

CITY OF SOMERSET
BRASS Stormwater Quality Management Plan
2010 – 2015

Master Plan with Milestones

MCM Plan 1 Public Education and Outreach

The permittee (primary recipient of the KPDES permit) must maintain a public education program and conduct public outreach activities in the community that focuses on impacts from stormwater discharges to water bodies and the steps that the public can take to reduce pollutants in stormwater runoff.

Six (6) Best Management Practices (BMPs) and their associated milestones have been incorporated in this Stormwater Quality Management Plan (SWQMP) to meet the requirements for MCM 1.

BMP	1.A.1. Maintain public education program						
BMP Description	The permittee shall maintain a public education program that focuses on impacts from SW discharges to water bodies and the steps that the public can take to reduce pollutants in SW runoff.						
BMP Milestone	Description	Implementation Notes	YR1	YR2	YR3	YR4	YR5
1.A.1.a Establish funding	Establish resources to fund public education activities.	Meet with Stormwater Advisory Council (SWAC) to determine an appropriate percentage of the annual budget to delegate to MCM 1.	X	X	X	X	X
1.A.1.b. Determine Annual Activity	What are the planned activities for the permit year to reach target audiences and address target pollutants?	Review fiscal and human resources to establish a workable schedule of activities outlined for the given plan year. Target three (3) activities per year.	X	X	X	X	X
1.A.1.c. Coordinate with KYTC	Incorporate assistance provided by KYTC/KEEC into public outreach strategy document as a cost savings method and to present a unified message for education the public.	Gain familiarity with the media outlets and messages being delivered. Establish a plan for collecting data related to message delivery. Create means to raise awareness of KYTC activities.	X	X	X	X	X
1.A.1.d. Conduct annual review and evaluation of program	The permittee will evaluate the Public Educations efforts from the previous year as part of the outreach strategy.	Evaluate the ability to complete the previous year's activity given the staffing and financial resources. Evaluate the effectiveness of activities. Adjust strategy as needed.	X	X	X	X	X

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1.A.1.e. Identify parties involved and/or responsible for P.E.	Determine people involved and level of involvement	Review all potential sources of assistance. Identify person(s) responsible for managing the tracking and reporting to establish the methods of communicating activities among involved parties.	X		X		X	
1.A.1.f. Select topics and distribution locations	Select methods of distributing Public Education materials, select public education topics, and assign responsible parties for development and distribution. Determine the locations that will be most beneficial to each activity.	Through discussion with SWAC, BRASS, KSA etc, develop a priority list of target pollutants and audiences, then select the preferred or available delivery methods and locations.	X	X	X	X	X	X

BMP **1.A.2. Conduct public outreach activities**

BMP Description The permittee shall conduct public outreach activities in the community that focuses on impacts from SW discharges to water bodies and the steps that the public can take to reduce pollutants in SW runoff.

BMP Milestone	Description	Implementation Notes	YR1	YR2	YR3	YR4	YR5
1.A.2.a Conduct SWAC meetings	Develop or maintain a SWAC to assist with development, implementation, and status of SWQMP.	Hold regular SWAC meetings (minimum of two (2) times per year).	X	X	X	X	X
1.A.2.b. Participate in the KY Stormwater Association (KSA)	Take advantage of opportunities for training and exchange of ideas to enhance MCM 1.	Attend regular and/or subcommittee meetings for SW program material development, educational benefit, and MS4 community collaboration.	X	X	X	X	X
1.A.2.c. Implement public outreach strategy	Conduct activities outlined in the outreach strategy for the given plan year.	Schedule public education activities to minimize bunching and work overload. Choose times to conduct activities to coincide with events associated with the theme if possible (i.e. -recycling during earth week).	X	X	X	X	X

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1.A.2.d. Community officials activity	Conduct at least one activity focused on updating or educating community officials to increase awareness and gain momentum for the stormwater program.	Presentation, printed material handouts, quarterly reports or emails, invitations to KSA or other MS4 events.	X	X	X	X	X
1.A.2.e. Activity related to target audience or target pollutant	Conduct at least one theme oriented activity specifically related to the target audience or target pollutant.	Special events, invitation only workshops or presentations, focused materials printed for individuals, businesses, etc. that addresses an identified priority area. Determine annually the target audience and pollutant.	X	X	X	X	X
1.A.2.f. General public activity	Conduct at least one activity associated with a mass distribution to all individuals in the jurisdictional limits.	Develop an annual message for mass distribution using mailers, web, Facebook, handouts, newsletters, radio, TV, etc.	X	X	X	X	X

BMP **1.B. Guidance materials**

BMP Description Utilize the Stormwater Education Toolkit developed by KYTC or alternative outreach materials that provide an effective equivalent.

BMP Milestone	Description	Implementation Notes	YR1	YR2	YR3	YR4	YR5
1.B.1. Review of available guidance materials	Review available Stormwater Education materials from KYTC, EPA, and other available resources for content, cost, and potential effectiveness.	Annually select materials and delivery methods that will provide the best opportunity to meet the objective of the annual activities in a cost-effective manner.	X	X	X	X	X
1.B.2. Utilize available guidance materials	Develop the means to utilize the preferred materials (purchase, customization, reproduction, media connection) to assure that the activities will be effectively carried out.	Determine where materials will come from, what needs to be done to make them useful for the MS4, who will do the work to customize (if needed) and distribute the selected materials.	X	X	X	X	X

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BMP **1.C. Pollutants in local waterways**

BMP Description Public Education and Outreach efforts shall focus on pollutants impairing or threatening local waterways.

BMP Milestone	Description	Implementation Notes	YR1	YR2	YR3	YR4	YR5
1.C.1. Pollutant Determination Method	Select method for determining pollution/impairment of streams based on available resources (monetary and human), while keeping in mind a future monitoring program component.	Survey, review of available WQ data from KDOW, and/or sampling. This activity will also assist the MS4 in determining the pollutants of concern.	X				
1.C.2. Assessment of data collected	Assess data collected to make a determination of pollutants threatening and/or impairing local waterways.	A review of data collected and comparison of degree of impact (either through actual data or public perception) will provide the opportunity to develop or adjust the priority list for pollutants of concern.	X				
1.C.3. Distribute Primary Pollutants Data	Distribute data that determines the pollutants impairing and/or threatening local waterways.	Present at SWAC meeting to stimulate discussion that will shape how this will work into the outreach strategy. Outputs can be utilized as outreach materials for community officials, target audiences, and general public then distribute through a variety of outlets.	X				
1.C.4. Prioritize Public Education Activities	Identify top three methods and/or activities to educate based on the pollutants or impairments threatening the local waterways of the community	Determine where efforts need to be focused, how best to reach targeted audiences, can methods be incorporated within the available budget, should the top three be modified from previous year(s) etc.	X		X		X

