

**University of Kentucky
Small Municipal Separate Storm Sewer System (MS4) Permit Requirements**

| Section | Subsection | Requirement | Deadline |
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| Applicability | Authorized Discharges | Authorized to discharge stormwater runoff and the following non-stormwater discharges: <ul style="list-style-type: none"> • Water line flushing • Landscape irrigation • Diverted stream flows • Rising ground waters • Uncontaminated ground water infiltration • Uncontaminated pumped ground water • Discharges from potable sources • Air conditioner condensate • Irrigation water • Springs • Water from crawl space pumps • Footing drains • Lawn watering • Individual car washing • Natural flows from riparian habitat and wetlands • Dechlorinated swimming pool discharges • Street wash water • Discharges or flows from firefighting activities | |
| | Unauthorized Discharges | The following discharges are not authorized by this permit: <ul style="list-style-type: none"> • Non-Stormwater discharges (except those deemed insignificant sources of pollution (listed above)) • Discharges resulting from a spill, except emergency discharges required to prevent imminent threat to human health or severe property damage. Must provide reasonable and prudent measures to minimize impact to water quality. • Discharges of any pollutant into any water for which a TMDL for a pollutant of concern has been established prior to the issuance of the permit, unless a SWQMP has been developed to address the pollutant and is being properly implemented. • Discharge of sanitary wastewater through cross connections • Other illicit discharges | |
| | Obtaining Authorization | Submit NOI | May 30th, 2018 (30 days from permit effective date) |

| | | Submit Revised SWQMP with necessary changes to become compliant with the permit | October 27th (180 days from permit effective date) |
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| Permit Requirements | | Develop, implement, enforce, and update as needed a Stormwater Quality Management Plan that includes controls intended to reduce the discharge of pollutants to the Maximum Extent Practicable (MEP). | |
| | Legal Authority Requirements | Establish legal authority to control discharges. Adequate authority must exist to: <ul style="list-style-type: none"> • Control pollutants from construction and post construction activities • Prohibit illicit non-stormwater discharges and implement enforcement procedures and actions • Prohibit the discharge of spills and the dumping or disposal of materials other than stormwater (industrial/commercial wastes, trash, used motor vehicle fluids, leaf litter, grass clippings, animal wastes, etc.) • Enforce compliance with ordinances, permits, contracts, or orders relating to discharge to the MS4 • Carry out all inspection, surveillance, and monitoring procedures necessary to determine compliance with permit conditions, including the prohibition of illicit discharges | |

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| | Stormwater Quality Management Program | | The program must be formalized in a written Stormwater Quality Management Plan (SWQMP) that details how the required six minimum control measures will be implemented. This document must be modified as needed. | | |
| | | MCM 1 | Public Education and Outreach | | |
| | | | Implement and maintain a public education program to distribute education materials to the community or conduct equivalent public outreach activities that focus on impacts from stormwater discharges to waterbodies and steps that the public can take to reduce pollutants in stormwater runoff. | | |
| | | | Program must be designed to achieve measurable improvements in the target audience understanding of stormwater pollution and action that can be taken to prevent pollution. | | |
| | | | Efforts must be prioritized to focus on pollutants impairing/threatening local waterways. | | |
| | | | Must use KYTC's Stormwater Education Toolkit or EPA's NPS Toolbox as guidance or substitute effective/equivalent outreach materials. | | |
| | | | Demonstrate that efforts are targeted to the appropriate audiences and balanced between stakeholders. | | |
| | | | Measure the understanding/adoption of targeted behaviors among targeted audiences and use the measurement to direct education/outreach resources more effectively and evaluate changes in water quality benefitting behaviors. | | |
| | | | Measure the targeted audiences understanding of their impacts on water quality and the adoption of behavior changes resulting from education and outreach efforts. Use the results to direct these efforts more effectively. | | |
| Track activities in order to document compliance with the permit and prepare the annual report | | | | | |
| | | MCM 2 | Public Involvement/Participation | | |
| | | | Implement a program that complies with applicable Kentucky and local public notice requirements. | | |
| | | | Activities may include: <ul style="list-style-type: none"> • Representation on local stormwater management workgroups or advisory councils • Public Notices and Public Hearings • Facilitating education volunteers • Stormdrain marking • Riparian planting • Stream clean-up events • Effective equivalents | | |
| | | | Provide public notice of program participation opportunities by methods designed to reach the intended audience. | | |
| | | | Track activities in order to document compliance with the permit and prepare the annual report. | | |
| | | | <i>*EPA and KDOW recommend developing and implementing MCM's 1&2 concurrently.</i> | | |

