

Energy and Environment Cabinet  
Department for Environmental Protection  
Division of Water  
MS4 Inspection Report

**AI ID:** 76203      **AI Type:** GOVT- City Agency/Organization (92)  
**AI Name:** City of Murray  
**AI Address:** 500 Main Street  
**City:** Murray **State:** Kentucky **Zip:** 42071  
**County:** Calloway **Regional Office:** Paducah Regional Office  
**Latitude:** 36.610642    **Longitude:** -88.302929  
**Site Contact:** James Oakley  
**Title:** Stormwater Drainage Engineer    **Phone #:** (270) 762-0350 Ext. 1133  
**Inspection Type:** WW SW MS4 Non-Sample **Activity #:** CIN20180001  
**Inspection Start Date:** August 8, 2018 **Time:** 10:00 AM **End Date:** August 8, 2018 **Time:** 03:00 PM  
**Site/Permit ID:** KYG200011

**Lead DEP Investigator:** Abigail Rains  
**Persons Interviewed:** James Oakley

**Overall Compliance Status:** No Violations Observed

---

**Investigation Results**

---

**SI:** AIOO76203

**SI Description:**

**Inspector Comment:**

---

**Requirement:** Has the Municipal Separate Storm Sewer System (MS4) permittee applied for the proper KPDES permit as required by the Division of Water (DOW)? . [401 KAR 5:060 Section 8]

**Compliance Status:** C-No Violations observed

**Comment:** Murray has submitted a Notice of Intent for the new KYG20 Phase II MS4 Permit.

---

**Requirement:** Has the Municipal Separate Storm Sewer System (MS4) permittee developed a Stormwater Quality Management Plan (SWQMP) that includes the six (6) Minimum Control Measures? . [401 KAR 5:060 Section 8]

**Compliance Status:** C-No Violations observed

**Comment:** A new SWQMP is due to be submitted by November 1, 2018.

---

**Requirement:** Has the Municipal Separate Storm Sewer System (MS4) permittee implemented a public education program to distribute educational materials to the community or conduct equivalent outreach activities about the impacts of stormwater discharges on waterbodies and the steps that the public can take to reduce pollutants in stormwater runoff?. [401 KAR 5:060 Section 8]

**Compliance Status:** C-No Violations observed

**Comment:** Murray city's webpage. Partnered with NRCS for presentations and classroom activities for a Water Conservation Workshops. Kids from two middle schools (340 kids) were taught about urban runoff, regulations the City has in place for water quality, macroinvertebrates, and water sampling. They went on to use this information for the state wide Conservation Writing and Jim Claypool Art Contest. Held the first annual Four Rivers Watershed Sustainability Summit at the Watershed Studies Institute at Murray State University. Educational Seminars, booths, and demonstrations occurred throughout the day. The public was invited to attend and the summit was free of charge. Continued the installation of water quality awareness street signs that say No Dumping, Drains to River. These signs have been placed on city streets at creek/stream crossings, culverts, and detention ponds throughout the city. Approximately 60 signs have been placed along stream crossings throughout the city. Murray makes an effort to present fresh material for the stormwater television advertisements on local cable channels, and provide the public with the Stormwater Hotline Number. Lots more things have been done by Murray to educate the citizens about stormwater.

---

**Requirement:** Has the Municipal Separate Storm Sewer System (MS4) permittee implemented a method to comply with State, Tribal and local public notice requirements when implementing a public involvement/ participation program

---

---

where the public is included in developing, implementing, and reviewing your storm water management program and that the public participation process should make efforts to reach out and engage all economic and ethnic groups to reduce pollutants in stormwater runoff?. [401 KAR 5:060 Section 8]

**Compliance Status:** C-No Violations observed

**Comment:** Murray is continuing to host "Make a Difference Day" throughout the year. The events are held quarterly and include recycling of glass, paper, aluminum, batteries, computers, motor oil, paints and old tires. Materials accepted are rotated.

---

**Requirement:** Has the Municipal Separate Storm Sewer System (MS4) permittee developed a storm sewer map, showing the locations of all outfalls and the names and locations of all waters of the United States that receive discharges from those outfalls?. [401 KAR 5:060 Section 8]

**Compliance Status:** C-No Violations observed

**Comment:** All outfalls have been mapped at this time on paper maps with detailed description of each outfall. The city is in the process of digitizing all of the sub-watersheds within the city. Of the 13 sub-basins, 9 have been completed.