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BMP **1.D. Measure public education and outreach efforts**

BMP Description Develop self analysis tools to determine if the educational outreach efforts are reaching the target audiences and creating the behavioral changes desired. Tools may include:
 - numbers of persons, material counters
 - surveys pre- and post event
 -means to trace changes in other MCM back to MCM 1 activities (Ex - Litter calls increase the year the community outreach focus is on liter reduction and community hotline prompting)

BMP Milestone	Description	Implementation Notes	YR1	YR2	YR3	YR4	YR5
1.D.1. Establish means to track educational outreach	Determine methods to measure public education activities.	Utilize a data management system, to document activities and outcomes to meet compliance and annual reporting needs. Gain familiarity of data management system capabilities with regard to data collection and reporting. Utilize the software to effectively track MCM 1.	X	X	X	X	X

BMP **1.E. Track MCM 1 activities for permit compliance**

BMP Description Maintain and manage data management application to reflect all activities. Expand on information input to enhance review and evaluation capabilities.

BMP Milestone	Description	Implementation Notes	YR1	YR2	YR3	YR4	YR5
1.E.1. Maintain public education activities	Track public education activities by creating “Activity Records”	Utilize data management software to effectively Track MCM 1.	X	X	X	X	X
1.E.2. Evaluate effectiveness of program for MCM 1	Review activities conducted for completion and benefit to community to determine if the objectives are being met.	Assess whether activities were conducted, was it sufficient, was the message delivered and received successfully, what changes may need to be made, etc.	X	X	X	X	X

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MCM Plan 2 Public Involvement and Participation

The small MS4 general permit contains performance measures for public participation and involvement. The permittee must comply with state and local public notice requirements when implementing the public involvement and participation program.

Five (5) Best Management Practices (BMPs) and their associated milestones have been incorporated in the this SWQMP to meet the requirements for MCM 2.

BMP 2.A. Implement a public involvement/participation program

BMP Description Activities may include:
 -representation on local stormwater management work groups (SWAC or other)
 -public notices
 -public hearings
 -facilitating education volunteers
 -assisting with program coordination
 -monitoring efforts
 Public Notice must be provided for all program participation opportunities.

BMP Milestone	Description	Implementation Notes	YR1	YR2	YR3	YR4	YR5
2.A.1. Develop potential list of public involvement activities	Public involvement activities list shall include events in which community groups, individuals, MS4 staff, and community officials can participate to address the water quality concerns of the MS4.	List should address target audiences, pollutants of concern, availability of volunteer groups, community environmental organizations, local events to piggyback on, etc..	X		X		X
2.A.2. Conduct Annual Public Involvement Activities	From the potential list, determine the annual activities and schedule accordingly.	Evaluate staff, budget, timing of public involvement opportunities and establish a plan to provide opportunities for at least two (2) public involvement activities. Provide public notice for all public involvement activities.	X	X	X	X	X

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2.A.3. Establish a Stormwater Advisory Committee (SWAC)	Solicit volunteers from key community stakeholders to serve on a SWAC for the purpose of guiding the stormwater program.	SWAC members should provide input from a variety of perspectives relative to their involvement with the community, which will help the program gain community consensus of the program needs, goals, BMPs, and activities.	X					
2.A.4. Hold SWAC meetings	Conduct regular SWAC meetings and provide Public Notice of meetings.	Minimum of two (2) per year.	X	X	X	X	X	
2.A.5. Participate in Community Events	Participate in at least one (1) community event per year to highlight water quality and community involvement opportunities.	Set up a booth, speak, or provide materials (or all three) at a local festival, field day, or clean up day.	X	X	X	X	X	X

BMP **2.B. Facilitate opportunities for volunteers**

BMP Description What will facilitate opportunities for volunteers?
 -SWAC
 -arrangements with local environmental groups
 -communication with other civic groups (scouts, Kiwanis, HBA, Neighborhood Assoc.)

BMP Milestone	Description	Implementation Notes	YR1	YR2	YR3	YR4	YR5
2.B.1. Develop list of possible volunteer activities	Determine what activities could volunteers do that would have the most benefit or be the most benefit to the MS4?	Select actions that may be completed by volunteers based on complexity, safety, cost, available materials, skill sets, and staff support.	X	X		X	
2.B.2. Identify potential sources of volunteers	Initiate involvement with local civic groups to cultivate volunteering opportunities.	Establish a list, contact people.	X	X		X	

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BMP **2.C. Advertising of Public Involvement Activities**

- BMP Description**
1. Develop a standard for advertizing public involvement activities
 2. Implement and advertize protocol
 3. MUST be developed within sixty (60) days of effective date on KYG20

BMP Milestone	Description	Implementation Notes	YR1	YR2	YR3	YR4	YR5
2.C.1. Develop Public Notice Protocol	Develop or identify Standard Operating Procedure (SOP) procedure for Public Notice.	If no official SOP is in place, review KRS requirements and establish SOP to meet or exceed KRS.	X				
2.C.2. Implement Public Notice Protocol	Make all municipal employees participating in public involvement activities aware of the SOP.	For all MCM 2 activities, take measures such as utilizing planners, electronic calendars etc. to assure that Public Notice is provided on or before the stated deadline in the SOP.	X				
2.C.3. Provide Public Notice for MCM 3 activities	Utilize a Public Notice SOP for all MCM 2 activities.	Schedule MCM 2 activities and establish reminders to post Public Notice. Document activities and date of Public Notice.	X				

BMP **2.D. Measure activities relative to this MCM for permit compliance**

- BMP Description**
- Activities to measure include:
- identification of activity, date, name, and # involved
 - message(s) delivered
 - documentation of activity and expenses
 - personnel involved in implementation activity

BMP Milestone	Description	Implementation Notes	YR1	YR2	YR3	YR4	YR5
2.D.1. Establish means to measure Public Involvement activities	Use data management software as a means to provide measurable results that can identify trends and behavioral change.	Post surveys, etc. that can identify learning outcomes (improved, neutral, or lessened understanding), changes in behavior (less liter, debris, less violations, more volunteers, etc.), and participation/interest in water quality.	X	X	X	X	X

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BMP **2.E. Track activities relative to this MCM for permit compliance**

BMP Description Include activities in annual report. Maintain and manage data management application to reflect all activities. Expand on information input to enhance review and evaluation capabilities.

