow-up inspections of HRIFs.
	The permittee shall develop strategies and establish a schedule to initiate a Compliance Actions Web Portal for internal use to expedite follow-up inspections of private post-construction BMPs.
	The permittee shall develop an approach to implement application portions of the six-level program EPA began advocating in 2008 to assist MS4 programs in identifying success and future areas of focus.

MSD Tables

TABLE 8. PERFORMANCE ASSESSMENT AND REPORTING (PART CONT'D.)		
Element Task	Frequency of Measure of Success	Activity Required
Cooperative Annual Report	Permittee shall prepare and submit annual Report in a timely manner	The permittee shall coordinate and cooperate with co-permittees in compilation of the annual compliance demonstration reports.

Louisville Metro Government-Parks Tables

TABLE 1. PUBLIC EDUCATION, OUTREACH, PARTICIPATION, AND LEARNING EXPERIENCES (PEOPLE)	
Element Task	Frequency or Measure of Success
Newsletter	Permittee shall report the number of newsletter recipients
Activity Required	
The permittee (Louisville Metro Government Parks) shall employ its monthly newsletter at least twice during the year to discuss pollution prevention information.	
TABLE 2. ILLICIT DISCHARGE DETECTION AND ELIMINATION (IDDE)	
Louisville Metro Government has an inter-local agreement with MSD, the primary Co-Permittee on this MS4 permit; the responsibilities are divided according to the Part I, Section A.	
Element Task	Frequency or Measure of Success
Training session(s) for applicable staff	Permittee shall report number of staff trained per year
Activity Required	
The permittee shall require staff to attend training on the recognition and reporting of illicit discharges as provided by MSD.	
TABLE 3. CONSTRUCTION SITE STORMWATER RUNOFF CONTROL REQUIREMENTS (CS)	
Louisville Metro Government has an inter-local agreement with MSD, the primary Co-Permittee on this MS4 permit; the responsibilities are divided according to the Part I, Section A.	
Element Task	Frequency or Measure of Success
City construction projects to follow construction site BMP requirements	Permittee shall summarize the contracts, city code officer inspection log of sites and include with the annual report
Activity Required	
The permittee shall require all contracts specify compliance with Erosion Prevention and Sediment Control program requirements, and require that in-house projects inspected for compliance.	
TABLE 4. POST-CONSTRUCTION (PC) STORMWATER RUNOFF CONTROL FOR NEW DEVELOPMENT AND REDEVELOPMENT	
Louisville Metro Government has an inter-local agreement with MSD, the primary Co-Permittee on this MS4 permit; the responsibilities are divided according to the Part I, Section A.	
Element Task	Frequency or Measure of Success
Tree/green space replacement to provide future ground cover	Permittee shall continue the Memorandum-for-record filed yearly by participating departments
Activity Required	
The permittee shall maintain or increase the total amount of trees or other green-space/ground cover on Metro Government property, in accordance with appropriated resources.	

Louisville Metro Government-Parks Tables

TABLE 5 GOOD HOUSEKEEPING/POLLUTION PREVENTION FOR MUNICIPAL OPERATIONS		
Louisville Metro Government has an inter-local agreement with MSD, the primary Co-Permittee on this MS4 permit; the responsibilities are divided according to the Part I, Section A.		
Element Task	Frequency of Measure of Success	Accuracy Required
Municipal Facility SWPPPs	Permittee shall revise SWPPPs as needed and retain the revised SWPPPs on file	The permittee shall maintain and revise, as needed, MS4 SWPPPs for applicable "industrial" type Metro facilities.
Staff Training	Permittee shall retain copies of training records, and training references as provided	The permittee shall train the municipal facility staff on the SWPPP requirements, as needed.
Parks Ground Maintenance	Permittee shall continue the Memorandum-for-record filed yearly by department	The permittee shall develop and implement a Pesticide, Herbicide, and Fertilizer (PHF) Program which includes required certification of applicators, reporting on the number of certifications, procedures for the storage and proper use of PHFs and the corresponding measures to protect MS4s and receiving waters from the PHFs.
TABLE 6 MONITORING (M)		
Louisville Metro Government has an inter-local agreement with MSD, the primary Co-Permittee on this MS4 permit; the responsibilities are divided according to the Part I, Section A.		
TABLE 7 PERFORMANCE ASSESSMENT AND REPORTING (PAR)		
Louisville Metro Government has an inter-local agreement with MSD, the primary Co-Permittee on this MS4 permit; the responsibilities are divided according to the Part I, Section A. Louisville Metro Government - Parks shall submit its annual report to MSD for submittal to the Division of Water in the appropriate time frame developed by MSD.		

Louisville Metro Government-Works & Assets Department Tables

TABLE 1 PUBLIC EDUCATION, OUTREACH, PARTICIPATION AND LEARNING EXPERIENCES (PEOPLE)	
Louisville Metro Government has an inter-local agreement with MSD, the primary Co-Permittee on this MS4 permit; the responsibilities are divided according to the Part I, Section A.	
Element Task	Frequency or Measure of Success
Website	Permittee shall report the number of hits received on an annual basis and revise as needed
Activity Required	
The permittee shall maintain the website, www.louisvilleky.gov , as it addresses littering, water quality, recycling, snow removal, pollution prevention, and air quality.	
TABLE 2 ILLICIT DISCHARGE DETECTION AND ELIMINATION (IDDE)	
Louisville Metro Government has an inter-local agreement with MSD, the primary Co-Permittee on this MS4 permit; the responsibilities are divided according to the Part I, Section A.	
Element Task	Frequency or Measure of Success
Mapping	Permittee shall complete and submit to the Division of Water within twenty-four (24) months of the effective date of this permit.
Activity Required	
The permittee shall develop, and maintain a storm-sewer system map, showing the location of all known major outfalls, as defined herein, and the names and location of all waters of the Commonwealth that receive discharges from those outfalls. If this mapping is completed using Geographical Information Systems (GIS) or Computer Aided Drafting (CAD) software, the permittee shall provide to the Division of Water, at a minimum, the MS4 boundary and the mapped infrastructure in either ESRI shape file formats (to include the .shp, .shx, and .dbf files) or geo-referenced AutoCAD drawings (.dwg file format).	
Training session(s) for applicable staff	Permittee shall retain copies of MSD training records of staff and any training references as provided
Activity Required	
The permittee shall require staff to attend training on the recognition and reporting of illicit discharges as provided by MSD.	

Louisville Metro Government-Works & Assets Department Tables

TABLE 3. CONSTRUCTION SITE STORMWATER RUNOFF CONTROL REQUIREMENTS (CS)		
Louisville Metro Government has an inter-local agreement with MSD, the primary Co-Permittee on this MS4 permit; the responsibilities are divided according to the Part I, Section A.		
Element Task	Frequency or Measure of Success	Activity Required
City construction projects to follow construction site BMP requirements	Permittee shall summarize the contracts, city code officer inspection log of sites and include with the annual report	The permittee shall require all contracts specify compliance with Erosion Prevention and Sediment Control program requirements, and require that in-house projects inspected for compliance.
TABLE 4. POST-CONSTRUCTION (PC) STORMWATER RUNOFF CONTROL FOR NEW DEVELOPMENT AND REDEVELOPMENT		
Louisville Metro Government has an inter-local agreement with MSD, the primary Co-Permittee on this MS4 permit; the responsibilities are divided according to the Part I, Section A.		
Element Task	Frequency or Measure of Success	Activity Required
Tree/green space replacement to provide future ground cover	Permittee shall maintain records of trees removed and planted by participating departments	The permittee shall maintain or increase the total amount of trees or other green-space/ground cover on Metro Government property, in accordance with appropriated resources.
TABLE 5. GOOD HOUSEKEEPING/POLLUTION PREVENTION FOR MUNICIPAL OPERATIONS		
Louisville Metro Government has an inter-local agreement with MSD, the primary Co-Permittee on this MS4 permit; the responsibilities are divided according to the Part I, Section A.		
Element Task	Frequency or Measure of Success	Activity Required
Municipal Facility SWPPPs	Permittee shall retain draft SWPPPs on file	The permittee shall maintain and revise, as needed, MS4 SWPPPs for applicable "industrial" type Metro facilities.
Staff Training	Permittee shall retain copies of training records, and training references as provided	The permittee shall train the municipal facility staff on the SWPPP requirements, as needed.
Metro Government Environmental Program	Permittee shall revise Environmental Program and Manual as needed	The permittee shall make recommendations to incorporate the Mayor's Green Initiative Strategies within the Metro Environmental Program Manual, as needed.

Louisville Metro Government-Works & Assets Department Tables

TABLE 6 MONITORING (M)
Louisville Metro Government has an inter-local agreement with MSD, the primary Co-Permittee on this MS4 permit; the responsibilities are divided according to the Part I, Section A.
TABLE 7 PERFORMANCE ASSESSMENT AND REPORTING (PAR)
Louisville Metro Government has an inter-local agreement with MSD, the primary Co-Permittee on this MS4 permit; the responsibilities are divided according to the Part I, Section A. Louisville Metro Government - Works & Assets Department shall submit its annual report to MSD for submittal to the Division of Water in the appropriate time frame developed by MSD.