| MCM 3 | Illicit Discharge Detection and Elimination | |
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| | <p>Continue to implement and enforce an ordinance or other regulatory mechanism that prohibits illicit discharges.</p> <p>*Develop and maintain a comprehensive storm-sewer map showing the following:</p> <ul style="list-style-type: none"> • The location of all know major outfalls • The names and locations of all surface waters that receive discharges from the major outfalls • The MS4 system – including catch basins, pipes, ditches, flood control facilities (retention/detention ponds), and post-construction BMP's (both owned and private) <p><i>*Provide the DOW with the MS4 boundary and mapped infrastructure in either ESRI shape file formats or geo-referenced AutoCAD drawings.</i></p> | |
| | <p>Develop and implement a *written plan to address illicit discharges including illegal dumping. The plan must include:</p> <ul style="list-style-type: none"> • Procedures for locating priority areas likely to have illicit discharges • Procedures for visual dry-weather outfall screenings for pollutant indicators (odor, oil, oil sheen, discoloration, siltation, excessive aquatic plant growth) <i>*The IDDE plan may require follow-up field water-quality sampling/analysis to determine the pollutant source and most effective plan of action.</i> • A mechanism and protocols for the public reporting of spills and other discharges • Procedures for the investigation of complaints, reports, or monitoring information that indicates a potential illicit discharge, spill, or illegal dumping <i>*Problems/violations determined to be emergencies, urgent, or severe shall be immediately investigated. If severe or urgent, incidents should be referred to the DEP's Environmental Emergency hotline (502-564-2380 or 800-928-2380)</i> • Timeframes for the investigation and removal of illicit discharges • Procedures for tracing the source of an illicit discharge – including visual inspections, water sampling (when necessary), and other detailed inspection procedures • Procedures for removing the source of a discharge – including proper notifications (property owners, authorities), follow up inspections, and enforcement if the discharge is not eliminated • Procedures for IDDE program evaluation and assessment – including tracking the number and type of spills/illicit discharges identified, inspections made, and any feedback received from public education efforts | <p>July 29th, 2018 (90 days from permit effective date)</p> |
| | <p>Have a mechanism and protocols in place that provide for the public reporting of spills and other discharges.</p> | |
| | <p>Provide training for municipal staff on the identification and reporting of illicit discharges</p> | |
| | <p>Inform the responsible entity and the DOW's Regional Office should a sanitary sewer line failure/defect be found as a source to the MS4. If the permittee is the responsible entity, they will proceed to remediate the discharge by following a corrective action plan or a Sanitary Sewer Overflow Plan on a schedule approved by the Division of Water.</p> | |
| | <p>Track activities to document compliance permit requirements and prepare the annual report</p> | |