BMP Milestone	Description	Implementation Notes	YR1	YR2	YR3	YR4	YR5
2.E.1 Track Public Involvement activities	Use data management software to input data and track activities.	Gain familiarity with data management software capabilities with regard to data collection and reporting. Utilize the software to effectively track MCM 2.	X	X	X	X	X
2.E.2 Evaluate effectiveness of program for MCM2	Review activities completed and benefit provided to community. Then determine if objectives are being met.	Assess whether activities were conducted, was it sufficient, was the participation as expected, what changes may need to be made etc..	X	X	X	X	X

MCM Plan **3 Illicit Discharge Detection and Elimination**

Recognizing the adverse effects illicit discharges can have on receiving waters, the final rule requires an operator of a regulated small MS4 to develop, implement and enforce an illicit discharge detection and elimination program. Therefore, an MS4 operator must develop a map of the MS4 that locates all major MS4 outfalls and names of receiving waters; effectively prohibit discharges of non-stormwater to the MS4 through the use of an ordinance or other regulatory mechanism; and provide for enforcement procedures and actions; and inform public employees, businesses, and the general public of the hazards associated with illegal discharges and improper disposal of waste.

Eleven (11) Best Management Practices (BMPs) and their associated milestones have been incorporated in the this SWQMP to meet the requirements for MCM 3.

BMP **3.A. Illicit discharge ordinance**

BMP Description All MS4 programs shall have an ordinance or other regulatory mechanism that prohibits illicit discharges into the MS4.

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BMP Milestone	Description	Implementation Notes	YR1	YR2	YR3	YR4	YR5
3.A.1 Develop or revise illicit discharge ordinance	Develop or revise existing illicit discharge ordinance.	New or revised ordinance shall provide a definition of illicit discharge, prohibit illicit discharges, assign an authority to regulate illicit discharges and define enforcement actions for an illicit discharge. Requirements for removal of illicit discharges shall also be defined.		X			
3.A.2. Implement illicit discharge ordinance	Get the new or revised illicit discharge ordinance accepted.	Complete the steps necessary for the new or revised illicit discharge ordinance to become effective within the community.		X			
BMP	3.B. IDDE program						
BMP Description	Develop procedures for locating priority areas by determining a working definition for a priority area and what local and state water quality/GIS data is available to assist with locating priority areas.						
BMP Milestone	Description	Implementation Notes	YR1	YR2	YR3	YR4	YR5
3.B.1. Field Assessments of Priority Areas	Develop a timeline for completing field assessments of priority areas that will dictate the order of mapping and outfall screening.	Establish a schedule for completing the inventory and assessment of all outfalls over the five (5) year permit term. Base schedule on availability of staff, finances, and equipment.		X			
3.B.2. Locate Priority Areas	Develop procedures for locating priority areas by determining a working definition for a priority area and what local and state water quality/GIS data is available to assist with locating priority areas.	Give consideration to known water quality issues, businesses and industries that stores or generates HAZMATS, proximity to local streams, past experience with illicit discharges or excess pollutants (litter, sediment, street debris).				X	
3.B.3. Source Tracing Protocol	Develop a procedure for tracing an illicit discharge that includes a visual inspection, contributing network analysis and	Consider available manpower, equipment and sample testing capacity in developing this protocol. Evaluate extent of mapping - is more needed to effectively					

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troubleshooting, tracking of known hotspots, and collection and analysis of water samples. Other detailed inspection procedures shall be identified and completed as needed. trace sources? X

3.B.4. Illicit Discharge source removal procedures

Develop or modify procedures for removing an illicit discharge. Procedures shall include:
 - notification of appropriate authorities;
 -notification of property owners;
 -technical assistance for eliminating the discharge;
 -follow-up inspections; and
 -enforcement actions. X

3.B.5. Illicit Discharge Assessment Procedure

Develop procedure to assess identified illicit discharges for pollutant and degree of risk/severity. Include steps for sensory (sight, smell) inspection, sampling and other detailed inspection procedures identified as needed if water quality impairment is determined. X

If Water Quality impairment is determined severe or urgent, refer the incident to Department for Environmental Protection's Environmental Emergency 24-hour hotline (502.564.2380) or (800.928.2380).

3.B.6. Establish response time frames

Establish time frames for completing the response to a reported spill, assessment, source tracing, and removal procedures. Time frames will provide structure to the program, impose deadlines for action, show the community that action is being undertaken in an expedient manner. Consider the case of the most complex system to trace when establishing time frames. X

BMP 3.C. Provide training for municipal field staff

BMP Description Provide training opportunities for municipal field staff on the identification and reporting of illicit discharges.

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BMP Milestone	Description	Implementation Notes	YR1	YR2	YR3	YR4	YR5
3.C.1. Staff Trainings	Provide at least two (2) trainings per year to field and associated staff on the components of the IDDE program.	Potential topics include receipt and response to reported spills, outfall investigations, sample acquisition and testing, trace sources, removal mechanisms, use data management software for data tracking, etc.		X	X	X	

BMP **3.D. Develop and maintain a storm sewer system map**

BMP Description Storm sewer map shall include:
 -location of all know major outfalls;
 -name and location of all waters of the Commonwealth that receive discharges from outfalls;
 -the MS4 boundary; and
 -all mapped infrastructure provided in the specified electronic format.

BMP Milestone	Description	Implementation Notes	YR1	YR2	YR3	YR4	YR5
3.D.1. Develop and maintain map in acceptable formats	System maps shall be developed and maintained in electronic (GIS and/or CAD) format. Paper maps may be used in addition.	Electronic GIS format mapping is preferred and can be incorporated into data management softwater for daily use and reporting needs. Hard copy in the form of a book map is a useful tool for field staff and field investigation where laptops or portable GPS/GIS is unavailable.	X	X	X	X	X
3.D.2. MS4 Boundary Layer	Include the MS4 jurisdictional boundary in the base map. Update as needed.	Boundary delineation provides a quick reference to the area of interest and assignment of responsibility.	X	X	X	X	X
3.D.3. Waters of the Commonwealth	Include waters of the Commonwealth in the base map and their contributing watersheds.	Protection of receiving waters is a key component of the MS4 program, so it is essential that the MS4 know the locations and areas contributing to these waters (watershed delineation).	X				

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3.D.4. Major Outfall Locations	Include the location of major outfalls and their contributing outfall-shed in the base map. Update as needed.	Source tracking and removal is facilitated by good mapping and awareness of the system contributing to an outfall.	X	X	X
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BMP **3.E. Location of major outfalls**

BMP Description FY02 - Identify all of the outfalls in the annual report. Provide updates describing any additional outfalls in FY 3-5.

