

## EXECUTIVE SUMMARY

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As required by its MS4 permit, this Annual Report documents the tasks completed by University of Kentucky (UK) during 2023. These tasks are defined in the Stormwater Quality Management Plan (SWQMP) that was developed at the beginning of the current five-year permit cycle, which encompasses 2018 to 2023. The SWQMP provides the framework for compliance with the MS4 permit and includes a total of 106 tasks, 225 measurable goals, assigns the responsible parties for oversight, and defines evidence needed to show completion of each task and goal. The permit expired on April 30, 2023 but is administratively continued until such time that a new permit is issued by the Kentucky Division of Water. This SWQMP is set to be updated with the issuance of the new MS4 permit. Until the new permit is issued, the current permit will continue to be active, and UK will continue to operate under that permit and the existing SWQMP.

Throughout 2023, the MS4 program again experienced ongoing progress toward completion of the SWQMP tasks as documented in the Annual Report. Highlights of progress made in 2023 are summarized in the following:

### Education, Outreach, and Participation Efforts–

- Campus Sustainability Showcase highlighted the forthcoming update to the Sustainability Strategic Plan. The plan is organized around five guiding principles, one of which is Modeling Environmental Excellence, which includes several stormwater-related goals and priority actions.
- Led by KWRI with assistance from the UK Water Quality Compliance Manager, 20 representatives of Kentucky Division of Water, and MS4s of various sizes, the Kentucky Stormwater Training Program was developed to support design of a training program that promotes resource accessibility, knowledge retention, and content adaptability.
- Significant efforts continued towards staff and campus outreach through a variety of avenues including the Facilities Management Newsletter and Training Newsletter, UKNow Articles, Utilities and Energy Management Week in Review, and Sustainability's WholeSum blog, all of which include important information on the protection of stormwater.
- In 2023, almost 500 staff completed the General Stormwater Training and Illicit Discharge Detection and Elimination training. Since being completed in 2022, the implementation and assignment of training through MyUK Learning has been an effective way to disseminate this important information on the protection of stormwater.
- A presentation discussing the collaboration between UK GIS and UK MS4 on Engaging the Campus Community to Protect Stormwater Quality and Infrastructure was provided at the Campus FM Technology Association Conference in St. Louis, Missouri.
- As part of the Storm Drain Marking Program, in 2023 a total of 84 drain marking assessment entries were completed and included efforts by the EQM Water Quality Compliance Specialist, individuals from the BSA Troop 419, and individuals from Operation Be You.

### Construction and Post-Construction Controls–

- During 2023, stormwater reviews were completed on 17 projects to confirm compliance with UK Design Standards and the MS4 permit. Once under construction, monthly inspections were completed on required projects to verify that sufficient protection measures were in place. The responsibility of project reviews related to stormwater has completely transferred to EQM.
- Utilities completed maintenance on 44 water quality treatment devices.

- The update to the Post-Construction Stormwater BMP Operation and Maintenance Manual was completed with the accompanying Preventative Maintenance Plan. They were presented to stakeholders at a special meeting and copies were provided to allow for integration of the activities in the various work order systems. These efforts will maintain performance and promote system longevity by protecting the significant investment the university has made in stormwater quantity control and quality treatment infrastructure.
- To further progress on these tasks and support the goals of the SWQMP, a Campus Stormwater Master Plan should be considered. The final draft of the updated Sustainability Strategic Plan includes Guiding Principle #5, Goal 1, “Demonstrate excellence and innovation in water conservation and stewardship”. This update has priority actions to report annually on UK’s water footprint by 2024, prioritize harvesting and infiltration of stormwater from construction projects by targeting diversion of at least 50 percent of stormwater on projects designed after 2024, adopting a stormwater master plan by 2025, and developing a baseline for water use per square foot by building use by 2025 and targeting annual improvements with a 10 percent reduction by 2030.

#### Pollution Prevention and Good Housekeeping–

- Efforts to develop Activity Information Sheets have continued to provide training and informational resources to define best practices for staff to follow during activities that have the potential to impact stormwater.
- The Hazard Mitigation Plan was complete in 2023 and has been developed to reduce risks from natural and human-caused hazards. The document consists of a mitigation strategy and a suite of actions based on a comprehensive risk assessment and input from a wide range of University stakeholders. Several of the mitigation actions proposed by this plan have the potential to impact the stormwater program.
- Interdepartmental meetings provided opportunities to discuss SWQMP task status and implementation strategies.

#### Stormwater-Related Projects–

- Construction of the stormwater harvesting system for utility plant usage, funded by a LFUCG Stormwater Incentive Grant, was completed and the system came online in July of 2023. The system has harvested over 2.27 million gallons of stormwater for reuse.
- Work on two additional LFUCG grants continued. The stormwater project feasibility study will help UK to identify 5-10 projects and prioritize approximately \$2 million in stormwater infrastructure and improvement projects. Design of the parking lot retrofit with the installation of tree cells is ongoing and will allow the trees planted in campus hardscapes to grow to maturity and maximize stormwater interception.
- A new 2023 LFUCG grant, in the amount of \$316,000, was awarded to implement phase 2 of the Shawneetown Stormwater Improvement Project. This will include the restoration and improvement of a lower portion of the Shawneetown reach through the development of a flood storage area, conveyance improvements, and channel stabilization with construction anticipated in 2024.

While significant progress has been made on many of the SWQMP tasks, the realities of the time taken to complete tasks and personnel changes continue to have an impact on the ability to complete these tasks to the high standard that UK is working to achieve and maintain. While work towards the goals of the current SWQMP will continue, these realities will be considered in the preparation of a new SWQMP as required by the new MS4 permit.