Louisville Metro Government- Metro Zoo Tables

TABLE 1 PUBLIC EDUCATION, OUTREACH, PARTICIPATION AND LEARNING EXPERIENCES (PEOPLE)	
Element Task	Frequency or Measure of Success
Environmental Outreach Events	Permittee shall conduct an least four (4) environmental outreach events annually
Activity Required	
The permittee shall conduct annual environmental outreach events such as the Earth Day event, night safaris, School-at-the-Zoo, and wetlands program or an effective equivalent.	
TABLE 2 ILLICIT DISCHARGE DETECTION AND ELIMINATION (IDDE)	
Louisville Metro Government has an inter-local agreement with MSD, the primary Co-Permittee on this MS4 permit; the responsibilities are divided according to the Part I, Section A.	
Element Task	Frequency or Measure of Success
Training session(s) for applicable staff	Permittee shall retain copies of MSD training records and training references as provided
Louisville Zoo	Permittee shall retain project Reports and Documents
Activity Required	
The permittee shall require staff to attend training on the recognition and reporting of illicit discharges as provided by MSD.	
The permittee shall continue to partner with MSD on identified improvements to the drainage and monitoring systems, for control of flow and contamination of stormwater from the Zoo site.	
TABLE 3 CONSTRUCTION SITE STORMWATER RUNOFF CONTROL REQUIREMENTS (CS)	
Louisville Metro Government has an inter-local agreement with MSD, the primary Co-Permittee on this MS4 permit; the responsibilities are divided according to the Part I, Section A.	
Element Task	Frequency or Measure of Success
City construction projects to follow construction site BMP requirements	Permittee shall summarize the contracts, city code officer inspection log of sites and include with the annual report
Activity Required	
The permittee shall require all contracts specify compliance with Erosion Prevention and Sediment Control program requirements, and require that in-house projects inspected for compliance.	

Louisville Metro Government- Metro Zoo Tables

TABLE 4. POST-CONSTRUCTION (PC) STORMWATER RUNOFF CONTROL FOR NEW DEVELOPMENT AND REDEVELOPMENT		
Louisville Metro Government has an inter-local agreement with MSD, the primary Co-Permittee on this MS4 permit; the responsibilities are divided according to the Part I, Section A.		
TABLE 5. GOOD HOUSEKEEPING/POLLUTION PREVENTION FOR MUNICIPAL OPERATIONS		
Louisville Metro Government has an inter-local agreement with MSD, the primary Co-Permittee on this MS4 permit; the responsibilities are divided according to the Part I, Section A.		
Element	Frequency or Measure of Success	Activity Required
Municipal Facility SWPPPs	Permittee shall maintain and revise SWPPPs on file	The permittee shall maintain and revise, as needed, MS4 SWPPPs for applicable "industrial" type Metro facilities.
Staff Training	Permittee shall retain copies of training records, and training references as provided	The permittee shall train the municipal facility staff on the SWPPP requirements, as needed.
Metro Government Environmental Program	Permittee shall make recommendations to revisions of the Manual	The permittee shall make recommendations to incorporate the Mayor's Green Initiative Strategies within the Metro Environmental Program Manual, as needed.
TABLE 6. MONITORING (M)		
Louisville Metro Government has an inter-local agreement with MSD, the primary Co-Permittee on this MS4 permit; the responsibilities are divided according to the Part I, Section A.		
TABLE 7. PERFORMANCE ASSESSMENT AND REPORTING (PAR)		
Louisville Metro Government has an inter-local agreement with MSD, the primary Co-Permittee on this MS4 permit; the responsibilities are divided according to the Part I, Section A. Louisville Metro Government - Metro Zoo shall submit its annual report to MSD for submittal to the Division of Water in the appropriate time frame developed by MSD.		

City of Shively Tables

TABLE 1 PUBLIC EDUCATION, OUTREACH, PARTICIPATION AND LEARNING EXPERIENCES (PEOPLE)		
The City of Shively has an inter-local agreement with MSD, the primary Co-Permittee on this MS4 permit; the responsibilities are divided according to the Part I, Section A.		
Element Task	Frequency of Measure of Success	
	Activity Required	
Newsletters	Permittee shall develop and issue newsletters four (4) times per year	The permittee shall continue the quarterly newsletters that are mailed to its citizens and use this format or an effective equivalent to educate the public on the MS4 program, their impact on water quality, and public participation opportunities facilitated or sponsored by the permittee.
Public Education	Permittee shall revise the website to include educate the public starting in Permit Year two (2) and report the hits received in the Annual Report	The permittee shall revise the City's website to inform the citizens about the MS4 program, their impact on water quality, and public participation opportunities facilitated or sponsored by the permittee.
Public Participation Event	Permittee shall develop and implement an annual public participation event starting in Permit Year two (2)	The permittee shall develop and implement an annual public participation opportunity to educate the citizens about their impacts on water quality. This public participation activity may coincide with the Annual Shively Independence Festival and may consist of a booth with information for the citizens or an effective equivalent.
School Age Children	Permittee shall report any community service or environmentally beneficial projects the children performed and summarize these activities in the annual report	The permittee shall encourage and promote school groups to perform community service by facilitating activities such as, but not limited to, litter pick-up campaign, and storm drain labeling.

City of Shively Tables

TABLE 2. ILLICIT DISCHARGE DETECTION AND ELIMINATION (IDDE)	
The City of Shively has an inter-local agreement with MSD, the primary Co-Permittee on this MS4 permit; the responsibilities are divided according to the Part I, Section A.	
Element Task	Frequency of Measure of Success
Mapping	Permittee shall complete and submit to the Division of Water within twenty-four (24) months of the effective date of this permit.
Training session(s) for applicable staff	Permittee shall retain copies of MSD training records and training references as provided
Signage	Permittee shall enumerate the new signs and submit the information in the annual report
	The permittee shall develop, and maintain a storm-sewer system map, showing the location of all known major outfalls, as defined herein, and the names and location of all waters of the Commonwealth that receive discharges from those outfalls. If this mapping is completed using Geographical Information Systems (GIS) or Computer Aided Drafting (CAD) software, the permittee shall provide to the Division of Water, at a minimum, the MS4 boundary and the mapped infrastructure in either ESRI shape file formats (to include the .shp, .shx, and .dbf files) or geo-referenced AutoCAD drawings (.dwg file format).
	The permittee shall require staff to attend training on the recognition and reporting of illicit discharges as provided by MSD.
	The permittee shall post additional "No Dumping" signs throughout Shively. The permittee shall track when new signs are posted and report in the annual report.
TABLE 3. CONSTRUCTION SITE STORMWATER RUNOFF CONTROL REQUIREMENTS (CS)	
The City of Shively has an inter-local agreement with MSD, the primary Co-Permittee on this MS4 permit; the responsibilities are divided according to the Part I, Section A.	
Element Task	Frequency of Measure of Success
Training	Permittee shall include the number of certified EPSC Inspectors and Date of Certification in the annual report
	The permittee shall attend training on Erosion Prevention and Sediment Control procedures.
	The permittee shall attend training on Erosion Prevention and Sediment Control procedures.

City of Shively Tables

TABLE 4 POST-CONSTRUCTION (PC) STORMWATER RUNOFF CONTROL FOR NEW DEVELOPMENT AND REDEVELOPMENT	
The City of Shively has an inter-local agreement with MSD, the primary Co-Permittee on this MS4 permit; the responsibilities are divided according to the Part I, Section A.	
Element Task	Frequency of Measure of Success
Green Infrastructure	Permittee shall complete project within twenty-four (24) months of the effective date of this permit.
	The permittee shall work in collaboration with MSD to install a green restoration project in the City's infrastructure.
TABLE 5 GOOD HOUSEKEEPING/POLLUTION PREVENTION FOR MUNICIPAL OPERATIONS	
The City of Shively has an inter-local agreement with MSD, the primary Co-Permittee on this MS4 permit; the responsibilities are divided according to the Part I, Section A.	
Element Task	Frequency of Measure of Success
Property Cleanup	Permittee shall summarize the progress in property cleanup and include the summary in the annual report
	The permittee shall continue to address cleanups on public property and shall add more workers and more public areas to be cleaned.
TABLE 6 MONITORING (M)	
The City of Shively has an inter-local agreement with MSD, the primary Co-Permittee on this MS4 permit; the responsibilities are divided according to the Part I, Section A.	
TABLE 7 PERFORMANCE ASSESSMENT AND REPORTING (PAR)	
The City of Shively has an inter-local agreement with MSD, the primary Co-Permittee on this MS4 permit; the responsibilities are divided according to the Part I, Section A. Shively shall submit its annual report to MSD for submittal to the Division of Water in the appropriate time frame developed by MSD.	