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| | | MCM 4 | Construction Site Stormwater Runoff Control | |
| | | | <p>Continue to implement and enforce an ordinance or other regulatory mechanism that reduces pollutants in any stormwater runoff to the MS4 from construction activities (≥ 1 acre or part of a larger common plan). The ordinance shall include:</p> <ul style="list-style-type: none"> • Requirements for construction site operators to implement ESC BMP's that are at least as protective as Kentucky's General Permit for Stormwater Construction sites (KYR100000) • Requirements for construction site operators to control waste (i.e. – building materials, concrete truck washout, chemicals, litter, sanitary waste) • Requirements for demonstration that a NOI for coverage under the stormwater construction general permit has been submitted • Establishment of authority for site-plan review • Establishment of authority for receipt and consideration of public input • Establishment of authority for site inspections and enforcement of control measures | |
| | | | <p>Develop, implement, and enforce a program to reduce pollutants in stormwater runoff from active construction sites. The program shall include:</p> <ul style="list-style-type: none"> • A permitting process with plan review and enforcement capability • Procedures for the inspection of all known permitted construction sites to verify proper installation and maintenance of required erosion and sediment controls. Enforcement shall be conducted based on the inspections. • Development and implementation of an escalating enforcement strategy to respond to issues of noncompliance. • Procedures to inventory projects and prioritize sites for inspection. Should include tracking inspection results and enforcement procedures taken. • A training program for staff in the fundamentals of erosion prevention and sediment control and in plan review • Procedures for providing construction-site operators with educational and training measures or *notifying them of available training opportunities | |
| | | | Track activities to document compliance with the permit and prepare the annual report. | |
| | | MCM 5 | Post Construction Stormwater Management | |
| | | | <p>BMP's shall be designed to minimize the impact of stormwater discharge on the water quality and stability of local receiving streams. The design shall attempt to maintain predevelopment runoff conditions or be as equally protective. BMP's chosen should be appropriate for the local community.</p> | |
| | | | <p>Develop, adopt, and implement an ordinance or other regulatory mechanism that addresses post-construction stormwater runoff from new and redevelopment projects (≥ 1 acre or part of a larger common plan)</p> | |
| | | | <p>Review and update, if necessary, local requirements for post-construction controls. The requirements shall include an on-site stormwater runoff quality treatment standard. The standard shall:</p> <ul style="list-style-type: none"> • Be based on an 80th percentile precipitation event | |

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| | | | <ul style="list-style-type: none"> Specify design parameters (design storm) for the sizing of post-construction controls that will require the annual runoff occurring in a typical year from the site to be managed through water quality control practices Require management measures that are designed, built, and maintained to treat, filter, flocculate, infiltrate, screen, evapo-transpire, harvest, and reuse stormwater runoff, or otherwise manage stormwater runoff quality Reflect local community issues, including water-quality impairments | |
| | | | <p>For projects that cannot meet the water quality treatment standard, two alternatives may be adopted:</p> <ul style="list-style-type: none"> Offsite mitigation – the implementation of measures to enhance infiltration/evapotranspiration/reuse at another location in the same sewershed/watershed as the original project, approved by the MS4. The MS4 shall identify priority areas within the sewershed/watershed in which mitigation projects can be completed. Payment-in-lieu – allows the owner/operator of a construction site to choose to make a payment to the MS4 in lieu of implementing post-construction BMP's. The MS4 will apply these funds to a public stormwater project. <p><i>*For either of these options to be available, the MS4 must ensure the proper legal authority is in place, must create an inventory of appropriate mitigation projects, and must develop appropriate institutional standards and management systems to evaluate and track transactions.</i></p> | |
| | | | Review policies with the goal of identifying regulatory and policy impediments to the installation of green infrastructure (new MS4's). | |
| | | | Develop and implement project review, approval, and enforcement procedures for new development and redevelopment projects (≥ 1 acre or part of a larger common plan) including: <ul style="list-style-type: none"> Developing <i>written</i> procedures for the site-plan review and approval process and a required re-approval process when changes to stormwater management measures are required. Developing <i>written</i> procedures for a post-construction process to have been installed per design specifications, which includes enforceable procedures for bringing noncompliant projects into compliance. | |
| | | | Require BMP owners (EDR, etc.) of all new development and redevelopment projects to establish and enter into long-term maintenance practices or establish other enforceable mechanisms for requiring long-term maintenance of BMP's. The MS4 shall be allowed to conduct inspections of the management practices and perform necessary maintenance when the owner/operator has not performed said maintenance. | |
| | | | Establish and implement <i>written</i> procedures for inspections of a representative number of BMP's annually. All BMP's must be inspected during the permit cycle with the goal of verifying correct operation and proper maintenance. | |
| | | | Create a program to notify the BMP owner/operator of deficiencies based on the inspection. Follow-up inspections must be conducted to ensure completion of required repairs. If repairs are not made, the permittee shall enforce its correction orders and perform the necessary work if need be. | |