An "outfall" is a pipe (or closed conveyance system) with a cross-sectional area greater than or equal to 7.07 SF (~36" circular pipe) OR a single conveyance other than a pipe that has a drainage area of more than 50 acres.

BMP Milestone	Description	Implementation Notes	YR1	YR2	YR3	YR4	YR5
3.E.1. Determination and location of Major Outfalls	Perform a review of the storm sewer network and identify all major outfalls.	Assess available mapping for adequacy. Perform additional survey as needed to locate outfalls. Focus attention first on identified priority areas.	X	X			
3.E.2. Update outfall inventory	Update mapping and database annually to include new or modified outfalls resulting from new development, capital projects, etc.	Assign roles for updating the inventory and mapping.			X	X	X

BMP **3.F. Dry weather screenings of outfalls**

BMP Description All major outfalls shall be addressed within the permit term.

- Screenings shall include:
- visual inspection of outfall discharge for indicators of pollutants (odor, oil sheens, discoloration, and high degrees of siltation or aquatic plant growth)
 - IF excessive pollutants are detected:
 - develop a plan to determine potential source(s)
 - eliminate the discharge
 - complete any follow-up water quality sampling and/or laboratory analysis
 - determine a plan of action

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BMP Milestone	Description	Implementation Notes	YR1	YR2	YR3	YR4	YR5
3.F.1. Location of pollutants during outfall inspection	If pollutants/discharges are indicated during screening, develop an action plan to determine the likely source(s).	An action plan should be based on known hot spots, HAZMATS stored within the outfall-shed, past history, and characteristics of the discharge indicators.	X	X	X	X	X
3.F.2. Visual inspection of outfalls	Develop a visual inspection checklist for indicators of pollutants including odor, oil sheens, discoloration, high degrees of siltation, and excessive aquatic plant growth to use during outfall inspections.	Develop checklist and complete as part of inspection procedure.	X	X	X	X	X
3.F.3. Schedule of screening for major outfalls	All major outfalls shall have a visual screening within the permit cycle.	Target inspecting 20% of outfalls annually and focus attention first on areas deemed priority from the field assessment.	X	X	X	X	X

BMP 3.G. Public reporting of spill and other discharges

BMP Description Develop a mechanism to provide for the public reporting of spills and other Discharges. Permittee shall keep a record of spill reports received, actions taken and include in annual report.

BMP Milestone	Description	Implementation Notes	YR1	YR2	YR3	YR4	YR5
3.G.1. Spill reports received and actions taken	Keep a record of all spill reports received and actions taken	Include spill records and actions taken in annual report	X	X	X	X	X
3.G.2. Public reporting of spills and other discharges	Determine, develop, and implement appropriate mechanism for public reporting of spills and other discharges.	The mechanism should be relatively easy to use on both the reporting and receipt of the report, and easily recorded for tracking and reporting purposes. Consider available manpower, information technology, systems in place (work order, hotline, web, etc.) in establishing the mechanism.		X			

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BMP **3.H. Community Outreach regarding the Hazards associated with illegal discharges**

BMP Description In additional to Public Education and Outreach, the permittee shall inform public employees, businesses, and the general public of hazards associated with illegal discharges and improper disposal of waste.

BMP Milestone	Description	Implementation Notes	YR1	YR2	YR3	YR4	YR5
3.H.1. Employee training	Hold one (1) employee training on the hazards associated with illegal discharges and improper disposal of waste	Obtain or develop presentation and provide training.			X		X
3.H.2. Flyer for businesses	Develop a flyer directed to businesses on the hazards associated with illegal discharges and improper disposal of waste.	Utilize KYTC toolkit or other sources for available materials, then modify or add new material as needed. Vary the content, look, and delivery method as needed to keep the material and presentation fresh.		X		X	
3.H.3. Advertizing for general public	Develop an advertisement, public service announcement, or outreach activity (stenciling) that will educate the general public on the hazards associated with illegal discharges and improper disposal of waste.	Utilize KYTC toolkit or other sources for available materials, then modify or add new material as needed. Vary the content, look, and delivery method as needed to keep the material and presentation fresh.	X		X		X

BMP **3.I. Inform KDOW of any illicit discharges**

BMP Description If an illicit discharge is determined to be a sanitary sewer line failure or defect is a source to the MS4, the permittee shall inform the entity and KDOW's Regional Office.

If permittee is responsible, proceed to the remediate the discharge by following the corrective action plan or Sanitary Sewer Overflow Plan on a schedule approved by KDOW.

BMP Milestone	Description	Implementation Notes	YR1	YR2	YR3	YR4	YR5
3.I.1. Inform KDOW of any IDDEs	If an illicit discharge is detected contact KDOW.	Know contact information at KDOW relating to any illicit discharges.	X	X	X	X	X

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3.I.2. Develop remediation activities	Remediation activities shall be initiated ASAP, according to the magnitude of the illicit discharge.	Be familiar with remediation activities and procedures such as spill response, cleanup, public notification, evacuation routes traffic control, available equipment and response agencies.	X	X	X	X	X
3.I.3. Employ Corrective Action plan to adjust SOP as needed	Evaluate the cause of the discharge for potential prevention, and the response plan for potential areas of improvement.	Perform post-response and remediation review to determine if issues were preventable, if response was effective, where improvements could be made etc. (review local Sanitary Overflow Plan as a potential model to follow)	X	X	X	X	X

BMP **3.J. Procedures for Illicit Discharge program evaluation and assessment**

BMP Description The permittee shall adopt and implement procedures for Illicit Discharge program evaluation and assessment. Illicit Discharge program must include:
 -tracking the number and type of spills or illicit discharges identified;
 -inspections made; and
 -any feedback received from public education efforts.

BMP Milestone	Description	Implementation Notes	YR1	YR2	YR3	YR4	YR5
3.J.1. Develop procedural review process for IDDE program	Use data management system as a means to provide measurable results that can identify trends and behavioral change.	Review the components of the IDDE program for compliance with SWQMP, effectiveness, and ability to complete the BMPs.		X	X	X	X
3.J.2. Revise and Implement updated IDDE program	Based on any areas of deficiency in the program review, revise the IDDE program and implement the new procedures.	Consider educating staff and associated parties of new changes in the training for the following year. Document the need for change and potential need for additional resources to manage the revised program and the impacts that may result from doing nothing.		X	X	X	X

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BMP **3.K. Track MCM measures to meet permit and annual reporting requirements**

BMP Description The permittee shall track activities relative to this MCM measure and provide measures in the annual report.