City of St. Matthews

TABLE 1. PUBLIC EDUCATION, OUTREACH PARTICIPATION, AND LEARNING EXPERIENCES (PEOPLE)		
The City of St. Matthews has an inter-local agreement with MSD, the primary Co-Permittee on this MS4 permit; the responsibilities are divided according to the Part I, Section A.		
Element Task	Frequency or Measure of Success	
	Activity Required	
Stormwater Education	Permittee shall feature a stormwater item at least four (4) times a year in the newsletter	The permittee shall use a dedicated Stormwater section in the City's newsletter. Each newsletter shall feature an article focused on informing the public on ways they impact water quality and on ways to improve water quality in their local waterbodies.
Website	Permittee shall report the number of hits in the annual report and update the website as needed	The permittee shall continue to develop and implement the "Green" menu on the website that directs the citizenry to a webpage dedicated to green solutions, including best management practices that may be implemented to improve water quality.
Pet Waste Pick-up	Permittee shall advertise at least one (1) time per year in Newsletter and Posted Public Signs	The permittee shall continue to implement the pet-waste cleanup program including the installation of signs at all major public parks and community centers to notify the public that they are responsible for the proper disposal of pet's waste, including the installation of signs, one bag dispenser and waste receptacles. The permittee shall evaluate the pet-waste cleanup program for the need for additional bag dispensers and additional advertisements in the newsletter.
Public Meetings	Permittee shall enumerate the number of public meetings where stormwater is discussed and summarize this for the annual report	The permittee shall inform the public of ways they can improve water quality before runoff exits their property during future Project Informational Meetings for Drainage Improvement Projects.
Business Owner Education	Permittee shall facilitate at least one (1) time per year education outreach for business owners	The permittee shall provide stormwater education information to its business owners in an effort to reduce pollution in the stormwater.
Leaf Pickup	Permittee shall advertise at least one (1) time per year	The permittee shall identify and advertise the time when leaf pickup will be conducted on particular streets, providing signs on designated streets to notify public of leaf pickup.

City of St. Matthews Tables

TABLE 1 PUBLIC EDUCATION, OUTREACH, PARTICIPATION AND LEARNING EXPERIENCES (PEOPLE) cont'd	
Element Task	Frequency or Measure of Success
Place Mat	Permittee shall dispense at least 200 placements per year
Green-up Program	Permittee shall advertise the Green-up program at least four (4) per year in Newsletter
Cooperative Efforts (St. Matthews provides supportive or other non-lead role)	
Element Task	Frequency or Measure of Success
Jefferson County MS4 Workgroup-Communication	Permittee shall attend at least one (1) meeting per year
TABLE 2 ILLICIT DISCHARGE DETECTION AND ELIMINATION (TIDE)	
The City of St. Matthews has an inter-local agreement with MSD, the primary Co-Permittee on this MS4 permit; the responsibilities are divided according to the Part I, Section A.	
Element Task	Frequency or Measure of Success
Mapping	Permittee shall complete and submit to the Division of Water within twenty-four (24) months of the effective date of this permit.
Hotline	Permittees shall identify and report those occurrences and summarize for submittal with the annual report

Activity Required

The permittee shall dispense at least 200 placemats from the EPA's Non-point Source Toolbox to local food establishments to use. The placemat contains information about stormwater and the general population's impact on water quality.

The permittee shall continue its program to help eliminate asphalt or concrete parking pads/pull-offs located in existing right-of-ways. This program consists of residents who are willing to improve water quality can have the concrete parking pad/pull off removed and restored to natural turf at no expense to the property owner.

Activity Required

The permittee shall participate in the Jefferson County MS4 Co-Permittee Workgroup meetings discussing program progress, challenges, activity changes, shared activity requests, communication needs, and lessons learned.

Activity Required

The permittee shall develop, and maintain a storm-sewer system map, showing the location of all known major outfalls, as defined herein, and the names and location of all waters of the Commonwealth that receive discharges from those outfalls. If this mapping is completed using Geographical Information Systems (GIS) or Computer Aided Drafting (CAD) software, the permittee shall provide to the Division of Water, at a minimum, the MS4 boundary and the mapped infrastructure in either ESRI shape file formats (to include the .shp, .shx, and .dbf files) or geo-referenced AutoCAD drawings (.dwg file format).

The permittee shall maintain a hotline for residents to report illegal dumping or illegal discharge into the storm sewer system.

City of St. Matthews Tables

TABLE 2. ILLICIT DISCHARGE DETECTION AND ELIMINATION (IDDE) cont'd	
Training session(s) for applicable staff	Permittee shall report the dates and number of employees trained in the annual report.
	The permittee shall require staff to attend training on the recognition and reporting of illicit discharges as provided by MSD.
Cooperative Efforts (St. Matthews provides supportive or other non-lead role)	
Element Task	Frequency or Measure of Success
Inter-local agreement w/MSD	Permittee shall identify and report those occurrences
	The permittee shall immediately report any illicit discharge to MSD and Metro Health Department.
TABLE 3. CONSTRUCTION SITE STORMWATER RUNOFF CONTROL REQUIREMENTS (CS)	
The City of St. Matthews has an inter-local agreement with MSD, the primary Co-Permittee on this MS4 permit; the responsibilities are divided according to the Part I, Section A.	
Element Task	Frequency or Measure of Success
MSD Plan Approval	Permittee shall insure that MSD has approved and inspected applicable projects
	The permittee has an interlocal agreement with MSD, where MSD administers approval and inspection on EPSC and Site Disturbance Permits for construction projects within the City. Prior to any approvals, MSD confirms that there are not any existing complaints or issues in the project area. The permittee shall continue the confirmation of complaints or issues in the project area.
Construction Oversight	Permittee shall report in the annual report the number of violations found and referred to MSD
	The permittee shall provide construction oversight in addition to that provided through the inter-local agreement with Louisville MSD, including reporting any noted violation to Louisville MSD for enforcement.
Cooperative Efforts (St. Matthews provides supportive or other non-lead role)	
Element Task	Frequency or Measure of Success
Inter-local agreement w/MSD for approval and inspection	Permittee shall include the number of certified EPSC Inspectors and Date of Certification in the annual report
	The permittee shall continue to obtain EPSC & Site Disturbance Permits from MSD on applicable projects. The permittee shall continue to hold itself to the same EPSC standards as private contractors working within the City. For private construction, a city official inspects sites for compliance with the EPSC ordinance. Should a violation occur, the permittee shall request MSD's assistance in action to bring the site into compliance, if necessary.

City of St. Matthews Tables

TABLE 4. POST-CONSTRUCTION (PC) STORMWATER RUNOFF CONTROL FOR NEW DEVELOPMENT AND REDEVELOPMENT	
The City of St. Matthews has an inter-local agreement with MSD, the primary Co-Permittee on this MS4 permit; the responsibilities are divided according to the Part I, Section A.	
Element Task	Frequency of Measure of Success
City of St. Matthews Tree Planting	Permittee shall record the purchase of trees and summarize for submittal in the annual report
Rain Barrels & Rain Gardens	Permittee shall report the number of participants and submit with the annual report
Master Plan	Permittee shall record updates and projects completed from Master Plan.
Inter-local agreement w/MSD for approval and inspection	Permittee shall identify & report those contractors operating without a permit
<p>The permittee shall plant approximately 75 two-inch diameter trees annually. The permittee shall not remove dead trees from wooded areas within the major City parks.</p> <p>The permittee shall continue to promote rain barrels and rain gardens within the City to help with reduce stormwater runoff through the "Green" menu on the City's website.</p> <p>The permittee has developed a drainage Master Plan to provide some form of drainage relief to its residents. The permittee shall continue to update the plan to reflect ongoing issues.</p> <p>The permittee shall continue to obtain EPSC & Site Disturbance Permits from MSD on applicable projects. The permittee shall continue to hold itself to the same EPSC standards as private contractors working within the City. For private construction, a city official inspects sites for compliance with the EPSC ordinance. Should a violation occur, the permittee shall request MSD's assistance in action to bring the site into compliance, if necessary.</p>	
TABLE 5. GOOD HOUSEKEEPING/POLLUTION PREVENTION FOR MUNICIPAL OPERATIONS	
The City of St. Matthews has an inter-local agreement with MSD, the primary Co-Permittee on this MS4 permit; the responsibilities are divided according to the Part I, Section A.	
Element Task	Frequency of Measure of Success
Leaf Pickup	Permittee shall clean each residential street twice per leaf season
Beet Juice Additive	Permittee shall report the amount of material ordered.
<p>The permittee shall continue its program for the fall months to pick up leaves for those residents who bring the leaves to the edge of the street.</p> <p>The permittee is experimenting with adding beet juice to its salt. The beet juice lowers the temperature at which salt can be effective, and removes much of the caustic quality of salt brine.</p>	

City of St. Matthews Tables

TABLE 4 POST-CONSTRUCTION (PC) STORMWATER RUNOFF CONTROL FOR NEW DEVELOPMENT AND REDEVELOPMENT	
The City of St. Matthews has an inter-local agreement with MSD, the primary Co-Permittee on this MS4 permit; the responsibilities are divided according to the Part I, Section A.	
Element Task	Frequency or Measure of Success
City of St. Matthews Tree Planting	Permittee shall record the purchase of trees and summarize for submittal in the annual report
Rain Barrels & Rain Gardens	Permittee shall report the number of participants and submit with the annual report
Master Plan	Permittee shall record updates and projects completed from Master Plan
Inter-local agreement w/MSD for approval and inspection	Permittee shall identify & report those contractors operating without a permit
The permittee shall plant approximately 75 two-inch diameter trees annually. The permittee shall not remove dead trees from wooded areas within the major City parks.	
The permittee shall continue to promote rain barrels and rain gardens within the City to help with reduce stormwater runoff through the "Green" menu on the City's website.	
The permittee has developed a drainage Master Plan to provide some form of drainage relief to its residents. The permittee shall continue to update the plan to reflect ongoing issues.	
The permittee shall continue to obtain EPSC & Site Disturbance Permits from MSD on applicable projects. The permittee shall continue to hold itself to the same EPSC standards as private contractors working within the City. For private construction, a city official inspects sites for compliance with the EPSC ordinance. Should a violation occur, the permittee shall request MSD's assistance in action to bring the site into compliance, if necessary.	
TABLE 5 GOOD HOUSEKEEPING/POLLUTION PREVENTION FOR MUNICIPAL OPERATIONS	
The City of St. Matthews has an inter-local agreement with MSD, the primary Co-Permittee on this MS4 permit; the responsibilities are divided according to the Part I, Section A.	
Element Task	Frequency or Measure of Success
Leaf Pickup	Permittee shall clean each residential street twice per leaf season
Beet Juice Additive	Permittee shall report the amount of material ordered.
The permittee shall continue its program for the fall months to pick up leaves for those residents who bring the leaves to the edge of the street.	
The permittee is experimenting with adding beet juice to its salt. The beet juice lowers the temperature at which salt can be effective, and removes much of the caustic quality of salt brine.	

