University of Missouri

Environmental Health & Safety

180 General Services Building
Columbia, MO 65211

PHONE 573-882-7018
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April 27, 2021

Missouri Department of Natural Resources
Water Protection Program
MS4 Program Coordinator
P.O. Box 176
Jefferson City, MO 65102-0176

RE: 2020 MS4 Annual Report, Permit #MO-0136557

MS4 Program Coordinator,

Enclosed is the Annual Stormwater Management Plan Report for the Boone County/City of Columbia/University of Missouri MS4. This document covers the January 1, 2020 to December 31, 2020 reporting period.

If you have any questions, you may contact me at (573) 882-3950 or by email at haeusslert@missouri.edu.

Sincerely,

Ted Haeussler

Ted Haeussler
Environmental Affairs Professional

Enclosures

cc: Todd Houts, University of Missouri
Jon White, University of Missouri
David Sorrell, City of Columbia
Kori Thompson, City of Columbia
Maggie Jones, City of Columbia
Bill Florea, Boone County Resource Management
Nicki Fuemmeler, Boone County Resource Management

MISSOURI DEPARTMENT OF NATURAL RESOURCES
WATER PROTECTION PROGRAM

MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) STORMWATER MANAGEMENT PLAN REPORT

FOR OFFICE USE ONLY
PROJECT ID NUMBER
DATE RECEIVED

Part A – MS4 PERMIT HOLDER INFORMATION

1. MS4 NAME	2. NPDES PERMIT NUMBER	3. MS4 UNIQUE ID NO.	
Boone County, City of Columbia, University of Missouri	MO-0136557		
4. ADDRESS	**5. CITY**	**6. STATE**	**7. ZIP CODE**
180 General Services Building	Columbia	MO	65211
8. TELEPHONE NUMBER WITH AREA CODE	**9. EMAIL**		
(573) 882-7018	environmental@missouri.edu		

10. NAME OF MS4 CONTACT PERSON

Boone County - Nicki Fuemmeler City of Columbia - Kori Thompson University of Missouri - Ted Haeussler

11. Have any areas of the MS4 been added or removed from the MS4 jurisdiction due to annexation or other legal means since the most recent permit application (renewal, new, modification), or most recent MS4 stormwater management plan report?

☐ Yes ☑ No

If yes, please include a map along with a brief description as an attachment.

Part B – REPORTING PERIOD

1. Is your MS4 subject to a TMDL?

☑ Yes ☐ No

If yes, you are required to submit the MS4 report annually. Reports are due Feb. 28 each year. For the first reporting period, the beginning date will be June 13, 2016, and the ending date will be Dec. 31, 2016. All other annual reports shall cover the reporting period of Jan. 1 to Dec. 31 each year.

2. Is your MS4 new permitted (i.e., is this your first MS4 permit)?

☐ Yes ☑ No

If yes, you are required to submit the MS4 stormwater management plan report annually. Reports are due Feb. 28 each year. For the first reporting period, the beginning date will be the date of issuance of the permit and the ending date will be Dec. 31, 2016. All other annual reports shall cover the reporting period of Jan. 1 to Dec. 31 each year.

3. Is your MS4 a previously permitted MS4 and not subject to a TMDL?

☐ Yes ☑ No

If yes, you are required to submit the MS4 stormwater management plan report biennially (i.e., once every two years). Reports are due Feb. 28 every odd year. The first report will be due February 2017, and will cover the reporting period from June 13, 2016, to Dec. 31, 2016. All other reports shall cover the reporting period of Jan. 1 of the first year to Dec. 31 of the second year.

4. If you are part of a co-permitted MS4 permit, submit combined MS4 stormwater management plan reports, and one or more of the co-permitted MS4s have annual reporting based on the above criteria, then submit your MS4 stormwater management plan report annually by Feb. 28 of each year.

IF you are part of a co-permitted MS4 permit and do not submit combined MS4 stormwater management plan report, then each MS4 co-permittee will submit their MS4 stormwater management plan report based on the above criteria.

5. Reporting Period:

BEGINNING: 01-01-2020 ENDING: 12-31-2020

Part C – STORMWATER MANAGEMENT PLAN REPORT PROGRESS AND COMPLIANCE

As an attachment, please provide information for each of the items below. Provide informative data, success stories, and experiences that support the successful implementation of your stormwater management plan report.

1. Describe the status of compliance with permit conditions for the permitted MS4.
2. Provide information regarding the progress toward achieving the statutory goal of reducing the discharge of pollutants to the maximum extent practicable to the MS4.
3. If another governmental entity implements any best management practice or minimum control measure, please provide the following:
    a. Name of the government entity;
    b. Name of the primary contact for the government entity;
    c. Contact information (i.e., address, city, ZIP code, state, and phone number); and
    d. Specific best management practices or minimum control measures being implemented by the government entity.

It is the responsibility of the permittee to provide all information under this report regardless if best management practices or minimum control measures are being implemented by another governmental entity. If a complete minimum control measure is being implemented by an alternative governmental entity, then only indicate the best management practice under the minimum control measure.

4. Provide a summary of any stormwater activities and known construction activities that will be covered under the authority of the MS4 permit that are scheduled to begin during the next reporting period.
5. Provide a description of any changes to the stormwater management plan report, best management practices, measurable goals, and the iterative process that have occurred during the covered reporting period.
6. Provide a list of best management practices that were evaluated during the covered reporting period, and provide information on how the best management practice was determined effective.
    a. If any of the best management practices were determined to be ineffective, provide a summary on how the ineffective best management practice was resolved.
7. If any water samples were collected and analyzed during the covered reporting period by the permitted MS4 or on behalf of the permitted MS4, please complete Part D – Water Sample(s) Analysis.

Part D – WATER SAMPLE(S) ANALYSIS

PARAMETER OR INDICATOR	FREQUENCY	RESULT	DRY WEATHER SAMPLE?	WET WEATHER SAMPLE?
NA	NA	NA	☐ Yes ☐ No	☐ Yes ☐ No
			☐ Yes ☐ No	☐ Yes ☐ No
			☐ Yes ☐ No	☐ Yes ☐ No
			☐ Yes ☐ No	☐ Yes ☐ No
			☐ Yes ☐ No	☐ Yes ☐ No
			☐ Yes ☐ No	☐ Yes ☐ No
			☐ Yes ☐ No	☐ Yes ☐ No
			☐ Yes ☐ No	☐ Yes ☐ No

1. Are any of the parameters being sampled due to the MS4 being subject to an established or approved Total Maximum Daily Load?
☐ Yes ☑ No
If yes, please indicate the parameter/pollutant.

NA

2. Does the data support water quality attainment or support trend data toward water quality attainment?
☐ Yes ☑ No
If yes, please describe.

NA

Part E – TOTAL MAXIMUM DAILY LOAD (TMDL) ASSUMPTIONS AND REQUIREMENTS ATTAINMENT PLAN

1. Is your MS4 subject to an established or approved TMDL? If no, please indicate "No" below and do not complete any other portion of the TMDL Assumptions and Requirements Attainment Plan portion of this report.

☑ Yes ☐ No

2. Has your TMDL Assumptions and Requirements Attainment Plan been completed and submitted? If no, please provide a summary as an attachment on the progress toward submitting and implementing the TMDL Assumptions and Requirements Attainment Plan.

☐ Yes ☑ No

3. Has your TMDL Assumptions and Requirements Attainment Plan received approval from the department? If yes, please provided a summary of the status of the plan and include implementation status of identified best management practices and measurable goals along with any changes to best management practices or measurable goals (if applicable)..

☐ Yes ☑ No

4. Does the TMDL Assumptions and Requirements Attainment Plan incorporate Integrated Planning? If yes, please provide a summary of the status of the Integrated Plan.

☐ Yes ☑ No

PART F – SUBMIT REPORT TO:

Missouri Department of Natural Resources
Water Protection Program
MS4 Program Coordinator
P.O. Box 176
Jefferson City, MO 65102-0176

PART G - CERTIFICATION

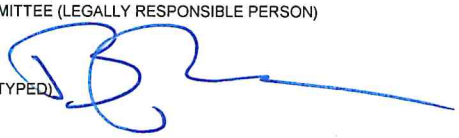
I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage 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.

SIGNATURE OR PERMITTEE (LEGALLY RESPONSIBLE PERSON)	DATE SIGNED
NAME (PRINTED OR TYPED)	TITLE
See attached signature pages for Part G certification	

PART G - CERTIFICATION

I certify under penalty of law this document and all attachments were prepared under my direction or supervision in accordance with a system designated to ensure qualified personnel properly gather and evaluated 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 there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

SIGNATURE OR PERMITTEE (LEGALLY RESPONSIBLE PERSON)



DATE SIGNED

4/27/2021

NAME (PRINTED OR TYPED)

Bill Florea

TITLE

Director, Resource Management

MO 780-1846 (10-16)

PART G - CERTIFICATION

I certify under penalty of law this document and all attachments were prepared under my direction or supervision in accordance with a system designated to ensure qualified personnel properly gather and evaluated 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 there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

SIGNATURE OR PERMITTEE (LEGALLY RESPONSIBLE PERSON)	DATE SIGNED
	4-27-21
NAME (PRINTED OR TYPED)	TITLE
David A. Sorrell, P.E.	Director, Utilities

MO 780-1846 (10-16)

PART G - CERTIFICATION

I certify under penalty of law this document and all attachments were prepared under my direction or supervision in accordance with a system designated to ensure qualified personnel properly gather and evaluated 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 there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

SIGNATURE OF PERMITTEE (LEGALLY RESPONSIBLE PERSON)

DATE SIGNED

4-27-2024

NAME (PRINTED OR TYPED)

Todd Houts

TITLE

Director, Environmental Health & Safety

MO 780-1846 (10-16)

Stormwater Annual Report
Columbia/Boone County/University of Missouri
Small MS4 Co-Permit MO-0136557
January 01, 2020 – December 31, 2020

C. SWMP Report Progress and Compliance

MCM 1: Public Education and Outreach

1. Overall compliance with permit conditions

The City of Columbia (City), Boone County (County) and the University of Missouri (MU) employ staff to provide stormwater public education and outreach programs that address the community. The co-permittees have approximately twelve staff members that work closely together to transcend jurisdictional boundaries in favor of a watershed-based approach. This demonstrates a significant commitment to stormwater education activities and the co-permittee's overall goal of educating their citizens to reduce pollutants entering receiving waters to the maximum extent practicable. The co-permittees are dedicated to preserving the water quality in the community to protect, maintain and enhance the immediate and long-term health, safety, and general welfare of their citizens.

The co-permittees have met all measurable goals associated with their ongoing BMPs for public education and outreach. The education and outreach focus for 2020 was stormwater infrastructure campaign. The co-permittees are working together to implement a public education program focused on stormwater discharges and their relative impacts on water quality, as well as informing the public of measures they can take to reduce pollutants in stormwater runoff. The target audiences continue to be students in each sector (elementary, high school and university), contractors, developers, engineers, inspectors, residents, and the public.

Raising citizens' understanding and awareness of stormwater impacts and issues is the primary goal of MCM 1 and the permittee's level of commitment to education and outreach programs is significant. Many citizens had some type of direct contact with the Stormwater Outreach program during 2020. Many more people had contact through social or traditional media outlets.

2. Progress toward achieving the statutory goal of reducing the discharge of pollutants to the MEP

For this reporting period, the co-permittees implemented/conducted/continued the following:

The City continued to work with a wide variety of groups to create a holistic stormwater education program that educates about the benefits of improved stormwater quality and provides specific techniques to improve stormwater quality while raising overall awareness of stormwater quality issues. Educational information provided to the community included:

- All City employees received pollution prevention educational training upon hire during new employee orientation. This pollution prevention education is also included in the employee handbook.
- The City continued its employee stormwater training which requires all employees attend on a bi-yearly (two-year rotation) basis. This year employee training was administered virtually through various YouTube videos made available to all staff. An all employee email was distributed that contained links to the online training videos as well as good housekeeping tips that could be reviewed at staff meetings.
- City staff used city social media sites such as Facebook, YouTube, City Source articles, and press releases to inform the public about events, activities and helpful BMP tips.
- City staff also participated in interviews regarding watersheds with reporters for a local newspaper.
- The City Storm Water Utility Website was kept up to date with new resources and/or updated information.

Outreach activities for the City of Columbia included:

- Continued partnership with River Relief summer camp program.
- Continued presentations to local groups, businesses and organizations on stormwater protection and BMPs around the community.
- Partnered with Columbia Public Schools on the rollout of a Composting Program.
- Presented the classroom activity “Streams in the Classroom”.
- Tours of the City’s 3M Hinkson/Flat Branch Wetland outdoor classroom with local schools, community groups and organizations.
- Facilitated stream and roadside litter pickups throughout the community.
- Implemented a storm drain marker program that mailed markers to participants’ homes for use on storm drains in their local neighborhoods.

Boone County stormwater presentations were provided to local school districts:

- Ashland FFA Storm Drain Marking - Students marked downtown Ashland storm drains to inform passers they should not dump waste down the drains, as water flows directly to streams.
- Southern Boone 2nd Grade - The Stormwater Educator and Coordinator lead a presentation over how streams form and function, using the stream table. Students also took part in an inactive activity to show how humans affect waterways, and what can be done to improve water quality. 160 students participated.
- Centralia 5th Grade - The Stormwater Educator was a Guest Science Teacher for the day, presenting on stream pollution sources. The students then created a “solution to the pollution.” Approximately 98 students participated.

- City of Columbia and Boone County Summer School 3M Wetland Tours - 6th and 7th-grade summer school classes visited the 3M Wetlands to learn about stormwater management and improving water quality of local streams. The students learned about wetland construction and function. Approximately 60 students attended.
- Benton Elementary 4th Grade Streams in the Classroom – The Stormwater Educator used the Enviroscape to show different sources of pollution and how rain can carry them into waterways and what actions can be taken to prevent pollution. Approximately 43 students attended.
- Benton Elementary 5th Grade, Who Polluted Hinkson? – Boone County Stormwater presented about stormwater and watersheds. Students completed the "Who Polluted the Stream?" activity. Approximately 42 students participated.
- Science Olympiad – The Stormwater Educator served as a mentor and helped prepare students for Science Olympiad competitions and how to test water.