BMP Milestone	Description	Implementation Notes					
3.K.1. Track annual activities	Maintain a record of all activities in a data management software related to this MCM to track activities.	Input MS4 activities into a data management software for tracking and reporting.	X	X	X	X	X
3.K.2. Evaluate effectiveness of program for MCM 3	Review activities conducted for completion and benefit to community. Then determine if objectives are being met.	Assess whether activities were conducted, was it sufficient, was the participation as expected, what changes may need to be made, etc.	X	X	X	X	X

MCM Plan **4 Construction Site Stormwater Runoff**

The Phase II Final Rule requires an operator of a regulated small MS4 to develop, implement, and enforce a program to reduce pollutants in storm water runoff to their MS4 from construction activities that result in a land disturbance of greater than or equal to one acre.

Four (4) Best Management Practices (BMPs) and their associated milestones have been incorporated in the this SWQMP to meet the requirements for MCM 4.

BMP **4.A. Ordinance Update**

BMP Description Develop, revise, maintain, and enforce local ordinance for construction site stormwater runoff from active construction sites that disturb at least one acre, and projects less than one acre with a common plan of development.

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BMP Milestone	Description	Implementation Notes	YR1	YR2	YR3	YR4	YR5
4.A.1. Site Plan Review authority	Review existing ordinance and adjust as necessary to meet the requirements of the current KYR10 and KYG20 permits and address deficiencies identified in the first permit term. Additionally, ordinance or other regulatory mechanism shall establish authority for site plan review to affirm compliance with local ordinances and the current version of KYR10.	Determine who has or should have legal authority in MS4 for plan review and adjust as needed to assure that view control is appropriately authorized and delegated. Particular attention should be placed on closing loopholes, especially enforcement authority for individual lots, an escalating enforcement program, and plan review procedures.	X	X			
4.A.2. Site Inspection Authority	Ordinance shall establish an authority for site inspections and enforcement of control measures for both public and private facilities.	Determine who has or should have legal authority in MS 4 for site inspections and adjust as needed to assure that review control is appropriately authorized and delegated.	X	X			
4.A.3. Public Information	Ordinance shall establish procedures for the receipt and consideration of information submitted by the public.	Include language related to the identified mechanism(s) for public reporting of construction site issues.	X	X			
4.A.4. NOI Submittal	Ordinance shall include requirements for demonstration that an eNOI for coverage under a Stormwater Construction individual permit or KPDES permit (KYR10) has been submitted.	KY DCA currently notifies the MS4 that an eNOI has been approved; however, the SWPPP associated with the eNOI should be provided and reviewed.	X	X			
4.A.5. Construction Waste and Material storage facilities	Ordinance to include requirements for construction site operators to control construction waste and demonstrate protective measures for storage of hazardous materials such as petroleum products, chemicals etc.	Provision and maintenance of waste receptacles, concrete was outs, secondary containment systems.	X	X			

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4.A.6. Establish acceptable erosion & sediment control measures	Develop requirements for construction site operators to implement appropriate erosion and sediment control best management practices that are as proactive as Kentucky's General permit - KYR10.	Include acceptable training for qualified inspectors. Consider referring to the KY Field Guide and associated BMPs for Controlling Erosion, Sediment and Pollutant Runoff from Construction Sites as the guiding document.	X	X
4.A.7. In-stream water uses	Ordinance shall require that discharges from construction sites to High Quality waters will protect existing in-stream water uses consistent with KYR10.	Repeat or mimic language from KYR10 for inclusion in local ordinance or reference current version of KYR10.	X	X

BMP **4.B. Construction Site SW Runoff Program Elements**

BMP Description Numerous elements are required as part of a Construction Site SW Runoff Program.

BMP Milestone	Description	Implementation Notes	YR1	YR2	YR3	YR4	YR5
4.B.1. Training - MS4 Staff	Implement a training program for MS4 staff in the fundamentals of erosion prevention and sediment control and how to review erosion and sediment control plans or Storm Water Pollution Prevention Plan (SWPPP).	Piggyback erosion prevention and sediment control training with training for MCM 6 as applicable. Consider sending staff to training course (KEPSC, CPESC, other) to obtain qualification/certification.		X			
4.B.2. Training - Operators	Establish procedures for providing educational and training measures for construction-site operators.	Identify approved courses (KEPSC, CPESC, other) and/or require attendance at local educational workshop to provide the information and training necessary to conduct construction operations within the MS4 jurisdiction. Consider pre-construction meetings on-site as a means to train operators on MS4 expectations.					X

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4.B.3. Site Inspections	Develop procedures for periodic inspections of all known permitted construction sites during construction to verify proper installation and maintenance of required E&SC measures.	Base procedures on approved training, developed inspection checklists, and past experience.	X
4.B.4. Plan Review	Incorporate plan review in the permitting process to affirm compliance with local ordinances, inspection, and enforcement capability. Review shall consider water-quality impacts for both private and public facilities.	Utilize checklists	X
4.B.5. Inventory of Construction Sites	Develop a procedure to inventory projects and prioritize sites for inspection. The inventory shall track results of inspections, enforcement procedures taken, and include a summary of actions in the annual report.	Utilize a data management software to document sites and activities.	X
4.B.6. Enforcement Protocol	Develop and implement an enforcement strategy that includes escalating enforcement remedies to respond to the issues of non-compliance.	Document all actions, including verbal and maintain consistency with enforcement actions.	X

BMP 4.C. Measure activities related to this MCM

BMP Description Measure activities to document compliance with this MCM

BMP Milestone	Description	Implementation Notes	YR1	YR2	YR3	YR4	YR5
4.C.1. Procedural review process - construction site SW runoff	Evaluate the work flow from the previous year(s) and identify areas of deficiency to develop review process for construction site	Review components of the MCM 4 program for compliance with the SWQMP, effectiveness, and ability to complete the BMPs.		X	X	X	X

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stormwater runoff program.

4.C.2. Revise & implement Construction Site SW runoff program

Based on any areas of deficiency in the program review and revise the program, then implement the new procedures.

Consider educating staff and associated parties of new changes in the training for the following year. Document the need for change and potential need for additional resources to manage the revised program and the impacts that may result from doing nothing.

X X X X

BMP 4.D. Track activities related to this MCM to meet permit and annual reporting requirements

BMP Description Measure activities to document compliance with this MCM

BMP Milestone	Description	Implementation Notes	YR1	YR2	YR3	YR4	YR5
4.D.1. Track activities for MCM 4	Use a data management software to input data and track activities.	Input MS4 activities into a data management software for tracking and reporting.	X	X	X	X	X
4.D.2. Evaluate effectiveness of program for MCM 4	Review activities conducted for completion and benefit to community. Then determine if objectives are being met.	Assess whether activities were conducted, was it sufficient, was the participation as expected, what changes may need to be made, etc.					