City of St. Matthews Tables

TABLE 5. GOOD HOUSEKEEPING/POLLUTION PREVENTION FOR MUNICIPAL OPERATIONS (Cont'd)		
Element Task	Frequency or Measure of Success	Activity Required
Street Sweeping	Permittee shall sweep the curbed streets twice per year, as recorded on invoice	The permittee shall develop a program that will provide for street sweeping on priority curbed streets.
Pet Waste Removal	Permittee shall report occurrence of replacing bags	The permittee shall coordinate with local officials to install signs and bags in major City-owned public parks for pet waste removal. Receptacles shall be placed statically placed to allow for disposal.
Rain Barrels & Rain Gardens	Permittee shall report the number of participants	The permittee shall research a plan to provide rain barrel and rain garden education in an effort to reduce stormwater runoff from private residences. In addition, the permittee shall research an easy way for residents to purchase the necessary materials.
Replacing Existing Open Throat Yard Drains	Permittee shall report the number of replacements, goal is to have residential basins removed by 2018	The permittee shall devise a program to eliminate the open throat yard drains found in residential areas, in an effort to reduce the amount of sediment introduced to the MS4.
Green-up Program	Permittee shall report the number of replacements	The permittee shall look at the alternatives for providing a better way to promote the program and remove existing impervious pull-offs in order to restore the ground back to a natural state.
Stormwater Best Management Practices Plan	Permittee shall document the revisions throughout the year	The permittee has a Stormwater Best Management Practices Plan for their Maintenance and Construction Facilities. This document is an evolving one; the permittee shall make revisions on an as-needed basis.
Separate Storm Sewer System Mapping	Permittee shall document the revisions throughout the year	The permittee is in the process of devising a system to show all of their storm sewer systems in electronic format.
TABLE 6. MONITORING (M)		
The City of St. Matthews has an inter-local agreement with MSD, the primary Co-Permittee on this MS4 permit; the responsibilities are divided according to the Part I, Section A.		
TABLE 7. PERFORMANCE ASSESSMENT AND REPORTING (PAR)		
The City of St. Matthews has an inter-local agreement with MSD, the primary Co-Permittee on this MS4 permit; the responsibilities are divided according to the Part I, Section A. St. Matthews shall submit its annual report to MSD for submittal to the Division of Water in the appropriate time frame developed by MSD.		

City of Jeffersonstown Tables

TABLE I. PUBLIC EDUCATION, OUTREACH, PARTICIPATION, AND LEARNING EXPERIENCES (PEOPLE)	
The City of Jeffersonstown has an inter-local agreement with MSD, the primary Co-Permittee on this MS4 permit; the responsibilities are divided according to the Part I, Section A.	
Element Task	Frequency or Measure of Success
Public Education Programs	Permittee shall provide records of at least six (6) newsletters published per year with articles describing "green" activities being supported or promoted by the city of Jeffersonstown to be supplied in the annual report
"Spruce up Jeffersonstown"	Permittee shall provide clean-up materials for clean-up events, report summary of events in the annual report
Litter Control	Permittee shall provide monthly inspections of City to gauge success of program and report summary of inspections in the annual report
Internal Training of City officials and employees	Permittee shall conduct monthly educational meetings, and make material available to all employees and provide a summary of these educational meetings in the annual report
	The permittee shall continue to issue its bimonthly newsletter that made information regarding public services and participation opportunities available to the public and disseminates information through the Jeffersonstown website, www.jeffersonstownky.com . The newsletter included articles on recycling and yard waste as well as the pollution prevention activity for collection of mercury thermometers. The permittee shall be expanding the "Spruce Up Jeffersonstown" program to include public education to the effects of litter, trash and illegal dumping. It will also provide beautification efforts to promote a healthy lifestyle and balance between the environment and everyday living. It will educate the community on erosion and sediment control, floodplains and floodways, pollution of streams and water quality efforts to protect wildlife and the human element. This expanded program will be called "Jeffersonstown Green Scene".
	The permittee shall provide public participation activities for youth organizations, civic clubs, and residents of Jeffersonstown such as "Spruce up Jeffersonstown" where the permittee supplies the necessary items, such as garbage bags and the permittee shall be responsible for proper disposal of collected debris.
	The permittee shall continue to provide litter abatement to reduce the trash into local waterbodies. The permittee may choose to continue utilizing work release programs to maintain a level of standard of litter abatement, or an effective equivalent.
	The permittee is required to continue the training of the City's Mayor, City Administrator and Maintenance Director by attending MS4 presentations or an effective equivalent. The permittee shall continue to provide brown bag luncheons of new trends and programs that could benefit the City and community or an effective equivalent. The permittee shall make educational materials available to employees concerning the prevention of stormwater pollution.

City of Jeffersontown Tables

TABLE 1. PUBLIC EDUCATION, OUTREACH, PARTICIPATION AND LEARNING EXPERIENCES (PEOPLE) cont'd		Activity Required
Element Task	Frequency or Measure of Success	
External Training	Permittee shall, in Permit Year two (2), develop and conduct annual spring mobile workshop-"Stormwater Anatomy 101"	The permittee shall develop educational material and worksheet program that will be used to engage students. The permittee has developed a bike/walking master plan that addressed goals and objectives as well as policy issues relative to floodplains, erosion and sediment control and the impact to streams and drainage ways. This bike/walking trail will be used to conduct education training series or an effective equivalent shall be developed.
Cooperative Efforts (Jeffersontown Provides supportive or other non-lead role)		
Element Task	Frequency or Measure of Success	Activity Required
Kentucky Stormwater Association (KSA)	Permittee shall participate in at least 75% of regular KSA meetings	The permittee or co-permittee shall attend meetings or presentations discussing various MS4 programs and meeting topics/presentations as applicable, such as the MS4 Workgroup Meetings or an effective equivalent.
Kentucky Transportation Cabinet (KYTC)-Public Education Material	Permittee shall use the applicable materials to educate the citizenry	The permittee shall use the KYTC Toolkit materials for education, if applicable, or an effective equivalent.
Jeffersontown - Coalition of Neighborhoods	Permittee shall report activities and programs participated and/or coordinated starting in Permit Year two (2)	The permittee shall continue to coordinate and assist in the implementation of a variety of community events focused on litter control, community beautification and neighborhood stormwater management issues. The permittee shall promote and encourage the integration of stormwater quality themes and topics identified in the PEOPLE plan
TABLE 2. ILLEGAL DISCHARGE DETECTION AND ELIMINATION (SIDE)		
The City of Jeffersontown has an inter-local agreement with MSD, the primary Co-Permittee on this MS4 permit; the responsibilities are divided according to the Part I, Section A.		
Element Task	Frequency or Measure of Success	Activity Required
Mapping	Permittee shall complete and submit to the Division of Water within twenty-four (24) months of the effective date of this permit.	The permittee shall develop, and maintain a storm-sewer system map, showing the location of all known major outfalls, as defined herein, and the names and location of all waters of the Commonwealth that receive discharges from those outfalls. If this mapping is completed using Geographical Information Systems (GIS) or Computer Aided Drafting (CAD) software, the permittee shall provide to the Division of Water, at a minimum, the MS4 boundary and the mapped infrastructure in either ESRI shape file formats (to include the .shp, .shx, and .dbf files) or geo-referenced AutoCAD drawings (.dwg file format).