Boone County stormwater presentations were provided to the public:

- Columbia Young Scientists Expo - Boone County Stormwater hosted a booth at the CYS Expo. The booth had a display focusing on stormwater and water quality testing. The Enviroscape was used to show different sources of pollution and how rain can carry them into our waterways. Approximately 300 people visited the booth.
- Guest Lecturer: Moberly Area Community College - The Stormwater Coordinator guest lectured for the Conservation Biology Class at the MACC Columbia campus, focusing on the history of stormwater and the development of stormwater regulations in Boone County.
- Sustainable Living Fair – The Stormwater Educator led a workshop about soil health and stormwater runoff. The Hinkson Creek Collaborative Adaptive Management (CAM) teams hosted an informational display about the CAM process and progress. 75 people visited the booth.
- Contractor Education – Concrete companies and producers were mailed a letter and brochure discussing the importance and allowable methods of cement slurry disposal in the County
- Spring Greater Bonne Femme Watershed Land Management Workshop - Twenty-one property owners within the Greater Bonne Femme Watershed attended the all-day workshop. They learned about the pre-history of the area, history of water quality monitoring in the watershed, conservation easements, the importance and establishment of native plants, forest management, cost-share availability, services available from University Extension, DIY BMPs, and how to identify and treat invasive plants.
- Rock Bridge Memorial State Park Water Festival - Boone County Stormwater took part in the 6th annual Water Festival at Rock Bridge Memorial State Park. This program served approximately 50 adults and children.
- Guest Lecturer at MU School of Natural Resources - The Urban Hydrologist guest lectured about the Bonne Femme Watershed Project. There were 30 people in attendance including students in the class and other interested parties.
- Planetarium – Worm Show – The City of Columbia's Office of Sustainability and Boone County Stormwater hosted a joint event investigating watersheds and worms' role to 36 parents and children at the Columbia Public Schools planetarium.
- Cave Institute at Rock Bridge Memorial State Park – The Urban Hydrologist gave a presentation about water quality to the CAVE Institute participants at Rock Bridge Memorial State Park. Approximately 15 people were in attendance.

Each semester, the University of Missouri conducts courses as part of its curriculum in a number of disciplines that concentrate on, or touch upon, issues of water quality and/or environmental management practices. This continued for both the winter and fall semester of 2020. Each course instructs between five and 300 students. Following is a list of those courses:

ABM 2070W	Environmental Economics and Policy
AGSC COM 2210	Communicating Science to the Public
AG SM 4420	Surface Water Management
BIOL EN 4150	Soil and Water Conservation Engineering
BIOL EN 4250	Irrigation and Drainage Engineering
BIOL EN 4350	Watershed Modeling Using GIS
CHEM 4280	Environmental Chemistry
CH ENG 4220	Hazardous Waste Management
CH ENG 4285	Pollution Prevention
CV ENG 3200	Fundamentals of Environmental Engineering
CV ENG 3400	Fundamentals of Geotechnical Engineering
CV ENG 3702	Hydrology
CV ENG 4230	Introduction to Water Quality
CV ENG 4250	Environmental Regulatory Compliance
CV ENG 4286	Environmental Sustainability
CV ENG 4980	Civil Engineering Systems Design
ENV SC 1100	Introduction to Environmental Science
ENV SC 3250	Pollutant Fate and Transport
ENV SC 3290	Soils and the Environment
ENV SC 4305	Environmental Soil Physics
ENV SC 4306	Environmental Soil Physics Laboratory
ENV SC 4318	Environmental Soil Chemistry
ENV SC 4320	Hydrologic and Water Quality Modeling
ENV SC 4400W	Environmental Law, Policy, and Justice
ENV SC 4600	Sustainability Science Problem Solving
ENV SC 4940	Environmental Science Internship
FW 4600	Ecosystem Management
FW 4800	Environmental Toxicology
Forest 4390	Watershed Management and Water Quality
GEOG 2660	Environmental Geography
GEOL 1200	Environmental Geology with Laboratory
GEOL 2400	Surficial Earth Processes and Products with Laboratory
LAW 5545	Environmental Law
NAT R 3400	Water Quality and Natural Resource Management
NAT R 4024	Foundations of Environmental Education
PLNT S 4720	Aquatic Entomology
PRST 4250	Parks, Health and Wellness

MU's Campus Facilities department completed an overhaul of the master planning portion of their website that includes the Stormwater Master Plan which was completed in 2012 and publicly released in 2013.

Social media continued to be a tool to involve and engage the public with information, events and activities related to stormwater. Boone County (www.showmeboone.com), the City (www.como.gov), and MU (www.missouri.edu) maintained dedicated stormwater resource websites, and the co-permittees linked to each other's sites. The websites educated the community about the impacts of stormwater runoff, permits and inspection requirements, and general watershed information. The Hinkson Creek Watershed Restoration website (www.helpthehinkson.org) was also maintained with Hinkson Creek Collaborative Adaptive Management (CAM) updates on a regular basis. The Greater Bonne Femme Watershed Project website (www.cavewatershed.org) was maintained by Boone County on a regular basis.

As part of its Good Housekeeping, the permittees conducted numerous stormwater pollution prevention trainings for employees. These trainings provided for increased cooperation and education of field personnel on sediment control practices in the local area.

The annual area-wide household hazardous waste (HHW) collection event that has historically been hosted by the co-permittees was canceled in 2020 due to the Covid-19 pandemic. The co-permittees plan to evaluate whether the 2021 Annual HHW collection event can be hosted safely during the ongoing pandemic as the event approaches.

The implementation schedule for MCM 1 can be found in Table 1.

3. BMPs implemented by government entity

No BMPs or MCMs were implemented by governmental entities other than those who are a party to this MS4 permit during the reporting period.

4. Summary of stormwater activities planned for the next reporting cycle (include implementation schedule)

The County partnered with the City of Columbia's Office of Sustainability to provide a consistent education and outreach program to all citizens within Boone County. This partnership will continue during the next reporting cycle. Contractor training will continue to be held in the fall and winter. These workshops will focus on BMP installation, construction site inspections, good housekeeping, and stormwater and water conservation.

MU's Campus Facilities department will continue to update and maintain the master planning portion of their website that includes the Stormwater Master Plan. This will facilitate the continued distribution of information on stormwater related projects to a broad faculty, staff and student audience.

The City has started an education and outreach program to all citizens of Boone County. This educational series is based on a holistic approach to community-based educational programming with a focus on sustainability-themed topics. This is a partnership with Columbia Public Schools, The Columbia STEM Alliance, Boone County Schools, and the City of Columbia, MO - Office of Sustainability. Each monthly topic interconnects with each preceding month's topic with an overall goal of understanding as

to how each sustainable monthly theme interconnects with the other and how one choice... one step... serves the great goal of protecting our resources, our environment, and our community as a whole. Staff will continue to support ongoing and recurring annual activities such as litter pickups, educational videos, public engagement events, Household Hazardous Waste drop-off, etc.

The University of Missouri will continue to conduct courses as part of its curriculum in a number of disciplines that concentrate on, or touch upon, issues of water quality and/or environmental management practices (see list of courses in section 2 of this MCM). This will continue for both the winter and fall semester of 2021.

MU Extension will conduct a *Healthy Yards for Clear Streams* course in Spring 2021. The course is designed to help residents be more environmentally responsible with lawn and landscape practices.

The education focus for 2021 will focus on informing citizens about the watersheds they live in and how actions on the landscape can impact local streams, building off 2020's stormwater infrastructure campaign. The target audience will remain the same.

5. Proposed changes to the program area and documented SWMP (MCM 1)

The SWMP was updated in February 2020 as part of the co-permittee's renewal application for Permit No. MO-0136557. The co-permittees are currently in the process of reviewing the current SWMP for compliance with the permit issued July 1, 2020 and will update as needed.

6. Effective BMPs evaluated during the reporting period

BMP 1: Maintain an education and outreach program to educate strategically targeted audiences about annually selected topics that are pertinent and timely to local water quality issues.

The City of Columbia, Boone County, and MU maintain a list of all education and outreach programs conducted throughout the year (see MCM 1 Table), along with a participation roster and dates for each activity.

BMP 2: Develop and distribute education and outreach materials.

Each co-permittee developed and distributed educational materials as necessary (see MCM 1 Table)

BMP 3: Conduct educational and outreach activities.

Each co-permittee staffed/presented at least two community events, citizen's groups, and/or schools and industry (see MCM 1 Table).

BMP 4: Maintain Hinkson Creek GIS Habitat Viewer.

The Hinkson Creek GIS Habitat Viewer was reviewed by the permittees during calendar year 2020.

BMP 5: Provide and maintain dedicated stormwater resource websites.

The City of Columbia, Boone County, and MU maintained the following stormwater resource websites by reviewing and updating as necessary:

https://www.como.gov/utilities/stormwater/
www.showmeboone.com/stormwater
https://ehs.missouri.edu/ehs/env/stormwater
www.helpthehinkson.org
www.cavewatershed.org

BMP 6: Provide the public with proper, publicly announced, disposal opportunities to minimize the presence of household hazardous waste in local waterways.

The annual area-wide household hazardous waste (HHW) collection event that has historically been hosted by the co-permittees was canceled in 2020 due to Covid-19 pandemic. The co-permittees plan to evaluate whether the 2021 Annual HHW collection event can be hosted safely during the ongoing pandemic as the event approaches.

The City of Columbia continued to hold a twice-a-month collection program between and including the months of April through November.

7. Water samples collected and analyzed during the covered reporting period by the permitted MS4 or on behalf of the permitted MS4

No water samples were collected by, or on behalf of, the permitted MS4 during this reporting period.

MCM 2: Public Involvement and Participation

1. Overall compliance with permit conditions and SWMP

Providing opportunity for citizen input and participation in stormwater matters is the primary goal of MCM 2. The City's, County's, and MU's commitment to public involvement and public participation programs was tailored to provide ample opportunity for public involvement and participation and to increase the understanding of stormwater-related impacts and issues.

The BMPs are appropriate and have met the goals of public notice/involvement as the co-permittees have established processes for public involvement in political decision making. Notice is given in a manner consistent with state and local regulations. The various practices incorporated into the MS4 education programs encourage a variety of public participation and involvement. Other programs train volunteer educators and encourage a wide range of community groups to participate in a variety of stormwater improvement activities such as tree planting, community gardens, litter pickups and proper hazardous waste disposal. Social media outlets have provided a new means to engage and involve the public and are appropriate for the significant college student population in our MS4.

The co-permittees each have their own public process for approving construction projects. The City's public process includes interested parties' meetings for adjacent property owners, public hearings before City Council which are advertised per ordinances and law, and direct contact with City staff which is always available. Similarly, the County Commission meetings are open to the public. MU, not fitting the traditional municipality model, involves the campus "public" through its master planning process.

The Collaborative Adaptive Management (CAM) process has demonstrated heightened awareness of stormwater and water quality issues within the community and continues to do so through the public education and public involvement MCMs. The CAM Stakeholder, Action Team, and Science Teams each meet multiple times per year for approximately 1.5 - 2 hours per meeting with up to 15 people at any given meeting. The success of the CAM process continued throughout 2020, as demonstrated by sustained participation of team members at meetings and events. Due to the Covid-19 pandemic, each of the three CAM teams had to reduce the number of meetings in 2020. However, each of the three teams was able to adapt to the change in circumstances and hold meetings in virtual forums. This demonstrates the commitment of the co-permittees and Stakeholders to the CAM process.

The CAM process for the Hinkson Total Maximum Daily Load (TMDL) adheres to all "Sunshine Law" regulations for notification of public meetings and has increased stormwater-related communication between the involved individuals and the organizations they represent. It addresses the Hinkson watershed, the largest watershed in the MS4 area, which is appropriate to this measure. It provides a near monthly opportunity for the public and local policy makers to engage in stormwater issues within our MS4.

All reports presented to the CAM Stakeholders can be found here:
http://www.helpthehinkson.org/CAMInformation.htm
Reports and data will be used by the MS4 partners to guide future decisions to reduce impairments in Hinkson Creek.

2. Progress toward achieving the statutory goal of reducing the discharge of pollutants to the MEP

Together, the co-permittees have met all measurable goals associated with their ongoing BMPs for public involvement and participation. Staff from the University of Missouri, City of Columbia, and Boone County meet at least nine times each year to coordinate and work on stormwater activities. These include the joint clean-up events, public service announcements, Hinkson Creek TMDL CAM, social media, volunteer activities and annual reporting to MDNR.

In 2007, the Boone County Commission approved the Bonne Femme Watershed Management Plan, which was developed in response to mounting concern for the protection of the natural resources in the Greater Bonne Femme Watershed, which include Rock Bridge Memorial State Park and Three Creeks Conservation Area, as development moves south from the City of Columbia.

Although many of the plan recommendations were incorporated into Boone County ordinances and planning and development criteria, expansion of urban development into the watershed gave rise to renewed concern about the protection of the natural resources in the watershed. In addition, five streams in the Greater Bonne Femme Watershed are on the Clean Water Act 303(d) List of Impaired Waters for exceedance of bacteria (*E. coli*) criteria.

Boone County assembled a Technical Advisory Team in early 2016, consisting of members from local government and conservation agencies. During 2020 the team met six times.

Several subcommittees have been formed to address collection of scientific data in the watershed, outreach and education, and creation of a 9-point plan to enable funding from sources such as EPA and MDNR. Boone County has been working with Rock Bridge Memorial State Park and other partners to increase awareness of water quality in the Greater Bonne Femme Watershed.

Dr. Bob Lerch with the University of Missouri has continued to sample at ten sites in the watershed. This water quality sampling includes monitoring *E. coli* in several streams. The County continued to monitor three gauging stations running in the watershed. These stations monitor stage (depth) and temperature of Turkey Creek, Bonne Femme Creek, and Little Bonne Femme Creek.

The Devil's Icebox Spring Branch Cooperative Stream Investigation (CSI) project began in 2017 as a partnership between the Missouri Department of Natural Resources Water Protection Program, Boone County's Stream Team #4794, and Boone County Regional Sewer District. This CSI project was planned as a 1-year E. coli monitoring project from November 2017-October 2018. This project was completed in 2018 and a final report was issued from the Missouri Department of Natural Resources in 2019.

Boone County owns two bioretention basins along Meyer Industrial Blvd. As part of the GBFWP, these basins were rehabbed and mulched in the fall of 2019 for a demonstration project. In June of 2020, volunteers helped replant the basins with native grasses and other deep-rooted vegetation. More grasses were planted in October 2020.

The natural resources in the Greater Bonne Femme Watershed are a part of our Boone County heritage. Plans for 2021 include an expansion of the outreach and education components of the project and

completion of a 9-element watershed management plan partially funded by the Environmental Protection Agency through the Missouri Department of Natural Resources Chapter 319 Unit.

The CAM process for the Hinkson Creek TMDL continued through 2020. CAM is a science-driven, stakeholder-based process for decision-making while dealing with the scientific unknowns inherent in many physical and biological systems. It uses a continuing process to make changes and then to determine the effect of those changes. Three diverse groups are synthesizing complex ecological, technical, political, and economic variables to affect significant water quality improvements to Hinkson Creek. Successful actions from this process will likely be able to be repeated throughout the MS4 area. Three groups have been formed to support the CAM process.

- The 15-member Stakeholder Committee is comprised of elected officials representing the MS4 partners, individuals representing residential landowners, commercial interests, construction industry and environmental groups. They are responsible for suggesting actions to the City, County and MU for implementation and suggesting recommendations for monitoring.
- The Action Team is responsible for putting together proposals for actions to improve water quality for consideration by the stakeholders. This group is comprised of County, City, MU, Boone County Regional Sewer District and MoDOT staff.
- The Science Team includes science professionals from EPA, MDC, MDNR, USGS, MU and a local engineering firm. This group proposes monitoring and modeling necessary to assess the health of the creek, determine what causes may be contributing to water quality problems, and determine the effectiveness of actions taken to improve water quality.

Spatial analysis of the Habitat Assessment is was finished in 2019. Data analysis is pending.