---

**Requirement:** Has the Municipal Separate Storm Sewer System (MS4) permittee passed an ordinance, or other regulatory mechanism, a prohibition on non-stormwater discharges into the MS4, and appropriate enforcement procedures and actions?. [401 KAR 5:060 Section 8]

**Compliance Status:** C-No Violations observed

**Comment:** Murray has adopted an IDDE Ordinance.

---

**Requirement:** Has the Municipal Separate Storm Sewer System (MS4) permittee developed and implemented a plan to detect and address non-stormwater discharges, including illegal dumping, into the MS4?. [401 KAR 5:060 Section 8]

**Compliance Status:** C-No Violations observed

**Comment:** Murray has a written IDDE plan.

---

**Requirement:** Has the Municipal Separate Storm Sewer System (MS4) permittee developed and implemented a plan to educate public employees, businesses, and the general public about the hazards associated with illegal discharges and improper disposal of waste?. [401 KAR 5:060 Section 8]

**Compliance Status:** C-No Violations observed

**Comment:** Please see above.

---

**Requirement:** Has the Municipal Separate Storm Sewer System (MS4) permittee developed and implemented a plan to perform dry-weather screening on a representative amount of the outfalls (i.e. 20% per year)? The dry-weather screening shall include, at a minimum, the visual inspection of the discharge for indicators of pollutants. Indicators shall include odor, oil sheens, discoloration, and high degrees of siltation or aquatic plant growth. Where potential excessive pollutants are indicated, the permittee shall develop a plan to determine potential source(s) and eliminate the discharge. [401 KAR 5:060 Section 8]

**Compliance Status:** C-No Violations observed

**Comment:** Murray has completed dry and wet weather screening of all major outfalls.

---

**Requirement:** Does the Municipal Separate Storm Sewer System (MS4) permittee have a mechanism and protocols in place that provide for the public reporting of spills and other discharges. [401 KAR 5:060 Section 8]

**Compliance Status:** C-No Violations observed

**Comment:** The hotline number is advertised.

---

**Requirement:** Does the Municipal Separate Storm Sewer System (MS4) permittee adopted ordinance or other regulatory mechanism, require the implementation of proper erosion and sediment controls, and controls for other wastes, on applicable construction sites?. [401 KAR 5:060 Section 8]

**Compliance Status:** C-No Violations observed

**Comment:** Murray has adopted an EPSC ordinance.

---

**Requirement:** Does the Municipal Separate Storm Sewer System (MS4) permittee's ordinance contain 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 Permit for Stormwater Construction sites (KYR10)?. [401 KAR 5:060 Section 8]

**Compliance Status:** C-No Violations observed

**Comment:**

---

**Requirement:** Does the Municipal Separate Storm Sewer System (MS4) permittee's adopted ordinance contain requirements for construction site operators to control waste such as discarded building materials, concrete truck washout, chemicals, litter, and sanitary waste at the construction site that may cause adverse impacts to water quality?.

---

---

[401 KAR 5:060 Section 8]

**Compliance Status:** C-No Violations observed

**Comment:**

---

**Requirement:** Does the Municipal Separate Storm Sewer System (MS4) permittee's adopted ordinance contain requirements for demonstration that a Notice of Intent for coverage under a stormwater construction general permit (KYR10), an application for a stormwater construction individual permit, or the Best Management Practices (BMPs) plan of a KPDES permit has been submitted for those sites one acre and greater?. [401 KAR 5:060 Section 8]

**Compliance Status:** C-No Violations observed

**Comment:**

---

**Requirement:** Does the Municipal Separate Storm Sewer System (MS4) permittee have an adopted ordinance, or other regulatory mechanism that establishes authority for site-plan review to affirm compliance with local ordinances, which incorporate consideration of potential water-quality impacts?. [401 KAR 5:060 Section 8]

**Compliance Status:** C-No Violations observed

**Comment:** James Oakley performs site plan review using site plan review checklist , detention analysis checklist and SWPPP review

---

**Requirement:** Does the Municipal Separate Storm Sewer System (MS4) permittee have an adopted ordinance, or other regulatory mechanism that establishes authority for receipt and consideration of information submitted by the public?. [401 KAR 5:060 Section 8]

**Compliance Status:** C-No Violations observed

**Comment:** Call James Oakley (hotline number)

---

**Requirement:** Does the Municipal Separate Storm Sewer System (MS4) permittee have an adopted ordinance, or other regulatory mechanism that establishes authority for site inspections and enforcement of control measures? Factors such as the nature of construction activity, topography, and the characteristics of soils and receiving water quality should be considered in determining the frequency of inspection. [401 KAR 5:060 Section 8]

**Compliance Status:** C-No Violations observed

**Comment:** Murray goes out every 2-4 weeks considering activity level.

---

**Requirement:** Has the Municipal Separate Storm Sewer System (MS4) permittee developed, implemented, and enforced a program to reduce pollutants in stormwater runoff from active construction sites?. [401 KAR 5:060 Section 8]