City of Jeffersonstown Tables

TABLE 2. ILLICIT DISCHARGE DETECTION AND ELIMINATION (IDDE) CONT'D		
Element Task	Frequency or Measure of Success	Activity Required
Illicit Discharge/Illegal Dumping Ordinance	Permittee shall prepare annual reports by various complaint activities and develop PEOPLE to fit need starting in Permit Year two (2).	The permittee shall continue to enforce its illegal dumping ordinance and post signs that prohibit dumping at locations that are problem areas. The permittee shall also continue to provide a first line quick response system used to track complaints and concerns from the community in an effort to minimize the response time to various community issues. The permittee shall also continue to perform site inspections of various known dumping sites in an effort to provide and improvement enforcement of ordinance. This effort minimizes the impact of the illegal dumping on stormwater quality.
Provide education on Illicit Discharge Detection and Elimination	Permittee shall develop and implement targeted educational materials	The permittee shall provide education on illicit discharges such as proper disposal of leaf debris, and other illicit discharges that have an impact on stormwater quality. The permittee shall use it monthly newsletter, City's website, or general notices sent home with school children or an effective equivalent.
Cooperative Efforts (Jeffersonstown provides supportive or other non-lead role)		
Element Task	Frequency or Measure of Success	Activity Required
Co-permittee	Permittee shall prepare findings/solutions report at each meeting	The permittee shall attend quarterly meetings to learn what other co-permittees are encountering and work towards cohesive solutions county-wide.
TABLE 3. CONSTRUCTION SITE STORMWATER RUNOFF CONTROL REQUIREMENTS (CS)		
The City of Jeffersonstown has an inter-local agreement with MSD, the primary Co-Permittee on this MS4 permit; the responsibilities are divided according to the Part I, Section A.		
Element Task	Frequency or Measure of Success	Activity Required
Jeffersonstown/MSD Partnership	Permittee shall attend/coordinate quarterly program meetings with MSD to partner of projects	The permittee has an inter-local agreement with MSD to perform certain Construction Site Runoff program tasks. While MSD performs the Erosion Prevention and Sediment Control (EPSC), as a co-permittee, Jeffersonstown shall continue to educate Team Leaders and other key staff in EPSC so that issues can be mitigated as soon as possible. The permittee shall continue to attend quarterly program meetings to be educated on the MS4 program and other stormwater related programs that are occurring in Jefferson County.
Erosion Prevention and Sediment Control (EPSC) Plan	Permittee shall design training handouts for all staff and general public starting in Permit Year two (2)	Starting in Permit Year two (2), the permittee shall develop an educational handout that will highlight the basic requirements of EPSC practices of Jeffersonstown development activity as well as educating the public on ways they can make a difference as they go about their everyday lives.

City of Jeffersontown Tables

TABLE 3 CONSTRUCTION SITE STORMWATER RUNOFF CONTROL REQUIREMENTS (CS) cont'd		Activity Required
Element Task	Frequency or Measure of Success	Activity Required
Scheduled Inspections and Maintenance of BMPs	Starting in Permit Year two (2), the Permittee shall utilize a standardized checklist that will document compliance	The permittee shall inspect construction sites to ensure that the EPSC Ordinance is being followed by utilizing a standardized checklist.
Cooperative Efforts (Jeffersontown provides supportive or other non-lead role)		
Element Task	Frequency or Measure of Success	Activity Required
Construction Development Plan Process	Beginning in Permit Year two (2), the Permittee shall review and update the guidance document and make it publicly available	The permittee shall review and update, as needed, guidance materials identifying the process that developers must follow to obtain related construction permits, including process flow charts and checklists.
Collaborative Guidance and Training	Permittee shall report cooperative activities in the annual report beginning in Permit Year two (2)	The permittee shall work with MSD to educate design engineers on various construction site stormwater runoff controls and standards that are required to be incorporated into the site construction documents.
TABLE 4 POST CONSTRUCTION (PC) STORMWATER RUNOFF CONTROL FOR NEW DEVELOPMENT AND REDEVELOPMENT		
The City of Jeffersontown has an inter-local agreement with MSD, the primary Co-Permittee on this MS4 permit; the responsibilities are divided according to the Part I, Section A.		
Element Task	Frequency or Measure of Success	Activity Required
Pilot BMP Projects	Beginning in Permit Year two (2), the Permittee shall provide a checklist of each development activity that qualifies for review and provide copies to the Planning Director for incorporation into the development file	The permittee shall continue to provide oversight for the following ongoing projects or an effective equivalent. During the last MS4 permit term, the City of Jeffersontown was required to complete a minimum of three BMP Pilot Projects. Firstly, Jeffersontown implemented a no-mow forest restoration area on a steep slope of Veteran's Park above Chenoweth Run. Also, the wooded riparian buffer along Chenoweth Run is protected in City easements. Lastly, approximately 80% of City grass channels have at least a ten-foot buffer strip, which filters runoff before it reaches the stream.

City of Jeffersontown Tables

TABLE 4 POST-CONSTRUCTION (PC) STORMWATER RUNOFF CONTROL FOR NEW DEVELOPMENT AND REDEVELOPMENT cont'd	
Element Task	Frequency or Measure of Success
Build-Upon Area Reductions	Permittee shall continue enforcement of Cornerstone 2020
Source Controls	Permittee shall develop a quarterly checklist to document compliance
<p>Cornerstone 2020 is a comprehensive plan with details on how Louisville-Jefferson County's metro government will be changing over the next 20 years with an estimated population boom of 60,000 people added to the area. The plan encompasses the environment, transportation, commerce, and overall quality of life for the citizens of Louisville. Jeffersontown has adopted the provisions of Cornerstone 2020. The permittee shall continue the enforcement of the Cornerstone 2020's water quality provisions or an effective equivalent.</p> <p>The permittee shall continue to enforce the HMPC plans that have been approved. These plans include, but are not limited to, salt storage areas and refueling areas are to be covered and all dumpsters located within Jeffersontown must be covered and fenced. The permittee shall continue to evaluate these point source areas for possible runoff using a quarterly checklist to document compliance.</p>	
Cooperative Efforts (Jeffersontown provides supportive or other non-lead role)	
Element Task	Frequency or Measure of Success
Collaborative Guidance and Training	In Permit Year two (2), the Permittee shall produce quarterly reports to track success of educational material and runoff designs
<p>The permittee shall develop a post-construction run-off control checklist that will be incorporated into the construction approval process whereby each contractor will be required to document compliance with current standards at bond release or final approval.</p>	
TABLE 5 GOOD HOUSEKEEPING/POLLUTION PREVENTION FOR MUNICIPAL OPERATIONS	
The City of Jeffersontown has an inter-local agreement with MSD, the primary Co-Permittee on this MS4 permit; the responsibilities are divided according to the Part I, Section A.	
Element Task	Frequency or Measure of Success
Street Maintenance	Permittee shall perform quarterly inspections of maintenance efforts to gauge success
Street Sweeping	Permittee shall perform quarterly inspections of maintenance efforts to gauge success
<p>The permittee shall continue to follow the EPSC requirements during its street maintenance activity and incorporate additional BMPs during general street maintenance as needed.</p> <p>The permittee shall continue the street sweeping activities, except in winter months, to reduce the amount of trash and debris from the roadways.</p>	

City of Jeffersontown Tables

TABLE 5 GOOD HOUSEKEEPING/POLLUTION PREVENTION FOR MUNICIPAL OPERATIONS CONT'D		
Element Task	Frequency or Measure of Success	Activity Required
Catch Basins	In Permit Year three (3), the Permittee shall develop a map of all catch basins along with direction of flow	The permittee shall continue to map and identify all City-maintained catch basins and inlets, determining direction of flow and drainage course. The permittee shall continue to implement the FROG No Dumping! Drains to our creeks' program, in collaboration with MSD, or an effective equivalent.
Storm Sewer Cleaning	In Permit Year three (3), the Permittee shall create a bi-annual checklist of all storm sewer systems.	The permittee shall continue to vacuum storm sewers, as needed. The permittee shall also develop bi-annual (spring/fall) inspection standard for all drainage easements and stormwater channels within Jeffersontown.
Channel Maintenance	Permittee shall create a bi-annual checklist of all stormwater channels and ditches	The permittee shall continue to maintain concrete channels on an as-needed basis. The permittee shall continue to maintain grass channels on a regular schedule. Proper disposal of debris removed from drainage channels shall be maintained.
Pollution Prevention for De-icing	Permittee shall perform inspections annually	The permittee shall perform annual inspections on de-icing equipment and continue to calibrate the salt spreader as needed.
BMP Inspection and Maintenance	Permittee shall continue to Train key staff within Public Works and use of a detailed inspection report	The permittee shall continue to inspect and maintain the Good Housekeeping/Pollution Prevention BMPs employed by the City. The permittee shall utilize a checklist in detailing the inspections.
Pollution Prevention for Herbicides and Pesticides	Permittee shall maintain employee licensure	The permittee continue to use properly licensed staff for the application of herbicides and pesticides.
Continuation of Existing Programs	In Permit Year two (2), the Permittee shall move towards larger recycling city-wide	The permittee shall continue to hire a contractor to collect municipal waste, yard waste, and recyclables weekly or have an effective equivalent. The permittee shall expand the "Spruce Up Jeffersontown" program to include public education to the effects of litter, trash, and illegal dumping on stormwater quality. It will educate the community on erosion and sediment control, floodplains and floodway, pollution of streams and water quality efforts to protect wildlife and the human element or an effective equivalent.