Dr. Argerich continued her synoptic sampling in 2020, with three sampling events. She and 17 students sampled 30 sites along Hinkson Creek and 10 sites along its tributaries. The project is slated to continue for another year. Additionally, the United States Geological Survey (USGS) had planned a 1-year comprehensive sampling analysis of Hinkson Creek in 2020. However, due to the Covid-19 pandemic and a funding shortage, the sampling has been postponed to a later date.

The Hinkson Creek Aquatic Macroinvertebrate Data Mining Project continued through 2020. The objective of this study is to diagnose stressors causing aquatic life impairment in Hinkson Creek. The findings of the study are planned to be presented to the CAM Stakeholders, Science Team, Action Team, and public in spring of 2021.

MU students also engaged in stormwater related activities through groups such as the University of Missouri Environmental Science Club, Sustain Mizzou, Water and Environmental Technologists, Greeks Go Green, Student Environmental Design Association, Environmental Law Society, Journal of Environmental and Sustainability Law, Mizzou Student Group of US Green Building Council, Forestry Club, Horticulture Club, Environmental Leadership Office, Missouri Water Environment Association, MU Student Chapter of the Soil and Water Conservation Society, Science, Health and Environmental Journalism at Mizzou, MU Sustainability Office, Science Communication and Public Engagement, and the Mizzou Water and Environmental Technologists.

In 2019, the Missouri Department of Natural Resources acknowledged the City of Columbia's Wastewater and Stormwater Integrated Management Plan (IMP). The goal of the IMP is to develop adaptable and affordable long-term recommendations that meet Columbia's wastewater and stormwater management needs and address Clean Water Act obligations to protect and improve our community waterways. As the City begins implementing the IMP, public input and participation will be key as this is a community-driven process.

In 2020, the City completed the following MS4 Program Enhancement actions as identified in the IMP 5-year Action Plan.

- Published a stormwater article in the City Source newsletter in March 2020, June 2020 and August 2020.
- Inspected 92,567 feet of existing sewer line for damage.
- Completed 19 illicit discharge investigations: and
- Completed 494 outfall inspections

On June 17, 2017, Columbia City council passed Resolution R-83-17A, reaffirming the commitment of the City of Columbia to take action to reduce climate pollution and authorized participation in the Global Covenant of Mayors for Climate & Energy. In February 2018, the Mayor appointed 15 community members to the Mayor's Task Force on Climate Action and Adaptation Planning. The Mayor's Task Force along with City staff was tasked with developing the goals and objectives to be included in the City's Climate Action & Adaptation Plan (CAAP). Two of the goals identified in the plan are to improve stormwater management and minimize risks to flood-prone areas, which both align with the goals of the permitted MS4. The CAAP was adopted by the City Council on June 17, 2019.

City Council received a report at their October 7, 2019 meeting for the planned strategic priority issues of the CAAP. At the same meeting, City Council approved the creation of a Climate & Environment Commission. The purpose of the Commission is to advise City staff on reporting to City Council the implementation activities of the CAAP, act as a primary liaison for outreach and awareness on the CAAP throughout the community, provide input on evaluating additional opportunities for mitigation and resilience actions in Columbia, and advise City Council on environmental issues, as directs. The commission is comprised of 15 members appointed by City Council.

The City of Columbia engages in multiple planning processes in the normal course of business. Concurrent to the Climate Action & Adaptation Plan process, community input was and will continue to be reviewed from the following efforts:

- City of Columbia Strategic Plan
- City of Columbia Vision Zero Plan
- Community Development Consolidated Plan
- Columbia Utilities Our Columbia Waters Integrated Management Plan
- Columbia Utilities Integrated Water Resources Plan
- Columbia Utilities Integrated Electric Resource and Master Plan
- CATSO Long Range Transportation Plan
- Columbia / Boone County Public Health & Human Services Community Health Improvement Plan

In 2020, the City worked in cooperation with the USGS Missouri Water Science Center to provide funding for the Hinkson Creek stream gauge located at South Providence Road in Columbia, Missouri.

The stream gauge provides daily streamflow data that is available publicly on the USGS Water Resources website: https://waterdata.usgs.gov/nwis/uv?site_no=06910230

The City continues to garner volunteer participation and involvement of diverse groups through programs like TreeKeepers, composting workshops, Household Hazardous Waste Program, Adopt-A-Spot and a variety of formal and informal cleanup events. Citizens volunteered more than 141 hours as participants in the Adopt-A-Rain garden program to maintain the rain gardens in public rights of way and involve the community in stormwater retrofits to improve water quality. The City website has information about these volunteer opportunities which are available to all residents including those at MU and the County.

The City continues to utilize volunteers to organize and host a monthly stream clean up within the watersheds. This group of volunteers, known as the Columbia Crawdads, acts as volunteer educators and volunteered more than 346 hours in 2020.

Social networks such as Facebook and YouTube are used to distribute educational information about current stormwater projects, share photos of volunteers/events, provide access to stormwater materials, and involve the public by encouraging participation.

The City continued to engage participation and public involvement by the following:

- 2,172 community members provided 7,398 volunteer hours to pick up litter, clean creeks, plant trees and aquatic vegetation, and remove hazardous waste from the environment with over 4195 bags of litter collected.
- Trash pickup efforts totaled 4,320 hours from 1,564 individuals with 3,907 bags of litter collected.
- Regularly scheduled monthly stream cleanup activities.
- 3 rain gardens adopted through an effort called the Adopt-A-Rain garden program.
- 185 people attended a compost class and 85 compost bins were sold/given out/distributed collectively over 8 workshops.

Boone County engaged participation and public involvement by the following:

- First Day Hike on Deer Run Trail at Rock Bridge Memorial State Park
- Farm and Fiddle Radio Show to discuss water quality monitoring at Rock Bridge Memorial State Park
- KOPN Bonne Femme Watershed Project Discussion
- 6 - Rock Bridge Memorial State Park Water Quality Monitoring Events
- 4 – Volunteer planting days at the Meyer Industrial Dr. bioretention basins
- The Boone County Stormwater Team actively participates in the Missouri Stream Teams program. Due to the influence of COVID-19 in 2020, Stream Teams work was reduced as the Stormwater Team could not involve local volunteers in the monitoring process.

The implementation schedule for MCM 2 can be found in Table 2.

3. BMPs implemented by government entity

No BMPs or MCMs were implemented by governmental entities other than those who are a party to this MS4 permit during the reporting period.

4. Summary of stormwater activities planned for the next reporting cycle (include implementation schedule)

All co-permittees will continue to implement ongoing BMPs as identified in the Joint Stormwater Management Program.

The CAM process will continue through 2021. Actions will continue to be implemented, evaluated, and monitored. CAM meetings are open to the public and will provide opportunities for the public to provide input. Data analysis for the fine sediment mapping, spatial analysis of the habitat assessment, and Dr. Argerich's synoptic sampling will continue.

The City Council and Planning and Zoning Commission will continue to meet at their regularly scheduled times. Meetings are open to the public and development and redevelopment plans are discussed.

Boone County Planning and Zoning meetings will continue to meet on the 3rd Thursday of the month. The P & Z Commission acts as an advisory commission to the County Commission on matters of land use. These meetings are open to the public.

Boone County's website will continue to be updated regularly to keep the public informed of stormwater issues.

The City will continue with the Columbia Wastewater and Stormwater Integrated Management Plan process in 2021 by continuing the implementation of the Five-Year Action plan to address the prioritized investments for the Sewer and Storm Water Utilities. These items include enhancements to the MS4 Program.

In 2021, the City continue implementing the Climate Action & Adaptation Plan through internal CAAP Action Groups and the Citizen Climate Commission.

MU's master planning process continues to be an open, transparent process allowing participation of the campus "public". Begun more than 30 years ago, MU's master planning effort addresses current and future needs while remaining mindful of MU's commitment to environmental stewardship.

The co-permittees will continue to involve a variety of volunteers in cleanups, tree planting, aquatic plant installations and household hazardous waste pickups.

5. Proposed changes to the program area and documented SWMP (MCM 2)

The SWMP was updated in February 2020 as part of the co-permittee's renewal application for Permit No. MO-0136557. The co-permittees are currently in the process of reviewing the current SWMP for compliance with the permit issued July 1, 2020 and will update as needed.

6. Effective BMPs evaluated during the reporting period

BMP 1: Implement an effective public involvement/participation program.

Boone County and the City of Columbia continued to hold public hearings/stakeholder meetings when properties were annexed or requested a change in zoning, during the platting process, and throughout the project design phase.

MU publicized and presented the Campus Master Plan, which identified planning principles and included current and proposed construction activities.

BMP 2: Select a targeted topic for each calendar year.

The targeted topic for 2020 was stormwater infrastructure campaign.

BMP 3: Implement and maintain public involvement/participation activities to engage citizens.

The City of Columbia, Boone County, and MU continued to promote Adopt-A-Spot/Adopt-A-Road programs, TreeKeepers, public service announcements, and community clean-up events.

The City of Columbia, Boone County, and MU continued to maintain social media and websites for promotion of public involvement and participation to facilitate conversation of pertinent topics.

BMP 4: Provide the public with proper, publicly announced, disposal opportunities to minimize the presence of household hazardous waste in local waterways.

The annual area-wide household hazardous waste (HHW) collection event that has historically been hosted by the co-permittees was canceled in 2020 due to the Covid-19 pandemic. The co-permittees plan to evaluate whether the 2021 Annual HHW collection event can be hosted safely during the ongoing pandemic as the event approaches.

The City of Columbia continues to hold a twice-a-month collection program between and including the months of April through November.

7. Water samples collected and analyzed during the covered reporting period by the permitted MS4 or on behalf of the permitted MS4

No water samples were collected by, or on behalf of, the permitted MS4 during this reporting period.

MCM 3: Illicit Discharge Detection and Elimination (IDDE)

1. Overall compliance with permit conditions and SWMP

The co-permittees believe that the chosen BMPs are appropriate and have furthered the goals of reducing the discharge of pollutants to the maximum extent practicable. They allow for proper identification, categorization, and inspection of the storm sewer system along with immediate and effective response to discharges and spills. IDDE reports are thoroughly investigated and resolved in accordance with the MS4 permit.

The City and County's Illicit Discharge Detection and Elimination Ordinances, coupled with education and outreach efforts, have proven particularly successful in the reporting of illegal discharging or dumping into the storm drainage system. Community illicit discharge hotlines continue to be monitored and are referenced both on the co-permittee's web sites and by a telephone number on the storm drain labels.

MU's Department of Environmental Health and Safety (EHS) creates policies, programs, and guidance to assist the campus in complying with regulations. A number of overlapping mechanisms effectively monitor and control discharges on the MU campus, including the Stormwater Management Plan, Stormwater Pollution Prevention Plans for land disturbance sites, the Spill Prevention Countermeasures and Control Plans, and stormwater discharge NPDES permits. Construction and demolition projects receive the daily oversight of a MU Construction Project Manager or Construction Engineer, in addition to receiving MU building permit inspections. MU Employees are provided training and have mechanisms to report discharges, including discharges to the stormwater system, to EHS. The awareness of the campus community has been heightened, as evidenced by feedback from the annual training and inspection activities throughout the year.

The co-permittees continued to identify high priority areas based on the following criteria: stormwater runoff that is creating a threat to the public; causing deterioration to infrastructure; infrastructure that has exceeded life expectancy or shows evidence of failure; or is the source of numerous complaints. Projects that address the above are all subjected to an economic analysis and appropriation availability. The City maintains and updates as necessary its storm drainage map showing the location of all known outfalls and the names and location of all receiving waters of the state that receive discharges from those outfalls.

The City performs frequent inspections to detect and address non-stormwater discharges in areas where reports have occurred historically, such as below the downtown area. All stormwater employees inspect stormwater systems citywide when in the field for other responses. The City has incorporated IDDE training with all its Good Housekeeping training for all City employees. This work is on-going. The City has an ongoing program to inspect sanitary sewers and stormwater infrastructure utilizing CCTV equipment. Part of the CCTV inspection is to ensure that there are no cross connections between the sanitary sewer and stormwater system.

As failures in the sanitary sewer system can ultimately infiltrate the storm sewer system, actively examining the sanitary system prevents incidental non-stormwater discharges. The City sanitary system has been divided into multiple priority areas based on inflow and infiltration (I&I). Methods to evaluate integrity include smoke testing, building inspections, CCTV inspections and dye water testing. Removing stormwater from the sanitary sewer system prevents overflows which cause raw sewage to enter the waterways.

Boone County Resource Management supports a web-based reporting system to log citizen complaints. Most of these complaints are due to yard or street flooding. Others report potential dump sites, discharge, or erosion problems.

Boone County Resource Management will not finalize building occupancy permits until the septic system has been inspected and approved by the Columbia/Boone County Health Department. This ensures that there are no cross connections or systems that discharge to surface waters.

MU continues to review and update as needed a storm sewer map showing the entire MU MS4 system. MU Campus Facilities divided their sanitary sewer system into five zones, A-E. One of the five zones is inspected each year, completing an inspection of the entire system every five years. The inspection program includes camera verification and inspections for defects and infiltration. In 2020, Campus Facilities completed visual inspection of Rotation E.

The co-permittees have not identified any of the listed non-stormwater discharges as significant contributors to the regulated MS4.

2. Progress toward achieving the statutory goal of reducing the discharge of pollutants to the MEP

The co-permittees continue to maintain, implement, and enforce measures to detect and eliminate illicit connections and discharges to the MS4. The co-permittees have the legal authority to carry out all inspections, surveillance, testing, and monitoring necessary to ensure compliance within their respective jurisdictions. MU exercises enforcement through campus policy and administrative actions. Each co-permittee has implemented a plan to detect and address non-stormwater discharges which may include on-site visual inspections, smoke and dye testing, closed circuit television (CCTV) inspections, as well as public watch and reporting programs. The City maintains a 24-hour response telephone number for illicit discharge reports. MU's 24-hour emergency response process also includes reporting of illicit discharge events.

While the process is different among the co-permittees, new buildings are 100% inspected for illicit connections and there are building code requirements and on-site sewage treatment regulations (if applicable) in place for new construction. These mechanisms prevent creation of new illicit discharges and help bring existing discharge systems into compliance. Each new building, whether residential, office or commercial in Columbia or Boone County, is inspected by City, County or MU staff including a plumbing inspection prior to pouring of the lower level floor. This plumbing inspection occurs on each new building constructed in Columbia, as well as on any remodeling work. The County permitting process also includes verification of connection to an approved wastewater system with inspections by

City/County Health Department staff or Boone County Regional Sewer District staff. A storm sewer map with outfalls is maintained by all permittees.

Timely call-ins to the co-permittees indicate a heightened awareness of stormwater and illegal dumping activities in Columbia. All complaints were thoroughly investigated and resolved in accordance with the MS4 permit.

The co-permittees continue to inspect approximately 20% of the storm drainage infrastructure priority areas per year.

The annual area-wide household hazardous waste (HHW) collection event that has historically been hosted by the co-permittees was canceled in 2020 due to the Covid-19 pandemic. The co-permittees plan to evaluate whether the 2021 Annual HHW collection event can be hosted safely during the ongoing pandemic as the event approaches.