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| | | <p>Demonstrate compliance with permit requirements by summarizing the following in the annual report:</p> <ul style="list-style-type: none"> • The number and types of projects reviewed for new and redevelopment considerations • The types of BMP's installed including green infrastructure and buffers. • A <i>written</i>⁺ summary of management practice maintenance inspections conducted, including a summary of the number requiring maintenance or repair, and the number of enforcement actions taken. • A <i>written</i>⁺ summary of any changes to local ordinances to accommodate green infrastructure alternatives. • A <i>written</i>⁺ summary of any training that MS4 staff has received in the fundamentals of long-term stormwater quality treatment management practices and in how to review such practices for long-term protection, operation, and maintenance. | |
| | | Track activities to document compliance with the permit and prepare the annual report. | |
| | MCM 6 | Pollution Prevention/Good Housekeeping for Municipal Operations | |
| | | <p>Develop and implement a <i>written</i>⁺ Operation and Maintenance (O&M) plan that includes a training component with the goal of preventing or reducing pollutant runoff from operations and construction activities. The plan shall include:</p> <ul style="list-style-type: none"> • An inventory of facilities owned and operated by the MS4 • Maintenance Activities • Maintenance Schedules • BMP's to reduce floatables and other pollutants discharged from the MS4 as well as controls to reduce the discharge of pollutants from: <ul style="list-style-type: none"> ○ Municipally-owned and operated streets, roads, highways, and parking lots ○ Maintenance and storage yards with exposed bulk materials ○ Fuel storage facilities ○ Fleet maintenance shops with outdoor storage areas ○ Salt/sand storage locations ○ Snow disposal areas ○ Waste transfer stations • Ongoing <i>written</i>⁺ inspection procedures for structural and non-structural bmps • Procedures for the proper disposal of waste removed from the storm sewer and other areas of the MS4 (see above) | |
| | | Track activities to document compliance with the permit and prepare the annual report. | |

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| | SWQMP Review and Modification | Evaluate the effectiveness of the SWQMP and BMP's implemented to comply with the permit annually. Modify ineffective BMP's and ineffective schedules of effective BMP's. | |
| | | <p>Modify the SWQMP during the life of the permit in accordance with the following procedures:</p> <ul style="list-style-type: none"> • Modifications that add but neither subtract nor replace components, controls, or requirements may be made at any time <ul style="list-style-type: none"> ○ A description of the modification shall be included in the Annual Report • Modifications that replace an ineffective or infeasible stormwater control (identified in the SWQMP along with an alternate control) may be made at any time <ul style="list-style-type: none"> ○ A description of the replacement control shall be included in the following Annual Report along with the following information: <ul style="list-style-type: none"> ▪ An analysis of why the former stormwater control was ineffective or infeasible ▪ Expectations on the effectiveness of the replacement stormwater control ▪ An analysis of why the replacement control is expected to achieve the goals of the BMP which this control replaced • Modifications to adjust the schedule for maintenance activities or the frequency of inspections identified in the SWQMP may be made annually. The following must be included in the Annual Report: <ul style="list-style-type: none"> ○ A description of the adjustment to the schedule ○ An analysis of why the former schedule was ineffective or infeasible ○ Expectations of the effectiveness of the replacement schedule • Modifications shall be signed by the permittees affected by that modification and a certification included that the permittee was given an opportunity to comment on the proposed changes • The SWQMP shall be implemented for all new areas added to the MS4 as expeditiously as practicable. A description of the implementation schedule shall be provided in the Annual Report. | |
| | | Proceed with any uncompleted programs from the previous permit cycle. Submit a compliance schedule to the DOW for approval that delineates the tasks and the anticipated compliance date. | |
| | <i>*The content and provisions of the SWQMP are not considered permit conditions. The SWQMP is a tool used to facilitate compliance with the permit.</i> | | |
| | TMDL's and Impaired Waters | The DOW will review the TMDL and applicable wasteload allocation to determine if the current SWQMP is adequately achieving the MEP standard if there is an existing or approved TMDL during the permit term for an impaired waterbody into which the MS4 discharges and for which the MS4 causes/contributes to water quality impairments. If current MS4 discharges are not performing as expected, the DOW will notify the MS4 and require that the SWQMP be modified. The modification should include the addition of BMP's to advance the goals of the TMDL within a reasonable timeframe. | |
| | | To implement an approved TMDL, the MS4 shall: | |