City of Jeffersontown Tables

TABLE 5. GOOD HOUSEKEEPING/POLLUTION PREVENTION FOR MUNICIPAL OPERATIONS CONT'D		
Cooperative Efforts (Jeffersontown provides supportive or other non-lead role)		
Element Task	Frequency or Measure of Success	Activity Required
Stormwater Pollution Prevention Plans for Co-permittee Operations	Permittee shall attend regular meetings to maintain consistency	As requested by co-permittees, the permittee shall provide periodic peer review of various stormwater pollution prevention plans and procedures to help identify opportunities to improve the effectiveness of the plans and implementation. The permittee shall provide a collaborative effort to manage stormwater issues across all co-permittees throughout the county.
TABLE 6. MONITORING (M)		
The City of Jeffersontown has an inter-local agreement with MSD, the primary Co-Permittee on this MS4 permit; the responsibilities are divided according to the Part I, Section A.		
TABLE 7. PERFORMANCE ASSESSMENT AND REPORTING (PAR)		
The City of Jeffersontown has an inter-local agreement with MSD, the primary Co-Permittee on this MS4 permit; the responsibilities are divided according to the Part I, Section A. The City of Jeffersontown shall submit its annual report to MSD for submittal to the Division of Water in the appropriate time frame developed by MSD.		

City of Anchorage Tables

TABLE 1. PUBLIC EDUCATION, OUTREACH, PARTICIPATION, AND LEARNING EXPERIENCES (PEOPLE)		
The City of Anchorage has an inter-local agreement with MSD, the primary Co-Permittee on this MS4 permit; the responsibilities are divided according to the Part I, Section A.		
Element Task	Frequency or Measure of Success	
	Activity Required	
Communication to Anchorage residents	Permittee shall provide the number of announcements (via newspaper, website, special events or community meetings) sent to the residents of Anchorage in the annual report	The permittee shall utilize the city newspaper, website, special events, and community meetings or an effective equivalent to communicate to the residents of Anchorage stormwater quality issues or concerns.
Educate Construction Industry Stakeholders	Permittee shall provide the number of builders, developers and contractors educated on the annual report	The permittee shall educate developers, builders, and contractors, in general, at the time they seek permits, on the requirements for stormwater retention and encourage architects, developers, and design teams to look for creative green infrastructure methods (i.e. rain gardens, rain barrels, and green roofs, etc.) to diminish stormwater runoff.
Green Infrastructure Educational Products and Projects	Permittee shall provide the number of MSD Rain Garden Handbooks distributed, and the resulting rain gardens installed on the annual report	The permittee shall facilitate educational opportunities by distributing MSD Rain Garden Handbook; notifying residents of demonstration projects including new rain gardens at local developments; and encourage use of the new Anchorage Trail Wetlands Area to demonstrate to both school children and adults the impact of stormwater quality or an effective equivalent.
Educate City Officials	Permittee shall provide documentation of the meetings where the Mayor and the City Council where updated and advised of MS4 related information, events, and issues at least 4 times per year in the annual report	The permittee shall update and advise the Mayor and City Council of MS4-related information, events, and issues.

City of Anchorage Tables

TABLE 1. PUBLIC EDUCATION, OUTREACH, PARTICIPATION, AND LEARNING EXPERIENCES (PEOPLE) cont'd		Activity Required
Cooperative Efforts (Anchorage provides supportive or other non-lead role)		
Element Task	Frequency or Measure of Success	Activity Required
MS4 Co-permittee Meetings	Permittee shall Participate in meetings	The permittee shall participate in MSD sponsored MS4 Co-permittee meetings to share information and lessons learned.
TABLE 2. ILLICIT DISCHARGE DETECTION AND ELIMINATION (IDDE)		
The City of Anchorage has an inter-local agreement with MSD, the primary Co-Permittee on this MS4 permit; the responsibilities are divided according to the Part I, Section A.		
Element Task	Frequency or Measure of Success	Activity Required
Mapping	Permittee shall complete and submit to the Division of Water within twenty-four (24) months of the effective date of this permit.	The permittee shall develop, and maintain a storm-sewer system map, showing the location of all known major outfalls, as defined herein, and the names and location of all waters of the Commonwealth that receive discharges from those outfalls. If this mapping is completed using Geographical Information Systems (GIS) or Computer Aided Drafting (CAD) software, the permittee shall provide to the Division of Water, at a minimum, the MS4 boundary and the mapped infrastructure in either ESRI shape file formats (to include the .shp, .shx, and .dbf files) or geo-referenced AutoCAD drawings (.dwg file format).
No Dumping Decals	Permittee shall provide the number of new decals displayed drains and catch basins, and the decals that were replaced, provide a summary for the annual report	The permittee shall maintain decals on all drains and catch basins to deter illicit dumping.
Training session(s) for applicable staff	Permittee shall retain copies of MSD training records and training references as provided	The permittee shall require staff to attend training on the recognition and reporting of illicit discharges as provided by MSD.

City of Anchorage Tables

TABLE 2. ILLICIT DISCHARGE DETECTION AND ELIMINATION (IDDE)	
Cooperative Efforts (Anchorage provides supportive or other non-lead role)	
Element Task	Activity Required
<p>Inter-local Agreement with MSD</p> <p>Permittee shall provide the number of reports of IDDE issues to MSD and the actions taken by MSD to address the issue. provide a summary for the annual report</p>	<p>The permittee shall report any IDDE problems directly to MSD.</p>
TABLE 3. CONSTRUCTION SITE STORMWATER RUNOFF CONTROL REQUIREMENTS (CS)	
<p>The City of Anchorage has an inter-local agreement with MSD, the primary Co-Permittee on this MS4 permit; the responsibilities are divided according to the Part I, Section A.</p>	
Element Task	Activity Required
<p>Contractors/ Construction Activities</p> <p>Permittee shall provide the number of inspectors with proper training in the annual report</p>	<p>The permittee shall require contractors to show proof of MSD's EPSC Certification and the plan for the development's containment.</p>
Cooperative Efforts (Anchorage provides supportive or other non-lead role)	
Element Task	Activity Required
<p>Inter-local Agreement with MSD</p> <p>Permittee shall encourage no increase in stormwater runoff from development site through the use of BMPs</p>	<p>The permittee shall review MSD approvals of development for stormwater retention/detention controls.</p>
<p>MSD Enforcement</p> <p>Permittee shall record of violations and reports</p>	<p>The permittee shall notify MSD of any violations of MSD approved stormwater drainage plan and any other violations of water quality.</p>

City of Anchorage Tables

TABLE 4. POST-CONSTRUCTION (PC) STORMWATER RUNOFF CONTROL FOR NEW DEVELOPMENT AND REDEVELOPMENT	
The City of Anchorage has an inter-local agreement with MSD, the primary Co-Permittee on this MS4 permit; the responsibilities are divided according to the Part I, Section A.	
Element Task	Frequency or Measure of Success
FAR Moratorium Ordinance	Permittee shall provide the number of Zoning Compliance Certifications issued in the annual report
Proposed Impervious Surface Ordinance	Study completed, the Permittee shall report the actions discussed in annual report to DOW
TABLE 5. GOOD HOUSEKEEPING/POLLUTION PREVENTION (GH/P2) PROGRAMS FOR MUNICIPAL OPERATIONS	
The City of Anchorage has an inter-local agreement with MSD, the primary Co-Permittee on this MS4 permit; the responsibilities are divided according to the Part I, Section A.	
Element Task	Frequency or Measure of Success
Street Maintenance	Permittee shall sweep site after work performed
Street Sweeping	Permittee shall provide litter abatement records and inspections summary in annual report
Drainage Channel Maintenance	Permittees shall provide the number of inspections of channels and culverts in annual report
Storm sewer cleaning	Permittee shall provide the number of inspections of storm sewers and catch basins in annual report
De-icing Activities	Permittee shall provide amount applied each year in annual report

The permittee has in place a moratorium on floor areas ratios (FAR) for residential lots in Anchorage. The moratorium reduces the allowable living area of a house from previously allowable. This moratorium reduces the amount of impervious surface coming from each lot.

The permittee is studying a limit of impervious surface for new buildings on residential lots. The permittee shall report the findings of this study to the Division of Water in the annual report.

The primary Co-Permittee on this MS4 permit; the responsibilities are divided according to the Part I, Section A.

When repairing roadways, the permittee shall continue to sweep up and properly dispose all remaining unused material.

The permittee shall continue to sweep streets and properly dispose collected debris.

The permittee shall continue the practice of vacuuming and clearing channels and culverts on city's Right-of-Ways.

The permittee shall continue to inspect storm sewers and catch basins following large rain events, and shall continue to clean the storm sewers and catch basins on an as-needed basis.

The permittee shall continue to plow snow and to apply brine in an effort to reduce the amount of salt that is applied during snow events. The permittee shall also adjust salt spreaders to minimize overspray as needed.