In 2020, the City completed over 179,861 feet of CCTV inspection for new and existing sewer main. In 2020, the City completed over 57,425 feet of CCTV inspection for new and existing stormwater main. In 2020, the City replaced 1,229 feet of failing storm pipe and three storm structures. Another 26 storm structures were repaired.

Through the City's Annual Sanitary Sewer Main and Manhole Rehabilitation projects, thousands of feet of sanitary sewer pipe have been lined eliminating the potential for exfiltration of sewage. Additionally, hundreds of lateral connections have been repaired in lower lying areas, also reducing the potential for exfiltration of sewage to drainage pathways. The FY 2018 Sewer Main and Manhole Rehabilitation project was completed in 2020. This project included the rehabilitation of approximately 55,000 linear feet of sewer line, 275 manholes, and 300 lateral connections. Upon completion of project construction, approximately 15,000 feet of sewer was rehabilitated specifically for inflow and infiltration reduction in the Flat Branch basin. Approximately 40,000 linear feet of sewer main throughout the City was rehabilitated due to both structural deficiencies and inflow and infiltration reduction.

In 2020, the City developed new technical specifications for a multi-year contract for Sewer and Stormwater Rehabilitation and Cleaning Services. A request for proposal was issued in 2020, and the contract has been awarded.

The City also completed construction of four Private Common Collector Elimination projects in 2020: PCCE #8 Thilly Lathrop Phase 4, PCCE #3 Stewart Medavista Phase 2, PCCE #16 Bingham Ridgeley Phase 2, and PCCE #33 Shannon Place. The goal of these projects is to install new public sanitary sewer mains to replace the existing private collection systems that are failing and are a potential source of exfiltration to local waterways.

Both the City Storm Water Utility and Community Development department receive citizen complaints via phone, email, and website for Stormwater discharge and construction discharge. Complaints are addressed in a timely manner. Storm Water Utility received 19 illicit discharge calls in 2020 and completed 23 illicit discharge investigations.

The City continues its grease trap inspection program to ensure restaurant grease traps are properly cleaned, maintained, and inspected on a regular basis. This activity will reduce the potential of sanitary sewer overflows (SSO) into streams and their tributaries. In 2020, 749 inspections were performed with 4 letters of warning or notices of violation issued and plans for 29 new grease traps were reviewed.

In 2019, the City hired an MS4 Technician to support the MS4 program with a focus on IDDE and to conduct stream walks and outfall inspections in all City streams within the next 5 years. This was an identified action in the Five-Year Action Plan of the Columbia Wastewater and Stormwater Integrated Management Plan. The MS4 Technician worked with other City Staff to develop an ArcGIS application to aid in the completion of dry weather inspections of outfalls. In 2020, the City revised its outfall map as part of the permit renewal process. Using the updated map, the City completed 494 outfall inspections in 2020.

The County's system consists mostly of open swales and as such the traditional model of using a camera to inspect line integrity is not appropriate. Therefore, the County relies mainly on citizen notification as mentioned in the previous section.

MU continues to update its storm and sanitary sewer maps and continues to be available to investigate illicit discharge complaints 24/7. Both stormwater and non-stormwater discharges are readily recognized by the campus and local community due to a strong awareness program, as well as active monitoring by campus staff. Stormwater released from petroleum storage tank secondary containment is inspected prior to release in accordance with the Spill Prevention Control and Countermeasures Plan.

MU maintains Spill Prevention Control and Countermeasure (SPCC) plans for their facilities in the MS4 area for which a plan is required. The plans are intended to minimize the potential for the facility to adversely impact its environment and for the facility to attain and maintain compliance with EPA standards for oil pollution prevention and response. The plans outline the procedures, methods, and equipment used at the facility to comply with EPA oil spill prevention control and countermeasures standards and inspection, training, and record-keeping requirements.

MU has divided its sanitary sewer system into five zones, A-E. One Zone is inspected annually including camera verification and inspections for defects and infiltration. The process has been expanded to verify the connections of internal floor drains over a five-year period. In 2020, MU Campus Facilities completed visual inspection of Rotation E. Facility Operations had 797 hours of camera verification time involved with the Rotation E inspection. This included inspection of 14,099 feet of sanitary sewer pipe and 11,405 feet of storm drain pipe. Any debris in the system that was encountered was water-jetted to the nearest manhole and removed. A total of 34,191 feet of pipe (10,191 feet of sanitary pipe and 24,000 feet of storm pipe) was jetted during this rotation. Following is a description of replacements, repairs, and assignments completed in 2020:

- A total of 525 of new storm pipe and 60 feet of sanitary pipe was added to the system due to repairs, upgrades, or new construction.

The co-permittees received and followed up on all reports of non-stormwater discharges.

The implementation schedule for MCM 3 can be found in Table 3.

3. BMPs implemented by government entity

No BMPs or MCMs were implemented by governmental entities other than those who are a party to this MS4 permit during the reporting period.

4. Summary of stormwater activities planned for the next reporting cycle (include implementation schedule)

All co-permittees will continue to implement ongoing BMPs as identified in the Joint Stormwater Management Program.

The electronic mapping of the City/County/MU storm sewer system will continue to be updated as necessary.

The annual area-wide household hazardous waste (HHW) collection event that has historically been hosted by the co-permittees was canceled in 2020 due to Covid-19 pandemic. The co-permittees plan to evaluate whether the 2021 Annual HHW collection event can be hosted safely during the ongoing pandemic as the event approaches.

The City will continue to train employees on IDDE and develop better procedures for response. The City will also evaluate Spill Prevention Control and Countermeasure (SPCC) plans for various facilities in an effort to establish good housekeeping practices for all City facilities.

The City will continue implementing the MS4 Program Enhancements as identified in the Five-Year Action Plan. As part of this effort, the MS4 Technician will continue conducting stream walks and outfall inspections in an effort to meet the 5-year goal.

Boone County will continue to implement and enforce the IDDE ordinance and regulatory mechanisms. Citizens can report illicit discharges through the Road & Bridge page on the County website. The County uses a GIS tracking system and database for stormwater projects and BMPs.

In 2021, MU Campus Facilities will carry out Rotation A inspections of the sanitary sewer system which will include camera verification and inspections for defects and infiltration.

In 2021, MU will continue to evaluate all outside storm drains on the MU campus for proper marking with storm drain disks. All storm drains missing disks will be marked and all damaged disks will be replaced. Maps indicating the location of all marked drains will be updated.

5. Proposed changes to the program area and documented SWMP (MCM 2)

The SWMP was updated in February 2020 as part of the co-permittee's renewal application for Permit No. MO-0136557. The co-permittees are currently in the process of reviewing the current SWMP for compliance with the permit issued July 1, 2020 and will update as needed.

6. Effective BMPs evaluated during the reporting period

BMP 1: Continue to maintain stormwater drainage system maps with outfalls, pipes, inlets, and associated attributes by reviewing and updating.

All co-permittees reviewed and updated their outfall maps as part of the permit renewal process.

Boone County continued to review and update their storm sewer map for the County MS4 system.

The City continued to update their storm sewer map to include newly constructed infrastructure as well as revise existing data as needed.

MU continued to review and update as needed a storm sewer map showing the entire MU MS4 system. MU Campus Facilities divided their storm sewer system into five zones, A-E. One of the five zones is inspected each year, completing an inspection of the entire system every five years. In 2020, Campus Facilities completed visual inspection of Rotation E.

BMP 2: Effectively prohibit, through IDDE ordinance, or other IDDE regulatory mechanisms, non-stormwater discharges into the stormwater drainage system and implement appropriate enforcement procedures and actions.

The co-permittees documented and tracked IDDE Ordinance/Regulatory Mechanism enforcements and documented illicit discharges and illegal dumping enforcement actions taken.

The co-permittees reviewed the IDDE Ordinances/Regulatory Mechanisms and updated as needed.

BMP 3: Evaluate certain non-stormwater discharges for flows or certain categories of non-stormwater discharges or flows to determine if they are significant contributors of pollutants.

The co-permittees addressed the occasional incidental non-stormwater discharges on a case-by-case basis to determine whether the discharges may appropriately be directed to the storm sewer system. The co-permittees have not identified any of the listed non-stormwater discharges as significant contributors to the regulated MS4.

BMP 4: Maintain an implementation schedule to detect and address incidental non-stormwater discharges including discharges from illegal dumping and spills to the MS4.

MU has divided its sanitary sewer system into five zones, A-E. One zone is inspected annually including camera verification and inspections for defects and infiltration.

In 2020, the City completed over 179,861 feet of CCTV inspection for new and existing sewer main. In 2020, the City completed over 57,425 feet of CCTV inspection for new and existing stormwater main. The City also completed 494 outfall inspections.

BMP 5: Inform public employees, businesses, and the public of the hazards associated with illegal discharges and improper disposal of waste.

The co-permittees included this information as an element in the outreach, education, and municipal training programs.

7. Water samples collected and analyzed during the covered reporting period by the permitted MS4 or on behalf of the permitted MS4

No water samples were collected by, or on behalf of, the permitted MS4 during this reporting period.

MCM 4: Construction Site Stormwater Runoff Control

1. Overall compliance with permit conditions and SWMP

The co-permittees believe that the chosen BMPs are appropriate and have furthered the goals of reducing the discharge of pollutants to the maximum extent practicable. Due to the ongoing growth in Columbia with vacant land and farms being converted into residential, office and commercial developments, the need for a program to control construction site stormwater runoff is essential. All co-permittees have programs that provide for a thorough plan review of all proposed land disturbance activities. All disturbed sites are inspected often, and progress continues to be made with the development community.

The result of growth policies implemented by Columbia and Boone County is that most of the urban development in the area occurs within the city limits of Columbia. Much of the development that occurs in the County is rural in nature. The BMPs identified are very appropriate and essential to protect downstream areas as development and construction continue to expand into the unincorporated areas of the County. Boone County Public Works has a Road Regulation Manual which requires all land disturbance related to road building to follow practices necessary to prevent erosion and sediment loss from leaving the site.

MU EHS works closely with Campus Facilities - Planning Design and Construction (CF-PDC) department, providing guidance on stormwater management to architects and engineers. Any specific requirements are included in the bid and contract documents. Waterways and stormwater inlets are aggressively protected from the release of sediment, debris or petroleum products. During each construction project, the MU Project Manager and/or Construction Inspector inspects the site both weekly and after precipitation events to make sure stormwater controls are in place and working as designed. In addition, EHS and Campus Facilities conduct a comprehensive joint audit of all permitted construction sites once a year.

2. Progress toward achieving the statutory goal of reducing the discharge of pollutants to the MEP

The co-permittees have met all measurable goals associated with their ongoing BMPs for construction site stormwater runoff control.

The co-permittees' land disturbance ordinances, design manuals and master plan have been very successful in controlling the generation of nonpoint source pollution from construction sites from improper handling and usage of nutrients and toxic substances as well as preventing the movement of toxic substances from construction sites.

The co-permittees require submittal of Stormwater Pollution Prevention Plans (SWPPPs)/soil erosion control plans for all construction projects. All SWPPPs/soil erosion control plans are reviewed for conformance with regulatory requirements and required design policies, practices and procedures. This is an ongoing goal.

The co-permittees continue to administer a program to inspect construction sites and effectively implement required erosion control practices on a routine and post-rainfall basis. The co-permittees also continue to administer a program to enforce construction site Erosion and Sediment Control (ESC) measures on permitted construction projects to remain in compliance with regulatory requirements. These are ongoing requirements.

The City Community Development Department performs inspections of active private sites at least weekly and notices of violation are issued as necessary. The Storm Water Utility responds to storm drainage complaints. Public improvement projects are inspected by their respective departments regularly and weekly at a minimum. Monthly averages of 29 commercial and 11 development sites were inspected at least weekly or greater. A total of zero 1st Notice of Violation was issued, zero 2nd Notice of Violation was issued, and zero 3rd Notice of Violation was issued for 2020.

A link on the City's website provides citizens the opportunity to report a stormwater concern. Depending on the concern received, responses are provided from the City's Community Development Department, City Storm Water Utility or one of the other co-permittees, depending on the issue and appropriate jurisdiction.

All information regarding ordinances, regulations, enforcement, site plan review, inspection, policies and procedures with regard to construction site runoff control for private development in the City can be found on the City's website. City regulations require soil erosion control plans for all land disturbance activities greater than an acre. City regulation requires erosion and sediment control for all disturbed sites, including those less than one acre. The Community Development Department tracks plan reviews and site inspections for private construction and development sites.

For City public improvement projects, there is a rigorous public involvement process. As part of the Citywide SWPPP, for larger improvement projects, an individual SWPPP is prepared and included in the construction documents for improvements that disturb more than an acre. All City improvement projects are inspected by City personnel. For maintenance and operations work, employees are being educated on proper erosion and sediment control to meet the City's general SWPPP permit.

Boone County continues to implement and enforce the Stormwater Ordinance regularly. Once a project receives conditional approval of the SWPPP and construction plans the applicant must request a Pre-Construction Meeting with Boone County Inspection Staff. During this meeting, Boone County Inspection Staff will meet on site with the Applicant and Contractor(s) to discuss erosion and sediment control requirements and review SWPPP and stream buffer limits staking (if applicable). If all conditions are met, Boone County Inspection Staff will issue the Boone County Land Disturbance Permit and land disturbance activities may begin. Updates to the stormwater ordinance will be performed as necessary.

The County continues to work with its inspections staff to improve procedures for the pre-construction meetings and final inspections, as well as administer a program to inspect construction sites and effectively implement required erosion and sediment control practices on a routine and post-rainfall basis. Annual training for inspection staff on enforcement procedures and follow-up documentation is conducted. Additionally, the County will continue to administer a program to enforce construction site erosion and sediment control measures on permitted construction projects in compliance with regulatory requirements.

Boone County also requires installation and maintenance of erosion control measures on all publicly funded projects. Staff inspected these sites on at least a weekly basis while the permit was active. Notices were given to contractors if re-installation and/or maintenance of erosion control measures were required.

At MU, all construction projects are designed and reviewed by the MU's CF-PDC department using the PDC "Sustainable Design Policy." This policy incorporates sustainability principles and concepts in the design of all facilities and infrastructure projects to the fullest extent possible, while being consistent with budget constraints, appropriate life cycle cost analysis, and customer priorities. The policy directs MU to meet or exceed MDNR best management practices for erosion and sedimentation control standards and implement innovative stormwater management. The Consultant Procedures and Design Guidelines is available on the University of Missouri Facility Planning and Development Website and contains a collection of information that is updated quarterly as necessary.

In addition to prescribed weekly/post-rain event inspections, internal audits were conducted by MU EHS environmental compliance staff and the campus construction inspector. It was determined that the requirements of the land disturbance permit were successfully implemented and the sites well-managed. Trained and experienced personnel manage the documentation, conduct weekly inspections, and implement the conditions of the permit in the field. There is excellent coordination between the personnel of Planning, Design & Construction, Landscape Services and EHS. BMPs were found to meet the objective of protecting water quality to the maximum extent practicable. These results demonstrate a solid commitment to erosion control, good cooperation and expedient corrective action for deficiencies.

MU delegates authority to Environmental Health and Safety to implement compliance with the requirements of MCM4. This delegation of authority is found in Section 7:001 (Delegation of Responsibility) of the University of Missouri Business Policy and Procedures manual. This policy was last updated March 2011.