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| | | <ul style="list-style-type: none"> Identify the impaired stream segment (s) and/or tributaries to those impaired stream segments and the location of all known MS4 major outfalls discharging a pollutant of concern to those segments Evaluate the discharge load associated with the identified MS4 major outfalls for the pollutant of concern (monitoring, reporting, etc.) Consider and propose applicable and appropriate BMP's guided by the wasteload goal of the TMDL Provide a schedule of implementation for the proposed BMP's Address applicable limitations, conditions, and requirements contained in the TMDL | |
| | | <p>For impaired waters that lack an TMDL, the permittee shall:</p> <ul style="list-style-type: none"> Identify the impaired waters into which the MS4 discharges Evaluate BMP's to be included in the SWQMP to address the impairment Evaluate new or expanded MS4 discharges for pollutants of concern to ensure effectiveness of post construction control requirements to achieve the MEP standard. Update the Annual Report following finalization of the Kentucky 303(d) list of impaired waters (every two years) | |
| | Monitoring Plan Implementation | <p>Implement (immediately) an appropriate monitoring program that evaluates the effectiveness of the MS4 program and provides feedback for the permittee to change or improve the program appropriately.</p> <p>*The monitoring plan shall be approved by the DOW and shall contain:</p> <ul style="list-style-type: none"> A brief narrative of the permittee's proposed monitoring program A map of the Urbanized Area showing the outfalls including names of the receiving streams Information on the water quality attainment status of the local MS4 receiving streams including pollutants of concern (using information from the most recent 303(d) list) An inspection checklist for visual monitoring of the major outfalls, including <ul style="list-style-type: none"> Inspection Date/Time Latitude/longitude Weather Conditions The presence of visual markers for pollution (foam, excessive algae growth, oil deposits, excessive sedimentation, etc.) Documentation to verify performance of the visual monitoring, including (but not limited to) completed inspection checklists and photographs A glossary of terms; standard operating procedures; and any reference materials cited | |
| | MS4 Training | Designate at least one person who is responsible for permit implementation to receive twelve hours of documented training per permit year. The training must be related to furthering the goals and objectives of the MS4 general permit requirements | |
| | Fiscal Requirements | Funding shall be established and maintained to ensure the accomplishment of the activities required by this permit. | |

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| Reporting | Reporting Requirements | Prepare an annual report to be submitted no later than April 15 th . <i>*Permittees are encouraged to use KDOW's General Permit Annual Compliance Report form.</i> | |
| | The report shall include the following <ul style="list-style-type: none"> • An overall evaluation of the stormwater quality management program developments and progress including: <ul style="list-style-type: none"> ○ Major findings such as water quality improvements or degradation ○ Major accomplishments ○ Overall program strengths and weaknesses ○ Future program direction ○ Overall assessment of the SWQMP's effectiveness based on water quality/watershed improvements • Information on illicit discharges discovered, including: <ul style="list-style-type: none"> ○ Total for the calendar year ○ A description of the discharge ○ How the issue was resolved • A summary of inspections and enforcement actions for regulatory programs • A summary of installed BMP's for post-construction stormwater management for new and redevelopment • A summary of pollution prevention and good housekeeping BMP's performed at the municipal operations • The status of implementation and proposed changes to the SWQMP, including assessment of controls and specific improvements or degradation to water quality • Any improvements in water quality due to watershed activities | | |