City of Anchorage Tables

TABLE 5. GOOD HOUSEKEEPING/POLLUTION PREVENTION (GH/P2) PROGRAMS FOR MUNICIPAL OPERATIONS cont. 'd		
Element Task	Frequency of Measure of Success	Activity Required
Vehicle washing	Permittee shall provide the number of times the containment pit was cleaned out in the annual report	The permittee shall continue to wash City's vehicles that are heavily soiled in the firehouse bay that has a containment pit to capture the dirt and grime.
TABLE 6. MONITORING (M)		
The City of Anchorage has an inter-local agreement with MSD, the primary Co-Permittee on this MS4 permit; the responsibilities are divided according to the Part I, Section A.		
TABLE 7. PERFORMANCE ASSESSMENT AND REPORTING (PAR)		
The City of Anchorage has an inter-local agreement with MSD, the primary Co-Permittee on this MS4 permit; the responsibilities are divided according to the Part I, Section A. The City of Anchorage shall submit its annual report to MSD for submittal to the Division of Water in the appropriate time frame developed by MSD.		

PART III. MONITORING AND REPORTING

A. MONITORING PROGRAM REQUIREMENTS

1. The quality of the streams receiving MS4 discharges in Jefferson County shall continue to be monitored to assess the water quality of the streams and to identify potential water quality impairments. This shall be accomplished by implementing the program elements in Table 7 for MSD, which include characterization data collection for watershed management programs.
2. MSD and/or its co-permittees will continue or maintain several facets of its current sampling program:
 - a. **Every Two years** - Biological sampling and habitat analysis shall continue to include: algae, fish and benthic macro invertebrates for at least 25 Long Term Monitoring Network (LTMN) locations.
 - b. **Quarterly** - Sampling and analysis shall continue on a quarterly basis for at least 25 LTMN locations. The List is as follows:
 - Total Suspended Solids (TSS)
 - Total Dissolved Solids (TDS)
 - Fecal Coliform
 - E. coli
 - Biochemical Oxygen Demand (BOD5)
 - Chemical Oxygen Demand (COD)
 - Lead, Total Recoverable
 - Cadmium, Total Recoverable
 - Copper, Total Recoverable
 - Zinc, Total Recoverable
 - Dissolved Phosphorus
 - Total Phosphorus
 - Total Ammonia Nitrogen (as N)
 - Total Kjeldahl Nitrogen (as N)
 - Nitrate plus Nitrite Nitrogen (as N)
 - Total Hardness

B. REPORTING REQUIREMENTS FOR MONITORING PROGRAM

1. The permittee shall submit a stormwater monitoring report with the Annual Report under Part III, Paragraph D of this permit. This report shall include:
 - a. Status of implementation of the monitoring program;
 - b. Map(s) showing monitoring station locations and narrative site descriptions, including watershed size;
 - c. Raw data/results, methods of evaluating the data, graphical summaries of the data; and
 - d. All monitoring data/results shall be submitted electronically. Monitoring program implementation status, location maps and selected/representative graphical summaries will be provided in the Annual Report.
2. The fifth Annual Report will also include a comprehensive monitoring program assessment. This assessment will include the following:
 - a. A trend analysis will evaluate the changes that have taken place in each long-term monitoring network (LTMN) location during the permit cycle (Years 1 through 5);
 - b. An evaluation for concentrated monitoring efforts to focus on hot-spots;
 - c. Conduct flow monitoring at select sites;

- d. Assess the effectiveness of stormwater program objectives;
 - e. An evaluation of the effectiveness of structural and non-structural BMPs using the monitoring data from the permit period; and
 - f. An evaluation of the monitoring program; which will be used to help formulate tasks and objectives for the next permit cycle.
3. In accordance with 40 CFR 122.26(d) (2) (iii) (D), the permittee shall operate and maintain a Long Term Monitoring Network (LTMN) consisting of at least 25 locations serving as collection of representative data for the term of the permit. The permittee shall describe the location of the LTMN locations explaining why the locations are representative, the frequency of sampling, parameters to be sampled, and a description of the sampling equipment.
 4. Sampling methodology shall be according to the EPA stormwater application regulations at 40 CFR 122.26.
 5. Monitoring must be conducted according to test procedures approved under 40 CFR 136, unless other test procedures have been specified, by KDOW and confirmed by the MSD and/or co-permittees.

C. OUTFALL MAPPING

In accordance with 40 CFR 122.26(d) (2) (iii) (C), the permittee shall provide the location of all known major outfalls. For the purposes of this permit a "major outfall" is defined as follows:

1. A pipe (or closed conveyance) system with a cross-sectional area equal to or greater than 7.07 square feet (e.g., a single circular pipe system, with an inside diameter of 36 inches or greater); if applicable.
2. A single conveyance other than a pipe, such as an open channel ditch, which is associated with a drainage area of more than 50 acres; if applicable.
3. A pipe (or closed conveyance) system, draining "industrial-zoned land use," with a cross-sectional area equal to or greater than 0.79 square feet (e.g., a single circular pipe system, an inside diameter of 12 inches or greater); or if applicable.
4. A single conveyance other than a pipe, such as an open channel ditch, which is associated with an "industrial-zoned land use" drainage area of more than 2 acres; if applicable.

D. ANNUAL REPORTING REQUIREMENTS

The permittee shall prepare an annual system-wide report to be submitted no later than September 30th of the year following the period covered by the report. The first Annual Report shall cover the period beginning on July 1, 2010 through June 30, 2011; and September 30th annually thereafter. The Annual Report shall include but not be limited to:

1. A summary of monitoring data accumulated during the report year.
2. An overall evaluation of the SWQMP developments and progress including: major findings such as water quality improvements or degradation, major accomplishments, overall program strengths/ weaknesses; and future direction of program.
3. Brief discussion the implementation of program elements listed in the tables 1-8 in Section II.F.
4. Status of the implementation and proposed changes to the SWQMP to include assessment of controls and specific improvements or degradation to water quality.

5. Summary of inspections and enforcement actions for regulatory programs.
6. Status of expenditures and budget for the present year and the next permit year.
7. The permittee shall submit the original annual report to:

Kentucky Division of Water
Surface Water Permits Branch
200 Fair Oaks Lane, 4th Floor
Frankfort, Kentucky 40601

E. CERTIFICATION

All applications, reports, or information submitted to the Division of Water (DOW) shall be signed and certified pursuant to State and U.S. EPA regulations. Each report shall contain the following completed declaration:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Executed on the day of __, month, year.
(Signature) (Title)"

F. REOPENER CLAUSE

This permit shall be modified, or alternatively revoked and reissued, to comply with any applicable effluent standard or limitation issued or approved under 401 KAR 5:050 through 5:085, if the effluent standard or limitation so issued or approved:

1. Contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or
2. Controls any pollutant not limited in the permit.

The permit as modified or reissued under this paragraph shall also contain any other requirements of KRS Chapter 224 when applicable.

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PART IV. STANDARD CONDITIONS FOR KPDES PERMIT

The permittee is also advised that applicable KPDES permit conditions in KPDES regulation 401 KAR 5:065, Section 1, will apply to all discharges authorized by this permit.

This permit has been issued under the provisions of KRS Chapter 224 and regulations promulgated pursuant thereto. Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits or licenses required by this Cabinet and other state, federal, and local agencies.

Appendix A

MSD LOCODE	DESCR	Additional Description	USGS Site #	USGS Location Name	USGS Stream Site Description
ECBCB001	Cedar Creek @ SR 1442	Cedar Creek of Salt River in Bullitt County (reference reach)	3297800	CEDAR CREEK AT HWY 1442 NEAR SHEPHERDSDVILLE, KY	Latitude 37°59'28", Longitude 85°38'28" NAD83 Bullitt County, Kentucky, Hydrologic Unit 05140102 Drainage area: 12.1 square miles
MS4 AREA					
ECCCC001	Cedar CK @ Thixton RD	Cedar Creek of Floyds Fork in Jefferson County ~4 miles downstream of CCWQTC.	3298250	CEDAR CREEK AT THIXTON ROAD NEAR LOUISVILLE, KY	Latitude 38°04'45", Longitude 85°36'58" NAD27 Jefferson County, Kentucky, Hydrologic Unit 05140102 Drainage area: 11.1 square miles
EFFCR001	CHEN Run #1 @ Gelhaus Ln	Chenoweth Run of Floyds Fork ~3 miles downstream of JTWQTC Effluent	3298150	CHENOWETH RUN AT GELHAUS LANE NEAR FERN CREEK, KY	Latitude 38°09'36", Longitude 85°32'32" NAD27 Jefferson County, Kentucky, Hydrologic Unit 05140102 Drainage area: 11.6 square miles
EFFCR002	CHEN Run #1 @ Ruckriegel PKWY	Chenoweth Run of Floyds Fork 1200 feet upstream of JTWQTC Effluent	3298135	CHENOWETH RUN AT RUCKRIEGAL PARKWAY, KY	Latitude 38°11'41", Longitude 85°33'26" NAD27 Jefferson County, Kentucky, Hydrologic Unit 05140102 Drainage area: 5.47 square miles
EFFFF003	Floyds FK @ Old Taylorsville RD	Floyds Fork downstream of FFWQTC	3298000	FLOYDS FORK AT FISHERVILLE, KY	Latitude 38°11'18", Longitude 85°27'37" NAD27 Jefferson County, Kentucky, Hydrologic Unit 05140102 Drainage area: 138.0 square miles Datum of gage: 542.60 feet above sea level NGVD29.
EFFFF002	Floyds FK @ Bardstown RD	Floyds Fork ~1 mile before leaving Jefferson County	3298200	FLOYDS FORK NEAR MT WASHINGTON, KY	Latitude 38°05'07", Longitude 85°33'18" NAD27 Jefferson County, Kentucky, Hydrologic Unit 05140102 Drainage area: 213.0 square miles
EGCGC001	Goose CK @ Old Westport RD	Goose Creek ~6 miles upstream of confluence with the Ohio River	3292474	GOOSE CREEK AT OLD WESTPORT RD NR ST MATTHEWS, KY	Latitude 38°16'33", Longitude 85°36'22" NAD27 Jefferson County, Kentucky, Hydrologic Unit 05140101 Drainage area: 6.0 square miles Datum of gage: 552.15 feet above sea level NGVD29.
EGCGC002	Goose CK @ US HWY 42	Goose Creek ~2 miles upstream of confluence with the Ohio River	3292475	GOOSE CREEK AT US HWY 42 NEAR GLENVIEW ACRES, KY	Latitude 38°18'12", Longitude 85°37'41" NAD27 Jefferson County, Kentucky, Hydrologic Unit 05140101 Drainage area: 10.1 square miles
EGCLG001	Little Goose CK @ US Highway 42	Little Goose Creek ~2.5 miles upstream of confluence with Goose Ck @ the Ohio River	3292480	LITTLE GOOSE CREEK NEAR HARRODS CREEK, KY	Latitude 38°18'45", Longitude 85°37'33" NAD27 Jefferson County, Kentucky, Hydrologic Unit 05140101 Drainage area: 5.8 square miles Datum of gage: 459.93 feet above sea level NGVD29.
EHCWP002	Wolf Pen Branch @ 8200 WPB RD2	Wolf Pen Branch ~1 mile upstream of confluence with Harrods Creek	None	(MSD- only location)	
EMCMC001	Mill CK @ Oreil RD	Mill Creek less than 2 miles from the confluence with the Ohio River	3294570	MILL CREEK AT ORELL ROAD NEAR LOUISVILLE, KY	Latitude 38°04'41", Longitude 85°53'24" NAD27 Jefferson County, Kentucky, Hydrologic Unit 05140101 Drainage area: 13.5 square miles