The implementation schedule for MCM 4 can be found in Table 4.

3. BMPs implemented by government entity

No BMPs or MCMs were implemented by governmental entities other than those who are a party to this MS4 permit during the reporting period.

4. Summary of stormwater activities planned for the next reporting cycle (include implementation schedule)

All co-permittees will continue to implement ongoing BMPs as identified in the Joint Stormwater Management Program.

The City will continue to conduct site inspections and require and review soil erosion control plans. The City Stormwater Utility finalized updates to the Erosion Control Manual and requirements for 2020. This process has been a multi-year process as it involves multiple departments and revisions to the City

Ordinances. The next step in the process will be an internal review by other City Departments with the intent to issue the revised manual in 2021. City Staff will continue to evaluate erosion and sediment control ordinances and inspection operations to determine if there are more effective methods to achieve compliance.

During the next reporting cycle, the County will continue to review the stormwater ordinance and revise it as necessary. Additional activities will include the development of a GIS layer for open County land disturbance permits in the new tracking system, developed in 2016.

The County will be concentrating on technical training for engineers and contractors as well as community outreach. This specialized instruction will continue during the next reporting cycle. Contractor training will be held in the fall and winter. These workshops will focus on BMP installation, good housekeeping, spill prevention, stormwater, and water conservation practices. Presentations on the stream buffer and stormwater ordinance will continue as needed.

EHS and the Sustainability Office will continue to jointly develop new policies to further execute MCM 4. These policies recognize that urban stormwater quality is preserved by preventing erosion and sediment runoff from construction projects. Additionally, Campus Facilities continues to require all aspects of design and construction, including interaction with non-MU contractors to work through Bluebeam and Project 4 (MU developed Project management and Collaboration software, which includes environmental policies and guidance. MUs stormwater guidelines and Stormwater Master Plan were completed in late 2012 (and presented publicly in 2013). These items can be found on the MU Campus Facilities website.

5. Proposed changes to the program area and documented SWMP (MCM 2)

The SWMP was updated in February 2020 as part of the co-permittee's renewal application for Permit No. MO-0136557. The co-permittees are currently in the process of reviewing the current SWMP for compliance with the permit issued July 1, 2020 and will update as needed.

6. Effective BMPs evaluated during the reporting period

BMP 1: Require an MDNR land disturbance permit for sites that will disturb one acre or greater.

Boone County approved and issued 22 land disturbance permits for projects within the County's MS4 system. Boone County issued one land disturbance permit under Missouri State Operating Permit MOR100049 for projects completed by the County.

MU issued two land disturbance permits (LDPs) in 2020 under Missouri State Operating Permit MOR100039 for projects that required a Missouri Department of Natural Resources LDP. The projects that required an LDP included the Sinclair School of Nursing and the Library Depository Building.

In 2020, the City approved and issued 38 land disturbance permits.

BMP 2: Enforce ESC/land disturbance ordinance/regulatory mechanism.

Boone County performed 81 site inspections and issued 5 Notices of Violation.

The City inspected 478 sites and performed 1,784 erosion control inspections.

MU conducted 391 weekly and post-rain event inspections in 2020.

BMP 3: Maintain land disturbance regulatory mechanism

Section 28 of the Boone County Zoning Regulations serves as the County's land disturbance regulatory mechanism.

Chapter 12A Article II serves as the City's land disturbance regulatory mechanism.

At MU, EHS and Campus Facilities conducted independent comprehensive audits of all permitted construction sites. The EHS audit was conducted on 06/12/2020 and the Campus Facilities audit was conducted on 04/29/2020.

BMP 4: Maintain stormwater design manuals.

Boone County continued to maintain its Stormwater Design Manual.

The City continued to maintain the Stormwater Management and Water Quality Manual. The City Storm Water Utility reviewed all variance requests from the manual and determined if a revision is required.

At MU, all construction projects are designed and reviewed by the MU's Campus Facilities – Planning Design and Construction (CF-PDC) department using the PDC "Sustainable Design Policy." The Consultant Procedures and Design Guidelines referenced in the SWMP is available on the University of Missouri Facility Planning and Development Website and contains a collection of information that is updated quarterly as necessary.

BMP 5: Require construction site operators to control waste and erosion on construction sites by requiring SWPPPs and ESC plans.

Boone County approved 9 SWPPPs and 22 Erosion and Sediment Control plans.

The City requires a soil erosion control plan be submitted with all land disturbance applications. The purpose of the plan is to clearly establish what measures will be taken to prevent erosion and off-site sedimentation during construction. In 2020, the City approved and issued 38 land disturbance permits.

MU approved two Stormwater Pollution Prevention Plans (SWPPPs) in 2020 for projects that required one under Missouri State Operating Permit MOR100039. The projects that required a SWPPP included the Sinclair School of Nursing and the Library Depository Building.

BMP 6: Maintain procedures for receipt and consideration of information submitted by the public. Maintain websites and hotline phone numbers.

The co-permittees maintained the required procedures for receipt and consideration of information submitted by the public.

The co-permittees continued to maintain their websites and hotline phone numbers in 2020.

BMP 7: Conduct site inspections to ensure construction site operators implement appropriate erosion and sediment control BMPs.

Boone County performed 81 site inspections in 2020.

The City inspected 478 sites and performed 1,784 erosion control inspections in 2020.

MU conducted 391 weekly and post-rain event inspections in 2020.

7. Water samples collected and analyzed during the covered reporting period by the permitted MS4 or on behalf of the permitted MS4

No water samples were collected by, or on behalf of, the permitted MS4 during this reporting period.

MCM 5: Post-Construction Stormwater Management in New Development and Redevelopment

1. Overall compliance with permit conditions and SWMP

The co-permittees believe that the chosen BMPs are appropriate and have furthered the goals of reducing the discharge of pollutants to the maximum extent practicable. Each of the co-permittees has very different issues to address. The City is largely developed, but significant residential and commercial development is occurring on the fringes. The County is largely undeveloped, but there are widely scattered pockets of residential development. MU is largely developed. While there is occasionally new construction on previously undeveloped property, redevelopment or reconstruction of existing historical buildings is more common.

The co-permittees continue to maintain ordinances and other applicable controls to address stormwater runoff from new development and redevelopment areas. These mechanisms are reviewed regularly for effectiveness and updated as necessary.

The co-permittees continue to implement a stream buffer ordinance to protect sensitive waterways from stormwater runoff. The ongoing goal of implementation is being met.

The co-permittees continue to identify structural and non-structural strategies to improve the quality of stormwater runoff from new development and redevelopment. This is an ongoing process for all permittees.

The City of Columbia Stormwater Management and Water Quality Manual that was adopted in March 2007 provides sufficient flexibility to allow stormwater management plans to be tailored to specific conditions in various Columbia watersheds for both development and redevelopment projects. The manual will continue to be reviewed and updated as necessary. The City's Community Development Department enforces the City's Stream Buffer Ordinance and stormwater quality management for new developments. The Community Development Department also has covenants and maintenance agreements for post-construction BMPs recorded. The City's Stormwater Utility receives and tracks annual inspection information for the post-construction BMPs.

The requirement for long-term stormwater management in the County includes maintenance and inspection. As property is developed, covenants, easements and maintenance agreements are required to be in place prior to the recording of the final plat.

The County's Stormwater Ordinance and stormwater design manual continues to be implemented and enforces post-construction stormwater runoff and water quality management procedures. Structural and non-structural strategies are continually identified to improve the quality of stormwater runoff from new development and redevelopment. The ordinance and manual will be reviewed every two years for effectiveness and updated as needed. The County's Stream Buffer Ordinance continues to be enforced to protect waterways from stormwater runoff.

MU continues to establish and maintain an inventory of all permanent structural and non-structural BMPs for post-construction stormwater management. This includes an inspection schedule for all post-construction BMPs as identified in the BMP inventory.

MU maintains a Campus Master Plan, which includes a Stormwater Master Plan, which guides development on campus. EHS actively participates in the design process, providing recommendations on post-construction stormwater management to architects and engineers. The post-construction stormwater management design usually relies upon a combination of structural and non-structural BMPs appropriate to the MU community.

MU's Sustainability Policy dictates that master planning principles be established for development phasing, campus densities, land use, and conservation patterns that will provide a rigorous framework for determining where, when and how to locate new facilities. The preservation of green and open spaces is a high priority achieved through the use of BMPs.

2. Progress toward achieving the statutory goal of reducing the discharge of pollutants to the MEP

The co-permittees have met all measurable goals associated with their ongoing BMPs for post construction stormwater management.

For this reporting period, the co-permittees implemented/conducted the following:

The City continues to update mapping of all public and private BMPs in a GIS database. City continues to develop an operation and maintenance schedule for City owned BMPs and partner with volunteers to leverage more education opportunities. A GIS based map and notification process to track public and private BMP inspections continues to be refined to ensure long-term operation and maintenance of BMP's.

In 2019, the City's MS4 Technician worked with internal staff to develop an ArcGIS application to aid in the submission and tracking of private BMPs annual inspections. Currently, all inspections are handled by the use of PDF forms. The goal of the project was to develop a system for accepting BMP inspections online and increase staff efficiency on inspections of City-owned BMP's. The application was beta tested by internal staff responsible for the inspection and maintenance of City owned BMPs in 2019 and 2020. The City plans to begin a phased implementation of the application for the private BMPs in 2021.

In 2020, the City continued its efforts to establish native plant prairie areas in City rights of way and undeveloped City property including areas owned by the Sewer Utility and Parks and Recreation.

The Hinkson CAM process is working to develop and implement BMP strategies that will effectively improve water quality in Hinkson Creek. These strategies will be transferable to other watersheds within the MS4. The Physical Habitat Assessment (PHA), approved by the Stakeholder committee in 2012, began in early 2013 and was completed in 2014. A final report of the field data was provided, and photographic data was incorporated into a StoryMap Tour during 2015. The tour showcases the beauty of Hinkson Creek including wildlife observed during the PHA and illustrates some of the problems in the

creek. Various surrounding land use types are also compared with adjacent views in the creek. The StoryMap is available to view on www.helpthehinkson.org.

In 2014, the CAM Stakeholder committee approved two actions: a study proposed by Dr. Jason Hubbart: Quantifying Stream Flow and Suspended Sediment Response to Urbanization using a Scale-Nested Experimental Watershed Study Design, and the Forum Nature Area Level Spreader Monitoring project. The Quantifying Stream Flow and Suspended Sediment Response to Urbanization using a Scale-Nested Experimental Watershed Study Design began in January 2015 and ended in 2018.

In 2016, the CAM Action Team delivered an action proposal to the CAM Stakeholders to develop a program to increase and enhance riparian areas along Hinkson Creek and its tributaries. Upon approval by the Stakeholders the CAM Riparian Sub Committee was formed with the intent to look at opportunities to improve and enhance riparian corridors and develop a long-term program to achieve it. The committee consists of Stakeholders and Action Team members and met five times in 2018. The Riparian subcommittee recommended the El Chaparral Riparian Restoration project, which the City completed in 2017. The goal of the project was to restore the former neighborhood sewer treatment lagoon site, owned by the City and located along the south fork of the Grindstone, to a more natural riparian land cover. Vegetative maintenance on the site continued in 2020.

The Forum Nature Area Level Spreader Monitoring Project studied the long-term efficacy of the level spreader BMP. The monitoring project used multiple sensors to determine a) the amount of water flowing through the level spreader, b) the overflow from the level spreader, and c) an array of soil moisture sensors to quantitatively characterize the change in soil infiltration, and soil moisture over time as the small floodplain forest becomes reestablished. Study outcomes will provide quantitative information about level spreader efficacy, which will better inform the City and Hinkson Creek Watershed stakeholders the appropriateness of this relatively low-cost solution to urban runoff peak flows and water quality. Soil water sensors were installed at various distances and depths around the level spreader and soil water content will be compared with two controls located elsewhere on the Forum Nature Area property. Fifty-four trees were planted at the site in 2015. Their growth will be tracked to determine whether trees closer to the level spreader grow more quickly. A climate station was installed this in 2016. This project ended in 2019.

The Hinkson Creek Aquatic Data Mining Project is interpreting aquatic macroinvertebrate community-level indicators using the existing Missouri Department of Natural Resources data sets available for stream sites in the Hinkson Creek watershed (2001-2017). The objective of these analyses and interpretation shall be to diagnose stressors causing aquatic life impairment in Hinkson Creek. This project began in 2019 and will end in 2020. The findings of this study will be presented in 2021.

MU's stormwater guidelines and Stormwater Master Plan were completed in late 2012 and were presented publicly in 2013. The stormwater guidelines and Master Plan are updated regularly and are available for viewing on the MU website.

BMPs that were added to the MU campus and properties in 2020 include: 1) A stormwater detention area was completed at the East Campus Growth Facility; and 2) a stormwater detention facility was installed at the new MUHC North Clinic building.

As part of the University of Missouri's officially adopted Sustainability Policy Statement (https://sustainability.missouri.edu/about/mu-sustainability-policy), the campus observes sustainable best practices in campus construction and procurement. The University of Missouri pursues a LEED certified-level for New Construction and Major Renovations (LEED-NC) on projects that are eligible for this version of certification. For those projects that are ineligible for certification under LEED-NC, the University of Missouri's Sustainable Design Guidelines (SDG) are applied. Based on LEED-NC, the MU SDG sets goals for design and construction, providing a consistent approach to developing sustainable buildings on campus.

The University of Missouri (MU) pursues LEED certification on all new construction or major renovation eligible projects by incorporating sustainable building practices into the projects. MU currently has fourteen (14) LEED Certified-level or greater projects: The Missouri Orthopedic Institute, MU Hospital Patient Care Tower (including green roof areas and pervious pavement), Animal Resource Center (including bioretention and stormwater research), Woman's and Children's Hospital South Pavilion renovation, Gwynn Hall renovation, Swallow Hall renovation, Gateway Hall residential housing (including green roof areas and bioretention), Johnston and Wolpers Hall residential housing renovation, Mizzou Softball Stadium, Patient-Centered Care Learning Center (including stormwater detention), Stewart Hall Renovation (including bioretention), and the Bluford & Brooks Residence Halls (including pervious pavement and green-roof-ready area). Of these projects, five (5) buildings across MU's campus have received a LEED Platinum rating from the US Green Building Council (USGBC) (Johnston Hall, Wolpers Hall, Bluford Hall, Brooks Hall, and the Patient-Centered Care Learning Center); six buildings have received a gold LEED rating (Patient Care Tower, Gwynn Hall, Swallow Hall, Gateway Hall, Mizzou Softball Stadium, and Stewart Hall); and one has received a silver LEED rating (Women's and Children's Hospital). For projects that do not meet the project size and scope requirements for LEED, the University uses a custom set of sustainability guidelines developed specifically for the MU campus.

Monitoring is not required under this MCM. Instead the co-permittees must assume the strategies in the International BMP Database have already been vetted for effectiveness.

The Hinkson Creek Watershed Assessment of BMPs for Water Quality Improvements and Effectiveness EPA 319 Grant (G12-NPS-01) will be monitored as outlined in the grant information. As BMPs are inspected, their observable impacts will be analyzed for success, improvement and replication as needed.