MCM Plan 5 Post-Construction Stormwater Management in New

Post-Construction Stormwater Management refers to the activities that take place after construction occurs, and includes structural and non-structural controls to obtain permanent stormwater management over the life of the property's use. This is the key element of the MS4 permit and the strategy of the Nation and the Commonwealth for achieving the goals of the Clean Water Act.

Stormwater BMPs incorporate planning practices and site improvements in a manner that promotes groundwater recharge, reduces the volume of, reduces the peak discharge rates of, and removes pollutants from runoff.

Two types of BMPS include:

Non-Structural - incorporate site planning and design techniques including the use of open space, vegetated

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conveyance and buffers, natural infiltration, stream buffers, green infrastructure, and use of low-impact development.

Structural - management of SW runoff through water-quality control structures.

Eight (8) Best Management Practices (BMPs) and their associated milestones have been incorporated in the this SWQMP to meet the requirements for MCM 5.

BMP		5.A. Establish & Enforce SW Management Ordinance & Program					
BMP Description	Develop, revise, maintain, and enforce local ordinance for post construction stormwater management from active construction sites that disturb at least one acre, and projects less than one acre with a common plan of development.						
BMP Milestone	Description	Implementation Notes	YR1	YR2	YR3	YR4	YR5
5.A.1 Ordinance for post construction SW management	Post construction SW ordinance shall be developed, if it does not exist, or revised and maintained.	Develop ordinance or review existing ordinance that is compliant with the requirements of KYG20.	X				
5.A.2 Enforce post-construction SW ordinance	Enforcement measures shall be outlined within the Post-construction SW ordinance	Determine enforcement measures and draft into ordinance. Utilize an escalating enforcement process and the right to reimbursement for maintenance activities provided by the MS4 resulting from non-compliance of the responsible party within a prescribed time to address deficiencies.					X
5.A.3 Define public and private ownership	In the Ordinance, public and private ownership shall be defined and maintenance responsibilities established.	Determine what the maintenance responsibilities are for post-construction BMPs and who the responsible parties are.					X
5.A.4. MS4 Staff Training	Train MS4 staff of fundamentals of long-term stormwater quality treatment practices, how to review such practices on construction plans, and how to inspect practices for long-term protection, operation, and maintenance.	Training provided by CDP or through attendance at KSA or other stormwater workshops, conferences, webinars.			X		X

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BMP

5.B. Develop an on-site water quality treatment standard

BMP Description Establish and implement an on-site water quality treatment standard for all new development and re-development projects. This standard shall require management measures that govern stormwater quality runoff.

BMP Milestone	Description	Implementation Notes	YR1	YR2	YR3	YR4	YR5
5.B.1. On-site stormwater runoff WQ treatment standard	Determine what the on-site stormwater runoff water quality treatment standard is. It shall be based on an analysis of precipitation records to determine the equivalent surface depth (i.e. inches) of runoff produced from an 80th percentile precipitation runoff.	Research available precipitation records for the MS4 and surrounding communities to develop the depth for the 80th percentile event. Establish the level of treatment required (WQ Standard) for the specified rainfall depth. Consider % removal of TSS, minimum particle size to be removed, other pollutant limits (N, P, metals, VOCs, karst conditions) in determining the WQ standard.		X			
5.B.2 Include standards in ordinance	Include on-site stormwater quality runoff treatment standards in Post-Construction Stormwater runoff ordinance through reference to MS4 Stormwater Manual.	Provide details associated with technical design and numerical limits in a stormwater manual or design standards document and provide reference to this document in the ordinance, which allows for periodic updates to technical design without ordinance modification.		X			
5.B.3 Submit to KDOW	Submit established on-site stormwater quality treatment standard to KDOW.	Submit in annual report.		X			
5.B.4 Conditions for Discharge to High Quality Water	If any new or expanded discharges result from areas of new or expanded development and enter into high quality waters (HQW), the ordinance shall include standards for run-off control.	Define a HQW and determine if any are within the MS4 permit area. Determine what would be appropriate standards to sufficiently protect existing in-stream water uses. Implement into ordinance as needed.		X			

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5.B.5 Mitigation for water-quality treatment standard	If the water-quality treatment standards can not be met, determine appropriate mitigation measures.	Select acceptable options (if any) from the following: <u>Off-site mitigation</u> - infiltration/ evapotranspiration/reuse measures somewhere else in the watershed. <u>In-lieu fee</u> - payment to the permittee in-lieu of implementing post-construction BMPs. Permittee must ensure the proper legal authority and develop appropriate institutional standards to value, evaluate, and track transactions.	X
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BMP **5.C. Evaluation of municipal policies**

BMP Description Review and evaluate current policies in order to identify regulatory and/or policy impediments to the installations of green infrastructure.

BMP Milestone	Description	Implementation Notes	YR1	YR2	YR3	YR4	YR5
5.C.1 Review municipal policies	Review existing local policies that may impede the use of green infrastructure within development and new development areas.	Find policies and review. Potential sources may include the subdivision regulations, zoning ordinances, comprehensive plans, or building codes. Determine the rationale behind the impediments (purposeful or inadvertent).		X			
5.C.2 Summarize findings	Summarize findings of review of policy impediments to the use of Green infrastructure. Present findings to SWAC, and appropriate governmental bodies (P&Z, elected officials) for consideration of revision.	Support from elected officials, P&Z, SWAC is essential to gain buy in for policy revision. SWAC must provide convincing argument justifying the need to revise long standing policies and/or resistance from proponents of conventional methods.		X			
5.C.3. Revise Policies	Revise and adopt the policies that have been approved by SWAC and local officials for modification.	Consider a phased approach to revisions and adoption. Utilize the outreach program to disseminate information of the changes and opportunities the revisions provide.	X		X		

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BMP **5.D. Project review, approval, and enforcement procedures**

BMP Description Develop and implement project review, approval, and enforcement procedures for new and re-development projects.

BMP Milestone	Description	Implementation Notes	YR1	YR2	YR3	YR4	YR5
5.D.1 Site plan review for Post-Construction BMPs	Develop procedures for Site Plan review and approval process. Also, develop a required re-approval process when changes to stormwater management measures are required.	Develop a standard Site Plan Review checklist. Determine approval process for Site Plan review. Determine re-approval process.		X			
5.D.2 Develop enforcement procedures	Develop enforcement procedures for failure to follow the established site-plan review and approval process, and proper installation and protection of BMPs.	Enforcement procedures should be related to issues associated with proper design, construction, protection during construction, and final stabilization of post-construction BMPs. Procedures may be requiring re-design, re-installation, or the typical escalating enforcement process in order to bring non-compliant projects into compliance.		X			
5.D.3 Implement review, approval, & enforcement procedures	Once developed, implement the program for post-construction review, approval, and enforcement.	Procedures and authority should be incorporated into the ordinance.		X	X	X	X
5.D.4 Post-construction inspection	Develop procedures post-construction inspections that demonstrate and document installation of BMPs.	Utilize an inspection checklist for approval or rejection of installation and protections of BMPs, and the enforcement procedures to assure compliance actions are undertaken.		X			

BMP **5.E. Maintenance of BMPs**

BMP Description All new development of redevelopment areas shall establish and enter into a long-term maintenance agreement with the permittee for all structural and non-structural BMPs.