Appendix A

EMCMX001	MX @ Old Cane Run RD	Mill Creek Cutoff ~1 1/2 miles upstream of the confluence with the Ohio River. Sonde removed due to low flow.	<u>3294550</u>	MILL CREEK CUTOFF NEAR LOUISVILLE, KY	Latitude 38°10'39", Longitude 85°52'01" Jefferson County, Kentucky Hydrologic Unit Code 05140101 NAD27 Drainage area 24.4 square miles Contributing drainage area 24.4 square miles
EMIMI002	MIFBGC @ Old Cannons LN	Middle Fork Beargrass Creek upstream of Seneca and Cherokee Parks	<u>3293000</u>	M FK BEARGRASS CR AT OLD CANNONS LN AT LOUISVILLE,	Latitude 38°14'14", Longitude 85°39'53" NAD27 Jefferson County, Kentucky, Hydrologic Unit 05140101 Drainage area: 18.9 square miles Contributing drainage area: 18.4 square miles, Datum of gage: 476.70 feet above sea level NGVD29.
EMIMI009	MIFBGC @ Browns LN	Middle Fork Beargrass Creek downstream of Beechwood Village	None	(MSD- only location)	
EMIMI010	MIFBGC @ Lexington RD 2	Middle Fork Beargrass Creek at downstream end of Cherokee Park, in Sewer Separation Area/MS4-CSS	<u>3293500</u>	M FK BEARGRASS CR AT LEXINGTON RD AT LOUISVILLE, KY	Latitude 38°15'01", Longitude 85°43'00" NAD27 Jefferson County, Kentucky, Hydrologic Unit 05140101 Drainage area: 24.8 square miles
ESFSF001	SFBGC @ Trevillian Way	South Fork Beargrass Creek upstream of CSS area	<u>3292500</u>	SOUTH FORK BEARGRASS CREEK AT LOUISVILLE, KY	Latitude 38°12'41", Longitude 85°42'09" NAD27 Jefferson County, Kentucky, Hydrologic Unit 05140101 Drainage area: 17.2 square miles Datum of gage: 448.60 feet above sea level NGVD29.
EMUMU001	MUFBGC @ Mockingbird Val RD	Muddy Fork Beargrass Creek ~1.5 miles upstream of confluence with the Main Stem BGC.	<u>3293530</u>	MUDDY FK AT MOCKINGBIRD VALLEY RD AT LOUISVILLE, KY	Latitude 38°16'35", Longitude 85°41'37" NAD27 Jefferson County, Kentucky, Hydrologic Unit 05140101 Drainage area: 6.2 square miles
EPCBC001	Brier CK.@ Bear Camp RD	Brier Creek ~2 miles upstream of confluence with Pond Creek	<u>3302050</u>	BRIER CREEK AT PENDELTON ROAD NEAR LOUISVILLE, KY	Latitude 38°02'52", Longitude 85°51'26" NAD27 Jefferson County, Kentucky, Hydrologic Unit 05140102 Drainage area: 4.0 square miles
EPCFC001	Fern CK @ Old Bardstown RD	Fern Creek headwaters upstream of Wildwood lakes	<u>3301900</u>	FERN CREEK AT OLD BARDSTOWN RD AT LOUISVILLE, KY	Latitude 38°10'32", Longitude 85°36'55" NAD27 Jefferson County, Kentucky, Hydrologic Unit 05140102 Drainage area: 3.5 square miles
EPCND001	Northern DT@ Preston HWY	Northern Ditch ~5 miles upstream of confluence with Pond Creek	<u>3301940</u>	NORTHERN DITCH AT OKOLONA, KY	Latitude 38°09'01", Longitude 85°41'37" NAD27 Jefferson County, Kentucky, Hydrologic Unit 05140102 Drainage area: 11.1 square miles Datum of gage: 447.50 feet above sea level NGVD29.
EPCPC001	Pond CK@ Manslick RD	Pond Creek ~15 1/2 miles upstream of confluence with the Ohio River	<u>3302000</u>	POND CREEK NEAR LOUISVILLE, KY	Latitude 38°07'11", Longitude 85°47'45" NAD27 Jefferson County, Kentucky, Hydrologic Unit 05140102 Drainage area: 64.0 square miles Datum of gage: 430.38 feet above sea level NGVD29.
EPCPC002	Pond CK @ Pendleton RD	Pond Creek ~6 1/2 miles upstream of confluence with the Ohio River	<u>3302030</u>	POND CREEK AT PENDELTON ROAD NEAR LOUISVILLE, KY	Latitude 38°03'15", Longitude 85°52'18" NAD27 Jefferson County, Kentucky, Hydrologic Unit 05140102 Drainage area: 80.3 square miles
EPRPR001	Penn Run @ Mt. Washington Rd	Pennsylvania Run ~1/2 mile before leaving Jefferson County	<u>3298300</u>	PENNSYLVANIA RUN AT MT WASHINGTON RD NR LOUISVILLE	Latitude 38°05'15", Longitude 85°38'33" NAD27 Jefferson County, Kentucky, Hydrologic Unit 05140102 Drainage area: 6.4 square miles

Appendix A

Upstream Sites for MS4 Jurisdiction Background Monitoring

EFFFF001	Floyds FK @ Ash. AVE	Floyds Fork upstream near Jefferson/Oldham County line.	3297900	FLOYDS FORK NEAR PEWEE VALLEY, KY	Latitude 38°17'07", Longitude 85°28'03" NAD27 Oldham County, Kentucky, Hydrologic Unit 05140102 Drainage area: 79.9 square miles Contributing drainage area: 79.9 square miles,
EHCHC001	Harrods CK @ Covered Bridge RD	Harrods Creek upstream before entering Jefferson County from Oldham Co.	3292470	HARRODS CREEK AT HIGHWAY 329 NR GOSHEN, KY.	Latitude 38°21'42", Longitude 85°34'30" NAD27 Oldham County, Kentucky, Hydrologic Unit 05140101 Drainage area: 70.3 square miles Datum of gage: 439.70 feet above sea level NGVD29
Lower Beargrass downstream from MS4, in CSS impact area.					
ESFSF002	SFBGC @ Schiller AV Ramp	South Fork Beargrass Creek concrete conveyance channel in CSS area	3292550	S FK BEARGRASS CR AT WINTER AVE AT LOUISVILLE, KY	Latitude 38°14'04", Longitude 85°43'50" NAD27 Jefferson County, Kentucky, Hydrologic Unit 05140101 Drainage area: 22.6 square miles (No flow gage at this location)
ESFSF006	SFBGC@ Brownsboro Road	Main Stem Beargrass Creek upstream from Beargrass Creek Pump Station	None	(USGS Gage is located downstream from MSD sample collection site- see 3293510)	
ESFSF014	(Sonde only, no samples collected)	Mouth of Beargrass Creek @ Ohio River	3293510	BEARGRASS CREEK AT RIVER ROAD AT LOUISVILLE, KY	Latitude 38°16'01", Longitude 85°43'17" NAD27 Jefferson County, Kentucky, Hydrologic Unit 05140102 Drainage area: 60.1 square miles Datum of gage: 412.18 feet above sea level NGVD29.