The implementation schedule for MCM 5 can be found in Table 5.

3. BMPs implemented by government entity

No BMPs or MCMs were implemented by governmental entities other than those who are a party to this MS4 permit during the reporting period.

4. Summary of stormwater activities planned for the next reporting cycle (include implementation schedule)

All co-permittees will continue to implement ongoing BMPs as identified in the Joint Stormwater Management Program.

As a result of the CAM process, actions and studies will continue to be implemented in 2021. Dr. Argerich's synoptic sampling will continue in 2021.

The City maintains a list of BMP retrofit opportunities. Sometimes projects and development occur unexpectedly, and this list can be referenced to see if one of the retrofits could be implemented with the work. This work cannot be predicted, but the City is planning for it.

The City will continue to establish native plant prairie areas in public rights of way and undeveloped City property. Establishing these areas is a minimum three-year process.

The City will continue phasing in the use of the ArcGIS Survey App for private BMP inspections in 2021. This will be a multi-year process. City staff will continue utilizing the application for the inspections of City-owned BMPs.

A requirement for long-term stormwater management in the County includes maintenance and inspection. As property is developed, covenants, easements and maintenance agreements are required to be in place prior to the recording of the final plat.

The MU Sustainability Office and EHS will continue to jointly develop new EHS policies to further execute the MU Post-Construction Program, which aims to incorporate sustainability principles and concepts into all new construction projects. These policies recognize that urban stormwater quality is preserved by maintaining pervious area and pre-existing hydrologic processes spanning the pre- and post-construction period.

MU plans to install new BMP's in the following locations in the next year: a new stormwater detention facility will be installed at the UM Library depository building (spring 2021); the installation of stormwater volume storage at the new Next Gen Precision Health Building to not only prevent additional runoff but also reduce the predevelopment (pre-Next Gen) runoff volume (fall 2021); and a system will be installed to capture stormwater from pavement runoff which will be diverted into planting beds for use as irrigation at the reconstructed School of Nursing building (fall 2021).

MU continues exploring potential partnerships with the research arm of the institution to evaluate and produce quantitative data regarding the effectiveness of various BMPs. It is expected this data, if obtained, will be very valuable not only to the co-permittees but to MS4s throughout the country.

5. Proposed changes to the program area and documented SWMP (MCM 2)

The SWMP was updated in February 2020 as part of the co-permittee's renewal application for Permit No. MO-0136557. The co-permittees are currently in the process of reviewing the current SWMP for compliance with the permit issued July 1, 2020 and will update as needed.

6. Effective BMPs evaluated during the reporting period

BMP 1: Identify and develop strategies to improve the quality of stormwater runoff

Boone County requires Stormwater Discharge Permits to be issued for projects containing private BMPs on new and redevelopment projects. Stormwater Maintenance Agreements are recorded with each property and remain in effect in perpetuity. Annual inspections are required to ensure proper function and maintenance of BMPs.

The City requires a Stormwater management plan for all development and redevelopment projects subject to Chapter 12A Article V. Maintenance of all stormwater management facilities is ensured through the creation of formal maintenance covenants, which must be approved by the director before final plat or plan approval and subsequently be recorded by the City with the Boone County Recorder of Deeds.

As part of the University of Missouri's officially adopted Sustainability Policy Statement (https://sustainability.missouri.edu/about/mu-sustainability-policy) the campus observes sustainable best practices in campus construction and procurement.

MU strives to achieve at least an equivalent LEED equivalent certified level in the design and construction of all campus buildings. MU currently has fourteen LEED certified buildings and has applications underway for several additional projects seeking LEED certification. See sections 2 and 4 of this MCM for details on the individual projects.

BMP 2: Continue to maintain Stormwater Management/Water Quality Manual.

The County continued to maintain the Stormwater Design Manual.

The City continued to maintain the Stormwater Management and Water Quality Manual. The City Storm Water Utility reviews all variance requests from the manual and determines if a revision is required.

MU continued to maintain the Campus Master Plan, which includes a Stormwater Master Plan, which guides development on campus. The stormwater guidelines and Master Plan are updated regularly and are available for viewing on the MU website.

BMP 3: Continue to maintain Stormwater Ordinance(s) or other regulatory mechanisms to address post-construction runoff from new development and redevelopment projects.

The permittees maintained stormwater ordinances and reviewed regulatory mechanisms, updating as necessary during calendar year 2020.

BMP 4: Continue to maintain Stream Buffer Ordinance and MU Stormwater Master Plan

The County continued to maintain the Stream Buffer Ordinance (Chapter 26 Boone County Zoning Regulations)

The City continued to maintain the Stream Buffer Ordinance (Chapter 12A Article X of the City Code of Ordinances).

MU maintained the Campus Master Plan during 2020, which includes the Stormwater Master Plan. The stormwater guidelines and Master Plan are updated regularly and are available for viewing on the MU website.

BMP 5: Promote adequate long-term operation and maintenance of BMPs by maintaining an operation and maintenance schedule of post-construction BMP's.

Boone County maintained an inventory of all projects requiring long-term operation and maintenance of BMPs. Letters were sent for self-inspection in April, and inspections were done by June.

The City maintained an inventory of all BMPs and sent letters for self-inspection in August. Of the approximately 490 privately-owned BMPs that City requires owners to self-inspect, twenty-nine owners failed to submit the necessary documentation. The City will issue final notices of noncompliance to the remaining property owners for failure to provide inspection and maintenance records as required by Section 12A-95 of the Columbia Code of Ordinances.

BMP 6: Provide the public with proper, publicly announced, disposal opportunities to minimize the presence of household hazardous waste in local waterways.

The annual area-wide household hazardous waste (HHW) collection event that has historically been hosted by the co-permittees was canceled in 2020 due to Covid-19 pandemic. The co-permittees plan to evaluate whether the 2021 Annual HHW collection event can be hosted safely during the ongoing pandemic as the event approaches.

The City of Columbia continues to hold a twice-a-month collection program between and including the months of April through November.

MU Environmental Health & Safety collects and manages unwanted hazardous materials on the University Campus. Campus locations where hazardous materials are used or stored are managed through the designation of Principal Investigators (PI) and Supervisors. They are responsible for locations and are trained on the proper disposal of hazardous materials. When hazardous materials are no longer wanted, the PI's and/or supervisors are responsible for requesting a material pick-up through Environmental Health & Safety's on-line EHS Assistant program. EHS then picks up the materials and properly disposes of them.

7. Water samples collected and analyzed during the covered reporting period by the permitted MS4 or on behalf of the permitted MS4

No water samples were collected by, or on behalf of, the permitted MS4 during this reporting period.

MCM 6: Pollution Prevention/Good Housekeeping for Municipal Operations

1. Overall compliance with permit conditions and SWMP

The co-permittees believe that the chosen BMPs are appropriate and have furthered the goals of reducing the discharge of pollutants to the maximum extent practicable. The three co-permittees have developed their pollution prevention/good housekeeping control measures after a thorough review of all their operations which are affected by stormwater runoff or which affect stormwater runoff. The City and County interviewed operational personnel in all divisions and departments of each entity to tailor the program for each unique entity. MU tapped into their existing hazardous materials program which contains comprehensive data on the types of materials being used on campus as well as the persons using them.

The City's municipal operations, including Public Works, Utilities, and Parks and Recreation are very broad in scope and nature. These operations are carried out in a professional manner and operations staff training has always included elements of pollution prevention pertinent to each department, such as the proper disposal of transformer oil in the electric department. This good housekeeping training BMP augments the existing professionalism, broadens it, and brings focus to preventing stormwater pollution in particular. Therefore, this BMP is effective. In addition to the good housekeeping training, stormwater staff attends the Risk Management Safety Audits of City-owned facilities to detect and correct any potential sources of stormwater pollution.

The County conducts street sweeping after "chip seal" operations to remove loose gravel and oil.

Boone County collects and recycles used oil from vehicle maintenance at the Road and Bridge Storage Shed located at 5551 South Tom Bass road. The County provides a covered storage area and secondary containment for used oil drums. The facility burns used oil in the heating furnace for the shop. During the warm season, oil drums may be picked up and recycled off premises. Used oil and antifreeze collection and recycling procedures are included in the training programs.

As a regulated Large Quantity Generator, MU must follow strict guidelines regarding management of unwanted chemicals, including used oil from all University operations.

The co-permittees continue to schedule and conduct pollution prevention training for municipal staff. Education includes steps that can be taken to prevent or reduce pollutant runoff from municipal operations. This is an ongoing program for all permittees.

The annual area-wide household hazardous waste (HHW) collection event that has historically been hosted by the co-permittees was canceled in 2020 due to Covid-19 pandemic. The co-permittees plan to evaluate whether the 2021 Annual HHW collection event can be hosted safely during the ongoing pandemic as the event approaches.

The City continued to sponsor Household Hazardous Waste Collections on the first and third Saturday of April through November at their 1313 Lakeview facility. The total collections properly disposed of:

- 2,853 gallons of oil
- 3,958 gallons of paint were diverted

- 80 tons of household hazardous waste
- 275 gallons of antifreeze
- 167 lead acid batteries
- 461 volunteer hours (8 collection events held) from 177 volunteers
- There were 3,379 cars serviced in total

Note that the collection events in April and May were cancelled due to the Covid-19 pandemic and the November event was cancelled due to low staffing.

The City will continue to sponsor Household Hazardous Waste Collections on the first and third Saturday of April through November in 2021 at their 1313 Lakeview facility.

2. Progress toward achieving the statutory goal of reducing the discharge of pollutants to the MEP

The co-permittees have met all measurable goals associated with their ongoing BMPs for pollution prevention. All have developed an operation and maintenance program with the ultimate goal of preventing pollutant runoff from municipal operations to the maximum extent practicable.

City BMPs include street sweeping programs and training for employees. It is recognized that training is essential for City workers and ongoing discussions of stormwater issues take place in employee safety meetings. New employee training for every City employee includes stormwater and good housekeeping training. The City has included pollution prevention education into the employee handbook. Stormwater Utility Educator trains personnel in each City Department about pollution prevention and good housekeeping.

- The City's street sweeping program continues to be an aggressive and effective BMP which picks up many pollutants, including soluble pollutants, before they are mobilized by stormwater. It would be difficult or impossible to remove from runoff with other structural BMPs.
- There are 1,075 striped lane miles of 12' wide streets owned and maintained by the City.
- The Central Business District is swept every 8 weeks; Saturday and Sunday when MU has home football games.
- All other streets are swept every two months on a routine schedule.
- Streets are also swept as soon as practicable after snow events.
- Public Works continues to refine its street maintenance operations to minimize loose gravel.
- The street sweeping team (including 4 sweepers) averaged 61 miles per day on 193 unique days, with a total of 11,767 miles swept in 2020.
- Stormwater Utility staff and Sustainability staff attend safety audits of City-owned facilities to identify any deficiencies related to good housekeeping and stormwater management on site.

The City would like to highlight the training conducted during the reporting period:

- The City continued its employee stormwater training which requires all employees attend on a bi-yearly (two-year rotation) basis. This year employee training was administered virtually through various YouTube videos made available to all staff. An all employee email was distributed that contained links to the online training videos as well as good housekeeping tips that could be reviewed at staff meetings.

- City staff attended the numerous webinars and virtual trainings on stormwater topics. These topics included water quality BMP's, flood mitigation solutions, stormwater purification, presto geosystems, efficient design solutions for storm sewer systems, etc.

Boone County Road and Bridge maintenance/material storage facility and operations is reviewed for compliance annually. The operation activities and procedures are reviewed annually, and training is provided to staff concerning hazardous materials handling, pesticide handling and spill response. This training is also applied to operations & maintenance of other facilities, infrastructure, etc. for which the County is responsible.

Boone County would like to highlight the training conducted during this last calendar year:

- The Urban Hydrologist attended the American Water Resources Association conference, held virtually. This weeklong conference featured presentations about various aspects of water quality assessment and management, new sampling techniques, and the availability of funds for projects that may be relevant in the future.
- Stormwater staff provided refresher training to all County inspectors on land disturbance inspection procedures.
- Three staff members attended the Mid-MO Soil Health Seminar to learn about cover crops and grazing techniques to improve water quality.
- Stormwater staff attended REGFORM to learn about EPA stormwater rulings and other stormwater related topics.
- Staff members viewed multiple USGS and EPA hosted webinars.
- The Stormwater Educator virtually attended the annual North American Association for Environmental Education (NAAEE) conference, which emphasized workshops about curriculum development, environmental literacy, connecting with nature, sustainable communities, link research and practice to increase impact.
- Boone County stormwater provided refresher training to nine inspection staff members on ordinance enforcement, inspection procedures, and best management installation and maintenance requirements.
- The Stormwater Educator attended the Agroforestry Symposium. The day-long program theme was "Show Me More!" hosting panel discussions, workshops, and posters focusing on how forested areas can be economically productive while improving the environment and water quality.

MU's non-structural BMPs, which center around training for employees, have been selected for fleet, chemical and waste facilities with a focus on hazardous chemicals, petroleum products, pesticides and infectious materials. Other non-structural BMPs address maintenance activities at the MU golf course, various landscape issues, and litter control.

MU's Department of Environmental Health and Safety is charged with environmental compliance and response to spills. EHS maintains trained personnel (currently six HAZWOPER trained personnel) and adequate supplies to respond to incidents. EHS coordinates remediation activities as appropriate.

MU has also chosen to highlight training during the reporting period:

- Spill, Prevention, Control and Countermeasures (SPCC) (EHS600): The SPCC Coordinator and all MU Campus oil-handling personnel are trained annually in the operation and maintenance of equipment to prevent discharges; discharge procedure protocols; applicable pollution control laws, rules and regulations; general facility operations; and the contents of the SPCC Plan. Used oil collection and recycling procedures are included in the training program. A total of 200 Individuals from numerous departments on and off campus within the MS4 permit area received SPCC training in 2020.
- Laboratory Hazards (EHS301): 555 individuals received this training in 2020.
- Working Safely (EHS302): 542 individuals received this training in 2020.
- Laboratory Safety (EHS303): 535 individuals received this training in 2020.
- Hazard Communication (EHS304): 540 individuals received this training in 20120.
- MU Specific Chemical Safety Training (EHS305): 614 individuals received this training in 2020.
- Two MU EHS staff members and two MU Energy Management employees attended the annual REGFORM Missouri Water Seminar in 2020.
- Two MU EHS staff members attended the annual REGFORM Hazardous Waste Seminar in 2020.

Used oil and antifreeze collection and recycling procedures are included in the each of the co-permittees training programs.

The annual area-wide household hazardous waste (HHW) collection event that has historically been hosted by the co-permittees was canceled in 2020 due to Covid-19 pandemic. The co-permittees plan to evaluate whether the 2021 Annual HHW collection event can be hosted safely during the ongoing pandemic as the event approaches.