**Compliance Status:** C-No Violations observed

**Comment:** Murray has the proper ordinance, proper site plan review, inspections and reports.

---

**Requirement:** Has the Municipal Separate Storm Sewer System (MS4) permittee developed a program that includes a permitting process with plan review to affirm compliance with local ordinances, and inspection and enforcement capabilities for all projects?. [401 KAR 5:060 Section 8]

**Compliance Status:** C-No Violations observed

**Comment:** Murray's James Oakley performs site plan review.

---

**Requirement:** Has the Municipal Separate Storm Sewer System (MS4) permittee developed a program that includes procedures for periodic inspections for all known permitted construction sites during construction to verify proper installation and maintenance of required erosion and sediment controls? . [401 KAR 5:060 Section 8]

**Compliance Status:** C-No Violations observed

**Comment:** James performs periodic inspections.

---

**Requirement:** Has the Municipal Separate Storm Sewer System (MS4) permittee developed a program that includes the development and implementation of an enforcement strategy that includes escalating enforcement remedies to respond to issues of non-compliance?. [401 KAR 5:060 Section 8]

**Compliance Status:** C-No Violations observed

**Comment:** Verbal, Notice of Violation, and Stop Work Order

---

**Requirement:** Has the Municipal Separate Storm Sewer System (MS4) permittee developed a procedure to inventory projects and prioritize sites for inspection. The inventory should track the results of inspections and enforcement procedures taken, if any. [401 KAR 5:060 Section 8]

**Compliance Status:** C-No Violations observed

**Comment:** Folders and files with projects - paperwork for review and inspections.

---

**Requirement:** Has the Municipal Separate Storm Sewer System (MS4) permittee developed a training program for MS4 staff on the fundamentals of erosion prevention and sediment control and in how to review erosion and sediment plans or Stormwater Pollution Prevention Plans? . [401 KAR 5:060 Section 8]

**Compliance Status:** C-No Violations observed

---

---

**Comment:** James Oakley is Enviro-Certified CPMSM.

**Requirement:** Has the Municipal Separate Storm Sewer System (MS4) permittee developed procedures for providing educational and training measures for construction site operators? . [401 KAR 5:060 Section 8]

**Compliance Status:** C-No Violations observed

**Comment:** Two contractor trained in 2017. Site specific training.

---

**Requirement:** Has the Municipal Separate Storm Sewer System (MS4) permittee adopted and implemented an ordinance, or other regulatory mechanism, that addresses post-construction stormwater runoff from active construction sites that disturb at least one acre, and projects that are less one acre that are part of a larger common plan of development or sale?. [401 KAR 5:060 Section 8]

**Compliance Status:** C-No Violations observed

**Comment:** Murray's stormwater ordinance includes post-construction.

---

**Requirement:** Has the Municipal Separate Storm Sewer System (MS4) permittee implemented and enforced a program to address stormwater runoff from new development and redevelopment projects that disturb at least one acre, and projects less than one acre that are part of a larger common plan of development or sale, located within the MS4. The program shall apply to private and public developments, including roads. [401 KAR 5:060 Section 8]

**Compliance Status:** C-No Violations observed

**Comment:**

---

**Requirement:** Has the Municipal Separate Storm Sewer System (MS4) permittee developed and submitted to the Division of Water, an on-site stormwater runoff quality treatment standard for all new development and redevelopment projects? Within twelve (12) months of the effective date of the permit, the Municipal Separate Storm Sewer System (MS4) 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. [401 KAR 5:060 Section 8]

**Compliance Status:** C-No Violations observed

**Comment:** Murray has adopted a local water quality treatment standard that meets the required 80th percentile rain event (0.7 inches of rainfall).

---

**Requirement:** Has the Municipal Separate Storm Sewer System (MS4) permittee reviewed and evaluated municipal policies related to the building codes, or other local regulations, with a goal of identifying regulatory and policy impediments to the installation of green infrastructure, such as green roofs, porous pavements, water harvesting devices, grassed swales instead of curb and gutter, and downspout disconnection, within twelve (12) months of the effective date of the KYG20 permit?. [401 KAR 5:060 Section 8]

**Compliance Status:** C-No Violations observed

**Comment:** Done in 2011.

---

**Requirement:** Has the Municipal Separate Storm Sewer System (MS4) permittee developed and implemented project review, approval, and enforcement procedures for new development and redevelopment projects that disturb greater than one acre, and projects less than one acre that are part of a larger common plan of development or sale? . [401 KAR 5:060 Section 8]

**Compliance Status:** C-No Violations observed

**Comment:** Post-construction

---

**Requirement:** Has the Municipal Separate Storm Sewer System (MS4) permittee implemented the requirements for project review and approval that include develop procedures for site-plan reviews and approvals and a required re-approval process when changes to stormwater management measures as required and develop procedures for a post-construction process to demonstrate and document that post-construction stormwater measures have been installed per design specifications, which includes enforceable procedures for bringing noncompliant projects into compliance?. [401 KAR 5:060 Section 8]