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BMP Milestone	Description	Implementation Notes	YR1	YR2	YR3	YR4	YR5
5.E.1 Establish long-term Maintenance Agreements	Establish long-term maintenance requirements for all structural and non-structural BMPs. Agreement shall allow permittee to perform necessary maintenance due to neglect of the owner/operator at the expense of the owner/operator.	Agreements shall identify responsible parties, carry responsibility with the deed, and require maintenance program and/or the location and history of the BMP.		X			

BMP 5.F. BMP Inspection Program

BMP Description Establish program for regular inspection of post-construction BMPs.

BMP Milestone	Description	Implementation Notes	YR1	YR2	YR3	YR4	YR5
5.F.1 Inspection Frequency	Establish inspection frequency of post-construction BMPs and implement the program.	Annual inspections unless otherwise dictated by the BMP recommended maintenance program and/or the location and history of the BMP.	X	X	X	X	X
5.F.2 Notice of Deficiencies and Corrective Actions	Develop and implement a procedure for notifying the BMP owner or operator of deficiencies discovered during maintenance inspections, and the intent of the MS4 to apply corrective actions if the responsible party fails to address deficiencies in the allotted time.	Utilize email other methods (US mail, phone) to communicate deficiencies. Notice needs to be documented.	X	X	X	X	

BMP 5.G. Measure Effectiveness of MCM 5

BMP Description Establish means to measure Post-Construction Stormwater management activities.

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BMP Milestone	Description	Implementation Notes	YR1	YR2	YR3	YR4	YR5
5.G.1 Review process for Post-Construction SW Management Program	Develop review process to evaluate the work flow from the previous year(s) and identify areas of deficiency.	Review components of the MCM 5 program for compliance with SWQMP, effectiveness, and ability to complete the BMPs.		X	X	X	X
5.G.2. Revise & Implement Post-Construction SW Management Program	Based on any areas of deficiency in the program, review and revise the program to implement the new procedures.	Consider educating staff and associated parties of the new changes in training for the following year. Document the need for change and potential need for additional resources to manage the revised program and the impacts that may result from doing nothing.		X	X	X	X

BMP **5.H. Track MCM measures for annual reporting**

BMP Description Provide mechanism for documentation and reporting of activities and compliance with MCM 5

BMP Milestone	Description	Implementation Notes	YR1	YR2	YR3	YR4	YR5
5.H.1 Track maintenance inspections	Use a data management software to track activities.	Input MS4 activities into data management software for tracking and reporting (number of inspections, maintenance reports received, enforcement actions, corrective actions, etc.).	X	X	X	X	X
5.H.2 Changes made to accommodate green infrastructure alt.	Provide a summary of changes made to local ordinances to accommodate green infrastructure alternatives.	Submit in annual report		X	X		
5.H.3 Track Annual Activities related to MCM	Maintain a record of all activities related to this MCM and established BMPs and milestones.	Utilize data management software to document sites and activities.	X	X	X	X	X

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MCM Plan 6 Pollution Prevention & Good Housekeeping

Recognizing the benefits of pollution prevention practices, the rule requires the permittee to implement an operation and maintenance program to prevent or reduce polluted runoff from activities conducted by the municipality. This measure is meant primarily to improve or protect receiving water quality by altering municipal or facility operations to consider water quality. It may also result in a cost savings for the permittee, as proper and timely maintenance of storm sewer systems can help avoid repair costs from damage caused by age and neglect. This MCM is also a tool for the MS4 to gage program progress through the permit cycle.

Five (5) Best Management Practices (BMPs) and their associated milestones have been incorporated in this SWQMP to meet the requirements for MCM 6.

BMP 6.A. Develop and Implement an O & M program

BMP Description O&M program must include a training component with the goal of preventing or reducing pollutant runoff from municipal operations.

BMP Milestone	Description	Implementation Notes	YR1	YR2	YR3	YR4	YR5
6.A.1. Develop an O & M program for Municipal Facilities	Develop an O&M program that incorporates activities associated with municipal facilities, municipal operations, and employee training.	An Operations and Maintenance program for municipal facilities and staff will be developed that will include training for municipal employees. A manual developed as part of the program will incorporate procedures for properly disposing of wastes, and an inventory of municipal facilities and associated management practices to be undertaken to minimize generation of pollutants being discharged into the MS4.		X			
6.A.2 Implement the O&M program	Once developed, put the procedures and practices into effect and document activity.	Provide copies of the manual and related policy to municipal employees and local officials and inform them that the manual and program elements defined within are the new SOPs.		X	X	X	X

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6.A.3. Develop training topics & materials for municipal employ	Determine the most effective means to train employees of proper SOPs to protect water quality.	Evaluate locations where employees work (field, office, garage etc.) and tailor messages and delivery methods for maximum effectiveness (i.e. - field staff may be best suited for hands on training in the field regarding EPSC and pollutant management during infrastructure repair and maintenance activities).	X	X	X	X
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BMP **6.B. O&M Employee training**

BMP Description Include employee training to prevent and reduce stormwater pollution resulting from activities such as parks and open space, fleet and building maintenance, new construction and land disturbances, stormwater system maintenance, and green infrastructure maintenance.

BMP Milestone	Description	Implementation Notes	YR1	YR2	YR3	YR4	YR5
6.B.1 Employee training schedule	Schedule annual training dates and attendance requirements.	From the topics identified, select dates and employees required to attend the identified sessions.	X	X	X	X	X
6.B.2 Conduct employee training	Conduct training session such that employees involved in MS4 activities receive a minimum of one training per year.	Rotate attendees as needed, provide new topics annually, conduct pre-and post training surveys to gage effectiveness and understanding of content.	X	X	X	X	X

BMP **6.C. O&M Inventory**

BMP Description Include an inventory of municipal facilities, maintenance activities, maintenance schedules, and ongoing inspection schedules for structural and non-structural BMPs.
 Incorporate procedures for properly disposing of waste removed from separate storm sewer areas.
 Include methods to ensure that new flood-management projects assess the impacts of water quality protection devices or practices.