The co-permittees maintain the following Missouri State Operating Permits to reduce and/or eliminate pollutants from areas that the permittees operate:

City of Columbia:
General Operating Permit #MOR100032 – Land Disturbance Permit
Missouri State Operating Permit #MOR80F011 – Columbia Regional Airport
Missouri State Operating Permit #MO0112640 – Columbia Landfill and Yard Waste Compost
Missouri State Operating Permit #MO0004979 – Columbia Municipal Power Plant
Missouri State Operating Permit #MO0092924 – Columbia Regional Airport WWTF
Missouri State Operating Permit #MO0097837 – Columbia WWTP
Missouri State Operating Permit #MO0136034 – Columbia Water Treatment Plant

Boone County:
General Operating Permit #MOR100049 – Land Disturbance Permit
General Operating Permit #MOG750030 – No Discharge

MU:
General Operating Permit #MOR100039 - Land Disturbance Permit
General Operating Permit #MOG823021 – No Discharge
General Permit #MO-G350238 - Discharge Permit

The implementation schedule for MCM 6 can be found in Table 6.

3. BMPs implemented by government entity

No BMPs or MCMs were implemented by governmental entities other than those who are a party to this MS4 permit during the reporting period.

4. Summary of stormwater activities planned for the next reporting cycle (include implementation schedule)

All co-permittees will continue to implement ongoing BMPs as identified in the Joint Stormwater Management Program.

The co-permittees will continue to schedule and conduct pollution prevention training for municipal staff. Education will include steps that can be taken to prevent or reduce pollutant runoff from municipal operations. This is an ongoing goal for all permittees.

The annual area-wide household hazardous waste (HHW) collection event that has historically been hosted by the co-permittees was canceled in 2020 due to Covid-19 pandemic. The co-permittees plan to evaluate whether the 2021 Annual HHW collection event can be hosted safely during the ongoing pandemic as the event approaches.

The City will continue to sponsor Household Hazardous Waste Collections on the first and third Saturday of April through November at their 1313 Lakeview facility.

5. Proposed changes to the program area and documented SWMP (MCM 2)

The SWMP was updated in February 2020 as part of the co-permittee's renewal application for Permit No. MO-0136557. The co-permittees are currently in the process of reviewing the current SWMP for compliance with the permit issued July 1, 2020 and will update as needed.

6. Effective BMPs evaluated during the reporting period

BMP 1: Maintain operation and maintenance schedule for operation and maintenance program.

The co-permittees reviewed their hazardous materials management and SPCC operation and maintenance schedules and updated as necessary.

BMP 2: Identify and train all impacted employees.

The co-permittees continued to identify and train all impacted employees in 2020. Please see lists in section 2 of this MCM.

BMP 3: Review and update pollution prevention/good housekeeping training presentation(s)

The co-permittees reviewed and updated their applicable training presentations in 2020.

MU Environmental Health & Safety has moved the majority of their training courses to MIZZOU Canvas. A list of these courses is provided in section 2 of this MCM. The training courses are updated or replaced as necessary.

BMP 4: Schedule and conduct pollution prevention training.

All impacted employees were trained in 2020. An attendance roster and training date for each training session is kept.

BMP 5: Provide the public with proper, publicly announced, disposal opportunities to minimize the presence of household hazardous waste in local waterways.

The annual area-wide household hazardous waste (HHW) collection event that has historically been hosted by the co-permittees was canceled in 2020 due to Covid-19 pandemic. The co-permittees plan to evaluate whether the 2021 Annual HHW collection event can be hosted safely during the ongoing pandemic as the event approaches.

In 2020, the City of Columbia continued to hold a twice-a-month collection program between and including the months of April through November.

MU Environmental Health & Safety (EHS) collects and manages unwanted hazardous materials on the University Campus. Campus locations where hazardous materials are used or stored are managed through the designation of Principal Investigators (PI) and Supervisors. These individuals are trained on the proper disposal of hazardous materials. When hazardous materials are no longer wanted, the PI's and/or supervisors are responsible for requesting a material pick-up through Environmental Health & Safety's on-line EHS Assistant program. EHS then picks up the materials and properly disposes of them.

7. Water samples collected and analyzed during the covered reporting period by the permitted MS4 or on behalf of the permitted MS4

No water samples were collected by, or on behalf of, the permitted MS4 during this reporting period.

Table 1: MCM 1 - Public Education and Outreach Activity Schedule

		PREV	2016				2017				2018				2019				2020			
		Done	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th
PE-1	Identify Target Audience																					
	Municipal Inspectors	✓		✓		✓		✓		✓		✓		✓		✓		✓		✓		✓
	Contractors/Developers/Engineers	✓	Ongoing Activity																			
	Missouri MS4 Communities	✓	✓								✓								✓			
	Residents	✓	Ongoing Activity																			
	County & Columbia School Systems	✓	Ongoing Activity																			
	Commercial & Industrial Facilities	✓																				
PE-2	Annual Topic Selection																					
	Sediment, Erosion and Sediment Controls	✓					✓	✓	✓	✓												
	Nutrients, Algae, Detergents, Fertilizers, Pesticides	✓									✓	✓	✓	✓								
	Trash, Oil and Grease, Spill Prevention	✓													✓	✓	✓	✓				
	Stormwater Infrastructure	✓																	✓	✓	✓	✓
	Bacteria, E coli, Pet Waste	✓	✓	✓	✓	✓																
PE-3	Develop Educational Materials																					
	Boone County Stormy Day Review Newsletter	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	
	Revised Guide to Land Disturbance Brochure	✓				✓				✓				✓				✓				✓
	Revised Development Less than One Acre Brochure	✓				✓				✓				✓				✓				✓
	Revised Land Disturbance Greater than One Acre Brochure	✓				✓				✓				✓				✓				✓
	Revised Best Management Practice Guide for Residential Construction Brochure	✓				✓				✓				✓				✓				✓
	Door Hangers	✓																				
	SWPPP for Single Family Residential Construction (A)	✓				✓				✓				✓				✓				✓
	Vegetating Your Construction Site Fact Sheet	✓												✓				✓				✓
	"No Butts About It" Campaign	✓		✓																		
	Central Missouri Envirothon	✓																				
	Bonne Femme Watershed Brochure									✓												
	City/MU School of Communication Partnership for Development of PSA videos										✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Concrete Company Visits	✓		✓																✓		

Table 1: MCM 1 - Public Education and Outreach Activity Schedule

		PREV	2016				2017				2018				2019				2020			
		Done	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th
PE-4	Distribute Educational Outreach Materials																					
	Karst Brochures to Rock Bridge State Park	✓	✓				✓				✓				✓				✓		✓	
	Boone County Stormwater Newsletter	✓		✓		✓	✓	✓	✓	✓					✓	✓	✓	✓	✓		✓	
	Bonne Femme Watershed Brochure	✓		✓		✓				✓												
	Watershed Sign Installation	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Pet Waste Sign Installation	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
PE-5	Conduct Educational Outreach Activities																					
	Lunch in the Park	✓		✓	✓			✓	✓				✓									
	Guest Lecturer	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Storm Drain Marking	✓	Ongoing Activity																			
	Center For Watershed Protection Webinars for Target Audience	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓								
	Press releases, news articles, news events	✓	Ongoing Activity																			
	Slope Stability and Headcut Control Workshop	✓																				
	Columbia BMP Tour	✓				✓				✓				✓				✓				
	Wetland Challenges & Use of Mitigation Bank Credits Webinar	✓																				
	Missouri MS4 Stormwater Conference	✓																				
	Rock Bridge HS Global Village Stream Table Display	✓																				
	Right of Way/Utility Meeting	✓	✓				✓				✓				✓							
	Central Missouri Envirothon	✓																				
	Eco-Schoolhouse Water Day	✓																				
	Earth Day	✓		✓				✓				✓				✓				✓		
	Tiger Place Stream Table Demonstration	✓																				
	CPS Stream Table Demonstration	✓			✓							✓										
	Stream Table Demonstration at Government Center	✓		✓																		
	Permits, Sediment & Streams Workshop	✓																				
	Inflow and Infiltration Reduction Program	✓	Ongoing Activity																			
	Parkside Mulch Site Project	✓																				
	Fire Station 8 Rain Garden	✓																				

Table 1: MCM 1 - Public Education and Outreach Activity Schedule

		PREV	2016				2017				2018				2019				2020			
		Done	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th
PE-5	Conduct Educational Outreach Activities, continued																					
	Community Garden Outdoor Classrooms (4)	✓		✓	✓			✓	✓			✓	✓			✓	✓			✓	✓	
	Lange Middle School Future Cities Program	✓			✓	✓			✓	✓												
	Career Center Garden and Collaboration with Columbia Public Schools	✓		✓	✓	✓		✓	✓	✓		✓	✓	✓		✓	✓	✓		✓	✓	✓
	MU Hinkson Creek Watershed Assessment of BMPs for Water Quality Improvements and Effectiveness 319 Grant rain garden construction and monitoring equipment installation training	✓		✓	✓			✓	✓			✓	✓									
	Missouri River Relief Summer Program	✓			✓				✓				✓				✓				✓	
	Cruise the Creeks Program	✓		✓	✓			✓	✓			✓	✓			✓						
	City of Columbia Adopt-A-Rain Garden Program	✓		✓	✓			✓	✓			✓	✓			✓	✓			✓	✓	
	MDC Community Conservation Workshop Tour	✓																				
	Sunrise Estates Stream Table Demonstration	✓																				
	Southern Boone Project WET Activity Week	✓																	✓			
	Project WET Presentation to CPS and Columbia Home Educators	✓	✓	✓			✓	✓				✓			✓	✓						
	Columbia Home Educators Science Fair	✓	✓	✓			✓				✓				✓				✓			
	Sturgeon Goalseekers 4H Stream Table Demo	✓		✓				✓														
	Douglass HS Science Expo	✓		✓				✓														
	Rock Bridge State Park Water Festival	✓			✓				✓				✓				✓				✓	
	NAAEE Webinar: Trust & Public Participation		✓		✓																	
	Columbia Independent School Presentation		✓				✓				✓	✓	✓	✓	✓							
	Centralia R-VI Stream Table Demonstration			✓			✓					✓				✓						
	Earthkeeper Kids Workshop			✓				✓								✓						
	Sturgeon Summerfest			✓				✓														
	Boone Electric Annual Meeting				✓				✓				✓				✓					
	Rain Barrel Sale	✓		✓				✓				✓										
	Columbia Home Land Mangement Presentation						✓												✓			
	MU BMP Field Tour	✓				✓				✓				✓				✓				

Table 1: MCM 1 - Public Education and Outreach Activity Schedule

		PREV	2016				2017				2018				2019				2020			
		Done	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th
PE-5	Conduct Educational Outreach Activities, continued																					
	Missouri River Days								✓				✓			✓						
	STOM Presentation									✓												
	Bonne Femme Watershed Presentation										✓											✓
	Rock Bridge Memorial State Park School Program											✓	✓									
	Bonne Femme Land Management Workshop										✓				✓			✓	✓			
	Hinkson Creek Land Management Workshop												✓		✓		✓					
	Our Lady of Lourdes 6th Grade										✓											
	(Y)ourCity Tour and Programs											✓	✓			✓	✓					
	COMO Common Ground											✓	✓	✓		✓	✓	✓		✓	✓	✓
	City MS4 Training Event for Staff													✓						✓	✓	
	MKT Mural Project with CARE												✓									
	Oscher Tours												✓									
	Columbia Kindergarten Classes														✓							
	Ashland FFA														✓		✓			✓	✓	
	Southern Boone 2nd Grade Stream Table														✓				✓			
	Centralial R-VI 5th Grade														✓				✓			
	Boone County SWCD Cover Crops Workshop														✓				✓			
	Karst Lunch and Learn														✓							
	Moberly Area Community College										✓				✓				✓			
	DBRL - The Incredible MO River Event														✓							
	Hallsville 4-H Presentation												✓		✓							
	Mid-MO Expo															✓						
	Missouri Master Naturalists Presentation															✓	✓					
	3M Wetland Tours															✓				✓	✓	
	Ashland Learning Garden															✓						
	City of Columbia Energy and Environment Commission Presentation																✓					
	Ashland 4-H Leadership Training																✓			✓		
	Sturgeon Soil Science Class																✓					

Table 1: MCM 1 - Public Education and Outreach Activity Schedule

		PREV	2016				2017				2018				2019				2020			
		Done	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th
PE-5	Conduct Educational Outreach Activities, continued																					
	STEMette Summper Program																✓					
	MU school of Natural Resources Aquatic Ecology																	✓				
	Boone Femme Watershed BINGO																	✓				
	Snowpalooza																	✓				
	Education Summer Camp Series															✓	✓			✓	✓	
	Columbia Public Schools Composting Program																		✓			
	Streams in the Classroom																		✓			
	"Who Polluted" Elementary Stream Activity																		✓			
	Science Olympiad																		✓			
	Columbia Young Scientists Expo																		✓			
	Sustainable Living Fair																		✓			
	Planetarium - Worm Show																		✓			
	Cave Institute - Rock Bridge Memorial State Park																				✓	
	University of Missouri Courses/curriculum																		✓		✓	
PE-6	Maintain Hinkson Creek GIS Habitat Viewer																					
	Hinkson Creek GIS Habitat Viewer	✓	✓																			
PE-7	Maintain Dedicated Stormwater Resource Websites																					
	Boone County Website Updates	✓	Ongoing Activity																			
	City of Columbia Website Updates	✓	Ongoing Activity																			
	City of Columbia Social Media sites	✓	Ongoing Activity																			
	MU Website Updates	✓	Ongoing Activity																			
	Boone County Tire Collection	✓			✓				✓				✓				✓				✓	
PE-8	Provide Household Hazardous Waste Disposal Opportunities																					
	City Household Hazardous Waste Collection	✓	Ongoing Activity																			
	Area Wide Household Hazardous Waste Collection	✓		✓				✓				✓				✓						

Table 2: MCM 2 - Public Involvement/Participation Implementation Schedule

		PREV	2016				2017				2018				2019				2020			
		Done	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th
PI-1	Observe All Public Notice Requirements																					
	Public Notices	✓	Ongoing Activity																			
	MU Campus Master Plan Update	✓	✓				✓				✓				✓				✓	✓	✓	✓
PI-2	Annual Topic Selection																					
	Sediment, Erosion and Sediment Controls	✓					✓	✓	✓	✓												
	Nutrients, Algae, Detergents, Fertilizers, Pesticides	✓									✓	✓	✓	✓								
	Trash, Oil and Grease, Spill Prevention	✓													✓	✓	✓	✓				
	Stormwater Infrastructure Campaign	✓																	✓	✓	✓	✓
	Bacteria, E coli, Pet Waste	✓	✓	✓	✓	✓																
PI-3	Involve Public/Stakeholders in Policy Development																					
	Bonne Femme Event	✓																				
	Hinkson Creek TMDL	✓																				
	Boone County Planning and Zoning	✓	Ongoing Activity																			
	Columbia Planning and Zoning	✓	Ongoing Activity																			
	CAM (Collaborative Adaptive Management)	✓	Ongoing Activity																			
	Campus Master Plan	✓				✓				✓				✓				✓				✓
	EPA Community Engagement Conference	✓																				
	Our Columbia Waters Integrated Management Plan	✓			✓				✓	✓		✓	✓	✓								
	Columbia Climate Action & Adaptation Plan	✓							✓		✓	✓	✓	✓			✓					
PI-4	Present Public Involvement/Participation Activities																					
	TreeKeepers	✓	Ongoing Activity																			
	C.A.R.P. (Columbia Aquatic Restoration Project)	✓	Ongoing Activity																			
	Free Compost Workshop	✓	Ongoing Activity																			
	Household Hazardous Waste Video	✓	Ongoing Activity																			
	Pet Waste 911: Get the Scoop on Pet Poop Video	✓	Ongoing Activity																			
	Learning to Vermicompost Video	✓	Ongoing Activity																			
	Pet Waste PSA	✓	Ongoing Activity																			
	Lawn Care Quick Tips Video	✓	Ongoing Activity																			
	Natural Lawn Care Video	✓	Ongoing Activity																			
	Vinegar: Eco-Friendly Miracle Cleaner Video	✓	Ongoing Activity																			