**Compliance Status:** C-No Violations observed

**Comment:** Murray requires all plans with calculations and re-approval if necessary.

---

**Requirement:** Has the Municipal Separate Storm Sewer System (MS4) permittee required all new development and redevelopment to establish and enter into a long-term maintenance agreement and maintenance plan approved management practices for property owners? Alternatively, has the permittee established enforceable mechanisms for requiring long-term maintenance of structural and non-structural Best Management Practices (BMPs)? Such authorities shall allow the permittee, 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 permittee, or its designee, to perform necessary maintenance or corrective actions neglected by the property owner/operator, and the authority to recover costs from the property owner/operator when the owner/operator has not performed the necessary maintenance. [401 KAR 5:060 Section 8]

---

---

**Compliance Status:** C-No Violations observed

**Comment:** Murray has Long Term Maintenance Agreements in place for new development and redevelopment.

**Requirement:** Has the Municipal Separate Storm Sewer System (MS4) permittee established and implemented procedures for annual inspection of a representative number of installed Best Management Practices (BMPs) for post-construction stormwater runoff control with the goal of completing an inspection of all BMPs within the MS4 during the permit cycle. Alternatively, has the permittee developed a program for property owner self-inspection documentation with oversight by the permittee or its designee? . [401 KAR 5:060 Section 8]

**Compliance Status:** C-No Violations observed

**Comment:** Murray has inspected all post-construction stormwater management systems. 82 sites.

**Requirement:** Has the Municipal Separate Storm Sewer System (MS4) permittee created a program to notify the Best Management Practice (BMP) owner or operator of deficiencies discovered during the annual inspection of the Best Management Practices (BMPs)? . [401 KAR 5:060 Section 8]

**Compliance Status:** C-No Violations observed

**Comment:** Murray sent letters to BMP owners concerning BMP maintenance status.

**Requirement:** Has the Municipal Separate Storm Sewer System (MS4) permittee conducted subsequent inspections to ensure completion of required repairs? If the repairs are not made, the permittee shall enforce its correction orders and if need be, perform the necessary work and assess against the owner the costs incurred for repairing the failing Best Management Practice (BMP). [401 KAR 5:060 Section 8]

**Compliance Status:** C-No Violations observed

**Comment:** Murray makes sure the maintenance has been performed.

**Requirement:** Has the Municipal Separate Storm Sewer System (MS4) permittee developed and implemented an Operations and Maintenance (O & M) program that includes a training component with the goal of preventing or reducing pollutant runoff from municipal operations? . [401 KAR 5:060 Section 8]

**Compliance Status:** C-No Violations observed

**Comment:** Murray's O & M Plan has been distributed throughout the departments with the exception of police and fire departments who have their own protocol.

**Requirement:** Has the Municipal Separate Storm Sewer System (MS4) permittee included employee training in the Operations and Maintenance (O & M) program to prevent and reduce stormwater pollution resulting from activities such as park and open space maintenance, fleet and building maintenance, new construction and land disturbances, stormwater system maintenance, and green infrastructure maintenance. The permittee is encouraged to utilize training materials that are available from the EPA, the Division of Water (DOW), and other organizations. [401 KAR 5:060 Section 8]

**Compliance Status:** C-No Violations observed

**Comment:** Supervisors are trained to train their employees. Once a year all municipal public works operations are inspected with ground water protection plan inspection forms.

**Requirement:** Has the Municipal Separate Storm Sewer System (MS4) permittee developed an Operations and Maintenance (O & M) program that includes an inventory of municipal facilities, maintenance activities, maintenance schedules, and on-going inspection procedures for structural and non-structural Best Management Practices (BMPs). [401 KAR 5:060 Section 8]

**Compliance Status:** C-No Violations observed

**Comment:** Murray has inventory and inspection of all municipal facilities.

**Requirement:** Has the Municipal Separate Storm Sewer System (MS4) permittee developed an Operations and Maintenance (O & M) program that incorporates procedures for properly disposing of waste (such as dredge spoil, accumulated sediments, floatables, and other debris) removed from separate storm sewers and other areas during maintenance activities. [401 KAR 5:060 Section 8]

**Compliance Status:** C-No Violations observed

**Comment:** Murray's O & M Plan includes procedures for properly disposing of waste removed from the MS4 and other areas during maintenance.

---

**Documentation**

**Photos taken**

**Documents obtained from facility**

**Samples taken by outside source**

**Request for Submission of Documents**

**Record of visual determination of opacity**

**Samples taken by DEP**

**Regional office instrument readings taken**

**Other documentation**

*Abigail Rains*

**Inspector:**

**Date:** August 23, 2018