BMP Milestone	Description	Implementation Notes	YR1	YR2	YR3	YR4	YR5
6.C.1 Municipal Facility Inventory	Inventory and conduct an inspection of municipal facilities and operations to identify risks associated with pollutant exposure or introduction into the storm sewer system.	In the manual, include the results of the inspection including site description, materials stored on site, pollutant exposure or introduction risks, maintenance actions, corrective measures and ongoing inspection schedules for structural and non-					

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structural BMPs locate within the facilities of within MS4 owned property. Record findings in data management software

X

X

BMP **6.D. Review and Implementation of O&M Program**

BMP Description Complete the tasks to review and implement the new or revised O&M Program.

BMP Milestone	Description	Implementation Notes	YR1	YR2	YR3	YR4	YR5
6.D.1. Develop procedural review process for the O&M program	Evaluate the work flow from the previous year(s) and identify areas of deficiency.	Review components of the MCM 6 program for compliance with SWQMP, effectiveness, and ability to complete the BMPs.		X	X	X	X
6.D.2 Revise & Implement Updated O&M Program	Based on any areas of deficiency in the program, review and revise the program, then implement the new procedures.	Consider educating staff and associated parties of new changes in the training for the following year. Document need for change and potential need for additional resources to manage the revised program and the impacts that may result from doing nothing.		X	X	X	X

BMP **6.E. Track MCM measures to meet permit and annual reporting**

BMP Description The permittee shall track activities relative to this MCM measure and provide measures in the annual report.

BMP Milestone	Description	Implementation Notes	YR1	YR2	YR3	YR4	YR5
6.E.1 Track Annual Activities	Maintain a record of all activities related to this MCM and established BMPs and milestones.	Utilize data management software to document sites and activities.	X	X	X	X	X
6.E.2. BRASS Participation	Active involvement with this ad hoc group of MS4s, BRASS, utilizing CDP as the consultant to set direction and schedule of activities.	Attend regular meetings with BRASS partners to discuss strategies for meeting SWQMP goals and objectives.	X	X	X	X	X

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MCM Plan 7 Water Quality Monitoring Program

The permittee shall develop an appropriate monitoring program that evaluates the effectiveness of the MS4 program and provides feedback for the permittee to change or improve the stormwater quality management program as appropriate. Monitoring shall be implemented in the following permit period.

Five (5) Best Management Practices (BMPs) and their associated milestones have been incorporated in the this SWQMP to meet the requirements for MCM 7.

BMP BMP Description	7.A. BMP Monitoring Program Strategy Select from among the available options for developing a monitoring program for the next permit cycle including: Option A - Effluent monitoring of pollutants and conditions of concern at selected outfalls that are representative of particular land uses or geographical areas that contribute to pollutant loading before and after implementation of stormwater control measures. Option B - Monitoring of pollutants and conditions of concern in receiving water bodies, both upstream and downstream of MS4 discharges, over an extended period of time. Option C - In-stream biological monitoring at appropriate locations to demonstrate the recovery of biological communities after implementation of stormwater control measures. Option D - Monitoring of other parameters or conditions that provides a measure of the effectiveness of the stormwater quality management program.	YR4
BMP BMP Description	7.B. Determine Monitoring Locations Based on the selected monitoring option, determine the most appropriate monitoring locations and/or locating strategy. Locations may be static or dynamic based on the chosen methods of monitoring. Evaluate the intent and merits of selected method and establish system.	YR4
BMP BMP Description	7.C. Determine Sampling Parameters Based on the selected monitoring option, determine the most appropriate monitoring parameters. Consider available sampling and testing resources within the MS4 (water, sewer, other) when selecting parameters. Also consider monetary and manpower requirements, and available budget.	YR4

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BMP **7.D. Determine Sampling/Monitoring Frequencies** **YR4**
BMP Description Based on the selected monitoring option and parameters, determine the most appropriate monitoring and/or sampling frequency. Consider available sampling and testing resources within the MS4 (water, sewer, other) and standard of care (chain of custody) when selecting frequency. Also consider monetary and manpower requirements, and available budget.

BMP **7.E. Track Annual Activities** **YR1-5**
BMP Description Maintain a record of all activities related to this MCM and established BMPs and milestones. Utilize data management software to document activities and plan.

MCM Plan **8 SWQMP Funding**

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

One (1) Best Management Practices(BMP) and its associated milestones have been incorporated in the this SWQMP to meet the requirements for MCM 8.

BMP **8.A. Establish the means to fund the Stormwater Program**

BMP Description Compilation of activities completed to establish funding for the Stormwater Program.

BMP Milestone	Description	Implementation Notes	YR1	YR2	YR3	YR4	YR5
8.A.1. Determine annual need for minimum compliance with MCM 1-7	Establish dollar figures associated with expenses and staff to meet compliance with the MCMs on an annual basis.	Adjust activities as needed to arrive at a relatively consistent annual budget amount.	X			X	
8.A.2. Determine need for maintenance of MS4 infrastructure	Develop a list of capital projects, their projected costs, and determine annual costs of maintenance and repair.	Distribute capital project costs over a number of years to establish a consistent line item amount for capital projects and maintenance and repair.	X			X	
8.A.3. Determine O&M of equipment dedicated to MS4 operations	Develop a list of equipment dedicated (in full or in part) to the SWQMP, their projected costs for maintenance and replacement, and	Distribute equipment maintenance and replacement costs over a number of years to establish a consistent line item amount for equipment.	X			X	

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determine annual costs of maintenance and/or replacement.

8.A.4. Develop Annual budget extended over permit term	Combine the previous milestones to determine the annual costs associated with stormwater management.	Plan out a balance of recurring expenses with capital projects, equipment needs etc to arrive at a consistent annual budget amount.	X				X	
8.A.5. Request obligation of funds from Community to fund program	Present budget analysis to community leaders and request full funding to meet the identified fiscal obligation.	Suggest options for meeting the budget needs and sources of revenue (general fund, bonds, user fee).	X	X	X		X	X
8.A.6. Encourage establishment of dedicated funding mechanism	Develop a unit cost or flat rate method for collecting stormwater fees to cover the annual expenses derived for the MS4 and suggest implementation of a system to collect said fees.	Develop user fee alternatives that result in the securing of funding to cover the expenses of the MCMs, and MCMs with any combination of capital projects, maintenance and repair, and equipment needs.	X	X	X		X	X
8.A.7. Track Annual Activities	Maintain a record of all activities related to this MCM and established milestones.	Utilize data management software to document activities	X	X	X		X	X