Table 2: MCM 2 - Public Involvement/Participation Implementation Schedule

		PREV	2016				2017				2018				2019				2020			
		Done	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th
PI-4	Present Public Involvement/Participation Activities, continued																					
	Bee Friendly to Your Environment Video	✓	Ongoing Activity																			
	City Council 319 BMP Tour	✓																				
	CAM Watershed Tours/Demonstrations	✓												✓								
	Going Up: The Benefits of Vertical Parking Structures Video	✓	Ongoing Activity																			
	Anatomy of a Stream Video	✓	Ongoing Activity																			
	A Leafy Problem Video	✓	Ongoing Activity																			
	Volunteer Columbia: TreeKeepers and CARP Project Video	✓	Ongoing Activity																			
	Winter Weather Ready Video	✓	Ongoing Activity																			
	Why Rain Barrels? Video	✓	Ongoing Activity																			
	Inflow and Infiltration Video	✓	Ongoing Activity																			
	Think: Columbia's Storm Drain Art Video	✓	Ongoing Activity																			
	Fire Station 8 Rain Garden Video	✓	Ongoing Activity																			
	Hinkson Clean Stream Video	✓	Ongoing Activity																			
	Inflow and Infiltration: Part Two Video	✓	Ongoing Activity																			
	You Wouldn't Swim In It PSA - 30 seconds	✓	Ongoing Activity																			
	You Wouldn't Swim In It PSA - 60 seconds	✓	Ongoing Activity																			
	Protect Our Watersheds PSA	✓	Ongoing Activity																			
	Countywide Adopt-A-Road	✓	Ongoing Activity																			
	Citywide Adopt-A-Spot	✓	Ongoing Activity																			
	MU Environmental Campus Groups	✓	Ongoing Activity																			
	Area Wide Household Hazardous Waste Collection	✓		✓				✓				✓				✓						
	Stream Team Sponsored Event: Cruise the Creek	✓		✓	✓			✓	✓							✓						
	Community Garden/Outdoor Classroom	✓		✓	✓			✓	✓			✓	✓			✓				✓	✓	
	Clean-up Columbia	✓		✓				✓				✓				✓				✓		
	City Wide Clean Sweep	✓				✓				✓				✓				✓				✓
	Citywide Stream Team Clean Ups (monthly)	✓	Ongoing Activity																			
	MU Student Chapter of the Soil and Water Conservation Society	✓	Ongoing Activity																			

Table 2: MCM 2 - Public Involvement/Participation Implementation Schedule

		PREV	2016				2017				2018				2019				2020			
		Done	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th
PI-4	Present Public Involvement/Participation Activities, continued																					
	Environmental Leadership Office	✓	Ongoing Activity																			
	MU Forestry Club	✓	Ongoing Activity																			
	MU Student Group of US Green Building Council	✓	Ongoing Activity																			
	Journal of Environmental and Sustainability Law	✓	Ongoing Activity																			
	Environmental Law Society	✓	Ongoing Activity																			
	Student Environmental Design Association	✓	Ongoing Activity																			
	Greeks Go Green	✓	Ongoing Activity																			
	Science, Health,and Environmental Journalism at Mizzou	✓	Ongoing Activity																			
	MU Sustainability Office	✓	Ongoing Activity																			
	Missouri Water Environment Association	✓	Ongoing Activity																			
	MU Horticulture Club`	✓	Ongoing Activity																			
	Water and Environmental Technologists	✓	Ongoing Activity																			
	Sustain Mizzou	✓	Ongoing Activity																			
	MU Science Communication and Public Engagement	✓	Ongoing Activity																			
	MU Environmental Science Club	✓	Ongoing Activity																			
	Rock Bridge Renew Clean-up			✓		✓		✓		✓		✓		✓		✓		✓				✓
	Rock Bridge Interpretive Hikes			✓				✓							✓	✓	✓		✓			
	KFRU Talk Radio Guest - Bonne Femme Watershed		✓		✓				✓		✓		✓		✓		✓					
	Bonne Femme Watershed Project Technical Advisory Committee		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Farm and Fiddle Radio Show Guest - Bonne Femme Watershed														✓				✓			
	Bonne Femme Watershed Demonstration Site Volunteer Planting																			✓	✓	
	Boone County Stream Team						✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	KOPN Radio Interview										✓								✓			
	City/USGS Funding of Hinkson Creek Stream Gauge						✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	City/MU School of Communication Partnership for Development of PSA videos										✓	✓	✓	✓	✓	✓	✓	✓				

Table 2: MCM 2 - Public Involvement/Participation Implementation Schedule

		PREV	2016				2017				2018				2019				2020			
		Done	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th
	City Source Stormwater Article										✓	✓	✓	✓	✓	✓	✓	✓				
PI-5	Social Networks/Website Updates																					
	Stormwater Utility Blog	✓	Ongoing Activity																			
	Columbia Stormwater Facebook	✓	Ongoing Activity																			
	Columbia Twitter	✓	Ongoing Activity																			
	Boone County Website	✓	Ongoing Activity																			
	Hinkson Creek CAM Website	✓	Ongoing Activity																			
	Greater Bonne Femme Watershed Website	✓	Ongoing Activity																			
	MU Website	✓	Ongoing Activity																			
	Columbia Stormwater Google+	✓	Ongoing Activity																			
	Columbia Stormwater Tumbler	✓	Ongoing Activity																			
	Columbia Stormwater Instagram	✓	Ongoing Activity																			
	Hinkson Creek Habitat Viewer	✓	✓																			
	Boone County Stormwater Facebook		Ongoing Activity																			
	Columbia Stormwater Website	✓	Ongoing Activity																			
PI-6	Provide Household Hazardous Waste Disposal Opportunities																					
	Boone County Tire Collection				✓								✓			✓					✓	
	City Household Hazardous Waste Collection	✓	Ongoing Activity																			
	Area Wide Household Hazardous Waste Collection	✓		✓				✓				✓				✓						

Table 3: MCM 3 - Illicit Discharge Detection & Elimination Implementation Schedule

		PREV	2016				2017				2018				2019				2020			
		Done	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th
ID-1	Maintain Storm Sewer Maps																					
	Develop Boone County Storm Sewer Map	✓																				
	Develop Columbia Storm Sewer Map	✓																				
	Develop MU Storm Sewer Map	✓																				
	Maintain Boone County Storm Sewer Map	✓	Ongoing Activity																			
	Maintain Columbia Storm Sewer Map	✓	Ongoing Activity																			
	Maintain MU Storm Sewer Map	✓	Ongoing Activity																			
ID-2	Implement/Maintain IDDE Ordinance/Regulatory Mechanism																					
	Boone County IDDE Ordinance	✓	Ongoing Activity																			
	Columbia IDDE Ordinance	✓	Ongoing Activity																			
	MU IDDE Policy	✓	Ongoing Activity																			
ID-3	Non-stormwater Discharges as Significant Contributors																					
	Boone County Occasional Non-stormwater Discharge Evaluation	✓	Ongoing Activity																			
	Columbia Occasional Non-stormwater Discharge Evaluation	✓	Ongoing Activity																			
	MU Occasional Non-stormwater Discharge Evaluation	✓	Ongoing Activity																			
ID-4	Incidental Non-stormwater Discharges - Boone County																					
	Develop Plan to Address Incidental Discharges	✓																				
	IDDE Web-based Reporting Summary	✓				✓				✓				✓				✓				✓
	Identify Critical Stormwater Infrastructure	✓		✓				✓				✓				✓				✓		
	Culvert Maintenance and Replacement in Subdivisions	✓	✓				✓				✓				✓				✓			
	IDDE Ordinance Enforcement Summary	✓				✓				✓				✓				✓				✓
	Building Inspections	✓				✓				✓				✓				✓				✓
ID-5	Incidental Non-stormwater Discharges - Columbia																					
	Develop Plan to Address Incidental Discharges	✓																				
	Integrity Verification of Sanitary Sewer System	✓																				
	Identify Critical Stormwater Infrastructure	✓																				
	Sanitary and Storm Sewer Cross Connections	✓	Ongoing Activity																			

Table 3: MCM 3 - Illicit Discharge Detection & Elimination Implementation Schedule

		PREV	2016				2017				2018				2019				2020			
		Done	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th
ID-6	Incidental Non-stormwater Discharges - MU																					
	Develop Plan to Address Incidental Discharges	✓																				
	Divide Stormwater System into Five Parts	✓																				
	Inspect 20% of Campus Storm Sewer System	✓	Ongoing Activity																			
	Verify connections of internal floor drains	✓	Ongoing Activity																			
	Problem Areas Corrected when Identified	✓	Ongoing Activity																			
ID-7	Provide Household Hazardous Waste Disposal Opportunities																					
	Boone County Tire Collection	✓			✓				✓				✓			✓					✓	
	City Grease Trap Inspection Program	✓	Ongoing Activity																			
	City Household Hazardous Waste Collection	✓	Ongoing Activity																			
	Area Wide Household Hazardous Waste Collection	✓		✓				✓				✓				✓						

Table 4: MCM 4 - Construction Site Stormwater Runoff Control Implementation Schedule

		PREV	2016				2017				2018				2019				2020			
		Done	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th
CS-1	Require MDNR Land Disturbance Permit for Sites One Acre and Greater																					
	City of Columbia	✓	Ongoing Activity																			
	Boone County	✓	Ongoing Activity																			
	MU	✓	Ongoing Activity																			
CS-2	Enforce ESC/Land Disturbance Requirements/Regulatory Mechanism																					
	Boone County	✓	Ongoing Activity																			
	Columbia	✓	Ongoing Activity																			
	MU	✓	Ongoing Activity																			
CS-3	Maintain ESC/Land Disturbance Requirements/Regulatory Mechanism																					
	Boone County	✓	Ongoing Activity																			
	Columbia	✓	Ongoing Activity																			
	MU	✓	Ongoing Activity																			
CS-4	Develop and Maintain Stormwater Design Manuals																					
	City Erosion and Sediment Control Manual	✓	Ongoing Activity																			
	Boone County Stormwater Design Manual	✓	Ongoing Activity																			
	MU ESC Design Requirements	✓	Ongoing Activity																			
CS-5	Require and Review Stormwater Pollution Prevention Plans																					
	Boone County	✓	Ongoing Activity																			
	Columbia	✓	Ongoing Activity																			
	MU	✓	Ongoing Activity																			
CS-6	Hold Public Hearings/Stakeholder Meetings																					
	Boone County	✓	Ongoing Activity																			
	Columbia	✓	Ongoing Activity																			
	MU	✓	Ongoing Activity																			
CS-7	Conduct Site Inspections																					
	Boone County Construction Site Inspections for ESC	✓	Ongoing Activity																			
	City of Columbia Site Inspections for ESC Practices	✓	Ongoing Activity																			
	MU Site Inspections for ESC	✓	Ongoing Activity																			

Table 5: MCM 5 - Stormwater Management in New Development & Redevelopment Implementation Schedule

		PREV	2016				2017				2018				2019				2020			
		Done	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th
SM-1	Identify Structural/Non-structural Strategies																					
	Boone County	✓																				
	Columbia	✓																				
	MU	✓																				
	CAM water Quality Improvement Projects	✓	Ongoing Activity																			
	Urban Retrofit Grant - BMP Monitoring	✓																				
	Strive for LEED standards in MU building design	✓	Ongoing Activity																			
	319 Grant Water Quality Effectiveness in Rain Gardens	✓		✓	✓			✓	✓			✓	✓			✓	✓					
	Prairie Restoration on ROW	✓		✓	✓			✓	✓			✓	✓			✓	✓			✓	✓	
	GBFW Bioretention Basin Demonstration Project																		✓	✓	✓	✓
SM-2	Maintain Stormwater Management/Water Quality Manual or Equivalent																					
	Boone County	✓	Ongoing Activity																			
	Columbia	✓	Ongoing Activity																			
	MU	✓	Ongoing Activity																			
SM-3	Maintain Stormwater Management Ordinance/Regulatory Mechanism																					
	Boone County Stormwater Ordinance	✓	Ongoing Activity																			
	Columbia Land Disturbance Ordinance	✓	Ongoing Activity																			
	MU Stormwater Master Plan	✓	Ongoing Activity																			
SM-4	Maintain Stream Buffer Ordinance and MU Master Plan																					
	Columbia Stream Buffer Ordinance	✓	Ongoing Activity																			
	Boone County Stream Buffer Regulations	✓	Ongoing Activity																			
	MU Stormwater Master Plan	✓	Ongoing Activity																			
SM-5	Promote Adequate Long-Term Operation and Maintenance of BMPs																					
	Boone County	✓	Ongoing Activity																			
	Columbia	✓	Ongoing Activity																			
	MU	✓	Ongoing Activity																			
SM-6	Provide Household Hazardous Waste Disposal Opportunities																					
	Boone County Tire Collection	✓			✓				✓				✓				✓				✓	
	City Household Hazardous Waste Collection	✓	Ongoing Activity																			

	Area Wide Household Hazardous Waste Collection	✓		✓				✓				✓				✓					

Table 6: MCM 6 - Pollution Prevention/Good Housekeeping for Municipal Operations Implementation Schedule

		PREV	2016				2017				2018				2019				2020			
		Done	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th
PP-1	Maintain Operation and Maintenance Schedule																					
	Hazardous Materials Management - Boone County	✓	Ongoing Activity																			
	Hazardous Materials Management - Columbia	✓	Ongoing Activity																			
	Hazardous Materials Management - MU	✓	Ongoing Activity																			
	Maintain Spill Control and Countermeasures Policy and Procedures - Boone County	✓	Ongoing Activity																			
	Maintain Spill Control and Countermeasures Policy and Procedures - Columbia	✓	Ongoing Activity																			
	Maintain Spill Control and Countermeasures Policy and Procedures - MU	✓	Ongoing Activity																			
PP-2	Identify Employee Groups to Train																					
	Countywide	✓	Ongoing Activity																			
	Citywide	✓	Ongoing Activity																			
	University wide	✓	Ongoing Activity																			
PP-3	Review and Update Training Presentations																					
	Boone County	✓	Ongoing Activity																			
	Columbia	✓	Ongoing Activity																			
	MU	✓	Ongoing Activity																			
PP-4	Schedule/Conduct Pollution Prevention Training																					
	Countywide	✓	Ongoing Activity																			
	Citywide	✓	Ongoing Activity																			
	University wide	✓	Ongoing Activity																			